



Happenings at NRC for Sorghum

Hyderabad, Solapur & Warangal

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WISHING ALL A HAPPY 2004

Once more the old year leaves behind a store in every head,
Of hopes and dreams and memories each one playing its part,
And once again the time has come to send a greeting due,
With many happy wishes for a grand New Year to ALL.

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Research on transgenic on sorghum reviewed

Drs. KBRS Visarada, PG Padmaja and SV Rao participated in the review workshop on "Transgenic research projects" under AP-Netherlands Biotechnology programme, held on 19 December 2003, conducted by Directorate of Oil Seeds Research, Hyderabad. Dr. Visarada presented the work plan and targets for the approved project "Production and evaluation of *Bt* transgenics with suitable *Bt* constructs". The review committee suggested working with indigenous *Bt* constructs. Dr. Rakesh Tuli, National Botanical Research Institute, Lucknow has agreed to provide Cry 1 Ac and Cry 1 B after signing the MTA.

Sorghum – sugarcane hybrids

The Biotechnology Unit received 10 clones of *Sorghum bicolor* × *Saccharum officinarum* (ICSA 56 ms X U 76-316) (2n =124) hybrids from the Sugarcane Breeding Institute, Coimbatore. The above material may be useful for breeding for shoot fly resistance.

We will be working on these hybrids at plant and cellular levels. Immediate task is to make them flower and cross again with sorghum. Dr. SV Rao, Principal Scientist, Biotechnology Unit is working on the above aspects.

Dr. Vijayan Nair, Head, Division of Genetics and Plant Breeding, SBI, Coimbatore, had developed these plants. He suggested making crosses between *S. spontaneum* and sorghum also, since the former is hardy, with low and consistent chromosome number. He has gifted one of the best clones (No. IND 02:1244 with 2n=48) for our research. This was also planted for recouping. He has informed that he also will try to hybridize some of them with sorghum and give us at a later date.

New sorghum germplasm collection from Uttar Pradesh

The kharif sorghum exploration and collection mission during November collected 44 accessions from 32 mandals of 11 districts, with an area of 1050 km in Uttar Pradesh in collaboration with All India Coordinated Sorghum Improvement Project (AICSIP), Mauranipur Centre. Dr. M Elangovan, Scientist (Germplasm), NRCS headed the above collection team.

SRC Meeting of NRCS

SRC meetings were held on 1 and 20 December in the seminar hall. Director apprised the scientific community about the minutes of the meeting held with DG on 19 November at conference hall, Krishi Bhavan and about his visit to UAS, Bangalore and use of biotechnological facilities there. Proceedings of the above meetings are available in Intranet.



NRCS Scientists at PRA program

Drs. Ch. Sashidhar Reddy, CV Ratnavathi & C Aruna facilitated the visit of participants of 77 Foundation course of the Agricultural Research Project Management, NAARM on 30 December at Lingareddyguda village which was selected for Participatory Rural Appraisal (PRA) programme based on the rapport and activities of NRCS (RNPS 23). During interaction with the farmers on sorghum cultivation, the farmers expressed satisfaction on the performance of improved cultivars (CSV 15 & CSH 16) introduced earlier under the project. The *roti* quality was found to be satisfactory. Farmers expressed their concern on the non-availability of the quality seed. The scientists advised them to give their demand for the seed to the local Agricultural Officer who in turn will process through the state seed corporation.



acres – 1100 q) and CSH 18 (33 acres – 350 q) covering eleven villages in Bellary district between 15-18 December. The problems in seed production and technical solutions to overcome them were deliberated in a meeting with the seed growers. **Mr. HS Gawali**, Photographer joined the above team and took field photographs and are being added in NRCS digital library.

Trainings/meetings/conferences/visits

Dr. N Seetharama delivered an invited lecture on the use of biotechnology to solve abiotic stresses to the participants of the Workshop on “Use of stable isotopes for drought research” at UAS, Bangalore on 19 December. During discussions with Prof. Udaya Kumar, use of facilities at UAS for use of mass isotopic (carbon and oxygen) to measure water-use efficiency (WUE) or transpiration efficiency (TE). NRCS may use facilities for southern hybridization and real time PCR at UAS.

Drs. N Seetharama and M Elangovan attended one-day brainstorming session on “Utilization of Plant Genetic Resources: Indian Perspective” on 11 December at NBPGR, New Delhi and presented the status paper on “Utilization of Sorghum Genetic Resources in India”.

Ms. A Usha Rani, Jr. Stenographer has attended one week training on MSOffice Basics at IASRI, New Delhi in the month of October. She was apprised in the use of the new techniques MS Office accessory packages like power point, mail merging, internet, excel, etc.

Dr. Vilas A Tonapi along with Dr. Pattana Shetty, Deputy Director, KSSCA, Bangalore, Mr. Jaya Prakash, Asst. Director, KSSCA, Ballary and Mr. DS Ravi Kumar, Divisional Seed Officer, KSSC, Bellary visited the hybrid seed production plots of CSH 14 (1001 acres -8000 q), CSH 16 (150

Mr. D Balakrishna, Scientist attended a training programme on “Generation of single chain antibodies through phage display” conducted by Biotechnology Division, Indian Institute of Horticultural Research, Bangalore from 10-30 December. He acquired the skills on the method of placing

large number of diverse peptides displayed on the surface of the phage which can be used for binding to antigen of interest.

Dr. CV Ratnavathi and B Dayakar Rao participated in an International Food Convention organized by CFTRI and DFRL, Mysore from 5-8 December. A Food Expo and Exhibition consisting of 80 stalls of various food companies public and private with ready to eat foods and recipes etc were exhibited. There were stalls of processing machineries and a suitable machine for syrup processing costing Rs. 6.5 lakhs was identified for possible use at NRCS.

Mr. K. Ravindra babu, Librarian attended a training programme entitled "NATP-ICAR Information and Library network centre mandatory training programme on agriculture for Librarians on networking and E- Resources management" organised by Information and Library network Ahmedabad., from 17-29 November, 2003.

Novel way to add to Revolving Fund

The Alternate Uses Unit has prepared and sold sponge and plum cakes made from sorghum flour



on the orders received from NRCS and NAARM staff members during Christmas and New Year Day celebrations.

Most of the consumers were satisfied with the quality of the cake and highly impressed with low prices.

Radio talks

Dr. AV Umakanth gave a talk on All-India Radio which was broadcasted on 25 December at 7.15 P. M. Talk was on "Pasu graasa jonna saagu". (Forage sorghum cultivation techniques).

Important visitors during December

2 December: About fifty farmers including twenty women from the Prakasham district of Andhra Pradesh visited NRCS as a part of the study

tour to different agriculture research institutions. They were explained about the recommended sorghum production technology for grain and fodder cultivation. They were also explained about the likely attack of pests and diseases on sorghum in kharif and rabi the remedial measures to be taken to contain the outbreak.

Visitors to alt use lab: Fifty farm women from AP Netherlands Training for Women in Agriculture (ANTWA) visited NRCS alternate uses laboratory. They were appraised about the work on alternate uses of sorghum. The farm women were highly impressed with syrup and cake technology. They were also interested to undergo training for learning these products.

Booklet on changing scenario of sorghum cultivation

A booklet entitled "*Changing scenario on sorghum cultivation in India: a comprehensive economic analysis*" written by Dr. B Dayakar Rao *et al.*, under NATP project RNPS-7 was published and released. This booklet deals with the economics of sorghum cultivation in both kharif and rabi seasons; reasons for the low profitability; remedies and policy option etc.

Family News

Dr. Swarnlata Kaul constructed a new house at Defence Colony, Balapur and performed the house warming ceremony on 3 December. All the staff members attended the ceremony and congratulated and wished them the best.

Master Suryateja S/o Dr. CV Ratnavathi was the winner of Bornvita quiz contest held at Ravindra Bharathi, Hyderabad on November 14, 2003 (Dr. Ratnavathi specializes in food and nutrition research on sorghum).

Ms. Sireesha D/o D Gopala Krishna, T-6 took first prize in Classical Dance and Group Dance (Cultural activities) and was Runners up in Teenikoit (Mixed doubles) and Throwball (Captain) in Sports activities held during 9-11 December on the occasion of College day celebrations-UTKARSHA of Kakatiya Medical College, Warangal.

Ms. Kodali Pooja, D/o Mr. Ravindra Babu, Librarian, was bestowed "Pratibha award" for securing a seat in BE (Hons.) programme for the academic year 2003-04 in the leading National level Birla Institute of Technology and Science, Pilani, Rajasthan. She was awarded a scholarship of Rs.20,000/- per annum for a period of four years by the Government of Andhra Pradesh, Department of Technical Education. The NRCS family congratulates her and wishes her success in all academic endeavors ahead.

Farewell to retiring staff

Mr. N Narsimloo, Assistant Administrative



Officer who has put in 42 years of service and **Smt. P. Laxamma,** SSG-1 who has put in 5 years



of service has superannuated from service on 31 December.

A fare well function was held in the lawns of NRCS. A token gift from the NRCS Recreation Club was presented to him by the President of the club, Dr. Seetharama. Director and staff recalled the dedicated service rendered by them and wished them a happy, healthy and active retired life.

Feedback from our readers

Response on popular articles: Based on the two popular articles "*Jonna-adanapu viluvalu* (5 October) and "*Cheruku jonna sagu labhadayakam*" (7 October) published in the telugu daily *Andhra Jyothi*, Dr. CV Ratnavathi attended to the queries raised by some of the farmers and entrepreneurs on the use of sorghum for alternate purposes.

Sh. E. Srinivas a farmer-cum-entrepreneur from Warangal visited NRCS and requested to spare the technology of cake and syrup for marketing. He was also interested to market ready made sorghum atta.

Sh. T Rammohan Rao (farmer) from Guntur visited NRCS and asked about the possibilities of ethanol preparation from sweet sorghum. He was interested to grow sweet sorghum for jaggery and have a trial in his field for 0.5 hectares.

Dr. SL Mehta, National Director, NATP Hq., New Delhi congratulated Dr. CV Ratnavathi *et al.*, for coming out with a beautiful and informative research bulletin entitled "*Sweet sorghum stalk: A suitable raw material for fuel alcohol production*" developed under NATP (RNPS 24). He also wished that many such publications will come out from NRCS in future which will go a long way and help the farming and entrepreneurs community of the country.

Efficient use of your telephone

Local telephone calls bill is mounting every time and on a cursory glance it was found that most of the calls made were personal. Steps may be initiated to stop at once making personal calls. Installation of unmanned local call booth will be the only solution, if there is no improvement in the situation.

Thought for the month

Our success is based on the satisfaction of the people we work with.

Anonymous

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