



# CTRI News Letter

CENTRAL TOBACCO RESEARCH INSTITUTE, RAJAHMUNDRY-5 (A.P.)

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## MAJOR EVENTS

The Staff Research Council meeting and Review of the R & D Workshop recommendations were held at this Institute on 9-10 February, 1987 under the Chairmanship of Dr. M. S. Chari, Director, Dr. C. Kempanna, Deputy Director General (CS) delivered the key-note address. Dr. B. G. Jaisani, Project Co-ordinator (T), AICRP Sri T. D. Prasada Rao, Member Research I.L.T.D., Dr. C. S. Krishna Murthy, Consultant, Tobacco Board, Dr. T. S. Subrahmanyam, Assistant Manager, I. L. T. D. and Dr. G. C. Tiwari, Scientist S-2, Indian Council of Agricultural Research participated in the meetings as special invitees.

In his welcome address, Dr. M. S. Chari, briefly reviewed the progress of work and follow-up action taken on the recommendations of R & D proceedings. He mentioned about the encouraging performance of the newly evolved FCV tobacco varieties viz., VA 3030,

HR. 75-74 and HR 81-83. The 'Neem Oil Technology' developed by the institute has covered an area of 4,000 ac. in the Northern light soils in the very first year of its release to the farming community. Dr. Chari said that the future thrusts of the Institute would be mainly on the control of whitefly menace in Southern light soils, reducing the cost of cultivation and evolving high yielding disease and pest resistant varieties to increase the productivity of F. C. V. Tobacco.

Dr. Kempanna, Deputy Director-General (CS) expressed his immense pleasure for the rapid strides made for transfer of technology within a short period. He emphasised that Scientists should not remain captive after developing a technology at laboratory level. He cautioned, that the technology transferred to field should be in unison with the technology developed at the laboratory level. Dr. Kempanna greatly appreciated

Inauguration of SRC Meetings





the collective efforts of CTRI, Tobacco Board, Directorate of Tobacco Board and ITC Ltd. in transferring the technology enunciated in the R&D Workshop meetings.

Dr. Kempanna suggested that inefficient zones of both production and quality are to be identified even at micro-level for making necessary corrections. He strongly felt that tissue culture work, pure seed production and whitefly control should be given top priority.

A full-fledged survey report on root-knot and other plant parasitic nematodes on FCV tobacco in Karna-

taka was released by Dr. Kempanna. Concluding his key-note address Dr. Kempanna expressed his deep appreciation for the commendable team work going on under the dynamic leadership of Dr. Chari, Director Tobacco Research.

Dr. B. G. Jaisani, Project Co-ordinator(T) exhorted the need to harness the indigenous types of tobacco and requested the scientists to give a balanced justification to all the types of tobacco.

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## RESEARCH HIGHLIGHTS

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Releasing Survey Report on Root Knot Nematode by the Deputy Director General (CS)

Mammoth bidi mutant isolated from Nipani area of Karnataka was rescued and conserved through tissue culture. These mammoth plants measured about 2.6 mts. produced 75 leaves under Rajahmundry conditions. Gibberellic acid (100 ppm) followed by photo-periodic treatment (16 hours of light) for 10 days induced flowering in one of the mammoth plants. Selfed seed was collected to study its performance under field conditions and for its possible utilization in transfer of mammoth genes to other cultivars.

At CTRI Research Station, Guntur, from the final evaluation trial of AICRP Project, the entry 11-754-2-1 was top ranking for cured leaf yield and proved significantly superior to all the entries except PCT-6, 7 and MDC-55. As regards bright grade and TBLE yields, PCT-6 proved to be promising.

## Resistance Studies



Tobacco nursery beds covered with cages into which moths of *S. litura* are released to lay eggs on the leaves (Top), Tobacco seedlings damaged by Caterpillar (Middle), and Tobacco seedlings free from caterpillar damage due to incorporation of resistance from variety DWFC (Bottom).



The high yielding line Lalpuram-2 proved as the highly potential cured leaf yielder among the Burley Varieties tried continuously for two seasons at Guntur.

R & D programme in collaboration with Tobacco Board was initiated at CTRI Research Station, Hunsur. In the nursery programme of supplying nematode free seedlings, seed beds covering an area of 8,346 sq m. were fumigated with Durofume with the assistance of Karnataka State Warehousing Corporation at the Research Station, and an extent of 900 sq.m. in Periyapatna Auction Platform premises. Growers' nurseries selected for

demonstration of nursery were also fumigated.

Peduncle rot of Motihari tobacco (*Nicotiana-rustica*) caused by *Sclerotinia sclerotium* has been observed at the Dinhatā Research Station's Farm during 1985-87 crop seasons. The disease is characterised by bending of inflorescence at the infection site leading to drying and scanty seed production. At this stage profuse white mycelial growth of the pathogen is visible around the point of bending. Dark black sclerotia of varying shapes and sizes are observed inside the pith region of peduncle.



Motihari tobacco plant (Variety : Hemti) showing symptoms of peduncle rot. Presence of sclerotia of *S. sclerotium* Inside the pith region. Sclerotia of varying shapes and sizes collected from pith region (Inset).

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## EXTENSION ACTIVITIES

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Farmers deputed by the State Agricultural Departments of Andhra Pradesh were trained in Tobacco production technology and curing and grading.

Tobacco Board Officials (137) were trained in harvesting, curing and grading for a period of 16 days in batches.

Training in the improved method of Tobacco production technology was imparted to Mr. P. R. Sapkota, Project Chief, National Tobacco Development Project, Nepal from 16th February to 2nd March, 1987.

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## SEMINARS & SYMPOSIA

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Dr. M. S. Chari, Director, Tobacco Research, delivered the invited lecture on "Genetic diversity in *Nicotiana* in India-present status and progress" in the



Field visits By Dr. C. Kempanna  
Deputy Director General (CS) ICAR New Delhi.





Field visit by Dr. C. Kempanna, DDG (CS), ICAR, accompanied by Dr. M. S. Chari, Director, Tobacco Research to the yield & quality Programme jointly organised by the Tobacco Board & CTRI.

National Symposium on Plant Genetic Resources, New Delhi on 5-3-'87. Sri K. Apparao, Head of the Division and Dr. R. V. S. Rao, Scientist S-2, Genetics & Plant Breeding, CTRI, Rajahmundry have also participated in the Symposium.

Dr. C. V. Rao, Scientist S-2, Division of Genetics & Plant Breeding, CTRI, Rajahmundry has attended the 1st Symposium on Crop Improvement held at Ludhiana from 23-27, February '87 and presented two papers viz., 1. Evolutionary pattern in the *Nicotiana-Pythium* system and its implications on breeding for damping-off resistance in tobacco and 2. Combining ability and adaptation analysis in pearl millet.

Sri S. K. Naidu, Scientist S-1, Division of Ag. Extension has attended the training programme at NAARM Hyderabad in XXI Orientation Course on Agricultural Research Management from 20th January to 19th February, 1987.

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## VISITORS

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CTRI, Rajahmundry : 24-2-'87 Dr. Salim Ahmed, USA visited the Institute and gave Seminar talk on congregation of East & West.

12-3-'87 Dr. Michale Hale, School of Natural Sciences, Hatfield Polytechnic, London (UK).

19-3-'87 Dr. Hezmut W. Gaisch Philip Morvok Evrope Switzerland.

CTRI, Research Station, Hunsur 28-1-'87 Sri B. N. Betkerur, IAS Director of Auctions and Dr. C. S. Krishnamurthy, Consultant, Tobacco Board.

CTRI Research Station, Dinahata Sri Chegu Narasimharao'  
M/s. Chegu Krishna-  
murthy & Company,  
Guntur.

Mr. J. C. Saha, Jute &  
Tobacco Development  
Officer, Malda (West  
Bengal).

CTRI Research Station, Kandukur, w. e. f.  
28-3-'87.

5. Sri V. Guruswamy, has been appointed to the  
Post of Driver (Light Vehicle-Jeep) at CTRI  
Research Station, Kandukur, w. e. f. 28-3-'87

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## APPOINTMENTS

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1. Smt. R. Lakshmi has been appointed to the  
post of S. S. Gr. I (Farash) at CTRI, Rajah-  
mundry w. e. f. 18-2-'87.
2. Sri S. Ramakrishna has been appointed to the  
post of Driver (Light Vehicle-Van) on regular  
basis at Krishi Vigyana Kendra, CTRI, Raja-  
hmundry w. e. f. 19-3-'87.
3. Sri Y. Udaya Kumar has been appointed to the  
post of Driver (Heavy Vehicle-Tractor) under  
regular establishment at CTRI, Rajahmundry,  
w. e. f. 27-3-'87.
4. Sri P. Ch. Satyanarayana Murty has been  
appointed to the Post of Driver (Heavy Vehi-  
cle-Tractor) under regular establishment at

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## PROMOTIONS

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1. Sri P. Neelakantam, S. S. Gr. IV, CTRI, Raja-  
hmundry has been promoted to the Post of  
Tech. T-1 at CTRI Research Station, Kandukur  
w. e. f. 27-1-'87.
2. Sri V. Appa Rao, S. S. Gr. IV, CTRI, Raja-  
hmundry has been promoted to the Post of  
Tech. T-1 at CTRI Research Station, Kandukur  
w. e. f. 6-2-'87.
3. Sri R. Varadarajan, Superintendent, CTRI Rese-  
arch Station, Vendasandur has been promoted  
to the post of A. A. O., at CTRI, Rajahmundry  
w. e. f. 2-3-'87.
4. Sri G. Sreeramamurthy, A. A. O. has been  
promoted to the post of A.O. on Ad-hoc basis  
at CTRI, Rajahmundry w. e. f. 11-3-'87.



5. Sri S. C. Dam, Assistant has been promoted to the post of Superintendent at CTRI, Research Station, Dinahata, w. e. f. 13-3-'87.

6. Sri S. K. Muzumdar, Sr. Clerk has been promoted to the post of Assistant at CTRI, Research Station, Dinahata, w. e. f. 24-3-'87.

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## RETIREMENTS

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The following Staff Members of the Institute and Research Station, retired from the Council's service on attaining the age of superannuation :

Sri S. S. Asthana, Sr. Clerk, CTRI Research Station Pusa, on 31-1-1987. Sri A. Bhima Sastry, Scientist Gr. S-3, CTRI, Rajahmundry, on 28-2-1987.

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## PAPERS PUBLISHED

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1. Induction of flowering in a new species *Nicotiana agricana* Merxm.

Subhashini, U., Venkateswarlu, T and Anjani, K.

*Tob. Res.* 21(1) : 82-3, 1986.

2. Breeding for further improvement in country cheroot tobacco (board leaf Oosikappal) for Tamil Nadu.

Ilyas Ahmed, M and Prasannasimha Rao, GSB

*Tob. Res.* 12(1) : 86-88, 1986.

3. Studies on time of planting FCV tobacco under Northern light soil conditions of Andhra Pradesh.

Sannibabu, M., Krishnamurthy, S and Someswara Rao, M.

*Tob. Res.* 12 (1) : 68-71, 1986.

4. Efficacy of diflubenzuron and neem seed kernel suspension against the tobacco caterpillar, *Spodoptera litura* in tobacco nurseries. Sitaramaiah, S., Ramaprasad, G and Joshi, B. G.

*Phytoparasitica* 14 (4) : 265-71, 1986.

5. Management of *Spodoptera litura* F. (Lep : Noctuidae) in tobacco nurseries by integrating *Telenomus remus* Nixon (Hym : Scelionidae)

*Chrysopa scelerates* Banks (Neur: Chrysopidae)  
and neem seed kernel suspension.

Joshi, B. G., Sitaramaiah, S, Ramaprasad, G.  
and Rao, R. S. N.

*Tob. Res.* 12 (1) : 16-21, 1986.

6. Effect of nuclear polyhedrosis virus on different stages of *Spodoptera litura* F. Satyanarayana, S. V. V. and Gopalachari, N. C.

*Tob. Res.* 12 (1) : 84-6, 1986.

7. Comparison of different dispensers and concentrations for the efficient use of synthetic sex pheromone "Serricornin".

Krishnananda, N and Satyanarayana, S. V. V.

*Tob. Res.* 12 (1) : 89-91, 1986.

8. Relative efficacy of some insecticides and neem seed kernel suspension against tobacco caterpillar, *Spodoptera litura* Fabricius on tobacco.

Ramaprasad, G., Joshi B. G. and Nageswara Rao, S.

*Indian J. Plant Prote.* 14(2) : 69-74, 1986.

9. Chemical control of damping-off, black shank and frog-eye spot disease of tobacco in seed beds.

Murthy, N. S. and Nagarajan, K.

*Indian Phytopathol* 39 (1) : 95-8, 1986.

10. Role of plant extracts in the control of TMV infection in nursery and field-grown tobacco.

Murthy, N. S. and Nagarajan, K.

*Indian Phytopathol* 39 (1) : 98-100, 1986.

11. Disease of tobacco and their management in plant protection in field crops.

Nagarajana, K., Krishnamurthy, G. V. G. & Reddy, T. S. N. edited by M. Veerabhadrarao and S. Sithanatham, P. 369-75, 1987.

12. Available potash status of Northern light soils of Andhra Pradesh and occurrence of potash deficient in tobacco (*N. tabacum* L.)

Krishnamurthy, V and Ramakrishnayya, B. V.

*Tob. Res.* 12 (1) : 72-7, 1986.

13. Methods for determination of the chemical & Physical constituents of tobacco compiled by

Murthy, K. S. N., Prasad Rao, J. A. V, and Raja Rao, D. Ch., 1987.



14. Recovery of tobacco leaf proteins from left-over seedlings in the nursery.

Ushasri, V., Athinarayanan, R., Kameswara Rao, B. V. and Gopalachari, N. C.

*Tob. Res.* 12 (1) : 49-55, 1986.

15. Preparation of nicotinic acid, nicotinamide, nikethamide from nicotine sulphate

Murthy, P. S. N., Prabuh, S. R. Gnanakumar, D and Athinarayanan, R.

*Tob. Res.* 12 (1) : 78-81, 1986.

16. Ester content and its relationship with aroma of tobacco.

Ushasri, V. *et al.*

*Tob. Res.* 12 (1) : 63-67, 1986.

17. Improving cigar filler quality by agro-techniques.

Krishna Murthy, S and Bhaskar, A. S.

*Tob. Res.* 12 (1) : 42-8, 1986.

18. Effect of azotobacter on the growth and yield of chewing tobacco under different fertilizer levels.

Sinha, R., Pandey, A. K. and Dwivedi, S.S.L.

*Tob. Res* 12 (1) : 56-63, 1986.

19. Fertilizer scheduling for the targeted yield of crops under tobacco-maize cropping pattern of North Bihar.

Sinha, R and Prasad, B.

*Indian Tob. J.* 18 (3) : 10-4, 1986.

20. Physical and Chemical quality characteristics of cigar wrapper varieties (*N. tabacum* L.).

Tripathi, S. N. and Bhattacharya, B.

*Indian Agric* 30 (3) : 205-12, 1986.

21. Relative efficacy of phosphatic fertilizers on the yield and quality of Mot hari tobacco.

Tripathi, S. N. Singh, B. L. and Pandey, R. G.

*Indian tob J.* 18 (3) : 6-9, 1986.

22. Correlations among extensibility, burn, thickness, nitrogenous constituents, phosphorus and potassium in fermented leaf of cigar wrapper tobacco.

Chaturvedi, V. K.

*Indian J Agric. Sci.* 57 (4) : 241-4, 1987.

23. A note on demonstration trial for control of damping-off and black-shank in VFC tobacco nursery.

Shenoi, M. M., Abdul Wajid, S. M. and Ramakrishnayya, B. V.

*Tob. News.* 9 (6) : 7-9, 1986.

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Edited & Compiled by Dr. N. Krishnananda, M. C. M. Reddy & A. Haranath.

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