



CTRI News

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

From the Director's Desk



The production and market dynamics in the tobacco industry are profoundly influenced by trade requirements, consumer preferences, statutory regulations, environmental and socio-economic considerations. The situation underscores the importance of Good Agricultural Practices (GAP) in tobacco cultivation. In this context educating the farmers on various issues is very important. The issues include: seed integrity, soil and water conservation, approved fertilizer and agro-chemical usage, crop husbandry,

pre- and post-harvest operations including energy and labour saving approaches; use of protective equipment, social forestry, labour safety etc. In this back-drop, developing economically viable and eco-friendly agro-technologies for enhancing productivity and quality, reducing harmful substances, developing value-added products besides others are the key issues that require innovative scientific interventions. This will go a long way in promoting exports and generating revenue and employment on a sustainable basis.

These issues have been given added emphasis in the draft document Vision 2050 and the Result Framework Documents (RFD) of CTRI. Vision 2050 of CTRI envisages a quantum jump in productivity in the next 40 years along with giving emphasis on

secondary agriculture to diversify the utilization of tobacco in food and pharma industries, besides addressing climate resilient technologies.

The draft RFD 2013-14 of CTRI has been prepared with three core objectives viz., 1) Germplasm enhancement and development of improved cultivars, 2) Development and identification of appropriate technologies and 3) Technology dissemination and capacity building. Detailed action plan for meeting all the targets were drawn following the guidelines of the Council.

I am happy to inform the readers that the first *Fusarium* wilt resistant FCV tobacco variety, FCH-222 was released by CTRI for wilt endemic areas in Karnataka State on 6.11.2012.

(T.G.K. MURTHY)

RESEARCH HIGHLIGHTS

- ❑ Promising FCV advanced breeding lines viz., TBST-2, JS-117, Tobios-2 and NLST-2 and Burley line, YB 4 are undergoing pre-release on-farm trials at various locations.
- ❑ Adsorption kinetics and isotherm studies on tobacco stem biomass (TSB) as a potential adsorbent for sequestering cationic dye from aqueous solution indicated that TSB is a strong adsorbent with Q_{max} of 170 mg g⁻¹.
- ❑ In the leaf disc assay conducted with 21 tobacco genotypes using *Pythium aphanidermatum* mycelia discs, line Coker-1 was highly susceptible and GT-9 recorded reduced mycelial growth.
- ❑ In the solanesol mapping population (F₃), solanesol content was found to vary from 0.15 to 1.70%
- ❑ Excess water stress was found to reduce the uptake of Ca, Mg and S in flue-cured tobacco varieties.
- ❑ Biomass ashes of tobacco, red gram, sunflower, cotton, eucalyptus wood, acacia wood, coconut husk, coffee husk and maize rind were found to be highly alkaline with pH values exceeding 11.0 and rich in K content.
- ❑ Linoleic acid was found to be the major fatty acid recorded in eight Lanka tobacco leaf samples.
- ❑ Methods for extraction of metribuzine from tobacco leaf & soil samples were developed and optimized.

TRANSFER OF TECHNOLOGY

PUBLICATIONS

- ❖ Ravisankar, H., K. Sivaraju and K. Suman Kalyani. 2012. Expert system for identification and management of tobacco diseases. **Indian J. Plant Prot.** 40(2):95-8.
- ❖ Sivaraju, K., R.K. Sharma and T.G.K. Murthy. 2012. Genetic and evolutionary relationship among Nicotiana species as elucidated by AFLP. **J. Agric. Sci.** 7(13):135-44.
- ❖ Suman Kalyani, K. 2012. Marycom - A Role model for women empowerment. **Yojana** 41(2):50-1.
- ❖ Suman Kalyani, K. 2012. Balanced diet for rural areas-A way to food security. **Yojana** 40(12):13-5.
- ❖ Suman Kalyani, K., T.G.K. Murthy and H. Ravisankar. 2012. Indigenous technical knowledge in tobacco. **Swarnasedyam** 15(12):12-3.

CONFERENCES/ TRAININGS/ WORKSHOPS ATTENDED

- ❑ Dr. V.S.G.R. Naidu, Programme Coordinator, KVK attended the International Conference on 'Cashew' at Panjim, Goa during 11-12 October, 2012.
- ❑ Dr. M. Mahadeva Swamy, Sr. Scientist attended the training programme sponsored by Tobacco Board, Guntur at CRIDA, Hyderabad on 22nd October, 2012.
- ❑ Dr. U. Sreedhar, Pr. Scientist & Head and Sri M.N.P. Kumar, Tech. Officer attended the 'NKN Annual Workshop' at IIT, Bombay during 31st October & 1st November, 2012.
- ❑ Dr. H. Ravisankar, Sr. Scientist attended the National workshop 'TECH ZANANA-2K12' at Rajahmundry on 3rd November, 2012.
- ❑ Dr. Y. Subbaiah, Pr. Scientist participated in the 'VII National Conference on KVKs' held at PAU, Ludhiana during 20-22 November, 2012.
- ❑ Dr. D.V. Subhashini, Pr. Scientist attended the International Conference on 'Microbial World : Recent innovations and future trends' at Bhubaneswar during 22-25 November, 2012.
- ❑ Dr. D. Damodar Reddy, Pr. Scientist & Head, Dr. S. Kasturi Krishna, Pr. Scientist, Dr. S.V. Krishna Reddy, Dr. M. Kumaresan and Dr. M. Mahadevaswamy, Sr. Scientists attended the 'Third International Agronomy Congress' at New Delhi during 26-30 November, 2012.
- ❑ Dr. U. Sreedhar, Pr. Scientist & Head and Dr. H. Ravisankar, Sr. Scientist attended the International Conference on 'Plant Health Management for Food Security' at Hyderabad during 28-30 November, 2012.
- ❑ Dr. T.G.K. Murthy, Director-Acting, Dr. K. Sarala and Dr. K. Siva Raju, Pr. Scientists attended the training programme on 'Management Development Programme in Agriculture' at NAARM, Hyderabad during 3-7 December, 2012.
- ❑ Sri Md. Elias, Tech. Asst. attended the National Conference of 'Agricultural Librarians & User Community (NCALUC) 2012' at OUAT, Bhubaneswar during 5-7 December, 2012.
- ❑ Dr. K. Suman Kalyani, Pr. Scientist attended the International Conference of Rural Health and Medicine on 'Challenges for Rural Medicine in the Global Villages' at Goa during 10-12 December, 2012.
- ❑ Dr. M. Anuradha, Sr. Scientist attended the National Seminar on Plant Physiology on 'Physiological and Molecular approaches for development of climate resilient crops' at Hyderabad during 12-14 December, 2012.
- ❑ Dr. C. Panduranga Rao, Pr. Scientist & Head, Dr. M. Mahadevaswamy and Dr. S. Ramakrishnan, Sr. Scientists attended a seminar on 'Spices Cultivation' organized in connection with Golden Jubilee Celebrations of IISR, Appangala in Madikeri during 20-22 December, 2012.

RADIO TALKS

AIR, Vijayawada

- ❑ Importance of raising fodder in Milk dairy forms (In Telugu) by P.V.V.S. Siva Rao, SMS on 25.10.2012.
- ❑ Drudgery reducing agricultural implements (In Telugu) by S. Jitendranadh, SMS on 01.11.2012.
- ❑ Self employment programmes organized by KVK (In Telugu) by R. Sudhakar, SMS on 03.11.2012.
- ❑ Control of Parthiniyam weed (In Telugu) by V.S.G.R. Naidu, Programme Coordinator on 08.11.2012.
- ❑ Higher yields in Rabi vegetable cultivation (In Telugu) by Smt. J.V.R. Satyavani, SMS on 15.11.2012.

AIR, Visakhapatnam

- ❑ Nutritional values of minor millets and preparation of healthy food (In Telugu) by V.V. Lakshmi Kumari, SMS on 13.12.2012
- ❑ Control of Parthiniyam weed (In Telugu) by V.S.G.R. Naidu, Programme Coordinator on 19.12.2012.

- Self employment training programmes organized by KVK for rural women (In Telugu) by R. Sudhakar, SMS on 20.12.2012.
- Importance of raising fodder in dairy forms (In Telugu) by P.V.V.S. Siva Rao, SMS on 28.12.2012.
- Plant protection measures for higher yields in pulses (In Telugu) by E. Vijaya Prasad, SMS on 28.12.2012.

AIR, Madurai

- Harvesting and curing operations in tobacco (In Tamil) by Dr. M. Kumaresan, Sr. Scientist & Head, CTIRI RS, Veda sandur on 4.12.2012.
- Disease management in tobacco (In Tamil) by Sri M. Mohan, Technical Officer T7-8, CTIRI RS, Veda sandur on 4.12.2012.

DBT PROJECT

An externally funded project entitled ' Nutritional security in tribal areas of East Godavari District, Andhra Pradesh through community based approaches' with an outlay of Rs. 33.98 lakhs was sanctioned by the Department of Bio-technology, New Delhi for a period of three years (2012-2015) and the project implementation has been commenced.

IJSC MEETING

The 2nd meeting of 12th IJSC meeting was conducted at CTIRI Research Station, Veda sandur on 15.12.2012. Various issues related to staff welfare were discussed in the meeting.



TOBACCO VARIETY RELEASE COMMITTEE MEETING

Tobacco variety release committee meeting of Karnataka was held on 6.11.2012 at CTIRI RS, Hunsur and the *Fusarium* resistant variety FCH 222 was approved for commercial cultivation in KLS.

FELLOW OF PPAI

Dr. S. Ramakrishnan, Sr. Scientist (Nematology) was declared as Fellow of Plant Protection Association of India (PPAI) in the meeting held at Hyderabad during 28-30 November, 2012.

VISITORS

Students' visits

A total of 72 students of B.Sc (Biotechnology, Biochemistry and Microbiology) from Smt. V.S. Lakshmi Women's Degree & P.G. College, Kakinada visited CTIRI on 16.11.2012.

About 40 B.Sc. (Bio-technology, Bio-chemistry and Micro-biology) students from P.B.N. College visited CTIRI on 27.11.2012.

A total of 52 students of Class XI & XII from Bharatiya Vidya Bhavan, Bhimavaram visited the Institute on 31.12.2012.

CTIRI RS, Veda sandur

Forty eight students from Amman Teacher Training Institute, Dindigul visited the station and were explained about the research activities of the station on 26.12.12.

CTIRI RS, Hunsur

Dr. B.K. Dharmarajan, Additional Director, Office of the Commissioner, Dept. of Agriculture, Government of Karnataka visited the Station on 6.11.2012.

Dr. V.S. Korikanthimath, Former Director, ICAR Research Complex, Goa and RAC member, CTIRI visited the station during 19-25 December, 2012.

FIELD FRIENDS PROGRAMME

Dr J.V. Prasad, Principal Scientist, Sri S. Nageswara Rao and Sri K. Sessa Sai, Technical Officers participated in 'Field Friends Programmes' at NLS; Dr. P. Venkateswarlu, Principal Scientist, Sri Jaya Krishna and Sri A. Suresh Babu, Technicians at SBS and CBS areas and Dr. L.K. Prasad and Dr. K.C. Chenchiah, Sr. Scientists, Sri I.J. Chandra, Technical Officer and Sri G. Srinivasa Rao, Technician at SLS areas along with Officers of Tobacco Board & Trade. The teams visited farmers fields and advocated good agricultural practices.

PERSONALIA

RETIREMENT

- Hujur Ali Miah, SSS, CTIRI RS, Dinhat retired from the Council's service on 31.10.2012.
- L.K. Subbe Gowda, SSS, CTIRI RS, Hunsur retired from the Council's service on 31.10.2012.
- Y. Rambabu, SSS, CTIRI, Rajahmundry retired from the Council's service on 31.10.2012.
- Md. Azizar Rahaman, SSS, CTIRI RS, Dinhat retired from the Council's service on 30.11.2012.
- R. Athinarayanan, Technical Officer, CTIRI, Rajahmundry retired from the Council's service on 30.11.2012.
- G. Adinarayana, SSS, CTIRI, Rajahmundry retired from the Council's service on 30.11.2012.

PROMOTIONS

Dr. D.V. Subhashini, Dr. K. Suman Kalyani, Dr. Y. Subbaiah, and Dr. P. Venkateswarlu were promoted to the cadre of Principal Scientist through CAS.

KRISHI VIGYAN KENDRA

WORLD FOOD DAY

World Food Day was organised at CTRI, KVK, Kalavacharla on 16th October 2012. A total of 120 farm women were participated from Rajanagaram and Gandepalli mandals of East Godavari Dist. Dr. T.G.K. Murthy, Director-Acting, CTRI chaired the meeting and addressed the gathering.

Vegetable seedlings of drum stick cv. PKM-1 and citrus cv. Balaji were distributed to farm women for the promotion of kitchen gardens for nutritional security in rural areas.



VOCATIONAL TRAINING PROGRAMMES

- A two months duration vocational training programme on Garment making was conducted for 36 rural women at Kotha Surampalem Village from 1.10.2012 to 30.11.2012.
- A two weeks duration off-campus training programme on Coir Yarn making over traditional and motorised rats was conducted for 20 rural youth of Yanam during 10-24 December, 2012. The programme was sponsored by Nehru Yuvak Kendra.

WOMEN IN AGRICULTURAL DAY

Women in Agricultural Day was conducted on 4th December, 2012 at the KVK. A total of 85 women were participated from Rajanagaram mandal. They were imparted training in Integrated protection technologies for enhancing farm productivity and livelihood options.

SEMINAR ON COCOA

KVK, CTRI organised District level seminar on cocoa sponsored by Directorate of Cashewnut and Cocoa Development on 30th November, 2012 at Sri Kothapalli Srimahavishnu's cocoa field at Madiki, Alamur mandal, East Godavari Dist. Dr. T.G.K. Murthy, Director-Acting, CTRI, Rajahmundry, Dr. V.S.G.R. Naidu, Programme Coordinator, KVK, Sri K. Sitaramaraju, Project Director, ATMA, Sri G. Shiva Kumar, manager, M/s Cadbury India Limited participated in the Programme. Farmers from Madiki, Alamuru, Chilakalapadu, Ambajipet, Pasalapudilanka villages participated. Scientists from HRS, Ambajipet, Dr YSR Horticultural University and RARS, Maruteru delivered lectures on improved management practices, pest & disease management and processing aspects. All SMS's of KVK participated in the programme.



SEMINAR ON CASHEW

District-level seminar on cashew was organized at CTRI-KVK, Kalavacharla on 30.10.2012. Dr. T.G.K. Murthy, Director-Acting, CTRI, chaired the inaugural session and addressed the gathering.

Dr. M. Bharata Lakshmi, Associate Director of Research, RARS, Maruteru, Smt. D. Prameela, Joint Director Agriculture, East Godavari, Sri, K. Sitaramaraju, Project Director, ATMA and Dr. V.S.G.R. Naidu, Programme Coordinator, KVK participated in the Seminar. Heads of Divisions of CTRI, Subject Experts from Dr YSR Horticultural University, HRS Officials from Department of Horticulture and Coordinators from Voluntary Organisations attended the programme. A total of 170 farmers from different mandals of East Godavari District attended the programme.

A technology bulletin in telugu entitled 'Grafting Method in Cashew and Other Horticultural Crops' was released during this occasion for the benefit of cashew farmers.

