

Newsletter

CENTRAL TOBACCO RESEARCH INSTITUTE, RAJAHMUNDRY - 533 105

RESEARCH HIGHLIGHTS

At CTRI Research Station, Guntur, Natu tobacco variety NG-73 was found significantly superior to WAF and produced 27% more cured leaf, 32% more bottom and 29% more top leaf yields.

Cocker 319 was identified as promising flavourful tobacco line at CTRI Research Station, Jeelugumilli.

Application of 110 kg N/ha in three splits with a population of 14,285 plants/ha recorded highest green leaf, cured leaf yield and grade index in K-326 variety in Northern light soils of Andhra Pradesh.

BIPM practices in NLS tobacco against *Helicoverpa armigera* resulted in 5.48% infested plants as compared to 8.17% and 16.88% in chemical control and farmer's practice respectively.

Studies on trap crops for budworm in FCV tobacco showed that rustica tobacco, Tagetes (single whorl), Tagetes (multi whorl),

chickpea and zinnia were promising in terms of trapping ability, reduction of infestation and natural enemy activity.

Evaluation of sequential sprays of botanical and microbial insecticides against *S. litura* in tobacco nurseries revealed that NSKS 2% & SL NPV @ 1.5×10^{12} PIBS/ha was the best when compared to chlorpyrifos (0.05%).

FYM was found superior to groundnut cake and green leaf manuring in the production of burley cured leaf. Organics: inorganics in the ratio of 25:75 was superior to 50:50 ratio. Application of FYM @ 10 t/ha to burley tobacco recorded 7.4% increase in yield over control.

Application of neem cake @ 0.50 t/ha reduced the stem borer infestation by 81.49% and increased the yield by 20% in burley tobacco var. Banket A1.

At CTRI Research Station,

Kandukur, Ridomil @ 0.2% at the time of planting and basal application of 100 ml/plant at 20 DAP controlled black shank disease.

In the intercropping sequence in vertisols, maize + soybean (Kharif) followed by Bengalgram (Rabi) recorded the highest net income of Rs.25,860/ha with a C:B ratio of 1:2.06 as against mono crop of FCV tobacco with Rs.16,070/ha as net income and 1:1.49 C:B ratio.

Among the various intercrops tested at CTRI Research Station, Veda sandur, chewing tobacco + beetroot recorded a high net return of Rs.74,245/ha with a C:B ratio of 1:3.09 followed by sole crop of chewing tobacco.

Highest net return of Rs.49,901 was achieved when Motihari tobacco was intercropped with one row of garlic in every alternate row of tobacco under the recommended dose of fertilizer (RDF) for tobacco and 50% N for the intercrop.

CYCLONIC DAMAGE TO FCV TOBACCO CROP

A total rainfall of 192.6 mm was received in 48 hours in Northern Light Soils (NLS) of West Godavari and Khammam Districts of Andhra Pradesh during 15 - 16th December 2003 due to cyclone. As a result, tobacco fields in the low lying areas suffered water logging and over saturation. Due to rhizosphere suffocation, the tobacco crop showed wilting symptoms and premature yellowing of lower leaves. The damage was less severe in up land areas. The cyclone also damaged the field experiments conducted in the vertisols at Katheru. Timely measures were taken to drive away flood water and replant some of the experiments so as to reduce the damage.



RADIO TALKS

- అరటి వ్యర్థాలతో కాగితం తయారీ by Sri R. Sudhakar, Technical Officer, KVK on AIR, Visakhapatnam on 10.10.2003.
- బత్తాయిలో సమగ్ర పోషకాల యాజమాన్యం by Sri E. Vijaya Prasad, Technical Officer, KVK on AIR, Visakhapatnam on 14.10.2003.
- ఉత్తరకోస్తా తేలిక నేలల్లో వర్షీనియా పొగాకు వాట్లు - యాజమాన్యం by Dr. (Smt.) S. Kasturi Krishna, Scientist (Sr. Scale) on AIR, Vijayawada on 14.10.2003.
- బత్తాయిలో మూలపోషకాల ప్రాధాన్యత by Sri E. Vijaya Prasad, Technical Officer, KVK on AIR, Vijayawada on 24.10.2003.
- 'Disease management in tobacco' by Sri R. Rajendran, Technical Officer, CTRI RS, Veda sandur on AIR, Madurai on 29.10.2003.
- జాతీయ నూనె గింజల మరియు పప్పుదినుసుల అభివృద్ధి పథకం by Sri S. Jitendranath, Technical Officer, KVK on AIR, Visakhapatnam on 30.10.2003.
- వర్షీనియా పొగాకులో పురుగుల నివారణ by S. Sitaramaiah, Principal Scientist on AIR, Vijayawada on 14.11.2003.
- చిన్న పిల్లలకు ఇంట్లో తయారుచేసుకోగల అనుబంధ ఆహారం-ఆవశ్యకత by Smt. V.V. Lakshmi Kumari, Technical Officer, KVK on AIR, Visakhapatnam on 5.12.2003.
- పిల్లలలో మేధాశక్తిని, సృజనాత్మకతను పెంపొందించడం by Dr. (Smt.) K. Suman Kalyani, Scientist, KVK on AIR, Visakhapatnam on 12.11.2003.
- పొగాకులో లాభసాటి ప్రత్యామ్నాయ పంటల దిగుబడులు by Dr. (Smt.) S. Kasturi Krishna, Scientist (Sr. Scale) on AIR, Vijayawada on 19.12.2003.
- పొగాకు నారుమళ్ళను ఆశించే పురుగులు -నివారణ Sri S.V.V. Satyana-rayana, Technical Officer on AIR, Visakhapatnam on 25.12.2003.

CONFERENCES/TRAININGS/ WORKSHOPS

- Dr. D.V. Subhashini, Dr. Satyajit Roy, Dr. K. Siva Raju and Dr. C.A. Raju participated in the 6th International Workshop on 'Plant Growth Promoting Rhizobacteria,' held at Indian Institute of Spices

Research, Calicut, during 5 - 10 October, 2003.

- Sri R. Sudhakar, Technical Officer, KVK attended the International Seminar on 'Down-sizing technologies for rural development,' 2003 at Bhubaneswar during 7-10 October, 2003.
- Sri S. Gunneswara Rao, Scientist (SG), attended the National Children Science Exhibition to act as Judge and select projects for state level National Children Science Congress at S.K.P. Govt. National High school, Ramachandrapuram on 28th October, 2003.
- Dr. (Smt.) K. Sarala, Sr. Scientist, attended the Workshop on Detection Methods for GM plants/foods at CDFD, Hyderabad during 20 - 22 October, 2003.
- Sri K.N. Subrahmanya, Scientist (Sel. Gr.), CTRI RS, Hunsur attended the National Seminar on "Advances in Genetics and Plant Breeding - Impact of DNA Revolution" at University of Agricultural Sciences, Dharwad during 30-31 October, 2003 and presented a paper entitled "Development and release of variety Rathna - A milestone for the sustenance of FCV tobacco quality in low rainfall areas of Karnataka light soils."
- Dr. U. Sreedhar, Sr. Scientist attended the National symposium on "Frontier areas of Entomological Research" at IARI, New Delhi during 5 - 7 November, 2003.
- Dr. P. Venkateswarlu, Sr. Scientist attended the refresher training course on "Biological control of crop pests and weeds" at PDBC, Bangalore during 10 - 15 November, 2003.
- Dr. J. V. Prasad, Sr. Scientist attended the refresher training course on "Biological control of crop pests and weeds" at PDBC, Bangalore during 17 - 22 November, 2003.
- Dr. D.V. Subhashini, Sr. Scientist and Sri S.Gunneswara Rao, Scientist (SG) attended the "Interactive seminar on Research

activities" at Regional Forest Research Centre, Rajahmundry during 20 - 21 November, 2003.

- Sri Y.V. Suryanarayana, Documentation Officer, attended the advanced training course on 'Latest trends in the development of National Agricultural Research Database Index' ICAR - CABI workplan held at DIPA, ICAR, New Delhi during 24 - 27 November, 2003.
- Sri S. Jitendranath, Technical Officer and Smt. N. Aruna Kumari, Technical Officer from KVK attended the training programme on "Cultivation practices of soybean and preparation of Soy products" at NRC for Soybean, Indore during 1 - 3 December, 2004.
- Sri S. Ramakrishnan, Scientist (Nematology) attended the training programme on "Biological control of plant parasitic nematodes" held at Department of Nematology, Tamil Nadu Agricultural University, Coimbatore during 2 - 22 December, 2003.
- Dr. D.V. Subhashini, Sr. Scientist attended the Winter School on "Biotechnological approaches for the management of plant pathogens in export oriented horticulture crops" at TNAU, Coimbatore during 2 - 22 December, 2003.
- Sri R. Sudhakar, Technical Officer, KVK attended the International conference on "Agricultural Policies and strategies for profitable farming, field realities, needed reforms and interventions" at GAU, Anand during 5 - 7 December, 2003.
- Dr. M.M. Sheno, Principal Scientist and Head, CTRI RS, Hunsur attended the workshop on "Disease forewarning systems" organized by CSR & TI, Mysore on 8th December, 2003 and chaired the session on "Mulberry diseases."
- Sri Y.V. Suryanarayana, Documentation Officer attended the DRTC Workshop on "SEMANTIC WEB" at Indian Statistical Institute, Bangalore during 8 - 10 December, 2003.

- ❑ Dr.K.Nageswara Rao, Sr.Scientist attended the Seminar on 'Physiological interventions for improved crop productivity and quality: Opportunities and constraints' at Regional Agricultural Research Station, Tirupati on 12th December, 2003.
- ❑ Dr. U. Sreedhar, Sr. Scientist attended the 5th National Symposium on "Bio-control agents for sustainable management of pests" at G.B. Pant Univ. of Agri. & Tech., Pantnagar during 18 - 20 December, 2003.
- ❑ Dr. M.M. Shenoi, Principal Scientist and Head, CTRI RS, Hunsur attended the National Symposium on "Recent developments in the diagnosis and management of plant diseases for meeting global challenges" held at UAS, Dharwad during 18-20 December, 2003 and presented a paper entitled "Tray nursery for healthy seedling production in FCV tobacco - An eco-friendly approach" by M.M. Shenoi, M. Mahadevaswamy and S. S. Sreenivas.
- ❑ Dr. (Smt.) K. Suman Kalyani, Scientist, KVK attended the NABARD Workshop at CRIDA, Hyderabad during 29 - 31 December, 2003.
- ❑ Dr. K. Deo Singh, Director, CTRI attended the Annual General Meeting of the International Tobacco Growers' Association (ITGA) at Rovinj - Rovigno, Croatia during 2 - 6 November, 2003 as invited speaker. He presented a paper entitled 'India : The outlook for production and exports of leaf tobacco.'

BOOKS/ BULLETINS PUBLISHED

- ❑ "Potassium Nutrition of Flue-cured Tobacco" by V. Krishnamurthy, B.V. Ramakrishnaya and K. Deo Singh, CTRI, Dec. 2003, 74 p.
- ❑ Package of Practices for Enhancing farm Productivity, Vol.II, KVK.
- ❑ Brochures on i) Weaning foods for children; ii) Behavioural problems in children; iii) Soya chikkudu poshaka viluvalu (Telugu).

PAPERS PUBLISHED

- ❑ Chandrasekhara Rao, C., C.A. Raju and P.R.S. Reddy. Movement and persistence of applied copper fungicides in tobacco nurseries grown in light soils. Tob. Res. 29(1): 58-60, 2003.
- ❑ Giridhar, K. and M. Mahadevaswamy. Weed control studies in FCV tobacco nursery. Tob. Res. 29(1): 61-3, 2003.
- ❑ Giridhar, K., C. Chandrasekhara Rao and S. Ramakrishnan. Evaluation of organic manures and nitrogen levels for yield and quality and root knot management in FCV tobacco in Karnataka. Tob. Res. 29(1): 1-7, 2003.
- ❑ Giridhar, K., M.M. Shenoi and K.N. Subrahmanya. Integrated barn for energy conservation in flue curing of Virginia tobacco in Karnataka. Tob. Res. 29(1): 35-9, 2003.
- ❑ Harishu Kumar, P. and G. Raghupathi Rao. Sustainability of Rabi inter-cropping in chickpea, pigeonpea, soybean and greengram *vis-à-vis* FCV tobacco monocropping in vertisols of Andhra Pradesh. Tob. Res. 29(1): 8-13, 2003.
- ❑ Karunakaramurthy, K., M.M. Shenoi and S.S. Sreenivas. Perpetuation and host range of *Alternaria alternata* causing brown spot disease of tobacco. Indian Phytopath 56(2): 138-41, 2003.
- ❑ Krishnamurthy, V., and K. Deo Singh. Soil fertility, water quality and leaf chemistry of cigarette natu, bidi, oriental and H.D. burley tobaccos grown in Andhra Pradesh. Tob. Res. 29(1) : 64-8, 2003.
- ❑ Krishnamurthy, V., S.K. Dhar, I.J. Chandra and B.V.V.S.N. Murthy. Effect of different levels of phosphorus and potash on yield and quality of Motihari tobacco grown on Entisols of West Bengal. Tob. Res. 29(1): 69-73, 2003.
- ❑ Kumaresan, M., C. Chandrasekhara Rao and R. Athinaraayan. Effect of different organic manures on the growth attributes, yield, quality and economics of chewing tobacco of Tamil Nadu. Tob. Res. 29(1): 31-4, 2003.
- ❑ Mahadevaswamy, M. and K. Giridhar. Moisture index and rainfall variability at CTRI Research farm, Hunsur in Karnataka. Tob. Res.29(1): 40-2, 2003.
- ❑ Nageswara Rao, K., and D. Prabhakara Babu. Effect of light intensity on plant growth and chemical composition of FCV tobacco. Tob. Res. 29(1): 74-6, 2003.
- ❑ Nageswara Rao, K., K.N. Subrahmanya, S. Ramakrishnan, M.M. Shenoi, M. Anuradha and D. Prabhakara Babu. Effect of handling and dryage loss of FCV tobacco bales in auction floors. Tob. Res. 29(1): 49-53, 2003.
- ❑ Nageswara Rao, K., M. Bangarayya, Y.Ch. N. Murthy and D. Prabhakara Babu. Effect of topping at different growth stages on the yield and quality of FCV tobacco grown in Northern Light Soils of Andhra Pradesh. Indian J. of Plant Physiology 8(1), 48-52, 2003.
- ❑ Sitaramaiah, S., U. Sreedhar and S. Jitendranath. Insect Pests in tobacco nurseries - Management (in Telugu). Rythu Vaarta, 18th October, 2003.
- ❑ Sreedhar, U., R.S.N. Rao, S. Sitaramaiah and G. Ramaprasad. Evaluation of *Bacillus thuringiensis* Berliner formulations against budworm, *Helicoverpa armigera* (Hb.) on flue cured Virginia tobacco. Tob. Res. 29(1) : 43-48, 2003.
- ❑ Subrahmanya, K.N. and C. Mahadeva. Capsule maturity stage at harvest influencing seed viability and seedling vigour in FCV tobacco. Tob. Res. 29(1): 14-7, 2003.

INTER INSTITUTIONAL TRANSFER

Dr. R.L. Arya, Sr. Scientist (Agronomy), I.I.P.R., Kanpur joined at CTRI Research Station, Jeelugumilli on 28th November 2003.

RETIREMENT

Smt. S. Achamamba, L.D.C., CTRI Research Station, Kandukur retired from ICAR service on 31.12.2003.

OBITUARY

Smt. P. Palaniammal, S.S. Gr.III, CTRI Research Station, Vedasandur expired on 22.12.2003.

QRT VISIT

The Quinquennial Review Team of CTRI, AINRPT and KVK consists of Dr. S.A. Patil, Vice Chancellor, UAS, Dharwad as Chairman; Dr. N. Ramakrishnan, Ex-Div. Head of Entomology, IARI, New Delhi, Dr. B.N. Chowdary, Ex-ADG (Ag.Extn.), ICAR, New Delhi, Dr. B.N. Patel, Res. Scientist, GAU, Anand, Dr. B.R. Hegde, Directorate of Research (Retd.), UAS, Bangalore as Members and Dr. J.A.V. Prasad Rao, Pri. Scientist, CTRI as Secretary visited CTRI Research Station, Veda sandur on 20th October 2003, AINRPT Centre, Nipani on 23rd October 2003, AINRPT Centre, Berhampur on 19th November 2003, CTRI Research Station, Dinhata on 22nd November 2003, AINRPT Centre, Pusa on 22nd December 2004 and AINRPT Centre, Gursahaiganj on the 24 & 25th December 2003 and reviewed the on going work and to evaluated research activities of these centres.



QRT at CTRI RS, Dinhata

KRISHI VIGYAN KENDRA

A total of 62 training programmes were conducted in agriculture and allied aspects. A total of 2461 farmers, farm women, rural youth and extension functionaries were trained. Long duration training programmes were conducted on 1) Commercial garment making and 2) Banana fibre decoratives for extension functionaries in two villages in addition to 25 FTC training programmes in different villages. Nearly six news coverages on different topics were published in regional newspapers like Eenadu, Vartha, Andhra Jyothi and Andhra Bhoomi.

Scientific Advisory Committee

Fourteenth Scientific Advisory Committee (SAC) meeting of KVK, CTRI was conducted on 27.11.2003. Officials from State Departments, NGOs and Progressive Farmers participated in the programme. Dr. K. Deo Singh, Director, CTRI presided over the meeting. Sri S. Sitaramaiah, Principal Scientist & Officer-in-Charge, and Dr. (Smt.) K. Suman Kalyani, Scientist & Training Organiser, presented the activities of KVK. The members expressed satisfaction and appreciated the team work of KVK.

World Food Day

World Food Day was celebrated at KVK on 16.10.03. Dr. K. Deo Singh, Director, CTRI presided over the function. Training programmes on 'Low cost recipes' and 'Soya products' were organized for rural farm women and adolescent girls of Rajanagaram Mandal. Two brochures on 'Soya chikkudu poshaka viluvalu' (Telugu) and 'Weaning foods for children' were released by the Director on this occasion.

Women in Agriculture Day

Women in Agriculture Day was celebrated on 04.12.2003 at KVK, Kalavacherla and about 100 farm women participated. They were explained about the drudgery reducing agricultural implements.



Scientific Advisory Committee Meeting



Dr. K. Deo Singh releasing brochures

