



# CTRI News Letter

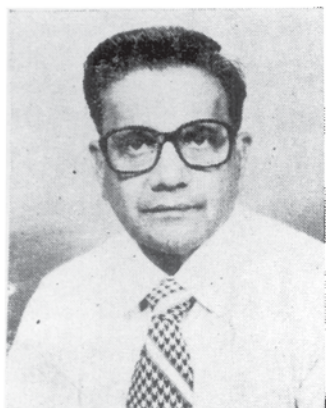
CENTRAL TOBACCO RESEARCH INSTITUTE, RAJAHMUNDRY-5 (A.P.)

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## MAJOR EVENTS

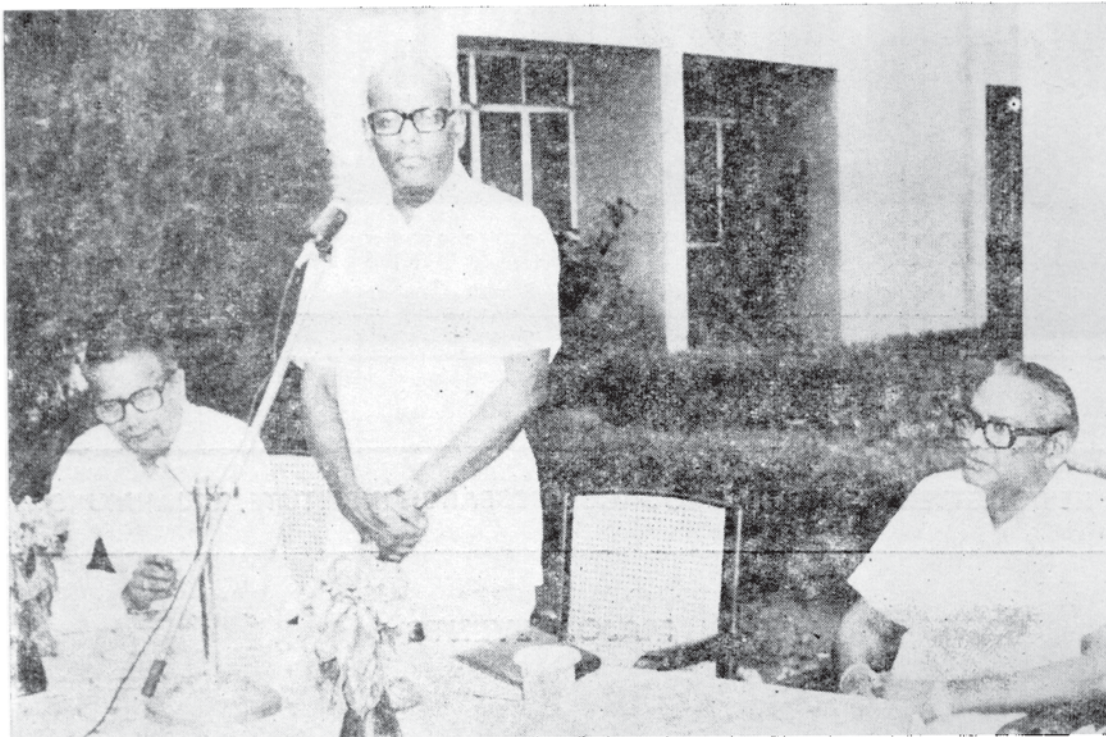


Dr. M. S. Chari

Dr. M. S. Chari, Senior Entomologist (Tobacco), All India Co-ordinated Research Project (Tobacco), Gujarat Agricultural University, Anand has assumed charge as Director of CTRI on the forenoon of 19th April, 1986. Besides being a distinguished personality in his chosen field, he is an eminent man in his qualities of head and heart. A persuasive speaker, a suave spokesman and an enlightened administrator. It is no wonder, today that his name is well known all over Gujarat, especially among Research Institutes, Agricultural Universities, tobacco farming community and Trade.

Dr. Chari was born on 2-11-1938 in Nandyala (Andhra Pradesh). His brilliant academic career no doubt paved the way for his present distinction. He was educated at Narasapur and graduated from Agricultural College, Parbhani, Marathwada University, Aurangabad. He obtained his M. Sc., (Ag) and Ph. D. in Agricultural Entomology in the years 1965 and 1970 respectively. It was a meteoric rise for him from the position of Junior Research Assistant to the present Directorship of CTRI.

Dr. Chari joined as Class I Officer in All India Co-ordinated Research Project on Tobacco in the year 1970 and worked as Senior Entomologist (Tobacco) for 16 years. During this period he worked on various prestigious academic and scientific bodies. He is a Post-Graduate teacher and so far guided 18 Post-Graduate students in Ag. Entomology and published 70 scientific papers in National and International Journals. He was unanimously elected as the President of the Indian Society of Tobacco Science.



Dr. C. Kempanna, ADG, ICAR, New Delhi addressed the staff members in the CTRI Campus.



Welcome address by Dr. M. S. Chari, Director, Tobacco Research.

## R & D Workshop



Inaugural address of R & D Workshop by Dr. C. Kempanna.



On the dias of R & D Workshop (L to R)  
Dr. M. S. Chari, Director, Dr. C. Kempanna, ADG,  
Shri P. P. Williams, Chairman, Tobacco Board and Dr.  
B. G. Jaisani, Project Co-ordinator, AICRP (T)

The Research & Development Workshop on scientific cultivation of FCV tobacco in Andhra Pradesh was jointly organised by ICAR and Tobacco Board at CTRI Rajahmundry during 9-10 June, 1986. Dr. C. Kempanna, Assistant Director General (CC), ICAR, Dr. B. G. Jaisani, Project Co-ordinator, AICRP, Shri T. D. Prasada Rao, Member Research, ILTD, Scientists from other Agricultural Organisations and Traders participated in the Workshop.

In his welcome address Dr. M. S. Chari, Director, Tobacco Research, stressed that the R & D Workshop meeting is specifically meant for thoroughly discussing the present knowledge of scientific cultivation of FCV tobacco crop in Andhra Pradesh and transfer of technology to the farming community to improve their economic conditions. He briefly surveyed the role played by CTRI

in the recent past in evolving new technologies and assured that efforts are being made to increase the productivity and reduce the cost of cultivation so as to sustain tobacco exports.

Inaugurating the Workshop Dr. C. Kempanna has said that eventhough a number of high yielding and disease resistant varieties were evolved, only a few had become popular. This phenomenon was common in crops like rice, wheat, cotton and sugarcane as well. He exhorted the need for economy in the curing system of tobacco and further efforts had to be made to introduce alternative fuel system with sugarcane trash, coir dust and other agricultural wastes. Suitable varieties for different agricultural zones and technology developed by CTRI should be transferred from the citadels of the Laboratory to the farmers' fields. A close liason has to be developed for promotion of extension activities with the help of Tobacco Board, ILTD, State Agricultural Department and other agencies. Dr. Kempanna felt that definite models comprising modules from developed technologies should be formulated for different agro-climatic zones of Andhra Pradesh and cost benefit ratio for each module has to be worked-out for its efficient implementation. He appealed to the scientists for development of viable Extension literature to help transfer of technology to the farming community.

Dr. B. G. Jaisani, Project Co-ordinator, AICRP, Anand, opined that the impact of transfer of Technology was not felt in the qualitative and quantitative characters of tobacco and requested to explore reasons for this lapse.

Sri P. P. Williams, IAS, Chairman, Tobacco Board while presiding over the function called for constitution of an inter-agency committee consisting of representatives from Tobacco Board, Trade and Research for assessing the trends in tobacco leaf quality for future markets and forecast with reasonable precision. He

wanted the Trade to come-out with its observations after ascertaining the views of foreign buyers on the subject. Stressing the need for minimising the cost of curing by following improved technology, he expressed his readiness to take up a project for conversion of old traditional tobacco barns into low profile barns. He suggested that all the field officials of Tobacco Board should be trained well in tobacco production technology so that their services could be utilised for transfer of technology to the farmer.

Dr. Chari, Director has assured fullest co-operations in all respects for implementing the recommendations of the workshop in co-ordination with Tobacco Board, ILTD and Directorate of Tobacco Development.

Dr. B. V. Ramakrishnayya, Officer-in-Charge, CTRI, Research Station, Hulsur, Sri T. D. Prasada Rao, Member Research, ILTD and Sri P. Kajana, Production Manager, Tobacco Board, also spoke on the occasion.

Dr. B. G. Jaisani proposed a Vote of Thanks.

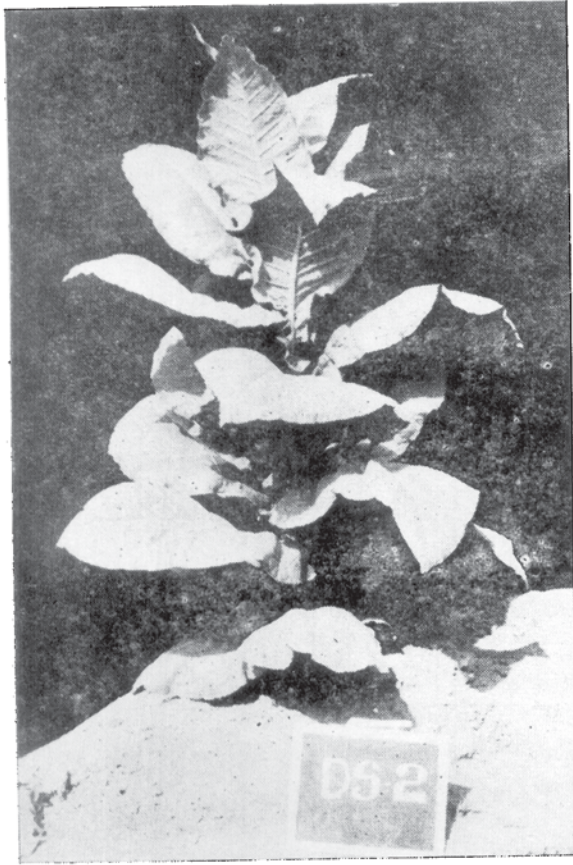
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## RESEARCH HIGHLIGHTS

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### CTRI Rajahmundry :

The FCV tobacco variety Mc. Nair 12 was recommended for release in the Northern light soils of Andhra Pradesh. This variety is an introduction from the U.S.A., possessing black-shank resistance and identified to be high yielding in NIS conditions by Sri K. Appa Rao and Dr. C. V. Rao, Scientists of the Division of Genetics and Plant Breeding, CTRI, Rajahmundry.



Mc. Nair 12

A giant mutant of bidi tobacco from Nipani, producing 105 leaves was subjected to callus proliferation so as to maintain the mutant.

A new source of cytoplasmic male-sterility was isolated from a mutant progeny. This line is believed to be of euplasmic nature (with both the cytoplasm and genome from *N. tabacum* L.).

The F<sub>1</sub> hybrid Mc-Nair 12 X Godavari Special gave higher yields of cured leaf and TBLE to the tune of 19% and 15% respectively over the better parent.

The resistance factor to the leaf eating caterpillar in the variety DWFC was found to be monogenic dominant.

A second batch of Scientists and Technicians viz., Dr. JAV. Prasada Rao, Dr. CVSSV. Gopala Krishna, Miss. V. Ushasri, Sri A. Hanumantha Rao and Mrs. Anjani were trained on the course on introduction to Computer TDC-316.

#### CTRI Research Station, Guntur :

Newly evolved promising air-cured tobacco selection NG-32 proved better than the existing cultivars HDBRG and Prabhat in giving more cured leaf yield.

The performance of the newly introduced FCV lines 754-2-1 was found to be satisfactory in all the yield characters over Jayasri, Kanakaprabha and G. 8/1 and there was an increase of 31% of cured leaf and 45% bright grade production over other FCV tobacco varieties.

It is observed in general that dark cast varieties of FCV tobacco are quite suitable for black cotton soils.

#### CTRI Research Station, Veda sandur :

Under Cigar tobacco, application of green manure was compared with the normal practice of sheep penning 8,000 sheep per ha. Sunhemp-Green manure gave the highest yield of quality leaf (1,055 Kg/ha) closely followed by (1) Gingelly (980 Kg/ha) (2) Sheep penning at 4,000 sheep/ha (967 Kg/ha) (3) Cowpea-Green manure (961 Kg/ha) and (4) Green leaf compost (937 Kg/ha).

Under Chewing tobacco, application of 750 ml. of Oxyfluorfen/ha effectively controlled weeds by getting a net benefit of Rs. 940/ha.

The promising advanced breeding line HV. 80-4 (sun-cured chewing tobacco) fared well compared to the standard variety Bhagyalakshmi by giving more than 13% total leaf yield on overall basis of the trials conducted at out station centres (HV. 80-4 ~~3~~ 806 Kg/ha Bhagyalakshmi 3,442 Kg/ha).

#### CTRI Research Station, Hunsur :

Fumigation for control of root-knot nematodes in FCV tobacco nursery was demonstrated in the tract. Application of DUROFUME at 18 ml/sq. m. after covering prepared beds with high density poly ethylene sheet was carried out with technical collaboration of Karnataka State Warehousing Corporation. The programme was implemented in 20 growers' nurseries of 125 sq. m. each, solely financed by the Tobacco Board. The treatment resulted in excellent control of root-knot in seedlings, and was also substantially benefited in reducing all weeds especially nutgrass in the beds. Transplants obtained from 125 sq. m. fumigated area ranged from 70,000 to 1,00,000 numbers in well managed nurseries of the different growers. Seedlings from the demonstration nurseries have been transplanted separately by the growers and crop performance is being observed in comparison with plantings using seedlings from unfumigated beds.

A project for transfer of technology was commenced in the area in collaboration with Tobacco Board and Research Department of I. L. T. D. Division. In 100 ha. attached to each of the Auction Platforms, growers are being educated particularly in adoption of improved package of practices of FCV tobacco cultivation with emphasis on optimum spacing, fertilizer

application, topping and suckering, harvest and curing and plant position grading.

#### CTRI Research Station, Pusa :

Early maturing chewing tobacco variety Prabha performed well under plant spacing of 90cm x 60cm and nitrogen level 80 Kg/ha for rainfed conditions and 160 Kg/ha for the irrigated areas of North Bihar.

80 Kg N & 50 Kg each of P<sub>2</sub>O<sub>5</sub> and K<sub>2</sub>O was found suitable economic dose of fertilizer for chewing tobacco taken as intercrop with sugarcane normally fertilized.

In the comparative studies of oilcakes, combination of mustard cake + Pongamia cake on 50 : 50 N basis recorded the highest total, first grade cured leaf yield and net return per hectare.

In yield evaluation trial of advanced breeding lines conducted from 1983-84 to 85-86, line HP 76-1 recorded 14.1% and 14.7% significantly higher yield of total cured leaf and first grade leaf respectively over the control variety 'Sona'.

#### CTRI Research Station, Dinhat :

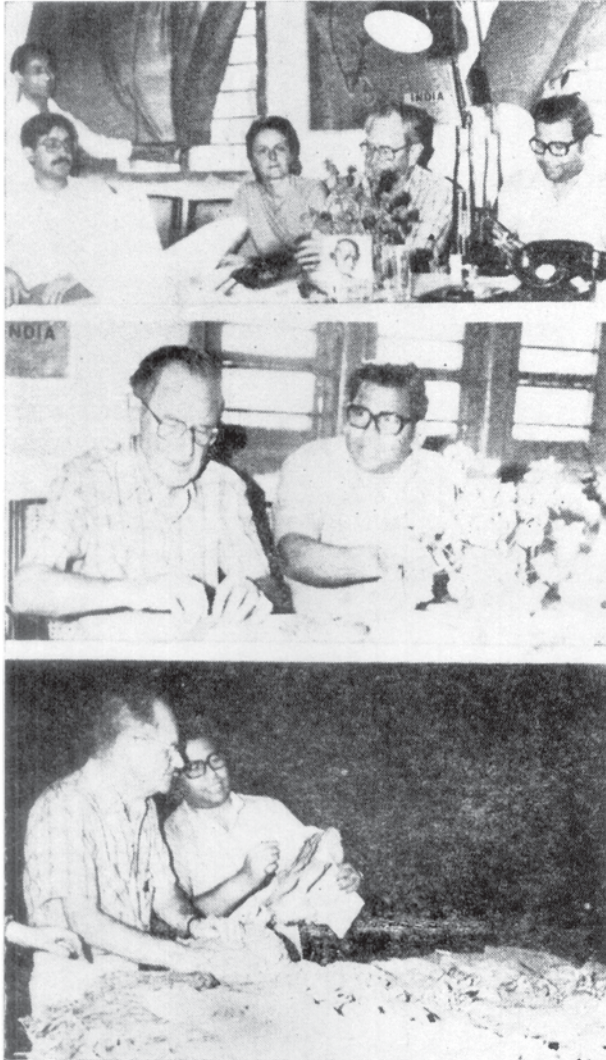
HDM-1, stemmed from a cross between T-238 X Labu, was adjudged to be promising line with 17.7% higher yield over the cultivar Hemti.

Jati tobacco (*N. tabacum* L.) fared well with only one irrigation given during the first week of December, but subsequent irrigation brought about marked decrease in yield and quality of tobacco.

**Fumigation for control of root-knot nematodes in Karnataka**

Nursery beds covered with HDPE (Top); Application of Durofume to nursery beds (Middle); A demonstration Centre of Durofume fumigation for control of root-knot nematodes in FCV tobacco nursery (Bottom).

Diammonium phosphate and Basic slag were found to be as good as single Super-phosphate for the silt loam soil of North Bengal.



Mr Gustav H. Rasch, Bremen, Germany discussing with the Scientists of the CTRI Research Station, Dinhata (Top), Mr. Rasch testing Cigar wrapper quality (Middle), Mr. Rasch inspecting tobacco bulk. (Bottom)

and attended the Group Discussions on white-fly problem at Guntur.

May 13-14, 1986 : Attended the Khariff Technical Workshop at Hyderabad. Held discussions with the Secretary, Government of Andhra Pradesh and other Officials regarding alienation of land at Jee-lugumilli.

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#### Seminars & Symposia :

Shri T. Venkateswarlu, Scientist S-2, Division of Genetics & Plant Breeding, CTRI, Rajahmundry gave a talk on 'Tissue Culture for crop improvement' in the Division.

Smt. K. Anjani, Technician T-II-3, Division of Genetics & Plant Breeding, CTRI, Rajahmundry gave a talk on 'Somaclonal variation in crop improvement' in the Division.

Dr. (Mrs) U. Subhashini, Scientist S-2, Division of Genetics & Plant Breeding, CTRI, Rajahmundry has participated in the group discussion on Tissue Culture work held at Indian Institute of Horticultural Research, Bangalore, on June 19-20, 1986.

Dr. R. Sinha, Officer-in-Charge, CTRI Research, Station, Pusa participated and presented a paper entitled 'Mussoorie Rock Phosphate - a promising source of phosphatic fertilizer for chewing tobacco in Bihar, in the seminar on reclamation and fertility management of calcareous alkali soils of Bihar, organised by the Fertilizer Association of India and Pyrites Phosphates and Chemicals Limited at Muzaffarpur (Bihar) on 18th June, 1986.

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#### Director's Diary :

April 29-30, 1986 : Visited CTRI Research Station, Guntur. Met the Chairman, Tobacco Board, Guntur



Sri T. Sitaramachary, Dr. B. V. Ramakrishnayya and Dr. K. V. Satyanarayana, Officers-in-Charge, CTRI, Research Station, Gun:ur, Hunsur and Kandukur, respectively have attended the R & D Workshop on FCV tobacco in Andhra Pradesh held at this Institute during June 9-10, 1986.

Dr. S. N. Tripathi, Officer-in-Charge, CTRI, Research Station, Dinhat has participated in a crop Seminar organised by Indo-British Fertilizers Education Project, Cooch Behar on 30th April, 1986.

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**Visitors :**

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Dr M. V. Rao, Chairman, Oil Seeds Technological Mission, Govt. of India, New Delhi and Dr. A. Apparao, Vice-Chancellor, Andhra Pradesh Agricultural University, Hyderabad, visited the CTRI Research Station farm, Guntur on 29th April, 1986.

Sri Rajarathinam, Marketing Executive, Bombay visited the Research Station, Veda sandur on 11-4-86.

Dr. R. S. Singh, Director, Sanjay Gandhi Institute of Dairy Technology, Rajendra Agricultural University, Bihar, visited the Research Station, Pusa on 26th June, 1986.

The following Officials visited the Research Station Dinhat.

Mr. Gustv H. Rasch, Bremen, Germany visited on 1-4-1986 and recorded the following comments in the Visitors Book.

"We had a very interesting visit in Dinhat. My main interest was for the cigar wrapper tobacco. There

are only 2000 Kg grown here at present and the quality is very promising. I shall try to introduce this wrapper tobacco (Dixie shade) in West Germany.

Prof. S. K. Bhattacharya, Professor-in-Charge, B C. K.V., North Bengal Campus, Cooch Bihar, Jb. P. D. Mohammed Gani, Cigar Manufacturer, Worur. Trichy-3, Tamil Nadu., Mr. M. Natarajan, Cigar Manufacturer & General Consultant. Worur, Trichy-3, Tamil Nadu; Prof. B. B. Bhattacharya, Department of Agronomy, University College of Science, Agriculture & Technology, Calcutta also visited CTRI Research Station, Dinhat.

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**APPOINTMENTS & PROMOTIONS**

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Shri Rambir has joined the post of Scientist Gr. S-2 (Ag. Extension) and taken charge as the Officer-in-Charge of Krishi Vigyan Kendra of CTRI, Rajahmundry on 30-4-1986.

Shri Chikkanna Setty has been appointed to the post of S. S. Gr. I (Watchman) at CTRI Research Station, Hunsur w. e. f. 18-6-1986, on compassionate grounds.

Smt M. Tulasamma, has been appointed as S. S. Gr. I. (Beldar) at CTRI Research Station, Guntur w. e. f. 23-6-1986 on compassionate grounds.

Shri Sant Kumar Singh, Tech. T-II-3, CTRI Research Station, Dinhat, has been appointed as Scientist Gr. S-1 at CTRI, Cuttack and hence relieved on 15-4-1986.

The following staff members have been promoted to the posts shown against each with effect from the dates noted :

Shri P. V. S. Subrahmanyam	Assistant	22-5-1986
Shri K. Raja Kumar	Assistant	26-5-1986
Shri P. Neelakanteswara Rao	Sr. Clerk	21-5-1986
Sri M. Ramachandra Rao	Sr. Clerk	17-6-1986
Kum. C. L. Bhagyalakshmi	Sr. Clerk	30-6-1986

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#### DEPUTATION

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Sri Ch. Sri Rama Rao, Hindi Assistant CTRI, Rajahmundry deputed to the training course for Hindi Translators at New Delhi from 1-7-1986 to 30-9-1986.

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#### RETIREMENTS

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The following Officers/Staff members of the Institute and its Research Stations retired from the Council's service on attaining the age of superannuation :

1. Shri M. Bangaraya, Scientist Gr. S-3	...	30-4-1986
2. Shri P. Vecrappan, S. S. Gr. III	...	30-6-1986
3. Shri P. Elisha, Tech. T-I-3	...	30-6-1986
4. Shri M. Perayya, S. S. Gr. III	...	30-6-1986

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#### LIST OF PUBLICATIONS

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1. Varietal improvement in cigar and cheroot tobacco (*N. tabacum L*) in Tamil Nadu.

Prasanna Simha Rao, GSB and Hys Ahmad, M.

Tob. News 9 (2) : 10-14, 1986.

2. A new technique for Mitotic chromosomes from in vitro shoot tips of *Nicotiana* Hybrid.

Prasad, GSR; Subhashini, U and Venkateswarlu, T.

Tob. Res 11 (2) : 182-3, 1985.

3. Field studies on flue-cured tobacco based intercropping under dryland conditions in vertisols.

Veera Raghavaiah, C; Gopalachari, N. C; Someswara-Rao, M; Ramakrishnaya, B. V. and Ramachandram, D.

Tob. Res. 11 (2) : 126-33, 1985.

4. Root-knot nematode- A serious threat to tobacco crop in light soils.

Ramjilal

Farmer & Parliament 21 (5) : 4-20, 1986.

5. Reaction of tobacco gemplasm and *Nicotiana* species to frog-eye spot (*Cercospora nicotianae* E II & EV) disease of tobacco.

Anjaneyulu, C; Nagarajan, K; Reddy TSN and Ramjilal.

Tob. Res. 11 (2) : 105-9, 1985.

6. Effect of some systemic and non-systemic fungicides on the control of damping-off of tobacco seedlings,

Reddy, TSN and Nagarajan, K.

Tob. Res. 11 (2) : 143-8, 1985.

7. Preliminary studies on Boron requirements of Indian tobacco types.

Murthy, KSN; Prasad, SS and Narasimhamurthy, Y. Ch.

Tob. Res. 11 (2) : 177-8, 1985.

8. Effects of ethrel on flue-cured tobacco grown with different levels of Nitrogen application.

Bangarayya, M; Sarma, CB; Prabhakarababu, D and Prabhu, S. R.

Tob Res. 11 (2) : 160-6, 1985.

9. Effect of closely grown flue-cured tobacco on the protein yields.

Gopalam, A and Athinarayana, R.

Tob. Res. 11 (2) : 179-81, 1985.

10. Variation in tobacco smoke composition with ageing.

Kameswara Rao, B. V; Murthy, KPSN and Mahalakshmi, V.

Tob. Res. 11 (2) : 188-92, 1985.

11. A comparative study of adoption of improved production technologies of Virginia tobacco among adopters and non-adopters in Andhra Pradesh.

Wilson, M. J. and Chaturvedi, J.

Tob. Res. 11 (2) : 110-8, 1985

12. How to get targetted yield of tobacco in calcareous soil.

Prasad, B, Sinha, R and Prasad, J.

Tob. Res. 9 (2) : 15-7, 1986.

13. Effect of seedling age on growth, yield and quality of chewing tobacco (*N. tabacum L.*)

Sinha, R, Dwivedi, SSL and Gopalachari, N. C.

Tob. Res. 11 (2) : 138-42, 1985.

14. Influence of priming on leaf characteristics of cigar wrapper tobacco.

Srivastava, R. P. and Gopalachari, N. C.

Tob. Res. 11 (2) : 155-60, 1985.

15. Effect of preceding irrigation and cultural practices on growth yield and quality of chewing tobacco ratoon topped at different levels.

Sinha, R; Jha, R. C; Dwivedi, SSL and Pandey, A. K

Tob. Res. 11 (2) : 172-4, 1985.

16. Influence of liming and farm yard manure on quality parameters of cigar-filler tobacco. (*Nicotiana tabacum*).

Srivastava, R. P. and Subba Rao, D.

Tob, Res. 11 (2) : 184-7, 1985.

17. Quality evaluation of certain hybrids of cigar-wrapper tobacco.

Srivastava, R. P. and Rao, R. V. S.

Tob. News. 9 (2) : 6-8, 1986.

18. Field evaluation of some insecticides against *Agrotis-ipsilon* Hafnagel on cigar wrapper tobacco.

Chavan, V. M.

Tob. Res. 11 (2) : 167-71, 1985.

19. Occurrence of a new race of *Phytophthora nicotianae* var. *parasitica* in Hunsur tract.

Shenoi, M. M; Abdulwajid, S. M; Elias, N. A. and Bhaktavatsalam, G.

Indian Phytopathology 38 (3) : 537-9, 1985.

Edited & Compiled by M. C. M. Reddy & A. Haranath

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