



# CTRI News

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

## From the Director's Desk



The Final draft of EFC XII Plan and Vision 2050 documents were submitted to ICAR, New Delhi. During this quarter RAC meeting of CTRI and XXI Tobacco Workshop of AINRPT were conducted. In view of the challenges faced by tobacco crop, the RAC strongly felt that the mandate of CTRI needs to be broadened by including other crops.

In the XXI Tobacco Workshop held at UAHS, Shimoga, three varieties viz., DJ-1 (Chewing tobacco variety for West Bengal), NBD-119 (First Bidi variety for Andhra Pradesh) and GABT-11 (root-knot disease resistant variety for Gujarat) were identified for release. Three new generation pesticides were recommended for control of bud worm in field crop and management of damping off disease in tobacco nursery. Potential alternative crops/cropping systems were identified for Pikka tobacco in Odisha and Bidi tobacco in Andhra Pradesh. Coffee Husk and maize rinds were found to be useful as alternative fuels for curing FCV tobacco.

(T.G.K. MURTHY)

## XXI Tobacco Workshop

The XXI Tobacco Workshop of All India Network Research Project on Tobacco was held at the University of Agricultural & Horticultural Sciences, Shimoga during 28<sup>th</sup> and 29<sup>th</sup> June, 2013. Prof. Dr. PM Salimath, Special Officer, UAHS, Shimoga, Dr. N. Gopalakrishnan, ADG (Commercial Crops), ICAR, New Delhi, Dr. T.G.K. Murthy, Director-Acting, CTRI, representatives from trade, Scientists from CTRI and all the AINRPT centres participated in the Workshop. Results of AINRPT experiments conducted during 2012-13 were thoroughly discussed and technical programme for 2013-14 was

finalized. A technical bulletin on "Three Decades of Research on Tobacco at Shimoga Centre", and a folder on "Energy saving techniques and alternative fuels in tobacco" were released in the workshop. Three new varieties were identified for release and a few recommendations on crop production and crop protection were made.



## RAC MEETING

The Research Advisory Committee (RAC) meeting of CTRI was held during June 15-16, 2013 at Central Tobacco Research Institute, Rajahmundry under the Chairmanship of Dr. P. Murugesha Boopathi, Former Vice-Chancellor, Tamil Nadu Agricultural University, Coimbatore. Dr. V. S. Korikanthimath, Dr. V. R. Rao and Dr. R. Sridhar, Members of RAC, Dr. T.G.K. Murthy, Director-Acting, CTRI, Dr. C. Chandrasekhara Rao, Member-Secretary, RAC and Sri Ch. Venkataswamy, Member of IMC attended the meeting. Heads of Divisions, Heads of Research Stations and Scientists of CTRI also attended the two-day meetings. The Committee

reviewed the research results of year 2012-13 and gave directions for future research.

The RAC recommended to reorient the research for projecting and developing tobacco as a stress adoptive biomass rich, energy propelling, medicinally and pharmaceutically viable crop. The RAC also recommended to broaden the Institute mandate by adding economically important coastal crops.



### VISIT OF AGRICULTURAL COMMISSIONER

Dr. S. S. Sandhu, Agricultural Commissioner, Govt. of India visited CTRI on 11-12 April, 2013. Dr. Sandhu visited fields of FCV tobacco and other crops in Northern Black Soils area on 11<sup>th</sup> April, 2013 and interacted with the farmers. In the interface meeting convened at Kunavaram village, he obtained first hand information from the stakeholders on alternative crops to FCV tobacco.

Dr. Sandhu also visited fields of NLS area on 12.04.13. An interface meeting was convened with tobacco stakeholders at Tobacco Board Auction Floor, Koyyalagudem. Farmers shared their experiences on tobacco cultivation along with their views on alternative crops to FCV tobacco in NLS area, especially oil palm, maize and sugarcane.



### TRAINING PROGRAMMES

Six one day awareness programmes were conducted for the tribal women covering subjects viz., child rearing practices, communicable diseases, kitchen gardening etc., in the agency area under a DBT project entitled 'Nutritional Security in tribal areas of East Godavari District, Andhra Pradesh through community based approaches'

### MEETING

A meeting was conducted on 'Change of operations of CTRI' on 06.06.2013 at CTRI, Rajahmundry. In this meeting the scientists of CTRI discussed on various possible options for change of CTRI operation, including extending the mandated crops.

## RESEARCH HIGHLIGHTS

- ❖ A new analytical method employing GC-MS-EI for simultaneous detection of 11 organochlorin pesticides has been developed on the basis of qualifier – quantifier ions ratio concept and validated in 15 field tobacco leaf samples.
- ❖ Genomic DNA of 14 isolates of *Trichoderma* were amplified with an ITS primers and the resultant products were sequenced.
- ❖ Di-haploid plants were produced from six cross combinations.
- ❖ In on-farm trials conducted in SBS, pipeline variety, TBST-2 out yielded check variety Siri and gave over 12% cured leaf yield. In Station bulk trials conducted at Rajahmundry, Guntur and Kandukur, TBST proved its superiority over Siri.
- ❖ In the bulk evaluation trial, five FCV entries viz., Tobios-2, NLST-3, NLST-4 and NLSH-1 (CMS hybrid) proved superiority and recorded 2-15% higher leaf yield than check variety, Kanchan.
- ❖ Five FCV advanced breeding lines viz., TBST-2B, Tobios-6, Tobios-7, NLST-5 and NLST-6 recorded 16-30% higher cured leaf yield than their respective checks in advanced varietal trials and proposed for testing under bulk plots during 2013-14 season.
- ❖ Emamectin benzoate among ten insecticides recorded the lowest LC 50 values for the three lepidopteran pests of tobacco namely *S. litura*, *H. armigera* and *S. exigua* when tested for stomach action.
- ❖ Varieties viz., CTRI Special, Virginia Gold, Hema, Banket A-1, GT-8 and A-145 were identified as tolerant to water logging.

## TRANSFER OF TECHNOLOGY

### PUBLICATIONS

- ❖ Anuradha, M., K. Siva Raju and V. Krishnamurthy. 2013. Effect of water logging on physiological characteristics, yield and quality of flue-cured tobacco. **Indian J. Pl. Physiol.** 18(1):67-70.
- ❖ Ghosh, R.K. and N. Singh. 2012. Managing metolachlor and atrazine leaching losses using lignite fly ash. **Ecotoxicology & Environmental Safety** 84(1):243-8.
- ❖ Kumaresan, M. and C. Chandrasekhara Rao. 2013. Production potential and economic feasibility of chewing tobacco (*Nicotiana tabacum*) based intercropping system. **Indian J. Agril. Res.** 47(1):66-72.
- ❖ Prasad, J.V. 2012. Bioefficacy of botanicals against *Spodoptera litura* and *Helicoverpa armigera* on tobacco. **Indian J. Entomology** 74(1):90-2.
- ❖ Sarala, K. and H. Ravisankar 2013. Explant autonomy in Indian Tobacco cultivars under *in vitro*. **Access International J. Agril. Sci.** 1(3):30-6.
- ❖ Sreedhar, U. 2011. Evaluation of IGRs against *Helicoverpa armigera* on tobacco. **Annals of Pl. Prot. Sci.** 19(2):336-9.
- ❖ Sreedhar, U. 2011. Evaluation of tobacco genotypes for resistance to insect pests. **Indian J. Pl. Prot.** 39(3):183-5.
- ❖ Sreedhar, U. 2011. Influence of trap crop planting geometry on budworm, *Helicoverpa armigera* in flue cured Virginia tobacco. **Indian J. Pl. Prot.** 39(3):196-9.
- ❖ Sreedhar, U. and S. Sitaramaiah. 2011. Evaluation

of lufenuron an insect growth regulator against *Spodoptera litura* in tobacco nurseries. **Ann. Pl. Prot.** 19(2):460-2.

- ❖ Sreedhar, U. 2012. Management of budworm (*Helicoverpa armigera*) in Virginia tobacco through pest diversionary approach. **Indian J. Agril. Sci.** 82(7):731-3.
- ❖ Subhashini, D.V. 2013. Effect of bio-inoculation of AM fungi and PGPR on the growth, yield and quality of FCV tobacco (*Nicotiana tabacum*) in Vertisols. **Indian J. Agril. Sci.** 83(6):667-72.
- ❖ Subhashini, D.V. 2013. Effect of sheared-root inoculum of *Glomus fasciculatum* on tobacco grown at different phosphorus levels in alfisols. **Indian Phytopath.** 66(1):98-100.
- ❖ Sudhakar, R., C. Chandrasekhara Rao and T.G.K. Murthy. 2013. Preparation of cups and plates with bamboo waste (In Telugu). **Annadata** 45(4):20-1.
- ❖ Suman Kalyani, K. and C. Chandrasekhara Rao. 2013. Agro climatic situation and livelihood of tribal farmers in agency area of East Godavari district. **Yojana** 41(7):47-50.
- ❖ Suman Kalyani, K. and T.G.K. Murthy. 2013. Prevention of vision problems with carrots (In Telugu). **Annadatha** 45(5):42-3.

#### CONFERENCES/ TRAININGS/ WORKSHOPS ATTENDED

- Dr. K. Suman Kalyani, Pr. Scientist attended the workshop on 'Sensitization of biotechnology programmes' at ANGRAU, Hyderabad during 17-18 May, 2013.
- Dr. M. Mahadevaswamy, Sr. Scientist attended "Tobacco Workshop" for Technical staff of Tobacco Board at Mysore on 14.05.2013.
- Dr. C. Mahadeva, Technical Officer T7/8 attended Training programme on "Tobacco cultivation and Alternative crops" organized by Kaveri Grameena Bank in collaboration with NABARD, Bangalore.
- Dr. M. Mahadevaswamy, Sr. Scientist attended Scientific Advisory Committee (SAC) of KVK, Suttur on 14.05.2013.
- Dr. H. Ravisankar, Sr. Scientist attended Second National Conference on 'Recent Advancements in Signal Processing and Communication' at RMK College of Engineering and Technology, Chennai as a Chief Guest on 01.04.2013.
- Dr. TGK Murthy, Director-Acting attended '135<sup>th</sup> meeting of the Tobacco Board' at Bangalore on 02.04.2013.
- Dr. K. Siva Raju, Pr. Scientist attended the meeting on 'Network project on high value compounds/phytochemicals' at IISR, Calicut on 02.04.2013.
- Sri CV Krishna Reddy, Technical Officer and Sri Ch. Sudhakar Babu attended training programme on 'Database Management System' at IASRI, New Delhi during 8-12 April, 2013.
- Dr. RK Ghosh, Scientist attended the meeting on 'Specifications of the equipment for establishing tobacco testing lab' at New Delhi on 16.04.2013.
- Dr. C. Chandrasekhara Rao, Head, Crop Production attended the 76<sup>th</sup> meeting of the 'Registration Committee for Growers and Others' at Tobacco Board, Guntur on 22.04.2013.
- Dr. TGK Murthy, Director-Acting attended the meeting of 'XII Plan EFC document' at ICAR, New Delhi on 16.05.2013.
- Dr. K. Prabhakara Rao, Scientist attended the first International and third National Conference on 'Biotechnology, Bioinformatics and Bioengineering' at Tirupathi during 28-29 June, 2013.
- Dr. Y. Subbaiah, Pr. Scientist attended the meeting of the 'Committee constituted to assess the cost of cultivation of FCV tobacco in Andhra Pradesh' at Tobacco Board, Guntur on 14.06.2013.
- Dr. S. Kasturi Krishna, Pr. Scientist attended the 3<sup>rd</sup> meeting of the 'Committee constituted to study the compensation payable to the growers for surrendering their licensed barns and other related matters' at Guntur on 15.05.2013.

#### RADIO TALKS

##### AIR, Visakhapatnam

- Management of Turkey poults (In Telugu) by Dr. B. John Babu, SMS on 20.04.2013.
- Influence of climate change on agriculture (In Telugu) by Dr.VSGR Naidu, Programme Coordinator on 28.04.2013.
- Preparation of fruit juices and jams in summer (In Telugu) by Smt VV Lakshmi Kumari, SMS on 15.05.2013.
- Management of milch animals in summer (In Telugu) by Dr. PVVS Siva Rao, SMS on 30.05.2013.
- IPM in chillies (In Telugu) by E.Vijaya Prasad, SMS on 30.06.2013.

##### AIR, Vijayawada

- Self employment generation programme to rural women in coir yarn making (In Telugu) by R. Sudhakar, SMS on 20.06.2013.

### CHAIRMAN, TOBACCO BOARD VISITS CTRI

Dr. K. Gopal, IAS, Chairman, Tobacco Board visited CTRI, Rajahmundry on 12.06.2013. On this occasion, an Interaction meeting was conducted with the Scientists of CTRI. Various issues of mutual interest were discussed in this meeting, including efforts required to improve productivity in SLS region, training Tobacco Board personnel, under taking collaborative research on priority areas, etc.



### VISITORS

- Aham EL Raggie, Mohamed Atlia and Ahmed Naguib, Trade representatives Egypt visited CTRI, Rajahmundry on 23.04.2013.
- Mohammed Mosseef and Ahmed Aboelyareef, Farmers from Egypt visited CTRI, Rajahmundry on 13.05.2013.
- Two Trainees from Belgium visited the CTRI RS, Hunsur on 13.05.2013.
- Students from Agricultural Polytechnic College, Guntur visited CTRI, Rajahmundry on 2.4.2013.
- Students from Agricultural College, Aswaraopet visited CTRI, Rajahmundry on 15.05.2013.

## PERSONALIA

### RETIREMENT

The following six staff members retired from Council's service on 30.06.2013.

- Dr. C. Pandu Ranga Rao, Head, CTRI RS, Hunsur.
- Sri K. Suryachandra Rao, Tech. Officer T-5, BTRC, Kalavacharla.

- Sri D. Yanadi Naidu, SSS, CTRI RS, Kandukur.
- Smt. D. Lakshamma, SSS, CTRI RS, Kandukur.
- Sri K. Lakshminarayana, SSS, CTRI RS, Guntur.
- Sri A. Seshaiyah, SSS, CTRI RS, Guntur.

## KRISHI VIGYAN KENDRA

### District Level Coordination Committee Meeting

KVK Programme Coordinator and SMS, Crop Production attended the DLCC meeting organised by DAATT centre at Kakinada on 10<sup>th</sup> April, 2013 and presented the activities of KVK.

### Scientific Advisory Committee Meeting

The SAC-KVK meeting was held on 17<sup>th</sup> April, 2013 under the chairmanship of Dr. TGK Murthy, Director-Acting, CTRI. Dr. M. Bharatha Lakshmi, Associate Director of Research, RARS, Maruteru, Dr. P. Praveena, Coordinator, DAATT Centre, Kakinada, Heads of Divisions, CTRI, progressive farmers, NGOs and other officials from line departments participated in the meeting. The House reviewed the work done in Kharif 2012, activities in Rabi 2013 and action plan of Rabi 2013-14. Dr.VSGR Naidu, Programme Coordinator summarised the KVK activities. Discipline-wise activities were presented by the SMSs. Suggestions from subject experts were made for implementation in the next season.



### ZREAC 2013 : 20<sup>th</sup> -21<sup>st</sup> April, 2013

SMSs of KVK participated in ZREAC 2013 held at RARS, Maruteru and presented the activities of KVK.

### Vocational Training Programmes:

A twenty one days duration vocational training programme (26.4.2013 to 16.5.2013) on "Tally and Office Automation Softwares" was conducted by KVK in Collaboration with AKMU, CTRI, Rajahmundry. Twelve rural girls were trained in this programme.



A one-month duration vocational training programme (12.6.2013 to 11.7.2013) on "Lucknow Work Embroidery" is in progress at Chagallu village. A total of 30 rural women under going training on various vocational topics.

### Participation in Workshop/ Seminar:

Dr. VSGR. Naidu, Programme Coordinator participated in a training programme on Cocoa on 27<sup>th</sup> June at Tuni organized by Horticultural Research Station, Ambajipeta.