



CTRI News

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CENTRAL TOBACCO RESEARCH INSTITUTE, RAJAHMUNDRY-533 105, A.P.

From the Director's Desk



As per its mandate, CTRI has been developing and releasing number of high yielding tobacco varieties along with appropriate agro-technologies for the benefit of the Indian tobacco farming community. This has made a significant impact on tobacco production, marketing and export earnings. As a result of adoption of high yielding varieties and proven production and protection technologies, there has been a significant improvement in average productivity levels in FCV tobacco and non-FCV tobacco types. The average productivity of tobacco in India has steadily increased to around 1,600 kg/ha for FCV and 2,000 kg/ha for non-FCV tobaccos. The productivity potential of tobacco increased to 3.0 t/ha in FCV and 4.0 t/ha in non-FCV with commensurate leaf quality so as to meet trade preferences.

During February, one chewing tobacco hybrid, Kamatchi (VDH3) and a caterpillar resistant chewing tobacco variety, Abirami (CR) were released for chewing tobacco tracts of Tamil Nadu. Cured leaf yield potential of Kamatchi and

Abirami (CR) is 4,000 and 3,700 kg/ha, respectively.



Kamatchi



Abirami (CR)

The release proposals of two FCV hybrids, CH-1 and CH-3 were submitted for State seed sub-committee on varietal release of Andhra Pradesh and Karnataka, respectively. Both the hybrids have higher cured leaf yield potential with improved flavour characteristics, besides farmers' acceptance.

During 2012-13 crop season, advanced Burley breeding line, YB-4 and four FCV breeding lines, JS-117 (low tar line), TBST-2, Tobios-2 and NLST-2 have shown promise in the on-farm trials conducted in various tobacco growing zones.

The Flue-Cured Virginia tobacco auctions in Karnataka and Andhra Pradesh are in progress. The average price realized up to 31.03.2013 in Karnataka is Rs. 120.52 per kg and total quantity marketed is 6.6 million kg. In Andhra Pradesh, 11.56 million kg tobacco has been marketed with an average price of Rs. 120.98 per kg.

(T.G.K. MURTHY)

DDG(CS) VISITS DINHATA

Prof. Swapan. K. Datta, Deputy Director General (Crop Sciences), ICAR along with Dr. R.C. Agarwal, Secretary General, Protection of Plant Varieties & Farmer's Rights Authority (PPVFRA), Dr. A.C. Sinha, VC, UBKV, Pundibari and Dr. H. Bhattacharya, Dean (Horticulture), UBKV, Pundibari visited the CTRI Research Station, Dinhata and all the stations research activities. Dr. Datta had an interactive meeting with the staff members.



PMEC VISIT

The Project Monitoring and Evaluation Committee visited CTRI RS, Guntur, AINRPT Centre, Nandyal and farmers fields during 4-7 January, 2013 and monitored the progress of Institute and AINRP(T) experiments.



RESEARCH HIGHLIGHTS

- ❑ Among the three bar coding primers viz., *rbcl*, *matK* and *trnH-psbA* tested, *trnH-psbA* were able to resolve differences among the *Nicotiana* species.
- ❑ Pimitrazine 50 WG and Flonicamid 50 WG @ 0.02% were found effective against tobacco aphid, *M. nicotianae* and safe to its predator, *C. sexmaculata*.
- ❑ Among the biomass ashes of tobacco, redgram, sunflower, cotton, Eucalyptus wood, *Acacia* wood, coconut husk, coffee husk and maize rind, Eucalyptus wood had highest and tobacco lowest CaCO₃ equivalence.
- ❑ Biomass ashes of Eucalyptus wood, *Acacia* wood, coconut husk and coffee husk were characterized for their functional groups using FTIR spectrograms.
- ❑ In sand culture, secondary nutrient deficiencies reduced the growth of the plant under sufficient nitrogen and showed no influence on plant growth under N deficiency.
- ❑ Extraction method for alachlor residues in tobacco leaf and soil samples was standardized and optimized for laboratory analysis by using Gas chromatograph (GC)-Electron Capture Detector (ECD).
- ❑ Among the released varieties, non-FCV tobacco types were found better adapted to excess water stress as compared to FCV varieties grown on Vertisols.
- ❑ In FCV tobacco, peroxidase activity increased significantly as a result of sulphur deficiency followed by magnesium and calcium deficiency.
- ❑ The protein content among thirty six tobacco green leaf samples were varied from 1.6 to 3.22%.
- ❑ Amplification conditions for five ISSR (UBC) primers were standardized.
- ❑ Briquettes were prepared using coir waste and tested as bio-fuel in FCV tobacco curing.

TRANSFER OF TECHNOLOGY

PUBLICATIONS

- ❖ Dam, S.K. and S. Roy. 2012. Variability and management of *Alternaria alternata* (Fries) Keissler, the incitant of brown spot of tobacco in West Bengal. In : *Biology of Plants and Microbes*. Debadin Bose and S. Roy (Eds.). pp. 240-53.
- ❖ Damodar Reddy, D. and V. Krishnamurthy. 2013. Simple and inexpensive water extraction method for assaying potassium concentration in tobacco plant tissue. **Comm. Soil Sci. & Pl. Analysis** 44(5):962-70.
- ❖ Debadin Bose and Satyajit Roy. 2012. (Eds.) *Biology of plants and Microbes*. **Kabi Nazrul College, Murarai**. pp 309.
- ❖ Kasturi Krishna, S., S.V. Krishna Reddy, P. Harishu Kumar, C. Chandrasekhara-rao, and V. Krishnamurthy. 2011. Effect of blackgram (*Vigna mungo*) stubble management and nitrogen on performance of tobacco (*Nicotiana tabacum*) in blackgram - tobacco cropping system. **J. Coastal Agril. Res.** 29(2):21-8.
- ❖ Prasad, L.K. and K. Rajan. 2012. Critical absorption limit of nitrate and optimizing estimation methodology for soil solutions and extracts using UV-VIS spectroscopy. **Indian J. Agril. Res.** 46(4):360-4.
- ❖ Ravisankar, H., S. Gunneswara Rao and U. Sreedhar. 2012. Expert system for identification of natural enemies of tobacco pests. **ICAR News** 18(4):6.
- ❖ Roy, S., S. Amarnath, S.K. Dam and V. Krishnamurthy. 2012. Status of tobacco diseases in terai agro-ecological region of West Bengal. In: *Biology of Plants and Microbes*. Debadin Bose and S. Roy (Eds.). pp. 31-41.
- ❖ Sreenivasulu, R., L.K. Prasad, V. Krishnamurthy, I. Jagadish Chandra, K.C. Chenchaiiah and A.R. Panda. 2013. Importance of rain water pits in tobacco cultivation (In Telugu). **Annadata** 45(4): 54-5.
- ❖ Sudhakar, R., C. Chandrasekhara-rao and T.G.K. Murthy. 2012. Eco-friendly cups from bamboo. **ICAR News** 18(3):9.
- ❖ Suman Kalyani, K. and T.G.K. Murthy. 2013. Vegetarian diet for obesity (In Telugu). **Annadata** 45(1):50-2.
- ❖ Suman Kalyani, K. and T.G.K. Murthy. 2013. Dietary tips for Diabetes (In Telugu). **Swarna Sedyam** 16(3&4):21-2.

CONFERENCES/ TRAININGS/ WORKSHOPS ATTENDED

- ❑ Dr. R.K. Ghosh, Scientist attended the '100th Indian Science Congress' at University of Calcutta, Kolkata during 3-7 January, 2013.
- ❑ Dr. M. Mahadeva Swamy, Sr. Scientist attended the training programme on 'Organic farming and rainwater harvesting and utilization for climate resilient agriculture in rainfed areas' at CRIDA, Hyderabad on 08.01.2013.

- Dr. S. Ramakrishnan, Sr. Scientist attended the National Conference on 'Technology for wealth from waste' at Layola College, Chennai during 8-9 January, 2013.
- Dr. H. Ravisankar, Sr. Scientist attended the 1st International Conference on Research trends in computer technologies at Dr. N.G.P. Arts and Science College, Coimbatore during 30-31 January, 2013.
- Dr. U. Sreedhar, Pr. Scientist & Head and Dr. S. Gunneswara Rao, Sr. Scientist attended the 'IV International Insect Science Congress' at GKVK, Bangalore during 14-17 February, 2013.
- Dr. D. Damodar Reddy, Pr. Scientist & Head attended the '10th Meeting of Tobacco & Tobacco Products Sectional Committee, FAD 4 (BIS)' at BIS, New Delhi on 15.02.2013.
- Dr. A.V.S.R. Swamy, Pr. Scientist attended the training programme on 'New dimensions in quality seed production technology with special reference to hybrid seed production of field and vegetable crops, IPR on PPV & FR Act' at GBPUA & T, Pantnagar during 18-27 February, 2013.
- Dr. K. Prabhakara Rao, Scientist attended the National Workshop on 'Foresight and future pathways of Agricultural Research through Youth in India' at NASC Complex, New Delhi during 1-2 March, 2013.
- Dr. D.V. Subhashini, Pr. Scientist attended the 'General Management programme' at ASCI, Hyderabad during 4-15 March, 2013.
- Dr. T.G.K. Murthy, Director-Acting and Heads of Divisions attended the 'Meeting of the Directors/Heads/PCs of Crop Science Division' at New Delhi on 11.3.2013.
- Dr. D. Damodar Reddy, Pr. Scientist & Head attended the 'Meeting of RSC, Ministry of Health & Family welfare' at New Delhi on 11.3.2013.
- Dr. S.K. Dam, Technical Officer attended the training programme on 'Elementary Data Analysis' at IASRI, New Delhi during 11-15 March, 2013.
- Dr. T.G.K. Murthy, Director-Acting attended the 'Directors' Conference' at New Delhi during 19-20 March, 2013.
- Dr. M. Mahadeva Swamy and Dr. S. Ramakrishnan, Sr. Scientists attended the National Conference on 'Agricultural Bio-technology for Sustainable food Security' at Pudukkottai during 23-25 March, 2013.

RADIO TALKS

AIR, Vijayawada

- Effect of Orobanche weed on crops and its control (In Telugu) by V.S.G.R. Naidu, Programme Coordinator, KVK on 23.02.2013.
- Effect of Nutrients and Hormones on flowering of Mango (In Telugu) by J.V.R. Satyavani, SMS on 17.03.2013.

AIR, Visakhapatnam

- Sheep farming (In Telugu) by B. John Babu, SMS on 26.02.2013

TOBACCO VARIETY RELEASE COMMITTEE MEETING

The Tobacco Variety Release Committee meeting for Tamil Nadu was held on 07.02.2012 at CTRI Research Station, Vendasandur in which the chewing tobacco variety, Abirami (CR) (HV.2000-6) and hybrid, Kamatchi (VDH-3) were approved for commercial cultivation in Tamil Nadu.



FIELD IRC

Field IRC was conducted at CTRI RS, Jeelugumilli on 19th February, 2013. The IRC team comprising Director-Acting, Heads of Divisions and scientists of CTRI reviewed the progress of Institute and AINRPT experiments being conducted at the Station.



WORKSHOP ON NUTRITIONAL AWARENESS

A three-day workshop on nutritional awareness was organized at Devarapalli, Maredumilli Mandal, E.G. Dt. during 7-9 March, 2013. In this programme, a total of 200 tribal farmwomen, tribal youth and farmers have participated and were trained in various nutritional aspects.



INTER-INSTITUTIONAL SPORTS MEET

A 42-member CTRI Sports and Games contingent participated in the ICAR Inter-Institutional Sports Meet held at SBI, Coimbatore during 18-22 February, 2013. CTRI secured 1st place in the Volley Ball (Shooting) and 2nd place in Table Tennis (Women). Smt. V. Bhagyalakshmi secured 1st place in Chess & 3rd place in High Jump. Sri E. Veerabhadra Rao and Sri D.B. Reddy secured 3rd place in running (800 m) and Discus throw, respectively.



KISAN MELA

Kisan Mela was organized on 18.01.2013 at CTRI RS, Jeelugumilli. Dr. T.G.K. Murthy, Director-Acting, CTRI presided over the function and Sri Ch. Subba Rao, I/c Chairman, ED & Chairman (FAC), Tobacco Board graced the occasion as the chief guest. Stakeholders of FCV tobacco including large group of tobacco farmers, Officials from Tobacco Board, M/s ITC-ABD, M/s GPI Ltd., representatives of Tobacco Growers Associations besides Scientists and other staff of CTRI participated in the Kisan Mela.

A field visit and an exhibition was also arranged on the occasion. A Scientist-farmers interface was conducted where the experts gave suggestions on various field level problems.



PERSONALIA

RETIREMENT

- Sri P. Ram Kumar, Assistant Administrative Officer, CTRI, Rajahmundry retired from the Council's service on 31.01.2013.
- Sri K. Krishnamachari, Technician T-1, CTRI RS, Jeelugumilli retired from the Council's service on 28.02.2013.
- Sri Kshitish Debnath, SSS, CTRI RS, Dinhata retired from the Council's service on 28.02.2013.
- Sri Kanak Barman, SSS, CTRI RS, Dinhata retired from the Council's service on 31.03.2013.

KRISHI VIGYAN KENDRA

INTERFACE MEET ON 'CATTLE BREEDING POLICY'

The CTRI-KVK organized a Research Extension- Farmers Interface Meeting at CTRI, Rajahmundry on 5th January, 2013 involving scientists, extension functionaries and farmers. Dr. D. Damodar Reddy, HOD (CC&SS), CTRI, Dr. Livingston, Joint Director (Animal Husbandry) and Dr. V.S.G.R. Naidu, Programme Coordinator, KVK participated in the meet. Various issues on cattle breeding were thoroughly discussed.

CAPACITY BUILDING PROGRAMMES OF ATMA

The KVK organised seven capacity building programmes pertaining to value addition to fruits and vegetables, zero tillage in maize, agro-based income generation activities, cattle breeding policy, improved production practices for *rabi* vegetables, fodder and papaya in collaboration with ATMA (Agricultural Technology Management Agency), East Godavari. Around 350 farmers and farm women were benefited with the programmes.

MEDICAL CAMP AT KVK

A medical Camp was conducted in collaboration with 'Srujana' Lions Club, Rajahmundry on final day of NIFTEM course programme at KVK, Kalavacharla. Seventy women and 180 children availed the benefit of medical camp.

GROUP DISCUSSION

A group discussion on Maize and Jowar were organized at Rangapuram, Bikkavolu and Sitanagaram villages of E.G. District. Scientists from DSR, Hyderabad, KVK staff, ADA, Anaparthi, AOs and BTM (ATMA) participated.

CASHEW EXPOSURE VISIT - 2012

KVK organized 'Cashew Exposure Visit 2012' in collaboration with Directorate of Cashewnut and Cocoa Development (DCCD), Cochin during 21- 27, March, 2013. Fifty farmers from traditional cashew growing areas of Vizianagaram were exposed to cashew processing units and cashew nurseries at Bhubaneswar, Orissa.



TECHNOLOGY WEEK

A Kisan Mela followed by Technology Week was organized from 1- 5, March, 2013 in collaboration with ATMA, East Godavari. 1,020 farmers, farm women, rural youth and tribal women participated in the programme. Subject experts from ANGRAU Regional Stations, Dr. YSR Horticultural University Research Stations, Departments of Agriculture, Horticulture and Animal Husbandry, ATMA officials participated in the programme. An exhibition displaying agricultural implements, biopesticides, improved varieties of fodder, backyard poultry, cashew and mango grafts was also organized.

