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# Newsletter

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**Dr. S. Prakash Tiwari**  
takes the additional charge of  
Dy. Director General (Crop Science)



Dr. S. Prakash Tiwari, Deputy Director General (Education) has assumed the additional charge of DDG(Crop Science), on December 1, 2006. Born on November 14, 1947. Dr. Tiwari obtained the Ph.D. degree in Genetics from IARI, New Delhi. He served as Project Coordinator (Linseed); Director, NRC for Soybean; Assistant Director General (Seeds); ADG (Commercial Crops & Plant Protection), and Director, NAARM, Hyderabad, before becoming DDG(Education). He visited USA, UK, Switzerland, Italy, Spain, China, Korea, Mongolia, Philippines, Thailand, Nepal and Bangladesh and represented the country as negotiator/ leader in important international interactions. He has served as Consultant to IPGRI (now called as *Biodiversity International*, Rome, Italy) and is the Chairman of a Committee of National Biodiversity Authority, Chennai. He is also a Member of Board of Management of several SAUs and Central Agricultural University, Imphal. CTRI welcomes the new Dy. Director General.

## RESEARCH HIGHLIGHTS

### CTRI Rajahmundry

- ❑ *Pseudomonas fluorescens* was an effective biocontrol agent against damping-off in tobacco nurseries
- ❑ DNA was isolated from 40 tobacco green leaf samples belonging to both resistant and susceptible breeding lines for Fusarium wilt
- ❑ Solanesol content ranged from 0.12 to 1.30% in burley tobacco germplasm lines, from 0.10 to 2.45% in chewing tobacco samples and from 0.80 to 1.75% in rainfed natu tobacco samples.
- ❑ Three sprays of 2% leaf extracts reduced stem borer infestation by 40% (tobacco extract) and 87% (*Calotropis* extract) in black soil tobacco. *Calotropis* (2 and 4%) and neem (4%) reduced *Spodoptera litura* incidence by 75 to 80% in burley tobacco. In the case of leaf curl virus, all the six extracts have reduced the virus incidence by 50 to 60%.
- ❑ In burley tobacco, IPM module and chemical control modules recorded least pest infestation as compared to biological control module while the natural enemy activity was more in IPM and biological control modules.
- ❑ Emamectin benzoate was effective against *S. litura* in tobacco nurseries @ 11 g a.i./ha.
- ❑ *Tagetes* and castor have attracted three times more of *S. litura* and *H. armigera* infestation respectively than by tobacco; 2.5 and 1.5 times more number of natural enemies of the pest, respectively were recorded when compared to tobacco.
- ❑ Estimation of seed oil content by Nuclear Magnetic Resonance (NMR) method in 10 high seed yielding lines revealed that oil content ranged from 34.96% in the line, Regional Connecticut with a seed yield potential of 2,079 kg/ha to 42.76% in the cultivar Bhgyalakshmi with a seed yield of 1,649 kg /ha.
- ❑ Soybean-bengalgram cropping system is one of the viable alternatives to sole FCV tobacco crop for the rainfed Vertisols (TBS) of Andhra Pradesh. Soybean gives an average yield of 20-22 q/ha whereas bengalgram 18-20 q/ha in kharif and rabi seasons, respectively. The cost of cultivation for both the crops is Rs 23,205/- with the



Soybean-Bengalgram Cropping System



gross returns of Rs 45,500/- and net returns of Rs 22,295/- as against Rs 18,140/- for sole FCV tobacco crop.

### CTRI RS, Hunsur

- PGPR studies in Karnataka revealed that *Streptomyces* spp., *Rhizopus*, *Penicillium*, *Aspergillus*, *Pseudomonas*, *Bacillus* and *Azotobacter* were predominant.
- Chlorothalonil + Metalaxyl M was found to be promising against soil borne fungal diseases in FCV tobacco nursery.
- Seven advanced breeding lines derived from Rathna and Kanchan recorded 3 to 17% higher cured leaf yield over Kanchan. The line FCH 201 with yield potential of >3000 kg/ha is also superior in cured leaf quality.
- Six advanced breeding lines from Fusarium wilt resistant breeding programme recorded more than 2000 kg/ha cured leaf yield and disease reaction comparable to that of resistant donors. While four lines have shown desired cured leaf quality as well.
- Eight lines among seventeen hybrids have recorded more than 20% heterosis over standard check viz., Kanchan in cured leaf yield.

### AWARDS AND HONOURS

KVK of CTRI, Rajahmundry has been adjudged as the “**Best KVK**” in the Zone V (Andhra Pradesh & Maharashtra) for the year 2005-06 and a certificate of merit is received from Zonal Coordinator, Zonal Co-ordinating Unit for Transfer of Technology Projects, Zone V, Hyderabad.

## TRANSFER OF TECHNOLOGY

### RYTHU SADASSU

- Rythu Sadassu programme was organised at Dommeru village in West Godavari district on 11<sup>th</sup> October, 2006. A team of scientists consisting Dr. V. Krishnamurthy, Dr. C.A. Raju, Dr. P. Harishu Kumar, Dr. J.A.V. Prasad Rao, Sri S.K. Naidu and Dr. K. Suman Kalyani have participated in the programme and suggested the scientific method of raising the tobacco nurseries in heavy black soils.

### FIELD VISITS

- Sri K. Sessa Sai, Technical Officer T-5 and Sri N. Veerraju, Technician of Plant Pathology Section, CTRI, Rajahmundry visited farmers fields in Velerupadu and Rudramakota villages in Khammam district under Bhadrachalam auction floor area, identified disease problems and suggested the control measures on 9.11.2006.
- Sri K. Sessa Sai, Technical Officer T-5, CTRI, Rajahmundry visited NLS area under Jangareddygudem-II auction platform jurisdiction and suggested control measures against Brown Spot and Anthracnose disease in Mustibonda, Gangavaram in Khammam district and Kamayapalem in West Godavari district on 1.12.2006.

### CONFERENCES/ TRAININGS/ WORKSHOPS

- Sri R. Sreenivasulu, Principal Scientist, Dr. S.V. Krishna Reddy, Dr. S. Kasturi Krishna and Dr. R.L. Arya, Sr. Scientists have attended the Golden Jubilee National Symposium on “Conservation Agriculture and Environment” at BHU,

Varanasi during 26-28<sup>th</sup> October, 2006.

- Dr. Y. Subbaiah, Programme Co-ordinator, KVK, Kalavacherla has participated in the Annual Zonal Workshop of KVKs held at CRIDA, Hyderabad during 1<sup>st</sup> – 4<sup>th</sup> November, 2006.
- Sri Ch. Srirama Rao, Assistant Director (Hindi) and Sri Md. Elias, Technical Assistant (Library) have attended the training Programme on “Hindi Computer Training” at NPTI, Bangalore during 6-10<sup>th</sup> November, 2006.
- Dr. P.R.S. Reddy, Principal Scientist and Dr. C. Chandrasekhara Rao, Sr. Scientist participated in the 71<sup>st</sup> Annual Convention of Indian Society of Soil Science organised at OUAT, Bhubaneswar during 10-13<sup>th</sup> November, 2006.
- Sri R. Sreenivasulu, Principal Scientist attended the All India Seminar on ‘Phosphatic Fertilizers : Latest Developments’ at the Institute of Engineers, New Delhi during 13-14<sup>th</sup> November, 2006.
- Dr. S. Ramakrishnan, Sr. Scientist attended the Brain-Storming Session on ‘Status, prospects and road map for enhancing the uptake of antagonistic organisms in nematode management in India’ at PDBC, Bangalore during 17-18<sup>th</sup> November, 2006.
- Dr. B. John Banu, Subject Matter Specialist, KVK, Kalavacherla attended the Advanced technologies in Animal Sciences, Dairying and Fisheries at KVK, Pune during 20<sup>th</sup> – 21<sup>st</sup> November, 2006.

- Dr. P.R.S. Reddy, Principal Scientist, Dr. R.L. Arya, Sr. Scientist attended the International Symposium on Balanced Fertilization for Sustaining the Crop Productivity' at PAU, Ludhiana during 22<sup>nd</sup> - 25<sup>th</sup> November, 2006.
- Dr. Y. Subbaiah, Programme Co-ordinator, KVK attended the National Conference of KVKs' at ANGRAU, Hyderabad during 26-27<sup>th</sup> November, 2006.
- Dr.M.M. Shenoi, Principal Scientist & Head, CTRI RS, Hunsur attended the Annual Meeting and Symposium of Indian Phytopathological Society (Southern Zone) at CPCRI, Kasaragod during 27-28<sup>th</sup> November, 2006.
- Dr. M. Anuradha and Dr. K. Nageswara Rao, Sr. Scientists attended the National Seminar on Plant Physiology at KAU, Vellanikkara during 28-30<sup>th</sup> November, 2006.
- Dr.Y. Subbaiah, Programme Co-ordinator, KVK attended "Presentation of KVK report in QRT workshop" at Pune on 22<sup>nd</sup> December, 2006.

## PUBLICATIONS

- ♣ Krishnamurthy, V., P. Harishu Kumar and C. Chandra-sekhara Rao. (2006) Integrated Nutrient Management in Tobacco. In Winter School on 'New Dimensions in Integrated Nutrient Management of Major Field Crops for Sustainable Crop Production', held at the Directorate of Oilseeds Research, Hyderabad during Oct. 5-25, . pp 396-406.
- ♣ Nageswara Rao, K., M. Bangarayya, G.V.G. Krishnamurthy and N.C. Gopalachari. (2005) Nutritional benefits of rabbing with paddy husk and addition of ash in light soil tobacco nurseries. *Tob. Res.* 31(1&2):91-4.
- ♣ Narayanan, A.I., K. Nagarajan, T.S.N. Reddy, C.V.K. Reddy, R. Subba Rao and T.G.K. Murthy. (2005) Breeding burley tobacco varieties resistant to black shank, *Phytophthora parasitica* through interspecific hybridization. *Tob. Res.* 31(1&2):35-41.
- ♣ Ramadevi, Ch., G. Raghupathi Rao, K.C. Punniyah, P. Purnachandra Rao, P. Harishu Kumar, C.R. Nageswara Rao and G. Bindu Madhavi. (2005) Studies on the spray characteristics emitted through different high volume sprayers on tobacco. *Tob. Res.* 31(1&2):11-8.
- ♣ Rao, R.V.S., T.G.K. Murthy and K. Sarala. (2005) Germplasm resources and their utilization in improvement of Indian Tobacco. *Tob. Res.* 31(1&2):19-34.
- ♣ Siva Raju, K., K. Giridhar and C. Chandrasekhara Rao. (2005) Effect of nitrogen fertilization and topping levels on biochemical constituents of FCV tobacco grown in Karnataka light soils. *Tob. Res.* 31(1&2):79-85.
- ♣ Siva Raju, K., C.A. Raju and K. Deo Singh. (2005) Effect of ringspot virus infection on some biochemical constituents of tobacco. *Tob. Res.* 31(1&2): 95-8.
- ♣ Venkateswarlu, P., U. Sreedhar, S. Sitaramaiah, S. Nageswara Rao, S.V.V. Satyanarayana and I.V. Subba Rao. (2005) Effect of organic cakes on tobacco stem borer, *Scrobipalpa heliopa* Lower in burley tobacco. *Tob. Res.* 31(1&2):74-8.

## RADIO TALKS

- ఆరోగ్య పరిరక్షణలో ఆహార సంబంధ అపోహలు - వాస్తవాలు by Smt. V.V. Lakshmi Kumari, Subject Matter Specialist, KVK on AIR, Visakhapatnam on 12.10.2006.
- పరి విత్తడంలో నూతన పద్ధతులు by Sri S. Jitendranath, Subject Matter Specialist, KVK on AIR, Visakhapatnam on 20.10.2006.
- వర్షీనియా పొగాకు సాగులో ఎరువుల యాజమాన్యము by Dr. P.R.S. Reddy, Principal Scientist on AIR, Visakhapatnam on 8.11.2006.
- పండ్ల తోటలలో సమగ్ర ఎరువుల యాజమాన్యం by Sri E. Vijaya Prasad, Subject Matter Specialist, KVK on AIR, Visakhapatnam on 9.11.2006.
- కొబ్బరి తాడు తయారీలో ఆధునిక పద్ధతులు by Sri R. Sudhakar, Subject Matter Specialist, KVK on AIR, Vijayawada on 13.11.2006.
- పండ్ల తోటల్లో సమతుల్య ఎరువుల యాజమాన్యం by Smt. J.V.R. Satyavani, Subject Matter Specialist, KVK on AIR, Vijayawada on 28.11.2006.
- వర్షీనియా పొగాకు సాగులో మెళకువలు by Dr. (Mrs.) Kasturi Krishna, Sr. Scientist on AIR, Visakhapatnam on 30.11.2006.
- నూనె గింజలు, అపరాలలో అభివృద్ధి పథకాలు, అభివృద్ధి అవకాశాలు by Dr. Y. Subbaiah, Programme Co-ordinator, KVK on AIR, Visakhapatnam on 15.12.2006.
- రోజూ మనం తీసుకొనే ఆహారంలో పోషక విలువలు పెంపొందించడం by Smt. N. Aruna Kumari, Subject Matter Specialist, KVK on AIR, Vijayawada on 18.12.2006.
- పొగాకు తోటలో చీడపీడల నివారణ - యాజమాన్య పద్ధతులు by Dr. P. Venkateswarlu, Sr. Scientist on AIR, Visakhapatnam on 21.12.2006.
- పొగాకు తోటల్లో జీవనియంత్రణ పద్ధతుల ద్వారా సస్యరక్షణ by Sri S. Gunneswara Rao, Sr. Scientist on AIR, Visakhapatnam on 31.12.2006.



## RETIREMENTS

- ❑ Smt. R. Lakshmi, SS Gr.II, CTRI, Rajahmundry retired on superannuation on 31.10.2006.
- ❑ Smt. Putta Sanamma, SS Gr.I, CTRI RS, Hunsur retired on superannuation on 31.10.2006.
- ❑ Smt. D. Lakshamma, SS Gr.II, CTRI RS, Hunsur retired on superannuation on 31.11.2006.

## KRISHI VIGYAN KENDRA

- ❑ A total of 37 training programmes were conducted in agriculture and allied aspects and a total of 720 farmers, farm women, rural youth and extension personnel were trained.
- ❑ Two months duration training programme on "Cair yarn making" through automatic machines was conducted at KVK from 16.9.2006 to 15.11.2006 for 30 rural youth (female).
- ❑ Two off-campus training programmes on "Scientific storage of food grains" were conducted at NT Rajapuram and Mukkamala from 4.10.2006 to 14.10.2006 and 19.11.2006 to 28.11.2006, respectively. A group of 50 rural women were trained in each programme.
- ❑ **Women in Agriculture Day** was celebrated on 4.12.2006. A total of 50 farm women have participated. Drudgery reducing equipments were demonstrated. Improved seedlings of high yielding vegetable seeds (Tomato and Brinjal) were supplied to the farm women.

## MEETINGS / VISITS OF DR. V. KRISHNAMURTHY, DIRECTOR, CTRI

- ❑ Attended the 4<sup>th</sup> meeting of the Tobacco and Tobacco Products Sectional Committee, FAD-4 at the Bureau of Indian Standards, New Delhi on 4<sup>th</sup> October, 2006.
- ❑ Attended the meeting called for by the Dy. Director General (CS) and presented information on Information bank, Activity Milestones, Network Projects and Vision-2025 at the National Bureau of Plant Genetic Resources, New Delhi on 15<sup>th</sup> October, 2006.
- ❑ Delivered a lecture on "Integrated Nutrient Management in Tobacco" at the Winter School on "New Dimensions in Integrated Nutrient Management of Major Field Crops for Sustainable Crop Production" at the Directorate of Oilseeds, Hyderabad on 23<sup>rd</sup> October, 2006.
- ❑ Attended the Annual Zonal Workshop of KVKs of Andhra Pradesh and Maharashtra at CRIDA, Hyderabad on 1<sup>st</sup> November, 2006 and Chaired the session on "Intervention of KVKs in progress and structure: Success Stories".
- ❑ Visited the CCS Haryana Agricultural University, Regional Agricultural Research Station, Bawel, Haryana and interacted with the scientists and tobacco growers of the area on production constraints on 2<sup>nd</sup> November, 2006.
- ❑ Attended the Directors' Conference of ICAR Institutes at New Delhi during 3<sup>rd</sup> - 4<sup>th</sup> November, 2006.
- ❑ Participated in the 71<sup>st</sup> Annual Convention of the Indian Society of Soil Science at OUAT, Bhubaneswar during 10-13<sup>th</sup> November, 2006.
- ❑ Attended the "Employment Summit" organized by the Confederation of Indian Industry (CII) jointly with the Planning Commission, Govt. of India, on 14<sup>th</sup> November, 2006 and presented a paper on "Employment in Tobacco and Tobacco products: Present status and future prospects".
- ❑ Attended the special training programme on "Vigilance Administration and Management" held at NDRI, Karnal during 5-7<sup>th</sup> December, 2006.
- ❑ Visited the AINRP(T) Centre, Berhampur on 19<sup>th</sup> December, 2006 to monitor the field experiments on Pikka and rustica tobacco.
- ❑ Visited Orissa University of Agril. & Technology (OUAT), Bhubaneswar and had technical discussions with the Director of Research and Farmers' on 20<sup>th</sup> December, 2006.
- ❑ Monitored the field experiments of CTRI Research Station, Guntur and attended the Diamond Jubilee Celebrations of Agricultural College, ANGRAU, Bapatla during 28-29<sup>th</sup> December, 2006.
- ❑ Monitored the field experiments at CTRI Research Station, Kandukur and Farm fields and visited the demonstration trials of FCV cultivar SIRI and VT-1158 at Farmers' fields at Medarametla in Southern Black Soils of Andhra Pradesh on 30<sup>th</sup> December, 2006.

Edited and Compiled by Y.V. S.Narayana and Dr. C.V. N. Rao, DTP Type setting by Md. Elias, Photographs by N.V. Raju,

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