



CTRI News Letter

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

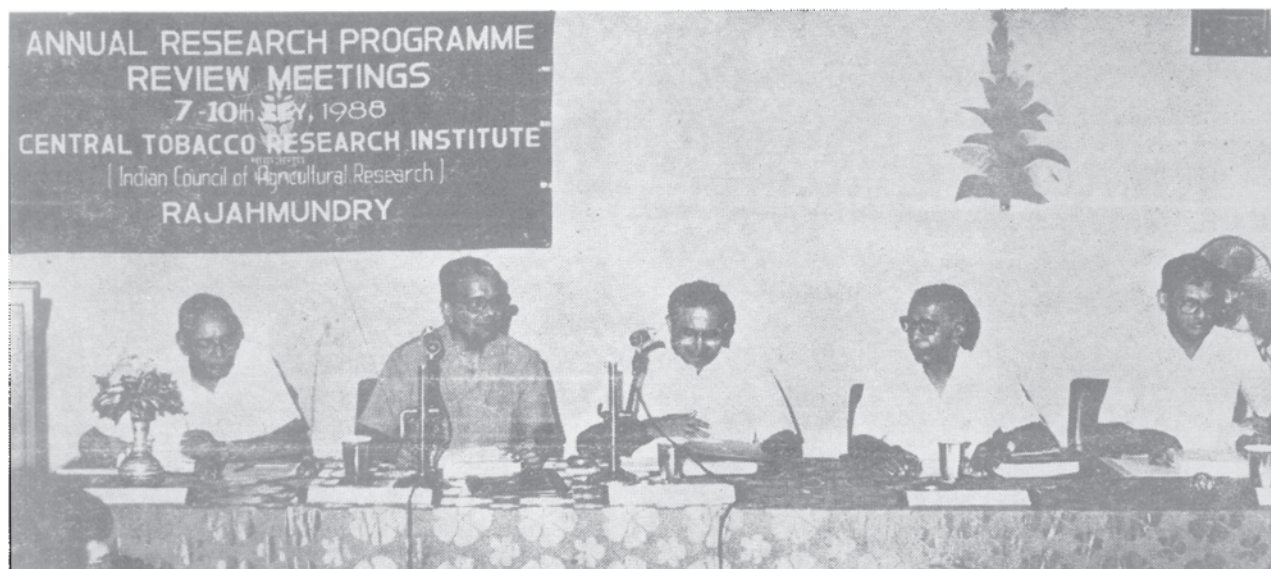
Vol. 10

JULY — SEPTEMBER 1988

No. 3

MAJOR EVENTS

ANNUAL RESEARCH PROGRAMME REVIEW MEETINGS



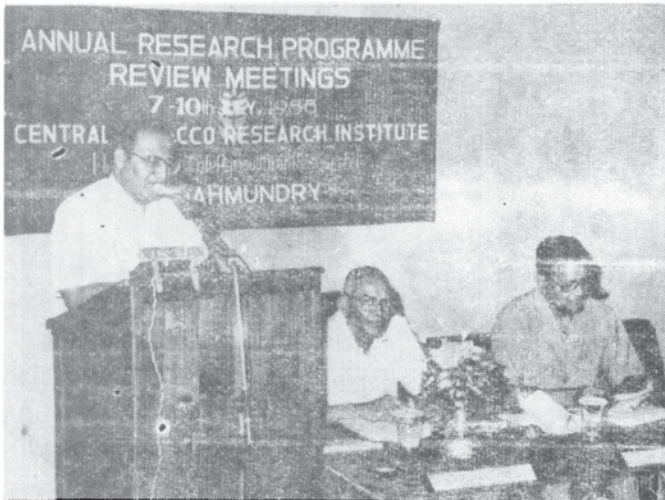
Left to Right : Dr. B. G. Jaisani, Dr. M. S. Chari, Dr. R. S. Paroda, Dr. G. J. Patel, Dr. K. Nagarajan.

The Annual Research Programme Review meetings were held at the Central Tobacco Research Institute, Rajahmundry from 7-10th July, 1988 to discuss the Annual Reports of 1987-88 and the technical programme of work for 1988-89. The meeting was attended by Dr. R. S. Paroda, Dy. Director General (CS), ICAR, New Delhi, Dr. G. J. Patel, Project Co-ordinator (Tobacco) retired, Dr. B. G. Jaisani, Project Co-ordinator (Tobacco) i/c, Dr. T. S. Subrahmanyam of M/s. ILTD/ITC Ltd., Scientists from Tobacco Project, GAU of Anand, Officials from Tobacco Board and Directorate of Tobacco Development and Scientists of CTRI & its research stations participated in the meetings. Dr. M. S. Chari, Director highlighted the important events and action plans taken during 1987-88 and mentioned the future plan of action to be taken up by Tobacco Board in collaboration with CTRI for improving the yield and quality

of FCV tobacco. Dr. R. S. Paroda urged the scientists to have constant interaction and critically evaluate the results on the experiments before coming with solid recommendations. He cautioned the scientists that the chemical control measures should be embarked as a last resort to save the crop in view of the pesticide residue problem. Dr. G. J. Patel, emphasised that biochemical aspects involved in the quality factors should also be studied in the identification of resistance to pests and diseases in *plumbaginifolia*, *repanda* and *benthamiana* and their interspecific hybridization work. Dr. B. G. Jaisani, suggested to have inter-Institutional projects during VIII plan to generate data on Smoking & Health and stressed to strengthen market research in tobacco and felt that priority should be given to look for bright air-cured tobacco due to high cost of curing in FCV tobacco.



Dr. M. S. Chari, Director, CTRI delivering the welcoming address and events of research



Dr. R. S. Paroda, Deputy Director General (CS), ICAR addressing the gathering

RESEARCH HIGHLIGHTS

- * COR-STA International collaborative experiment on Powdery mildew was conducted in India along with 12 other countries. Among the 12 entries tested, KP 14/a, Pobeda-3, Virginia Gold, CTRI Special and Jayashree were susceptible while Hicks 55, Irabourbon No. 1, Kokubu, Kutsaga 51 E, PD 205, PMR Burley 21 and TB 22 were resistant to the Indian strain of the fungus (*Erysiphe cichoracearum*).

- * Green leaf or fruit extraction in water of plants like *Jatropha curcas*, *Cleome viscosa*, *Cassia tora*, *Eclipta alba*, *Digera arvensis*, *Boerhaavia diffusa* at 1:10 dilution were found to kill the larvae of *Meloidogyne javanica* within 72 hours.
- * Ridomil MZ 72 W.P or Ridomil ZM 280 FW @ 0.2% sprayed twice on tobacco seedlings at 21 days and 35 days after germination gave 85% control of Damping-off and Leaf blight diseases in seed bed.
- * Studies of vesicular-arbuscular mycorrhizal (VAM) fungi at CTRI indicated that among the four VAM fungi viz., *Glomus fasciculatum*, *G. constrictum*, *G. mossae* and *Acauluspora* Sp. tested, *G. fasciculatum* was found the most promising in colonising the roots of tobacco. Among the genotypes Bhavya seems to be the best in maximum colonisation of the VAM. Preliminary studies indicated that *G. fasciculatum* protected the tobacco seedlings up to one month from Damping-off disease. Further confirmatory trials are in progress.
- * Estimation of microbial population in Durofume fumigated and non-fumigated soils showed a marked decrease in the population of fungal, bacterial and Actinomycetes group in fumigated soils. Interestingly number of genera of nitrogen fixing blue green algae like *Nostoc*, *Sytonema*, *Oscillatoria*, and *Tolypothrix* were more in fumigated soils. These genera are known to secrete extracellular substances into the rhizosphere region which are of growth promoting nature.

Record of New Parasites of Tobacco Insect Pest

During routine periodical survey of tobacco growing areas of A. P., the following two natural enemies of tobacco insect pests were recorded.

- i) *Telenomus nawaii* an egg parasite of *Spodoptera litura* F. (Identified by A. POLASZEK, CIE, London), and
- ii) *Bracon Sp.*, a larval parasite of *Heliothis armigera* Hb. (Identified by A. K. WALKER, CIE, London)

CTRI RESEARCH STATION, GUNFUR

- * Among the Natu cultivars, the performance of line NG-42, 9-14 and NG-82 proved outstanding over other varieties, viz., WAF, Set-409 and Prabhat during 1987-88 crop season.
- * Spacing at 70 X 50 cm with 40 kg N/ha for PCT-5, a FCV tobacco variety gave highest cured leaf. Hema gave more of bright grade leaf during 1987-88 crop season.

CTRI RESEARCH STATION, KANDUKUR

- * An ICAR Adhoc Scheme entitled "Bioecological studies and critical evaluation of reasons for resurgence of whitefly in Andhra Pradesh" was started on 11-7-88, with a total sanction of Rs. 1,54,800/-

CTRI RESEARCH STATION, VEDASANDUR

- * In a trial on the effect of bio-fertilizers on chewing tobacco, application of *Azospirillum* and *Pseudomonas* when applied alone reduced the yield as compared to uninoculated treatments. But when *Azospirillum* and *Pseudomonas* were applied together with 100 kg N/ha, they increased the yield by 11% as compared to control. Application of nitrogen alone at 75 and 100 kg N/ha increased the yield by 3.6 and 4.1 percent respectively.
- * Nursery trials on the effect of biofertilizers showed that germination and growth of seedlings was better in night soil compost + *Azospirillum* applied to beds as compared to other treatments.
- * Sunhemp green manuring preceding tobacco crop instead of the normal practice of sheep penning one month prior to planting, the yield and burning quality of chewing tobacco could be improved.
- * Stringing cigar tobacco on poles either at 15 cm or 20 cm space between two rows produced relatively higher yield coupled with improved burning quality

of cigars. Curing either in sun or in shade had a similar effect on quality while shade curing was superior to sun-curing in total leaf yield.

- * A quantity of 550 kg of tobacco seed comprising of cigar, chewing and cheroot types was sold during 1988-89.

CTRI RESEARCH STATION, HUNSUR

- * A new formulation of Metalaxyl-Ridomil ZM 280 FW at 0.1% applied with planting water followed by drench at 30 days later was very effective in controlling black shank in the field. Also, a 0.2% spray in nursery 24 hours before pulling of seedlings was effective in controlling the disease upto 50 days after transplanting. Field resistance to black shank was confirmed in lines FCH 68, FCH 80, FCH 6101 FCH 6104 and FCH 6248.

- * Ebufos 10 G was found effective for the control of root knot in field.

CTRI RESEARCH STATION, DINHATA

- * Line HDM-1 gave 20-4% high yield over standard control Hemti and proved to be consistently superior to other existing varieties.
- * Application of 112 kg N/ha in combination with 112 kg P₂O₅ or 112 kg K₂O each/ha enhanced yield and quality of Motihari tobacco.
- * Brown spot in Motihari tobacco, caused by *Alternaria alternata* could be effectively controlled by two sprays of Thiam @ 0.2% one at appearance of disease and another ten days after.

OTHER ACTIVITIES

Timely Action of Aphid Control

A severe out break of aphid incidence on FCV tobacco during July-August was noticed due to the

favourable rainy cool weather in the Hunsur tract Massive propaganda was launched recommending the use of acephate 75% SP. Tobacco Board made *ad hoc* arrangements for supply of the insecticide to cultivators on credit on the recommendation of the Inter agency Committee which assessed the crop prospects in the area. The timely action resulted in effectively controlling the incidence and saving the crop.

Crop progress assessment

- * The Inter-agency team constituted by Tobacco Board, comprising of Tobacco Board, CTRI and Research Dept. of ILTD Division, ITC Ltd. visited 8 platform zones and assessed the crop prospects and progress of R & D programmes in Karnataka. Sri J. S. L. Moses, Officer - in-charge and Sri K. Devappa, Scientist S-2 of CTRI Research Station, Hunsur represented Director, CTRI in the team.

Seedlings distribution

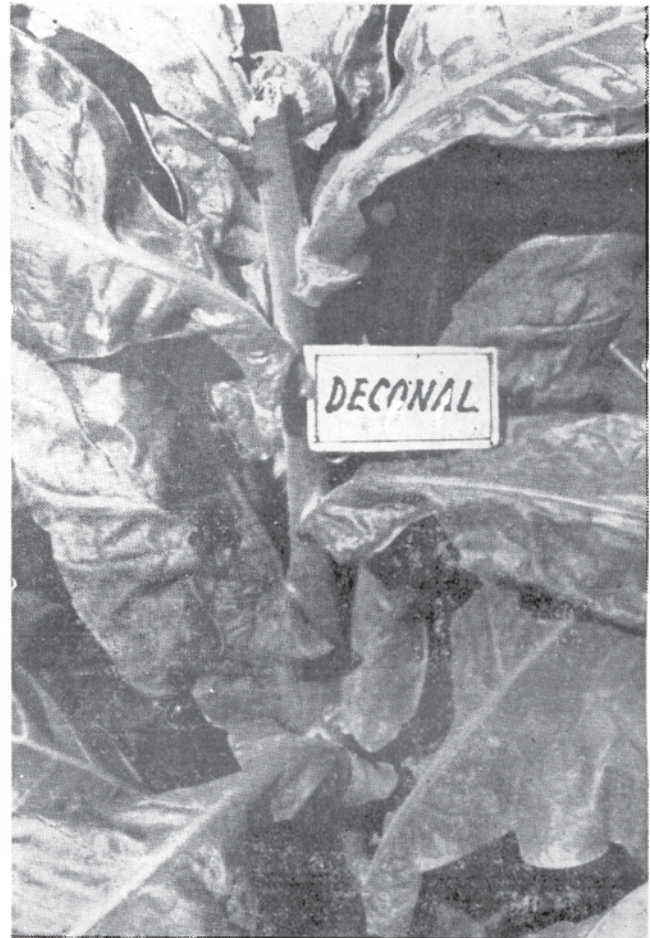
- * A commercial nursery was raised at the CTRI Research Station, Vedasandur and 37,94 100 numbers of seedlings were distributed to the needy cultivators.

Lanka Healthy Seedlings for Farmers

In view of the shortage and with the Intension of helping the genuine Lanka Tobacco Farmers it has been decided not to sell Lanka seed during this year and, instead rise Lanka Tobacco Nurseries and supply healthy seedlings to the farmers. Sixteen acres of nursery was raised at four locations viz., i) CTRI New Complex, 3 acres; ii) ILTD farm, 8 acres; iii) KVK farm, Kalavacharla, 4 acres and iv) CTRI farm, Katheru one acre and total 382 farmers were registered for 2,62,42,000 seedlings at the rate of Rs. 30/- per thousand.

Joint Council Meeting

Central Tobacco Research Institute Joint Council Meeting was held on 22-8-88 at CTRI Research Station, Hunsur.



A Good News for Farmers

Researches on sucker control measures carried out at CTRI, Rajahmundry revealed that 'DECONAL' at 4% concentration applied to the top three to four axile controls not only primary suckers but also the secondary and tertiary suckers, leaf expansion was found to be better with this suckericide when compared to hand suckering.

HONOURS AND AWARDS

Mr R. Brahmanandam, Technician T-1-3 of this Institute has been honoured with a Medal and awarded a certificate by Andhra Pradesh Home Guards Organisation in their silver Jubilee Celebrations, 1988 for rendering his dedicated Service to the nation and endeavoured to

improve the image of the AP State Home Guards Organisation



Members of Joint Council discussing Staff Problems

Extension Activities

- * A 'Farmers Meet' was arranged by Kapavaram Tobacco Board Auction platform on 1-7-88 for the benefit of Tobacco farmers and a team of CTRI Scientists participated and interacted with the farmers on the improved package of practices for FCV Tobacco.
- * A team of Scientists participated in a 'Farmers meet' organized by M/s. FACT Fertilizer Company at Chinayagudem, West Godavari District under EEC Scheme on 16-7-88.
- * Under R & D programme a massive training on 'Nursery Management' was conducted in all 17 auction platforms in AP from 8-8-88 to 11-8-88.
- * A team of Scientists participated in a 'Farmers Meet' organized by M/s. Tobacco Board, at Thorredu on 20-8-88.
- * Two farmers of Kharlmmnagar, sponsored by AP state Dept. of Agric. were trained for 3 days in tobacco cultivation.

RADIO & TV

- * 'The improved high yielding, varieties tobacco recommended to East Godavari District' programme was broadcasted by AIR, Visakhapatnam, Centre on 27-7-88.
- * A radio talk on 'Country tobacco cultivation in A.P.' and another talk on 'Nursery management' were given by Sri T. Sitaramachari, OIC, CTRI Research Station, Guntur and broadcasted by AIR, Vijayawada on 30-8-88 and 12-9-88 respectively.
- * A programme on 'Tobacco Nursery Management' and another programme on 'Tobacco Nursery Disease Management' were telecasted on 5-8-88 and 26-8-88 respectively from TV Centre, Hyderabad.
- * Another TV programme was telecasted on 'Light Soil irrigated FCV tobacco cultivation' on 30-9-88.
- * Two days video shooting was done by Doordarshan Kendra, Hyderabad on 'White Burley Tobacco at Jeddangi' on 14th & 15th July, 1988.



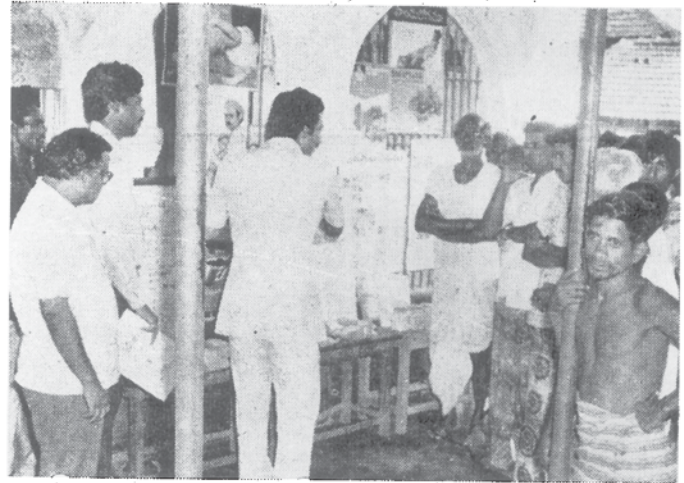
Plant Position Grading course in progress at CTRI Research Station, Hunsur,

TRAINING PROGRAMME

- * Training production on "Production Technology of FVC tobacco in Karnataka" was completed by organising the second phase on Harvesting and Curling from 16th to 23rd August and the third phase on Plant Position Grading from 12th to 17th Sept, 1988. Trainees were awarded certificates in the valedictory function held on 17th Sept., 1988 by chief guest Sri Basappa, IFS, Deputy Conservator of Forests Hunsur.

KRISHI VIGYANA KENDRA ACTIVITIES

- * A total of 88 on/off campus training programmes were conducted in crop production; Animal Husbandry; Home Science and Rural Crafts to the farmers, farm Women and school dropouts and total 2532 people were trained.
- * Training programmes were conducted with the collaboration of State Agric Department, Animal Husbandry Department and other Voluntary Organisations. Demonstrations on improved package of practices for paddy, groundnut and Redgram were arranged and shown to the farmers.
- * The Home Science Section has developed the linkages with the Education Board, FTC, Samalkot and Food & Nutrition Board for conducting training and



Training of farmers at KVK

demonstrations on locally available low cost nutritious recipe, Personal Hygiene, environmental sanitation and fruit preservation. Due to the Tailoring Training Programme in Nidigatla village, three trainees have purchased three sewing machines to stitch garments and now they are earning Rs 10/- to Rs 15/- per day as an additional income by stitching the cloths of neighbours.

- * The Rural Craft Section trained 35 farm Women of Chindredu, Velugubanda and Kalavacharla villages on the preparation of decorative garlands from the palmyrah leaf and this group of 35 women prepared 3000 decorative garlands on the occasion of Ganesh Chaturdhi and earned Rs. 60-00 to Rs. 80-00 per head with a limited investment of Rs. 10 00 each.

APPOINTMENTS

| No. | Name | Grade | Place of duty | Date of appointment |
|-----|------------------------|---------------|---------------|---------------------|
| 1. | Sri P. Abdulla | Tech. T-1 | Pusa | 25-6-88 |
| 2. | „ C. Muruganatham | „ T-1 | Vedasandur | 29-6-88 |
| 3. | „ R Rajendran | „ T-1 | „ | 4-7-88 |
| 4. | „ G. H. Mohanacharyulu | „ T-1 | Pusa | 15-7-88 |
| 5. | „ V. Venkatasivaram | „ | Rajahmundry | 21-7-88 |
| 6. | „ Baidyanath Gosh | Jr. Clerk | Dinhata | 10-8-88 |
| 7. | „ Rambriz Goala | S.S. Gr. I | „ | 10-8-88 |
| 8. | „ N. Endayya | S.S. Gr. II | Rajahmundry | 11-8-88 |
| 9. | „ Y. V. Subrahmanyam | S.S. Gr. I | Jeelugumilli | 17-8-88 |
| 10. | „ R. Subba Rao | Scientist S-2 | Rajahmundry | 31-8-88 |

PROMOTIONS :

| No. | Name | Grade | | Place of duty | Date of Promotion |
|-----|----------------------|-----------|--------------|---------------|-------------------|
| | | From | To | | |
| 1. | Sri Y. Venkataratnam | SS Gr. II | Tech. T-I | Hunsur | 27-6-88 |
| 2. | „ N. Venkata Rao | Asst. | Supdt (A&A) | Rajahmundry | 1-7-88 |
| 3. | „ N. Veerabhadra Rao | SS Gr. I | Jr. Clerk | „ | 4-7-88 |
| 4. | „ M. Subba Rao | Sr. Clerk | Asst. | „ | 14-7-88 |
| 5. | „ K. Suryanarayana | SS Gr. I | SS Gr. II | „ | 15-7-88 |
| 6. | „ B. Lova Raju | SS Gr. II | Tech. T-I | Kandukur | 27-6-88 |
| 7. | „ K. Raman | Supdt. | AAO (E) | Rajahmundry | 29-7-88 |
| 8. | Smt. Reddy Suramma | SS Gr. I | SS Gr. II | „ | 1-8-88 |
| 9. | Smt. K. Suryakantam | „ | „ | „ | 1-8-88 |
| 10. | Sri P. George | „ | „ | „ | 1-8-88 |
| 11. | „ B. Vishnu Murthy | Asst. | Supdt. (KVK) | „ | 4-8-88 |

MERIT PROMOTIONS :

| No. | Name | Grade | | Place of duty | Date of Promotion |
|-----|--------------------------|--------|-------|---------------|-------------------|
| | | From | To | | |
| 1. | Sri M. Mohan | T-4 | T-5 | Vedasandur | 1-1-88 |
| 2. | „ B. V. V. Satyanarayana | T-4 | T-5 | Rajahmundry | 1-7-88 |
| 3. | „ T. K. Suryanarayana | T-II.3 | T-4 | „ | 1-1-88 |
| 4. | „ J. Kurma Rao | „ | „ | „ | 1-1-88 |
| 5. | „ S. Krishna Murty | „ | „ | „ | 1-7-88 |
| 6. | „ P. Mahalakshmi | „ | „ | „ | 1-1-88 |
| 7. | „ K. G Subedar | „ | „ | „ | 1-7-88 |
| 8. | „ S. Arulswamy | „ | „ | Vedasandur | 1-7-88 |
| 9. | „ P. Manickam | T-2 | T-1.3 | „ | 1-1-88 |
| 10. | „ B. K. Champramari | „ | „ | Dinhata | 1-1-88 |
| 11. | „ S. Chanda | „ | „ | „ | 1-1-88 |
| 12. | „ Sankar Mazumdar | „ | „ | „ | 1-7-88 |
| 13. | „ N. Sambasiva Rao | T-1 | T-2 | Rajahmundry | 1-1-88 |
| 14. | „ N. Sivasai | „ | „ | „ | 1-1-88 |
| 15. | „ A. C. Rajasekharam | „ | „ | Vedasandur | 1-7-88 |

RETIREMENTS :

Sri M. Surya Rao, T-1.3, (Driver), CTRI, Rajahmundry retired on superannuation on 31-8-88

TRANSFERS

| Name | From | To | Date |
|---|------------------------------|---|---------|
| 1. Dr. R. Sinha, S-3 | CTRI Res. Stn., Pusa | CTRI, Rajahmundry | 27-8-88 |
| 2. Sri S. S. L. Dwivedi, S-2 | CTRI Res. Stn., Kandukur | CTRI, Rajahmundry | 6-7-88 |
| 3. Dr. R. Lakshminarayana, S-2 | CTRI Rajahmundry | Project Co-or- dinator (T), Anand. | 19-7-88 |
| 4. Sri R. V. S. Rao, S-2 | CTRI Rajahmundry | CTRI, Res. Stn , Vedasandur | 23-7-88 |
| 5. ,, G. S. R. Murty, AAO (E) | CTRI Rajahmundry | NDRI, Bangalore | 26-7-88 |
| 6. ,, Ch. Madhava Rao, T-II-3 | CTRI Res. Stn , Jeelugumilli | CTRI, Rajahmundry | 17-8-88 |
| 7. ,, M. P. Bhagya Kumar, T-II-3 | CTRI Rajahmundry | CTRI, Res. Stn. Hunsur | 19-8-88 |
| 8. ,, K. V. V. Satyanarayana, Jr. Steno | CTRI Rajahmundry | NRC on Cold Water Fisheries, Haldwani | 15-7-88 |
| 9. ,, N. Srinivasa Rao, Jr. Steno | CIAE, Bhopal | CTRI, Rajahmundry | 6-9-88 |
| 10. ,, V. Narayanacharyulu, Jr. Clerk | CTRI Res. Stn., Vedasandur | CTRI Farm, Kateru | 6-9-88 |
| 11. ,, K. Nagaraju, T-I | CTRI Res. Stn., Hunsur | CTRI Farm, Kateru | 25-7-88 |
| 12. ,, V. Babu Rao, T-I | CTRI Res. Stn., Kandukur | KVK Farm Kalavacherla | 22-8-88 |

CONFERENCES / SYMPOSIA / SEMINARS / WORKSHOPS/TRAINING COURSES

- Project Director, Directorate of Oil Seeds Research, Rajendranagar, Hyderabad.
- * Dr. S.S. Hussaini, S-2 attended the "International Soil Zoology Colloquium" on 7th-13th Aug., 1988.
 - * Dr. M.S. Chari, Director attended the Workshop on "How to reach the export target of Rs. 20,000 crores by 1989" at Bombay organised by Federation of Indian Export Organisation, Min. of Commerce Govt. of India on 27-8-88.
 - * Sri M. Someswara Rao, S-2 attended a seminar on "Strategies for making India self reliant in vegetable oils" from 5th-9th Sept., 1988 organised by
 - * Sri C V. Raghavaiah, S-2 participated in the local Management Committee meeting on 14th Sept., 1988 at Madurai Agricultural College and Research Institute, Madurai.
 - * Sri R S N. Rao, S-2 attended a National Workshop on "Pest and Disease surveillance for IPM" on 16th & 17th Sept., 1988 at Tamilnadu Agricultural Univ Coimbatore.
 - * Sri Y.V Suryanarayana, T-5 attended the workshop on "User Instruction programmes and Instructional systems in Agricultural University & Research

Institute Libraries' on 20th-24th Sept., 1988 at NAARM, Hyderabad.

* Sri C.V. Raghavaiah, S-2 and S. Arulsamy, T-11-3 participated in the "Rabi training to Agricultural Staff" conducted by the joint Director of Agric. (T&V), Trinaveli at Courtallam and imparted training on chewing tobacco improved package of practices to their staff on 28-9-89.

* Sri T. Sitaramachari, S-2, & Sri M. Umamaheswara Rao, S-2 have delivered lectures on Tobacco Technology to Deputy Directors & Asst. Directors at A.P.A.U Lam farm, Guntur, in Sept. 1988.

* Sri T. Sitaramachari, Officer-in-Charge, CTRI Res. Station, Guntur & Dr. B. Sarath Babu, S-1 attended training programme to cultivators and demonstration on raising of tobacco nurseries in Andhra Pradesh.

ASSIGNMENTS :

Dr. K.D. Singh, Scientist S-3 and Officer-in Charge, CTRI Research Station, Kandukur was nominated, appointed as a member of the Regional Committee Tobacco Board for Southern Andhra Pradesh by the Chairman, Tobacco Board, Guntur in Compliance with the recommendations of the Estimates Committees of the Lok Sabha.

VISITORS : CTRI, Rajahmundry



Dr. Paroda, DDG (CS) examining the publications broughtout by library staff

— Sri Robest Stewart Dibrell Brothers IMC, on UK 14-7-88

— E. Parker Georgia, USA on 20 8-88

— KENHALELONSON, UK on 20-8-88.

CTRI Research Station, Hunsur

— A group of 40 FCV tobacco growers sponsored by Tobacco Board on 17-8-88.

— Sri C. C. Appayya, Chairman, ILTD Division, ITC on 18-8-88

— Dr. M. S. Chari, and Dr. R. Lakshminaryana, Project Co-ordinator (Tobacco) on 21st & 22nd Aug. 1988.

— Dr. S. Nagaraja Setty, Chief Scientist, AICRP, Centre Shimoga on 21st & 22nd Aug., 1988

— Sri David Ponnayya, I.T.C., Calcutta, Sri N. Ramarao, ILTD Division, ITC Ltd., Rajahmundry and Sri Rajagopal and Sri Muralidhar, M/S. Vazir Sultan Tobacco Co., Hyderabad on 26-8-88.

— Sri Prylokar, IAS, Additional Secretary and Financial Advisor, Ministry of Commerce and Chairman, State Trading Corporation of India on 27-8-88.

— Sri P. P. Williams, IAS, Chairman, Tobacco Board Guntur and Dr. T. Prakash, Executive Director, State Trading Corporation of India on 27-8-88,

— Sri C. Chandran, IAS, Director (Auctions), Tobacco Board, Bangalore on 27-8-88.

— Ms. Rita Kumar, Chief Marketing Manager, State Trading Corporation, Bangalore on 27-8-88.

— Ms. L. Tsuering, Branch Manager, State Trading Corporation, Bangalore, on 27-8-88.

— 20 trainees from Agricultural School, Kudige on 7-9-88.

— Sri Ehud Almon, Agronomist, M/s. Bromine & Chemicals, London, on 21-9-88.

— Sri P. N. Mathur, Entomologist and Consultant, Pest Control, M. Malshe, Madras on 21-9-88.

— Dr. S.N.H. Kulkarni, Director of Technochem Agencies, Bombay on 21-9-88.

— Dr. R. K. Mishra, Entomologist, M/s. Rallis India-Bangalore on 21-9-88.

* CTRI Research Station, Dinhat

—Dr. U.N. Saikai, Chief Scientist, Regional Agric. Res. Station, Gossaigoan (Assam Agric. Univ.).

—Sri J.M. Das, Agric. Inspector, Agralata, Tripura.

* CTRI Research Station, Kandukur

—Sri Chunduri Ranga Rao, President, Maddipadu Mandal Praja Parishad on 2-9-88.

—Sri D. Rajagopal Reddy, Ex-MLA, Darsi on 2-9-88.

—Sri D. Sarabhaiah, President, AP Tobacco Growers Co-operative Union, Ongole on 2-9-88.

—Sri S. Janardhana Reddy, Marketing, Manager, M/s. ITC Ltd./ILTD Div., Ongole on 2-9-88.

PAPERS PUBLISHED

1. ABDUL WAJID, SM and N. A. ELIAS. Collateral hosts of colletotrichum tabacum boning. Tob. Res. 14 (1) : 74-5, 1988.
2. BANGARAYYA, M ; SARMA, CB ; NARASIMHAMURTY, YCh and D.PRABHAKARA BABU. Neem oil - An efficient suckericide in tobacco. Indian Farming 38 (4) : 15, July 1988.
3. CHARI, MS. Tobacco : The drive for quality. The Hindu Survey of Indian Agriculture p, 95-9, 1988.
4. CHATURVEDI, VK. Physico-Chemical Characters of Cigar-Wrapper tobacco (*N. tabacum*) grades. Indian J Agric Sci 58 (7) : 559-60, July 1988.
5. DILIP MONGA and S N TRIPATHI. Factors affecting of the incidence of leaf curl in jati tobacco (*N. tabacum L.*). Tob Res. 14 (1) : 21-4, 1988.
6. DILIP MONGA. Preliminary investigation on the loss of yield and quality in motihari tobacco (*Nicotiana rustica*) due to brown spot incidence. Tob. Res. 14 (1) : 64-7, 1988.
7. JOSHI, BG. Use of neem products in tobacco in India. (In Natural pesticides from the neem tree (*Azadirachta indica* A. Juss) and other tropical plants : Proceedings of the 3rd International Neem Conference, Nairobi, Kenya, July 10-15, edited by A. SCHMUTTERER and K. R. S. ASCHER. Eschborn 1987. pp. 479-94).
8. KRISHNAMURTHY, AS ; GOPALACHARI, NG ; RAO, CV and V. V. RAMANA RAO. Combining ability in crosses involving flue-cured and non flue-cured tobacco varieties. Tob. Res. 14 (1) : 7-15, 1988.
9. KRISHNANANDA, N and S.S.V. SATYANARAYANA. *Heliothis assulta* Guenne - A new pest of burley tobacco nursery. Tob. Res. 14 (1) : 67-8, 1988.
10. RAMJILAL and K. NAGARAJAN. Invitro evaluation of pesticides against *Sclerotium Rolfsii* Sacc. causing collar-rot disease of tobacco. Pestology 12 (8) 20-4, Aug. 1988.
11. RATNAVATHI, CV ; USHASRI, V; SUBBARAO, DV and T. VENKATESWARLU. Multiple molecular forms of esterases among *Nicotiana* species. Tob. Res. 14 (1) : 58-63, 1988.
12. SANNIBABU, M. The possible low quality grades due to bad management of field crop, curling, grading and bulking (In Telugu). Bharatiya Pogatku 18 (1) 3-8, 1988.
13. SASTRY, AB ; JOSHI, BG and S. SITARAMAIAH. Evolving FCV cultivars resistant to *Spodoptera litura*. Indian Tob. J. 19 (4) : 13-14, 1988.
14. SRIVASTAVA, RP and AS. BHASKAR. Influence of diseases on chemical composition and quality parameters of chewing tobacco (*Nicotiana tabacum L.*). Tob. Res. 13 (2) : 153-7, 1987.

15. SRIVASTAVA, RP and A S. BHASKAR The effect of methods of harvest and curing on yield and quality characteristics of chewing tobacco. *Tob. Res.* 14 (1): 32-7, 1988.
16. TRIPATHI, SN Problems and prospects of tobacco cultivation in West Bengal. *Indian Tob. J.* 19 (4): 8-12, 1988.
17. UMAMAHESWARARAO, M and S.N. TRIPATHI Crop rotation with flue-cured virginia tobacco in black cotton soils of A. P. *Tob. Res.* 14 (1): 16-20, 1988.

OBITUARY :



Sri R. V. K. Thampuran

Sri R.V.K. Thampuran, Scientist S-2, Division of Genetics and Plant Breeding, CTRI, Rajahmundry passed away on 31-8-88 at Cochin. Born on 30-4-1939.

Sri R.V.K. Thampuran had his M.Sc. (Ag) Botany in 1964 from Karnataka University. Joined as Research Assistant at CTRI, Rajahmundry on 5-3-1965. He became Scientist S-2 in 1982. He was one of the Pioneers in releasing the FCV tobacco varieties (1) *Jayasri* (2) *Jayasri MR* which are highly popular in black soils and Southern light of AP. He worked on breeding for disease and pest resistance, mutation breeding, cytogenetics of tobacco and published 18 papers.

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