National Workshop on “Plant Variety Protection in Small Millets”
ICAR-IIMR-Hyderabad organized National Workshop on “Plant Variety Protection in Small Millets” during 15-16 February 2019 to give hands on training on form filling, licensing agreement, fee structures etc., under the prevailing plant variety registration and commercialization procedures. There were 11 participants from 7 AICRP on Small millet centres. During the workshop, 7 applications of small millet varieties were prepared and it is proposed to submit 20 applications for protection with the PPV&FRA by the participants on or before 30 April 2019. Dr Vilas A Tonapi, Director, IIMR and Project Coordinator – AICRP on SM in his valedictory remarks emphasized to strengthen the registration of small millet variety protection with PPV&FRA and these procedures need to be included in the UG and practical knowledge in PG programmes. The workshop was sponsored by the Society for Millets Research at ICAR-Indian Institute of Millets Research (IIMR), Hyderabad. Dr M Elangovan was the Course Director and K Hariprasanna, B Amasiddha and KN Ganapathy were the Course Coordinators, Smt A Annapurna, Dr Rajendra Goud, Mr Ravi Kiran, Mr Nikhileshwar were the other active helping hands of the workshop.

Training Program on “Start-up Ignition: Entrepreneurship Opportunities in Millets”
Nutrihub, ICAR-IIMR organized an event “Start-up Ignition: Entrepreneurship Opportunities in Millets” at ICAR- IIMR on 4 February, 2019. The aim of this program is to create awareness about the importance of millets, providing training on Start-ups, Entrepreneurship and business opportunities in millets sector. A group of 27 participants encompassing different background attended the programme. Dr. Sangappa, Scientist welcomed the participants and Dr. Dayakar Rao CEO, Nutrihub, interacted with the participants. Later Mr. B. Srinivas, Incubation Manager, Nutrihub visited centre of excellence with participants and explained about different millet technologies. The novel millet products and packaging methods for different millet products were explained by Sowmya R. Purohit, Research Associate, Nutrihub. Nutrihub team also interacted with the trainees and briefed about technology transfer in IIMR. Program concluded with Millet Value added products Kits being distributed to the participants. The program was coordinated by Dr. Sangappa and course Director was Dr. Dayakar Rao.

Training Program on “Entrepreneurship development on Millets”
Nutrihub, ICAR-IIMR organized an event on “Empowerment of Punjab farmers through Entrepreneurship Development in Millets Production, Processing and Value addition” at ICAR-IIMR on 25 – 26 February, 2019. The main aim of program is to create awareness about the importance of millets, providing training to farmers who are aspiring to become entrepreneurs and start their own business in millets sector. A group of 6 farmers from the Punjab state joined in this program. In the beginning, Dr. Sangappa, Scientist, welcomed the dignitaries and participants, he also gave
overview of program. The different sessions on Millets cultivation, Improved Millets Seed Production Technologies, value chain experiences in millets are given by IIMR Scientists. Participants also visited to millet primary processing unit and centre of Excellence and demonstration of dehulling machinery, biscuit making, cold extrusion, semolina making machine explained by staff, and they being shown Recipe making with ‘Eatrite’ Millets food products at Centre of Excellence. This program concluded with distribution of free kits and certificates.

Visit of QRT team of Small Millets
The QRT team on small millets under the chairmanship of Dr. H. Shivanna, Former Vice-Chancellor, UAS, Bangalore visited IIMR during 11-13 February, 2019. The other members participated in the team were Dr. NG Malleshi, Former Head, Dept of grain science and Technology, CFTRI, Mysore, Dr. LM Garnayak, Dean, College of Agriculture, OUAT, Bhubaneswar, Dr. A Ashok Kumar, Principal scientist (Sorghum Breeding), ICRISAT and Dr. P. Narayana Reddy, Ex-Professor & Head, Dept of Plant Pathology, ANGRAU and Dr. VR Bhagwat, Emeritus Scientist, ICAR-IIMR, Hyderabad. Dr. Prabhakar, Former PC, AICRP-Small millets, Bengaluru was the Member secretary.

The QRT team interacted with scientists and detailed presentations on progress in crop improvement, management and value addition were made by scientists. The team also visited the research fields and reviewed the on ongoing research activities in small millets and sorghum. The way forward was also deliberated.

Prime Minister’s Programme on “KISAN SAMMAN Nidhi”
ICAR-Indian Institute of Millets Research collaborated for organization of Prime Minister programme on “Kisan Samman Nidhi” at Indian Institute Rice Research, Hyderabad on 24 February, 2019. The farmers of Arutla participated and made the event successful. The farmers were appraised of the suitable millets seed along with crop and value-added food products technologies. There was positive response in terms of millets cultivation. Mr Ravula Bashaiah was felicitated as the best millets farmer in this event and other farmers also showed keen interest about the millets cultivation and their utilization. Arutla village farmers showed lot of interest to visit IIMR and establishment of millets processing unit. In this program other ICAR Institutions situated in Hyderabad and department of Agriculture Telangana also participated. Drs. B. Subbarayudu and Ch. Sashidhar Reddy coordinated this event.

Workshop on Digital Field Book at Vijayapura
The Training Workshop on “Application of Digital Field Book in Agricultural Research” was organised by the Department of Genetics and Plant Breeding on 8 February, 2019 under ICAR-SAU Grants at Conference Hall, Agriculture College, Vijayapur. Dr. M Elangovan, Principal Scientist ICAR-Indian Institute of Millets Research (IIMR), Hyderabad was the Resource Person. During the Inaugural Session Dr B N Motagi, Incharge HOD, GPB Department welcomed the gatherings; Dr. I S Katageri, Associate Director of Research (ADR) and Dr. S B Kalghati, Associate Director of Extension (ADE) were the Chief Guests. The program was presided by Dr. V S Kulkarni, Dean, AC, Vijayapur. The Training Session has covered in detail on the aspects of Digital India-Power to Empower, Evolution and use of multimedia, mobile Apps, Various features of Digital Field Book viz., creation of field and trait files for different crops and disciplines, recording of plot data, experimental audio and photos, geotagging of pictures, data export and sharing etc. The
Monitoring of Sorghum DUS testing trials held

The monitoring of rabi sorghum DUS testing trials was conducted at IIMR, Hyderabad on 24 January 2019 under the Chairmanship of Dr. T Pradeep, Former Director of Research, PJTSAU and currently Principal Scientist (Rice), ARI, PJTSAU, Hyderabad. Dr. TK Nagarathna, Registrar represented the PPV&FR Authority in the monitoring committee. Dr. Hariprasanna K, Nodal Officer; Drs. Amasiddha B and Deepika C, Co-nodal officers and Dr. Vijay Shelar, Nodal Officer, MPKV, Rahuri participated in the monitoring. Dr. Aruna C, Principal Scientist (Plant Breeding) and PI, Grain Sorghum, AICRP-Sorghum also attended the monitoring. The DUS testing for candidate varieties taken up along with reference varieties and the expression of different DUS traits, and difference observed at Hyderabad compared to Rahuri was explained to the monitoring committee. Under 2nd year testing 42 farmers’ varieties were tested along with five reference varieties, and under 1st year 10 farmers’ varieties were characterized for DUS traits along with M 35-1. The overall crop growth and expression of morphological characters were good in majority of the candidate varieties and reference varieties. Variation in plant height and tillering was noticed in some of the entries due to severe cold conditions prevailed during the crop growth and infestation by fall army worm. The Chairman and Registrar appreciated the overall conduct of DUS testing trials. Off types were noticed in some of the farmers’ varieties. Bhadehi Jwar Premlal, Temru Jowar, Dhowanasha Jowar and Shanta Jowar (2nd year), Mangara, Urja and Jomeya (1st year) had more number of off types, but mostly within the permissible limit. The Registrar informed that in future only the purified entries will be sent for DUS testing. The Chairman suggested that the PPV&FR Authority should have the basic passport data of the farmers’ variety and also the importance so that the farmers’ variety can find place in breeding programmes. Apart from DUS testing, maintenance breeding was taken up for 63 reference varieties including male sterile/maintainer pairs. Twenty-nine germplasm accessions (IS lines) which were proposed as new example varieties were also planted. The report of the monitoring team and DUS test proforma for the candidate varieties were prepared and finalized.

The DUS testing trials conducted at MPKV, Rahuri, the co-nodal centre was monitored by the committee on 22nd January 2019. Dr. Hariprasanna K from IMR participated in the monitoring. The crop had reached physiological maturity at Rahuri centre. Severe shoot fly damage was noticed in Chamara, Mangara and Kapila-p. Off-types were noticed in majority of the entries.

Awareness programme on millet cultivation at Jaidupalli

ICAR- Indian Institute of Millets Research, Hyderabad conducted an awareness programme on “Entrepreneurship development for millet products in post rainy season (2018-2019)” for the youth, students and farmers on 12 February, 2019 at Zilla Parishad High School, Jaidupalli village near Vikarabad. Dr. B Subbarayudu, Principal Scientist, IMR during his address explained the package and practices for millets cultivation, and benefits of soil health cards. Dr. Ch. Shashidhar Reddy, Principal Scientist, IMR briefed about the strategies to enhance the improved millets production and crops adoption. Farmers, youth and students from surrounding villages participated in this event. Staff from Regional Agricultural Research Station, PJTSAU Agricultural University, Palem, Department of Agriculture, Vikarabad, Telangana also participated in this event. Farmers showed interest to get trained in millets food processing technologies. The said event was conducted under the NABARD sponsored project entitled “Promotion of Millets Technology and Entrepreneurial Skills among farmers and youth of Vikarabad district in Telangana” and was telecast in E-TV Jai Kisan Programme on 13 February, 2019.

Training programme on E-Procurement & GEM Procedures

ICAR-IMR organized a training cum orientation meeting on E-Procurement and GEM Procedures for its staff on 15 February, 2019. The programme was conducted by Mr. Sunil Kumar, Project Manager, E-Procurement and GEM Procedures, Government of India and currently working as the nodal Officer for Telangana state. At the outset Sh. AN Murthy, FAO, IMR introduced the Guest and presented overview of the program. Dr. SS Rao,
Director In-charge, ICAR-IIMR, during his address, explained the PFMS procedures presently followed at IIMR. Mr. Sunil explained in detail about the procurement of items through GEM through vivid presentation along with the guidelines. About 160 participants including Scientists, Technical, Administrative and students attended the meeting. Smt. VSG Parvathi, AAO (Stores) coordinated this event.

Sorghum scientists meet at ICRISAT

Dr SS Rao, In-charge Director, along with IIMR Scientists Drs. AV Umakanth, Hariprasanna K, Avinash Singode, and C. Deepika participated in the Sorghum Scientists meeting and Field Day organized at ICRISAT-Patancheru during 14-15 February, 2019. More than 200 researchers working on sorghum and Millets from India, Asia and Africa attended the event. Sorghum lines with superior traits for yield, biotic and abiotic stress were selected in the field. The researchers also discussed the ways and means of increasing the sorghum yields, stress tolerance, grain & biomass quality, nutrition, and value addition.

Interactive session with NABARD Officials

One-day Interactive Session was organized at ICAR-Indian Institute of Millets Research (IIMR), Rajendranagar, Hyderabad scientists with National Bank for Agriculture and Rural Development (NABARD) Officials, Hyderabad on 26 February, 2019. The session mainly focused on “Millets Production, Productivity, Utilization of Food Products, Formation of Farmer Producer Organization (FPO) and Creation of Entrepreneurial Skills Among the Rural Youth”.

At the outset, Dr SS Rao explained the NABARD team about the ongoing research activities at IIMR. From NABARD, Sri. Prabhakar Behera, Senior General Manager, Sri KS Raghupathi, General Manager, Sri. B. Suri Babu, General Manager, briefed the role of NABARD and credit support in promotion rural activities in agricultural research based institutions participated. B. Subbarayudu, project leader presented the progress report of NABARD sponsored project entitled “Promotion of sorghum cultivation in rice fallows of Krishna basin in Andhra Pradesh”. He summarized all the interventions in this project resulted in enhancement of sorghum grain yields. He also highlighted all other events organized including two national seminars and launching of millets primary processing centre at Bapatla.

During the Interactive session, all District Development Officers and other dignitaries of NABARD - Andhra Pradesh region and Drs. M Elangovan, Sanjana Reddy, R. Venkateswarlu, Kalaisekar, Ch. Sashidhar Reddy, S. Ravikumar, Srinivasa Babu, Sangappa, KV Raghavendra Rao, Shri V. Ravikumar, Sh. Gawali from IIMR, actively participated. It is proposed that, future millets research based projects can be intended to address critical factors like yield gap, total factor productivity and resource use efficiency for enhancing the yield level of various millets along with specific strategic interventions required for doubling income of millets farmer, involving NABARD, ICAR-IIMR, other line departments of agriculture, State agricultural universities and NGOs. Finally, All NABARD officials visited Nutrihub and millet food processing laboratory. Dr. B Dayakar and C Sangappa briefed about ongoing activities at Nutrihub. B Subbarayudu, IIMR and Smt. N. Anuradha AGM, CPD, NABARD coordinated this event.

FAO-Sudan Delegates Visited IIMR

A team of FAO-Sudan delegates viz., Dr. Kamal ElsiddigAhemad Ali, Director Research Program and International cooperation, ARC, Sudan; Dr. Mohamad Hamza Mohammad Adam, Sorghum Breeder, ARC, Sudan; Dr. Shadai Abdallah Salih Abdallah, Sorghum Breeder, ARC, Sudan; Dr. Adam Mohammed Ali Hamid, Pearl Millet Breeder, ARC, Sudan visited ICAR-IIMR on 13 February 2019 to know the research and developmental activities. On their arrival, they were briefed about the activities and achievements of the institute by Dr. SS Rao. They visited the millets genebank to know about the millets genetic resources management and appreciated the millets germplasm collection and conservation at ICAR-IIMR. They also visited entomology lab and discussed about
the volatile experiment, visited molecular lab to know about the mapping of shoot fly resistant QTLs, they visited biochemistry lab and to see the nutrition analysis in millets, extraction and evaluation of micronutrients, proteins and nitrogen content by using different instruments viz., Kjeldal method, Atomic Absorption Spectrometer. They also Nutri-hub and tasted the millets snacks for the first time. The delegates also visited Centre of Excellence were impressed about value addition and by-products and new recipes of millets; primary and secondary millets cleaning units and machineries used for the preparation of by-products etc.; In the afternoon, they visited the experiment fields. Their visit was coordinated by Drs. M Elangovan and C Sangappa and supported by Dr. Rajendra Gouda and Mr. Nikhilleshwar of gene bank.

Meeting with delegation from CSIRO, Australia.

A delegation from the Commonwealth Scientific and Industrial Research Organisation (CSIRO)-Australia, currently at ICRISAT, Patancheru visited ICAR-Indian Insti-

Dr. Parashuram Patroti, Scientist (Plant Breeding) CRS (ICAR-IIMR) gave oral presentation on the topic “Advanced generation multi-parent crossing for broadening genetic base of grain yield traits in Rabi Sorghum” in the International Conference on Advances in Agriculture and Allied Science Research held at Rama University, Kanpur from 23-24 February, 2019.

Exhibition stall at Krishi kumbhMela, Motihari, Bihar
ICAR-IIMR arranged an exhibition stall and showcased value added products of millets during Krishi Kumbh Mela held at Motihari, Bihar from 09-11 February, 2019. Shri. Radha Mohan Singh, Honorable Agriculture Minister inaugurated the event, and addressed about agriculture and empowerment of the farmers towards the new agricultural innovations. More than 4000 persons visited our stall. Mr. Prashant and Pranith participated and Dr. Sangappa, scientist coordinated this event.

Visitors
Dr. Satoshi Tabitha, Program Director, The Japan International Research Center for Agricultural Sciences (JIRCAS), Japan visited IIMR on 4 February, 2019. Dr. Vilas A Tonapi, Director, IIMR briefed him about the institute’s research and development activities including improved millets cultivation. He explained about technology developed and role of IIMR for increasing the benefits from millets cultivation. Dr. Tabitha also visited the CoE, Gene Bank, Nutrihub and other facilities at IIMR. This programme was coordinated by Dr. HS Talwar, Principal Scientist, IIMR.

Dr. Rakesh Sharma, Ex. Director, Defence Food Research Laboratory (DFRL), Mysuru visited IIMR on 22 February, 2019. The DFRL is an Indian defence laboratory of the Defence Research and Development Organisation (DRDO), which works on to make nutritious and convenience food to meet the needs of Services. Dr. Sharma had an interactive talk with the Director IIMR on Nutri-kinetics and priorities to meet the research and development (R&D) needs in the area of food science & technology and to design light weight packed rations for Army, Navy and Air Force in association with IIMR-Hyderabad. He was keen on the technologies of IIMR especially Millet chapatti with extra shelf life for defence forces and Health foods. He also visited the Gene bank and processing and production technology of health foods at CoE, ongoing Entrepreneur development activities at Nutrihub. Drs. B Dayakar Rao and Sangappa briefed these activities.

ASCI-DST Trainees Visited ICAR-IIMR
A twenty-five participants from ISRO, ICAR, DRDO, CDAC and CSIR of ASCI-DST attending the training program on ‘Science Administration & Research management’ at ASCI-Hyderabad accompanied with Dr Raja Shekhar Reddy visited ICAR-IIMR on 13 February, 2019. Dr M Elangovan interacted with the trainees on the research progress and achievements of ICAR-IIMR and the role of Leadership in Scientific Organization, entrepreneurship development under ABI, licensing and commercialization of millets value added technologies etc., They also visited the millets genebank and appreciated the rich diversity of millets conserved at one place to serve the future generation.

Tamil Nadu Farmers:
A group of 13 Farmers visited ICAR-IIMR on 7 February, 2019 from Kanyakumari district of Tamil Nadu state under ATMA project. Dr. Sangappa, Scientist, briefed the...
help of Nutrihub Staff.

Karnataka Farmers:
A group of 13 Farmers visited ICAR-IIMR on 22 February, 2019 from Ballari district of Karnataka state. Dr. Sangappa, Scientist, briefed the institute activities, later demonstrated Millets primary processing and different value added technologies at food processing lab and also they visited IIMR Field. A group of Farmers were given millets literature, and wet sampling. They also have given technical information about millet cultivation and production. Dr. Sangappa, Scientist, with staff coordinated this visit.

UAS GKVK Students:
A group of 25 students of PG & Ph.D. from Department of Agricultural Extension, UAS GKVK, visited ICAR-IIMR on 7 February, 2019 as a part of their educational tour to Hyderabad. Dr. Sangappa, Scientist, briefed the institute activities and Nutrihub and explained about value added millet products. Later they visited Primary Processing unit and food processing lab. A group of Students showed keen interest in entrepreneurship opportunities in small millets. Dr. Sangappa, Scientist, coordinated this event with the help of Nutrihub Staff.

UAS Dharwad Home Science Students:
A group of 70 B.sc Ag, IV year students visited ICAR-IIMR on 16 February, 2019 from UAS, Home Science, Dharward, Dr. Hariprasanna, Principal Scientist, ICAR-IIMR briefed the institute activities and later they visited Primary Processing unit and food processing lab where, Dr. Dayakar Rao, CEO, Nutrihub, interacted with the students and explained about importance of consumption of millets. A group of Students interested in processing of small millets at farm gate and promotion. Dr. Sangappa, Scientist, coordinated this event with the help of Nutrihub Staff.

UHS, Bagalkot Students:
A group of 51 B.sc Ag, IV year students visited ICAR-IIMR on 16 February, 2019 from UHS, Bagalkot, Dr. Dayakar Rao, Principal Scientist, briefed the institute activities and Nutrihub later they visited Primary Processing unit and food processing lab. Students were briefed the millets & horticultural value added products. Dr. Sangappa, Scientist, coordinated this event with the

Memorandum of Agreement
M/s NYX Crop Sciences (P) Ltd, Medchal, Hyderabad.
Memorandum of agreement between ICAR-IIMR and M/S NYX Crop Sciences (P) Ltd, Medchal, Hyderabad was signed to license the commercial seed production and marketing of Forage Sorghum Hybrid CSH 24 MF on 23 Feb., 2019. Dr Vilas A Tonapi, Director – IIMR on behalf of IIMR and Sh. Chandvir Singh, Director, on behalf of M/s /s NYX Crop Sciences (P) Ltd, signed and exchanged the agreement. The agreement was facilitated by C Aruna, Principal Scientist in presence of Dr. Avinash Singode, Scientist, IIMR.
### Meetings (M) / Symposia (S)/ Workshops (W) / Trainings (T) Conferences (C) attended

<table>
<thead>
<tr>
<th>S.</th>
<th>Name of the Official</th>
<th>Participated in</th>
<th>Type</th>
<th>Venue</th>
<th>Dates</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Parashuram Patroti</td>
<td>One day seminar cum workshop on “Applied Zoology – Scope, Importance and Applications”</td>
<td>S</td>
<td>Walchand College of Arts &amp; Science, Solapur</td>
<td>02 Feb., 2019</td>
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<tr>
<td>2</td>
<td>SS Rao</td>
<td>XXV Meeting of ICAR Regional Committee No. VI</td>
<td>M</td>
<td>Anand Agriculture University, Anand, Gujarat.</td>
<td>04-05 Feb, 2019</td>
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<td>3</td>
<td>Mahesh Kumar &amp; Sunil Kumar</td>
<td>Technical Hindi Workshop organized by TOLIC-Hyderabad-Secunderabad-2</td>
<td>W</td>
<td>NAARM, Hyderabad</td>
<td>05 Feb, 2019</td>
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<tr>
<td>4</td>
<td>AV Umakanth</td>
<td>Technical seminar of All India Distillers Association</td>
<td>M</td>
<td>Hotel Surya, New Delhi</td>
<td>07-08 Feb, 2019</td>
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<tr>
<td>5</td>
<td>RR Chapke</td>
<td>Meeting on review of frontline demonstrations on sorghum 2018-19 and proposal for 2019-20</td>
<td>M</td>
<td>DAC, Krishi Bhawan, New Delhi.</td>
<td>11-12 Feb, 2019</td>
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<td>6</td>
<td>Vilas A Tonapi</td>
<td>RAC Meeting</td>
<td>M</td>
<td>CFTRI, Mysuru</td>
<td>13-14 Feb., 2019</td>
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<tr>
<td>7</td>
<td>SS Rao</td>
<td>Seminar on Business opportunities with UNO New York, organized by FTAPCCI, Hyderabad</td>
<td>S</td>
<td>Hotel ITC Kakatiya, Hyderabad</td>
<td>14 Feb, 2019</td>
</tr>
<tr>
<td>8</td>
<td>SS Rao, AV Umakanth, Hariprasanna K, Avinash Singode, &amp; C. Deepika</td>
<td>Sorghum scientists meet at ICRISAT</td>
<td>M</td>
<td>ICRISAT-Patancheru</td>
<td>14 – 15 Feb., 2019</td>
</tr>
<tr>
<td>9</td>
<td>Vilas A Tonapi &amp; B Venkatesh Bhat</td>
<td>Workshop on “Changing Grounds : Dynamics of culture and livelihoods”</td>
<td>M</td>
<td>DAC &amp; FW, Krishi Bhawan, New Delhi.</td>
<td>26 Feb., 2019</td>
</tr>
<tr>
<td>11</td>
<td>Parashuram Patroti</td>
<td>International Conference on Advances in Agriculture and Allied Science Research</td>
<td>M</td>
<td>Hotel Marriott, Hyderabad</td>
<td>21-22 Feb., 2019</td>
</tr>
<tr>
<td>12</td>
<td>Mahesh Kumar</td>
<td>Scientific Official Language Symposium</td>
<td>S</td>
<td>IIT-Delhi, New Delhi</td>
<td>15 Feb., 2019</td>
</tr>
<tr>
<td>13</td>
<td>Vilas A Tonapi &amp; B Venkatesh Bhat</td>
<td>Millet Seed Hub review meeting</td>
<td>M</td>
<td>CIFE, Mumbai</td>
<td>25-26 Feb, 2019</td>
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<tr>
<td>14</td>
<td>RR Chapke</td>
<td>Meeting on Millets project proposal for funding under National Agricultural Science Fund (NASF)</td>
<td>M</td>
<td>NAAS complex, PUSA, New Delhi.</td>
<td>27-28 Feb., 2019</td>
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</tbody>
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### Thought for the month

“The invariable mark of wisdom is to see the miraculous in the common.”

*Ralph Waldo Emerson*