



# CTRI News

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

## From the Director's Desk


CTRI completed 65 years of existence. The 66<sup>th</sup> foundation day of the Institute was celebrated on 2<sup>nd</sup> April, 2012. The efforts of the predecessors in establishing the Institute as the premier body in tobacco research remembered during the function. As per the directions of the Council, the Institute has identified three Flagship programmes for the XII Plan. They are: 1) Developing high yielding FCV tobacco varieties with superior quality and improving input-use-efficiency 2) Improving and exploiting tobacco as an oil seed crop and as a source of valuable phytochemicals & bioengineered products and 3) Promoting alternative crops and cropping systems/sequences to tobacco to improve the economic conditions of tobacco growers.

During 2011-12 season, a number of promising advanced lines/hybrids suitable for different agro-ecological situations were evaluated and the most promising lines identified were as follows: FCV tobacco line TBST-2 for Vertisol, NLSH-1 (low tar hybrid), JS-117 (low tar line) and NLST-2 for Alfisols; YB-4 for burley tobacco areas of Andhra Pradesh, Chewing tobacco hybrid, VDH-3 for Tamil Nadu, DJ-1 for Jati tobacco tracts of West Bengal and NBD-119 for bidi tobacco areas of Andhra Pradesh. Sixty two new germplasm lines were added to the gene bank and with this the total tobacco genetic resources crossed the 3,000 mark. A total quantity of 16,575 kg of foundation seed was produced during the year. Drip fertigation alongwith use of tray seedlings increased the leaf yield by 16.8% over drip fertigation with conventional nursery seedlings in irrigated alfisols. For the FCV tobacco grown on irrigated Alfisols,



K application in 4 splits (1:1:1:1 at 10, 25, 40 and 70 DAT) resulted in higher yields as compared to its addition in 3 splits (1:2:1 at 10, 25 and 40 DAT or 25, 40 and 70 DAT). Ammonium sulphate as source of N was found equally effective as recommended CAN in terms of leaf productivity and Top grade equivalent at Karnataka. Post emergence application of Quizalofop-ethyl at 15 and 75 days after planting effectively controlled the grassy weeds and gave higher yields compared to weed free check. New insecticides like chlorfenapyr 10 SC @ 0.01% and metaflumizone 22 SC @ 0.04% were found effective against *S.litura* in tobacco nurseries and spirotetramet + imidacloprid 240 SC @ 0.018% effectively controlled tobacco aphid infestation in FCV tobacco. Two rows of bajra border as barrier crop with one spray of *Verticillium lecanii* @  $3 \times 10^{11}$  CFU/ha at 45 DAT reduced tobacco aphid, *Myzus nicotianae* infestation by 78% over control.

Among the different tobacco types tested for alternative uses, HDBRG selection recorded higher biomass and solanesol, while derivatives of crosses TI-163 x A-145 and GT-7 x A-145 gave higher nicotine sulphate and that of A-145 x GT-7 gave higher protein yield.

  
(T.G.K. MURTHY)

## FOUNDATION DAY

Foundation Day of CTRI was celebrated on 2<sup>nd</sup> April, 2012 at CTRI, Rajahmundry. Dr. T.G.K. Murthy, Director-Acting, CTRI addressed the gathering and presented the research highlights and achievements of CTRI on this occasion. Staff of CTRI and retired scientists participated in the celebrations and shared their experiences.



## IMC MEETING

The 46<sup>th</sup> Institute Management Committee (IMC) Meeting was conducted on 23.06.2012 at CTRI, Rajahmundry.



## TRANSFER OF TECHNOLOGY

### RESEARCH PUBLICATIONS

- ✧ Arya, R.L., P. Harishu Kumar, S. Roy, C. Chandrasekhara Rao, S. Amarnath and S. Chanda (2011). Effect of integrated nutrient management on yield, quality and economics of Motihari tobacco (*Nicotiana rustica*) in Terai region of North Bengal. Tobacco Research 37(1):42-5.
- ✧ Arya, R.L., V. Krishnamurthy, S. Amarnath, S. Roy, C. Chandrasekhara Rao and S. Chanda (2011). Effect of spacing and topping levels on yield and quality of Jati tobacco (*Nicotiana tabacum*) grown in North Bengal. Tobacco Research 37(1):40-1.
- ✧ Arya, R.L., V. Krishnamurthy, K.D. Singh, S. Amarnath, S. Roy and C. Chandrasekhara Rao (2011). Effect of spacing and fertilizer levels on seed yield of Jati tobacco under Terai region of west Bengal. Tobacco Research 37(1):18-21.
- ✧ Jitendranath, S., C. Chandrasekhara Rao and V. Krishnamurthy (2012). A method of direct seeding using drum seeder in Rice. Swarna Sedyam 15(6):9-10.
- ✧ Krishnamurthy, V. and M. Anuradha (2011). Nitrogen nutrition of flue-cured tobacco. Tobacco Research 37(1):1-17.
- ✧ Kumaresan, M., A.V.S.R. Swamy, V. Krishnamurthy, K. Palanichamy and R. Athinarayanan (2011). Production potential of advanced breeding lines of chewing tobacco under different agronomic practices. Tobacco Research 37(1):46-7.
- ✧ Kumaresan, M., V. Krishnamurthy, P. Harishu Kumar, A.V.S.R. Swamy and R. Athinarayanan (2011). Agrotechniques to improve the seed and oil yield of chewing tobacco grown in Tamil Nadu. Tobacco Research 37(1):34-6.
- ✧ Prasad, J.V. and U. Sreedhar (2011). Life parameters of tobacco caterpillar, *Spodoptera litura* as influenced by transgenic (Bt) cotton hybrids. Indian J. Entomology 73(4):312-6.
- ✧ Ravisankar, H and K. Sivaraju (2012). Expert systems in Tobacco. Agrobios X(12):22-4.
- ✧ Sreenivasulu, R., C. Chandrasekhara Rao, L.K. Prasad, A.R.Panda, V. Venkateswarlu and I. Jagadish Chandra (2011). Influence of chlorides in irrigation water and fertilizer levels on tobacco seedlings under rainfed light soils of Prakasam and Nellore districts. Tobacco Research 37(1):29-33.
- ✧ Subhashini, D.V., C. Chandrasekhara Rao and K. Padmaja (2011). Phosphorous content and occurrence of *Glomus fasciculatum* in tobacco soils. Tobacco Research 37(1):37-9.
- ✧ Suman Kalyani, K. and V. Krishnamurthy (2012). Socio-economic development of tribal farmers through rubber crop. Annadata 44(4):18-9.

### Book published

- ✧ Suman Kalyani, K., C. Chandrasekhararao, T.G.K. Murthy, S.K. Naidu and N. Aruna Kumari (2012). Tribal life style in East Godavari district and advanced agricultural technologies. pp.116.

### CONFERENCES/ TRAININGS/ WORKSHOPS ATTENDED

- Dr. T.G.K. Murthy, Director-Acting attended the 133<sup>rd</sup> Meeting of Tobacco Board at Tobacco Board, Mysore on 10.4.2012.
- Dr. K. Nageswara Rao, Head, CTRI RS, Jeelugumilli and Dr. S.V. Krishna Reddy, Sr. Scientist have attended the meeting on formulation of crop insurance scheme for FCV tobacco at Tobacco Board, Guntur on 12.04.2012.
- Dr. K. Siva Raju, Principal Scientist attended the Meeting on 'High value compounds/ phytochemicals' at Directorate of Medicinal and Aromatic Plants Research, Anand during 3-4 May, 2012.
- Dr. T.G.K. Murthy, Director-Acting, attended the Meeting with Directors of Crop Science Division at ICAR, New Delhi on 9.5.2012.
- Dr. D. Damodar Reddy, Head, CC & SS attended the Verification of Soil Testing procedures being followed at Soil Testing Laboratory of Tobacco Board, Ongole at Ongole during 21-22 May, 2012.
- Dr. H. Ravisankar, Sr. Scientist attended the 3<sup>rd</sup> Installation Training cum Workshop for Nodal Officers of SSCNARS at NAARM, Hyderabad on 27<sup>th</sup> June, 2012.
- Dr. U. Sreedhar, Head, Crop Protection attended the 73<sup>rd</sup> Meeting of Tobacco Board Registration Committee of growers and others at Tobacco Board, Guntur on 28.6.2012.

**PARTICIPATION IN MEETING**

Dr. K. Suman Kalyani participated in the Task Force meeting of DBT, New Delhi during 25-26 April, 2012 and presented the progress report of completed project entitled 'Empowerment of tribals of East Godavari district through Agro-ecological Conservation and Bio-technological Approaches'.

**KISAN MELA**

In order to equip the tribal farmers with improved technologies and latest technological know-how, a Kisan Mela was organized in Pedageddada village on 03.04.2012. Awareness was created in adoption of technologies among 100 farmers from Pedageddada and Thallapalem villages in Rampachodavaram Mandal. A total of 300 mango and 300 cashew grafts of high yielding varieties were supplied for rejuvenation of their orchards. Two hundred Vanaraja birds were supplied for promoting backyard poultry and 4 sprayers for propagation of IPM.

**TRAINING PROGRAMME**

A Training programme on Information and Communication Technology (ICT) in Agriculture was organized at AKMU, CTRI, Rajahmundry from 02.06.2012 to 12.06.2012. A total of ten administrative personnel were participated in the training programme.

**PMEC VISIT**

The Project Monitoring and Evaluation Committee of CTRI comprising Dr. T.G.K. Murthy, Director – Acting, Dr. C.C.S. Rao, Head, Div. of Crop Production and Dr. U. Sreedhar, Head, Div. of Crop Protection visited CTRI Research Station, Dinhata during 3-8 April, 2012 and monitored the progress of research work being conducted under the Institute and AINRPT projects and surveyed some of the tobacco growing areas in North Bengal.

**SEMINAR**

A Seminar on "Mapping Crops Intensity and Identifying Stress prone Areas using Remote Sensing" was given by Dr. G. Murali Krishna, Remote Sensing Specialist, IRRI, Philippines at CTRI, Rajahmundry on 20.04.2012.

**INTER-INSTITUTIONAL TRANSFER**

Ms. K. Varalakshmi, Scientist has been transferred from CTRI, Rajahmundry to National Centre for Agricultural Economics & Policy Research, New Delhi on 30.06.2012.

**PERSONALIA****APPOINTMENT**

- Dr. V.S.G.R. Naidu was appointed as Programme Coordinator, KVK, Kalavacharla w.e.f. 25.05.2012.
- Sri Loknath Senapati was appointed as Assistant at KVK, Kalavacharla w.e.f. 25.05.2012.
- Sri Anapakam Prabhu was appointed as Assistant at CTRI Research Station, Jeelugumilli w.e.f. 28.05.2012.

**RETIREMENT**

- Sri C. Subba Rao, AAO, KVK, Kalavacharla retired from Council's service on 30.04.2012.
- Sri R.L. Ramachandra Rao, UDC, CTRI, Rajahmundry retired from Council's service on 30.04.2012.
- Dr. S. Amarnath, Pr. Scientist & Head, CTRI RS, Dinhata retired from Council's service on 31.05.2012.
- Dr. C.V. Narasimha Rao, Pr. Scientist, CTRI, Rajahmundry retired from Council's service on 30.06.2012.
- Sri Ch. Srirama Rao, Asst. Director (Hindi), CTRI, Rajahmundry retired from Council's service on 30.06.2012.
- Sri Ch.S.N. Acharyulu, Tech. T-3, CTRI RS, Jeelugumilli retired from Council's service on 30.06.2012.
- Sri Rambrich Paswan, SSS, CTRI RS, Dinhata retired from Council's service on 30.06.2012.

## KRISHI VIGYAN KENDRA

○ Scientific Advisory Committee (SAC) – Kharif 2012 meeting was held on 10<sup>th</sup> April, 2012 at CTRI, Rajahmundry for reviewing the work done for Kharif 2011 and action plan for Kharif 2012. Dr.C.Chandrasekhara Rao, Programme Co-ordinator presented the achievements of KVK. A brochure on 'Zero tillage in Maize' was released on this occasion.

○ Smt.V.V.Lakshmi Kumari, SMS (Home Science) and Smt. J.V.R. Satyavani, SMS (Horticulture) participated in ZREAC 2012 (Kharif) meetings organised by ANGRAU, Rajendranagar and Department of Agriculture at Tadepalligudem, W.G.Dt. on 11.04.2012.

○ Bench Mark Survey was conducted on improved Samba (RP Bio-226 - A High Yielding fine grain variety resistant to bacterial blight) and distributed 100 (each 10 kg) kits for demonstration at Gandepalli, Mukkamala, Nagulapalli and Vakattippa villages on 14.6.2012 in collaboration with DRR, Hyderabad.

○ Dr. V.S.G.R. Naidu, Programme Coordinator, KVK, Kalavacharla and S. Jittendranath, SMS (Agronomy) participated in Annual Zonal Workshop of KVKs of Zone-V (Andhra Pradesh and Maharashtra) from 21-23 June, 2012 at KVK, Ahmednagar (Babhaleswar), Maharashtra. Three technical bulletins entitled 'Fodder Revolution in East Godavari District – An initiative by KVK'; 'Frontline Demonstrations – KVK-CTRI' and

'Entrepreneurship in Palmyrah Fibre' were released on this occasion by hon'ble Dr. S. Ayyappan, Director General, ICAR and Secretary, DARE on 23<sup>rd</sup> June, 2012.

○ Smt.J.V.R.Satyavani, SMS (Horticulture) participated in Video Conference at ANGRAU RARS, Maruteru on 15th June, 2012.

○ Smt. J.V.R.Satyavani, SMS (Horticulture) participated in Subject Committee meeting of All India Radio, Visakhapatnam on 23<sup>rd</sup> June, 2012.

○ Dr. B. John Babu and Dr. P.V.V.S. Sivarao, SMSs (ASP) collaborated with NABARD and Kamadhenu Milk Federation in imparting training to 28 rural youth of Mukkamala and nearby villages on 'First-aid to milch animals'.

○ A 'Field Day on Tapioca' was conducted on 3<sup>rd</sup> April, 2012 at Singampalli village of Rangampet Mandal. Farmers from Singampalli, Anuru and Doddigunta villages participated.

○ An "On campus training programme" was conducted on 30<sup>th</sup> May 2012 for dairy farm women from Visakhapatnam district.

### VOCATIONAL TRAINING PROGRAMMES

**16 - 25<sup>th</sup> April, 2012:** ABIRD, Rajahmundry sponsored training programme on "Incense stick making using Bamboo slicer cum Incense stick maker machine" was conducted for 15 tribal people

of Sunnampadu village of Maredumilli Mandal.

**7 - 13<sup>th</sup> May, 2012:** A programme on "Coir 2-ply yarn making over Automatic machinery" was conducted for 29 rural women of Munganda village in collaboration with AIBRD, Rajahmundry.

**4 - 11<sup>th</sup> June, 2012:** 22 rural women of Kotturu village of Srikakulam dist. were trained in "Sisal Fibre extraction and products making". The training was sponsored by Forum for Integrated development, Hyderabad.



**15<sup>th</sup> June - 14<sup>th</sup> August, 2012:** A training programme on "Garment making" was conducted for 30 rural women of K.Surampalem village of Rangampeta mandal.



**27<sup>th</sup> June - 6<sup>th</sup> July, 2012 :** 24 S.C. women of Timmapuram village were given training on "Cups and Dinner plate making with paper" sponsored by ABIRD, Rajahmundry.