

Newsletter

CENTRAL TOBACCO RESEARCH INSTITUTE, RAJAHMUNDRY - 533 105

STAFF RESEARCH COUNCIL MEETINGS

The Staff Research Council (SRC) meetings and Annual Meeting of All India Network Research Project on Tobacco (AINRPT) were held from 5-9 August, 2002 at CTRI, Rajahmundry. Dr. P. Dayachari, IAS, Chairman, Tobacco Board was the Chief Guest and Dr. H.P. Singh, Director, Central Research Institute for Dryland Agriculture, Hyderabad presided over the function. Sri A.N. Singh, Ex-Additional Commissioner of Agriculture, Govt. of India, Dr. G.J. Patel, Ex-Project Co-ordinator, AICRP(T), Sri K.C. Biddappa, Vice-President (Marketing, R&D), ITC Limited-ILTD Division and Sri M.M. Yusuff, Senior

General Manager, GPI Ltd. were the guests of honour. Heads of Divisions and Research Stations, Scientists, Technical Officers, Retired Scientists of CTRI and Scientists from ITC-ILTD and GPI attended the inaugural function.

In his inaugural address, Dr. K. Deo Singh, Director, CTRI highlighted a wide range of issues viz. National Agricultural Policy, national and global tobacco situation, strategies for production of flavourful tobacco and areas of private funding of research. He briefed the salient features of two inter-institutional collaborative ad-hoc projects recently sanctioned by the ICAR. Dr. Singh also gave an account of important research findings of CTRI and its

Regional Stations and the AINRPT Centres.

Dr. P. Dayachari, IAS, Chairman, Tobacco Board stressed the necessity to develop varieties producing semiflavourful and flavourful tobacco in the country.



He informed that under WTO regime, mandatory quality norms will come into force from 2004. Therefore, we should gear up our research resources to meet the norms, especially with reference to tobaccos with lower levels of nicotine and free from TSNAs. Dr. Dayachari informed that Board will extend financial support for conducting pilot-plant studies on the bench-scale technologies developed at CTRI. Sri A.N. Singh suggested that extension activities should be geared up to bridge the gap in productivity between the research farm and the farmer's fields. Dr. G.J. Patel underscored the importance of potassium in tobacco. Sri K.C. Biddappa focused the perception of foreign buyers on different styles

of FCV tobacco produced in the country. In his presidential address, Dr. H.P. Singh opined that the competence and skills of CTRI scientists will certainly help in achieving the desired results, especially for producing less harmful tobacco. Two ad-hoc

projects 1) Watershed based NRM strategies for rainfed area of Prakasam district of A.P. and 2) Synthesis and biological evaluation of solanesol derivatives as novel bioactive substances, were formally inaugurated by Dr. H.P. Singh and Dr. P. Dayachari, respectively by handing over letters of sanction to the respective Principal Investigators, Sri R. Srinivasulu and Dr. C.V. Narasimha Rao.

A CD on "Decision support system for soil fertility evaluation and fertiliser recommendations for FCV tobacco" designed and developed by Sri H. Ravi Sankar and Dr. V. Krishnamurthy was released by Dr. K. Deo Singh, Director, CTRI on 5-8-2002.

One FCV tobacco variety II-1624 (Hemadri) (yield potential 2,500 kg/ha) for traditional black soils, one natu tobacco variety NG-73 (Bhairavi) (yield potential 2,500 kg/ha) for black soils and one burley tobacco variety BSRB-2 (Swetha) (yield potential 1500 kg/ha) for the light soils of Agency area of A.P. were recommended by the SRC for identification and release.

RESEARCH HIGHLIGHTS

- ❑ 'Abirami' a sun-cured chewing tobacco variety was identified and released for chewing tobacco farmers by the Tamil Nadu Central Variety Release Committee, 2001.
- ❑ A chewing tobacco variety Lichhavi bred at the CTRI Research Station, Pusa was released for cultivation in North Bihar by the Institute Variety Release Committee (IVRC), ICAR Res. Complex for Eastern Region, Patna. This variety has a yield potential of 3,000 - 3,500 kg/ha.
- ❑ Intersectional hybrids of cross *N. repanda* x *N. tabacum* were produced for the first time through hormonal aided direct hybridization. The hybrid is reported to be resistant to eleven diseases and two insect pests of tobacco.
- ❑ The variety K-326 requires 100 x 70 cm spacing and application of 110 kg N/ha in three splits in 25:50:25 at 10-15, 25-30 and 50-55 days after planting for expressing its potential yield.
- ❑ Out of 42 newly acquired germplasm accessions screened for resistance to blank shank disease at CTRI Research Station, Kandukur, the lines, TI-70, TI-165, TI-497, TI-995 and TI-998 showed resistance.
- ❑ Seedlings raised in trays under shade house and transplanted in main field expressed less transplantation shock and established well as compared to seedlings raised in control nursery.
- ❑ A natu tobacco variety, Pyruvithanam was released by SVRC, Orissa state for cultivation in Pikka tobacco growing areas of Orissa. This variety has a yield potential of 1250 kg/ha.
- ❑ High grade phosphate rock with 34% total P_2O_5 and 74 micron size (PR 34/74) of Jhamarkotra mines (Rajasthan) was found promising as source of P for FCV tobacco soils low in available P. PR (34/74) @ 80 kg P_2O_5 /ha in combination with FYM @ 3.5 t/ha or PR to supply 90 kg P_2O_5 was found suitable for SLS crop in place of SSP or DAP.
- ❑ In the nutrient management studies on tobacco based intercropping system, Rajmash planted two rows in alternate tobacco rows at 100% and 75% of recommended fertility level for intercrop (rajmash) recorded significantly higher total cured leaf yield, spangling, puckering and maturity score of base crop tobacco and was comparable to tobacco + garlic intercropping system.
- ❑ The fungicides Mirage (Prochloraz), Companion (Carbendazim Mancozeb) and Contaf (Hexaconazole) were found to inhibit mycelial growth of *Fusarium* and *Colletotrichum* under *in vitro* studies at CTRI Research Station, Hunsur.

TRANSFER OF TECHNOLOGY

PAPERS PUBLISHED

- ❑ Deo Singh, K. Analysis of the Indian situation. The Hindu Survey of Indian Agric. 2002, P. 221 - 5.
- ❑ Giridhar, K. and C. Chandrasekhara Rao. Influence of nitrogen levels and stage of topping on yield and quality of FCV tobacco varieties in KLS region. Tob. Res. 27(1) : 82 - 4, 2001.
- ❑ Gunneswara Rao, S. and S. Sitaramaiah. Application strategies for microbial pesticides against *Spodoptera litura* F. and *Helicoverpa armigera* HB in tobacco. Tob. Res. 27(1) : 12 - 8, 2001.
- ❑ Karunakara Murthy, K. and M.M. Shenoi. Evaluation of various chemical fungicides against brownspot diseases of FCV tobacco. Tob. Res. 27 (1) : 1 - 6, 2001.
- ❑ Kumaresan, K., K. Manoharan and K. Palanichamy. Effect of nitrogen and topping levels on the yield of chewing tobacco at Vedaranyam. Tob. Res. 27 (1) : 73 - 4, 2001.
- ❑ Ramakrishna, S., S.S. Srinivas and S.M. Viswanath. Community structure of plant parasitic nematodes associated with FCV tobacco in KLS region. Tob. Res. 27(1) : 79 - 81, 2001.
- ❑ Rao, P.V., A.V. Sekhara Babu, G. Raghupathi Rao, P.V. Venugopala Rao and P. Harishu Kumar. Breeding for superior variety of natu tobacco (*Nicotiana tabacum* L.) resistant to *Spodoptera litura* F. Tob. Res. 27 (1); 85 - 7, 2001.
- ❑ Ravishankar, H. and K. Deo Singh. పాగాకు పరిశోధనలో కంప్యూటర్ వినియోగం స్థితిగతులు. Agri Gold Swarnasedyam, 5(5) : 17 - 19, 2002.

- Ravishankar, H. and Krishna Murthy, V. Decision support system for manurial and fertilizer recommendations to FCV tobacco crop. ICAR News, July - Sept. 2002, P. 4 - 5.
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- Sarala, K. Towards agrobacterium transformation of FCV tobacco. Tob. Res. 27(1): 88 - 90, 2001.
- Seshumadhav, M., K. Sivaraju, T. Venkateswarlu and GNVABS. Mahalakshmi. Changes in isozyme pattern during differentiation of tobacco callus. Tob. Res. 27(1) : 41 - 5, 2001.
- Shenoi, M.M., S.S. Srinivas, and S.M. Abdul Wajid. Ecofriendly approach for the management of FCV tobacco nurseries. SAIC News 12 (1) : 3, 2002.
- Sitaramachari, T., K.V. Satyanarayana, K. Nagarajan, R.V.S. Rao, G.S.B. Prasannasimha Rao, T.G.K. Murthy and S.K. Naidu. Line 1099/2/4. A high yielding TMV resistant FCV tobacco (*N. tabacum* L.) for vertisols of Andhra Pradesh. Tob. Res. 27(1) : 94 - 7, 2001.
- Sitaramaiah, S., U. Sreedhar, G. Ramaprasad and S.V.V. Satyanarayana. Management of tobacco leaf eating caterpillar, *Spodoptera litura* F. with insecticide baits in NLS Tobacco. Tob. Res. 27(1) : 7 - 11, 2001.
- Subhashini, D. V. and K. Deo Singh. మైకోరైజ్ వాడండి - భాస్వరపు ఎరువు అదాచేయండి. Agrigold Swarnasedyam, 5(10) : 38, 2002.
- Subrahmanya, K.N., S. Ramesh and M.M. Shenoi. Performance of newly evolved FCV tobacco lines in Karnataka. Tob. Res. 27 (1) : 75 - 8, 2001.
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- Prasad Rao, J.A.V., P.R.S. Reddy, C. Chandrasekhara Rao, C. Anjaneyulu and Y. Ramabai. Phosphorus requirement of flue-cured tobacco grown in Northern light soils of Andhra Pradesh. Tob. Res. 27(2) : 174 - 80, 2001.
- Prasannasimha Rao, G.S.B. Breeding for further improvement in yield and quality of flue-cured virginia tobacco. Tob. Res. 27(1) : 46 - 51, 2001.
- P.V.V. Siva Rao on AIR, Vijayawada on 12-4-02.
- వేరుశనగలో చీడపీడలు - నివారణ. (Pest and disease management in groundnut). By Dr. U. Sreedhar on AIR, Visakhapatnam on 24-4-02.
- లాభసాటి విస్తరాకుల పరిశ్రమ. (Leaf plate making - A profitable industry). By Sri R. Sudhakar on AIR, Vijayawada on 3-5-02.
- యంత్రాల ద్వారా అరటి నార తీసే విధానము. (Method of banana Fibre extraction with machines). By R. Sudhakar on AIR, Visakhapatnam on 8-5-02 and on AIR, Vijayawada on 27.5.02, 10.8.02 and 13.9.02.
- కృత్రిమ గర్భిత్వవలన లాభాలు. (Benefits of artificial insemination). By Dr. B. John Babu on AIR, Vijayawada on 24-5-02.
- విస్తరాకుల వరిశ్రమ లబ్ధిదారులతో. (Beneficiaries of leaf plate making) - An interview on AIR, Vijayawada on 31-5-02.
- పిల్లలలో పోషకలోప వ్యాధుల నివారణ. (Correction of nutritional deficiencies in children) (By Smt. N. Aruna Kumari on AIR, Vijayawada on 29-5-02.
- చిన్నకారు రైతులకు క్రాస్ బ్రీడ్ అవుల పెంపకము. (Cross breed cows for small farmers) By KVK beneficiary on AIR, Vijayawada on 30-5-02.
- Paddy row seeder. By Sri S. Jitendranath on AIR, Vijayawada on 7-8-02.
- Banana fibre extraction. By Dr. V.V. Subramanian on AIR, Kasaragatta, Kerala on 20-9-02.
- Energy park. By Dr. V.V. Subramanian on AIR, Kasaragatta, Kerala on 21-9-02.

RADIO TALKS

- ఆహారంలో పోషక విలువలు పెంపొందించడానికి చిట్కాలు. (Techniques to improve nutritional quality of food). By Smt. N. Aruna Kumari on AIR, Visakhapatnam on 3-4-02.
- జడిమామిడిలో అధిక దిగుబడులకు యాజమాన్య పద్ధతులు. (Management practices in cashew to improve productivity). By Sri E. Vijaya Prasad on AIR, Visakhapatnam on 18-4-02.
- చిరుధాన్యాల్లో పోషక విలువలు. (Nutritional quality of millets). By Smt. N. Aruna Kumari on AIR, Vijayawada on 18-4-02.
- పోషకలోప వ్యాధుల నివారణలో పెరటి తోటల ప్రాముఖ్యత. (Role of kitchen garden in prevention of nutritional deficiency diseases). An interview with KVK beneficiaries on AIR, Visakhapatnam on 19-4-02.
- వేసవిలో పశు సంరక్షణ. (Management of cattle in summer). By Dr.

IN-HOUSE SEMINARS

- Dr. N.P. Sarma, Head of Biotechnology (Retd.), DRR, Hyderabad : "DNA marker in genetic purity testing and marker associated selection technology in rice improvement" on 17-4-02.
- Dr. S.V. Krishna Reddy, Sr. Scientist and Dr.(Mrs.) Kasturi Krishna, Scientist (Sr. Scale), : A review on the national symposium on "Agriculture in changing scenario" held at IARI, New Delhi on 10-5-02.
- Dr. P. Harishu Kumar, Head, Crop Production : Impressions about 32nd Annual Soyabean Workshop held at Udaipur on 10.9.02.
- Dr. U. Sreedhar, Sr. Scientist : "Pesticide scenario in India: An overview" on 29-6-02.
- Sri Y.V. Suryanarayana, OIC, Library & Documentation Service : "Establishment of Tobacco Information Centre at CTRI" on 16-5-02.
- Dr. D.V. Subhashini, Sr. Scientist : "Isolation of plant growth inhibiting Rhizobacteria (PGIR) from Rhizosphere of soybean - FCV tobacco cropping system" on 1-6-02.
- Dr. V. Krishnamurthy, Principal Scientist : "Prospects of FCV tobacco production in KLS" on 20-7-02.
- Sri S. Gunneswara Rao, Scientist (SG) : "Biological control of crop pests" on 20-7-02.
- Dr. K. Nageswara Rao, Sr. Scientist : "Tobacco control world wide : Challenges and opportunities for India" on 23-8-02.

CONFERENCES / TRAININGS / SEMINARS / WORKSHOPS

- Dr. M. Kumaresan, Scientist (SS) attended the training programme on "Organic agriculture - A paragon for sustainability" at JNKUV, Jabalpur, M.P. from 26.3.02 to 15.4.02.
- Sri R. Sudhakar, Smt. N. Aruna Kumari, Sri Ch. Sudhakarababu, Technical Officers from KVK attended a training course on "Fabrication of low cost waterfilters" at TCS, Pune from 2-5-02 to 6-9-02.
- Dr. K. Giridhar, Scientist (Sr. Scale) attended the short term course on "Watershed planning" at CSWCRTI Research Centre, Udagamandalam, Tamil Nadu from 8.5.02 to 17.5.02.
- Dr. D.V. Subhashini, Sr. Scientist attended the ICAR short term course on "Molecular methods for diagnosis of plant pathogens" held at IIHR, Bangalore from 16-5-02 to 25-5-02.
- Dr. D.V. Subhashini, Sr. Scientist attended the International symposium on "Molecular approaches to improve crop productivity and quality" held at TNAU, Coimbatore during 22-24 May, 2002 and presented a paper entitled "Isolation of plant growth inhibiting Rhizobacteria (PGIR) from the Rhizosphere of soybean-tobacco cropping system".
- Dr. K. Palanichamy, Principal Scientist and Head, CTRI RS, Veda sandur attended the symposium on "Molecular approaches for improved crop productivity and quality" at TNAU, Coimbatore from 22.5.02 to 24.5.02.
- Dr. V.V. Subramanian, Sr. Scientist, KVK attended a course on "NRC Extension strategies" at IARI, New Delhi from 27-7-02 to 29-7-02.
- Dr. V.V. Subramanian, Sr. Scientist, KVK attended a winter school at KAU, Kasaragatta from 17-9-02 to 19-9-02.
- Smt. V.V. Lakshmi Kumari and Sri S. Jitendranath attended the Annual Zonal Workshop of KVKs of Andhra Pradesh and Maharashtra at MPKV, Dhule from 24-9-02 to 26-9-02.
- Dr.K. Deo Singh, Director, CTRI participated in the CORESTA Congress during 22 - 27 September, 2002 at New Orleans, USA and presented a paper "Factors influencing TSNAs in Indian tobacco."



HINDI FORTNIGHT CELEBRATIONS

Central Tobacco Research Institute, Rajahmundry organized Hindi Fortnight celebrations from 4.9.02 to 18.9.02. Dr. K. Deo Singh, Director, CTRI inaugurated the celebrations by lighting the lamp on 8-9-02. A large number of staff members participated in various events/ competitions in Hindi like translation of a passage and terminology, letter writing, essay writing, memory test, songs and gazals, comprehension from Hindi passage, noting & drafting etc. The closing ceremony was organized on 9.10.2002 and Sri C. Lal, Estate Manager, ONGC, Rajahmundry was the Chief Guest. Dr. K. Deo Singh presided over the function. He said that many people in

different states know Hindi and further improvement in usage of Hindi is possible with a concerted effort. Dr. Singh said that CTRI should join hands with ONGC and APP Mills in conducting functions for popularising Hindi. On this occasion, the messages sent by Sri Ajit Singh, Hon'ble Minister for Agriculture and Smt. Sashi Mishra, IAS, Secretary, ICAR and Adl. Secretary, DARE were read by Sri Ch. Sreerama Rao, Secretary, OLIC and he also informed that the usage of Hindi by staff in their official works in CTRI has increased more than last year. Sri C. Lal distributed prizes to the staff who participated in various events/competitions.



Dr. K. Deo Singh, Sri Ch. Sri Rama Rao, Sri C. Lal and Sri Y.V.S. Narayana

RETIREMENT

Sri S. Veeraswamy, SAO	CTRI, Rajahmundry	30.04.02
Sri P. Pullaiah, LDC	CTRI RS, Guntur	30.06.02
Sri M. Veerraju, Technician T4	CTRI, Rajahmundry	31.07.02
Sri Singa Roy, Technician T-3	CTRI RS, Hunsur	31.07.02
Sri S. Arulandu, SS Gr.II	CTRI RS, Vadasandur	31.07.02
Sri Ch. Veerraju, SS Gr.III	CTRI, Rajahmundry	30.08.02
Sri G.S.B.Prasannasimha Rao, Pr. Scientist	CTRI, Rajahmundry	30.09.02
Sri Md. Nurhossain Miah, SS Gr.I	CTRI RS, Dinahata	30.09.02

INTER-INSTITUTIONAL TRANSFER

Dr. M. Mahadevaswamy, Senior Scientist (Agronomy), from SBI, Coimbatore joined at CTRI Research Station, Hunsur on 24-5-2002. Dr. Pallaki Nagesh, Technical Officer, T-6, from CARI, Port Blair, joined at CTRI RS, Kandukur on 23.9.2002.

OBITUARY

* Sri S. Narasimha Murthy, SS Gr. II, CTRI, Rajahmundry expired on 19.5.02.

* Dr. Talluri Venkateswarlu, Principal Scientist and Head, Division of Crop Improvement expired on 30-7-2002.



Dr. Venkateswarlu was born in 1950 in Sitaramapatnam, Khammam dt., AP. He obtained M.Sc. degree from Kakatiya University. He joined the ICAR service in 1976 at CTCRI, Trivandrum. Subsequently he was transferred to CTRI in 1982. He received Dr. G.S. Murthy Award in 1986 and 1998 for his outstanding research contributions in tobacco. He also received "Avula Jayaprada Devi and Avula Sambasiva Rao Best Ph.D. Thesis Award" for his Ph. D. research work from Andhra University in 1989. He underwent training in University of Nottingham, United Kingdom. He worked on protoplast culture and somatic hybridization in *Nicotiana* under plant genetic manipulation group under British Technical Cooperation Breeding Programme. He published 45 research papers in National and International Journals. He was a life member of Indian Society of Root Crops, Indian Society of Tobacco Science and International Association for Plant Tissue Culture (IAPTC).

KRISHI VIGYAN KENDRA

FODDER PRODUCTION SEMINAR

KVK organised state level two day seminar and training programme on "Fodder production" on 5th and 6th September, 2002 at CTRI, Rajahmundry. A total of 150 farmers, Veterinary Assistant Surgeons and Asst. Directors from different parts of A.P. participated in the programme.

Dr. B.S. Hansra, ADG(Ag.Extn.), ICAR was the Chief Guest, Dr. K.S. Jawahar Reddy, IAS, District Collector, E.G.Dt., Dr. K. Deo Singh, Director, CTRI, Dr. Nagabhushana Rao, Joint Director (AH), Dr. Sridhar, Sub-collector were the other important dignitaries. Dr. C.R.

Ramesh, Head, Regional Research Station, IGFRI, Dharwad, subject matter specialists from ANGRAU, Scientists from Buffalo Research Centre, West Godavari, Joint Directors and experts from

Department of Animal Husbandry from other districts in A.P. also attended the programme.

In his address to the delegates, Dr. Jawahar Reddy stressed the importance of good fodder for healthy livestock. Dr. Hansra narrated the ICAR efforts for transfer of technologies to farmers and informed that ICAR is proposing to open few more KVKs in India for better and effective transfer of technology. In his presidential address Dr. K. Deo Singh informed that CTRI - KVK is concentrating on enhancement of fodder production and has already supplied 50 tonnes of slips to farmers.



Dr. V.V. Subramanian, Dr. B.S. Hansra and Dr. K. Deo Singh

The KVK of CTRI has designed and developed "Banana fibre extractor" for extraction of fibre from Pseudo stems, leaf stalks and peduncle of Banana. Dr. K. Deo Singh, Director, CTRI inaugurated the machine on 4-4-02. More than 100 farmers, farm-women, traders and officials participated in the function. The machine reduces the drudgery and increases the fibre production fifty times compared to manual process. It is user friendly and economical with less maintenance cost and safe to operate. Superior quality fibre in terms of length, softness, strength and colour can be obtained with this machine. It gives an additional income of Rs 2,500/- per acre to the banana cultivators.

- ❑ A total of 60 on/off campus training programmes were conducted in agriculture and allied aspects.
- ❑ Long duration training programmes on coir yarn making (13-5-02 to 12-7-2002) and garment making (29-6-02 to 19-7-02) were conducted at Jaggampeta and Kalavacherla respectively.
- ❑ Six off-campus and on-campus training programmes on 1) Prevention of nutritional deficiency diseases 2) Suppleme-ntary nutrition for infants 3) Fodder production technologies and 4) Backyard kitchen gardening were conducted in April and June, 2002.



Edited and Compiled by Y.V. Suryanarayana and Dr. C.V. Narasimha Rao,

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