Improved varieties play a critical role in agricultural development of a country. Hence, primary objective of crop science research is development of improved varieties in different crops. In India, new improved varieties of crops are developed by Crop Research Institutes of Indian Council of Agricultural Research, State Agricultural Universities and few Private Seed Companies. These varieties are tested (evaluated) for a minimum period of three years, before consideration of release for cultivation. The important characters for which the new varieties are evaluated / tested are:

a) Yield
b) Resistance to disease and pests
c) Quality of product
d) Resistance to adverse environmental factors (viz. drought)
e) Adaptation to different agro climatic conditions.

Organization

The official testing of candidate varieties is carried out by the All India Coordinated Crop Improvement Project (AICCIP) of a given crop. AICCIP conducts the trials under its supervision at experimental centers of ICAR Research Institutes, State Agricultural Universities and officially recognized Private Seed Companies.

The planning of trials including number of entries (candidate varieties) in each trials etc. are finalized in the Annual Group Meeting/Workshop of each crop. Separate trials are planned for different agroclimatic and ecological conditions. This meeting is convened and organized by the Project Director/Co-ordinator of each crop. The testing system is a multi-disciplinary approach to variety evaluation, cutting across administrative and other boundaries.

A variety is evaluated for three years, one year in the Initial Variety Trials (IVT) and for two years under Advanced Varietal Trials (AVT). Not all the varieties are advanced from IVT to AVT and the basis of promotion from IVT to AVT 1st year and AVT 1st year to AVT 2nd year are discussed later in the chapter.

The primary responsibility of conduct of IVT and AVT is that of Principal Crop Breeder of a given crop in ICAR/SAU experimental centre. He records the data on yield and other ancillary characters and is assisted by Pathologists and Entomologists in recording data on the resistance of candidate varieties to diseases and insect pests.

In the 3rd year of testing along with AVT II year trial a separate trail is conducted by agronomists of the ICAR Research Institute/SAU, on the response of varieties to different dates of sowing, seed rate and other agronomic traits. The candidate varieties are also evaluated for disease/pest resistance in hot spot locations where disease and insect pests appear in epidemic form. The quality of the produce viz. dough quality in wheat, aroma and elongation in rice grains etc. are evaluated for the candidate varieties in AVT 2nd year tests. The quality testing is generally carried out in a specialized designated laboratory generally located at headquarter of the Crop Directorate or Co-ordinating Unit.
Trialing system

A. Initial Variety Trials (IVT)

Mode of induction of candidate varieties in the trial: The candidate varieties are inducted in to the first year of Co-ordinated trials (IVT) on the basis of their evaluation by the crop breeders in their research stations. The entries are nominated by Research Institutes/SAUs/Companies on the basis of trials in their station. The candidate varieties should be superior to existing varieties in respect of yield and other agronomic attributes, resistance to insect pests and diseases and relevant quality characters. The candidate varieties must have a high degree of phenotypic uniformity and genotypic stability.

The information about pedigree/percentage of the candidate varieties are made available to the Project Director/Co-ordinator of the crop by the contributing centre. The candidate varieties must have distinct diagnostic characters and the seed submitted for trials must have high germination, vigour and physical purity.

Number of candidate varieties in the trial and check varieties: The number of candidate varieties in the trial is dependant in the design of experiment followed for the trial. If the candidate varieties are more than the maximum number of permitted entries in the trial, the second trial may be constituted. A minimum of following three check varieties are used in each trial:

- National check: National check is a variety being grown over a wide range of environments for a fairly long period of time. This check variety would serve as the yard stick to measure the extent of improvement made over time and across the country/region.
- Zonal check: Zonal check is the latest released variety for the zone or ecology.
- Local check: Local check is a variety popularly grown in a given region ecology/ environment. National check remains same for a long period and the zonal check is not changed over the period of testing of a given candidate variety.

Plot size and number of replications: The trials are conducted in such a manner so as to enable detection of a minimum difference of 5-10% in yield, significant at 5% level. The plot size of important cereals as followed in AICCIP is as follows:

Management of crop: Agronomic cultivated practices are clearly defined for each trial to be conducted in different agroclimatic and ecological conditions. Appropriate date(s) of sowing, seed rate, depth of sowing, row and plant spacing, fertilizer dose and schedule, weed management and use of herbicides, water management, disease and insect management (if needed) etc. are to be strictly adhered to at all the test sites as per specified instructions supplied along with trial material.

Test locations: Same set of initial varietal trials for each specified situation (viz. timely sown, late sown, rainfed etc.) is grown across different agroclimatic zones all over the country in regions, where the crop is predominantly grown. The test locations are identified in the workshop/group meeting. Following test locations are normally used in trials.

- a) ICAR Crop Research Institutes
- b) SAUs main or Regional Crop Research Centers
- c) Zonal Research Centers of SAUs
- d) State Department of Agriculture centers

It is ensured that a multi-disciplinary team of scientists is positioned in these centers and adequate operational facilities to conduct trials exist. Every effort is made to have maximum number of test sites and there has to be at least three trials sites in each agroclimatic zone where the given crop is grown. The trial centers are spread over the cropping region and clustering of trial sites in any region is avoided.

Monitoring of the trials: All the trials are monitored by a team of scientists deputed by the Project Director/Coordinator. The monitoring teams have the following minimum composition.

- a) PD/PC/PI/Zonal Coordinator - Team Leader
- b) Breeder - Member
- c) Agronomist - Member
- d) Pathologist/Entomologist - Member
- e) Scientist of any other specified discipline - Member

The team record observations on the
quality of trial and its conduct as per specified norms and comment on reliability of the data likely to be generated. The monitoring team record observations on uniformity within the test plots, crop stand, disease and insect-pest incidence, bird damage etc. and any other feature having a bearing on quality of data generated and attributable to the crop management aspects. The monitoring team also indicates an estimate of yield of the trial on the basis of their observations.

**Recording of data**

a) In addition to data on produce of economic importance, observations are recorded on agronomic features like days to flowering, maturity, plant height, lodging, threshability; reaction to important diseases and insect-pests; easily measurable grain quality attributes such as grain colour, grain weight, grain appearance etc. The characters on which data are recorded are specified in advance by the workshop/PC/PD.

b) Additional data under artificial test conditions and hot spots for important diseases and insect-pest are generated by the concerned discipline scientists by organizing separate set of screening nurseries/trials.

c) The Project Director/Coordinator supply to each test centre a set of proforma/data books with details for recording of various observations as also the standard scale of measurement for each character along with the list of standard descriptors.

d) All cooperators record observations strictly according to guidelines provided and ensure the supply of one set of data books to the Project Director/Coordinator by the specified date.

**Processing of data**

a) All data received at the coordination cell is critically examined to decide whether it is fit for inclusion in the statistical processing. The trial data may be considered for discarding or further processing at this stage on the following basis.
- Recommendations of the monitoring team
- Suggestions by the zonal coordinator/ concerned breeder.
- Any other serious flaw in data recording/reporting.

b) All the trials considered acceptable on the above basis may be statistically analyzed and examined for the following before pooling of the results.

- **General yield levels**: In case of irrigated situation, trials with extremely low yield normally attributable to poor crop management, or exceptionally high yields which can be considered unrealistic and presumably arising out of various types of errors, is discarded. In case of trials under restrictive environments such as rainfed, salt affected, water logged conditions etc., this criteria is not applied and all trials where the check entries have produced reasonable yield are considered for analysis irrespective of the overall poor trial average yield/extremely poor performance of test entries.

- **C.V. levels**: Irrigated trials showing highly erratic behaviour of genotypes over replications, resulting in non-acceptable high C.V. levels arising from extremely heterogeneous fields, hazards like bird/animal/hail damage are discarded. In case of trials in rainfed/restrictive environments, all trials showing significant genotypic differences and reasonable yield level for the checks are considered.

- **Erratic performance of checks**: A trial, where performance of the checks is low and unrepresentative of the general trials performance, is not considered.

  a. Data from all the trials qualifying on the above criteria is pooled, analyzed for stability etc. and included in the result books.
  
  b. The data on ancillary characters is compiled/summarized appropriately and presented in the result books. Means and ranges are given.
  
  c. Data generated in additional trials/nurseries by other disciplines is appropriately analyzed and presented in the results books.

**Norms for promotion of entries to second year of testing**: The promotion of entries form IVT to AVT is strictly based on the over all performance/merits of the test entries. The following criteria are followed for these purposes:
Outstanding performance for yield/main produces of economic importance of the candidate variety (by a margin of 15 to 20%) over the best performing check and with no compromise of other features.

OR

Significant superiority or 10% higher yield/main produce of economic importance over the best performing check in combination with specific favourable attribute such as high degree of resistance to diseases and insect-pests relevant to the region along with acceptable produce quality characters.

OR

Yield/main produce of economic importance at par with the best performing check but significant superiority in some important specific feature such as disease/insect-pest resistance/or some specific quality trait.

OR

Yield marginally lower than the best performing check but outstanding in one or more strategic feature relevant to the crop/such as specific industrial property, export quality, nutritional superiority etc. which will result in higher cash return/per unit area to the cultivator/country.

B. Advance Varietal Trials (AVT-I)

Constitution of trials: AVT are constituted separated for each recognized agro ecological zone by the entries promoted from IVT on the basis of criteria specified earlier, the entries retained from previous year’s AVT-I for second year of testing and check varieties.

Number of entries: The number of entries in AVT-I preferably not exceed 16.

Checks: A minimum of three checks, comprising of a National check and a Zonal check, which is the most recently released variety alongwith local check as specified under IVT is used. Additional checks such as the latest identified variety can also be included along with any other released varieties.

Management of the crop: Same as given under IVT

Test locations:

a. The number of trial sites more than that of IVT in a given zone. In addition to the IVT test centers this trial is conducted at other centers which include zonal research stations of the state agricultural universities/regional research centers of ICAR Institutes/Agric. Colleges/ Krishi Vigyan Kendras (Agri. Science Centers)/ agri. experimental centers of the department of Agriculture research farms of the participating private seed companies including NGOs with adequate facilities.

b. The trial sites are well distributed in the region, where the crop is important and the number of sites relatively more in regions with larger area under the crop.

c. The minimum number of test locations from which data of acceptable quality is generated is not than 4 per zone per season and preferably many more.

d. In case for any reason, the number of locations from which data of acceptable quality are received falls less than 4 in a zone, the number of seasons/years of testing is increased to maintain minimum test standards.

e. In case of critical environments/difficult testing situations such as rainfed, salt affected soils/ water logged conditions etc., the number of test centers producing data of acceptable quality is reduced to a minimum of 3 per season/year and number of testing years increased.

f. Cooperators from the private sector with established R & D units are involved in the conduct of the trial; however, their involvement may be restricted to locations where test locations with public sector organizations are not available.

Monitoring of the trials: The monitoring procedure is same as given for IVT. However, more than one team/sub-teams may be constituted to cover as many centers as possible.

Recording of data:

a. The data on plant stand, height, days to flowering and maturity, economic yield are recorded at all the centers.

b. Data on disease and insect pest resistance and other ancillary characters is recorded only at the centers where facilities exist and as specified by PD/PC/workshop.
c. Data on biochemical and processing quality parameters is generated from selected sites in specified laboratories.

d. All data is generated using scales and procedures as specified by PD/PC/workshop.

Additional data to be generated at AVT-I stage:
- a. Data on field reaction to important diseases/insect pests is recorded under artificial epiphytotic conditions by the concerned disciplines at appropriate locations including hot spots. Data on pathotype/biotype variation, the level of virulence is to be generated.
- b. At AVT-I stage each entry is critically described by the breeder and also by PC/PD units using standard descriptors for each crop. For this work cooperation of Seed Technology Research Centers is obtained.
- c. Additional Research disciplines such as agronomy, physiology, soils science etc, as per crop needs is involved at appropriate stage for evaluation of features relevant to the discipline. These discipline groups may constitute and conduct separate set of trials to generate relevant data.

Processing of data:
- d. Procedure is same as specified for IVT.
- e. Promotion of entries to AVT-II. The norms specified under IVT-I have followed at this stage also.

C. Advance Varietal Trials (AVT-II)

The trial constitution: Number of test entries, checks and source of seed, checks, management of trials, test locations, monitoring of the trials and data to be generated is same as given in AVT-I.

Additional data to be generated at AVT-II stage: In addition to generation of data recorded in the previous trials and nurseries more elaborate data is generated which include:
- a. Response to agronomic variables such as different dates of sowing, population densities in terms of spacing, levels of fertilization and irrigation etc., as recorded from exclusive trials conducted at selected centres by the agronomists. Response of new strains to weedicides is also studied.
- b. Reaction to additional diseases and insect-pests of relatively lesser importance to the crop including nematodes, viruses, and bacteria. Attempt is also made to identify genes responsible for resistance/tolerance in the new strains.
- c. Intensive evaluation for crop specific quality parameters is done including oil recovery/processing properties/actual chapatti/noodle/bread marking quality in wheat, cooking quality in rice/pulses and similar aspects in other crops is worked out in laboratories where such facilities exist and specified by PD/PC/workshop.
- d. Response to relevant abiotic stresses and other important characters is recorded with the help of concerned PD/PC from respective disciplines.
- e. Seed Technology centres work for preparing descriptors important for seed certification/varietal registration for plant variety protection.
- f. Additional information on farmer/consumer/market acceptance is generated through verification trials, on farm trials.

Processing of data: Same as in AVT-I

Variety identification procedure: Superior eligible test entries are identified in the crop workshop/group meeting for presentation to the Central Sub-Committee on Crop Standards Release and Notification. This is done by a committee called “Variety Identification Committee” constituted in advance of annual workshop/group meeting with the approval of the Deputy Director General (Crop Sciences) of Indian Council of Agricultural Research (ICAR).

Constitution of Variety Identification Committee
- a. D.D.G. (CS) or his nominee - Chairman
- b. Director of Research of SAU - Member of the region
- c. Agriculture Commissioner - Member (Dept. of Agric.)
- d. One Director of Agriculture - Member (State Govt.)
Eligibility for identification

a. The candidate variety become eligible for identification on fulfilling the following minimum requirements:
   ➢ Three years of yield data from coordinated trials under given ecology (rainfed/irrigated) etc.
   ➢ At least two year data on disease and pest reaction generated at hot spot/artificial epiphytotic conditions under the coordinated project.
   ➢ At least one year data on agronomic performance with special reference to response to dates of sowing/planting, population density, fertilizer and irrigation levels.

b. Availability of enough pure seed for planting 5 ha. In case of non-availability of seed, in specified quantity, the identification process is postponed to later stage, at the most by one year.

c. Availability of pure/nucleus seed of high quality with the breeder for producing breeder seed in at least for 0.5 ha area. The nucleus seed should have been produced as prescribed for each crop.

Compilation of data: The data from three years of coordinated testing of the candidate variety are compiled by the concerned breeder/institute in the prescribed proforma (Appendix) and submitted to PC/PD 15 days prior to the workshop. In case, the concerned breeder is not able to propose the entry for some unavoidable reasons, the PD/PC makes proposals considering the importance of the material.

Presentation of proposal

a. PD/PC present identification proposals as given in Annexure-I to the committee highlighting the characteristics of the candidate variety and related issues.

b. The PIs may be asked to clarify specific points by the Committee.

c. The Committee may ask the PD/PC not to participate in decision making in case the Project Coordinating Unit has an entry under consideration for identification.

d. The Committee may invite the concerned breeder or his representative for details/clarifications

e. The Committee states in brief the specific reasons for identification/re-testing or rejection of the proposal of a candidate variety.

Norms for identification: The identification of varieties is done on the basis of the following norms:

Significant superiority for yield/produce of economic importance over the best performing check (including qualifying checks and acceptable level of other features.

OR

Yield/produce of economic importance comparable to the best performing check but combining specific favourable attributes such as tolerance to biotic and abiotic stresses relevant to the region/agro-ecology along with other acceptable features viz. quality characters, suitability for specific cropping system of the region etc.

OR

Yield marginally lower to the best performing check but outstanding in one or more crucial traits such as specific product quality-nutritional superiority, industrial processing property, export quality etc., which will result in higher cash return per unit area to the cultivator/country.

The candidate varieties should be uniform fro
important characters like plant height, maturity and particularly in respect of distinguishing morphological characters in the region recommended for.

In case the candidate variety qualified on the above characteristics is not distinct enough from already released varieties on the basis of any of the morphological, or other diagnostic characteristics for which data available, it should be made identifiable on the basis of biochemical/molecular markers before final release.

The candidate variety must be stable for the key trait(s) (such as resistance to a specific disease/insect pest) for which it has been identified for the region.

**Relaxation in minimum years of testing for identification:** One year relaxation in respect of the period of testing under the coordinated system can be considered by the Variety Identification Committee under the following situations.

a. A genotype representing a recognized/recognizable major breakthrough in yield potential/produce of main economic importance.

b. A genotype capable of minimizing heavy yield losses by containing major epidemic of any disease or insect pest against which the existing varieties are vulnerable.

c. A genotype capable of providing safety against a widely occurring disease/insect pest of major importance and causing economic losses on large scale and for which resistance is not available in the already released varieties.

d. A genotype possessing a special crucial feature not available in the existing varieties and has wide implication on agricultural exports/processing industries.

**Cross pollinated crops**

General guidelines: The guidelines/stipulations for evaluation of varieties and hybrids/synthetics as well as the identification for release in cross-pollinated crops are same as in the case of self-pollinated crops except for the following.

**Evaluation of test entries:**

a. There are two separate sets of trials one for Open pollinated varieties and the other for hybrids.

b. In the Open Pollinated varieties Trial, the latest released hybrid for the given region is used as the zonal check.

c. In the Hybrid Evaluation Trial, the latest released hybrid and the Open pollinated variety form additional checks. In a situation wherein the candidate variety is the first hybrid ever to be released, then open pollinated variety is to be the check.

**Additional trial for testing parental lines of hybrids:**

An additional trial is constituted and conducted for evaluation of parental lines (A&R) of the hybrids. This trial is designated as Parental Line Testing (PLT). Supply of seed of the parental lines (A&R) of the hybrids for PLT is mandatory for both public and private sector institutions.

**The details of PLT trial**

a. It is a trial with single row plots of two meter length with two replications.

b. Test locations are the same as suggested for IVT. In this trial the data to be recorded is on
   - incidence of disease and insect-pests under natural and artificial epiphytotic conditions.
   - flowering of parental and problem of synchrony if any.

**Additional data to be generated:** The parental (A&R) lines are described critically using standard descriptors. For public sector hybrids, the seed production package is worked out by the Seed Technology Research Centres and made available at the time of identification.

**Variety identification:** In case of hybrids, an additional parameter to be considered for identification is the seed production potential of the hybrid combination.

**Notification:** Once a variety is approved for release by Central Sub-committee on Crop Standards, Notification and Release (CSCSN&R), it is also recommended for notification by this committee. All the varieties released by State Variety Release...
Committees are also considered for notification by the CSCSN&R. The proposal for notification of varieties is given in Annexure V. The major consideration of approval for notification of a State variety by CSCSN&R is that the variety must have been tested in AICCIP Trials and data on disease and pest reaction has been recorded, so that varieties which are likely to spread certain disease and pests are not notified. The notification of the varieties is done by Government of India in through a press release in the Gazette of India, on the basis of recommendation of Central Seed Committee, which approve the varieties based on recommendation of CSCSN&R. Once a variety is notified, its seed can be produced under the Seed Certification, through a well known breeder, foundation and certified seed multiplication system.

**Release & notification:** The varieties which have been identified in the Annual Crop Workshop/Group Meetings become eligible for consideration of release and notification. The Seed Regulatory Organization which approves release and notification is Central Seed Committee (CSC) of the Ministry of Agriculture, Government of India. The CSC has constituted two separate sub-committees viz., Central Sub-Committee for Crop Standards, Notification and Release for field and another for horticultural crops. This Sub-committee considers the proposals for release. This committee considers all the proposals which are submitted by breeders in the prescribed proforma as given in the norms of release of candidate varieties are normally same as that of variety identification. However, in view of representation of State Department of Agriculture in this committee, their opinion is considered while recommending a particular variety for cultivation. This committee normally considers proposals for release of variety for a specific agro-climatic zone which may comprise of one or more state. Where a variety is proposed for release only for a specific State, the proposal is submitted for consideration to State Variety Release Committee.

### Variety Development, Evaluation, Testing & Release in India

**PUBLIC SECTOR**

- ICAR (AICRP)
  - AVT-II (Third Yr) Adoptive at Hot Spots of Disease
  - ALL INDIA WORKERS WORKSHOP
  - NUCLEUS BREEDER SEED MULTIPLICATION (DAC - ICAR SAU’S)

**PRIVATE SECTOR**

- MULTI LOCATION EVALUATION ON ZONAL BASIS
  - IVT (First Yr) Yield, Disease & Post, Resistance & Other Quality Parameters
  - Tested Stock Seed Multiplication (SFCT) (Seed for 10 Ha)
  - Minikit/FLD’s & On Farms Trails (Seed for 10 Ha)
  - Release Proposal to CVRC

**I Variety Development**

**II Variety Evaluation**

- AVT-1 (Second Yr) Evaluation at Hot Spots of Disease

**III Variety Identification**

- Seed for 5 Ha

**IV Release & Notification of Variety**

**V Certification of Variety is Accepted**
Proforma for Submission of Proposals for Identification of Crop Varieties/ Hybrids by Workshops

Indian Council of Agricultural Research

Index

<table>
<thead>
<tr>
<th>SN</th>
<th>Item</th>
<th>Page no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Summary of Proposal</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Proforma</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Summary Yield Data of Coordinated Varietal Trials</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Adaptability to Agronomic Variables</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Reaction to Major Diseases</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Reaction to Insect Pests</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Data on Quality Characteristics</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Data on Other Important Characters</td>
<td></td>
</tr>
</tbody>
</table>

Summary of Proposal (in bullets only)

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Proforma for Submission of Proposals for Identification of Crop Varieties/ Hybrids by Workshops

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<table>
<thead>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Name of the crop and species</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>a) Name of the variety under which tested in AICRP trials</td>
<td></td>
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<td>b) Proposed name of the variety</td>
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<td>3</td>
<td>Sponsored by (institute)</td>
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<td>a) Institution or agency responsible for developing variety</td>
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<td>b) Name of the person who helped in the development of the variety</td>
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<td>Collaborators</td>
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<td>5</td>
<td>a) Parentage (with details of its pedigree including source from which variety/Inbred/ A, B and R lines of hybrid has been developed)</td>
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<td></td>
<td>b) Source of material in case of introduction</td>
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<td></td>
<td>c) DNA profile of variety/hybrid/inbred/A, B, R line of hybrid vis-à-vis check variety/ line</td>
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<td></td>
<td>d) Breeding method used</td>
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<td>e) Breeding objective</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>State the varieties which are most closely resemble the proposed variety in general characters</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Recommended productions ecology (Rainfed/Irrigated; high/low fertility; season)</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Specific area of its adaptation (zones and states for which variety is proposed) and recommended productions ecology</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Description of hybrid/variety</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) Plant height</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) Distinguishing morphological characters</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c) Maturity (range in number of days) (from seedling/ transplanting to flowering, seed to seed)</td>
<td></td>
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<td>d) Maturity group (early, medium and late wherever such classification exists)</td>
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<td></td>
<td>e) Reaction to major diseases under field and controlled conditions (reaction to physiological strains/ races/ pathotypes/ bio-types to be indicated wherever possible)</td>
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<td>f) Reaction to major pests (under field and controlled condition including store pests)</td>
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<td>g) Agronomic features (e.g. resistance to lodging, shattering, fertilizer responsiveness, suitability to early or late sown conditions, seed rate etc.)</td>
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<td></td>
<td>h) Quality of produce</td>
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<tr>
<td></td>
<td>Grain quality</td>
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<td></td>
<td>Fodder quality</td>
<td></td>
</tr>
<tr>
<td></td>
<td>i) Reaction to stresses</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Description of the parents of the hybrid</td>
<td>A line/Inbred 1</td>
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<td>a)</td>
<td>Plant height (cm)</td>
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<td>b)</td>
<td>Distinguishing morphological characters</td>
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<tr>
<td>c)</td>
<td>Days to flowering</td>
<td></td>
</tr>
<tr>
<td>d)</td>
<td>Days to maturity (range in number of days – from seed to seed)</td>
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<tr>
<td>e)</td>
<td>Is there any problem of synchronization? If yes, method to overcome it</td>
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<td>f)</td>
<td>Reaction to major diseases (under field and controlled conditions, reaction to physiological strains/races/bio-types/pathotypes to be indicated wherever possible)</td>
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<td>g)</td>
<td>Reaction to major pests (under field and controlled conditions including store pests)</td>
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<td>h)</td>
<td>Agronomic features (e.g. resistance to lodging, shattering, fertilizer responsiveness, suitability to early or late sown conditions, seed rate etc.)</td>
<td></td>
</tr>
<tr>
<td>i)</td>
<td>Reaction to stresses</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>a) Yield data in coordinated trials (breeding, agronomy, pathology, entomology, quality etc) regional/inter regional district trials year wise (levels of fertilizer application, density of plant population and superiority over local control/standard variety to be indicated (to be attached)</td>
<td></td>
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<tr>
<td></td>
<td>b) Yield data from national, demonstration/large scale demonstrations (to be attached)</td>
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<tr>
<td>12</td>
<td>a) Agency responsible for maintaining breeder seed</td>
<td></td>
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<tr>
<td></td>
<td>b) Quantity of breeder seed in stock (kg)</td>
<td>Variety</td>
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<td>A line</td>
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<td>B line</td>
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<td></td>
<td>R line</td>
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<td>Hybrid</td>
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<td>13</td>
<td>Specific recommendations, if any, for seed production (e.g. staggered sowing, plating ratio of parental lines of hybrids in foundation and certified seed production, probable area of seed production)</td>
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<tr>
<td>14</td>
<td>Vivid presentation (field view, close-up of single plant and seed/economic parts)</td>
<td></td>
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</table>
### Package of practices along with attainable yield levels

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<table>
<thead>
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<tr>
<td>15</td>
<td>a) Sustainability of variety for the area;</td>
</tr>
<tr>
<td></td>
<td>b) Selection of field/land preparation;</td>
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<td>c) Seed treatment;</td>
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<td>d) Sowing time;</td>
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<tr>
<td></td>
<td>e) Seed rate/sowing method-line sowing with Row to row &amp; Plant to Plant distance;</td>
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<td>f) Fertilizer doses;</td>
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<td>g) Weed control;</td>
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<tr>
<td></td>
<td>h) Disease &amp; Pest Control;</td>
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<td></td>
<td>i) Irrigation;</td>
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<td>j) Harvesting;</td>
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<td>k) Quality characteristics of the variety, if any</td>
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### Any other pertinent information

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**Signature of all contributors**

**Signature of Head of institution**

---

**Checklist for proforma for submission of proposal for Identification of Crop Varieties/ Hybrids by Workshops**

<table>
<thead>
<tr>
<th>Details/document</th>
<th>Attached</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parentage with details of its pedigree including source from which variety/Inbred/A, B and R lines of hybrid has been developed</td>
<td>Yes  No</td>
</tr>
<tr>
<td>Source of material in case of introduction (IC/EC numbers provided by NBPGR)</td>
<td>Yes  No</td>
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<tr>
<td>Flow chart of details of development of variety/ parental lines of hybrids</td>
<td>Yes  No</td>
</tr>
<tr>
<td>Molecular/ DNA profile of variety/hybrid/A, B, R line of hybrid vis-à-vis check variety/line (details of unique amplicons that distinguishing markers along with photographs</td>
<td>Yes  No</td>
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<tr>
<td>Detailed description of hybrid/variety</td>
<td>Yes  No</td>
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<tr>
<td>Detailed description of the parental lines of hybrid</td>
<td>Yes  No</td>
</tr>
<tr>
<td>Yield data and other data on diseases, insect-pest, quality etc. from coordinated trials</td>
<td>Yes  No</td>
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<tr>
<td>Yield data from national, demonstration/large scale demonstrations</td>
<td>Yes  No</td>
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<tr>
<td>Specific recommendations, if any, for seed production (e.g. staggered sowing, plating ratio of parental lines of hybrids in foundation and certified seed production, probable area of seed production etc.)</td>
<td>Yes  No</td>
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<tr>
<td>Vivid presentation (field view, close-up of single plant and seed) with the help of photographs of the variety)</td>
<td>Yes  No</td>
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<tr>
<td>Package of practices</td>
<td>Yes  No</td>
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<tr>
<td>Proforma signed by all co-authors and Head of Organization</td>
<td>Yes  No</td>
</tr>
<tr>
<td>Any other pertinent information</td>
<td>Yes  No</td>
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**Signature of Head of Institution**
Table 1. Summary yield data of Coordinated Varietal Trials

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<tr>
<th>Name of proposed variety/Hybrid: -------------------------------</th>
<th>Adaptability Zone: --------------</th>
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<tr>
<td></td>
<td>Production conditions:----------</td>
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<tr>
<td></td>
<td>Year of testing</td>
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<tr>
<td>Mean yield (Q/ha) a) Zonal</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; year</td>
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<tr>
<td>b) across Zones (if applicable)</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; year</td>
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<td></td>
<td>3&lt;sup&gt;rd&lt;/sup&gt; year</td>
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<tr>
<td>Weighted Mean</td>
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<tr>
<td>Percentage increase or decrease over the checks &amp; qualifying varieties</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; year</td>
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<tr>
<td></td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; year</td>
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<tr>
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<td>3&lt;sup&gt;rd&lt;/sup&gt; year</td>
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<tr>
<td>Weighted mean</td>
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<tr>
<td>Frequency in the top three group (pooled for three years)</td>
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Note:

1. Qualifying variety is one which has completed three years of testing in coordinated trials
2. Centre-wise and year-wise data must be appended, otherwise proposal will not be considered
### Table 2. Adaptability to Agronomic Variables

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<thead>
<tr>
<th>Nature of Expt.</th>
<th>Item</th>
<th>Proposed variety</th>
<th>National Check 1</th>
<th>Zonal Check 2</th>
<th>Local check 3</th>
<th>Latest release Check 4</th>
<th>Qual. Var. 1</th>
<th>Qual. Var. 2</th>
<th>Qual. Var. 3</th>
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<tr>
<td><strong>Sowing date experiments</strong></td>
<td>Yield (Q/ha) under recommended sowing date</td>
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<td>Percentage gain or loss when sown</td>
<td>i) Early</td>
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<td>ii) Normal</td>
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<td>iii) Late</td>
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<tr>
<td><strong>Fertilizer experiments</strong></td>
<td>Yield (Q/ha) under recommended dose</td>
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<td></td>
<td>Percentage gain or loss under other doses</td>
<td>i) $F_0$</td>
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<td>ii) $F_1$</td>
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<td>iii) $F_2$</td>
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<tr>
<td><strong>Irrigation experiments (wherever applicable)</strong></td>
<td>Yield (Q/ha) with adequate irrigation</td>
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<td></td>
<td>Percentage gain or loss with irrigation level</td>
<td>i) Level 1</td>
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<td>ii) Level 2</td>
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<td>iii) Level 3</td>
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Note: specify each date of sowing, fertilizer level and number of irrigations at i, ii, iii
Table 3. Reaction to major diseases

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<th>Disease name</th>
<th>Item</th>
<th>Proposed Variety</th>
<th>National Check 1</th>
<th>Zonal Check 2</th>
<th>Local check 3</th>
<th>Latest release Check 4</th>
<th>Qual. Var. 1</th>
<th>Qual. Var. 2</th>
<th>Qual. Var. 3</th>
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Table 4. Reaction to Insect Pests

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<th>Item</th>
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<th>National Check 1</th>
<th>Zonal Check 2</th>
<th>Local Check 3</th>
<th>Latest release Check 4</th>
<th>Qual. Var. 1</th>
<th>Qual. Var. 2</th>
<th>Qual. Var. 3</th>
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Table 5. Data on Quality Characteristics

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<th>Item</th>
<th>Proposed Variety</th>
<th>National Check 1</th>
<th>Zonal Check 2</th>
<th>Local Check 3</th>
<th>Latest release Check 4</th>
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<th>Qual. Var. 2</th>
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Note: Specify the parameters at 1 to 4 under first column
<table>
<thead>
<tr>
<th>Name of proposed variety/Hybrid: ---------------</th>
<th>Adaptability Zone ------------------</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td>Proposed Variety</td>
</tr>
<tr>
<td>1. Plant height</td>
<td>1st year</td>
</tr>
<tr>
<td>2. Days to flowering</td>
<td>1st year</td>
</tr>
<tr>
<td>3. Days to maturity</td>
<td>1st year</td>
</tr>
<tr>
<td>4. 1000 grain weight</td>
<td>1st year</td>
</tr>
<tr>
<td>5. Lodging</td>
<td>1st year</td>
</tr>
<tr>
<td>6. Others</td>
<td>1st year</td>
</tr>
</tbody>
</table>
Guidelines for Filling-up Proforma for Submission of Proposals for Identification of Crop Varieties/ Hybrids by the Workshops

1. Name of the crop and species
   The name given to the variety may be indicative of crop name, institute name/code, and number, if any.

2. Name of the variety under which tested
   This should include the name under which the variety was tested in coordinated trials.

3. Proposed name of the variety
   This should include the name of the variety that is being proposed for its commercial use as per existing guidelines.

4. Sponsored by (institute)
   This should include the name of the institute/organization that is sponsoring the variety.

5. Institution or agency responsible for developing variety (with full address)
   Institute or organization where the variety was developed along with full address.

6. Name of the person who helped in the development of the variety
   Only those workers should be included who have contributed in the development of variety/hybrid. The co-workers can be grouped in 2 categories as ‘Developer’ and ‘Collaborator’. The co-worker should be associated with the project (from which cultivar has been developed) for a period of minimum of 2 years. The proposal should be signed by each of co-worker and validated by Head of Organization.

7. Parentage (with details of its pedigree including source from which variety/Inbred/ A, B and R lines of hybrid has been developed)
   This should essentially include the details of base population/source of material used for developing the variety/parental lines of hybrid. Pedigree and parentage have to be furnished in detail as to how the parents have been developed with flow charts instead of just giving the code numbers. Flow chart should clearly depict the development of the proposed culture with year-wise details of attempting the initial cross followed by handling of segregating generation. The details of indigenous collection (IC) or exotic collection (EC) number of accessions (provided by NBPGGR), if used, in the development of variety or parental lines of hybrids must be provided. Please note that this IC number is different from the one that is provided by NBPGGR upon submission of seed sample of line/hybrid/variety once variety/hybrid is recommended by the Variety Identification Committee (VIC).

8. Source of material in case of introduction
   Details of EC (Exotic collection) number provided by NBPGGR for the imported material used in variety development.

9. DNA profile of variety/hybrid/inbred/A, B, R line of hybrid vis-à-vis check variety/line
   Detailed information on the molecular discrimination should be provided. Such information can be developed at crop based institutes/NBPGR/Other labs. The information should include details of amplicons (name, sequence number, primer sequence) with reference to polymorphic markers. The relevant photographs should also be attached.

10. Breeding method used
    The method used in developing the variety/parental line.

11. Breeding objective
    The breeding objective in the development of variety.

12. State the varieties which are most closely resemble the proposed variety in general characters
    The information should include the name of the varieties that resemble most closely with proposed variety with reference to different phenotypic traits.

13. Specific area of its adaptation (zones and states for which variety is proposed) and recommended productions ecology
    The information on zones (name of the states), season and production conditions whether rainfed or irrigated should be mentioned.

14. Description of hybrid/variety
    The average and expected normal range with respect to various characters may be mentioned.

15. Description of the parents of the hybrid
The average and expected normal range with respect to characters may be mentioned with reference to inbred/A line/ B line/ R line.

16. Yield data in coordinated trials (breeding, agronomy, pathology, entomology, quality etc) regional/inter regional district trials year wise (levels of fertilizer application, density of plant population and superiority over local control/ standard variety to be indicated (to be attached) The yield data and other data of coordinated trials and other details as per the format of tables should be appended. Please note that mean is ‘weighted mean’ and not ‘arithmetic mean’.

17. Yield data from national, demonstration/large scale demonstrations (to be attached)
   The yield and other details as per the format of tables should be appended.

18. Agency responsible for maintaining breeder seed
   Name of the institute/organization/agency that is responsible to maintain the breeder seed of variety/parental line of hybrid.

19. Quantity of breeder seed in stock (kg)
   Quantity (kg) of available seed with reference to variety, hybrid, inbred/ A/B/R lines of hybrid to be clearly indicated.

20. Information on acceptability of the variety by farmers/ consumers/ industry
   Any information on such aspects can be given

21. Specific recommendations, if any, for seed production (e.g. staggered sowing, plating ratio of parental lines of hybrids in foundation and certified seed production, probable area of seed production)
   The seed production technology and specific requirements should clearly be mentioned along with proposal. With respect to seed production of hybrid, the staggered sowing of parental lines, if required, should be clearly indicated. The planting ratio of male and female parents in the seed production plots should also be indicated. In addition, if there are some other precautions to be taken they are to be clearly mentioned. The probable area of seed production needs to be given.

22. Vivid presentation (field view, close-up of single plant and seed/economic parts)
   The proposal should invariably have coloured pictures with a clear field view of variety, a close-up of single plant and seed/economic part. Photograph of other plant parts which can be helpful in identification of varieties can also be given. The cover page of proposal should also have a coloured photograph of variety and should be well-designed.

23. Package of practices along with attainable yield levels
   A note on the package of practices of crop with respect to the variety needs to be provided particularly highlighting specific requirement of variety to realize its attainable yield levels.

24. Any other pertinent information
   Any other relevant information which is important with reference to variety, hybrid or parental lines of hybrids.

25. Others
   • One-page ‘executive summary’ of proposal may be provided in the beginning highlighting the specific features of the variety/hybrid. Excessive presentation in executive summary needs to be avoided.
   • Page numbers should be provided at each page of proposal.
   • Check-list needs to be part of the proposal.
   • The CVRC proposal should be scrutinized at the level of Project Coordinator/Project Director before submission to CVRC. PCs/ PDs will provide their comments on the proposal to member secretary (CVRC).
Proforma for Submission of Proposal for Release of Crop Variety to Central Sub-Committee on Crop Standards Notification and Release of Varieties

Department of Agriculture and Cooperation
Ministry of Agriculture
Government of India

Index

<table>
<thead>
<tr>
<th>SN</th>
<th>Item</th>
<th>Page no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Proforma</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Summary yield data of Coordinated Varietal Trials</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Adaptability to Agronomic Variables</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Reaction to major diseases</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Reaction to Insect Pests</td>
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<tr>
<td>6</td>
<td>Data on Quality Characteristics</td>
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<tr>
<td>7</td>
<td>Data on other important characters</td>
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<td>8</td>
<td>Copy of recommendation of workshop</td>
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<tr>
<td>9</td>
<td>Copy of allotment of IC numbers</td>
<td></td>
</tr>
</tbody>
</table>

Summary of Proposal (in bullets only)
## Proforma for Submission of Proposal for Release of Crop Variety to Central Sub-Committee on Crop Standards Notification and Release of Varieties

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<table>
<thead>
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<tbody>
<tr>
<td>1</td>
<td>Name of the crop and species</td>
</tr>
<tr>
<td>2</td>
<td>a) Name of the variety under which tested in AICRP trials</td>
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<td></td>
<td>b) Proposed name of the variety</td>
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<td>Sponsored by (institute)</td>
</tr>
<tr>
<td>4</td>
<td>a) Institution or agency responsible for developing variety (with full address)</td>
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<td></td>
<td>b) Name of the person who helped in the development of the variety (Developers)</td>
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<td></td>
<td>(Collaborators)</td>
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<td>5</td>
<td>a) Parentage (with details of its pedigree including source from which variety/</td>
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<tr>
<td></td>
<td>Inbred/ A, B and R lines of hybrid has been developed)</td>
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<td></td>
<td>b) Source of material in case of introduction</td>
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<tr>
<td></td>
<td>c) DNA profile of variety/hybrid/inbred/A, B, R line of hybrid vis-à-vis check</td>
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<tr>
<td></td>
<td>variety/line</td>
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<td></td>
<td>d) Breeding method used</td>
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<td></td>
<td>e) Breeding objective</td>
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<td>6</td>
<td>State the varieties which are most closely resemble the proposed variety in</td>
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<td></td>
<td>general characters</td>
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<td>7</td>
<td>Recommended productions ecology (Rainfed/Irrigated; high/low fertility; season)</td>
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<td>8</td>
<td>Specific area of its adaptation (zones and states for which variety is proposed)</td>
</tr>
<tr>
<td></td>
<td>and recommended productions ecology</td>
</tr>
<tr>
<td>9</td>
<td>Description of hybrid/variety</td>
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<tr>
<td></td>
<td>a) Plant height</td>
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<tr>
<td></td>
<td>b) Distinguishing morphological characters</td>
</tr>
<tr>
<td></td>
<td>c) Maturity (range in number of days) (from seedling/ transplanting to flowering,</td>
</tr>
<tr>
<td></td>
<td>seed to seed</td>
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<td></td>
<td>d) Maturity group (early, medium and late wherever such classification exists)</td>
</tr>
<tr>
<td></td>
<td>e) Reaction to major diseases under field and controlled conditions (reaction to</td>
</tr>
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<td></td>
<td>physiological strains/ races/pathotypes/ bio-types to be indicated wherever</td>
</tr>
<tr>
<td></td>
<td>possible)</td>
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<tr>
<td></td>
<td>Details</td>
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<tr>
<td>---</td>
<td>--------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>f)</td>
<td>Reaction to major pests (under field and controlled condition including store pests)</td>
</tr>
<tr>
<td>g)</td>
<td>Agronomic features (e.g. resistance to lodging, shattering, fertilizer responsiveness, suitability to early or late sown conditions, seed rate etc.)</td>
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<tr>
<td>h)</td>
<td>Quality of produce</td>
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<tr>
<td></td>
<td>Grain quality</td>
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<tr>
<td></td>
<td>Fodder quality</td>
</tr>
<tr>
<td>i)</td>
<td>Reaction to stresses</td>
</tr>
<tr>
<td>10</td>
<td>Description of the parents of the hybrid</td>
</tr>
<tr>
<td></td>
<td>A line/Inbred 1</td>
</tr>
<tr>
<td></td>
<td>B line/Inbred 2</td>
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<tr>
<td></td>
<td>R line</td>
</tr>
<tr>
<td>a)</td>
<td>Plant height (cm)</td>
</tr>
<tr>
<td>b)</td>
<td>Distinguishing morphological characters</td>
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<tr>
<td>c)</td>
<td>Days to flowering</td>
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<tr>
<td>d)</td>
<td>Days to maturity (range in number of days – from seed to seed)</td>
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<tr>
<td>e)</td>
<td>Is there any problem of synchronization?</td>
</tr>
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<td></td>
<td>If yes, method to overcome it</td>
</tr>
<tr>
<td>f)</td>
<td>Reaction to major diseases (under field and controlled conditions, reaction to physiological strains/races/bio-types/pathotypes to be indicated wherever possible)</td>
</tr>
<tr>
<td>g)</td>
<td>Reaction to major pests (under field and controlled conditions including store pests)</td>
</tr>
<tr>
<td>h)</td>
<td>Agronomic features (e.g. resistance to lodging, shattering, fertilizer responsiveness, suitability to early or late sown conditions, seed rate etc.)</td>
</tr>
<tr>
<td>i)</td>
<td>Reaction to stresses</td>
</tr>
<tr>
<td>11</td>
<td>Yield data in coordinated trials (breeding, agronomy, pathology, entomology, quality etc)</td>
</tr>
<tr>
<td></td>
<td>regional/inter regional district trials year wise (levels of fertilizer application, density of plant population and superiority over local control/standard variety to be indicated (to be attached)</td>
</tr>
<tr>
<td>b)</td>
<td>Yield data from national, demonstration/large scale demonstrations (to be attached)</td>
</tr>
<tr>
<td>12</td>
<td>Agency responsible for maintaining breeder seed</td>
</tr>
<tr>
<td>b)</td>
<td>Quantity of breeder seed in stock (kg)</td>
</tr>
<tr>
<td></td>
<td>Variety</td>
</tr>
<tr>
<td></td>
<td>A line</td>
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<td>B line</td>
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<td>R line</td>
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<td>13</td>
<td>Specific recommendations, if any, for seed production (e.g. staggered sowing, plating ratio of parental lines of hybrids in foundation and certified seed production, probable area of seed production)</td>
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<td>14</td>
<td>Vivid presentation (field view, close-up of single plant and seed/economic parts)</td>
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<tr>
<td>15</td>
<td>a) Whether recommended by any workshop, seminar, conference, state seed committee etc.</td>
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<td>15</td>
<td>b) If so, its recommendations with specific justifications for the release of proposed variety</td>
</tr>
<tr>
<td>16</td>
<td>c) Specific area of its adaptation</td>
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<tr>
<td>17</td>
<td>Acknowledgement of submission of seed sample of variety/hybrid/inbred/ A, B and R lines of hybrid from NBPGR and IC numbers</td>
</tr>
</tbody>
</table>
| 18 | Package of practices along with attainable yield levels | a) Sustainability of variety for the area;  
b) Selection of field/land preparation;  
c) Seed treatment;  
d) Sowing time;  
e) Seed rate/sowing method-line sowing with Row to row & Plant to Plant distance;  
f) Fertilizer doses;  
g) Weed control;  
h) Disease & Pest Control;  
i) Irrigation;  
j) Harvesting;  
k) Quality characteristics of the variety, if any |
| 19 | Information on acceptability of the variety by farmers/ consumers/ industry |   |
| 20 | Any other pertinent information |   |

Signature of all contributors

Signature of Head of institution
Checklist for proforma for submission of proposal for release of crop - variety to central sub-committee on crop standards notification and release of varieties

<table>
<thead>
<tr>
<th>Details/document</th>
<th>Attached</th>
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<tbody>
<tr>
<td>Parentage with details of its pedigree including source from which variety/Inbred/A, B and R lines of hybrid has been developed</td>
<td>Yes</td>
</tr>
<tr>
<td>Source of material in case of introduction (IC/EC numbers provided by NBPGR)</td>
<td>Yes</td>
</tr>
<tr>
<td>Flow chart of details of development of variety/ parental lines of hybrids</td>
<td>Yes</td>
</tr>
<tr>
<td>Molecular/ DNA profile of variety/hybrid/A, B, R line of hybrid vis-à-vis check variety/line (details of unique amplicons that distinguishing markers along with photographs)</td>
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<tr>
<td>Detailed description of hybrid/variety</td>
<td>Yes</td>
</tr>
<tr>
<td>Detailed description of the parental lines of hybrid</td>
<td>Yes</td>
</tr>
<tr>
<td>Yield data and other data on diseases, insect-pest, quality etc. from coordinated trials</td>
<td>Yes</td>
</tr>
<tr>
<td>Yield data from national, demonstration/large scale demonstrations</td>
<td>Yes</td>
</tr>
<tr>
<td>Specific recommendations, if any, for seed production (e.g. staggered sowing, plating ratio of parental lines of hybrids in foundation and certified seed production, probable area of seed production etc.)</td>
<td>Yes</td>
</tr>
<tr>
<td>Vivid presentation (field view, close-up of single plant and seed) with the help of photographs of the variety)</td>
<td>Yes</td>
</tr>
<tr>
<td>Recommendation of workshop, conference</td>
<td>Yes</td>
</tr>
<tr>
<td>Acknowledgement of submission of seed sample of variety/hybrid/ A, B and R lines of hybrid submitted to NBPGR</td>
<td>Yes</td>
</tr>
<tr>
<td>Package of practices</td>
<td>Yes</td>
</tr>
<tr>
<td>Proforma signed by all co-authors and Head of Organization</td>
<td>Yes</td>
</tr>
<tr>
<td>Any other pertinent information</td>
<td>Yes</td>
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</table>

Signature of Head of Institution
Table 1. Summary yield data of Coordinated Varietal Trials

<table>
<thead>
<tr>
<th>Name of proposed variety/Hybrid:------------------------</th>
<th>Adaptability Zone -------------</th>
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<tr>
<td></td>
<td>Production conditions------------</td>
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<tr>
<td></td>
<td>Year of testing</td>
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<tr>
<td>Mean yield (Q/ha)</td>
<td>1st year</td>
</tr>
<tr>
<td>a) Zonal</td>
<td>2nd year</td>
</tr>
<tr>
<td>b) across Zones (If applicable)</td>
<td>3rd year</td>
</tr>
<tr>
<td>Weighted Mean</td>
<td></td>
</tr>
<tr>
<td>Percentage increase or decrease over the checks &amp; qualifying varieties</td>
<td>1st year</td>
</tr>
<tr>
<td></td>
<td>2nd year</td>
</tr>
<tr>
<td></td>
<td>3rd year</td>
</tr>
<tr>
<td>Weighted mean</td>
<td></td>
</tr>
<tr>
<td>Frequency in the top three group (pooled for three years)</td>
<td></td>
</tr>
</tbody>
</table>

Note:

1. Qualifying variety is one which has completed three years of testing in coordinated trials
2. Centre-wise and year-wise data must be appended, otherwise proposal will not be considered
Table 2. Adaptability to Agronomic Variables

<table>
<thead>
<tr>
<th>Nature of Expt.</th>
<th>Item</th>
<th>Proposed variety</th>
<th>National Check 1</th>
<th>Zonal Check 2</th>
<th>Local check 3</th>
<th>Latest release Check 4</th>
<th>Qual. Var. 1</th>
<th>Qual. Var. 2</th>
<th>Qual. Var. 3</th>
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</thead>
<tbody>
<tr>
<td>Sowing date experiments</td>
<td>Yield (Q/ha) under recommended sowing date</td>
<td>i) Early</td>
<td>ii) Normal</td>
<td>iii) Late</td>
<td></td>
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<td></td>
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<td></td>
<td>Percentage gain or loss when sown</td>
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<td></td>
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<tr>
<td>Fertilizer experiments</td>
<td>Yield (Q/ha) under recommended dose</td>
<td>i) $F_0$</td>
<td>ii) $F_1$</td>
<td>iii) $F_2$</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Percentage gain or loss under other doses</td>
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<td></td>
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<tr>
<td>Irrigation experiments (wherever applicable)</td>
<td>Yield (Q/ha) with adequate irrigation</td>
<td>i) Level 1</td>
<td>ii) Level 2</td>
<td>iii) Level 3</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Percentage gain or loss with irrigation level</td>
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</table>

Note: specify each date of sowing, fertilizer level and number of irrigations at i, ii, iii
### Table 3. Reaction to major diseases

<table>
<thead>
<tr>
<th>Disease name</th>
<th>Item</th>
<th>Proposed Variety</th>
<th>National Check 1</th>
<th>Zonal Check 2</th>
<th>Local check 3</th>
<th>Latest release Check 4</th>
<th>Qual. Var. 1</th>
<th>Qual. Var. 2</th>
<th>Qual. Var. 3</th>
</tr>
</thead>
<tbody>
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<td>Disease 1</td>
<td>Natural</td>
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<td></td>
<td></td>
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<td>3rd year</td>
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<td></td>
<td>Artificial</td>
<td>1st year</td>
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<td>3rd year</td>
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<td>Disease 2</td>
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### Table 4. Reaction to Insect Pests

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<th>Insect name</th>
<th>Item</th>
<th>Proposed Variety</th>
<th>National Check 1</th>
<th>Zonal Check 2</th>
<th>Local check 3</th>
<th>Latest release Check 4</th>
<th>Qual. Var. 1</th>
<th>Qual. Var. 2</th>
<th>Qual. Var. 3</th>
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### Table 5. Data on Quality Characteristics

<table>
<thead>
<tr>
<th>Quality Characterist.</th>
<th>Item</th>
<th>Proposed Variety</th>
<th>National Check 1</th>
<th>Zonal Check 2</th>
<th>Local check 3</th>
<th>Latest release Check 4</th>
<th>Qual. Var. 1</th>
<th>Qual. Var. 2</th>
<th>Qual. Var. 3</th>
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Note: Specify the parameters at 1 to 4 under first column
Table 6 Data on other important characters

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<th>Name of proposed variety/Hybrid: -------------------</th>
<th>Adaptability Zone: -------------------</th>
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<td>Item</td>
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Guidelines for Filling-up Proforma for Submission of Proposal for Release of Crop - Variety to Central Sub-Committee on Crop Standards Notification and Release of Varieties

1. Name of the crop and species
   The name given to the variety may be indicative of crop name, institute name/code, and number, if any.

2. Name of the variety under which tested
   This should include the name under which the variety was tested in coordinated trials.

3. Proposed name of the variety
   This should include the name of the variety that is being proposed for its commercial use as per existing guidelines.

4. Sponsored by (institute)
   This should include the name of the institute/organization that is sponsoring the variety

5. Institution or agency responsible for developing variety (with full address)
   Institute or organization where the variety was developed along with full address

6. Name of the person who helped in the development of the variety
   Only those workers should be included who have contributed in the development of variety/hybrid. The co-workers can be grouped in 2 categories as ‘Developer’ and ‘Collaborator’. The co-worker should be associated with the project (from which cultivar has been developed) for a period of minimum of 2 years. The proposal should be signed by each of co-worker and validated by Head of Organization.

7. Parentage (with details of its pedigree including source from which variety/Inbred/A, B and R lines of hybrid has been developed)
   This should essentially include the details of base population/source of material used for developing the variety/parental lines of hybrid. Pedigree and parentage have to be furnished in detail as to how the parents have been developed with flow charts instead of just giving the code numbers. Flow chart should clearly depict the development of the proposed culture with year-wise details of attempting the initial cross followed by handling of segregating generation.

   The details of indigenous collection (IC) or exotic collection (EC) number of accessions (provided by NBPGR), if used, in the development of variety or parental lines of hybrids must be provided. Please note that this IC number is different from the one that is provided by NBPGR upon submission of seed sample of line/hybrid/variety once variety/hybrid is recommended by the Variety Identification Committee (VIC).

8. Source of material in case of introduction
   Details of EC (Exotic collection) number provided by NBPGR for the imported material used in variety development.

9. DNA profile of variety/hybrid/inbred/A, B, R line of hybrid vis-à-vis check variety/l ine
   Detailed information on the molecular discrimination should be provided. Such information can be developed at crop based institutes/NBPGR/Other labs. The information should include details of amplicons (name, sequence number, primer sequence) with reference to polymorphic markers. The relevant photographs should also be attached.

10. Breeding method used
    The method used in developing the variety/parental line

11. Breeding objective
    The breeding objective in the development of
variety

12. State the varieties which are most closely resemble the proposed variety in general characters
The information should include the name of the varieties that resemble most closely with proposed variety with reference to different phenotypic traits.

13. Recommended productions ecology
The information on zones (name of the states), season and production conditions whether rainfed or irrigated should be mentioned.

14. Description of hybrid/variety
The average and expected normal range with respect to various characters may be mentioned.

15. Description of the parents of the hybrid
The average and expected normal range with respect to characters may be mentioned with reference to inbred/A line/ B line/ R line.

16. Yield data in coordinated trials (breeding, agronomy, pathology, entomology, quality etc) regional/inter regional district trials year wise (levels of fertilizer application, density of plant population and superiority over local control/standard variety to be indicated (to be attached)
The yield data and other data of coordinated trials and other details as per the format of tables should be appended. Please note that mean is ‘weighted mean’ and not ‘arithmetic mean’.

17. Yield data from national, demonstration/large scale demonstrations (to be attached)
The yield and other details as per the format of tables should be appended.

18. Agency responsible for maintaining breeder seed
Name of the institute/organization/agency that is responsible to maintain the breeder seed of variety/parental line of hybrid.

19. Quantity of breeder seed in stock (kg)
Quantity (kg) of available seed with reference to variety, hybrid, inbred/A/B/R lines of hybrid to be clearly indicated.

20. Information on acceptability of the variety by farmers/ consumers/ industry
Any information on such aspects can be given.

21. Specific recommendations, if any, for seed production (e.g. staggered sowing, plating ratio of parental lines of hybrids in foundation and certified seed production, probable area of seed production). The seed production technology and specific requirements should clearly be mentioned along with proposal. With respect to seed production of hybrid, the staggered sowing of parental lines, if required, should be clearly indicated. The planting ratio of male and female parents in the seed production plots should also be indicated. In addition, if there are some other precautions to be taken they are to be clearly mentioned. The probable area of seed production needs to be given.

22. Vivid presentation (field view, close-up of single plant and seed/economic parts)
The proposal should invariably have coloured pictures with a clear field view of variety, a close-up of single plant and seed/economic part. Photograph of other plant parts which can be helpful in identification of varieties can also be given. The cover page of proposal should also have a coloured photograph of variety and should be well-designed.

23. Whether recommended by any workshop, seminar, conference, state seed committee etc.
Detail of workshop/ conference/ seminar/ or state variety release committee which recommended the variety for release.

24. If so, its recommendations with specific
justifications for the release of proposed variety
The specific recommendation of the workshop/conference/state variety release committee along with the documents should be attached.

25. Specific area of its adaptation
The zones and states for which variety is proposed

26. Acknowledgement of submission of seed sample of variety/hybrid/inbred/ A, B and R lines of hybrid from NBPGR and IC numbers
The acknowledgement certificate issued by NBPGR providing details of IC number with respect to variety, hybrid and parental lines of hybrids should be part of the proposal

27. Package of practices along with attainable yield levels
A note on the package of practices of crop with respect to the variety needs to be provided particularly highlighting specific requirement of variety to realize its attainable yield levels.

28. Others
- One-page ‘executive summary’ of proposal may be provided in the beginning highlighting the specific features of the variety/hybrid. Excessive presentation in executive summary needs to be avoided.
- Page numbers should be provided at each page of proposal.
- Check-list needs to be part of the proposal.
- The CVRC proposal should be scrutinized at the level of Project Coordinator/Project Director before submission to CVRC. PCs/PDs will provide their comments on the proposal to member secretary (CVRC).

29. Any other pertinent information
Any other relevant information which is important with reference to variety, hybrid or parental lines of hybrids.
In this chapter the guidelines issued by National Bureau of Plant Genetic Resources (NBPGR) have been reproduced to help and educate breeders on the mechanisms and processes need to be adapted to register their varieties or advanced lines. These guidelines can be downloaded from NBPGR website: www.nbpgr.ernet.in

PREAMBLE

I. Registration of plant germplasm

Whereas the need for recognition to the developers of new improved varieties as per release procedure available for the purpose has been served in the National Agricultural Research System (NARS) in India by the Indian Council of Agricultural Research (ICAR);

Whereas the ICAR operates the mechanism for identification and recommendation for release of crop varieties and the Ministry of Agriculture provides mechanism for notification of released varieties and production of quality seeds.

While duly recognizing the requirements for the intellectual property protection and related issues, to an extent they have been addressed with existing system of variety release and notification, keeping in view the developments concerning Plant Breeder’s Rights, Farmer’s Rights and other forms of Intellectual Property Rights (IPR).

Further, recognizing that the recognition should be accorded to those associated with the development/identification of improved/unique germplasm and genetic stocks and, also recognizing the need for an authentic national documentation system of valuable sovereign genetic resource with known characteristics/inheritance factors and that a mechanism for “Registration of Plant Germplasm” has been provided at the National Bureau of Plant Genetic Resources (NBPGR), New Delhi –110012 by the Indian Council of Agricultural Research (ICAR) that this mechanism will finally develop into sole recognized institution for registration of “Plant Genetic Resources” material at national level. Material registered with this institution will not be eligible for registration elsewhere without the permission of ICAR.

II. Guidelines for identification and registration of plant germplasm

1. Nature of material to be identified/registered

Germplasm/genetic stock of agri-horticultural, commercial and other economic crops, including agroforestry species, spices, medicinal and aromatic plants, ornamental crop species, which is unique and has potential (verified/verifiable) attributes of scientific/commercial value. The following categories of materials shall not qualify for registration.

i) Varieties/hybrids released at the country/zone/state levels. However, parental lines of hybrids will be considered.

ii) Germplasm/Genetic stock without accompanying authentic evidence for the claim made in the application.

iii) Material for which any form of protection has been sought elsewhere

2. Criteria for eligibility for registration

All claims concerning the material submitted for registration should accompany scientific
evidence for uniqueness and value in the form of-

i) Publication in standard Peer Reviewed Journal (a copy of reprint to be submitted).

AND/OR

ii) Evaluation data under All India Co-ordinated Research Project (AICRP) trial/nursery tests supported with relevant extracts of the documents/verification by concerned Project Director (PD)/Project Co-ordinator (PC).

AND/OR

iii) One year of validation test of the claimed attribute by any institution as per the advise of registration authority.

Germplasm registration committee

A Registration Committee of the following constitution shall be the Authority for Registration of Plant Germplasm as per ICAR Order No. 24(2)/96-F.C.II/Seed Dated 24.3.1996.

i) Deputy Director General (Crop Science) Chairman

ii) Assistant Director General (Horticulture) Member

iii) Director, NBPRG Member

iv) Assistant Director General (FC) Member

v) One representative from SAUs Member

vi) Representative of DoAC Member

vii) Need based 3 specialists with reference to the material under consideration (To be identified by the Chairman) Members

viii) A senior level scientist of NBPRG (To be identified by the Director, NBPRG) Secretary

4. Application Form

Application shall be made on the prescribed Performa (FORM A). The Germplasm Registration Committee shall meet at least twice a year, with the concurrence of the Chairman, for consideration of applications and related matters and decision thereupon.

5. Nodal agency

i) National Bureau of Plant Genetic Resources (NBPRG), New Delhi will act as the nodal agency for registration of germplasm. The applications should be addressed to the Director, NBPRG, along with the seed sample or a certificate of submission of propagules with respective crop-based National Active Germplasm Sites (NAGS) for conservation.

ii) The Member Secretary, Germplasm Registration Committee will duly acknowledge date of receipt of the application and material.

iii) NBPRG will maintain a permanent register/database in which the listing the materials approved for registration will be documented with user driven details.

7. Screening of applications

The proposals submitted as per the prescribed Performa will be summarily screened at the NBPRG by Member Secretary, Registration Committee along with NBPRG internal Sub-Committee for Germplasm Registration, constituted by the Director, NBPRG and in consultation with Chairman, Registration Committee. The preliminary screening shall include scrutiny as per guidelines listed in Check List.

8. Consideration of proposals by the germplasm registration committee

i) After initial screening, the incomplete applications will be returned for appropriate revision/further action.

ii) Those applications in which validation is required should accompany an appropriate certificate issued by the competent authority of the institute advised for the validation by the Director, NBPRG.

iii) The proposals complete in all respect will be put up for consideration to the registration committee.
iv) The Germplasm Registration Committee will consider the proposal within a year and the decision of the Committee will be final.

9. **Validity of registration**

The period for validity of registration shall be 18 years for trees and vines and 15 years for other plant species germplasm.

10. **Notification of registered materials**

All materials approved for registration would be officially notified to the applicants along with Registration Number and a certificate. Official Notification will be published along with brief description in the subsequent issue of the following:

i) NBPGR Newsletter, Published by Director, NBPGR, New Delhi – 110 012.

ii) ICAR News - Published by the Publication and Information Division, Krishi Anusandhan Bhavan, ICAR, New Delhi – 110 012. NBPGR Internet Website [http://nbpgr.delhi.nic.in](http://nbpgr.delhi.nic.in)

iii) Indian Journal of Plant Genetic Resources - Published by the Indian Society of Plant Genetic Resources, New Delhi – 110 012.

In addition, notification may also be sent to the following journals/publications:

i) Indian Journal of Agricultural Sciences

ii) Indian Journal of Genetics and Plant Breeding

(iii) Concerned Crop News letter, if any

(iv) ICAR Annual Reports.

11. **Conservation, maintenance and sustainable utilization of registered germplasm**

i) Registered germplasm will be conserved either in National Gene Bank or at designated crop-based NAGS.

ii) Working stock for supply to users would be maintained by the institution associated with the development of the germplasm.

iii) Active/working collection may also be maintained with the NAGS with responsibility for multiplication and distribution of the material to bonafide users through single window system of NBPGR to promote utilization.

12. **Denotification**

Denotification shall be done by the Registration Committee in cases of false claim(s)/ disputed IPR claim. Appeal for counter claim, if any, should reach the Registration Committee within a period of three months or the publication of Notification in the official Journal/Newsletter, whichever is earlier.

**Procedure for submission of proposal/material**

(i) **Whom to address the application and material**

1. All germplasm proposed to be registered should be submitted to the following address:
   The Director
   National Bureau of Plant Genetic Resources
   Pusa Campus, New Delhi – 110012.
   Phone: 011-5783697
   EPABX: 5789208, 5789211 Ext. 209, 210, 227.
   FAX: 011-5731495
   Email: director@nbpgr.delhi.nic.in

2. The material must be accompanied by properly filled in Form-A (Annexure-I) duly signed by the applicant and the Head of the institution with rubber seal.

3. The Form-A must be accompanied by complete description of the material using standard descriptors as per concerned crop AICRP/NBPGR requirements. It may include photograph(s) of plant/plant parts/crop and/or fingerprints, if available.

4. A declaration to the effect that working stock for supply to users would be maintained by the institution associated with the development of the material.

(ii) **Guidelines to be followed while submitting the seed material**

1. The quantity of seed should be, 5000 seeds
in case of cross-pollinated crop species, 2000 in self-pollinated and 500 – 1000 in difficult species, such as vegetables, medicinal and aromatic plants etc.

2. The seed should be supplied from freshly harvested crop and should not be more than 90 days old.

3. The seed supplied should be sound, healthy and physiologically mature collected from healthy plants.

4. The potential viability of seeds should be more than 85% in most crop species, except for special cases.

(iii) Guidelines to be followed while submitting the propagules:

In case of recalcitrant seed and vegetatively propagated crops the germplasm material has to be supplied to the concerned crop-based designated NAGS (Annexure II) for conservation. A certificate to this effect has to be obtained from concerned NAGS to accompany the proposal. Additionally, the proposer has to follow the following guidelines for safe supply and conservation of germplasm:

1. The proposer of vegetatively propagated crop germplasm shall supply 25-50 propagules (depending on crops) to the notified crop-based National Active Germplasm Sites, NAGS (Annexure II) for maintenance in their field repository or in-vitro repository (if available) and obtain an acknowledgement.

2. Informed the concerned NAGS in advance about the supply of material to facilitate processing and establishment of germplasm.

3. The acknowledgement received from NAGS for conservation should accompany the application.

4. The NAGS at later stage may supply to the NBPGR these materials preferably as in-vitro cultures (where ever possible) for their in vitro maintenance and/or cryopreservation as base collections. The NAGS will ensure supply of in vitro generated material at least of those crops which are not existing in the national in vitro repository/cryobank of NBPGR.

5. While supplying the germplasm of the vegetative propagated crops the proposer may follow the following guidelines for handling of germplasm depending on the crop.

a) The genetic material/stocks propagules of non-orthodox seed producing crops are generally being maintained in the form of grafts, crafts, slips, propagules, seedlings and plants.

b) For the maintenance and supply the slips, grafts, crafts, seedlings, propagules or plants to the NAGS, the minimum no. required is 25-50, which should be free from insects, weeds and disease as far as possible. The material should be well labeled and packed properly in aerated polythene bags. During the dry summer these grafts or crafts should be wrapped in moist moss grass to retain the moisture.

c) In case of plants like coconut, the material can be sent either as embryos or seedlings.

d) If the embryos need to be transferred from the field the small cut cylinders with embryos embedded in it are packed in the sterile plastic bags with sterile moist cotton. Theses are kept in the refrigerator overnight and transferred in the same box with proper labels on it.

e) In case of seedlings the embryos should be grown over the river sand in plastic bags/boxes. Once they are established they should be transferred to bigger pots. The healthy, vigorous and uniform grown seedlings, 50-100 in number can be supplied to the above mentioned NAG Site. This material should be packed in small wooden/cardboard boxes with proper aeration in it. Also these boxes should be well marked with labels at 3 or 4 places to be handled carefully/seedlings in order to avoid any damage during transit.

6. The genetic material should be sent to the NAG Sites by speed post to avoid any postal delay in transaction.

Note: The sample size of propagules/
seed quantity to be submitted may be revised in consultation with the Director, NBPGR in exceptional cases.

**Check-list for screening of applications**

The NBPGR internal sub-committee for germplasm registration shall screen all applications and make recommendations to the Germplasm Registration Committee for *inter alia* the following points:

1. **Part (a)**
   
   Whether this is a fresh application or a revised one?
   
   Whether it is a duplication of efforts? i.e., whether same or similar material is earlier registered?
   
   The candidate germplasm possesses unique/distinguishing characteristics of potential value to merit consideration for registration. [NBPGR’s viewpoint]
   
   Evaluation of the stated (or possibly any other) economic potential of germplasm?
   
   Validation of the source of the material or selection history of the germplasm?

   Specific Remarks of the NBPGR.

2. **Part (b)**
   
   Maintenance and supply of Active Germplasm for use shall be done by, applicant institution/university/centre. Whether commitment to this extent is made by the applicant? Whether complete address of the location and contact person given?
   
   Whether correspondence with the concerned NAGS for conservation and maintenance of germplasm is obtained, where ever required?
   
   Whether sample for long term storage has been sent to National Gene Bank or to the concerned NAGS for conservation?
   
   Whether maintainer line has been sent by the applicant to the national gene bank, in case of parental lines of hybrids?

   **Note:** The germplasm found unsuitable for registration will be conserved in medium-term module for a period of a year. After one year it will either be returned to the proposing institute for maintenance as active collection or crop based NAGS for conservation as an Active Collection.
**Application for Registration of Plant Germplasm**  
*(To be submitted to The Director, NBPG, New Delhi-110 012)*

Please refer to guidelines for filling the application form appended and Codes *(This application can be downloaded from NBPG website: www.nbpgr.ernet.in)*

<table>
<thead>
<tr>
<th>1. Application Status (Code)</th>
<th>N</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Crop name</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Botanical name</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Crop Group (Code)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Nature of the material to be registered</td>
<td>M</td>
<td>GP</td>
</tr>
<tr>
<td>6. Nomenclature of the Germplasm/Genetic Stock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Criteria for registration [Unique feature(s)]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Nature of propagules (Code)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Requisit quantity deposited</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>10. Value referred to (Code)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Basis of eligibility (Code)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Validation test requested</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>13. Particulars of the scientist(s)/person(s) responsible for developing germplasm/genetic stock*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Name (Dr./Ms./Mr.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Designation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Address</td>
<td></td>
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</tr>
</tbody>
</table>

For Office Use Only

i). Application Number

ii). Date of Application (dd/mm/yyyy)

iii). Whether New or Revised? N R

iv) If revised, Date of I Application

v) Whether validation test suggested? Y N

vi) Action Taken

a) Forwarded to Registration Committee

b) Sent for Validation

c) Incomplete, Sent for Revision

d) Rejected

e) Approved

vii) WhetherRegistered or Rejected RG RJ

viii) Date of Registration/Rejection

ix) Registration Number INGR

x) Notified: on/in:

xi) Remarks
Please attach separate sheet for additional name(s) and address(es) of co-authors (persons responsible).

14 (A). Passport information of Germplasm

<table>
<thead>
<tr>
<th>IC/EC No.</th>
<th>Other Identity</th>
<th>Source</th>
<th>Place/Tehsil/Distt.P</th>
<th>Remark Place of origin</th>
</tr>
</thead>
</table>

14 (B). Pedigree of the Genetic Stock

<table>
<thead>
<tr>
<th>Pedigree</th>
<th>Location where distinctive feature developed</th>
<th>Breeding method (Code)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lat.</td>
<td>Temperature range</td>
<td></td>
</tr>
<tr>
<td>Long.</td>
<td>Rainfall</td>
<td></td>
</tr>
<tr>
<td>Alt.</td>
<td>Soil type</td>
<td></td>
</tr>
</tbody>
</table>

15. Salient Characteristics/Chief botanical and morpho-agronomic description** (attach details)

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Trait Description</th>
</tr>
</thead>
</table>

* Provide salient description of the material as per crop-wise standard Performa used by the All India Coordinated Research Programmes (AICRP)

16. Name and address of the Applicant***

Name (Dr./Ms/Mr.)

Designation

Address

Tel- Fax- Email-

*** Applicant may be different than the First author/person responsible for development of the material

17. Year of seed production

18. Location of seed production

19. Quantity of seed available in grams

Active/Working Collection

20. Additional Information/Remarks (if any)

UNDERTAKING

I/We undertake to ensure long term conservation of the aforesaid germplasm/genetic stock at the National Gene Bank, NBPG and also its sustainable use by maintaining appropriate quantity of Active/Working Collection and providing access as appropriate on prior informed consent and on mutually agreed terms. I/We also agree to provide any further information/data pertaining to the description and unique characteristics to the ICAR/NBPGR in a transparent manner.

COUNTERSIGNED

SIGNATURES OF THE DEPOSITOR

Name

Designation & Address

SEAL
Guidelines for filling Form A and description of Codes used

1. Use Capital Letters or give legible description. All columns are self-explanatory. Avoid redundancy but give minimal explanation for a particular item in “Remarks” (Col. 20) where needed.

2. Be brief and to the point for Co.7, give only the most salient (unique) features/traits/alleles, which you consider would serve as most suitable criteria for consideration of registration of the germplasm/genetic stock.

3. On the other hand, give detailed description of traits/characteristics of the material in Col.15. Use separate sheet. Follow the format of variety release application/AICRP data sheets for respective crops. For example, description sheet for wheat is enclosed in the Germplasm Registration Guidelines Booklet.

Give chief botanical and morpho-agronomic characteristics in description and also, if available, include isozyme/DNA profile or other chemical/biochemical characteristics. This information is likely to be of help to the registrant in case retrieval is required from the database at a later date for reasons whatsoever.

4. Use Codes for filling in Col. 1, 4, 5, 8, 9 [Units], 10, 11, 12 and 14 (B) [Breeding Method]. In case the code "Other" is filled in any of the Col.4, 8, 11 and/or 14 (B), give particular details in Col.20 [Remarks].

5. For filling crop name (Col.2) give English or Hindi name, if known. In case a local name is given then also specify in parenthesis the language/dialect in which this name is used.

6. Give name(s) of ALL persons associated with or responsible for development of the material in Col.13. Use separate sheet and fill in additional names along with designation, address and phone/fax/email, etc. beginning from Sr.No. 2 on new sheet in the same format as given for Sr. No.1 at Col.13 (page 1) of the Application Form.

7. Col14 has two alternate parts, (A) and (B) to fill in;

(a) In case Nature of the material to be registered as given in Col.5 is “Germplasm” then you must give its basic passport information in Col.14 (A). It should include Identification Number (IC/EC) as given by the NB PGR or other Identity Number allotted and maintained locally. In latter case, however, a unique National Identifier Number (IC) will also be given by the NB PGR, based on passport data provided along with this Application. Give clearly the Source of Material (Name of the person/institution from where procured), Place (village/tehsil/district) from where obtained and date of collection, etc. (Remarks).

(b) In case the nature of the material to be registered is Genetic Stock (Col.5) then clearly give its Pedigree, including parentage, year of crossing and crossing/selection plan. Also give breeding method used in codes described below.

8. Give particulars of Applicant in Col.16 over and above the particulars of Authors/persons responsible as given in Col.13 as the Applicant/Depositor may not be always the same as the first person responsible for development of the material.

9. Undertaking to the effect ensuring long term conservation and maintenance of active material for facilitating access and sustainable use has been given, which may be read and implied before putting signatures. Thus, the responsibility for maintaining active/working collection and providing it to other interested researchers on prior informed consent and on mutually agreed terms will clearly fall on the Applicant Institution/ University/ Organisation. Thus it is essential that the Application is signed by
concerned responsible scientist/ person and countersigned by the Head of the Institution/ University/ Organisation along with Official Seal of the Authority.

10. Must use the following codes for filling information in Col. 1, 4, 5, 8, 9 [Units], 10, 11, 12 and 14 (B) [Breeding Method] in the Application Form.

<table>
<thead>
<tr>
<th>Col.1 : Application Status</th>
<th>Col.9 : Quantity deposited with Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>N  New</td>
<td>g  Gram (of seed)</td>
</tr>
<tr>
<td>R  Revised</td>
<td>No. Number (of propagules)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Col.4 : Crop Groups</th>
<th>Col.10 : Value referred to by applicant</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL  Cereals</td>
<td>SC  Scientific</td>
</tr>
<tr>
<td>PC  Pseudocereals</td>
<td>CM  Commercial</td>
</tr>
<tr>
<td>MM  Millets and minor millets</td>
<td>AC  Academic</td>
</tr>
<tr>
<td>PL  Pulses</td>
<td></td>
</tr>
<tr>
<td>OS  Oilseeds</td>
<td></td>
</tr>
<tr>
<td>FC  Forage Crops</td>
<td>PR  Published with Peer review</td>
</tr>
<tr>
<td>VC  Vegetable crops</td>
<td>CT  All India Co-ordinated Trials Data</td>
</tr>
<tr>
<td>RT  Root and tuber crops</td>
<td>OT  Other (Specify in Col.20)</td>
</tr>
<tr>
<td>FT  Fruits</td>
<td></td>
</tr>
<tr>
<td>SP  Spices</td>
<td></td>
</tr>
<tr>
<td>CC  Commercial Crops</td>
<td></td>
</tr>
<tr>
<td>OM  Ornamentals</td>
<td></td>
</tr>
<tr>
<td>MA  Medicinal and aromatic plants</td>
<td></td>
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<tr>
<td>NC  Narcotics</td>
<td></td>
</tr>
<tr>
<td>FR  Forestry</td>
<td></td>
</tr>
<tr>
<td>OT  Other (Specify in Col.20)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Col.5 : Nature of the Material to be registered</th>
<th>Col.11 : Basis of eligibility for registration</th>
</tr>
</thead>
<tbody>
<tr>
<td>GP  Germplasm</td>
<td>FC  Commercial crops</td>
</tr>
<tr>
<td>GS  Genetic Stock</td>
<td>PR  Published with Peer review</td>
</tr>
<tr>
<td>R   Recombinant</td>
<td>CT  All India Co-ordinated Trials Data</td>
</tr>
<tr>
<td>M   Mutant</td>
<td>OT  Other (Specify in Col.20)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Col.8 : Nature of Propagules</th>
<th>Col.12 : Validation Test requested for</th>
</tr>
</thead>
<tbody>
<tr>
<td>SD  Seed</td>
<td>Y   Yes</td>
</tr>
<tr>
<td>TR  Tubers/Roots/Bulbs</td>
<td>N   No</td>
</tr>
<tr>
<td>VC  Vegetative Cuttings</td>
<td></td>
</tr>
<tr>
<td>WP  Whole Plant</td>
<td></td>
</tr>
<tr>
<td>OT  Other (Specify in Col.20)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Col.14 : Breeding/identification Method Used</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MS  Mass Selection</td>
<td></td>
</tr>
<tr>
<td>PS  Pedigree selection</td>
<td></td>
</tr>
<tr>
<td>BC  Back Cross method</td>
<td></td>
</tr>
<tr>
<td>R  Recurrent selection</td>
<td></td>
</tr>
<tr>
<td>SC  Screening method</td>
<td></td>
</tr>
</tbody>
</table>

Please furnish this form complete in all respects, along with minimal quantity of seed/propagules (propagules to concerned NAGS) to The Director, National Bureau of Plant Genetic Resources, Pusa Campus, New Delhi – 110 012.
VALIDATION AND REGISTRATION

1. Application No.     Crop
2. Specific feature/characteristic claimed
3. Basis for acceptance of the claim as per
   Preliminary decision on item 4 of application

3. **NBPGP Validation (if required)**
   i) Year of testing:
   ii) Location/locations where tests carried out:

<table>
<thead>
<tr>
<th>Lat.</th>
<th>Long.</th>
<th>Alt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temp reg.</td>
<td>Rainfall</td>
<td>Soil</td>
</tr>
</tbody>
</table>

   iii) Person/persons conducting the test:
   iv) Results of tests:
   v) Do the test results confirm the specific claim made?
      (Records to be shown to the Registration Committee)
   vi) Does the description confirm to that given in application?
   vii) If not, in what way they differ?
   viii) Is there a need to reconfirm any of the above observations?

4. Proposed Registration No.
5. Long term germplasm storage index No.

**Signature of Director, NBPGP**

Remarks of the Registration Committee:

Approved Registration No.   (Register Vol.   Page)

(Signature of the Registration Committee Chairman)
The Seeds Act, 1966

(Act No.54 of 1966) An Act to provide for regulating the quality of certain seeds for sale, and for matters connected therewith.

1. Short title, extent and commencement:-
   • This Act may be called the Seeds Act, 1966.
   • It extends to the whole of India.
   • It shall come into force on such date* as the Central Government may, by notification in the Official Gazette, appoint, and different dates may be appointed for different provisions of this Act, and for different States or for different areas thereof.

   Notes: 1. The Act received the assent of the President on 29th December, 1966 and was published in issue No.66 of Part II Sec. I-Extraordinary of Gazette of India d/30-12-1966. The Select Committee Report was published on page 1341 of Part II Section 2-Extraordinary, Gazette of India d/4-11-1966. The Statement of Objects and Reasons for enacting the law, which was appended to Bill No.XII of 1964, was published on page 433 of Part II Sec. 2-Extra., Gazette of India d/7-9-1964. It reads as follows:

   Statement of objects and reasons: In the interest of increased agricultural production in the country, it is considered necessary to regulate the quality of certain seeds, such as seeds of food crops, cotton seeds, etc. to be sold for purposes of agriculture (including horticulture). The methods by which the Bill seeds to achieve this object are: (a) Constitution of a Central Seed Committee consisting of representatives of the Central Government and the State Governments, the National Seeds Corporation and other interests, to advise those Governments on all matters arising out of the proposed legislation; (b) Fixing minimum standards for germination, purity and other quality factors; (c) Testing seeds for quality factors at the seed testing laboratories to be established by the Central Government and the State Governments; (d) Creation of seed inspection and certification service in each State and grant of licences and certificates to dealers in seeds; (e) Compulsory labeling of seed containers to indicate the quality of seeds offered for sale; and (f) Restricting the export, import and inter-State movement of non-descript seeds.

   In order to eliminate under hardship, provision has been made in the Bill for exempting the sale of seed by (i) plant breeders, (ii) certain classes of producers, and (iii) any other persons for purposes other than for the purpose of sowing of planting.”

   *2 The Central Government vide S.O. 3122 d/29-8-1968, published in issue 308 of Part II Sec. 3(ii) Extra., Gazette of India, d/2-9-68, appointed the second day of September, 1968 as the date on which the provisions of Sections 1 to 6 (both inclusive), Sections 8 to 11 (both inclusive), Section 18 and Section 22 to 25 (both inclusive) of the Act shall come into force in the whole of India. (Efforts were made to check about the enforcement of the other provisions. They are said to be enforced but no authentic information or Government Notification(s) could be traced. If any reader has otherwise information is solicited in larger interest).

2. Definitions: In this Act, unless the context otherwise requires: (1) “Agriculture” includes horticulture; (2) “Central Seed Laboratory” means the Central Seed Laboratory established or declared as such under sub-section (1) of section 4; (3) “Certification agency” means the certification agency established under section 8 or recognized under section 18; (4) “Committee” means the
Central Seed Committee constituted under sub-section (1) of section 3; (5) “Container” means a box, bottle, casket, tin, barrel, case, receptacle, sack, bag, wrapper or other thing in which any article or thing is placed or packed; (6) “Export” means taking out of India to a place outside India; (7) “Import” means bringing into India from a place outside India; (8) “Kind” means one or more related species or sub-species of crop plants each individually or collectively known by one common name such as cabbage, maize, paddy and wheat; (9) “Notified kind or variety”, in relation to any seed, means any kind of variety thereof notified under section 5; (10) “prescribed” means prescribed by rules made under this Act; (11) “Seed” means any of the following classes of seeds used for sowing or planting: (i) seeds of food crops including edible oil seeds and seeds of fruits and vegetables; (ii) cotton seeds; (iii) seeds of cattle fodder; (iv) jute seeds and includes seedlings, and tubers, bulbs, rhizomes, roots, cuttings, all types of grafts and other vegetatively propagated material, of food crops or cattle fodder; (12) “Seed Analyst” means a Seed Analyst appointed under section 12; (13) “Seed Inspector” means a Seed Inspector appointed under section 13; (14) “State Government”, in relation to a Union territory, means the administrator thereof; (15) “State Seed Laboratory”, in relation to any State means the State Seed Laboratory established or declared as such under sub-section (2) of section 4 for that State; and (16) “Variety” means a subdivision of a kind identifiable by growth, yield, plant, fruit, seed, or other characteristic.

3. Central Seed Committee: (1) The Central Government shall, as soon as may be after the commencement of this Act, constitute a Committee called the Central Seed Committee* to advise the Central Government and the State Governments on matters arising out of the administration of this Act and to carry out the other functions assigned to it by or under this Act; (2) The Committee shall consist of the following members, namely: (i) A Chairman to be nominated by the Central Government; (ii) Eight persons to be nominated by the Central Government to represent such interests as that Government thinks fit, of whom not less than two persons shall be representatives of growers of seed; (iii) One person to be nominated by the Government of each of the States; (3) The members of the Committee shall, unless their seats become vacant earlier by resignation, death or otherwise, be entitled to hold office for two years and shall be eligible for re-nomination; (4) The committee may, subject to the previous approval of the Central Government, make bye-laws fixing the quorum and regulating its own procedure and the conduct of all business to be transacted by it (5) The Committee may appoint one or more *sub-committees, consisting wholly of members of the Committee and partly of other persons, as it thinks fit, for the purpose of discharging such of its functions as may be delegated to such sub-committee or sub-committees by the Committee (6) The functions of the Committee or any sub-committee thereof may be exercised notwithstanding any vacancy therein (7) The Central Government shall appoint a person to be the secretary of the Committee and shall provide the Committee with such clerical and other staff as the Central Government considers necessary.

4. Central Seed Laboratory and State Seed Laboratory: (1) The Central Government may, by notification in the Official Gazette, establish a Central Seed Laboratory or declare any seed laboratory as the Central Seed Laboratory to carry out the functions entrusted to the Central Seed Laboratory by or under this Act; (2) The State Government may, notification in the Official Gazette, establish one or more State Seed Laboratories or declare any seed laboratory as a State Seed Laboratory where analysis of seeds of any notified kind or variety shall be carried out by Seed Analysts under this Act in the prescribed manner.

5. Power to notify kinds or varieties of seeds: If the Central Government, after consultation with the Committee, is of opinion that it is necessary or expedient to regulate the quality of seed of any kind or variety to be sold for purposes of agriculture, it may, by notification in the Official Gazette, declare
such kind or variety to be a notified kind or variety for the purposes of this Act and different kinds of varieties may be notified for different States or for different areas thereof.

6. Power to specify minimum limits of germination and purity, etc. The Central Government may, after consultation with the Committee and by notification in the Official Gazette, specify – (a) The minimum limits of germination and purity with respect to any seed of any notified kind or variety; (b) The mark or label to indicate that such seed conforms to the minimum limits of germination and purity specified under clause (a) and the particulars which such mark or label may contain.

7. Regulation of sale of seeds of notified kinds or varieties: No person shall, himself or by any other person on his behalf, carry on the business of selling, keeping for sale, offering to sell, bartering or otherwise supplying any seed of any notified kind or variety, unless: (1) Such seed is identifiable as to its kind or variety; (2) Such seed conforms to the minimum limits of germination and purity specified under clause (a) of section 6; (3) The container of such seed bears in the prescribed manner, the mark or label containing the correct particulars thereof, specified under clause (b) of section 6; and (4) He compiles with such other requirements as may be prescribed.

8. Certification agency: The State Government or the Central Government in consultation with the State Government may, by notification in the official Gazette establish a certification agency for the State to carry out the functions entrusted to the certification agency by or under this Act.

Note: For the State of Andhra Pradesh, A.P. State Seeds Certification Agency was established by G.O. Ms. No. 241 F & A d/24-4-1986 read with G.O. Rt. No.862 d/6-5-88.

8A The Central Seed Certification Board: (1) The Central Government shall, by notification in the Official Gazette, establish a Central Seed Certification Board (hereinafter referred to as the Board) to advise the Central Government and the State Governments on all matters relating to certification, and to co-ordinate the functioning of the agencies established under section 8; (2) The Board shall consist of the following members, namely: (i) A Chairman, to be nominated by the Central Government; (ii) Four members, to be nominated by the Central Government from out of the persons employed by the State Governments as Directors of Agriculture; (iii) Three members, to be nominated by the Central Government from out of the persons employed by the Agricultural Universities as Directors of Research; (iv) Thirteen persons, to be nominated by the Central Government to represent such interests as that Government thinks fit, of whom not less than four persons shall be representatives of seed producers or tradesmen; (3) A member of the Board shall, unless his seat becomes vacant earlier by resignation or otherwise, be entitled to hold office for two years from the date of his nomination:

Provided that a person nominated under clause (ii) or clause (iii) of sub-section (2) shall hold office only for so long as he holds the appointment by virtue of which his nomination was made.

8B Other Committees: The board may appoint as many committees as it deems fit consisting wholly of the members of the Board or wholly of other persons or partly of members of the Board and partly of other persons as it thinks fit to exercise such powers and perform such duties as may be delegated to them, subject to such conditions as it may think fit, by the Board.

8C Proceedings of Board or Committee not to be invalid by reason of any vacancy therein: No proceeding of the Board or any Committee thereof shall become invalid merely by reason of the existence of any vacancy therein or any defect in the constitution thereof.

8D Procedure for Board: The Board may, subject to the previous approval of the Central Government, make bye-laws for the purpose of regulating its own procedure and the procedure of any Committee thereof and the conduct of all business to be transacted by it or such Committee.
8E Secretary and other officers: The Central Government shall (i) Appoint a person to be the Secretary of the Board, and (ii) Provide the Board with such technical and other staff as the Central Government considers necessary.

9. Grant of certificate by certification agency: (1) Any person selling, keeping for sale, offering to sell, bartering or otherwise supplying any seed of any notified kind or variety may, if he desires to have such seed certified by the certification agency, apply to the certification agency for the grant of a certificate for the purpose; (2) Every application under sub-section (1) shall be made in such form, shall contain such particulars and shall be accompanied by such fees as may be prescribed (3) On receipt of any such application for the grant of a certificate, the certification agency may, after such enquiry as it thinks fit and after satisfying itself that the seed to which the application relates conforms to the prescribed standards, grant a certificate in such form and on such conditions as may be prescribed.

Provided that such standards shall not be lower than the minimum limits of germination and purity specified for that seed under clause (a) of section 6.

10. Revocation of certificate: If the certification agency is satisfied, either on a reference made to it in this behalf or otherwise, that (a) the certificate granted by it under section 9 has been obtained by misrepresentation as to an essential fact; or (b) the holder of the certificate has, without reasonable cause, failed to comply with the conditions subject to which the certificate has been granted or has contravened any of the provisions of this Act or the rules made thereunder.

Then, without prejudice to any other penalty to which the holder of the certificate may be liable under this Act, the certification agency may, after giving the holder of the certificate an opportunity of showing cause, revoke the certificate.

11. Appeal: (1) Any person aggrieved by a decision of a certification agency under section 9 or section 10, may, within thirty days from the date on which the decision is communicated to him and on payment of such fees as may be prescribed, prefer an appeal to such authority as may be specified by the State Government in this behalf. Provided that the appellate authority may entertain an appeal after the expiry of the said period of thirty days if it is satisfied that the appellant was prevented by sufficient cause from filing the appeal in time. (2) On receipt of an appeal under sub-section (1), the appellate authority shall, after giving the appellant an opportunity of being heard, dispose of the appeal as expeditiously as possible; (3) Every order of the appellate authority under this section shall be final.

12. Seed Analysis: The State Government may, by notification in the Official Gazette, appoint such persons as it thinks fit, having the prescribed qualifications, to be Seed Analysts and define the areas within which they shall exercise jurisdiction.

13. Seed Inspectors: (1) The State Government may, by notification in the Official Gazette, appoint such persons as it thinks fit, having the prescribed qualifications, to be Seed Inspectors and define the areas within which they shall exercise jurisdiction. (2) Every Seed Inspector shall be deemed to be a public servant within the meaning of section 21 of the Indian Penal Code (45 of 1860) and shall be officially subordinate to such authority as the State Government may specify in this behalf.

14. Powers of Seed Inspector: (1) The Seed Inspector may- (a) take samples of any seed of any notified kind or variety from- (i) any person selling such seed; or (ii) any person who is in the course of conveying, delivering or preparing to deliver such seed to purchaser or a consignee; or (iii) a purchaser or a consignee after delivery of such seed to him; (b) send such sample for analysis to the Seed Analyst for the area within which such sample has been taken: (c) enter and search at all reasonable times, with such assistance. if any. as he considers necessary, any place in which he has reason to believe that an offence under this Act has been or is being committed and order in writing the person in possession of any
seed in respect of which the offence has been or is being committed. not to dispose of any stock of such seed for a specific period not exceeding thirty days or unless the alleged offence is such that the defect may be removed by the possessor of the seed, seize the stock of such seed; (d) examine any record, register, document or any other material object found in any place mentioned in clause (c) and seize the same if he has reason to believe that it may furnish evidence of the commission of an offence punishable under this Act; and (e) exercise such other powers as may be necessary for carrying out the purposes of this Act or any rule made there under. (2) Where any sample of any seed of any notified kind or variety is taken under clause (a) of sub-section (1), its cost, calculated at the rate at which such seed is usually sold to the public, shall be paid on demand to the person from whom it is taken. (3) The power conferred by this section includes power to break-open any container in which any seed of any notified kind or variety may be contained or to break-open the door of any premises where any such seed may be kept for sale: Provided that the power to break-open the door shall be exercised only after the owner or any other person in occupation of the premises, if he is present therein, refuses to open the door on being called upon to do so. (4) Where the Seed Inspector takes any action under clause (a) of sub-section (1), he shall, as far as possible, call not less than two persons to be present at the time when such action is taken and take their signatures on a memorandum to be prepared in the prescribed form and manner. (5) The provisions of the Code of Criminal Procedure, 1898 (5 of 1898), shall, so far as may be, apply to any search or seizure under this section as they apply to any search or seizure made under the authority of a warrant issued under section 98 of the said Code.

15. Procedure to be followed by Seed Inspectors:
(1) Whenever a Seed Inspector intends to take sample of any seed of any notified kind or variety for analysis, he shall— (a) give notice in writing, then and there, of such intention to the person from whom he intends to take sample; (b) except in special cases provided by rules made under this Act take three representative samples in the prescribed manner and mark and seal or fasten up each sample in such manner as its nature permits. (2) When samples of any seed of any notified kind or variety are taken under sub-section (1), the Seed Inspector shall- (a) deliver one sample to the person from whom it has been taken; (b) send in the prescribed manner another sample for analysis to the Seed Analyst for the area within which such sample has been taken; and (c) retain the remaining sample in the prescribed manner for production in case any legal proceedings are taken or for analysis by the Central Seed Laboratory under sub-section (2) of section 16, as the case may be. (3) If the person from whom the samples have been taken refuses to accept one of the samples, the Seed Inspector shall send intimation to the Seed Analyst of such refusal and thereupon the Seed Analyst receiving the sample for analysis shall divide it into two parts and shall seal or fasten up one of those parts and shall cause it either upon receipt of the sample or when he delivers his report to be delivered to the Seed Inspector who shall retain it for production in case legal proceedings are taken. (4) Where a Seed Inspector takes any action under clause (c) of sub-section (1) of section 14, - (a) he shall use all dispatch in ascertaining whether or not the seed contravenes any of the provisions of section 7 and if it is ascertained that the seed does not so contravene, forthwith revoke the order passed under the said clause or as the case may be, take such action as may be necessary for the return of the stock of the seed seized; (b) if he seizes the stock of the seed, he shall, as soon as may be, inform a magistrate and take his orders as to the custody thereof; (c) without prejudice to the institution of any prosecution, if the alleged offence is such that the defect may be removed by the possessor of the seed, he shall, on being satisfied that the defect has been so removed, forthwith revoke the order passed under the said clause. (5) Where a Seed Inspector seizes any record, register, document or any other material object under clause (d) of sub-section (1) of section 14, he shall, as soon as may be, inform a magistrate and take his orders as to the custody thereof.
16. Report of Seed Analyst:—(1) The Seed Analyst shall, as soon as may be after the receipt of the sample under sub-section (2) of section 15, analyze the sample at the State Seed Laboratory and deliver, in such form as may be prescribed, one copy of the report of the result of the analysis to the Seed Inspector and another copy thereof to the person from whom the sample has been taken. (2) After the institution of a prosecution under this Act, the accused vendor or the complainant may, on payment of the prescribed fee, make an application to the Court for sending any of the samples mentioned in clause (a) or clause (c) of sub-section (2) of section 15 to the Central Seed Laboratory for its report and on receipt of the application, the court shall first ascertain that the mark and the seal or fastening as provided in clause (b) of sub-section (1) of section 15 are intact and may then despatch the sample under its own seal to the Central Seed Laboratory which shall thereupon send its report to the court in the prescribed form within one month from the date of receipt of the sample, specifying the result of the analysis. (3) The report sent by the Central Seed Laboratory under sub-section (2) shall supersede the report given by the Seed Analyst under sub-section (1). (4) Where the report sent by the Central Seed Laboratory under sub-section (2) is produced in any proceedings under section 19, it shall not be necessary in such proceedings to produce any sample or part thereof taken for analysis.

17. Restriction on export and import of seeds of notified kinds or varieties:—No person shall, for the purpose of sowing or planting by any person (including himself), export or import or cause to be exported or imported any seed of any notified kind or variety unless—(a) it conforms to the minimum limits of germination and purity specified for that seed under clause (a) of section 6: and (b) its container bears, in the prescribed manner, the mark or label with the correct particulars thereof specified for that seed under clause (b) of section 6.

18. Recognition of seed certification agencies of foreign countries:— The Central Government may, on the recommendation of the Committee and by notification in the Official Gazette, recognize any seed certification agency established in any foreign country, for the purposes of this Act.

19. Penalty:—If any person—(a) contravenes any provision of this Act or any rule made there under; or (b) prevents a Seed Inspector from taking sample under this Act; or (c) prevents a Seed Inspector from exercising any other power conferred on him by or under this Act, he shall, on conviction, be punishable—(i) for the first offence with fine which may extend to five hundred rupees, and (ii) in the event of such person having been previously convicted of an offence under this section, with imprisonment for a term which may extend to six months, or with fine which may extend to one thousand rupees, or with both.

20. Forfeiture of property:—When any person has been convicted under this Act for the contravention of any of the provisions of this Act or the rules made there under, the seed in respect of which the contravention has been committed may be forfeited to the Government.

21. Offences by companies:—(1) Where an offence under this Act has been committed by a company, every person who at the time the offence was committed was in charge of, and was responsible to, the company for the conduct of the business of the company, as well as the company, shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly:

     Provided that nothing contained in this sub-section shall render any such person liable to any punishment under this Act if he proves that the offence was committed without his knowledge and that he exercised all due diligence to prevent the commission of such offence.

(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a company and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of, any director, manager, secretary or
other officer of the company, such director, manager, secretary or other officer shall also be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

Explanation: - For the purposes of this section - (a) “company” means any body corporate and includes a firm or other association of individuals; and (b) “director”, in relation to a firm, means a partner in the firm.

22. Protection of action taken in good faith: No suit, prosecution or other legal proceeding shall lie against the Government or any officer of the Government for anything which is in good faith done or intended to be done under this Act.

23. Power to give directions: - The Central Government may give such directions to any State Government as may appear to the Central Government to be necessary for carrying into execution in the State any of the provisions of this Act or of any rule made thereunder.

24. Exemption: - Nothing in this Act shall apply to any seed of any notified kind or variety grown by a person and sold or delivered by him on his own premises direct to another person for being used by that person for the purpose of sowing or planting.

25. Power to make rules: - (1) The Central Government may, by notification in the Official Gazette make rules to carry out the purposes of this Act. (2) In particular and without prejudice to the generality of the foregoing power such rules may provide for- (a) the functions of the Committee and the traveling and daily allowances payable to members of the Committee and members of any sub-committee appointed under sub-section (5) of section 3; (b) the functions of the Central Seed Laboratory; (c) the functions of a certification agency; (d) the manner of marking or labelling the container of seed of any notified kind or variety under clause (c) of section 7 and under clause (section 17; (e) the requirements which may be complied by a person carrying on the business referred to in section 7; (f) the form of application for the grant of a certificate under section 9, the particulars it may contain, the fees which should accompany it form of the certificate and the conditions subject to which the certificate may be granted. (g) the form and manner in which and the fee payment of which an appeal may be preferred under section 11 and the procedure to be bowed by the appellate authority in disposing of the appeal; (h) the qualifications and duties of Seed Analysis and Seed Inspectors; (i) the manner in which samples may be taken by the Seed Inspector, the procedure for sending such samples to the Seed Analyst or the Central Seed Laboratory and the manner of analyzing such samples. j) the form of report of the result of the analysis under sub-section (1) or sub-section (2) of section 16 and the fees payable in respect of such report under the said sub-section (2); (k) the records to be maintained by a person carrying on the business referred to in section 7 and the particulars which such records shall contain: and (l) any other matter which is to be or may be prescribed. (3) Every rule made under this Act shall be laid as soon as may be after it is made, before each House of Parliament while it is in session for a total period of thirty days which may be comprised in one session or [in two or more successive sessions, and if, before the expiry of the session immediately following the session or the successive sessions aforesaid], both Houses agree in making any modification in the rule or both Houses agree that the rule should not be made, that rule shall, thereafter have effect only in such modified form or be of no effect. as the case may be: so however. that any such modification or annulment shall be without prejudice to the validity of any- thing previously done under that rule.

NOTE :- Bracketed words ‘in two or ...sessions aforesaid’ were substituted for the words ‘in two successive sessions, and if, before the expiry of the session in which it is so laid or the session immediately following’ by Sec. 5(b) of the Amendment Act 55 of 1972.
PART I - PRELIMINARY

1. Short title :- These rules may be called the Seeds Rules, 1968.

2. Definitions :- In these rules, unless the context otherwise requires: (a) “Act” means the Seeds Act, 1966 (54 of 1966); (b) “advertisement” means all representations other than those on the label, disseminated in any manner or by any means relating to seed for the purposes of the Act; (c) “certification sample” means a sample of seed drawn by a certification agency or by a duly authorized representative of a certification agency established under section 8 or recognized under section 18 of the Act; (d) “certification tag” means a tag or label of certain design to be specified by the certification agency and shall constitute the certificate granted by the certification agency; (e) “certified seed” means seed that fulfils all requirements for certification provided by the Act and these rules and to the container of which the certification tag is attached; (f) “certified seed producer” means a person who grows or distributes certified seed in accordance with the procedure and standards of the certification agency; (g) “complete record” means the information which relates to the origin, variety, kind, germination and purity of seed of any notified kind or variety offered for sale, sold or otherwise supplied; (h) “form” means a form appended to these rules; (i) “origin” means the State, Union Territory or foreign country where the seed is grown and in case seeds of different origin are blended the label shall show the percentage of seed of each origin; (j) “processing” means cleaning, drying, treating, grading and other operations which would change the purity and germination of the seed and thus requiring re-testing to determine the quality of the seed, but does not include operations such as packaging and labeling; (k) “section” means a section of the Act; (l) “service sample” means a sample submitted to the Central Seed Laboratory or to a State Seed Laboratory for testing, the results to be used as information for seeding, selling or labeling purposes; (m) “treated” means that the seed has been subjected to an application of a substance or process in such a manner as to reduce, control or repel certain disease, organisms, insects, or any other pests attacking such seeds or seedlings growing there from and for other purposes.

PART II - CENTRAL SEED COMMITTEE

3. Functions of the Central Seed Committee:- In addition to the functions entrusted to the Committee by the Act, the Committee shall,- (a) recommend -the rate of fees to be levied for analysis of samples by the Central and State Seed Testing Laboratories and for certification by the certification agencies; (b) advise the Central or State Governments on the suitability of seed testing laboratories; (c) send its recommendations and other concerning records to the Central Government; (d) recommend the procedure and standards for certification, tests and analysis of seeds; and (e) carry out such other functions as are supplemental, incidental or consequential to any of the functions conferred by the Act or these rules.

4. Travelling and daily Allowances payable to Members of the Committee and its sub-
Committees:- The members of the committee and its subcommittees shall be entitled to draw traveling and daily allowances as specified below when they are called upon to attend a meeting of the committee or a sub-committee thereof: (a) An official member of the committee or its subcommittee shall be entitled to draw traveling and daily allowances in accordance with the rules of the Government under which he is for the time being employed and from the same source from which his pay and allowances are drawn. (b) A non-official member shall be allowed traveling and daily allowances in accordance with the general orders issued in this behalf by the Central Government from time to time.

PART III - CENTRAL SEED LABORATORY

5. Functions :- In addition to the functions entrusted to the Central Seed Laboratory by the Act, the Laboratory shall carry out the following functions, namely:- (a) initiate testing programmes in collaboration with the State Seed Laboratories designed to promote uniformity in test results between all seed laboratories in India. (b) collect data continually on the quality of seeds found in the market and make this data available to the Committee; and (c) carry out such other functions as may be assigned to it by the Central Government from time to time.

PART IV - SEED CERTIFICATION AGENCY

6. Functions of the Certification Agency:- In addition to the functions entrusted to the certification agency by the Act. the Agency shall:- (a) certify seeds of any notified kinds or varieties; (b) outline the procedure for submission of applications and for growing, harvesting, processing, storage and labelling of seeds intended for certification till the end to ensure that seed lots finally approved for certification are true to variety and meet prescribed standards for certification under the Act or these rules; (c) maintain a list of recognized breeders of seeds; (d) verify, upon receipt of an application for certification that the variety is eligible for certification that the seed source used for planting was authenticated and the record of purchase is in accordance with these rules and the fees have been paid; (e) take sample and inspect seed lots produced under the procedure laid down by the certification agency and have such samples tested to ensure that the seeds conforms to the prescribed standards of certification; (h) inspect seed processing plants to see that the admixtures of other kinds and varieties are not introduced; (g) ensure that action at all stages, e.g. field inspection, seed processing plant inspection, analysis of samples taken and issue of certificates (including tags. marks. labels and seals) is taken expeditiously; (h) carry out educational programmes designed to promote the use of certified seed including a publication listing certified seed growers and sources of certified seed; (i) grant certificates (including tags. labels. seals etc.) in accordance with the provisions of the Act and these rules; (j) maintain such records as may be necessary to verify that seed plants for the production of certified seed were eligible for such planting under these rules. (k) inspect fields to ensure that the minimum standards for isolation, roguing (where applicable) use of male sterility (where applicable) and similar factors are maintained at all times as well as ensure that seed borne diseases are not present in the field to a greater extent than those provided in the standards for certification.

PART V - MARKING OR LABELING

7. Responsibility for Marking or Labeling:- When seed of a notified kind or variety is offered for sale under section 7, each container shall be marked or labeled in the manner hereinafter specified. The person whose name appears on the mark or label shall be responsible for the accuracy of the information required to appear on the mark or label so long as seed is contained in the unopened original container; Provided however, that such person shall not be responsible for the accuracy of the statement appearing on the mark or label if the seed is removed from the original unopened container, or he shall not
be responsible for the accuracy of the germination statement beyond the date of validity indicated on the mark or label.

8. Contents of the mark or label:— There shall be specified on every mark or label— (i) particulars, as specified by the Central Government under clause (b) of section 6 of the Act; (ii) a correct statement of the net content in terms of weight and expressed in metric system; (iii) date of testing; (iv) if the seed in container has been treated- (a) a statement indicating that the seed has been treated; (b) the commonly accepted chemical or abbreviated chemical (generic) name of the applied substance; and (c) if the substance of the chemical used for treatment, and present with the seed is harmful to human beings or other vertebrate animals, a caution statement such as “Do not use for food, feed or oil purposes”. The caution for mercurials and similarly toxic substance shall be the word “Poison” which shall be in type size, prominently displayed on the label in red; (v) the name and address of the person who offers for sale sells or otherwise supplies the seed and who is responsible for its quality; (vi) the name of the seed as notified under section 5 of the Act.

9. Manner of marking or labeling the container under clause (C) of section 7 and clause (B) of section 17:— (1) The mark or label containing the particulars of the seed as specified under clause (b) of section 6 shall appear on each container of seed or on a tag or mark or label attached to the container in a conspicuous place on the innermost container in which the seed is packed and on every other covering in which that container is packed and shall be legible. (2) Any transparent cover or any wrapper, case or other covering used solely for the purpose of packing of transport or delivery need not be marked or labeled. (3) Where by a provision of these rules, any particulars are required to be displayed on a label on the container, such particulars may, instead of being displayed on a label be etched, painted or otherwise indelibly marked on the container.

10. Mark or Label not to contain false or misleading statement:— The mark or label shall not contain any statement, claim, design, device, fancy name or abbreviation which is false or misleading in any particular concerning the seed contained in the container.

11. Mark or label not to contain reference to the Act or Rules contradictory to required particulars:— The mark or label shall not contain any reference to the Act, or any of these rules or any comment on, or reference to, or explanation of any particulars or declaration required by the Act or any of these rules which directly or by implication contradicts, qualifies or modifies such particulars or declaration.

12. Denial of Responsibility for mark or label content prohibited:— Nothing shall appear on the mark or label or in any advertisement pertaining to any seed of any notified kind or variety which shall deny responsibility for the statement required by or under the Act to appear on such mark label or advertisement.

PART VII - REQUIREMENTS

13. Requirements to be complied with by a person carrying on the Business referred to in Section 7:— (1) No person shall sell, keep for sale, offer to sell, barter or otherwise supply any seed of any notified kind or variety, after the date recorded on the container, mark or label as the date upto which the seed may be expected to retain the germination not less than that prescribed under clause (a) of section 6 of the Act. (2) No person shall alter, obliterate or deface any mark or label attached to the container of any seed. (3) Every person selling, keeping for sale, offering to sell, bartering or otherwise supplying any seed of notified kind or variety under section 7, shall keep over a period of three years a complete record of each lot of seed sold except that any seed sample may be discarded one year after the entire lot represented by such sample has been disposed of. The sample of seed kept as part of the complete record shall be as large as the size notified in the Official Gazette. This sample, if required to be tested, shall be tested only for determining the purity.
14. Classes and sources of certified seed:- (1) There shall be three classes of certified seed, namely, foundation, registered and certified and each class shall meet the following standards for that class:- (a) Foundation seed shall be the progeny of breeders’ seed, or be produced from foundation seed which can be clearly traced to breeder’s seed. Production shall be supervised and approved by a seed certification agency and be so handled as to maintain specific genetic purity and identity and shall be required to meet certification standards for the crop being certified. (b) Registered seed shall be the progeny of foundation seed that is so handled as to maintain its genetic identity and purity according to standard specified for the particular crop being certified. (c) Certified seed shall be the progeny of registered or foundation seed that is so handled to maintain genetic identity and purity according to standards specified for the particular crop being certified. (2) At the discretion of the certification agency (when considered necessary to maintain adequate seed supplies) certified seed may be the progeny of certified seed provided this reproduction may not exceed three generations and provided further that it is determined by the seed certification agency, that the genetic purity will not be significantly altered.

PART VII - CERTIFICATION OF SEEDS

15. Application for the Grant of a Certificate:- Every application for the grant of a certificate under sub-section (1) of section 9 shall be made in Form I in accordance with the procedure outlined by the certification agency for submission of applications and contain the following particulars namely:- (a) the name, profession, and place of residence of the applicant; (b) the name of the seed to be certified; its notified kind or variety; (c) class of the seed; (d) source of the seed; (e) limits of germination and purity of the seed; (f) mark or label of the seed.

16. Fees:- Every application under sub-section (1) of section 9 shall be accompanied by a fee of Rs.25 in cash.

17. Certificate:- Every certificate granted under sub-section (3) of section 9 shall be in Form II and shall be granted by the certification agency, after making enquiries and satisfying itself in accordance with the provisions of the said sub-section on the following conditions, for the period to be specified by the certification agency, namely:- (i) The person to whom the certificate is granted under sub-section (3) of section 9 shall attach a certification tag to every container of the certified seed and shall follow the provisions in respect of marking or labeling provided by or under the Act. (ii) The certification tag shall contain the following particulars namely:- (a) name and address of the certification agency; (b) kind and variety of the seed; (c) lot number or other mark of the seed; (d) name and address of the certified seed producer; (e) date of issue of the certificate and of its validity; (f) an appropriate sign to designate certified seed; (g) an appropriate word denoting the class designation of the seed. (iii) The colour of the certification tag shall be white for foundation seed, purple for registered seed and blue for certified seed. (iv) The container of the certified seed shall carry a seal of such material and in such form as the certification agency may determine and no container carrying a certification tag shall be sold by the person if the tag or seal has either been tampered with or removed. (v) The certification tag on the container shall specify- (a) the period during which the seed shall be used for sowing or planting; (b) that the use of seed after the expiry of the validity period by any person is entirely at his risk and the holder of the certificate shall not be responsible for any damage to the buyer of the seed; (c) that no one should purchase the seed if the seal or the certification tag has been tampered with. (vi) The holder of the certificate shall keep record of the details of each lot of the seed which is issued for sale in such form as to be available for inspection and to be easily identified by reference to the number of the lot as shown in the certification tag of each container and such records shall be retained in the case of a seed for which expiry date is fixed for a period of two
years from the expiry of such date. (vii) The holder of the certificate shall allow any Seed Inspector, authorised in writing by the certification agency in that behalf, to enter with or without prior notice the premises where the seeds are grown, processed and sold and to inspect premises, plant and the process of processing at all reasonable hours. (viii) The holder of the certificate shall allow the Seed Inspector, authorized in writing by the certification agency, to inspect all registers and records maintained under these rules and to take samples of the seeds and shall supply to the Seed Inspector such information as he may require for the purposes of ascertaining whether the conditions subject to which the certificate has been granted, have been complied with. (ix) The holder of the certificate shall on request furnish to the certification agency from every lot of the seed or from such lot or lots as the said agency may from time to time specify, a sample of such quantity as the agency may consider adequate for any examination required to be made. (x) If the certification agency so directs, the holder of the certificate shall not sell or offer for sale any lot in respect of which a sample is furnished under the preceding clause until the agency authorizes the sale of such lot. (xi) The holder of the certificate shall comply with the provisions of the Act and these rules and with the directions given after not less than one month’s notice by the certification agency to such holder.

[17-A. The Certification agency shall, before granting the certificate ensure that the seed conforms to the standards laid down in the Manual known as “Indian Minimum Seed certification Standards” published by the Central Seed Committee, as amended from time to time.]

PART VIII - APPEALS

18. The form and manner in which and the fee on payment of which the appeal may be referred:-(1) Every memorandum of appeal under subsection (1) of section 11 shall be in writing and shall be accompanied by a copy of the decision of the certification agency against which it has been preferred and shall set forth concisely and under distinct heads the grounds of objection to such decision without any argument, or narrative. (2) Every such memorandum of appeal shall be accompanied by a treasury receipt for a sum of Rs.100/-. (3) Every such memorandum of appeal may be presented either in person or through an agent duly authorized in writing in this behalf by the appellant or may be sent by the registered post.

19. Procedure to be followed by the Appellate Authority: In deciding appeals under the Act the appellate authority shall follow the same procedure which a Court follows in deciding appeals from the decree or order of an original Court under the Code of Civil Procedure, 1908 (5 of 1908).

PART IX - SEED ANALYSTS AND SEED INSPECTORS

20. Qualifications of Seed Analysts: A person shall not be qualified for appointment as Seed Analyst unless he- (i) possesses a Master’s or equivalent degree in Agriculture or Agronomy or Botany or Horticulture of a University recognized for this purpose by the Government and has had not less than one year’s experience in seed technology; or (ii) possesses a Bachelor’s degree in Agriculture or Botany of a University recognized for this purpose by the Government and has had not less than three years’ experience in seed technology.

21. Duties of a Seed Analyst: On receipt of a sample for analysis the Seed Analyst shall first ascertain that the mark and the seal or fastening as provided in clause (b) of sub-section (1) of section 15 are intact and shall note the condition of the seals thereon. (2) The Seed Analyst shall analyze the samples in accordance with the procedures laid down in the Seed Testing Manual published by the
Chapter III - Seed Analyst

20. Term of Office of the Seed Analyst:-(1) The Seed Analyst shall hold office for a term of three years or until his retirement whichever is earlier. (2) The Seed Analyst shall be eligible for reappointment for one term of three years from the date of his last appointment. (3) The Seed Analyst shall deliver in Form VII, a copy of the report of the result of analysis to the persons specified in sub-section (1) of Section 16, as soon as may be but not later than 30 days from the date of receipt of samples sent by the Seed Inspector under sub-section (2) of the Section 15. (4) The Seed Analyst shall from time to time forward to the State Government the reports giving the result of analytical work done by him.

21. Qualifications of Seed Analysts:- A person shall not be qualified for appointment as Seed Analyst unless he is a graduate in Agriculture of a University recognized for the purpose by the Government and has had not less than one year's experience in seed production, or seed development or seed analysis or testing in a seed testing laboratory.

22. Qualifications of Seed Inspectors:- A person shall not be qualified for appointment as Seed Inspector unless he is a graduate in Agriculture of a University recognized for the purpose by the Government and has had not less than one year's experience in seed production, or seed development or seed analysis or testing in a seed testing laboratory.

23. Duties of a Seed Inspector:- In addition to the duties specified by the Act the Seed Inspector shall- (a) inspect as frequently as may be required by certification agency all places used for growing, storage or sale of any seed of any notified kind or variety: (b) satisfy himself that the conditions of the certificates are being observed: (c) proceed and send for analysis, if necessary, samples of any seeds, which he has reason to suspect are being produced, stocked or sold or exhibited for sale in contravention of the provisions of the Act or these rules; (d) investigate any complaint, which may be made to him in writing in respect of any contravention of the provisions of the Act or these rules. (e) maintain a record of all inspections made and action taken by him in the performance of his duties including the taking of samples and the seizure of stocks and submit copies of such record to the Director of Agriculture or the certification agency as may be directed in this behalf; (f) when so authorized by the State Government detain imported containers which he has reason to suspect contain seeds, import of which is prohibited except and in accordance with the provisions of the Act and these rules: (g) institute prosecutions in respect of breaches of the Act and these rules; and (h) perform such other duties as may be entrusted to him by the [State Government].

24. Manner of taking Samples:-(1) If farmer has lodged a complaint in writing that the failure of the crop is due to the defective quality of seeds of any notified kind or variety supplied to him. the Seed Inspector shall take in his possession the marks or labels, the seed containers and a sample of unused seeds to the extent possible from the complaint for establishing the source of supply of seeds and shall investigate the causes of the failure of his crop by sending samples of the lot to the Seed Analyst for detailed analysis at the State Seed Testing Laboratory. He shall thereupon submit the report of his findings as soon as possible to the competent authority.

25. Containers to be labeled and addressed:- All containers containing samples for analysis shall be properly labeled and the parcels shall be properly addressed. The label on any sample of seed sent for analysis shall bear- (a) serial number; (b) name of the sender with official designation. If any; (c) name of the person from whom the sample has been taken; (d) date and place of taking the sample; (e) kind or variety of the seed for analysis; (f) nature and quantity of preservative, if any, added to the sample.
shall be packed, fastened and sealed in the following manner: (a) The stopper shall first be securely fastened so as to prevent leakage of the containers in transit. (b) The container shall then be completely wrapped in fairly strong thick paper. The ends of the paper shall be neatly folded in and affixed by means of gum or other adhesive. (c) The paper cover shall be further secured by means of strong twine or thread both above and across the container and the twine or thread shall then be fastened on the paper cover by means of sealing wax on which there shall be at least four distinct and clear impressions of the seal of the sender, of which one shall be at the top of the packet, one at the bottom and the other two on the body of the packet. The knots of the twine or thread shall be covered by means of sealing wax bearing the impression of the seal of the sender.

27. Form of Order:- The order to be given in writing by the Seed Inspector under clause (c) of subsection (1) of section 14 shall be in Form III.

28. Form of Receipt for Records :-When a Seed Inspector seizes any record, register, document or any other material object under clause (d) of subsection (1) of section 14, he shall issue, a receipt in Form IV to the person concerned.

29. Samples how to be sent to the Seed Analyst:- The container of sample for analysis shall be sent to the Seed Analyst by registered post or by hand in a sealed packet enclosed together with a memorandum in Form V in an outer cover addressed to the Seed Analyst.

30. Memorandum and Impression of seal to be sent separately:- A copy of the memorandum and a specimen impression of the seal used to seal the packet shall be sent to the Seed Analyst separately by registered post or delivered to him or to any person authorised by him.

31. Addition of Preservatives to Samples:- Any person taking a sample of seed for the purpose of analysis under the Act may add a preservative as may be specified from time to time to the sample for the purpose of maintaining it in a condition suitable for analysis.

32. Nature and Quantity of the Preservative to be noted on the Label :-Whenever any preservative is added to a sample, the nature and quantity of the preservative added shall be clearly noted on the label to be affixed to the container.

33. Analysis of the Sample:- On receipt of the packet, it shall be opened either by the Seed Analyst or by an officer authorised in writing in that behalf by the Seed Analyst, who shall record the condition of the seal on the packet. Analysis of the sample shall be carried out at the State Seed Laboratory in accordance with the procedure laid down by the Central Government.

34. Form of Notice:- The notice to be given under clause (a) of sub-section (1) of section 15 to the person from whom the Seed Inspector intends to take sample shall be in Form VI.

35. Form of Report:- The report of the result of the analysis under sub-section (1) or sub-section (2) of section 16 shall be delivered or sent in Form VII.

36. Fees:- The fees payable in respect of the report from the Central Seed Laboratory under sub-section (2) of section 16 shall be Rs.10/- per sample of the seed analysed.

37. Retaining of the Sample:- The sample of any seed shall, under clause (c) of sub-section (2) of section 15, be retained under a cool, dry environment to eliminate the loss of viability and insect proof or rat proof container. The containers shall be dusted with suitable insecticides and the storage room fumigated to avoid infestation of samples by insects. The sample shall be packed in good quality containers of uniform shape and size before storage.

PART XI - MISCELLANEOUS

38. Records:- A person carrying on the business referred to in section 7 shall maintain the following records, namely:- (a) stock record of seed; (b) record of the sale of seeds.

39. Form of Memorandum :-The memorandum to be prepared under sub-section (4) of section 14 shall be in Form VIII.
FORM I

Form of application for seed production under the seed certification programme

1. Name (in Block Letters)……………………
2. Complete Address
   (In Block Letters)
   Village. ...........................................
   PostOffice...........................................
   District............................................
   State................................................
   Telegraph Office..............................
   Nearest Rly......................................
   Station............................................
   Telephone No...................................

3. Nearest town...........................................................................................
   its distance from your farm Highway No. or Route
4. Name of variety/kind of seed offered for certification.
5. Area under each variety/kind offered for certification.
6. Class of seed desired to be produced Foundation/Registered/ Certified.
7. Source of seed for Item 6 above (also mention Tag No. and other particulars on the tag).
8. "Isolation distance" (in metres) from other varieties of the same crop - North to South: East to West.
9. Actual or proposed date of planting.

Signature
Date
(To be filled in by the office of the Seed Certification Agency)

1. Number of field inspections made ..................
   Dates of Inspection
   (Copy of inspection reports to be attached)
   2. Report of Seed Analyst (copy to be attached).
      Tag No.
      Date of issue
      Issued by

   Signature
   Director
   Seed Certification Agency
FORM II

Seed Certification Agency………………………………………..

Tag No………………

Director
Seed Certification Agency

Kind……………. Variety………………………………
Lot No…………………………………………
Germination……………….% Not below %
Date of test…………………………………………
Certification valid up to……………………………..
Minimum pure seed %
Inner matter………….% Not more than………….%
Weeds seeds (Max)…………% Not more than ………% 
Other crop seeds……………% Not more than ………%
Producer………………(Name and full address)……………
Class of seed……………………………………..

N.B.:-
1. A white tag shall be used for foundation seed.
2. A purple tag shall be used for registered seed.
3. A blue tag shall be used for certified seed.
4. Certification shall be valid for the period indicated on the tag provided seed is stored under cool dry environment.
FORM III

To
(Name and address of the vendor)

Whereas I have reason to believe that the stock of seeds in your possession detailed below contravenes the provisions of Section 6 of the Seeds Act, 1966 (No.54 of 1966). I hereby direct you under clause (c) of Sub-Section (1) of Section 14 of the Seeds Act, 1966 (No.54 of 1966) not to dispose of the said stock for a period from this……….. date and take action to remove the following defects:-

Place…………………     Seed Inspector
Date……………………     Area

Details of stock of seeds

Date………..      Seed Inspector

FORM IV

To

The records detailed below have this day been seized by me under the provisions of clause (4) of sub-section (1) of Section 14 of the Seeds Act, 1966 (No.54 of 1966) from the premises of…………………………………………………………….situated at………………………………………………..

Place…………………     Seed Inspector
Date……………………

Details of records seized

Date………..      Seed Inspector
FORM V

Memorandum to Seed Analyst

Serial No. of Memorandum

From:

……………………………………

To

The Seed Analyst,

……………………………………

The sample described below is sent herewith for test and analysis under clause (b) of sub-section (1) of section 14 and/or clauses (b) and (c) of sub-section (2) of Section 15 of the Seeds Act, 1966.

1. Serial No. of the samples.
2. Date and place of collection.
3. Nature of the articles submitted for analysis/test

2. A copy of this memo and specimen impression of the seal used to seal the packet of samples is being sent separately by post/hand

Seed Inspector

Area……

* Strike out whichever is not applicable.

FORM VI

To

………………………………………………

I hereby give you the notice of my intention of taking a sample of seed from your stocks for the purposes of tests of analysis.

Date………..

Seed Inspector
FORM VII
(Certificate of test and/or analysis by the Seed Analyst)

Certified that the sample(s) bearing number………… purporting to be a sample of received on …………… Memorandum No.:……………….. dated…………. From………………. ……… has been tested/analyzed and that the result/results of such test(s)/analysis is/are as stated below.

....................................................................................
....................................................................................
....................................................................................

2. The condition of the seals on the packet and the outer covering on receipt was as follows
.....................................................................................
.....................................................................................
.....................................................................................

Place. …………… Seed Analyst
Date……………….. Central Laboratory

If opinion is required on any other matter suitable paragraph(s) may be added.

FORM VIII

To
..........................................................
..........................................................
..........................................................
..........................................................

I have this day taken from the premises of ………………………………… situated at ………………………………… samples of seeds specified below to have the same tested/analyzed by Seed Analyst.

Date……………… Seed Inspector

Details of samples taken
..........................................................
..........................................................
..........................................................
..........................................................

Whether cost of sample demanded?
Cost sample – Rs…………….. paid.
Date……………… Seed Inspector

Signature of the party from whose premises samples taken and payment made.

Area
In exercise of the powers conferred by section 3 of the Essential Commodities Act, 1955 (10 of 1955), the Central Government hereby makes the following order, namely :-

PRELIMINARY
1. Short title and extent:- (i) This Order may be called the Seeds (Control) Order, 1983. (ii) It extends to the whole of India. (iii) It shall come into force on the 30th December, 1983.

2. Definitions:- In this Order, unless the context otherwise requires: (a) "Act" means the Essential Commodities Act. 1955(10of1955):(b)"controller" means a person appointed as Controller of Seeds by the Central Government and includes any person empowered by the Central Government to exercise all or any functions of the Controller under this Order: (c) "Dealer" means a person carrying on the business of selling, exporting or importing seeds and includes an agent of a dealer; (d) "Export" means to take or cause to be taken out from any place in India to a place outside India; (e) "Form" means a form appended to this Order; (f) "Import" means to bring or cause to be brought to any place in India from outside India; (g) "Inspector" means an Inspector of seeds appointed under clause 12; (h) "Registering authority" means a licensing authority appointed under clause 11; (i) "Seeds" means the seeds as defined in the Seeds Act. 1966 (54 of 1966): (j) "State Government" in relation to a Union Territory means the Administrator thereof by whatever designation known.

DEALER IN SEEDS TO BE LICENSED
3. Dealer to obtain license:- (1) No person shall carry on the business of selling, exporting or importing seeds at any place except under and in accordance with the terms and conditions of license granted to him under this order. (2) Notwithstanding anything contained in sub-clause (1), the State Government may, by notification in the Official Gazette, exempt from the provisions of that sub-clause such class of dealers in such areas and subject to such conditions as may be specified in the notification.

4. Application for license :-Every person desiring to obtain a license for selling, exporting or importing seeds shall make an application in duplicate in Form 'A' together with a fee of rupees 'fifty for license to licensing authority .

5. Grant and refusal of license :- (1) The licensing authority may, after making such enquiry as it thinks fit, grant a license in Form 'B' to any person who applies for it under clause 4; Provided that a license shall not be issued to a person- (a) whose earlier license granted under this Order is under suspension, during the period of such suspension; (b) whose earlier license granted under this Order has been cancelled, within a period of one year from the date of such cancellation. (c) who has been convicted under the Essential Commodities Act, 1955 (10 of 1955) or any order
6. **Period of validity of license:** Every license under this Order, shall, unless previously suspended or cancelled, remain valid for three years from the date of its issue.

7. **Renewal of license:** (1) Every holder of license desiring to renew the license, shall, before the date of expiry of the license, make an application for renewal in duplicate to the licensing authority in Form 'C' together with a fee of rupees twenty for renewal. On receipt of such application, together with such fee, the licensing authority may renew the license. (2) If any application for renewal is not made before the expiry of the license, but is made within one month from the date of expiry of the license, the license may be renewed on payment of additional fee of rupees twenty five, in addition to the fee for renewal of license.

8. **Dealers to display stock and price list:** Every dealer of seeds shall display in his place of business: (a) the opening and closing stocks, on daily basis of different seeds held by him; (b) a list indicating prices or rates of different seeds.

9. **Dealers to give memorandum to purchaser:** Every dealer shall give a cash or memorandum to a purchaser of seeds.

10. **Power to distribute seeds:** Where it is considered necessary to do so in public interest, the Controller may, by an order in writing direct any producer or dealer to sell or distribute any seed in such manner as may be specified therein.

**ENFORCEMENT AUTHORITY**

11. **Appointment of licensing authority:** The State Government may by notification in the Official Gazette appoint such number of persons as it thinks necessary to be licensing authority and may also define in that notification the area within which each such licensing authority shall exercise his jurisdiction.

12. **Appointment of Inspectors:** The State Government may by notification in the Official Gazette appoint such number of persons as it thinks necessary to be Inspectors and may in such notification define the local area within which each such Inspector shall exercise his jurisdiction.

13. **Inspection and punishment:** (1) An Inspector may with a view to securing compliance with this Order- (a) require any dealer to give any information in his possession with respect to purchase, storage and sale of seeds by him; (b) enter upon and search any premises where any seed is stored or exhibited for sale to ensure compliance with the provision of this Order: (c) draw samples of seeds meant for sale, export and seeds imported, and send the same in accordance with the procedure laid down in Schedule I. to a laboratory notified under the Seeds Act, 1966 (54 of 1966) to ensure the sample conforms to standard of quality claimed; (d) seize or detain any seed in respect of which he has reason to believe that a contravention of this Order has been committed or is being committed; (e) seize any books of accounts or document relating to any seed in respect of which he has reason to believe that a contravention of the Order has been committed or is being committed:

Provided that the Inspector shall give a receipt in respect of the books of accounts or documents seized. to the person from whom they have been seized:

Provided further that the seized books of accounts or documents shall be returned to the person from
whom the same had been seized after copies thereof or extracts there from as certified by such person have been taken.

(2) Subject to the provision of paragraph (d) of sub-clause (1), the provision, of section 100 of the Code of Criminal Procedure, 1973 (2 of 1974) relating to search and seizure shall, so far as may be, apply to searches and seizures under this clause;

(3) Where any seed is seized by an Inspector under this clause, he shall forthwith report the fact of such seizure to a Magistrate whereupon the provisions of sections 457 and 458 of the Code of Criminal Procedure, 1973 (2 of 1974) shall, so far as may be, apply to the custody and disposal of such seed;

(4) Every person, if so required by an Inspector, shall be bound to offer all necessary facilities to him for the purpose of enabling him to exercise his power under this clause.

14. Time limit for analysis:- The laboratory to which a sample has been sent by an Inspector for analysis under this Order shall analyse the said samples and send the analysis report to the concerned Inspector within 60 days from the date of receipt of the sample in the laboratory.

15. Suspension/Cancellation of license:- The licensing authority may, after giving the holder of the license an opportunity of being heard, suspend or cancel the license on the following grounds, namely :- (a) that the license had been obtained by misrepresentation as to a material particular: or (b) that any of the provisions of this Order or any condition of license has been contravened.

16. Appeal:-Any person aggrieved by an order- (a) refusing to grant, amend or renew the license for sale, export or import of seeds; (b) suspending or canceling any license, may within sixty days from the date of the order, appeal to such authority as the State Government may specify in this behalf, and the decision of such authority shall be final:

Provided that an application for appeal shall accompany an appeal fee of rupees fifty.

MISCELLANEOUS

17. Amendment of license:- The licensing authority may on receipt of a request in writing together with a fee of rupees ten from a dealer, amend the license of such dealer.

18. Maintenance of records and submission of returns, etc.:-(1) Every dealer shall maintain such books accounts and records relating to his business as ay be directed by the State Government. (2) Every dealer shall submit monthly return relating to his business for the preceding month in Form ‘C’ to the licensing authority by the 5th day of every month.
FORM A
(See clause 4)
Form of Application to obtain Dealers' License

To
The Registering Authority,
...........................(Place)

State of/U.T. of

1. Full name and address of the applicant.
   (a) Name and postal address:
   (b) Place of business (please give exact address):
      (i) for sale
      (ii) for storage

2. Is it a proprietary/partnership/Limited Company/Hindu undivided family concern? Give the Name(s)
   and address(es) of proprietor/partner/Manager/Karta.

3. In what capacity this application is made:
   (i) Proprietor
   (ii) Partner
   (iii) Manager
   (iv) Karta

4. Was the applicant ever convicted under the Essential Commodities Act, 1955 (10 of 1955), or any
   order issued thereunder during the last three years preceding the date of application? If so, give details.

5. Give the details of seeds to be handled

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of Seed</th>
</tr>
</thead>
</table>

6. I/We have deposited the license fee of rupees fifty vide challan No.       dated. In treasury / bank.

7. Declaration:
   (a) I/We declare that the information given above is true to the best of my/our knowledge and belief and
       no part thereof is false.
   (b) I/We have carefully read the terms and conditions of the license given in Form 'B' appended to the
       Seeds (Control) Order, 1983, and agree to abide by them.

Date:             Signature of Applicant

Place:

NOTE :-(1) Where the business of selling/exporting/importing seeds is intended to be carried on at more
than one place, a separate license should be obtained for each such place.

For use in the office of Licensing Authority

Date of receipt

Name and designation of officer receiving the application
FORM 'B'  
(See clause 5)  
License to carry on the Business of a Dealer in Seeds  

License No........... Date.........  

Subject to the provisions of the Seeds (Control) Order, 1983 and to the terms and conditions of this License Shri/M/s........................... is hereby granted license to sell, export, import and store for the said purposes of seeds.  

2. The licensee shall carry on the aforesaid business at. (Place for storage and place for sale). (Tehsil or District).................  

Date..................  
Seal.................  

Licensing Authority  
State of  
........................................  

Terms and conditions of license:  
(i) The license shall be displayed at a prominent and conspicuous place in a part of the business premises open to the public.  
(ii) The holder of the license shall comply with the provisions of the Seeds (Control) Order, 1983 and the notifications issued there under and for the time being in force.  
(iii) This license comes into force with immediate effect and shall be valid up to........... unless previously cancelled or suspended.  
(iv) The holder of the license shall from time to time report to the licensing authority any change in the premises where he carries on his business of sale, export, import or storage for the said purposes of seeds.  
(v) The licensee shall give every facility to the licensing authority or any other Officer acting under his Authority for the purpose of inspecting his stock in any shop, depot or godown or other place/places used by him for the purpose of storage, sale or export of seeds.
FORM 'C'
(See clause 7)

Application for Renewal of license to carry on the Business of a Dealer in seeds

To
The Licensing Authority
…………………………….(Place)

State of/U.T. of

I/We hereby apply for renewal of the License to carry on the business of dealer in seeds under the name and style of Shri/M/s. The license, desired to be renewed, was granted by the Licensing Authority for the State of……………….and allotted License No………… on the day of 19…………………

Signature of applicant(s)

Full name and address of the applicant(s)……………….

Date and Place: Certified that the License bearing No………… granted on to carry on the business of a dealer in seeds at the premises situated…………………is here by renewed upto………………… unless previously cancelled or suspended under the provisions of the Seeds (Control) Order, 1983.

Date:        Licensing Authority
Renewal No.        State of…………………
Seal:

FORM `D`
See clause 18

1. Month and Year:
2. Name and designation of Licensee:
(Quantity in Quintals)

<table>
<thead>
<tr>
<th>Crop/Variety</th>
<th>Class of seed</th>
<th>Opening stock on the first day of the month</th>
<th>Quantity purchased during the month</th>
<th>Total quantity imported</th>
<th>Total</th>
<th>Total quantity sold</th>
<th>Total quantity explored</th>
<th>Closing stock on the last day of the month</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
<td>(7)</td>
<td>(8)</td>
<td>(9)</td>
</tr>
</tbody>
</table>

(3+4+5)  6-(7+8)

Signature of dealer:

Name & Address:
SCHEDULE I

(See clause 13)

I. Manner of taking Samples:  Samples of any seed for the purpose of analysis shall be taken in a clean dry container which shall be closed sufficiently tight to prevent leakage and entrance of moisture and shall be carefully sealed.

II. Sampling Intensity:  Bulk Sampling:- When sampling seed lots are stored in bulk (heaps, bins, wagons, etc.) the following sampling intensity should be regarded as a minimum requirement for obtaining the "bulk sample".
   (a) upto 500 kilograms-at least 5 individual samples except in case of small lots up to 50 kilograms where a smaller number of samples is sufficient, not less than 3 samples need be taken.
   (b) 501 to 3,000 kilograms-one individual sample for each 300 kilograms, but not less than 5 individual samples.
   (c) 3,001 to 20,000 kilograms-one individual sample for each 500 kilograms but not less than 10 individual samples.
For seed in bulk the individual samples should be distributed at random allover the bulk and the samples drawn from varying depths.
Bag sampling-For seed lots in bags or other containers the following sampling intensity should be regarded as a minimum requirement:
   (d) upto 5 containers-sample each container but always take at least 5 individual samples.
   (e) from 6 to 30 containers-sample at least one in every three containers but never less than 5.
   (f) 31 containers or more-sample at least one in every five containers but never less than 10.
Unless doubt exists about the homogeneity of a lot, all such primary samples should be combined to make a composite sample of the lot for submitting to the seed testing laboratory. If the individual or primary samples are not sufficiently homogenous, they may be sent to the laboratory for a heterogeneity test.

III. Containers to be labelled and addressed:- All containers containing samples for analysis shall be properly labelled and the parcels shall be properly addressed. The label on any sample of seed sent for analysis shall bear-
   (a) serial number;
   (b) name of the sender with official designation, if any;
   (c) name of the person from whom the sample has been taken;
   (d) date and place of taking the sample;
   (e) kind or variety of the seed for analysis;
   (f) nature and quantity of preservative, if any, added to the sample.

IV. Manner of Packing, Fastening and Sealing the Samples:- All samples of seeds sent for analysis shall be packed, fastened and sealed in the following manner:
   (a) The stopper shall first be securely fastened so as to prevent leakage of the containers in transit.
   (b) The container shall then be completely wrapped in fairly strong thick paper. The ends of the paper shall be neatly folded in and affixed by means of gum or other adhesive.
   (c) The paper cover shall be further secured by means of strong twine or thread both above and across the container and the twine or thread shall then be fastened on the paper cover by means of sealing wax on which there shall be at least four distinct and clear impressions of the seal of the sender, of which, one shall be at the top of the packet, one at the bottom and the other two on the body of the packet. The knots of the twine of thread shall be covered by means of sealing wax bearing the impression of the seal of the sender.

Based on the recommendations of Seed Policy Group headed by Padmasri Dr. MV Rao, Ex-Vice Chancellor of ‘ANGRAU’, Rajendranagar, Hyderabad on New Seed Policy, the Government of India, has proposed a New Seeds Bill, 2002, regulating the seeds business and in the matter of Registration of a kind or varieties of seeds, their production, processing, quality control and law enforcement, Draft Seeds Bill, 2002 is proposed by amalgamating the provisions of Seeds Act, 1966 and Seeds Control Order, 1983 as a single enactment.
BE it enacted by Parliament in the Twenty-third Year of the Republic of India as follows:

**Short title and commencement:** 1. (1) This Act may be called the Seeds (Amendment) Act, 1972 (2) It shall come into force on such date as the Central Government may, by notification in the Official Gazette, appoint.

**Amendment of Section 2 of 1966:** 2. In section 2 of the Seeds Act, 1966 (hereinafter referred to as the principal Act), in clause (11), after sub-clause (iii), the following sub-clause shall be inserted, namely: "(iv) jute seeds,"

**Insertion of new sections 8A to 8E:** 3. After section 8 of the principal Act, the following sections shall be inserted, namely:

**The Central Seed Certification Board:** "8A. (1) The Central Government shall, by notification in the Official Gazette, establish a Central Seed Certification Board (hereinafter referred to as the Board) to advise the Central Government and the State Governments on all matters relating to certification and to co-ordinate the functioning of the agencies established under section 8. (2) The Board shall consist of the following members, namely: (i) a Chairman, to be nominated by the Central Government; (ii) four members, to be nominated by the Central Government from out of the persons employed by the State Governments as Directors of Agriculture; (iii) three members, to be nominated by the Central Government from out of the persons employed by the Agricultural Universities as Directors of Research; (iv) thirteen persons, to be nominated by the Central Government to represent such interests as that Government thinks fit, of whom not less than four persons shall be representatives of seed producers or tradesmen. (3) A member of the Board shall, unless his seat becomes vacant earlier by resignation or otherwise be entitled to hold office for two years from the date of his nomination:

“Provided that a person nominated under clause (ii) or clause (iii) of sub-section (2) shall hold office only for so long as he holds the appointment by virtue of which his nomination was made”.

**Other Committees:** 8B. The Board may appoint as many Committees as it deems fit consisting wholly of the members of the Board or wholly of other persons or partly of members of the Board and partly of other persons as it thinks fit to exercise such powers and perform such duties as may be delegated to them, subject to such conditions as it may think fit, by the Board.

Proceedings of Board or Committee not to be invalid by reason of any vacancy therein: 8C. No proceeding of the Board or any Committee thereof shall become invalid merely by reason of the existence of any vacancy therein or any defect in the constitution thereof.

**Procedure for Board:** 8D. The Board may, subject to the previous approval of the Central Government, make byelaws for the purpose of regulating its own procedure and the procedure
Millet Seed Technology

of any Committee thereof and the conduct of all business to be transacted by it or such Committee.

Secretary and Other officers: 8E. The Central Government shall (i) appoint a person to be the Secretary of the Board, and (ii) provide the Board with such technical and other staff as the Central Government considers necessary."

Amendment of section 9: 4. In section 9 of the principal Act, (i) in sub-section (3), for the words, brackets, letter and figure "minimum limits of germination and purity specified for that seed under clause (a) of section 6", the words "prescribed standards" shall be substituted; (ii) to sub-section (3), the following provision shall be added, namely: "Provided that such standards shall not be lower than the minimum limits of germination and purity specified for that seed under clause (a) of section 6."

Amendment of section 25: 5. In section 25 of the principal Act, (a) in sub-section (2), after clause (f), the following clause shall be inserted, namely: "(ff) the standards to which seeds should conform,"; (b) in sub-section (3), for the words "in two successive sessions, and if, before the expiry of the session in which it is so laid or the session immediately following", the words "in two or more successive sessions, and if, before the expiry of the session immediately following the session or the successive sessions aforesaid" shall be substituted.

THE SEEDS (AMENDMENT) RULES, 1973
Government of India Ministry of Agriculture (DEPARTMENT OF AGRICULTURE)
No. 7(17)/69-Seeds Dev. New Delhi, dated the 30.6.1973

NOTIFICATION

GSR 329 (E). – In exercise of the power conferred by section 25 of the Seeds Act, 1966 (54 of 1966), the Central Government hereby makes the following rules further to amend the Seeds Rules 1968, Namely:
1. These rules may be called the Seeds (Amendment) Rules, 1973. In rule 19 of the Seeds Rule, 1968 (hereinafter called the said rules) the words, ‘shall exercise all the powers which a Court has and’ shall be omitted.
2. In rule 21 of the said rules for sub-rules (2) and (3) the following sub-rules shall be substituted, namely: “(2) The Seed Analyst shall analyse the samples in accordance with the procedures laid down in the Seed Testing Manual published by the Indian Council of Agricultural Research as amended from time to time.” “(3) The Seed Analyst shall deliver in Form VII, a copy of the report of the result of analysis to the persons specified in sub-section (1) of Section 16, as soon as may be but not later than 30 days from the date of receipt of samples sent by the Seed Inspector under sub-section (2) of the Section 15”.
3. In rule 23 of the said rules, in clause (h) for the words competent authority “the words” State Government shall be substituted.

Sd/- (Anna R. George)
Joint Secretary to the Govt. of India
Millet Seed Technology

Government of India Ministry of Agriculture (DEPARTMENT OF AGRICULTURE)
No. 7-15/74-SD New Delhi, dated the 29th April, 1975

NOTIFICATION

GSR 211 (E). – In exercise of the power conferred by section 25 of the Seeds Act, 1966 (54 of 1966), the Central Government hereby makes the following rules further to amend to Seeds Rules 1968, namely:
1. These rules may be called the Seeds (Amendment) Rules, 1974.

After rule 23 of the said rules, the following rule shall be inserted namely:
“23-A. Action to be taken by the Seed Inspector if a complaint is lodged with him: (1) If farmer has lodged a complaint in writing that the failure of the crop is due to the defective quality of seeds of any notified kind or variety supplied to him, the Seed Inspector shall take in his possession the marks or labels, the seed containers and a sample of unused seeds to the extent possible from the complaint for establishing the source of supply of seeds and shall investigate the causes of the failure of his crop by sending samples of the lot to the Seed Analyst for detailed analysis at the State Seed Testing Laboratory. He shall thereupon submit the report of his findings as soon as possible to the competent authority. (2) In case, the Seed Inspector comes to the conclusion that the failure of the crop is due to the quality of seeds supplied to the farmer being less than the minimum standards notified by the Central Government, launch proceedings against the supplier for contravention of the provisions of the Act or these Rules.”

Sd/- (Anna R. George)
Joint Secretary to the Govt. of India

Ministry of Agriculture
(Department of Agriculture and Co-operation)
ORDER
New Delhi, the 26th July, 2006

G.S.R.444(E).-In exercise of the powers conferred by Section 3 of the Essential Commodities Act, 1955 (10 of 1955), the Central Government hereby makes the following Order to amend the Seeds (Control) Order, 1983, namely:
1. (1) This Order may be called the Seeds (Control) Amendment Order, 2006.
(2) It shall come into force on the date of its publication in the Official Gazette.
2. In the Seeds (Control) Order, 1983, after clause 8, the following clause shall be inserted, namely:
“8A. Dealers to ensure certain standards in respect of seeds: Every dealer of seeds in notified kind or variety or other than notified kind or variety of seeds shall ensure that the standards of quality of seeds claimed by him shall conform to the standards prescribed for the notified kind or variety of seeds under Section 6 of the Seeds Act, 1966 (54 of 1966) and any other additional standards relating to size, colour and content of the label as may be specified.”

(F.No. 2-7/2003-SD.IV)
S.L. BHAT, Jt. Secy.

Note: The Seeds (Control) Order, 1983 was published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i) vide number G.S.R. 932(E), dated the 30th December, 1983.
An act to provide, in the interests of the general public for the control of the production, supply and distribution of, and trade and commerce in certain, commodities. Be it enacted by Parliament in the Sixth Year of the Republic of India as follows:

1. Short title and extent: (1) This Act may be called the Essential Commodities Act, 1955.

2. Definitions: In this Act, unless the context otherwise requires: 2 of 1974 (ia) "Code" means the code of Criminal Procedure; (iia) "Collector" includes an Additional Collector and such other Officer, not below the rank of Sub-Divisional Officer as may be authorised by the Collector to perform the functions and exercise the powers of the Collector under this Act; (a) "essential commodity" means any of the following classes of commodities :- (i) Cattle fodder, including oilcakes and other concentrates; (ii) coal, including coke and other derivatives; (iii) component parts and accessories of automobiles; (iv) cotton and woollen textiles; (iva) drugs.

   Explanation: -In this sub-clause, "drug has the meaning assigned to it in clause (b) of section 3 of the Drugs and Cosmetics Act, 1940 (23 of 1940); (v) foodstuffs, including edible oilseeds and oils; (vi) iron and steel, including manufactured products of iron and steel; (vii) paper, including newsprint, paperboard and straw board; (viii) petroleum and petroleum products; (ix) raw cotton, whether ginned or unginned, and cotton seed; (x) raw jute; (xi) any other class of commodity which the Central Government may, by notified order, declare to be an essential commodity for the purposes of this Act, being a commodity with respect to which Parliament has power to make laws by virtue of entry 33 in List III in the Seventh Schedule to the Constitution: (b) "food-crops" include crops of sugarcane; (c) "notified order" means and order notified in the Official Gazette; (cc) "Order" includes a direction issued thereunder; (d) "State Government", in relation to a Union Territory, means the administrator thereof; (e) "Sugar" means: (i) any form of sugar containing more than ninety percent of sucrose, including sugar candy; (ii) Khandsari sugar or bura sugar or crushed sugar or any sugar in crystalline or powdered form, or (iii) Sugar in process in vacuum pan sugar factory or raw sugar produced therein. (f) words and expressions used but not defined in this Act and defined in the code shall have the meanings respectively assigned to them in that code.

3. Powers to control production, supply, distribution, etc., of essential commodities: (1) If the Central Government is of opinion that it is necessary or expedient so to do for maintaining or increasing supplies of any essential commodity or for securing equitable distribution and availability at fair prices, or for securing any essential commodity for the defence of India or the efficient conduct of military operations it may, by order, provide for regulating or prohibiting the production, supply and distribution thereof and trade and commerce therein.

   (2) Without prejudice to the generality of the powers conferred by sub-section (1), an order made thereunder may provide: (a) for regulating
by licenses, permits or otherwise the production or manufacture of any essential commodity; (b) for bringing under cultivation any waste or arable land, whether appurtenant to a building or not, for the growing thereon of food-crops generally or of specified food-crops, and for otherwise maintaining or increasing the cultivation of food-crops generally, or of specified food-crops; (c) for controlling the price at which any essential commodity may be bought or sold; (d) for regulating by licences, permits or otherwise the storage, transport, distribution, disposal, acquisition use or consumption of any essential commodity; (e) for prohibiting the withholding from sale of any essential commodity ordinarily kept for sale; (f) for requiring any person holding in stock, or engaged in the production, or in the business of buying or selling, of any essential commodity, (a) to sell the whole or a specified part of the quantity held in stock or produced or received by him, or (b) in the case of any such commodity which is likely to be produced or received by him, to sell the whole or a specified part of such commodity when produced or received by him to the Central Government or a State Government or to an officer or agent of such Government or to a Corporation owned or controlled by such Government or to such person or class of persons and in such circumstances as may be specified in the order.

Explanation 1: An order made under this clause in relation to foodgrains, edible oilseeds or edible oils, may having regard to the estimated production, in the concerned area, of such foodgrains, edible oilseeds and edible oils, fix the quantity to be sold by the producers in such area and may also fix, or provide for the fixation of, such quantity on a graded basis, having regard to the aggregate of the area held by, or under the cultivation of the producers.

Explanation 2: For the purpose of this clause, "production" with its grammatical variations and cognate expressions include manufacture of edible oils and sugar;

(g) for regulating or prohibiting any class of commercial or financial transactions relating to foodstuffs or cotton textiles which, in the opinion of the authority making the order, are, or if unregulated, are likely to be, detrimental to the public interest; (h) for collecting any information or statistics with a view to regulating or prohibiting any of the aforesaid matters.

(i) for requiring persons engaged in the production, supply or distribution of, or trade and commerce in, any essential commodity to maintain and produce for inspection such books accounts and records relating to their business and to furnish such information relating thereto, as may be specified in the order; (ii) for the grant or issue of licences, permits or other documents, the charging of fees therefore the deposit of such sum, if any, as may be specified in the order as security for the due performance of the conditions of any such licence, permit or other document, the forfeiture of the sum so deposited or any part thereof for contravention of any such conditions, and the adjudication of such forfeiture by such authority as may be specified in the order;

(j) for any incidental and supplementary matters, including in particular, the entry search or examination of premises, aircraft, vessels, vehicles or other conveyances and animals, and the seizure by a person authorised to make such entry, search or examination; (i) of any articles in respect of which such person has reason to believe that a contravention of the order has been, is being, or is about to be, committed and any packages, coverings or receptacles in which such articles are found; (ii) of any aircraft, vessel, vehicle or other conveyance or animal used in carrying such articles, if such person has reason to believe that such aircraft, vessel or other conveyance or animal is liable to be forfeited under the provisions of this act; (iii) of any books of accounts and documents which in the opinion of such person, may be useful for, or relevant to, any proceeding under this Act and the person from whose custody such books of accounts or documents are seized shall be entitled to make copies thereof or to take extracts therefrom in the presence of any officer having the custody of
such books of accounts or documents.

(3) Where any person sells any essential commodity in compliance with an order made with reference to clause (f) of subsection (2), there shall be paid to him the price therefor as hereinafter provided: (a) where the price can, consistently with controlled price, if any fixed under this section, to be agreed upon, the agreed price; (b) where no such agreement can be reached, the price calculated with reference to the controlled price, if any. (c) where neither clause (a) nor clause (b) applies, the price calculated at the market rate prevailing in the locality at the date of sale.

(3A) (i) if the Central Government is of opinion that it is necessary so to do for controlling the rise in prices, or preventing the hoarding, of any food-stuff in any locality, it may, by notification in the Official Gazette, direct that notwithstanding anything contained in sub-section (3), the price at which the foodstuff shall be sold in the locality in compliance with an order made with reference to clause (f) of sub-section (2) shall be regulated in accordance with the provisions of this sub-section.  (ii) Any notification issued under this sub-section shall remain in force for such period not exceeding three months as may be specified in the notification. (iii) Where, after the issue of a notification under this sub-section, any person sells foodstuff of the kind specified therein and in the locality so specified, in compliance with an order made with reference to clause (f) of sub-section (2), there shall be paid to the seller as the price therefor: (a) where the price, can, consistently with the controlled price of the foodstuff, if any fixed under this section to be agreed upon, the agreed price; (b) where no such agreement can be reached, the price calculated with reference to the controlled price, if any; (c) where neither clause (a) nor clause (b) applies, the price calculated with reference to the average market rate prevailing in the locality at the date of the sale during the period of three months immediately preceding the date of the notification. (iv) For the purposes of sub-clause (c) of clause (iii) the average market rate prevailing in the locality shall be determined by an officer authorised by the Central Government in this behalf, with reference to the prevailing market rates for which published figures are available in respect of that locality or of a neighboring locality; and the average market rate so determined shall be final and shall not be called in question in any court. (3B) Where any person is required, by an order made with reference to clause (f) of sub-section (2) to sell to the Central Government or a State Government or to an officer or agent of such Government or to a Corporation owned or controlled by such Government, any grade or variety of food-grains, edible oilseeds or edible oils in relation to which no notification has been issued, under sub-section (3A), or such notification having been issued, has ceased to be in force, there shall be paid to the person concerned, notwithstanding anything to the contrary contained in sub-section (3), an amount equal to the procurement price of such foodgrains, edible oilseeds or edible oils, as the case may be, specified by the State Government, with the previous approval of the Central Government having regard to: (a) the controlled price, if any, fixed under this section or by or under any other law for the time-being in force for such grade or variety of foodgrains, edible oilseeds or edible oils; (b) the general crop prospects; (c) the need for making such grade or variety of foodgrains, edible oilseeds or edible oils available at reasonable prices to the consumers, particularly the vulnerable sections of the consumers; and (d) the recommendations, if any, of the Agricultural Prices Commission with regard to the price of the concerned grade or variety of foodgrains, edible oilseeds or edible oils.

(3C) Where any producer is required by an order made with reference to clause (f) of sub-section (2) to sell any kind of sugar (whether to the Central Government or a State Government or to an Officer or agent of such Government or to any other person or class of persons) and either no notification in respect of such sugar has been issued under sub-section (3A) or any such notification, having been issued, has ceased to remain in force by efflux of time, then, notwithstanding anything contained in
sub-section (3), there shall be paid to that producer an amount therefor which shall be calculated with reference to such price of sugar as the Central Government may, by order, determine, having regard to: (a) the minimum price, if any, fixed for sugarcane by the Central Government under this section; (b) the manufacturing cost of sugar; (c) the duty or tax, if any, paid or payable thereon, and (d) the securing of a reasonable return of the capital employed in the business of manufacturing sugar, and different prices may be determined, from time to time, for different areas or for different factories or for, different kinds of sugar. Explanation :- For the purposes of this sub-section, "Producer" means a person carrying on the business of manufacturing sugar.

(4) If the Central Government is of opinion that it is necessary so to do for maintaining or increasing the production and supply of an essential commodity, it may, by order, authorise any person (hereinafter referred to as an authorised controller) to exercise, with respect to the whole or any part of any such undertaking engaged in the production and supply of the commodity as may be specified in the order such functions of control as may be provided in the order such functions of control as may be specified in the order.

(a) the authorised controller shall exercise his functions in accordance with any instructions given to him by the Central Government, so, however that he shall not have any power to give any direction inconsistent with the provisions of any enactment or any instrument determining the functions of the persons in charge of the management of the undertaking, except in so far as may be specifically provided by the order; and

(b) the undertaking or part shall be carried on in accordance with any directions given by the authorised controller under the provisions of the order, and any person having any functions of management in relation to the undertaking or part shall comply with any such directions.

(5) An order made under this section shall, (a) in the case of an order of a general nature or affecting a class of persons, be notified in the Official Gazette; and (b) in the case of an order directed to a specified individual be served on such individual (i) by delivering or tendering it to that individual, or (ii) if it cannot be so delivered or tendered, by affixing it on the outer door or some other conspicuous part of the premises in which that individual lives, and a written report there of shall be prepared and witnessed by two persons living in the neighbourhood.

(6) Every order made this section by the Central Government or by any officer or authority of the Central Government shall be laid before both Houses of Parliament, as soon as may be, after it is made.

4. Imposition of duties on State Government, etc.: An order made under section 3 may confer powers and impose duties upon the Central Government or the State Government or Officers and authorities of the Central Government or State Government and may contain directions to any State Government or to Officers and authorities thereof as to the exercise of any such powers or the discharge of any such duties.

5. Delegation of powers: The Central Government may, by notified order, direct that the power to make orders or issue notifications under section 3 shall, in relation to such matters and subject to such conditions of any, as may be specified in the directions, be exercisable also by (a) such Officer or authority to the Central Government, or (b) such State Government or such Officer or authority subordinate to a State Government as may be specified in the direction.

6. Effect of orders inconsistent with other enactments: Any order made under section 3 shall have effect notwithstanding anything inconsistent therewith contained in any enactment other than this act or any instrument having effect by virtue of any enactment other than this Act.

(6A) Confiscation of essential commodity: (1) Where any essential commodity is seized in pursuance of any order made under section 3 in relation thereto, a report of such seizure shall,
without unreasonable delay, be made to the Collector of the district or the Presidency-town in which such essential commodity is seized and whether or not a prosecution is instituted for the contravention of such order, the Collector may, if he thinks it expedient so to do, direct the essential commodity so seized to be produced for inspection before him, and if he satisfied that there has been a contravention of the order may order confiscation of: (a) the essential commodity so seized; (b) any package, covering or receptacle in which such essential commodity is found; and (c) any animal, vehicle, vessel or other conveyance used in carrying such essential commodity; Provided that without prejudice to any action which may be taken under any other provision of this Act, no foodgrains or edible oilseeds seized in pursuance of an order made under section 3 in relation thereto from a producer shall, if the seized foodgrains or edible oilseeds have been produced by him, be confiscated under this section. Provided further that in the case of any animal, vehicle, vessel or other conveyance used for the carriage of goods or passengers for hire, the owner of such animal, vehicle or other conveyance shall be given an opinion to pay, in lieu of its confiscation, a fine not exceeding the market price at the date of seizure of essential commodity sought to be carried by such animal, vehicle, vessel or other conveyance.

(2) Where the Collector, on receiving a report of seizure or on inspection of any essential commodity under sub-section (1), is of the opinion that the essential commodity is subject to speedy and natural decay or it is otherwise expedient in the public interest so to do, he may (i) order the same to be sold at the controlled price, if any, fixed for such essential commodity under this Act or under any other law for the time being in force; or (ii) where no such price is fixed, order the same to be sold by public auction. *Provided that in the case of any such essential commodity the retail sale price whereof has been fixed by the Central Government or a State Government under this Act or under any other Law for the time being in force, the Collector may, for its equitable distribution and availability at fair prices, order the same to be sold through fair price shops at the price so fixed.

(3) Where any essential commodity is sold, as aforesaid, the sale proceeds thereof, after deduction of the expenses of any such sale or auction or other incidental expenses relating thereto, shall (a) where no order of confiscation is ultimately passed by the Collector. (b) where an order passed on appeal under sub-section (1) of section 6C so requires, or (c) where in a prosecution instituted for the contravention of the order in respect of which an order of confiscation has been made under this section, the person concerned is acquitted, be paid to the owner thereof or the person from whom it is seized.

6B. Issue of show-cause notice before confiscation of essential commodity: (1) No order confiscating any essential commodity, package, covering, receptacle, animal, vehicle, vessel or other conveyance or the person from whom it is seized (a) is given a notice in writing informing him of the grounds on which it is proposed to confiscate the essential commodity, package, covering, receptacle, animal, vehicle, vessel or other conveyance; (b) is given an opportunity of making a representation in writing which such reasonable time as may be specified in the notice against the grounds of confiscation; and (c) is given a reasonable opportunity of being heard in the matter.

(2) Without prejudice to the provisions of sub-section (1), no order confiscating any animal, vehicle, vessel or other conveyance shall be made under section 6A if the owner of the animal, vehicle vessel or other conveyance proves to the satisfaction of the Collector that it was used in carrying the essential commodity without the knowledge or connivance of the owner himself, his agent, if any and the person in charge of the animal, vehicle, vessel or other conveyance and that each of them had taken all reasonable and necessary precautions against such use.

(3) No order, confiscating any essential
commodity, package, covering, receptacle, animal, vehicle, vessel or other conveyance shall be invalid merely by reason of any defect or irregularity in the notice given under clause (a) of sub-section (1), if, in giving such notice, the provisions of that clause have been substantially complied with.

6C. Appeal: (1) Any person aggrieved by an order of confiscation under section 6A may, within one month from the date of the communication to him of such order, appeal to the State Government concerned and the State Government shall, after giving an opportunity to the appellant to be heard, pass such order as it may think fit, confirming, modifying or annulling the order appealed against.

(2) Where an order under section 6A is modified or annulled by the State Government, or where in a prosecution instituted for the contravention of the order in respect of which an order of confiscation has been made under section 6A, the person concerned is acquired, and in either case it is not possible for any reason to return the essential commodity seized, such person shall, except as provided by sub-section (3) of section 6A, be paid the price therefor as if the essential commodity had been sold to the Government with reasonable interest calculated from the day of the seizure of the essential commodity and such price shall be determined (i) in case of foodgrains, edible oilseeds or edible oils, in accordance with the provisions of sub-section (3B) of section 3; (ii) in the case of sugar, in accordance with the provisions of sub-section (3C) of section 3; and (iii) in the case of any other essential commodity, in accordance with the provisions of sub-section (3) of section 3.

6D. Award of confiscation not to interfere with other punishment: The award of any confiscation under this Act by the Collector shall not prevent the infliction of any punishment to which the person affected thereby is liable under this Act.

6E. Bar of jurisdiction in certain cases: Whenever any essential commodity is seized in pursuance of an order made under section 3 in relation thereto, or any package, covering or receptacle in which such essential commodity is found or any animal, vehicle, vessel or other conveyance used in carrying such essential commodity is seized pending confiscation under section 6A, the Collector, or as the case may be, the State Government concerned under section 6C shall have, and notwithstanding anything to the contrary contained in any other law for the time being in force, any court, tribunal or other authority shall not have, jurisdiction to make orders with regard to the possession, delivery disposal, release or distribution of such essential commodity, package, covering, receptacle, animal vehicle, vessel or other conveyance.

7. Penalties: (i) If any person contravenes any order made under section 3: (a) he shall be punishable: (i) in the case of an order made with reference to clause (h) or clause (i) of sub-section (2) of that section, with imprisonment for a term which may extend to one year and shall also be liable to fine, and (ii) in the case of any other order, with imprisonment for a term which shall not be less than three months but which may extend to seven years and shall also be liable to fine; (b) any property in respect of which the order has been contravened shall be forfeited to the Government. (c) any packing, covering or receptacle in which the property is found and any animal, vehicle or other conveyance used in carrying the property shall, if the court so orders, be forfeited to the Government.

(2) If any person to whom a direction is given under clause (b) of sub-section (4) of section 3 fails to comply with the direction, he shall be punishable with imprisonment for a term which shall not be less than three months but which may extend to seven years and shall also be liable to fine: (2A) If any person convicted of an offence under sub-clause (ii) of clause (a) of sub-section (1) or under sub-section (2) is again convicted of an offence under the same provision, he shall be punishable with imprisonment for the second and for every subsequent offence for a term which shall not be less than six months but which may extend to seven years and shall be liable to fine:

(3) Where a person having been convicted of an
offence under subsection (1) is again convicted of an offence under that subsection for contravention of an order in respect of an essential commodity, the Court by which such person is convicted shall, in addition to any penalty which may be imposed on him under that subsection by order, direct that, that person shall not carry on any business in that essential commodity for such period, not being less than six month, as may be specified by the Court in the order.

**7A. Power of Central Government to recover certain amounts as arrears of land revenue:** (1) Where any person, liable to (a) pay and amount in pursuance of any order made under section 3 or, (b) deposit any amount to the credit of any Account of Fund constituted by or in pursuance of any order made under that section, makes any default in paying or depositing the whole or any part of such amount, the amount in respect of which such default has been made whether such order was made before or after the commencement of the Essential Commodities (Amendment) Act, 1984, and whether the liability of such person to pay or deposit such amount arose before or after such commencement be recoverable by Government together with simple interest due thereon computed at the rate of fifteen per cent per annum from the date of such default to the date of recovery of such amount, as an arrear of land revenue or as a Public Demand.

(2) The amount recovered under sub-section (1) shall be dealt with in accordance with the order which the liability to pay or deposit such amount arose.

(3) Notwithstanding anything contained in any other law for the time being in force or any contract to the contrary, no court, tribunal or other authority shall grant any injunction or make any order prohibiting or restraining any Government from recovering any amount as an arrears of land revenue or as a Public Demand in pursuance of the provisions of sub-section (1).

(4) If any order, in pursuance of which any amount has been recovered by Government as an arrear of land revenue or as a Public Demand under sub-section (1) is declared by a competent court, after giving to the Government a reasonable opportunity of being heard, to be invalid, the Government shall refund the amount so recovered by it to the person from whom it was recovered, together with simple interest due thereon, computed at the rate of fifteen percent per annum, from the date of recovery of such amount to the date on which such refund is made.

Explanation- For purposes of this section, "Government" means the Government by which the concerned order under section 3 was made or where such order was made by an officer or authority subordinate to any Government, that Government.

8. Attempts and abetment: Any person who attempts to contravene or abets a contravention of any order made under section 3 shall be deemed to have contravened that order. Provided that where a person has abetted the contravention of any order for the purpose of procuring any essential commodity of the nature mentioned in sub-clause (iv a) or sub-clause (v) of clause (a) of section 2 for his own use or for the use of any member of his family or for the use of any person dependent upon him, and not for the purpose of carrying on any business or trade in such essential commodity, the Court may, notwithstanding, anything contained in section 7 and for reasons to be mentioned in the judgement, impose a sentence of fine only.

9. False statement: If any person: (1) when required by any order made under section 3 to make any statement or furnish any information, makes any statement or furnishes any information which is false in any material particular and which he knows or has reasonable cause to believe to be false, or does not believe to be true, or (ii) makes any such statement as aforesaid in any book, account, record, declaration, return or other document which he is required by any such order to maintain or furnish. he shall be punishable with imprisonment for a term which may extend to five years or with fine, or with both.

10. Offences by Companies: (1) If the person contravening an order made under section...
3 is a company, every person who, at the time the
contravention was committed was in charge of and
was responsible to the company for the conduct of
the business of the company as well as company
shall be deemed to be guilty of the contravention and
shall be liable to be proceeded against and punished
accordingly. Provided that nothing contained in this
sub-section shall render any such person took place
without his knowledge or that he exercised all due
diligence to prevent such contravention.

(2) Notwithstanding anything contained in sub-
section (1), where an offence under this Act has
been committed with the consent or connivance of,
or is attributable to any neglect on the part of any
director, manager, secretary or other officer of the
company such director, manager, secretary or other
officer shall also be deemed to be guilty of that
offence and shall be liable to be proceeded against
and punished accordingly.

Explanation -For the purpose of this section.
(a) "Company" means any body corporate, and
includes a firm or other association of individuals;
and (b) "director" in relation to a firm means a
partner in the firm.

10A. Offences to be cognizable
(2 of 1974)
Notwithstanding anything contained in the Code of
Criminal Procedure, 1973, every offence punishable
under this Act shall be cognizable and non bailable.

10B. Power of court to publish name, place of
business, etc., of companies convicted under the Act.
(1) Where any company is convicted under this Act,
it shall be competent for the court convicting the
company to cause the name and place of business
of the company, nature of the contravention, the fact
that the company has been so convicted and such
other particulars as the court may consider to be
appropriate in the circumstances of the case to be
published at the expense of the company in such
newspapers or in such other manner as the court
may direct. (2) No publication under sub-section
(1) shall be made until the period for preferring an
appeal against the orders of the court has expired
without any appeal having been preferred or such
an appeal having been preferred has been disposed
of: (3) The expenses of any publication under sub-
section (1) shall be recoverable from the company
as if it were a fine imposed by the court.

Explanation -For the purpose of this section,
"Company" has the meaning assigned to it in clause
(a) of the Explanation to section.

10C. Presumption of culpable mental state: (1)
In any prosecution for any offence under this Act
which required a culpable mental state on the part
of the accused, the court shall presume the existence
of such mental state but it shall be a defence for
the accused to prove the fact that he had no such
mental state with respect to the act charged as an
offence in that prosecution. Explanation -In this
section, "Culpable mental state" includes intention,
motive, knowledge of a fact and the belief in or
reason to believe a fact. (2) For the purposes of this
section a fact is said to be proved only when the
court believes it to exist beyond reasonable doubt
and not merely when its existence is established by
a preponderance of probability.

11. Cognizance of offences:-No court shall
take cognizance of any offence punishable under
this Act except on a report in writing of the facts
constituting such offence made by a person who
is a public servant as defined in section 21 of the
Indian Penal Code, or any person aggrieved or any
recognised consumer association whether such
person is a member of that association or not.(45
to 1860)

Explanation -For the purpose of this section and
section 12AA "recognised consumer association"
means voluntary consumer association registered
under the Companies Act, 1956 or any other law for
the time being in force. (1 of 1956)

12A. Constitution of special courts: (1) The
State Government may, for the purpose of providing
speedy trial of the offences under this Act, by
notification in the Official Gazette, constitute as
many Special Courts as may be necessary for such
area or areas as may be specified in the notification.
(2) A Special Court shall consist of a single judge
who shall be appointed by the High Court upon a
request made by the State Government.
Explanation - In this sub-section, the word "appoint" shall have the meaning given to it in the Explanation to section 9 of the code.

(3) A person shall not be qualified for appointment as a judge of a Special Court unless (a) he is qualified for appointment as a judge of a High Court, or (b) he has, for a period of not less than one year, been a Sessions judge or an Additional Sessions Judge.

12AA. Offences triable by Special Court. (1) Notwithstanding anything contained in the code, (a) all offences under this Act shall be triable only by the Special Court constituted for the area in the offence has been committed or where there are more Special Courts than one for such area, by such one of them as may be specified in this behalf by the High Court; (b) where a person accused of or suspected of the commission of an offence under this Act is forwarded to a Magistrate under sub-section (2) or sub-section (2A) of section 167 of the Code, such Magistrate may authorise the detention of such person in such custody as he thinks fit for a period not exceeding fifteen days in the whole where such Magistrate is a Judicial Magistrate and seven days in the whole where such Magistrate is an Executive Magistrate: Provided that where such Magistrate consider -(i) when such person is forwarded to him as aforesaid or (ii) upon or at any time before the expiry of the period of detention authorised by him; that the detention of such person is unnecessary, he may, if he is satisfied that the case falls under the proviso to section 8, order the release of such person on bail and if he is not so satisfied, he shall order such person to be forwarded to the Special Court having jurisdiction; (c) the Special Court may, subject to the provisions of clause (d) of this sub-section, exercise in relation to the person forwarded to it under clause (b), the same power which a Magistrate having jurisdiction to try a case may exercise under section 167 of the Code in relation to an accused person in such case who has been forwarded to him under that section; (d) Save as aforesaid no person accused of or suspected of the commission of an offence under this Act shall be released on bail by any court other than a Special Court or the High Court; Provided that a Special Court shall not release any person on bail (i) Without giving the prosecution an opportunity to oppose the application for such release unless the Special Court, for reasons to be recorded in writing, is of opinion that it is not practicable to give such opportunity; and (ii) where the prosecution opposes the application, if the Special Court is satisfied that there appear reasonable grounds for believing that he has been guilty of the offence concerned; Provided further that the Special Court may direct that any such person may be released on bail if he under the age of sixteen years or is a woman or is a sick or infirm person, or if the Special Court is satisfied that it is just and proper so to do for any other special reason to be recorded in writing; (e) a Special Court may, upon a perusal of police report of the facts constituting an offence under this Act or upon a complaint made by an officer of the Central Government or a State Government authorised in this behalf by the Government concerned or any person aggrieved or any recognized consumer association whether such person is a member of that association or not take cognizance of that offence without the accused being committed to it for trial; (f) all offences under this Act shall be tried in a summary way and the provisions of sections 262 to 265 (both inclusive) of the Code shall as far as may be, apply to such trial; Provided that in the case of any conviction in a summary trial under this section, it shall be lawful for the Special Court to pass a sentence of imprisonment for a term not exceeding two years.

(2) When trying an offence under this Act, a Special Court may also try an offence other than an offence under this Act, with which the accused may, under the Code, be charged at the same trial; Provided that such other offence is under any other law for the time being in force triable in a summary way: Provided further that in the case of any conviction for such other offence in such trial, it shall not be lawful for the Special Court to pass a sentence of imprisonment for a term exceeding
the term provided for conviction in a summary trial under such other law.

(3) A Special Court may, with a view to obtaining the evidence of any person suspected to have been directly or indirectly concerned in or privy to an offence under this Act, tender a pardon to such person on condition of his making a full and true disclosure of the whole circumstances within his knowledge relating to the offence and to every other person concerned whether as principal or abetter in the commission thereof and any pardon so tendered shall for the purposes of section 308 of the Code, be deemed to have been tendered under section 307 thereof.

(4) Nothing contained in this section shall be deemed to affect the special powers of the High Court regarding bail under section 439 of the Code and the High Court may exercise such powers including the power under clause (b) of sub-section (1) of that section as if the reference to "Magistrate" in that section included also a reference to a "Special Court" constituted under section 12A.

12AB. Appeal and revision: The High Court may exercise so far as may be applicable all the powers conferred by Chapters XXIX and XXX of the Code on a High Court, as if a Special Court within the local limits of the jurisdiction of the High Court were a Court of Sessions trying cases within the local limits of the jurisdiction of the High Court.

12AC. Application of Code to proceedings before a Special Court: Save as otherwise provided in this Act, the provisions of the Code (including the provisions as to bail and bonds) shall apply to the proceedings before a Special Court and for the purposes of the said provisions, the Special Court shall be deemed to be a Court of Sessions and the person conducting a prosecution before a Special Court, shall be deemed to be a Public Prosecutor.

12B. Grant of injunction, etc., by civil courts:- No civil court shall grant an injunction or make any order for any other relief against the Central Government or any State Government or Public officer in respect of any act done or purporting to be done by such Government, or such officer in his official capacity under this Act or any order made thereunder, until after notice of the application for such injunction or other relief has been given to such Government or officer.

1. Presumption as to orders:-Where an order purports to have been made and signed by an authority in exercise of any power conferred by or under this Act, a court shall presume that such order was so made by that authority within the meaning of the Indian Evidence Act, 1872. (1 of 1872).

2. Burden of proof in certain cases:-Where a person is prosecuted for contravening any order made under section 3 which prohibits him from doing any act or being in possession of a thing without lawful authority or without a permit, licence or other document, the burden of providing that he has such authority, permit, licence or other document shall be on him.

3. Protection of action taken under Act:-(1) No suit, prosecution or other legal proceeding shall lie against any person for anything which is in good faith done or intended to be done in pursuance of any order made under section 3.

15A. Prosecution of public servants: Where any person who is a public servant is accused of any offence alleged to have been committed by him while acting or purporting to act in the discharge of his duty in pursuance of an order made under section 3, no court shall take cognizance of such offence except with the previous sanction:-(a) of the Central Government, in the case of a person who is employed or as the case may be, was at the time of commission of the alleged, offence employed, in connection with the affairs of the Union; (b) of the State Government in the case of a person who is employed or as the case may be was at the time of commission of the alleged offence employed, in connection with the affairs of the State.

16. Repeals and savings :- (1) The following laws are hereby repealed (a) the Essential Commodities Ordinance, 1955; (b) any other law in force in any State immediately before the commencement of this Act in so far as such law
controls or authorizes the control of the production, supply and distribution of an trade and commerce in, any essential commodity.

(2) Notwithstanding such repeal, any order made or deemed to be made by any authority whatsoever, under any law repealed hereby an in force immediately before the commencement of this Act, shall in so far as such order may be made under this Act, be deemed to be made under this Act and continue in force and accordingly any appointment made, licence or permit granted or direction issued under any such order and in force immediately before such commencement shall continue in force until and unless it is superseded by any appointment made, licence or permit granted or direction issued under this Act.

(3) The provisions of sub-section (2) shall be without prejudice to the provisions contained in section 6 of the General Clauses, Act, 1897, (10 of 1897) which shall also apply to the repeal of the Ordinance or other law referred to in sub-section (1) as if such Ordinance or other law had been an enactment.

N.B. :-* The Essential Commodities (Special Provisions) Act, 1981 (No. of 1981) which came into force w.e.f. 1.9.1982 is effective for a period of five years. Since extended for another five years w.e.f. 1.9.87 by the Essential Commodities (Special Provisions) Continuance Act, 1987. It is not applicable to the Union Territories of Andaman & Nicobar Islands, Arunachal Pradesh, Dadar & Nagar Haveli, Lakshadweep and Mizoram. ** The Essential Commodities (Amendment) Act, 1984 came into force w.e.f. 1.7.1984.

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**Amendment**

Ministry of Law, Justice and Company Affairs (Legislative Department)

New Delhi, the 27th August, 1992/ Bhadra 5, 1914 (Saka)

The Essential Commodities (Special Provisions) Amendment Ordinance, 1992

No. 12 of 1992

Promulgated by the President in the Forty-third Year of the Republic of India

An Ordinance further to amend the Essential Commodities (Special Provisions) Act, 1981 and to make special provision by way of amendment to the Essential Commodities Act, 1955. Whereas, Parliament is not in session and the President is satisfied that circumstances exist which render it necessary for him to take satisfactory immediate action; Now therefore, in exercise of the owners conferred by clause (1) 123 of the Constitution, the President is pleased to promulgate the following Ordinance:

1. (1) This Ordinance may be called the Essential Commodities (Special provisions) Amendment Ordinance, 1992.(2) It shall come into force at once.

2. In paragraph 2 of the Preamble to the Essential Commodities (Special Provision) Act, 1981 (hereinafter referred to as the principal Act), for the words "ten years", the words "fifteen years" shall be substituted.

3. In section 1 of the principal Act, in sub-section (3) for the words "ten years", the words "fifteen years" shall be substituted.

4. After section 9 of the principal Act, the following section shall be inserted, namely :

9A. In the Essential Commodities Act, 1955 after section 10A, the following section shall be inserted namely :-

10AA. Notwithstanding anything contained in the Code of Criminal Procedure, 1973, no officer below the rank of an officer incharge of a police station or any police officer authorised by him in this behalf in writing shall arrest any person accused of committing an offence punishable under this Act".

Shankar Dayal Sharma, President

KL Mohanpuria, Secy. to the Govt. of India
S.O._______(E) In exercise of the powers conferred by sub-section (1) of section 3 of the Destructive Insects and Pests Act, 1914 (2 of 1914), the Central Government hereby makes the following Order, for the purpose of prohibiting and regulating the import into India of agricultural articles mentioned herein; namely:

Chapter I: Preliminary

1. Short title and commencement
   (i) This order may be called the Plant Quarantine (Regulation of Import into India) Order, 2003.
   (ii) Sub-clause (22) of clause 3 shall come into force on the 1st day of April, 2004 and all other provisions of this Order shall come into force on the 1st day of January, 2004.

2. Definitions: In this Order, unless the context otherwise requires,
   (i) “additional declaration”- means a statement that is required by an importing country to be entered in a phytosanitary certificate and which provides specific additional information pertinent to the phytosanitary condition of a consignment;
   (ii) “bio-control agent”- means any biological agent such as parasite, predator, parasitoid, microbial organism or self replicating entity that is used for control of pests;
   (iii) “consignment”- means a quantity of seeds, plants and plant products or any regulated article consigned from one party to another at any one-time shipment and covered by a phytosanitary certificate, bill of entry of customs, shipping or airway bill or invoice;
   (iv) “cotton” includes ginned cotton, cotton linters and dropping, tripping, fly and other waste products of cotton mill other than yarn waste, but does not include cotton seed or un-ginned cotton;
   (v) “form” means a form appended to this Order;
   (vi) “fruit” means any fleshy portion of a plant that contains seeds, which is used for consumption and includes seedless fruit, both fresh and dry, but does not include preserved or pickled or frozen fruits;
   (vii) “grain” means seeds intended for processing or consuming but not for sowing or propagating;
   (viii) “germplasm” means plants in whole or in parts and their propagules including seeds, vegetative parts, tissue cultures, cell cultures, genes and DNA based sequences that are held in a repository or collected from wild as the case may be, and are utilized in genetic studies or plant breeding programmes for crop improvement;
   (ix) “import” means an act of bringing into any part or place in the territory of India any kind of seed, plant or plant product or any other regulated article from a place...
outside India by sea, land or air or across any customs frontier;

(x) “import permit” means an official document authorizing importation of a consignment in accordance with specified phytosanitary requirements;

(xi) “Inspection Authority” means an authority specified in Part I of Schedule XI or an officer of the Directorate of Plant Protection, Quarantine and Storage duly authorized by the Plant Protection Adviser for the purpose of approval and certification of Post-Entry Quarantine facilities and inspection of growing plants in such facilities in accordance with guidelines issued by the Plant Protection Adviser; and for any specified purpose, an authority specified in Part II of the said Schedule;

(xii) “Irradiation” - means the treatment of food or agricultural products with any type of processing of ionized radiation such as gamma irradiation of micro-electron acceleration processing.

(xiii) “Issuing Authority” means an authority as envisaged under Schedule-X or notified as such by the Central Government from time to time either generally or specifically for issuance of import permit;

(xiv) “notification” means a notification published in the official Gazette and the expression “notified” shall be construed accordingly;

(xv) “noxious weeds” means any weed harmful or hazardous or unwholesome to human beings, animal life or parasitic on plant species;

(xvi) “packing material” means any kind of material of plant origin used for packing, which shall include hay, straw, wood savings, wood chips, saw dust, wood waste, wooden pallets, Dunn age mats, wooden packages, coir pith, peat or sphagnum moss etc;

(xvii) “pest” means any biotic agent capable of causing any injury or damage to plants and plant products and includes any form or stage of insects, mites, snails, slugs, worms, nematodes, algae, fungi, protozoa, bacteria, actinomycetes, viruses, viroids molecules and genetically engineered or modified organisms and weeds;

(xviii) “Pest Risk Analysis” means the process of evaluating biological or other scientific and economic evidence to determine whether a pest should be regulated and strength of any phytosanitary measures are to be taken against it;

(xix) “Phytosanitary Certificate” means a certificate issued in the model format prescribed under the International Plant Protection Convention of the Food and Agricultural Organization and issued by an authorized officer at the country of origin of consignment or re-export

(xx) “plant” means a living plant or a part thereof including seed and germplasm;

(xxi) “plant products” means un-manufactured material of plant origin including grain and those manufactured products that, by their nature or that of their processing, may create risk for the introduction and spread of a pest;

(xxii) “Plant Protection Adviser” means the Plant Protection Adviser to the Government of India in the Directorate of Plant Protection, Quarantine and Storage;

(xxiii) “Point of Entry” means any sea port, airport, or land-border check-post or railway station, river port, foreign post office, courier terminal, container freight station or inland container depot as specified in Schedule I or Schedule II or Schedule III, as the case may be;

(xxiv) “Post-entry Quarantine” means growing of imported plants in confinement for a specified period of time in a glass house, screen house, poly house
or any other facility, or isolated field or an off-shore island that is established in accordance with guidelines/standards and are duly approved and certified by an inspection authority notified under this order;

(xxv) “Quarantine pest” means a pest of potential economic importance to an area endangered thereby and not yet present there, or present but not widely distributed and being officially controlled;

(xxvi) “regulated article” means any article the import of which is regulated by this Order;

(xxvii) “schedule” means a Schedule to this Order;

(xxviii) “seeds” means seeds of any agricultural or horticultural crop or forest plant species produced by sexual reproduction and includes naked seeds (cones) produced by gymnosperms and seed sprouts meant for propagation or consumption;

(xxix) “soil” means earth, sand, clay, silt, loam, compost, manure, peat or sphagnum moss, litter, leaf waste or any organic media that support plant life and also includes ship ballast or any organic medium used for growing plants;

(xxx) “timber” means a form of dead wood, log and lumber cut from plants, with or without bark or sawn and sized, which is used for manufacturing veneer, plywood, particle or chip board and making building material, furniture, packages, pallets, sports goods and handicrafts;

(xxxi) “tissue cultured plants” means any part of a plant or plant tissue or plantlet grown under aseptic or sterile conditions in flasks or other suitable container on appropriate media and includes ex-agar washed plantlets;

Chapter II: General conditions for import

3. Permit for Import of plants, plant products etc.

(i) No consignment of plants or plant products or other regulated articles (hereinafter referred to as ‘consignments’) shall be imported into India without a valid permit issued under this Order.

(ii) No categories of plant materials in respect of the plant species or variety mentioned in Schedule IV shall be allowed to be imported into India from the countries mentioned against each in column (4) of the said Schedule.

(iii) Every application for a permit under this clause shall be made at least seven days in advance to the concerned Issuing Authority as listed in Schedule X, in Form PQ 01 for the import of plants and plant products for consumption and processing and in Form PQ 02 for import of seeds and plants for propagation covered under Schedules-V, VI and VII.

(iv) Commercial import of consignments of seeds of coarse cereals, pulses, oil seeds and fodder seeds and seeds/stock material of fruit plant species for propagation shall only be permitted based on the recommendations of EXIM Committee of Department of Agriculture and Cooperation, except the trial material of the same as specified in Schedule-XII of Plant Quarantine Order.

(v) A fee of Rs. 150/- shall be payable along with the application for the import of seeds, fruits and plants for consumption and Rs. 300/- for application for the import of seeds and plants for sowing or planting and the fee shall be payable in the form of Demand Draft payable to the Competent Authority having jurisdiction.

(vi) The Issuing Authority as listed in Schedule X shall issue permit in quadruplicate in Form PQ 03 for import of plants and plant products for consumption and in form PQ 04
for import of seeds and plants for sowing or planting, if he is satisfied that the applicant meets all the necessary conditions. One copy of import permit shall be forwarded to the exporter in advance to facilitate incorporation of import permit number in the phytosanitary certificate issued by the exporting country. The import permit shall be issued subject to such restrictions and conditions prescribed under Schedules-V, VI and VII.

(vii) No import permits shall be issued for consignments other than those listed in Schedules-V, VI and VII, unless the pest risk analysis (PRA) is carried out in accordance with the guidelines issued by the Plant Protection Adviser (PPA) based on the international standards and subject to such restrictions and conditions specified therein. For this purpose the importer shall file an import PRA request form with PPA. The process of PRA involves the categorization of pests associated with the commodity into quarantine pests; evaluation of their introduction potential; critical assessment of economic and environmental impact of their introduction; and specification of risk mitigating measures against them. The completion of PRA process may involve the visit of phytosanitary experts to the country of export to carry out pre-shipment inspections including field inspections, evaluate post-harvest treatment technologies and quarantine inspection and certification facilities and methodologies. In the event of interception of a quarantine pest in an imported consignment, further import of consignments shall be suspended until earlier PRA in respect of the consignment is reviewed and the risk mitigating measures are evaluated.

(viii) The issue of permit may be refused or withheld by the Issuing Authority after giving reasonable notice to the applicant and for reasons to be recorded in writing;

(ix) The import permit issued shall be valid for six months from the date of issue and valid for a total of three part shipments provided the exporter, importer and country of origin are the same for the entire consignment. The Issuing Authority may, on request, extend the period of validity for a further period of six months after charging Rs. 200/- and Rs. 100/- as revalidation fee for propagation and consumption plant material respectively provided such request for extension of validity is made to the Issuing Authority before the expiry of the permit with adequate reasons to be recorded in writing. The quantity mentioned in the import permit if exceeds by up to 10% may be allowed by charging the additional inspection fee and import permit fee provided the excess quantity reflected in the Phytosanitary certificate from the country of exporting. The import permit will become invalid if quantity exceeds more than 10% of the quantity of import permit. Suppression of the facts or any material information while issue of import permit is liable to be cancelled/withdrawn.

(x) The import permit issued shall not be transferable and no amendments to the permit shall be issued except for change of point of entry subject to reasons to be recorded in writing.

(xi) An orange and green colour tag shall be issued in Form PQ 05 in the case of permits issued for import of seeds and plants for sowing or planting so as to facilitate the identification of consignments at the time of their arrival at the point of entry.

(xii) No consignment of seed or grain shall be permitted, to be imported with contamination of quarantine weeds which are listed in Schedule-VIII unless the said consignment has been devitalized by the exporting country and a certificate to that effect has been endorsed in the phytosanitary certificate issued by the exporting country.
Every application for quarantine inspection and clearance shall be made in Form PQ 15.

(xiii) All the consignments of plants and plant products including cotton and other regulated articles shall be imported into India only through ports of entry as specified in Schedule-I and Inland Container Depots or Container Freight Stations and Foreign Post Offices falling within the jurisdiction of concerned plant quarantine station operating here under or those notified by the Central Government from time to time in this behalf.

(xiv) All the consignments of seeds and plants for propagation and regulated articles such as live insects, microbial cultures, bio-control agents and soil shall only be imported into India through Regional Plant Quarantine Stations of Amritsar, Chennai, Kolkata, Mumbai or New Delhi or through any other point of entry as may be notified by the Central Government from time to time for the purpose;

Provided that no import of germplasm and transgenic plant material and genetically modified organisms shall be permitted except through New Delhi Airport.

(xv) On arrival at the first point of entry the consignment shall be inspected by the Plant Protection Adviser or any other officer duly authorized by him in this behalf and appropriate samples shall be drawn for laboratory testing, in accordance with the guidelines issued by the Plant Protection Adviser from time to time.

(xvi) The Plant Protection Adviser or the officer authorized by him may, after inspection and laboratory testing, fumigation, irradiation, disinfections or disinfestations, as may be considered necessary by him, accord quarantine clearance for the entry of a consignment or grant provisional clearance for growing under post-entry quarantine, as the case may be, in Form PQ 16 and or order deportation or destruction of the consignment in Form PQ 17 in the event of non-compliance with the restrictions and conditions specified in this Order.

(xvii) Where fumigation or disinfections or disinfections is considered necessary in respect of a consignment of plants, seeds and fruits, the importer shall on his own and at his cost arrange for the fumigation, disinfection or disinfestations of the consignment, through an agency approved by the Plant Protection Adviser under the supervision of an officer duly authorized by the Plant Protection Adviser in that behalf.

“Provided that where irradiation is considered necessary in respect of any consignment of fresh fruits or vegetables or other plant products, the same shall be carried out by the importer at his own cost, at an irradiation facility, established as per the regulations of the “Atomic Energy Regulatory Board” and duly approved by the “Plant Protection Adviser” to the Government of India (PPA) under the “International Plant Protection Convention” and at the scheduled dosage approved by the Plant Protection Adviser under the supervision of an officer authorized by him, where necessary”

(xviii) It shall be the responsibility of the importer or his authorized agent –

(a) to file an application for the quarantine inspection of imported seeds, plants and plant products or other regulated articles in Form PQ 15 along with copies of relevant documents and fees as prescribed under Schedule-IX payable by a demand draft to the competent authority;

(b) to provide information on any plant and plant product and other articles covered under this Order and which are imported by him or are in his possession to the Plant Protection Adviser or any officer duly authorised
by him;
(c) to bring the consignments to the concerned plant quarantine station or to the place of inspection, fumigation or treatment as directed by the Plant Protection Adviser or the officer duly authorised by the Plant Protection Adviser in this behalf;
(d) to permit drawing of appropriate samples for inspection and laboratory investigation and extend necessary facilities towards the same;
(e) to open, repack and load into or unload from the fumigation chamber and seal the consignment;
(f) to remove them after inspection and treatment according to the directions issued by the Plant Protection Adviser or any officer authorized by him;
(g) to arrange deportation or destruction of the consignment at the cost of importer as may be deemed necessary by the Plant Protection Adviser or an officer authorized by him

(xix) No consignment or container carrying plants and plant products intended for other countries shall be allowed transit through or transshipment at air or sea ports or land customs stations, unless they are packed in such a manner so as not to permit spillage of material or contamination with soil or escape of any pest, and subject to the condition that the package or container shall not be opened or seals broken any where in India.

(xx) No consignment shall be imported unless accompanied by a Phytosanitary Certificate issued by an authorized officer at the country of origin in the form PQ 21 or at the country of re-export in Form PQ 22;

Provided that cut flowers, garlands, bouquets, fruits, vegetables, nuts and the like weighing less than two kilograms imported for personal consumption may be allowed to be imported without a Phytosanitary Certificate or an import permit

(xx) No consignments packed in any packaging material shall be permitted to be imported unless appropriately treated. The treatments shall include heat-kiln treatment at 560C for 30 minutes or equivalent thereof or Methyl Bromide fumigation at 48 g/cum at 28o C for 32 hours or equivalent thereof or chemical impregnation of wood with wood preservatives such as copper chrome arsenic or any other approved treatment as per international standards and the treatment to be endorsed in the phytosanitary certificate.

(xxi) No article packed with the packaging materials shall be released by the proper officers of customs unless the consignment is accompanied by a phytosanitary certificate in respect of the said packaging material: Provided that if no phytosanitary certificate is furnished in respect of the said packaging material, the proper officer of customs shall grant out of charge only after clearance is obtained from the local plant quarantine authorities, who shall grant clearance from the quarantine angle and may, if deemed fit, subject the said packaging material to treatment at the expense of the importe.

Provided further that nothing contained in this clause shall be applicable to packaging materials in respect of bonafide passenger baggage containing goods other than plant and plant products.

4. Import of soil, etc.: No import of soil, earth, compost, sand, plant debris along with plants, fruits or seeds shall be permitted except under the following conditions:

(i) The consignment of soil, earth, clay and similar material for any microbiological, soil-mechanics, or mineralogical investigations and peat for horticultural purposes may be permitted through specified air or sea ports or land custom station, on applications made for that purpose;

(ii) The application for permission under this
clause shall be made to the Plant Protection Adviser, at least one month in advance, in Form PQ 06 along with a registration fee of Rs. 200/- by a bank draft drawn in favour of Accounts Officer, Directorate of Plant Protection, Quarantine and Storage, N.H.IV., Faridabad-121001.

(iii) The Plant Protection Adviser may, after scrutiny of the application, and if satisfied of the purpose, for which such consignment is being imported, issue special permit in Form PQ 07.

(iv) The consignments of soil, peat or sphagnum moss etc., shall be inspected by the Plant Protection Adviser or any other officer duly authorized by him in this behalf and shall be got fumigated, disinfected or disinfested by the importer from an agency approved by the Plant Protection Adviser under the supervision of an officer duly authorized by the Plant Protection Adviser.

5. Fees for inspection, fumigation, etc. The importer of the consignment or his agent shall pay to the Plant Protection Adviser or any other officer duly authorized by him in this behalf, the fees prescribed in Schedule IX towards inspection, fumigation, disinfestations, disinfections of consignment.

6. Permit required for import of Germplasm, Transgenic or Genetically Modified Organisms:

(i) No consignment of Germplasm or Transgenics or Genetically Modified organisms (GMOs) shall be imported into India for research or experimental purpose without a valid permit issued by the Director, National Bureau of Plant Genetic Resources, New Delhi -110012.

(ii) Every application for the import of Plant, Germplasm or Transgenic or Genetically Modified Organisms for research/experimental purpose by the public or private organizations shall be made to the Director, National Bureau of Plant Genetic Resources, New Delhi in Form PQ 08 and the permit shall be issued in Form PQ 09 in triplicate and a red/green tag in Form PQ 10 for Germplasm and a Red/White tag in Form PQ 11 for Transgenic/Genetically Modified Organism. Such permit for import of Transgenic/Genetically Modified Organism shall be issued subject to the approval of Review Committee on Genetic Manipulation (RCGM) set up by the Department of Biotechnology under the provisions of Sub-rule (2) of rule 4 of the Rules for the manufacture, use, import, export and storage of hazardous microorganism, Genetically engineered organisms or cells made under Sections 6, 8 and 25 of the Environment (Protection) Act, 1986 (29 of 1986) and subject to such restrictions and conditions prescribed thereof.

(iii) No imported consignments of plant germplasm or transgenics or genetically modified pests shall be opened at the point of entry and it shall be forwarded to the Director, National Bureau of Plant Genetic Resources, New Delhi.

7. Permit required for import of live insects and microbial cultures:

(i) No consignment of live insects, microbial cultures including mushroom or bio-control agents shall be permitted to be imported into India without a valid import permit issued by the Plant Protection Adviser.

(ii) Every application for permit to import insects or microbial cultures including mushroom, algae or bio-control agents, shall be made in Form PQ12 at least thirty days in advance to the Plant Protection Adviser along with a fee of Rs. 200/- towards registration fee in the form of bank draft issued in favour of the Accounts Officer, Directorate of Plant Protection, Quarantine and Storage, Faridabad-121001.

(iii) The Plant Protection Adviser shall issue the permit in Form PQ13 in triplicate, if satisfied of the purpose for which import is made and
subject to such conditions imposed thereon. A yellow-green colour tag or label in the Form PQ14 shall be issued which shall be affixed on the parcel at the time of export.

(iv) All the consignments of insects, microbial cultures including mushroom and bio-control agents shall be permitted only through specified points of entry. The consignment of beneficial insects shall be accompanied by a certificate issued by National Plant Protection Organisation at the country of origin with additional declarations for freedom from specified parasites and parasitoids and the bio-control agents free from hyper-parasites. The consignment of beneficial insects or bio-control agents shall be subjected to post-entry quarantine by the Plant Protection Adviser.

8. Permit required for import of plants and plant products:

(i) No consignment of plants and plant products, if found infested or infected with a quarantine pest or contaminated with noxious weed species shall be permitted to be imported.

(ii) Every vessel carrying bulk shipment of grains shall be inspected on board by an officer duly authorized by the Plant Protection Adviser before the same is accorded permission to off-load the grain at the notified port of entry. On inspection, if found free from quarantine pests and noxious weed species, permission shall be accorded to off-load the grain at the port or order fumigation/treatment of grain on board or immediately upon unloading at the port, as the case may be, before such permission is granted for movement outside the port and subject to such conditions as may be imposed thereon.

(iii) The bulk shipment(s) of transgenic plants or plant products or genetically modified organisms shall be dealt as per the provisions of the Rules for the manufacture, use, import, export and storage of hazardous micro-organism, Genetically engineered organisms or cells made under Sections 6, 8 and 25 of the Environment (Protection) Act, 1986 (29 of 1986) or under the Mechanism established as per the provisions of Biosafety Protocol by the Ministry of Environment and Forests.

9. Permit for import of timber: The following sub-clause shall be inserted with effect from the 1st April, 2004, namely:

(i) No consignment of timber, except in the case of Agar wood, shall be permitted import unless one of the following conditions and requirements are fulfilled, namely:

(a) the timber shall be stripped of its bark, either be squared or rounded and accompanied by an official statement that the wood has been fumigated/ treated and such treatment shall be endorsed in the phytosanitary certificate issued at the country of origin or re-export, as the case may be; or

(b) the timber shall be appropriately ‘kiln-dried’ and marked as having been ‘kiln-dried’ with an internationally recognized mark; or

(c) if it is necessary to import the timber with bark, then, apart from being accompanied by an official statement that the said timber has been fumigated or treated and such treatment endorsed in the phytosanitary certificate issued at the country of origin or re-export, as the case may be, the timber shall, upon arrival into India, be inspected and if found necessary fumigated or treated at the cost of the importer through an agency approved by the Plant Protection Adviser under the supervision of an officer duly authorized by the Plant Protection
Adviser in that behalf, provided that the conditions and additional declarations applicable to the said timber, if and as prescribed in any of the Schedules to this Order, shall also apply to such consignment.

(ii) All the consignments of timber shall be inspected on board prior to unloading at the port of arrival by an officer duly authorised by the Plant Protection Adviser and, if necessary, fumigated or treated on board before unloading: Provided that this condition shall not apply for containerized cargo, which shall be inspected by an authorized Plant Quarantine Officer after unloading of the containers from the ship at the port or container freight station or Inland Container Depots under the jurisdiction of concerned Plant Quarantine Station.

Chapter III: Special conditions of import

10. Special conditions for import of plant species

(i) In addition to the general conditions laid down in Chapter-II, the plant species mentioned in Schedules V and VI shall not be permitted to be imported except when specifically authorized or covered under an import permit issued by an appropriate Issuing Authority and subject to such restrictions and conditions specified in this Chapter.

(ii) Every consignment of plant species specified in Schedule- V and VI shall be accompanied by a Phytosanitary Certificate issued by the authorized officer of the country of origin or Phytosanitary Certificate—reexport issued by the country of re-export along with attested copy of original phytosanitary certificate, as the case may be, with the additional declarations of being free from pests mentioned in Schedule IV, V, VI and VII; or that the pests as specified do not occur in the country or state of origin as supported by documentary evidence thereof.

(iii) General conditions shall apply to all consignments including in respect of those mentioned in Schedule V, VI, & VII.

Chapter IV: Post-entry quarantine

11. Post-entry quarantine

(i) Plants and seeds, which require Post-Entry Quarantine as laid down in Schedule IV, shall be grown in post-entry quarantine facilities duly established by importer at his cost, approved and certified by the Inspection Authority as per the guidelines prescribed by the Plant Protection Adviser.

(ii) The period for which, and the conditions under which, the plants and seeds shall be grown in such facilities shall be specified in the permit granted under clause 3.

(iii) Nothing contained in Sub-clause (1) shall apply to the import of tissue-cultured plants that are certified virus-free as per Schedule-V and VI, but such plants, shall be subjected to inspection at the point of entry to ensure that the phytosanitary requirements are met with.

(iv) Every application for certification of Post-Entry Quarantine facilities shall be submitted to the Inspection Authority in Form PQ 18. The Inspection Authority if satisfied after necessary inspection and verification of facilities shall issue a certificate in Form PQ 19.

(v) At the time of arrival of the consignment the importer shall produce the certificate issued under sub-section (4) before the Officer-in-Charge of the Quarantine Station at the entry point along with an undertaking in Form PQ 20.

(vi) If the Officer-in-Charge of the Quarantine Station, after inspection of the consignment is satisfied, shall accord quarantine clearance with Post-Entry Quarantine condition on the production, by an importer, of a certificate.
from the Inspection Authority with the stipulation that the plants shall be grown in such Post-Entry Quarantine facility for the period specified in the import permit.

(vii) After according quarantine clearance with Post-Entry Quarantine conditions to the consignments of plants and seeds requiring Post-Entry Quarantine, the Officer-in-Charge of the Quarantine Station at the entry point shall inform the Inspection Authority, having jurisdiction over the Post-Entry Quarantine facility, of their arrival at the location where such plants would be grown by the importer.

(viii) It shall be the responsibility of the importer or his agent
(a) to intimate the Inspection Authority in advance about the date of planting of the imported plant or seed;
(b) not to transfer or part with or dispose of the consignment during the pendency of Post-Entry Quarantine except in accordance with a written approval of the Inspection Authority.
(c) to permit the Inspection Authority complete access to the post-entry quarantine facility at all times and abide by the instructions of such Inspection Authority.
(d) to maintain an inspection kit containing all requisite items to facilitate nursery inspection and ensure proper plant protection and upkeep of nursery records.
(e) to extend necessary facilities to the inspection authority during his visit to the nursery and arrange destruction of any part or whole of plant population when ordered by him in the event of infection or infestation by a quarantine pest, in a manner specified by him.

(ix) The Inspection Authority of concerned area of jurisdiction or any officer authorized by the Plant Protection Adviser in this behalf in association with a team of experts shall inspect the plants grown in the approved Post-Entry Quarantine facility at such intervals as may be considered necessary in accordance with the guidelines issued by the Plant Protection Adviser, with a view to detect any pests and advise necessary phytosanitary measures to contain the pests.

(x) The Inspection Authority shall permit the release of plants from Post-Entry Quarantine, if they are found to be free from pests and diseases for the period specified in the permit for importation.

(xi) Where the plants in the Post-Entry Quarantine are found to be affected by pests and diseases during the specified period the Inspection Authority shall
(a) Order the destruction of the affected consignment of whole or a part of the plant population in the Post-Entry Quarantine if the pest or disease is exotic; or
(b) Advise the importer about the curative measures to be taken to the extent necessary, if the pest or disease is not exotic and permit the release of the affected population from the Post-Entry Quarantine only after curative measures have been observed to be successful and otherwise, the plants shall be ordered to be destroyed.

(xii) Where destruction of any plant population is ordered by the Inspection Authority, the importer shall destroy the same in the manner as may be directed by the Inspection Authority and under his supervision.

(xiii) At the end of final inspection the Inspection Authority shall forward a copy of the report of Post-Entry Quarantine inspection duly signed by him to the Plant Protection Adviser under intimation to the officer-in-charge of concerned Plant Quarantine Station.

(xiv) The importer shall be liable to pay the fee for inspection of plants in the Post-Entry Quarantine facility as per the rate laid down in Schedule IX.
Chapter V: Appeal and revision

12. Appeal
   (i) If an importer is aggrieved by the decision of the Inspection Authority regarding the destruction of any plant population, he may prefer an appeal to the Plant Protection Adviser within seven days from the date of communication of the decision giving the grounds of such appeal.
   (ii) It shall be lawful for the Plant Protection Adviser to rely on the observations of the Inspection Authority and such other expert opinion, as he may deem necessary, for deciding the appeal.
   (iii) The memorandum of appeal under sub-clause (1) shall set out the grounds in successive paragraphs on which the decision is challenged and shall be accompanied by a bank draft drawn in favour of the Plant Protection Adviser and payable at Faridabad, evidencing the payment of a fee of Rs.100/-.

13. Revision: The Plant Protection Adviser may, at any time, call for the records relating to any case pending before the Inspection Authority for the purpose of satisfying itself as to the legality or propriety of any decision passed by that Authority and may pass such order in relation thereto, as it thinks fit.

Provided that no such order shall be passed after the expiry of three months from the date of the decision:

Provided further that the Plant Protection Adviser shall not pass any order prejudicial to any person, without giving him a reasonable opportunity of being heard.

Chapter VI: Power of relaxation

14. Relaxation conditions of Import Permit and Phytosanitary Certificate in certain cases
   (i) The Central Government may, in public interest, relax any of the conditions of this Order relating to the import permit and the phytosanitary certificate in relation to the import of any consignment. The Joint Secretary in-charge of Plant Protection in the Department of Agriculture and Cooperation shall be the Competent Authority for according the relaxation.
   (ii) In the event of grant of relaxation by Competent Authority, the consignment shall be released after charging the fee for import permit and fee for Plant Quarantine Inspection at five times of normal rates.
   (iii) The provisions of this Order shall apply without prejudice to the Customs Act, 1962 (52 of 1962) or any other Acts or Orders related to imports.

Chapter VII: Repeals and savings

15. Repeals and Savings.-
   (i) The following orders and notifications are hereby repealed, namely:
      (a) Rules for regulating the import of insects into India notified under notification No. F.193/40-A dated the 3rd Feb., 1941.
      (b) Rules for regulating the import of live fungi into India notified under notification No. F.16-5(I)/43-A dated the 10th May, 1943.
      (c) Import of Cotton into India Regulations, 1972.
      (d) Plants, Fruits and Seeds (Regulation of Import into India) Order, 1989.
   (ii) Notwithstanding such repeal, an import permit issued by any competent authority, which is in force immediately before the commencement of this Order and shall continue in force till the 31st day of March, 2004 and all appointments made and fees levied under the repealed Rules, Regulations and Orders, and in force immediately before such commencement shall likewise continue in force and be deemed to be made or levied in pursuance of this Order until revoked.
Short title, extent, application and commencement

1. (1) This Act may be called the Seeds Act, 2010.
   (2) It extends to the whole of India.
   (3) Save as otherwise provided in this Act, it shall apply to—
   (a) every dealer; and
   (b) every producer of seed, other than farmer, except when the seed is produced by him for his own use.

provided that nothing contained in this Act shall restrict the right of the farmer to grow, save, use, sow, resow, exchange, share, or sell his farm seeds and planting material except when he sells such seed or planting material under a brand name”.

(4) It shall come into force on such date as the Central Government may, by notification, appoint:
   Provided that different dates may be appointed for different provisions of this Act and any reference in any such provision to the commencement of this Act shall be construed as a reference to the coming into force of that provision.

Definitions.

2. In this Act, unless the context otherwise requires,—
   (1) "agriculture" includes horticulture, forestry, cultivation of plantation, medicinal and aromatic plants;

(2) "Central Seed Testing Laboratory" means the Central Seed Testing Laboratory established or declared as such under sub-section (1) of section 32;

(3) "Certification Agency" means an agency established under section 26 or accredited under section 27 or authorized under section 30;

(4) "Chairperson" means the Chairperson of the Committee;

(5) “Committee” means the Central Seed Committee constituted under sub-section (1) of section 3;

(6) "container" means a box, bottle, casket, tin, barrel, case, receptacle, sack, bag, wrapper or other thing in which any article or thing is placed or packed;

(7) "dealer" means a person who carries on the business of buying and selling, exporting, or importing seed, and includes an agent of a dealer;

(8) "essentially derived variety", in relation to a variety or an initial variety means a variety of seeds essentially derived from such initial variety when it—
   (a) is predominantly derived from such initial variety, or from a variety that itself is predominantly derived from such initial variety, while retaining the expression of the essential characteristics that result from the genotype or combination of genotypes of such initial variety;
(b) is clearly distinguished from such initial variety; and
(c) conforms (except for the differences which result from the act of derivation) to such initial variety in the expression of the essential characteristics that result from the genotype or combination of genotypes of such initial variety;
(9) "export" means taking out of India by land, sea or air;
(10) "extant variety" means a variety available in India which—
(a) had been notified under section 5 of the Seeds Act, 1966 and remains as such on the date of commencement of this Act; or
(b) is a farmers' variety as defined in clause (l) of section 2 of the Protection of Plant Varieties and Farmers' Rights Act, 2001; or
(c) is a variety about which there is common knowledge; or
(d) a variety other than a variety referred to in sub-clauses (a) to (c) and is in the public domain;
(11) "farmer" means any person who cultivates land himself or through any other person or who conserves or preserves, severally or jointly with any person, any traditional varieties or adds value to such traditional varieties through selection and identification of their useful properties, but does not include any individual, company, trader or dealer who engages in the procurement and sale of seeds on a commercial basis;
(12) "horticulture nursery" means any place, where horticulture plants are, in the regular course of business, produced or propagated and sold for transplantation;
(13) "import" means bringing into India by land, sea or air;
(14) "kind" means one or more related species or sub-species of crop plants each individually or collectively known by one common name such as cabbage, maize, paddy and wheat;
(15) "member" means a member of the Committee;
(16) "misbranded" a seed shall be deemed to be misbranded if—
(i) it is a substitute for, or resembles in a manner likely to deceive another variety of seed under the name of which it is sold, and is not plainly and conspicuously authorize so as to indicate its true nature;
(ii) it is falsely stated to be the product of any place or country;
(iii) it is sold by a name which belongs to another kind or variety of seed;
(iv) false claims are made for it upon the label or otherwise;
(v) when sold in a package which has been sealed or prepared by, or at the instance, of the dealer and which bears his name and address, the contents of each package are not conspicuously and correctly stated on the outside thereof within the limits of variability prescribed under this Act;
(vi) the package containing it, or the label on the package bears any statement, design or device regarding the quality or the kind or variety of seed contained therein, which is false or misleading in any material particular or if the package is otherwise deceptive with respect to its contents;
(vii) it is not registered in the manner required by or under this Act;
(viii) its label contains any reference to registration other than the registration number;
(ix) its label does not contain a warning or caution which may be necessary and sufficient, if complied with, to protect human, animal and plant life and health or to avoid serious prejudice to the environment;
(x) the package containing it or the label on the package bears the name of a fictitious individual or company as the dealer of the kind or variety; or
(xi) it is not labelled in accordance with the requirements of this Act or the rules made there under;
(17) "notification" means a notification published in the Official Gazette;
"prescribed" means prescribed by rules made under this Act;
"producer" means a person, group of persons, firm or organization who grows or organizes the production of seeds, but does not include a farmer;
"registered kind or variety", in relation to any seed, means any kind, or variety thereof, registered under section 13;
"Registration Sub-Committee" means the Registration Sub-Committee constituted under sub-section (1) of section 7;
"regulation" means a regulation made by the Committee under this Act;
"seed" means any type of living embryo or propagule, including seedlings, tubers, bulbs, rhizomes, roots, cuttings, all types of grafts, tissue culture plantlets, synthetic seeds and other vegetatively propagated material, capable of regeneration and giving rise to a plant of agriculture which is true to such type;
"Seed Analyst" means a Seed Analyst appointed under Sub-Section (1) of Section 33;
"Seed Inspector" means a Seed Inspector appointed under Sub-Section (1) of Section 34;
"seed processing" means the process by which seeds and planting materials are dried, threshed, shelled, ginned or delinted (in cotton), cleaned, graded or treated;
"spurious seed" means any seed which is not genuine or true to type;
"State Government", in relation to a Union territory, means the administrator thereof;
"State Seed Testing Laboratory", in relation to any State, means the State Seed Laboratory established or declared as such under sub-section (2) of section 32 for that State;
"transgenic variety" means seed or planting material synthesized or developed by modifying or altering the genetic composition by means of genetic engineering;
"variety" means a plant grouping except micro-organism within a single botanical taxon of the lowest known rank, which can be—
(a) defined by the expression of the characteristics resulting from a given genotype of that plant grouping;
(b) distinguished from any other plant grouping by expression of at least one of the said characteristics; and
(c) considered as a unit with regard to its suitability for being propagated, which remains unchanged after such propagation, and includes propagating material of such variety, extant variety, transgenic variety, farmers’ variety (essentially derived variety and hybrid).

CHAPTER II
THE CENTRAL SEED COMMITTEE, REGISTRATION AND OTHER SUB-COMMITTEES

3. (1) The Central Government shall, by notification, constitute, for the purpose of this Act, a Committee to be called the Central Seed Committee.
(2) The headquarters of the Central Seed Committee shall be at New Delhi.

Composition of the Committee
4. (1) The Committee shall consist of a Chairperson, members, ex officio and other members, to be nominated by the Central Government.
(2) The Secretary to the Government of India in the Department of Agriculture and Cooperation, Ministry of Agriculture, shall be the Chairperson, ex officio.
(3) The Committee shall consist of the following ex officio members, namely:—
(i) the Agriculture Commissioner, Department of Agriculture and Cooperation, Government of India;
(ii) the Deputy Director General (Crop
The Committee shall consist of the following other members to be nominated by the Central Government, namely:—

(i) the Secretary (Agriculture) to the State government one each from the geographical zones as specified in the Schedule on rotation basis;

(ii) Director, State Seed Certification Agency from one State which is not represented under clause (i);

(iii) Managing Director, State Seeds Corporation, from one State which is not represented under clause (i) or clause (ii);

(iv) the representatives of farmers, one each from the geographical zones of the country as specified in the Schedule on rotation basis;

(v) two representatives of seed industry;

(vi) two specialists or experts in the field of seed development.

(5) The Committee may associate with it, in such manner, on such terms and for such purposes as it may deem fit, any person whose assistance or advice it may desire in complying with any of the provisions of this Act, and a person so associated shall have the right to take part in the discussion of the Committee relevant to the purposes for which he has been associated, but shall not have the right to vote and shall be entitled to receive such allowances or fees as may be fixed by the Central Government.

(6) A Member nominated under sub-section (5) shall, unless his seat becomes vacant earlier by resignation, death or otherwise, be entitled to hold office for two years from the date of his nomination but shall be eligible for re-nomination provided that the said member shall hold office only for so long as he holds the appointment by virtue of which his nomination was made.

(7) Save as otherwise provided, the terms and conditions of appointment of the members shall be such as may be prescribed.

(8) A member other than an ex officio member may resign his office by giving notice in writing to the Central Government and on such resignation being accepted, he shall be deemed to have vacated his office.

(9) A person shall be disqualified for being nominated or appointed as a member if he—

(i) has been convicted and sentenced to imprisonment for an offence which, in the opinion of the Central Government, involves moral turpitude; or

(ii) is an undischarged insolvent; or

(iii) is of unsound mind and stands so declared by a competent court.

(10) No act or proceeding of the Committee shall become invalid merely by reason of—

(i) any vacancy therein, or any defect in the
constitution thereof; or
(ii) any defect in the appointment of a person acting as the Chairperson or a member of the Committee; or
(iii) any irregularity in the procedure of the Committee not affecting the merits of the case.

(11) The Central Government may, at any time, remove from office any member other than member, ex officio after giving him a reasonable opportunity of showing cause against the proposed removal.

Powers and functions of the Committee

5. The Committee shall be responsible for and shall have all the powers for the effective implementation of this Act and shall advise the Central Government and the State Governments on matters relating to—
(a) seed programming and planning;
(b) seed development and production;
(c) export and import of seeds;
(d) standards for registration, certification and seed testing;
(e) seed registration and its enforcement;
(f) such other matters as may be prescribed.

Powers of Committee to specify minimum limits of germination, purity, seed health, etc.

6. On the recommendations of the Committee, the Central government may, by notification, specify—
(a) the minimum limits of germination, genetic and physical purity, and maximum seed health, with respect to any seed of any kind or variety and additional standards including transgenic events and corresponding traits for transgenic seeds specified under clause (a), and other particulars, such as expected performance of the seed in accordance with the information provided by the producer under section 14 which such mark or label may contain.

7. (1) The Committee shall constitute a Sub-Committee to be called the Registration Sub-Committee consisting of a Chairman and such number of other members, to assist him in the discharge of the functions of the Committee, as may be prescribed.

(2) It shall be the duty of the Registration Sub-Committee—
(a) to register kinds of varieties of seeds after scrutinizing their claims as made in the application in such manner as may be prescribed;
(b) to perform such other functions as are assigned to it by the Committee.

(3) The Committee may appoint as many other Sub-Committees including a Sub-Committee on Seed Certification as it deems fit consisting wholly of the members of the Committee or wholly of other persons or partly of members of the Committee and partly of other persons as it thinks fit to exercise such powers and perform such duties as may be delegated to them.

Procedure of the Committee and its Sub-Committee

8. The Committee may, subject to the prior approval of the Central Government, make regulations for the purpose of regulating its own procedure and the procedure of any Sub-Committee thereof.

Secretary and Other officers of the Committee

9. The Central Government shall—
(a) appoint a person to be the Secretary of the Committee; and
(b) provide the Committee with such technical
and other officers and employees as may be necessary for the efficient performance of the functions of the Committee under this Act.

Meetings of the Committee
10. (1) The Committee shall meet as and when necessary at such time and place and shall observe such procedure in regard to transaction of business at its meetings (including the quorum at meetings) as may be provided by regulations.

(2) The Chairperson or, in his absence, the Agricultural Commissioner or, in the absence of both the Chairperson and the Agricultural Commissioner, any member chosen by the members present from amongst themselves, shall preside at a meeting of the Committee.

(3) All questions at a meeting of the Committee shall be decided by a majority of votes of the members present and voting and in the case of an equality of votes, the Chairperson or, in his absence, the Agricultural Commissioner or, in the absence of both the Chairperson and the Agricultural Commissioner the person presiding shall have and exercise a second or casting vote.

State Seed Committee
11. Every State Government shall establish a State Seed Committee to—

(a) make recommendations on registration of regional or local seeds of any kind or variety;

(b) advise the State Government on registration of seed producing units, seed processing units, seed dealers and horticulture nurseries;

(c) maintain, in each district, a list of seed dealers, seed producers, seed processing units and horticulture nurseries;

(d) seek information from persons engaged in the production, supply, distribution, trade or commerce in seeds of any kind or variety regarding stocks, prices, sales and other information in the manner as may be prescribed;

(e) advise the State Government and the Committee on all matters arising out of the administration and implementation of this Act; and

(f) carry out other functions assigned to, by, or under this Act.

CHAPTER III
REGISTRATION OF KINDS AND VARIETIES OF SEEDS, ETC

Maintenance of National Register of seeds of kinds and varieties
12. (1) For the purposes of this Act, a register of all kinds and varieties of seed to be called the National Register of Seeds shall be kept by the Registration Sub-Committee wherein all specifications, as may be prescribed, shall be maintained, provided that the farmers shall not be required to register the farmers varieties of seeds in the said register.

(2) Subject to the directions of the Committee, the Register shall be kept under the control and management of the Registration Sub-Committee.

(3) The Registration Sub-Committee shall, within such intervals and in such manner as may be prescribed, publish the list of kinds and varieties of seed which have been registered during that interval.

Registration of seeds of any kind or variety
13. (1) No seed of any kind or variety except the farmers variety shall, for the purpose of sowing
or planting by any person, be sold unless such kind or variety is registered under sub-section (2) by the Registration Sub-Committee in such manner as may be prescribed.

(2) Subject to the provisions of sections 14 and 15, the Registration Sub-Committee may register or refuse to register any kind or variety of seeds on the basis of information furnished by the producer or dealer who develops the variety on the results of multi-locational trials for such period as may be prescribed to establish the performance of that seed:

Provided that no application for registration shall be refused under this sub-section unless the applicant has been given an opportunity to represent his case:

Provided further that seeds of any kind or variety in respect of which a valid registration exist on the date of commencement of this Act are not required to be registered again under this section on basis of the information on the results of multi-location trials.

(3) The Registration Sub-Committee may grant provisional registration to the varieties of seeds which are available in the market on the date of commencement of this Act.

(4) A registration made under this Act shall be valid for a period of ten years in the case of annual and biennial crops, and twelve years for long duration perennials.

(5) At the expiry of the period granted under sub-section (4), the kind or variety of seeds may be re-registered for a like period by the Registration Sub-Committee on the basis of information furnished by the producer on the results of such trials as may be prescribed under sub-section (2) to re-establish performance of the kind or variety of seeds.

(6) The Registration Sub-Committee shall have the power to issue such directions to protect the interests of a producer against any abusive act committed by any third party during the period between the date of filing of application for registration and the date of decision by the Committee on such application.

**Procedure for registration**

14. (1) Every application for registration under sub-section (2) of section 13 shall be made in such form and contain such particulars and be accompanied by such fees as may be prescribed.

(2) On receipt of any such application for the registration of a kind or variety of seed, the Registration Sub-Committee shall, after such enquiry as it deems fit and after satisfying itself that the kind or variety of seed to which the application relates conforms to the claims made by the importer or by the seller, as the case may be, as regards the efficacy of the kind or variety of seed and its safety to human beings and animals, register the kind or variety, as the case may be, of the seed on such conditions as may be specified by it and allot a registration number thereto and issue a certification of registration.

(3) The Registration Sub-Committee may, having regard to the efficacy of the seeds and its safety to human beings and animals, vary the conditions subject to which a certificate of registration has been granted and may, for that purpose, require the certificate holder by notice in writing to deliver up the certificate to it within such time as may be specified in the notice.

**Special provision for registration of transgenic varieties**

15. (1) Notwithstanding anything contained in section 14, no seed of any transgenic variety shall be registered unless the applicant has obtained a clearance in respect of the same as required by or under the provisions of the Environment (Protection) Act, 1986;

(2) Save as otherwise provided in sub-section (1), the form and manner in which and procedure for registration of transgenic variety of seeds and the fee payable thereto shall be the same as applicable in case of registration under section 13.

16. (1) The Registration Sub-Committee may cancel any registration granted under section
13 or section 15 on any one or more of the following grounds, namely:—
(a) that the holder of the certificate has violated any of the terms and conditions of the registration; or
(b) that the registration has been obtained by misrepresentation or concealment of essential data; or
(c) that the variety is not performing in accordance with the information furnished by the producer under sub-section (2) of section 13 or become obsolete or outlived its utility; or
(d) that prevention of commercial exploitation of such variety of seeds is necessary
   (i) in the public interest;
   (ii) to protect public order or public morality;
   (iii) to protect human beings, animals and plant life and health to avoid serious prejudice to the environment.
(2) No order of cancellation of registration under this section shall be made unless the holder thereof or the affected person concerned has been given a reasonable opportunity of showing cause in respect of the grounds for such cancellation.

Notification of cancellation of registration of seeds of kinds and varieties
17. The Registration Sub-Committee shall notify the cancellation of a registration of any kind or variety of seed made under section 13, or a registration made under section 15 in the Official Gazette and shall also publish the same in such other manner as may be prescribed.

Evaluation of performance
19. The Committee may, for conducting trials to assess the performance, accredit centres of the Indian Council of Agricultural Research, State Agricultural Universities and such other organizations fulfilling the eligibility requirements as may be prescribed, to conduct trials to evaluate the performance of any kind or variety of seeds.

Compensation to farmer
20. (1) Where the seed of registered kind or variety is sold to a farmer, the producer, distributor or vendor, as the case may be, shall disclose the expected performance of such kind or variety to the farmer under given conditions, and if, such registered seed fails to provide the expected performance under such given conditions, the farmer may claim compensation from the producer, dealer, distributor or vendor as may be determined a compensation Committee.
(2) The Central government may prescribe:
   (a) the composition and experience of the members of the Compensation Committee;
   (b) the procedure to be followed by such Compensation Committee;
   (c) the manner of giving compensation by such Compensation Committee to the farmer;
   (d) the time within which the compensation so determined shall be paid to the farmer.
(3) Any compensation determined by the Compensation Committee under sub-section (1) if not paid to the concerned farmer, shall be recovered as an arrear of land revenue.
(4) Any farmer aggrieved from the decision of the Compensation Committee may prefer an appeal to the prescribed authority which shall dispose
off the appeal within such time and in such manner as may be prescribed.

**Seed producers and seed processing units to be registered**

21. (1) No producer shall grow or organize the production of seed unless he is registered as such under this Act by the State government in which he grows or organizes such production.

(2) No person shall maintain a seed processing unit unless such unit is registered by the State Government under this Act by the State government in which he processes the seed.

(3) The State Government shall register a producer or seed processing unit if he or it meets the specifications prescribed by the Central Government in terms of infrastructure, equipment and qualified manpower.

(4) Every application for registration under sub-section (3) shall be made in such form and manner and shall be accompanied by such fee as may be prescribed.

(5) The State Government may, after making such enquiry and subject to such conditions as it thinks fit, grant a certificate for maintaining a seed producing or a seed processing unit in such form as may be prescribed.

(6) Every seed producing unit and every seed processing unit shall furnish periodic returns on the quantity of seeds of different kinds or varieties produced or processed by it to the Seed Certification Agency in such form and at such time as may be prescribed.

(7) The State Government may, after giving the holder of certificate of registration under sub-section (1) or sub-section (2), as the case may be, suspend or cancel the registration if—

(a) such registration has been obtained by misrepresentation as to a material particular relating to the specification in terms of infrastructure, equipment or availability of qualified manpower; or

(b) any of the provisions of this Act or the rules made thereunder has been contravened.

**Seed dealers to be registered**

22. (1) Every person who desires to carry on the business of selling, keeping for sale, offering to sell, import or export or otherwise supply any seed by himself, or by any other person on his behalf shall obtain a registration certificate as a dealer in seeds from the State Government.

(2) Every applicant for registration under sub-section (1) shall be required to furnish information about seed stocks, sales and other related information as may be prescribed.

(3) Every application for registration under sub-section (1) shall be made in such form and manner and shall be accompanied by such fees as may be prescribed.

(4) The State Government may, after making such enquiry and subject to such conditions as it thinks fit, grant a certificate of registration as a dealer in seeds in such form as may be prescribed.

(5) Every dealer registered under this section shall furnish to the State Government such information and returns regarding seed stocks, seed lots, expiry date of seed lots and other related information and at such time as may be prescribed.

(6) The State Government may, after giving the dealer an opportunity of being heard, suspend or cancel a certificate granted under this section if—

(a) such registration had been obtained by misrepresentation of any material fact;

(b) contravenes any of the provisions of this Act or the rules made thereunder.

**Horticulture nursery to be registered**

23. (1) No person shall conduct or carry on the business of horticulture nursery for any of the purposes of this Act unless such nursery is registered with the State Government.

(2) Every application for registration under sub-section (1) shall be made in such form and contain such particulars and shall be accompanied by such fees as may be prescribed.
Duties of registration of holders of horticulture nursery

24. Every person who is a holder of a registration of a horticulture nursery under section 23 shall—

(a) keep a complete record of the origin or source of every planting material and performance record of mother trees in the nursery;
(b) keep a layout plan showing the position of the root-stocks and scions used in raising the horticulture plants;
(c) keep a performance record of the mother trees in the nursery;
(d) keep the nursery plants as well as the parent trees used for the production or propagation of horticulture plants free from infectious or contagious insects, pests or diseases affecting plants; and
(e) furnish such information to the State Government on the production, stocks, sales and prices of planting material in the nursery at such intervals as may be prescribed.

CHAPTER IV
REGULATION OF SALE OF SEED AND SEED CERTIFICATION AGENCIES

Regulation of sale of seeds of registered kinds and varieties

25. No person shall himself, or by any other person on his behalf, carry on the business of selling, keeping for sale, offering to sell, import or export or otherwise supply any kind of seed of any registered kind or variety unless—

(a) such seed is identifiable as to its kind or variety;
(b) such seed conforms to the minimum limit of germination and genetic, physical purity, maximum seed health and additional information including transgenic events and corresponding traits of transgenic seeds specified under clause (a) of section 6;
(c) the container of such seed bears in the prescribed manner, the mark or label bearing the correct particulars thereof, specified under clause (b) of section 6;
(d) the container of such seed, in the case of transgenic varieties, bears a declaration to this effect; and
(e) he complies with such other requirements as may be prescribed.

State Seed Certification Agency

26. The State Government or the Central Government in consultation with the State Government, may by notification, establish a State Seed Certification Agency for the State to carry out the functions entrusted to the State Seed Certification Agency by or under this Act.

Accreditation of Seed Certification Agencies

27. (1) The State Government may, with the prior approval of the Central Government, accredit the organizations owned or controlled by the Central Government or the State Government to carry out certification, on the fulfillment of such criteria, as may be prescribed.
(2) The accredited organization shall be subject to such inspection and control of, the concerned State Government and State Seed Certification Agency, as may be prescribed.
(3) The accreditation may be withdrawn by the State Government, for reasons to be recorded in writing and after giving to the concerned organization a reasonable opportunity of being heard.

Grant of certificate by the State Seed Certification Agency

28. (1) Any person selling, keeping for sale, offering to sell, or otherwise supplying any seed of any registered kind or variety may, if he
Millet Seed Technology desires to have such seed certified by the State Seed Certification Agency, apply to that Agency for the grant of a certificate for the purpose.

(2) Every application under sub-section (1) shall be made in such form, shall contain such particulars and shall be accompanied by such fees as may be prescribed.

(3) On receipt of an application under sub-section (1), the State Seed Certification Agency shall, after such enquiry as it thinks fit and after satisfying itself that the seed to which the application relates conforms to the prescribed standards, grant a certificate in such form and on such conditions as may be prescribed:

Provided that such standards shall not be lower than the minimum limit of germination, genetic and physical purity, seed health and additional information including transgenic events and corresponding traits for transgenic seeds specified for that seed under clause (a) of section 6.

Revocation of certificate

29. If the State Seed Certification Agency is satisfied,

(2) Every application under sub-section (1) shall be made in such form, shall contain such particulars and shall be accompanied by such fees as may be prescribed.

(3) On receipt of an application under sub-section (1), the State Seed Certification Agency shall, after such enquiry as it thinks fit and after satisfying itself that the seed to which the application relates conforms to the prescribed standards, grant a certificate in such form and on such conditions as may be prescribed:

Provided that such standards shall not be lower than the minimum limit of germination, genetic and physical purity, seed health and additional information including transgenic events and corresponding traits for transgenic seeds specified for that seed under clause (a) of section 6.

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Provided that such standards shall not be lower than the minimum limit of germination, genetic and physical purity, seed health and additional information including transgenic events and corresponding traits for transgenic seeds specified for that seed under clause (a) of section 6.

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Provided that such standards shall not be lower than the minimum limit of germination, genetic and physical purity, seed health and additional information including transgenic events and corresponding traits for transgenic seeds specified for that seed under clause (a) of section 6.

CHAPTER V
APEALS

Appeals

31. (1) Any person aggrieved by a decision of the Registration Sub-Committee under section 14, section 16 or of the State Seed Certification Agency under section 28 or section 29 may, within thirty days from the date on which the decision is communicated to him prefer an appeal to such authority (hereinafter referred to as the appellate authority) as the Central Government may think fit to constitute:

Provided that the appellate authority may entertain an appeal after the expiry of the said period of thirty days if it is satisfied that the appellant was prevented by sufficient cause from filing the appeal in time.

(2) An appellate authority shall consist of a single person or three persons as the Central Government may think fit, to be appointed by that Government.

(3) The form and manner in which an appeal may be preferred under sub-section (1), the fee payable for such appeal and the procedure to be followed by the appellate authority shall be such as may be prescribed.

(4) On receipt of an appeal preferred under sub-section (1), the appellate authority shall, after giving the appellant and the other party an opportunity of being heard, dispose of the appeal as expeditiously as possible.
CHAPTER VI

SEED ANALYSIS AND SEEDS TESTING

Central and State Seed Testing Laboratories

32. (1) The Central Government may, by notification, establish a Central Seed Testing Laboratory or declare any seed testing laboratory as the Central Seed Testing Laboratory to carry out the functions entrusted to the Central Seed Testing Laboratory by or under this Act in the prescribed manner.

(2) The State Government may, by notification, establish one or more State Seed Testing Laboratories or declare any seed testing laboratory in the Government or non-Government sector as a State Seed Testing Laboratory where analysis of seed of any kind or variety shall be carried out, under this Act, in the prescribed manner.

(3) Every Seed Testing Laboratory referred to in sub-section (1) shall have as many Seed Analysts as the Central Government may consider necessary.

(4) Every Seed Testing Laboratory referred to in sub-section (2) shall have as many Seed Analysts as the State Government may consider necessary.

(5) The Central Seed Testing Laboratory referred to in sub-section (1) and the State Seed Testing Laboratory referred to in sub-section (2) shall conform to such standards and adopt such practices as may be prescribed.

Seed Analysts

33. (1) In case of the Central Seed Laboratory, the Central Government and in other cases the State Government may, by notification, appoint such persons as the concerned Government thinks fit and having the prescribed qualifications to be Seed Analysts and define the local limits of their jurisdiction.

(2) Every Central Seed Testing Laboratory established or declared under sub-section (1) of section 32 and every State Seed Testing Laboratory established or declared under subsection (2) of that section shall have as many Seed Analysts as the Central Government or the State Government, as the case may be, specify.

33A The seed analyst shall, as soon as may be after the receipt of sample of seed under clause (b) of sub-section (1) of section 35, analyse the sample at the State Seed Testing Laboratory and deliver, in such form as may be prescribed, one copy of the report of the analysis to the Seed Inspector and another copy thereof to the person from whom the sample has been taken.

33B. (1) Where any prosecution is instituted on the basis of the report referred to in section 33A by any person authorized under the provision of this Act, the accused vendor, or as the case may be, the complainant, if he disputes the correctness of the report, may, on payment of the prescribed fee, make an application to the court for sending the sample taken under clause (a) of the sub-section (1) of section 35, to the Central Seed Testing Laboratory for its report.

(2) On receipt of the application under sub-section (1), the court shall first ascertain that the seal of the sample taken under clause (a) of sub-section (1) of section 35 is intact and then dispatch the sample under its own seal to the Central Seed Testing Laboratory.

(3) The Central Seed Testing Laboratory shall send the report of its analysis to the court in such manner and within such time as may be prescribed.

(4) In case the report of the State Seed Testing Laboratory referred to in section 33A and the report of the Central Seed Testing Laboratory referred to in sub-section (3) of Section 33B
vary, the report sent by the Central Seed Testing Laboratory referred to in sub-section (3) shall, to the extent of such variation, prevail over the report of the State Seed Testing Laboratory.

(5) Where the report sent by the Central Seed Testing Laboratory under sub-section (3) is produced in any proceedings, it shall not be necessary to produce the sample or part thereof taken for analysis in such proceedings.

Seed Inspectors

34. (1) The State Government may, by notification, appoint such persons as it thinks fit, having the prescribed qualifications, to be Seed Inspectors and define the areas within which they shall exercise jurisdiction.

(2) Every Seed Inspector shall be subordinate to such authority as the State Government may specify in this behalf.

Power of Seed Inspectors

35. (1) The Seed Inspector may in such manner as may be prescribed—

(a) take samples of any seed of any kind or variety from—

(i) any person selling such seed; or

(ii) any person who is in the course of conveying, delivering or preparing to deliver such seed to a purchaser or a consignee; or

(iii) a purchaser or a consignee after delivery of such seed to him;

(b) send such sample for analysis to the Seed Analyst of the area within which such sample has been taken;

(c) enter and search with prior written authorization of the District Magistrate, at all reasonable times, with such assistance, if any, as he considers necessary, any place in which he has reason to believe that an offence under this Act has been or is being committed and order in writing the person in possession of any seed in respect of which the offence has been or is being committed, not to dispose of any stock of such seed for a specific period not exceeding fifteen days or, unless the alleged offence is such that the defect may be removed by the possessor of the seed, seize the stock of such seed;

(d) examine any record, register, document or any other material object found in any place mentioned in clause (c) and seize the same if he has reason to believe that it may furnish evidence of the commission of an offence punishable under this Act; and

(e) exercise such other powers as may be necessary for carrying out the purposes of this Act or any rule or regulation made thereunder.

(2) The power conferred by this section includes the power to break-open any container in which any seed of any kind or variety may be contained or to break-open the door of any premises where any such seed may be kept for sale:

Provided that the power to break-open the door shall be exercised only after the owner or any other person in occupation of the premises, if he is present therein, refuses to open the door on being called upon to do so.

(3) Where the Seed Inspector takes any action under clause (a) of sub-section (1), he shall call not less than two independent persons from the same locality to be present at the time when such action is taken and take their signatures on a memorandum to be prepared in such form and manner as may be prescribed.

(4) The provisions of the Code of Criminal Procedure, 1973, or in relation to the State of Jammu and Kashmir, the provisions of any corresponding law in force in that State, shall, so far as may be, apply to any search or seizure under this section as they apply to any search or seizure made under the authority of a warrant issued under section 94 of the said Code, or, as the case may be, under the corresponding provisions of the said law.
CHAPTER VII
IMPORT AND EXPORT OF SEEDS

Import of seeds
36. (1) All import of seeds—
(a) shall be subject to the provisions of the Plant Quarantine (Regulation of Import into India) Order, 2003, or any corresponding order made under section 3 of the Destructive Insects and Pests Act, 1914;
(b) shall conform to minimum limits of germination, genetic and physical purity, and seed health and additional information including transgenic events and corresponding traits for transgenic seeds as prescribed under section 6; and
(c) shall be subject to registration as may be granted on the basis of information furnished by the importer on the results of multi-locational trials conducted in such manner and for such period as may be prescribed to establish agronomic performance.

Export of seeds
37. The Central Government may, on the advice of the Committee, restrict, by notification, the export of seeds of any kind or variety if it is deemed that such export may adversely affect the food security of the country, or if it is felt that the reasonable requirements of the public will not be met, or on such other grounds as may be prescribed.

CHAPTER VIII
OFFENCES AND PUNISHMENT

Offences and punishment
38. (1) If any person—
(a) contravenes any provision of this Act or any rule made thereunder; or
(b) imports, sells, stocks or exhibits for sale or barter or otherwise supplies any seed of any kind or variety deemed to be misbranded; or
(c) imports, sells, stocks or exhibits for sale or barter, or otherwise supplies any seed of any kind or variety without a certificate of registration; or
(d) obstructs the Committee, Registration Sub-Committee or Seed Certification Agency or Seed Inspector or Seed Analyst or any other authority appointed or duly empowered under this Act in the exercise of its powers or discharge of their duties under this Act or the rules made thereunder. He shall, on conviction, be punishable with fine which shall not be less than five thousand rupees but which may extend to one lakh rupees.

(2) If any person sells any seed which does not conform to the standards of physical purity, germination or health or does not maintain any records required to be maintained under this Act or the rules made thereunder he shall, on conviction, be punishable with fine which shall not be less than five thousand rupees but which may extend to one lakh rupees.

(3) If any person furnishes any false information relating to the standards of genetic purity, misbrands any seed or supply any spurious...
seed or spurious transgenic variety or sells any non-registered seeds he shall, on conviction be punishable with imprisonment for a term which may extend to one year or with fine which may extend to five lakh rupees or with both.

**Forfeiture of property**

39. When any person has been convicted under this Act for the contravention of any of the provisions of this Act or the rules made thereunder, the seed in respect of which the contravention has been committed shall be forfeited to the Central Government.

**Offences by companies**

40. (1) Where an offence under this Act has been committed by a company, every person who at the time the offence was committed was in charge of, and was responsible to the company for the conduct of the business of the company, as well as the company, shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly: Provided that nothing contained in this sub-section shall render any such person liable to any punishment under this Act if he proves that the offence was committed without his knowledge and that he exercised all due diligence to prevent the commission of such offence.

(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a company and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of, any director, manager, secretary or other officer of the company, such director, manager, secretary or other officer shall also be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

**Explanation.**—For the purpose of this section,—

(a) “company” means any body corporate and includes a firm or other association of individuals; and

(b) “director”, in relation to a firm, means a partner in the firm.

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**CHAPTER IX**

**POWER OF CENTRAL GOVERNMENT**

**Power of Central Government to give directions to the State Governments**

41. The Central Government may give such directions to any State Government as Central may appear to the Central Government to be necessary for carrying into execution in the Government to give State any of the provisions of this Act or of any rule made thereunder.

**Power of Central Government to issue directions to the State Governments**

42. (1) Without prejudice to the foregoing provisions of this Act, the Committee shall, in the discharge of its functions and duties under this Act, be bound by such directions on questions of policy as the Central Government may give in writing to it from time to time.

(2) The decision of the Central Government whether a question is one of policy or not shall be final.

**Exemption from registration**

The Central Government may, by notification, and subject to such conditions as it may specify therein, exempt any educational, scientific, research or extension organization from all or any of the provisions of this Act or the rules made thereunder.
CHAPTER X

MISCELLANEOUS

Protection of action taken in good faith
44. No suit, prosecution or other legal proceeding shall lie against the Government or any person for anything which is in good faith done or intended to be done under this Act.

Power to remove difficulties
45. (1) If any difficulty arises in giving effect to the provisions of this Act, the Central may, by order, published in the Official Gazette, make such provisions not inconsistent with the provisions of this Act as may appear to be necessary for removing the difficulty. Provided that no order shall be made under this section after the expiry of two years from the date of commencement of this Act.
(2) Every order made under sub-section (1) shall be laid before each House of Parliament.

Power of Central Government to make rules
46. (1) The Central Government may, by notification, make rules to carry out the provisions of this Act.
(2) In particular, and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely:—
(a) the terms and conditions of appointment of members of the Committee under sub-section (7) of section 4;
(b) the matters to be prescribed under clause (f) of section 5;
(c) the number of other members who shall assist the Chairperson of the Registration Sub-Committee to discharge its functions under sub-section (1) of section 7;
(d) the manner of scrutinizing the claims as made in the applications under clause (a) of sub-section (2) of section 7;
(e) the manner of seeking information by a State Seed Committee under Clause (d) of Section 11;
(f) the specifications which shall be maintained in the National Register of Seeds of kinds or varieties under sub-section (1) of section 12;
(g) the manner of registration of seed of any kind or variety under sub-section (1) of section 13;
(h) the period which required to establish performance of seed on the results of multi-location trials conducted under sub-section (2) of section 13;
(i) the form of application and the particulars which should be furnished, and the fee which should accompany, such application under sub-section (1) of section 14;
(ia) the manner of publishing registration and cancellation of registration under section 17.
(j) the eligibility requirement which an organization shall fulfill for accreditation under section 19;
(ja) the composition and experience of the members of the Compensation Committee, the procedure to be followed by it, the manner of giving compensation and the time within which the compensation so determined is to be paid to the farmer under sub-section (2) of Section 20;
(jb) the authority to whom appeal may be preferred and time and manner for making appeal under sub-section (4) of section 20.
(k) the specification required to be fulfilled for registration as a producer or seed producing unit under sub-section (3) of section 21; (l) the form and manner in which an
application for registration under sub-section (3) of section 21 shall be made and the fee with which such application shall be accompanied under sub-section (4) of aid section 21;

(m) the form in which a certificate for maintaining a seed producing or seed processing unit may be granted under sub-section (5) of section 21;

(n) the form in which and the time within which periodic returns shall be filled under sub-section (6) of section 21;

(o) the information which an applicant for dealership in seeds shall be furnished under sub-section (2) of section 22;

(p) the form and manner in which an application for registration as seed dealer under sub-section (1) of section 22 shall be made and the fee which shall accompany such application under sub-section (3) of that section;

(q) the form in which a certificate of registration as a dealer in seeds shall be granted under sub-section (4) of section 22;

(r) the information and return which a registered dealer shall furnish to the State Government and the intervals at which such information and return shall be furnished under sub-section (5) of section 22;

(s) the form in which an application for registration of a horticulture nursery shall be made, the particulars which such application shall contain and fee which shall accompany such application under sub-section (2) of section 23;

(t) the information on production, stocks, sales and prices of planting material in a nursery which shall be furnished to the State Government and the intervals at which such information shall be furnished under section 24;

(u) the manner in which the container of seeds shall bear the mark or label under clause (c) of section 25;

(v) the requirement which a person carrying on business of selling, etc., of any registered kind or variety of seeds shall comply with under clause (e) of section 25;

(w) the criteria to be fulfilled sub-section (1) of section 27;

(x) the inspection and control of the Committee, the concerned State Government and the State Seeds Certification Agency for accrediting individual and seed producing organizations under sub-section (2) of section 27;

(y) the form of application and the particulars to be furnished in such application and the fee which shall accompany such application under sub-section (2) of section 28;

(z) the form in which and the conditions subject to which a certificate shall be granted under sub-section (3) of section 28;

(za) the form and manner in which an appeal shall be preferred and the fee which such appeal shall accompany and the procedure which the appellate authority shall follow under sub-section (3) of section 31;

(zb) the manner in which a Central Seed Testing Laboratory established or declared under sub-section (1) of section 32 shall carry out its functions;

(zc) the manner of carrying out analysis of seeds under sub-section (2) of section 32;

(za) the standards to be conformed to and the practices to be adopted under sub-section (5) of section 32.

(zd) the qualifications which a person to be appointed as Seed Analyst shall possess under sub-section (1) of section 33;

(zda) the form of report under section 33A;

(zdb) fee for application under sub-section (1) of section 33B and the manner of sending report under sub-section (3) of that section.

(zdc) the manner and the time within which...
the report is to be sent to the court.

(ze) the qualifications which a person to be appointed as Seed Inspector shall possess under sub-section (1) of section 34;

(zea) the manner of taking samples under clause (a) of sub-section (1) of section 35;

(zeb) the manner of sending samples for analysis under clause (b) of sub-section (1) of section 35.

(ze) the manner of entering and searching under clause (c) of sub-section (1) of section 35.

(zed) the manner of examining any record, register, document of any material object under clause (d) of sub-section (1) of section 35.

(ze) the manner of exercising such other powers under clause (e) of sub-section (1) of section 35.

(zf) the form and manner in which the memorandum shall be prepared under subsection (3) of section 35;

(zfa) the manner of conducting multi-localational trials under section 36.

(zg) the grounds on which the Central Government may restrict export of seeds under section 37;

(zh) any other matter which is to be or may be prescribed.

**Power of Committee to make regulations**

47. (1) The Committee may, with the previous approval of the Central Government, by notification, make regulations not inconsistent with the provisions of this Act and the rules made thereunder, to provide for all matters for which provision is necessary or expedient for the purpose of giving effect to the provisions of this Act.

(2) In particular and without prejudice to the generality of the foregoing power, such regulations may provide for all or any of the following matters, namely:

(a) the procedure for conduct of business to be transacted by the Committee or any Sub-Committee thereof under section 8;

(b) the procedure in regard to transaction of business at meetings of the Committee (including the quorum at meetings) under sub-section (1) of section 10;

(c) any other matter in respect of which regulations are to be or may be made.

**Rules and Regulations to be laid before Parliament**

48. Every notification issued under sections 30 and 43 and every rule and every regulation made under this Act shall be laid as soon as may be after it is made before each House of Parliament, while it is in session, for a total period of thirty days which may be comprised in one session or in two or more successive sessions, and if, before the expiry of the session immediately following the session or the successive sessions as aforesaid, both Houses agree in making any modification in the notification or the rule or the regulation or both Houses agree that the notification or the rule of the regulation should not be so made, the notification or the rule or the regulation shall, thereafter, have effect only on such modified form or be of no effect, as the case may be, so however, that any such modification or annulment shall be without prejudice to the validity of anything previously done under that notification or the rule or the regulation.

**Repeal and savings**

49. (1) The Seeds Act, 1966 is hereby repealed.

(2) Without prejudice to the provisions contained in the General Clauses, 1897, with respect to repeals, no such repeal shall affect—

(a) the previous operation of the law so repealed or anything duly done or suffered thereunder; or
(b) any right, privilege, obligation or liability acquired, accrued or incurred under the law so repealed; or

c) any penalty, forfeiture or punishment incurred in respect of any offence committed against the Act so repealed; or

d) any investigation, proceeding, legal proceeding or remedy in respect of any such right, privilege, obligation, liability, penalty, forfeiture or punishment as aforesaid; and any such investigation, proceedings, legal proceeding or remedy may be instituted, continued or enforced; any such penalty, forfeiture or punishment may be imposed as if this Act had not been passed:
Provided further that, subject to the first proviso and any saving provisions made elsewhere in this Act anything done, any action taken, any rule made, any notification or order issued under the provisions of the Act so repealed shall, in so far as they are not inconsistent with the provisions of this Act, be deemed to have been done, taken, made or issued under the corresponding provisions of this Act, and shall continue to be in force accordingly, unless and until expressly or impliedly repealed by anything done, action taken, rules made or, notification or order issued under this Act.

(3) Notwithstanding such repeals any kind or variety of seeds that has been notified under the law as so repealed shall be deemed to have been registered under this Act, and any seed certification agency established under section 18 of the Seeds Act, 1966 shall be deemed to have been established or recognized, as the case may be, under this Act.

The Schedule
[See section 4(4)(i),(ii) and (iii) ]

Geographical zones

<table>
<thead>
<tr>
<th>ZONE-I</th>
<th>Andhra Pradesh, Karnakata, Kerala, Lakshadweep, Pondicherry &amp; Tamil Nadu</th>
</tr>
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<tbody>
<tr>
<td>ZONE-II</td>
<td>Andaman &amp; Nicobar Islands, Bihar, Chhatisgarh, Jharkhand, Madhya Pradesh, Orissa &amp; West Bengal</td>
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<tr>
<td>ZONE-III</td>
<td>Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim &amp; Tripura</td>
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<tr>
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</tr>
<tr>
<td>ZONE-V</td>
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</tbody>
</table>
Annexure-I:

Allocation of breeder’s seed production (national varieties) - BSP I

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Location</th>
<th>Name of the breeder</th>
<th>Variety</th>
<th>Quantity to be produced (q)</th>
<th>Quantity to be produced for each indenter (q)</th>
<th>Members of the monitoring team</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

Notes:
1. To be filled and distributed by the Project Director/Project Coordinator of the relevant crop.
2. The members of the Monitoring Team are to be according to the Council’s No. 33(1)/78-FC II dated 26th March 1979.
3. The Scientists/Breeders under column (3) would act further to fill in proforma No. BSP-2 at the earliest.
4. The representative of the NSC in column 7 would act as a convenor of the Monitoring Team and would arrange for visits by selecting a suitable date convenient to all, normally getting guidance from proforma No. BSP-II.
5. Full address of the individual indentor should be appended in BSP-I.
6. Address of the Institution / University for sending the bank draft as an advance money should be given.

Distribution
1. ADG (Seed), ICAR, Krishi Bhavan, New Delhi.
2. Deputy Commissioner (Seed), Ministry of Agriculture, Krishi Bhavan, New Delhi – 110 012.
4. Directors / Directors Research of ICAR Institutes and Agriculture Universities under col. (2).
5. Scientist/Breeders under column (3).
6. Members Monitoring Team under column (7).
7. Actual indentor vide column (6) with the remarks that 25% of the cost of Breeder Seed should be sent as an advance to the concerned.
Annexure-II:
Time table of production & availability of breeder’s seed (national varieties) - BSP II

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Variety</th>
<th>Quantity targeted (q)</th>
<th>Area sown (ha)</th>
<th>Expected production</th>
<th>Field location</th>
<th>Date of sowing</th>
<th>Expected fortnight for inspection by monitoring team</th>
<th>Expected date of harvest</th>
<th>Expected date of availability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: 1. This is to be filled and distributed by the producing breeder.

Distribution:
1. ADG (Seed), ICAR, Krishi Bhavan, New Delhi.
2. Deputy Commissioner (Seed), Ministry of Agriculture, Krishi Bhavan, New Delhi – 110 012.
4. Director, Seed certification of the concerned state.
5. Project Director / Project Coordinator of the relevant crop, under whose allocation the above production has been taken up.
6. Members Monitoring Team under column (7) of Proforma BSP-I.

Annexure-III:
Inspection report of the monitoring team (national varieties) – BSP III

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Variety</th>
<th>Area under variety (ha.)</th>
<th>Field location</th>
<th>Authority under which grown</th>
<th>Date of proforma BSP-I</th>
<th>Date of proforma BSP-II</th>
<th>Report of the monitoring team</th>
<th>Year of Indent Crop</th>
<th>No. of samples to be taken for grow out test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sd/- Members of the Monitoring Team: (1) (2) (3) (4)

Note:
1. Cyclostyled morphological description and salient identification of characteristics of varieties under breeder’s seed production are to be supplied by the concerned breeders to the monitoring team.
2. Original Inspection Report to be maintained in the office of the Director/Director Research of the concerned ICAR Institute/Agricultural University.
3. Inspection should be done at the most appropriate stage which the diagnostic characters are most discernable or in root crops (Vegetables) at the stage of planting, and in the case of cauliflower at full formed curd stage.

Distribution:
1. ADG (Seed), ICAR, Krishi Bhavan, New Delhi.
2. Deputy Commissioner (Seed), Ministry of Agriculture, Krishi Bhavan, New Delhi – 110 012.
4. Directors / Directors Research of ICAR Institutes and Agriculture Universities under col. (2).
5. Project Director/Project Coordinator of concerned crop.
Annexure-IV:
Breeder seed actually produced – BSP IV

Year of Indent :
Crop :

1. Name of the producing Institution :
2. Name of the producing breeder :
3. Allocation of breeder seed :
4. Allocation vide PD/PC :
5. Actual breeder seed produced :

(a) As per BSP-I

<table>
<thead>
<tr>
<th>Variety</th>
<th>Quantity of B.S. Allocated to be produced (q)</th>
<th>Quantity of B.S. actually produced (q)</th>
<th>Comments of the monitoring team</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Satisfactory / Unsatisfactory)</td>
</tr>
</tbody>
</table>

(b) Breeder’s seed produced in addition to above allocation:

<table>
<thead>
<tr>
<th>Variety</th>
<th>Quantity of B.S. Produced</th>
<th>Comments of the monitoring team</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(c) Carry over seed

<table>
<thead>
<tr>
<th>Variety</th>
<th>Year of production</th>
<th>Quantity (q)</th>
<th>Germination (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Previous year</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Current year</td>
</tr>
</tbody>
</table>

Circulation:

1. ADG (Seeds), ICAR, Krishi Bhavan, New Delhi – 110 001.
2. Deputy Commissioner (Seed), Govt. of India, Dept. of Agri. & Coopn., Krishi Bhavan, New Delhi – 110 001.
3. G.M (Production), National Seed Corporation, Beej Bhavan, Pusa Campus, New Delhi – 110 012. Project Director/Project Coordinator.
Annexure-V:
Grow out test report (national varieties) – BSP V

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Variety</th>
<th>Area under variety (ha.)</th>
<th>Name of the producing breeder</th>
<th>Location grown</th>
<th>Authority under which grown</th>
<th>Year of Indent</th>
<th>Crop</th>
<th>No. of samples taken for grow out tests</th>
<th>Results of grow out tests</th>
<th>Date of BSP-1</th>
<th>Date of BSP-III</th>
</tr>
</thead>
</table>

Note:
1. The Grow-out tests should be performed according to the procedures given in Handbook of Seed Testing.
2. Original report to be maintained in the office of the Director / Director Research of the concerned ICAR Institute/Agricultural University/Research station.

Distribution:
1. ADG (Seeds), ICAR, Krishi Bhavan, New Delhi – 110 001.
2. Deputy Commissioner (Seed), Govt. of India, Department of Agriculture and Coop., Krishi Bhavan, New Delhi – 110 001.
3. G.M (Production), National Seed Corporation, Beej Bhavan, Pusa Campus, New Delhi – 110 012.
4. Project Director/Project Coordinator.
5. Deputy Commissioner (Seed), Govt. of India, Department of Agriculture, New Delhi – 110 001.

Annexure-VI:
Breeder seed distribution (national varieties) – BSP VI

<table>
<thead>
<tr>
<th>Variety</th>
<th>Indent as per Ministry of Agriculture (q)</th>
<th>Allocation as per BSP-I (q)</th>
<th>Production as per BSP-IV</th>
<th>Allocation by Ministry of Agriculture (q)</th>
<th>Quantity of seed lifted (q)</th>
<th>Balance (q)</th>
</tr>
</thead>
</table>

Note: The producing Breeder would remain solely responsible for breeder’s seed quality.

Distribution:
1. ADG (Seeds), ICAR, Krishi Bhavan, New Delhi – 110 001.
2. Deputy Commissioner (Seed), Govt. of India, Dept. of Agri. & Coop. , Krishi Bhavan, New Delhi – 110 001.
3. G.M (Production), National Seed Corporation, Beej Bhavan, Pusa Campus, New Delhi – 110 012.
4. Project Director/Project Coordinator.
5. Deputy Commissioner (Seed), Govt. of India, Department of Agriculture, New Delhi – 110 001.
### Annexure-VII:
#### Calendar of operations for production and distribution of breeder’s seed

<table>
<thead>
<tr>
<th>No.</th>
<th>Action</th>
<th>Deadline of action: Season-wise</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Kharif Rabi</td>
</tr>
<tr>
<td>1</td>
<td>Placement of indent on Breeder’s seed with Director of Agriculture by the concerned state Government and the State Public Seed Producing Agencies.</td>
<td>15th December of the year preceding the season 15th December of the year preceding the season</td>
</tr>
<tr>
<td>2</td>
<td>Communication of the verified and compiled indents by the Directors of Agriculture of all the States to the Seed Development Section of Department of Agriculture, GOI. Seed Association of India would do the same on the indents of private sector seed producers. Central Seed Producing Agencies such as NSC, SFCI etc. would place their indents directly with Seed Development section of the DAC.</td>
<td>7th January 7th January</td>
</tr>
<tr>
<td>3</td>
<td>Communication of compiled indents by Seed Development Section, Ministry of Agriculture, Govt. of India to ICAR Headquarters.</td>
<td>15th February 15th February</td>
</tr>
<tr>
<td>4</td>
<td>Communication of Breeder’s seed Production Plan in BSP-I by Project Coordinator (Crop) to Seed Development Section, Ministry of Agriculture, and ADG (Seed), ICAR.</td>
<td>15th May 15th October</td>
</tr>
<tr>
<td>5</td>
<td>Communication of the BSP-2 by the concerned Breeder to the Seed Development Section of Ministry of Agriculture, and ADG (Seed).</td>
<td>After 15 days of the actual planting of breeder’s seed crop. After 15 days of the actual planting of breeder’s seed crop.</td>
</tr>
<tr>
<td>6</td>
<td>Communication of the BSP-3 by the concerned breeder to the Seed Development Section of Ministry of Agriculture, Govt. of India and ADG (Seed), ICAR.</td>
<td>Within 15 days of the actual inspection of breeder’s seed crop by the Joint monitoring team. Within 15 days of the actual inspection of breeder’s seed crop by the joint monitoring team.</td>
</tr>
<tr>
<td>7</td>
<td>Communication of the final production figures of breeder’s seed under BSP-4 by the ICAR to the Seed Development Section, DAC, GOI. For compensatory breeder’s seed production programme in case of groundnut.</td>
<td>15th February 15th April for compensatory programme in groundnut</td>
</tr>
<tr>
<td>8</td>
<td>Communication of the Allocation of Breeder’s seed by Seed Development Section, DAC, GOI to concerned Directors of Agriculture and other indentors.</td>
<td>31st March 15th September</td>
</tr>
<tr>
<td>9</td>
<td>Communication of the details of lifting of breeder’s seed in compliance with the allotment made by the DAC, GOI Ministry of Agriculture by Director of Agriculture in the Performa ‘A’ enclosed with supply plan.</td>
<td>After 15 days of the cut-off-date After 15 days of the cut-off-date</td>
</tr>
<tr>
<td>10</td>
<td>Communication of details of supply of seed to the allottees by the breeder to Ministry of Agriculture and ICAR in Performa 1B’ enclosed with supply plan.</td>
<td>After 15 days of the cut-off-date After 15 days of the cut-off-date</td>
</tr>
</tbody>
</table>
Annexure-VIII:
Field inspection report for sorghum

Field No.: Serial No.:  
Date of sowing: Report No.:  
Expected date of harvest: Date of inspection:  
Time: From: To:  

1. Name of the producer:  
2. Village: Taluq: District: State:  
3. Location of farm:  
4. Line increase/hybrid designation:  
5. Class of seed:  
6. Female parent:  
7. Male parent:  
8. Total area under production of this seed crop (ha):  
9. Area of field No. inspected (ha):  
10. Previous crop:  
11. Planting ratio:  
12. Are both ends of male rows marked:  
13. Method of marking male rows:  
14. Isolation distance in meters:  
15. State of growth of contaminant:  
16. Stage of seed crop at this inspection:  
17. Field counts (take 1,000 heads per count):

<table>
<thead>
<tr>
<th>Count No.</th>
<th>Female parent row</th>
<th>Male parent row</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of pollen shedding heads</td>
<td>No. of heads of off-types shedding pollen</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. No. of border rows:  
2. Crop condition:  
3. No. of times shedders, off-types, etc. were removed:  
4. Frequency of removal of shedders, off-types, etc.:  
5. Was it done at inspection time:  
6. Quality of seed production work:
7. Does this crop conform to the standards for certification:
8. Estimated seed yield (qtls./ha):
9. Is this the final report:
10. Was the producer or his representative present at inspection time:
11. Remarks:

Signature of producer or his representative

Signature of Inspector:

Name:

Designation:

Annexure-IX: Field map

Related inspection report No.:_________ and date: _____________

Name of producer: ________________________________________

Village: Taluq: District: State:

Crop: Variety: Class of seed:

Place: Signature of Inspector:

Date: Name & designation:
Annexure-X: Rejection of seed production area on account of poor roguing

Serial No.: 

Date: 

To: 

Mr. 

Village: 

Taluq: 

District: 

State: 

Sub: Rejection of seed production area on account of – poor rouging.

Dear Sir,

1. It is regretted that on the basis of the …………… inspection report number ………… dated ………, ……… ha bearing field No………. out of ………. ha of your seed field of foundation / certified crop of ………….. bearing the code / variety name …….. has been rejected since at the inspection to which the said report relates the said field was not conforming to the prescribed standards for certification.

2. The details of observations which are indicative of non-conformity to the prescribed standards are given below:
   a. Poor detasseling (only in maize crosses):
      i. Receptive silks: ………. %
      ii. Shedding tassels: ………. %
   b. Poor rouging:
      i. Off-type heads / plants: ………. %
      ii. Pollen shedding heads: ………. %
      iii. Heads / plants of:
            ▪ inseparable other crops : ………. %
            ▪ objectionable weeds: ………. %
      i. Heads / plants affected by
            ▪ ………. disease: ………. %
            ▪ ………. disease: ………. %

3. The produce from the crop in the above mentioned field may please be used for purposes other than seed. It may please be ensured that the produce from the rejected portion of the field does not get mixed up with the produce of seed fields eligible for approval.

   Yours faithfully,
   
   Director, State Seed Certification Agency
Annexure-XI:
Rejection of seed production area on account of inadequate isolation

Serial No.:
Date:

To:
Mr.
Village:
Taluq:
District:
State:

Sub: Rejection of seed production area on account of inadequate isolation

Dear Sir,

1. It is regretted that on the basis of the …………… inspection report number ………. dated ……., ……… ha bearing field No.………. out of ………. ha of your seed field of foundation / certified crop of ………. bearing the code / variety name …….. and sown on ……………. in village ………. has been rejected (as shown in the field map enclosed) because this area falls within ………. meters from the ………. side of the contaminant, viz., ………. the ………. stage of which coincided with the same growth of the seed crop.

2. The produce from the above mentioned area of field may please be used for purposes other than seed. Before harvesting the rest of the area, it may please be got ensured and checked by the SCA’s official incharge of your area that the produce from the field thus rejected does not get mixed with the produce of the field eligible for approval.

Yours faithfully,

Director,
State Seed Certification Agency

Encl: Field map

Annexure-XII:
Threshing certificate

Serial No.:
Date:

This is to certify that the threshing of the harvested seed produce whose details are given below was supervised to the extent possible / felt necessary:

Crop:     Variety:
Class of seed:
Total area of the seed crop (ha):
Net area to which this certificate pertains (ha):
Appx. quantity of threshed seed:
Date(s) of threshing:
No. of containers / bags in which threshed / raw seed is held:

Signature of SCA official

Note: To be prepared in triplicate; first and second to the producer and third as office copy; the producer shall deliver the second copy to SCA when raw seed is delivered for processing.
Annexure-XIII:  
Certificate  

Serial No.:  
Date:  

(Granted under sub-section (3) of section 9 of Seeds Act, 1966)  

This is to certify that the seed lot to which this certificate pertains has been produced according to and found to conform to the standards prescribed for certification under the Seeds Act, 1966. The details of the lot are given below:

- **Crop:**  
- **Variety:**  
- **Class of seed:**  
- **Lot No.:**  
- **Quantity of seed in the lot (kg):**  
- **Date of test:**  
- **Total No. of tags issued for the lot:**  
- **S.No. of tags issued:**  

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pure seed*</td>
<td>%</td>
</tr>
<tr>
<td>Inert matter*</td>
<td>%</td>
</tr>
<tr>
<td>Germination*</td>
<td>%</td>
</tr>
<tr>
<td>Moisture*</td>
<td>%</td>
</tr>
<tr>
<td>Other crop seed*</td>
<td>%</td>
</tr>
<tr>
<td>Objectionable seed*</td>
<td>%</td>
</tr>
<tr>
<td>Total weed seed*</td>
<td>%</td>
</tr>
</tbody>
</table>

- **Producer’s Name:**  
- **Village:**  
- **District:**  

Certification valid up to a period of eight months from the date of issue of the certificate provided the seed is stored under ideal conditions. Use of seed after expiry of the validity period by anyone is entirely at his risk and the SCA shall not be responsible to him for any damage to the seed. No one should accept the seed if the certification tag or seal is absent or has been tampered with. The person to whom this certificate is granted is entitled for a certification tag for each container in the lot and shall follow the provisions for labeling under the Act.

for Director,  
State Seed Certification Agency

* indicate actual values
Annexure-XIV:
Revalidation certificate

Serial No.:  
Date:   

This is to certify that the seed lot to which this certificate pertains is eligible for revalidation having been found to conform to the prescribed certification standards for pure seed / inert matter / germination. The details of the lot are given below:

Crop:  
Variety:  

Class of seed:  
Lot No.:  

Date of test:  

Total No. of tags issued for the lot:  

Quantity of seed in the lot:  

No. of containers in the lot:  

No. of fresh tags, if any, issued for the lot:  

Pure seed*:  %  
Inert matter*:  %  
Germination*:  %  

Name and address of the holder of the lot:  

Revalidation valid up to a period of four months from date of issue of this certificate, provided seed is stored under ideal conditions. Use of seed after expiry of the validity period by any one is entirely at his risk and the SCA shall not be responsible to him for any damage to the seed. No one should accept the seed if the tag or seal is absent or has been tampered with. The person to whom this certificate is granted shall follow the provisions in respect of labeling provided by or under the Act.

Director,  
State Seed Certification Agency  

* indicate actual values
Annexure-XV:
Specification for labels (breeder seed)

Length: 15 cm
Breadth: 7.5 cm
Quality: Shall be made of durable paper, card, cloth or similar materials
Colour: Both sides shall be white
Contents and layout: The contents shall be laid out as shown below:

<table>
<thead>
<tr>
<th>Crop:</th>
<th>Variety:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lot No.:</td>
<td>Date of test:</td>
</tr>
<tr>
<td>Genetic purity: 100%</td>
<td>Other crop seed*:</td>
</tr>
<tr>
<td>Pure seed*:</td>
<td>Weed seed*:</td>
</tr>
<tr>
<td>Inert matter*:</td>
<td>Moisture*: % (w/w)</td>
</tr>
<tr>
<td>Germination*:</td>
<td>Net content*:</td>
</tr>
<tr>
<td>Produced by:</td>
<td></td>
</tr>
</tbody>
</table>

Preserve this level for establishing the source of seed

BREEDER SEED

The seed in this container has been produced in accordance with the production procedure prescribed by ICAR

* indicate actual values

Annexure-XVI:
Specification of labels (foundation / certified seed)

<table>
<thead>
<tr>
<th>Poison treated emblem of certification agency (known pedigree)</th>
<th>Class:</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROWN - INSPECTED - HARVESTED - PROCESSED - TESTED - PACKED - MARKETED TO GIVE ASSURED PERFORMANCE</td>
<td>Kind:</td>
</tr>
<tr>
<td></td>
<td>Variety:</td>
</tr>
<tr>
<td></td>
<td>Lot No.:</td>
</tr>
<tr>
<td></td>
<td>Date of test:</td>
</tr>
<tr>
<td></td>
<td>Pure seed (minimum)*:</td>
</tr>
<tr>
<td></td>
<td>Inert matter (maximum)*:</td>
</tr>
<tr>
<td></td>
<td>Other crop seeds (maximum)*:</td>
</tr>
<tr>
<td></td>
<td>Total weed seeds (maximum)*:</td>
</tr>
<tr>
<td></td>
<td>Germination (minimum)*:</td>
</tr>
<tr>
<td></td>
<td>Moisture (maximum)*:</td>
</tr>
<tr>
<td></td>
<td>Net content (when packed)</td>
</tr>
<tr>
<td>Name and address of Seed Producing Agency</td>
<td></td>
</tr>
</tbody>
</table>

* indicate actual values
Annexure-XVII:
Specification for certification tags

Length: 15 cm
Breadth: 7.5 cm
Quality: It shall be made of durable paper, cloth or similar materials
Colour: Both sides shall be white for foundation class and the front side alone shall be blue for certified class
Contents & layout: The contents shall be laid out as shown below:

Recommended screen sizes for seed processing

<table>
<thead>
<tr>
<th>Crop</th>
<th>Aperture size</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Top screen</td>
<td>Bottom screen</td>
<td>Top screen</td>
</tr>
<tr>
<td>Sorghum</td>
<td>12 / 64*</td>
<td>9/64* or 1/12 x ½**</td>
<td>4.75*</td>
</tr>
</tbody>
</table>

* denotes round circular hole; ** denotes oblong hole; + denotes wire mesh

The above aperture sizes are only indicative / suggestive. They can vary between varieties, seasons, locations and even between seed lots of the same variety.
### Annexure-XVIII:
#### List of state seed development corporations

<table>
<thead>
<tr>
<th>State</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andhra Pradesh</td>
<td>Managing Director, Andhra Pradesh State Seeds Corporation Development Limited, 5-10-193 (2nd Floor), HACA Bhavan, Hyderabad – 500004.</td>
</tr>
<tr>
<td>Assam</td>
<td>Managing Director, Assam State Seeds Corporation Limited, Khanapara, Guwahati-781022.</td>
</tr>
<tr>
<td>Bihar</td>
<td>Managing Director, Bihar Rajya Beej Nigam Ltd., Mithapur, Patna.</td>
</tr>
<tr>
<td>Gujarat</td>
<td>Managing Director, Gujarat State Seeds Corporation Limited, Sector 10A, Beej Bhavan, Gandhi Nagar-382 043.</td>
</tr>
<tr>
<td>Haryana</td>
<td>Managing Director, Haryana State Seeds Corporation Limited, 2-3 Sector, Panchkula, Haryana.</td>
</tr>
<tr>
<td>Karnataka</td>
<td>Managing Director, Karnataka State Seeds Corporation Limited, Beej Bhavan, Bellary Road, Hebbal, Bangalore-560 024.</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>Managing Director, Maharashtra State Seeds Corporation Limited, Mahabeej Bhavan, NH-6, Amravati Road, PB No.119, Akola-444001.</td>
</tr>
<tr>
<td>NSC</td>
<td>Managing Director, National Seeds Corporation, Beej Bhavan, Pusa Complex, New Delhi 110013</td>
</tr>
<tr>
<td>Orissa</td>
<td>Managing Director, Orissa State Seeds Corporation Limited, Santarapur, Bhubaneswar-751002.</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>Managing Director, Rajasthan State Seeds Corporation Limited, GBP Krishi Bhavan, Bhagwan Das Road, Jaipur-302 015.</td>
</tr>
<tr>
<td>SFCI</td>
<td>Managing Director, State Farms Corporation of India, Farm Bhavan, 14-15 Nehru Place, New Delhi 110013</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>Managing Director, Uttar Pradesh Seeds &amp; Tarai Development Corporation, Pantnagar, PO Haldi, Dist. Nainital, Uttaranchal.</td>
</tr>
<tr>
<td>West Bengal</td>
<td>Managing Director, West Bengal State Seeds Corporation Limited, 4, Gangadhar Babu Lane, V Floor, Calcutta 700012.</td>
</tr>
</tbody>
</table>
## Annexure-XIX:
### State seed certification agencies

<table>
<thead>
<tr>
<th>State</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andhra Pradesh</td>
<td>Director, Andhra Pradesh State Seed Certification Agency, 5-10-193 (1st Floor), HACA Bhavan, Hyderabad – 500004.</td>
</tr>
<tr>
<td>Assam</td>
<td>Director, Assam State Seed Certification Agency, Dr. BK Kakoti Road, Ulubari, Guwahati 781 007.</td>
</tr>
<tr>
<td>Bihar</td>
<td>Director, Bihar State Seed Certification Agency, Agricultural Farm Mithapur, Patna 800 001.</td>
</tr>
<tr>
<td>Delhi</td>
<td>Chief Seed Certification Officer, State Seed Certification Agency-Delhi Administration, Room No.5 &amp; 6, Old Civil Supplies Building, New Courts, Tis Hazari, Delhi – 110 054.</td>
</tr>
<tr>
<td>Haryana</td>
<td>Director, Haryana State Seed Certification Agency, Bay No.11-12, Sector-14, Panchkula, Haryana.</td>
</tr>
<tr>
<td>Himachal Pradesh</td>
<td>Director, Himachal Pradesh State Seed Certification Agency, Nalagarh House, Simla 171 005.</td>
</tr>
<tr>
<td>Jammu &amp; Kashmir</td>
<td>Divisional Seed Certification Officer, Kashmir Division, Department of Agriculture, Lalmandi, PO Jawahar Nagar, Srinagar – 190 008.</td>
</tr>
<tr>
<td>Karnataka</td>
<td>Director, Karnataka State Seed Certification Agency, KIAC Premises, Opp. Baptist Hospital, Hebbal, Bangalore-560 024.</td>
</tr>
<tr>
<td>Kerala</td>
<td>Additional Director of Agriculture (Crop Production) Department of Seed Certification, Vikas Bhavan, Thiruvananthapuram-647 041.</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>Director, Madhya Pradesh Seed Certification Agency, Office Complex, B-2 Block, 3rd Floor, Gautam Nagar, Bhopal 462003.</td>
</tr>
<tr>
<td>Orissa</td>
<td>Director, Orissa State Seed Certification Agency, Palaspalli, Qrt. No. C-66, Ashok Nagar, Bhubaneswar, Puri.</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>Director, Rajasthan State Seed Certification Agency, 3rd Floor, GBP Krishi Bhavan, Bhagwan Das Road, Jaipur-302 015.</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>Director, TN State Seed Certification Agency, No. 1424-A, Thadagam Road, Coimbatore-641013.</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>Director, Uttar Pradesh Seed Certification Agency, Horticulture Complex, Kariyappa Marg, Alam Bagh, Lucknow.</td>
</tr>
<tr>
<td>West Bengal</td>
<td>Director, West Bengal State Seed Certification Agency, 238, Netaji Subash Chandra Road, Calcutta 700040</td>
</tr>
</tbody>
</table>
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Glossary

'A' line - The male sterile parent in a cross being made to produce hybrid seed (male sterile line). Cytoplasmic male sterile seed parent used in making commercial hybrids.

'B' line - (i) fertile counterpart of the 'A' line. The 'B' line does not have fertility-restoring genes and is used as the male parent to maintain the 'A' line, i.e., 'A' line x 'B' line reproduces the 'A' line. The 'B' line is fertile and can be reproduced by self-fertilization; (ii) maintainer of 'A' line

'R' line (restorer line) – An inbred line that when crossed to the A line (male sterile strain) cause the resulting hybrid to be male fertile and produces pollen

Abnormal seedlings - Those seedlings which do not show the capacity for continued development into normal plants when grown in good quality soil, and under favourable conditions of water supply, temperature and light.

Admixture – Something added to seed other than the kind and / or variety specified

Anther - Organ where pollen is produced

Anthesis - The process of dehiscence of anthers, the period of pollen distribution.

Apomixis – Reproduction from an unfertilized egg or from somatic cells associated with the egg

Back cross - The cross of a hybrid to one of the parental types.

Biotype - A population of individuals with identical genetic contribution. A biotype may be homozygous or heterozygous.

Bolt - Formation of an elongated stem or seed stalk. In the case of biennial plants, this generally occurs during the second season of growth.

Border rows - The recommended number of rows of the male parental line grown on all the sides of hybrid seed field growing two different parents.

Breeder's seed - Breeder’s seed is directly controlled by the originating or sponsoring plant breeding institution, firm or individual, and is the source for the production of seed of the certified classes. It has the maximum genetic purity.

Breeder’s stock seed - The seed harvested from a nucleus or a breeder’s stock field.

Bulk – Assembly of similar materials from a collection into one or more bulks

Caryopsis - A fruit developed from a single carpel with pericarp united to seeds; the fruit or cereals and grasses.

Central seed committee - The Central Seed Committee was constituted under sub-sections (1) of Section 3 of the Indian Seeds Act, 1966. Its function is to advise the Central Government and the State Governments on matters arising out of the administration of the Seeds Act, 1966, and to carry out the other functions assigned to it by or under the Seeds Act, 1966.

Central seed laboratory - The Central Seed Laboratory was established, or declared, as such under sub-section (1) of Section 4 of the Seeds Act, 1966. The Seed Testing Laboratory at IARI, New Delhi has been notified as the Central Seed Testing Laboratory under the Act mentioned above.
Certification - A system of maintaining the quality of seeds. The crops offered for certification are raised as per requirements for seed certification established by a seed certification agency. Several inspections are made to ensure purity and quality of seeds.

Certification agency - The certification agency established under Section 8 or recognized under Section 18 of the Seeds Act, 1966. Its major function is to certify seeds of any notified kind of varieties.

Certification sample - A sample of seed drawn by a certification agency or by a duly authorized representative of a certification agency.

Certification tag - Means a tag or label (of a specified design) of the certification agency. It constitutes a certificate granted by the certification agency.

Certified seed producer - Means a person who grows or distributes certified seeds in accordance with the procedure and standards of the certification agency.

Certified seed - The progeny of breeder’s select, foundation or registered seed, so handled as to maintain satisfactory genetic purity and identify. Production must be acceptable to a certification agency. Also refers to seed that fulfills all requirements for certification provided by the Seeds Act and Rules and to the container of which the certification tag is attached.

Chaff - Broken pieces of dried seed capsules, stems, leaves and other debris mixed in with seeds.

Character - An identifiable hereditary property such as colour, leaf type, etc.

Check - A row or plot of standard variety included in nursery or plot tests for comparison.

Chromosomes - Small structures in the nucleus of a cell that carry the genes. They appear as thread or rod-shaped structures during metaphase. Each species has a characteristic number of chromosomes.

Coleoptile - The first leaf above the cotyledon which encloses the stem tip and other leaves (sheath).

Coleorhiza - The sheath which surrounds the primary root in the embryo of grasses.

Commercial hybrid – Refers to the first generation F1 of the hybrid planted for any purpose.

Contaminants - The factors which affect the genetic and physical quality of seed such as off-types, foreign pollen, other crop plants, weed plants, plants affected by designated diseases, weed seeds, etc., are referred to as contaminants.

Cotyledon - The first leaves of the embryo, one in monocotyledons, two or more in dicotyledons.

Cross pollinate - To apply pollen of one flower to the stigma of another; commonly refers to the pollinating of the flowers of one plant by pollen from another plant.

Cross-fertilise - To fertilize the ovule or ovules of one flower with the pollen from another flower; commonly refers to the fertilizing of flowers of one plant by pollen from another plant.

Cross-fertilization - The union of an egg with a sperm from a plant of a different clone.

Cross-pollination – The transfer of pollen from an anther to the stigma in a flower on a different plant.

Cytoplasm - Main contents of a cell in which the nucleus and other bodies are located.

Cytoplasmic genetic male sterility - In this type, male sterility is dependent upon the action of genes carried in the nucleus with a particular cytoplasm.

Cytoplasmic male sterility - A type of male sterility conditioned by the cytoplasm rather than by nuclear genes and transmitted only through the female parent.
Damping off - The collapse of seedlings, ascribed to the attacks of such fungus organisms as Botrytis vulgaris and Pythium species.

Dead seeds - Seeds which, at the end of the test period, are neither hard nor fresh and have not produced seedlings, are classified as dead seeds.

Decay - Breakdown or organic tissue usually associated with the presence of microorganisms.

Degeneration - The progressive decrease in vigour of successive generations of plants, usually caused by unfavourable growing conditions or diseases.

Desiccate - To dry thoroughly, to remove moisture from an object to definitely below the normal level.

Designated diseases - Refers to the diseases specified for certification of seeds and in whose regard certification standards must be met.

Designated weeds - Refers to weed species specified for certification of seeds of a given kind and in whose regard certification standards must be met.

Dioecious - Having staminate and pistillate flowers on different plants of the same species for example spinach, hops, hemp, date palm, papaya, pointed gourd, little gourd, asparagus, etc.

Diploid - Organism or cell with two sets of chromosomes

Diseased - Showing the effect of the presence of disease organism or abnormal physiological activity.

Dominant trait - The variation of a specific, identifiable gene that results in observable traits.

Double cross - A double cross is a first generation hybrid between two single crosses.

Double top cross - The first generation hybrid between an approved single cross and an approved open-pollinated variety.

Ear - A large, dense or heavy spike or spike-like inflorescence.

Emasculation - Removal of stamens before they burst and shed their pollen

Embryo - The rudimentary plant within the seed.

Endosperm - The tissue of seeds developing from fertilization of the polar nuclei of the ovule by a second male nucleus that nourishes the embryo.

Epicotyle - The growing point of the embryo, which gives rise to the shoot, or the above, ground part of the plant.

Epigeal - Plants in which the cotyledons appear above the surface of the soil.

Equilibrium moisture content - The moisture content of the product when it is in equilibrium with the surrounding atmosphere is called the equilibrium moisture content or hygroscopic equilibrium.

Ergot - Fungus disease of cereals and grasses which forms a sclerotium in place of a healthy grain, often poisonous to man and animals

F1 hybrid - The first generation offspring coming from the mating of two parents.

F2 hybrid - Generation produced by selfing the F1; the second filial generation

Field inspection - An official inspection of seed fields conducted by the official of a Certification Agency or his authorized agent

Filament - Tube that supports the anther where pollen is produced

First generation hybrid - Same as F1 hybrid.

Flower - The part of a plant where reproduction takes place and seeds are produced

Foreign seeds (other seeds) - Seeds of weeds and crops other than the kind being tested.

Foundation seed - The progeny of breeder’s select,
or foundation seed handled to maintain specific genetic purity and identity. The production must be acceptable to a certifying agency. It is primary source of seed of a genetically identified variety from which all further increases are made.

**Foundation stock:** Seed produced by a foundation seed grower in conformity with the regulation for producing such seed and approved as foundation stock seed by the certification agency.

**Fresh ungerminated seed** - Seeds, other than hard seeds, which remain firm and apparently viable even after the appropriate treatment for breaking dormancy.

**Full-sib** – Term used in population improvement. A full-sib family comprises progeny from a cross between two selected plants within the population.

**Fumigation** - Fumigation of seed lots by celphos, E.D.B., etc., to kill storage insect pests. Storage structures must be leak-proof for effective fumigation.

**Gene pool** – Useful genes or gene complexes in a divergent population.

**Generation** – One complete life cycle. The generation begins with the formulation of the zygote and end when the resulting plant dies.

**Genetic purity** - Trueness to type; varietal purity; plants/seeds conforming to characteristics of the variety as described by the breeder.

**Genetic shift** - Change in the genetic make up of varieties, if grown over a long period in areas outside their adaptation.

**Genetic sterility** - A type of male sterility conditioned by nuclear genes in contrast to cytoplasmic sterility. It may be transmitted by either the male or female parent.

**Genotype** - The hereditary make up of an individual plant or animal, which, with the environment, controls the individual’s characteristics, such as type of flower, or bony structure, or shape of leaf or colour of hair.

**Germination** - The resumption of growth by the embryo and development of a young plant from the seed. Germination, in a laboratory test, is the emergence and development from the seed embryo those essential structures which, for the kind of seed being tested, indicated the ability to develop into a normal plant under favourable conditions in the soil.

**Germinative** - Having the ability to grow and develop.

**Growing season** – Period(s) of the year during which crops grow and mature.

**Grow-out-test** - Performed to determine the genuineness of seed as to species or variety, or freedom from seed-borne infection.

**Hard seeds** - Seeds of Leguminosae and malvaceae, which remain hard at the end of prescribed test period because they have not absorbed water owing to an impermeable seed coat, are classified as hard seeds.

**Hectare** – Standard area measure in the metric system, 10000 square meters in area.

**Hereditary** - Transmittable from parent to offspring or progeny.

**Heritable** - Capable of being passed by inheritance.

**Heterogeneity** - Refers to the variation in a seed lot.

**Heterozygous** – Having unlike alleles at corresponding loci of homologous chromosomes. An organism may be heterozygous for one or several genes.

**Hilum** - A scar left where the seed stalk of funiculus breaks away, or where the seed was attached directly to the placenta when there is no seed stalk.
**Homozygous** - True breeding for a specific hereditary character. A plant that breeds true for a character such as flower colour is called homozygous for this character. Plants may be true breeding for some characters and not for others.

**Hybrid** – Varieties resulting from natural or artificial pollination between genetically distinct parents. Commercially, the parents used to produce hybrids are usually inbred for specific characteristics.

**Hybrid vigour** - The increase in vigour over the parental types exhibited by hybrids.

**Hybridization** – Crossing of one plant with another. Crossing between plants of the same species is called intra-specific hybridization and crossing between different species is called inter-specific hybridization.

**Hypocotyl** - The part of the embryo or seedling below the cotyledonary node and above the root; the transition region connecting the stem and root.

**Hypogeal** - Plants in which the cotyledons remain below the surface of the soil.

**Imbibition** - Absorption of moisture by a colloidal substance such as seed coats which is accompanied by swelling of tissues.

**Immature seeds** - Not fully developed; not having parts developed.

**Impermeable** - Impenetrable, as when a seed coat allows no passage through to water or gases.

**Inbred line** - An inbred line is a relatively true breeding strain resulting from at least five successive generations of controlled self-fertilization, or of back-crossing to a recurrent parent with selection or its equivalent.

**Inbreeding depression** – A loss of vigor because of inbreeding. In breeding is the result of self-pollination or pollination between two close relatives.

**Increase** - To multiply a quantity of seed by planting it, rearing the plants that grow from it, and harvesting the seed they produce. The seeds resulting from this process are called an increase.

**Inert matter** - Inert matter includes seeds and seed-like structures, namely, pieces of broken or damaged seeds which are one-half the original size or less; empty glumes, lemmas, paleas, unattached sterile florets and florets with a caryopsis less than the minimum size; prescribed, and other matter, namely, soil, sand, stones, chaff, stems, leaves, cone scales, wings, pieces of bark, flowers nematode galls, fungus bodies, caryopses of graminiae replaced by insect larvae; and all other matter not seeds.

**Infected** - Carrying a disease organism, but not necessarily showing the symptoms of disease.

**Infection** – At the epidemiological level of the pathosystem, infection refers to the contact made between host and parasite; hence, auto-infection, allo-infection. At the histological level, infection refers to the process of penetration of a host by a pathogen.

**Inferior result** - A result obtained in a subsequent test at another station, of a second submitted sample from the same seed lot, which indicates a lower quality than the first test, e.g., a lower purity percentage, a lower germination capacity a higher count of certain seeds or a higher percentage of other seeds.

**Infest** – To overrun the surface of a plant, or to be dispersed through soil or other substrate.

**Inflorescence** - The flowering axis or other specialized flowering structure of a plant, such as an umbel, racem, spike, tassel and panicle.
Inseparable other crop – Crop whose seeds are difficult to be separated once mixed with the main crop seed.

International seed analysis certificate - A form of certificate issued only by the International Seed Testing Association and used for reporting the results of tests.

Interpretation (germination) - A seed shall be considered to have germinated when it has developed into a normal seedling. Broken seedlings and weak, malformed, and obviously abnormal seedlings shall not be considered to have germinated.

Isolation distance - Distance to be maintained between the seed crop and the contaminant.

Isolation requirements - Refers to the isolation required for maintaining the desired purity and health of a crop, such as the minimum specified isolation required for seed certification.

Isolation - Separation of seed fields from fields of other varieties of the same crop, same variety fields not conforming to varietal purity requirements; other related species, fields and fields affected by designated diseases to prevent genetic and disease contamination.

Kind - Means one or more related species or subspecies of crop plants, each individually or collectively known by one common name e.g., wheat, paddy, etc.

Land requirement - Refers to the requirements as to preceding crop for seed certification.

Lemma - The outer bract of the flower of grasses, sometimes referred to as flowering glume.

Lesion - A wound, well-marked but limited diseased area.

Line - A group of individuals from a common ancestry; a more narrowly defined group than a strain or variety.

Lot - A lot is a specified quantity of seed which is physically identifiable.

Maintainer line - The ‘B’ line.

Male sterile – Describes the complete or partial failure of a male plant to produce mature reproductive pollen cells.

Mesocotyl - In some monocotyledons, the part of the seedling stem elongates below the shoot.

Micropyle - The opening from outside the seed leading through the integuments to the nucellus; it marks the position of the radicle.

Moisture – Amount of water present in seeds

Moisture content - The moisture content of a sample is either the loss in weight when it is dried, or the quantity of water collected when it is distilled. It is expressed as a percentage of the weight of the original samples.

Monoeious - Having stamens and pistils in different flowers on the same plant.

Multiline variety – Consist of two or more near isogenic lines of normally self-fertilizing plants which are similar in most characteristics but differ in a limited number of describable physiological, morphological or other essential or distinctive characteristics. A multiline is derived by growing the component lines separately composting the lines to constitute the breeder class of seed.

Nick - The two parents for producing hybrid seed are said to nick when they produce high yields of seed of a highly productive and desirable hybrid.

Normal seedlings - The seedlings which show the capacity for continued development into normal plants when grown in good quality soil, and under favourable conditions of water supply, temperature and light.

Notified kind/variety - In relation to any seed this means any kind or variety thereof notified
under Section 5 of Seeds Act, 1966.

Noxious weed seed - Seeds from any plant of those species considered to be extremely destructive or harmful to agriculture. These species are designated by law for Seed Law Enforcement.

Nucleus (seed) - A group of progenies of individual plants taken at random from a variety for the purpose of purifying that variety of mixtures and off-types.

Objectionable weed - Weed plant whose seed is difficult to separate once mixed with crop seed and which is poisonous or injurious or has a smothering effect on the main crop. It is difficult to eradicate once established, has a high multiplication ratio thus making its spread quick and serves as an alternate host for crop diseases and pests.

Off-type - Plant or seed deviating significantly from the characteristics of a variety as described by the breeder in any observable respect.

Open-pollination - Open-pollinated seed is seed produced as a result of natural pollination as opposed to hybrid seed produced as a result of controlled-pollination.

Origin (seed) - State or country where seed is grown.

Other crop seed - Seeds of plants which are grown as crops, other than main crop.

Other seeds - Other seeds include seed and seed-like structures of any plant species other than of pure seed.

Out cross - A cross, usually natural to be a plant of a different genotype; mating of hybrid with a third parent; an off-type plant resulting from pollen of a different sort contaminating a seed field.

Ovary – The female part of a flower that contains the ovules. Fertilized ovules develop into mature seeds

Ovule - The body within the ovary of the flower that becomes the seed after fertilization and development.

Packaging - The process of filling, weighing and sewing bags.

Palea - The tiny upper bract with which the lemma encloses the flower in grasses.

Pallets - Wood frame structures which are used to support a stack of bags, to prevent them from touching the floor and absorbing moisture.

Panicle – In a cereal crop, that portion of the plant that bears seeds

Pathogen - Any organism capable of causing disease in a particular host, or range of hosts. It obtains its nutrients wholly or in part from another living organism.

Perfect flowers – Individual flowers that contain both stamens and pistils

Pericarp - The mature ovary wall.

Phenotype - The observed character of an individual without reference to its genetic nature. Individuals of the same phenotype appear alike, but may not breed alike.

Photochemical - Pertaining to a chemical reaction activated by light.

Photoreaction - A reaction that is initiated or hastened by light.

Photothermal - Pertaining to combined effects of light and temperature.

Physiology (seed) - The study of the functions and activities of seed.

Phytotoxic - Poisonous to plants.

Pistil - The seed-bearing organ of flowers.

Plant breeder - Person or organization actively engaged in the breeding and maintenance of varieties of plants.

Planting ratio - The recommended ratio in which the male and female parental lines are planted to make a crossing block in hybrid seed production.
Plumule - The major young bud of the embryo within a seed or seedling from which will develop the aerial portions of the plant. It usually occurs at the tip of stem-like structure called the epicotyl; that part of the embryonic plant axis above the cotyledons.

Pollen – Equivalent of sperm in plants. Pollen grain fertilizes plant ovules

Pollen parent – The parent that furnishes the pollen which fertilizes the ovule of the other parent (seed parent) in the production of seed

Pollen parent - The parent that furnishes the pollen which fertilizes the ovules of the other parent in the production of seed.

Pollen shedder - In hybrid seed production involving male sterility, the plants of ‘B’ line present in ‘A’ are termed as pollen shedders.

Pollination – The process of sexual fertilization in plants. The male chromosomes contained in pollen are combined with the female chromosomes contained in the ovules

Pollinator – Line or population used as a male parent (pollen donor)

Polyploid – Plant having other than the diploid (2n) number of chromosomes

Pre-emergence - Before emergence; often refers to the treatment of the soil with weed control chemicals after planting and before the crop plants appear above ground.

Pre-treatment - Any physical or chemical laboratory treatment of the working sample that is given solely to facilitate testing.

Previous crop - The crop grown in the season immediately preceding the one in which the seed crop is grown.

Previous season – The crop season immediately preceding the one in which the seed crop is grown

Primary leaf - The just true leaf of the seedling.

Primary root - The root developing directly from the radicle.

Primary sample - A primary sample is a small portion taken from one point in the lot.

Processing (seeds) - It refers to all the steps involved in the preparation of harvested seed for marketing; namely, handling, shelling, pre-conditioning, drying, cleaning, size grading, upgrading, treating and packaging. In a narrow sense, however, it refers only to pre-conditioning, cleaning, size grading and upgrading of seeds.

Producer – A person who grows or distributes certified seed in accordance with the procedures and standards of the Certification Agency

Progeny - Offspring, plants grown from the seeds produced by parent plant.

Provenance - The region where seed was harvested.

Provisional certificate - A certificate issued before the completion of a test or tests and which includes a statement that a final certificate will be issued on completion.

Pubescence - A hairy covering, usually of short, soft hairs.

Pure line - A strain in which all individuals have descended by self-fertilization from a single homozygous individual. A pure line is genetically pure.

Pure live seed (PLS) - Percentage of pure germinating seed determined by multiplying the pure seed percentage by its own germination percentage and dividing the product by one hundred.

Pure seed - The pure seed refers to the seeds (including broken seeds more than half the original size) of the species stated by the sender, or found to predominate in the purity test. It includes all botanical varieties and cultivars of that species even if immature, undersized, shriveled, and
diseased or germinated, provided they can be definitely identified as of that species.

**Purity** - The composition by weight of the sample being tested and, by inference, the composition of seed lot; the identity of various species of seeds and inert particles constituting the samples.

**Radicle** - The rudimentary root of the embryo. It forms the primary root of young seedling.

**Ratooning** – Cutting a plant to obtain re-growth

**Raw seed** – Harvested seed that has not been cleaned and graded

**Recessive gene** – (i) a gene not expressed in the heterozygous state when a dominant gene is present at the same locus on the other homologous chromosome; (ii) a gene masked by the effect of another specifically, a gene the effects of which are masked by a dominant allele

**Recessive trait** – The variation of a specific, identifiable gene that results in observable traits only if the dominant trait is not present. For example, wrinkled pea seeds result only in varieties where the dominant smooth-seed trait is missing

**Registered seed** - The progeny of breeder’s, select or foundation seed handled under procedures acceptable to the certifying agency to maintain satisfactory genetic purity and identity.

**Relative humidity** - The amount of water present in the air at a given temperature in proportion to its maximum water holding capacity at that temperature.

**Release** - Refers to the release of varieties by appropriate authorities such as the Central Variety Release Committee; State Variety Release Committee.

**Restorer line** - An inbred line that, when crossed on a male sterile strain, causes the resulting hybrid to be male fertile (R line).

**Rogue** - An off-type plant; undesirable plant.

**Roguing** - The removal of individual plants which deviate in a significant manner from the normal or average type of a variety. A step in the maintenance of purity in an established variety or in the attainment of purity in a new variety; The act of removing undesirable plants.

**Rules (seed testing)** - The ISTA Rules for testing seeds.

**Sampling intensity** - Refers to the number of primary samples taken from the seed lot.

**Sampling** - The process of obtaining a sample of a size suitable for tests, in which the same constituents are present as in the seed lot and in the same proportions. The sample is obtained from the seed lot by taking small portions at random from different positions in the lot and combining them. From this sample smaller samples are obtained by one ore more stages.

**Sclerotia** (pl. sclerotium) – A compact tissue like, sometimes rounded mass of hyphae (threads of fungal mycelium), with or without the addition of host tissue, normally not having spores in or on it, e.g., ergot

**Seed** – (i) a mature ovule, consisting of an embryonic plant together with a store of food all surrounded by a protective coat. It usually develops after the fertilization on an egg cell by male generative cell from a pollen grain. Seeds of some species develop without the intervention of the male cell, formed entirely of “mother” tissue, such seeds are called apogamic seeds; (ii) “Seed” means any of the following classes of seeds used for sowing or planting- 1. Seeds of food crops including edible oil-seeds and seeds of fruits and vegetables; 2. Cotton seed; 3. Seeds of cattle fodder; 4. Jute seed; and includes seedlings, and tubers, bulbs, rhizomes, roots, cuttings, all types of grafts and other vegetatively propagated
material, of food crops or cattle fodder

**Seed act** - As used in this book, Seeds Act refers to the Indian Seeds Act, 1966; an Act to regulate the quality of seed offered for sale.

**Seed analyst** - Appointed under Section 13 of Seeds Act, 1966; the person supervising or carrying out the seed analysis work.

**Seed blower** - This equipment is used to separate light weight material such as chaff, and empty florets in grasses, from the heavier seeds.

**Seed borne disease** – Disease which is carried either within the seed i.e., internally seed borne or on the seed i.e., externally seed borne or both

**Seed borne** - Carried on seeds.

**Seed coat** - The outer most covering of a seed.

**Seed disinfection** - Ridding the seed surfaces of potentially disease producing organisms.

**Seed disinfestation** - Dipping the seeds in chemicals, soaps, and fungicide to kill pathogens.

**Seed health** - Health of seed refers primarily to the presence or absence of disease causing organisms such as fungi, bacteria and viruses; and animal pests, such as eel worms and insects; physiological conditions such as trace element deficiency may also be involved.

**Seed inspector** - Appointed under Section 13, of the seed Act. Their main function is to take samples from sale points where seeds of notified varieties are being sold, get them analyzed, if necessary, and initiate prosecution against offenders of the Seeds Act.

**Seed lot (see lot)** - A uniformly blended quantity of seed designated by a proper number or mark.

**Seed lot certificate (orange or green certificate)** - The form of international Seed Analysis Certificate used when the sample is drawn officially from the lot, under the authority of a member station, and the procedure followed identifies the certificate with the seed lot.

**Seed parent** - The strain from which seed is harvested in the hybrid seed field. Also, commonly used to designate the female parent in any cross-fertilization.

**Seed protection** - Treating the seed with chemicals which by their presence prevent attack by seed-borne or soil-borne organisms on seed after planting.

**Seed quality** - Seed quality is a relative term and means the degree of excellence when compared to an acceptable standard. The seeds meeting required standards of purity, germination and other attributes are referred to as quality seeds.

**Seed sample certificate (blue certificate)** - The form of International Seed Analysis Certificate used when sampling from the lot is not under the responsibility of a member station (Seed Laboratory).

**Seed stalk** - The erect stalk on a plant that produces flowers and seeds. Applied particularly to root crops and leafy vegetable crops that produce seed after the desired product has fully developed.

**Seed technology** - The science which deals with production, harvesting, processing, testing, packaging, storing and marketing of seeds.

**Seed testing** - The science of evaluating the planting quality of seed before it is sown.

**Seedling** - The embryo, or young plant, from the time it emerge from the seed until it is entirely dependent on food manufactured by itself. It consists of an epicotyl, one or two cotyledons, hypocotyls and root. The single cotyledon is usually held with in the seed coat in monocots.

**Selection** – The process of saving the seeds
from plants that exhibit desirable characteristics and traits. To identify desirable characteristics, plant the same variety in different environmental conditions, or plant different varieties in the same environmental conditions.

**Selfed** - Said of a pistil that is fertilized with pollen from the same plant that bears the pistil; also applied to seed resulting from such fertilization.

**Self-fertilise** - To fertilize the ovule of a flower with the pollen of the same flower (or plant).

**Self-fertilization** – The union of an egg with a sperm from the same flower or from another flower on the same plant or within a clone.

**Self-incompatibility** - Inability to set seed from application of pollen produced on the same plant.

**Selfing** – Plant breeding term usually meaning natural or artificial self-pollination.

**Self-pollination** – When pollination takes place within a single flower, usually before it opens. Other flowers or plants are not needed. Self-pollinating flowers are called “perfect flowers” because they contain the stamens that produce pollen and the pistil that receives the pollen. Isolation distance to prevent cross-pollination is not necessary unless insects are known to invade the flowers before pollination is complete.

**Seminal** - Pertaining to seed or germ. Seminal organs are those already developed in the embryo within the seed.

**Sib** - Progeny of same parents derived from different gametters.

**Sibbing** – Sib-mating. Cross between plants from the same population. Generally pollen is collected from several plants from the same population, bulked and crossed onto sister plants of the same population.

**Single cross parent** - The F1 offspring of two inbred parents which in turn is used as a parent – usually with another line or single cross parent to produce commercial hybrid seed, as in maize.

**Slurry** - Suspension of wettable powder of fungicide and/or insecticide in water.

**Slurry treater** - The machine used for slurry seed treatment.

**Species** – A unit in botanical classification, a subdivision of a genus. A group of closely related individuals descendant from the same stock.

**Spikelet** – Separate flower cluster in grasses, consisting usually of two sterile glumes at the base of one or more florets.

**Stacking** – Refers to the arrangement of seed bags in a definite manner.

**Stalk** - A stem-like supporting structure.

**Stamen** - The part of the flower bearing the pollen; pollen-bearing organ; each stamen is composed of a stalk (filament) and pollen sac (another).

**State seed laboratory** - In any State, the State Seed Laboratory established or declared as such under sub-section (2) of Section 4 of Seeds Act, 1966.

**Sterile** - A plant that fails to set seeds even though compatible pollen is applied to the stigma of the flower. Cross-sterile plant fail to set seed with pollen from other plants, self-sterile plants produce no seed from their own pollen.

**Stigma** – The opening in the pistil through which the pollen passes to the ovary.

**Strain** - A type within a variety that constantly differ in genetic factors from other strains of the same variety. May become a variety.

**Style** – Contains the pollen tube between the stigma and the ovary through which the pollen is carried.

**Submitted sample** - The sample submitted to a
seed testing laboratory. It comprises the composite sample reduced as necessary.

**Substrate** - A substance that is acted upon, as by an enzyme. Also a culture media.

**Swollen seeds** - Seeds which have imbibed water and, although healthy in appearance, have not germinated during the prescribed test period.

**Synthetic (varieties)** - Refers to varieties produced by the combination of selected lines or plants and subsequent normal pollination.

**Test cross** – Cross made with a homozygous recessive parent to determine whether an individual is homozygous or heterozygous.

**Tetraploid** – Polyploid plant having four sets of identical or similar chromosomes (4n)

**Three-way cross** - A three-way cross is a first generation hybrid between a single cross and an inbred line.

**Tiller** - A branch arising from the base of a monocot plant, especially in the grass family.

**Trait** – A specific feature traced to an identifiable gene or group of genes.

**Treatment** - Any process, physical or chemical, to which a seed lot is submitted.

**Uniformity (seed lot)** - Refers to the uniformity of a seed lot; absence of apparently significant variation in a seed lot.

**Vapour-proof container** – Container which does not permit entrance or exist of moisture.

**Variety** – A sub-division of a kind identifiable by growth, yield, plant, fruit, seed or other characteristic. It also denotes an assemblage of cultivated individuals which are distinguished by a character (morphological, cytological, chemical or others) significant for the purposes of agriculture, or horticulture and which when reproduced (sexually or asexually) or reconstituted retain their distinguishing features.

**Variety** - The term variety (cultivar) denotes an assemblage of cultivated individuals which are distinguished by any characters (morphological, physiological, chemical or others) significant for the purpose of agriculture, forestry, or horticulture and which when reproduced (sexually or asexually), or reconstituted, retain their distinguishing features.

**Vegetative** - A descriptive term referring to stem and leaf development in contrast to flower and seed development.

**Viable, viability** - Alive, ability to live, grow and develop. A viable seed is one which is capable of germinating under the proper circumstances. Such a viable seed may or may not be readily or immediately germinable. Dormant viable seeds may require lengthy specific treatments before they become immediately germinable.

**Vigour** - Vigour is the sum total of all seed attributes which favour rapid and uniform and stand establishment in the field.

**Viviparous** – Germinating or sprouting from seed or bud while still attached to the parent plant e.g., chow-chow

**Volunteer plants** - Unwanted plants growing from seed that remains in the field from a previous crop.

**Weed** – A plant out of place. Any plant growing where not wanted

**Weed seed** – Seed bulblet, tuber of plants recognized as weed by laws, official regulations or by general usage.

**Wild types** – Naturally occurring non-domesticated crop relatives.

**Working sample** - A reduced sample taken from the submitted sample in the laboratory, on which one of the seed quality tests is made.