

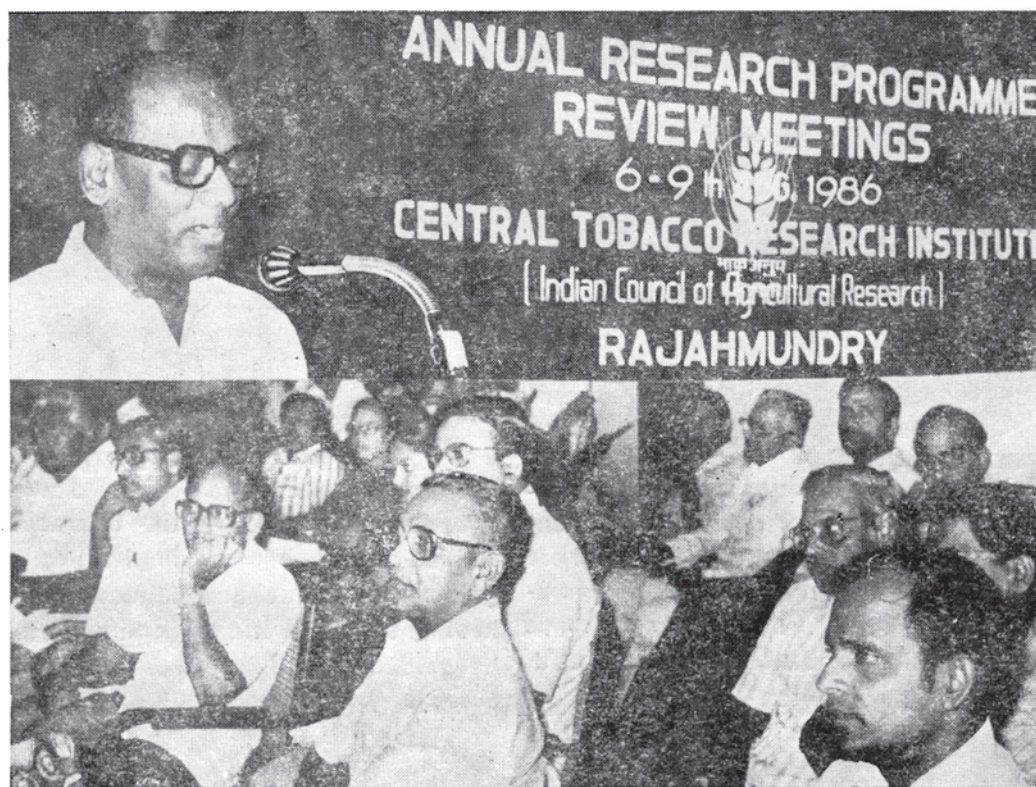


# CTRI News Letter

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

Vol. 8 No. 3 NEWS LETTER OF CENTRAL TOBACCO RESEARCH INSTITUTE, RAJAHMUNDRY, SEPT., 1986.

## MAJOR EVENTS

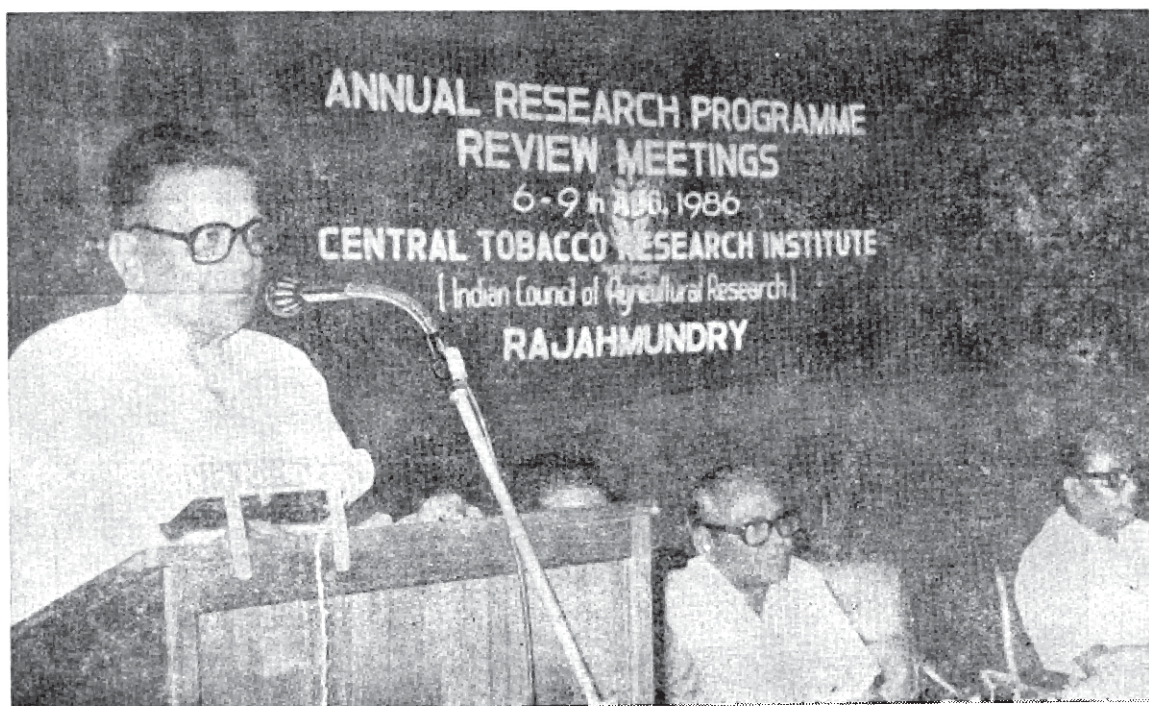


Inaugural address by Dr. C. Kempanna, Asst. Director General (CC), ICAR.

The Annual Research Programme Review meetings have been conducted at the Institute from 6-9th August 1986 to review the research work carried out during the last season and to finalise technical programme of work for the year 1986-87. Dr. C. Kempanna, Assistant Director General (CC), ICAR, Dr. B. G. Jaisani, Project

Co-ordinator (T) and Shri T. D. Prasada Rao of M/s. ITC Limited (ILTD Division) have participated in the meetings, besides the Scientists and Technicians of CTRI. Dr. G. J. Patel, Project Co-ordinator (T) (Retired) attended the meeting as a special invitee.

## A. R. P. R. MEETINGS

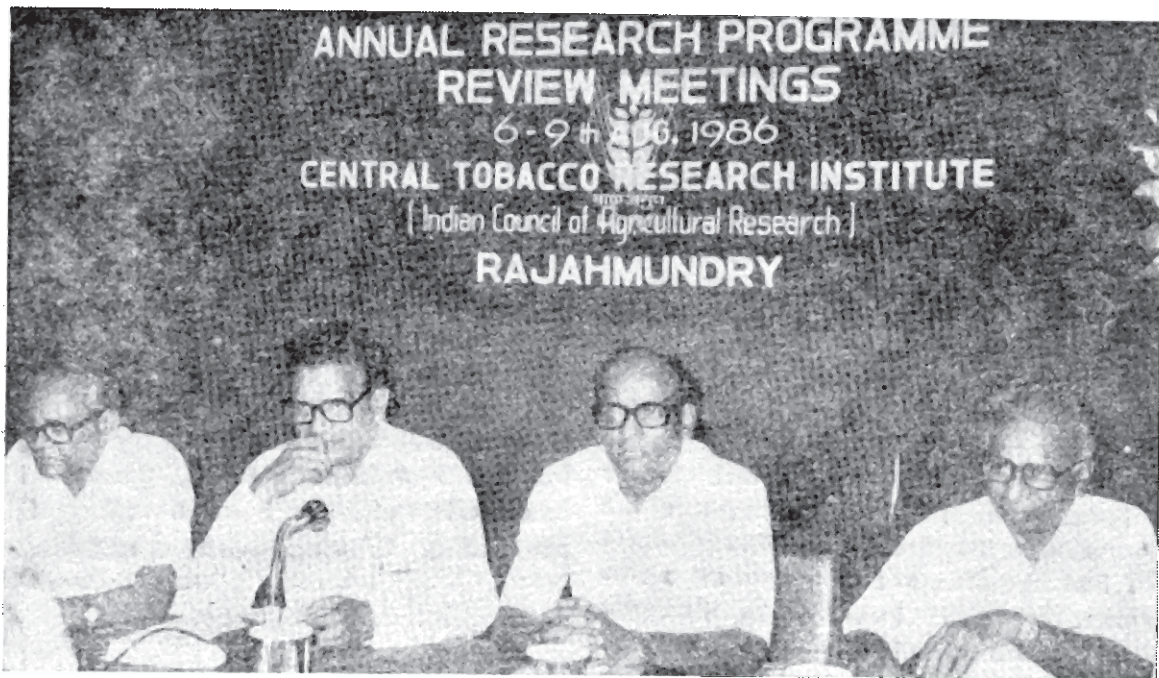


Welcome address by Dr. M. S. Chari, Director, CTRI

In his welcome address Dr. M. S. Chari, Director, Tobacco Research highlighted some of the important research findings emanated from the research projects during the previous season. He strongly felt that there should be a free and frank exchange of ideas in formulating new research programmes by availing the presence of the learned Scientists like Dr. C. Kempanna, Dr. G. J. Patel and Dr. B. G. Jaisani.

Board, Dr. Chari said that intensive training programme has been taken up in the improved methods of technology developed by CTRI to the Tobacco Board Staff. The trained officials in turn will give necessary training and guidance to the tobacco farmers in successfully raising healthy seedlings and tobacco crop. This programme, he said, will certainly increase the productivity and average yields.

Speaking on the importance of R & D Workshop on FCV tobaccos grown in Karnataka and Andhra Pradesh organised under the joint auspice of CTRI & Tobacco



(L to R) Dr. B. G. Jaisani, Dr. M. S. Chari, Dr. C. Kempanna and Dr. G. J. Patel at the ARPR meetings

Dr. Kempanna in his inaugural address dealt in detail on various aspects of tobacco production and the future prospects of this important commercial crop. He greatly exhorted the need to maintain quality and reduce the cost of production, to have a close interaction between basic and fundamental research, to broaden the germ-plasm base, to generate sufficient genetic variability through conventional and non-conventional techniques. He advocated the necessity to develop multi-resistant varieties and varieties resistant to caterpillar and white-fly menace.

He pointed out that diversifying the source of energy for curing FCV tobacco is an important item of research and asked the scientists to give a serious consideration in view of the present fuel crisis in the country.

Dr. Kempanna suggested to have Management Committee meeting coinciding with the Staff Research

Council meetings so that the members of the Management Committee may also participate in the deliberations.

On the concluding day of the ARPR meetings on 9th August, 1986, while presiding over the plenary session Dr. Kempanna suggested that deficiencies in the present system should be identified and corrected for achieving targets.

Dr. M. S. Chari, Director, Tobacco Research thanked the Chairman for his suggestions and assured him that the suggestions will be carried out in toto. Sri T. D. Prasad Rao of M/s ILTD assured full co-operation in defining the changing quality requirements of tobacco to meet the national and international demands.

Dr. R. Sinha, Officer-in-Charge, CTRI Research Station, Pusa proposed a vote of thanks.

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## RESEARCH HIGHLIGHTS

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"Yellowing of seedlings" was observed during the season in the nursery area of CTRI Complex when the seedlings were 20-25 days old. The seedlings were showing typical symptoms of magnesium deficiency.

Yellowing or chlorosis is due to break down of chlorophyll in the bottom leaves which is the first visible symptom of magnesium deficiency. The chlorosis or yellowing begins at the tip and along the margins of the lower leaves and advances towards the central and basal portions of the leaf. In the initial stages these symptoms are conspicuous in the bottom leaves while the upper leaves as well as terminal bud will be green and healthy. Even in the bottom leaves the veins and mid-rib tend to retain their green colour. With severity of the deficiency, all the leaves will become yellow, turning to pale white, but there will be no malformation or necrosis and within a short period the seedling dies.

Application of 45-60 gm MgSO<sub>4</sub> per 10 sq. mt. bed through irrigation water preferably in two or three splits was found to correct the deficiency of magnesium except in the seedlings effected severely. Basal application of dolomite to supply 15 Kg MgO/ha (100 Kg dolomite/ha) has been recommended to overcome this problem of Magnesium deficiency in light soil tobacco nurseries.

In the different demonstration centres of nursery fumigation in growers holding and at CTRI Research Station, Hunsur, seedlings from Durofume treated beds were separately planned and compared with the control using seedlings from non-fumigated beds. Planted tobacco crop using seedlings from fumigated nursery was more vigorous in growth, indicating advantage of using transplants, free of nematode infestation.

At CTRI Research Station, Dinahata, Motihari tobacco line HDM-1 registered 17% higher yield over the local variety Hemti. Performance of HDM-1 could be further enhanced by adopting wide plant spacing of 60cm x 60cm in conjunction with 150 Kg N/ha. Irrigation of Jati tobacco after depletion of 45% available soil moisture was beneficial for higher yield and leaf quality.

At CTRI Research Station Guntur, application of Neem oil emulsion at 10% concentration gave good suppression of suckers in Natu tobacco compared to hand suckering and gave cured leaf yields of 1704 and 1462 Kg/ha respectively. Application of inorganic and organic nitrogen at 75% and 25% to supply 100 Kg N/ha, was found to be optimum for HDBRG tobacco with 1857 Kg/ha cured leaf yield and with a net return of Rs. 4,812/- per hectare. Growing gingelly, greengram and cow-pea before HDBRG tobacco was found to be economical than growing sole crop of tobacco.

At CTRI Research Station, Veda sandur, Cigarfiller tobacco after Bajra gave higher total yield of 2,753 Kg/ha followed by tobacco after fallow and tobacco after ragi which gave 2,746 Kg/ha and 2,623 Kg/ha respectively. In the trial of manuring-cum-spacing-cum-topping to advance breeding lines, chewing tobacco variety HV 81-3 was superior to HV. 80-4 and Bhagyalakshmi whereas the later two were on par. A closer spacing of 75cm x 75cm (17,777 plants/ha) yielded 3,921 Kg/ha and was found superior to 90cm x 90cm (12,345 plants/ha). Topping at 12 leaves was significantly superior (4,001 Kg/ha) to 10 leaves topping (3,780 Kg/ha) in the production of total yield.

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## EXTENSION ACTIVITIES

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As per the recommendations of the R & D Workshop on FCV tobacco, training programmes were conducted in the improved methods of tobacco technology to the field staff of the Tobacco Board. The programme is aimed at imparting latest methods of tobacco technology

developed by CTRI to the farming community through the Tobacco Board.

(a) Under this programme a reorientation training in scientific management of nurseries and field crop of FCV tobacco has been imparted to all the Auction Superintendents of Tobacco Board. (b) Sixty eight Field Officers were trained in nursery management, field crop management, topping and desuckering and harvesting, curing & grading at CTRI and ILTD Research Depart-

ment. The Field Officers were provided with handouts and field trips were also conducted as a part of practical demonstration and (c) Field Assistants from all the 21 Auction Platforms were also trained at M/s. ILTD, Rajahmundry and CTRI Research stations Guntur & Kandukur. In total two hundred and eleven Field Assistants were trained in nursery management, topping & desuckering and harvesting, curing & grading. The trainees were provided with necessary literature and arranged field visits with practical demonstrations.



Practical training in the nursery bed preparation to Tobacco Board Field Assistants

The following topics have been broadcasted through AIR for the benefit of the farming community.

- 1) Do's and Do not's in FCV tobacco cultivation by Dr. M S Chari, Director, relayed on 15th September 1986, at 7.15 P M.
- 2) Quiz Programme conducted by Dr. M. S. Chari, Director on FCV tobacco to the tobacco farmers of Rangampet, Thorredu and Devarapalli platforms relayed on 21st September, 1986 at 7.15 P. M.

- 3) Quiz Programme organised by Sri T Sitaramachary, Officer-in-Charge, CTRI Research Station, Guntur with 12 progressive tobacco cultivators from Tallur, Narukullapadu and Mandadam villages of Guntur district relayed on 19-10-1986.

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### K. V. K. of C. T. R. I.

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Orientation meeting of Lab-to-Land Programme was held on 11th August, 1986 at KVK of CTRI, Rajahmundry with the Team Leaders and the Zonal Co-ordinator Dr. N. K. Sanghi. Dr. M. S. Chari, Director has addressed the team leaders to bestow special attention in distributing critical inputs to the selected farmers and also

suggested to bring out a status report in respect of these stations while attending such review meetings in future. Dr. Sanghi briefed the objectives of Lab-to-Land Programme and stressed the need to give priority for oil seed production.

The 2nd local Management Committee meeting of the KVK was convened on 12th August, 1986. While welcoming the members of the Management Committee, Dr. M. S. Chari informed that ICAR has agreed to have an instructional farm of KVK of about 36 Acres at Kalavacherla. He also mentioned that the exhibits presented by KVK Rajahmundry at Sojitra in Gujarat State in connection with the foundation laying ceremony of KVK received good appreciation from Sri Yogendra Makwana Hon'ble Minister of State for agriculture.

### ACTIVITIES OF K. V. K.



1. Dr. M S. Chari, Director addressing the meeting of the Team Leaders of LLP.
2. Director addressing the Press Conference.
3. & 6. Members of the Management Committee held discussions with the Staff of K. V. K.
4. & 5. KVK Management Committee meeting.

### Visit of R & D Expert Committee members to Karnataka



1. Members observing tobacco crop in a farmer's field. Dr. M. S. Chari, Director is explaining to Sri. B. N. Betkerur, Director of Auctions. Dr. B. G. Jaisani, Project Co-ordinator (T), Dr. B. V. Ramakrishnaya, Officer-in-Charge, CTRI Research Station, Hunsur Sri S. Kori, Director Tobacco Development and Sri T. D. Prasada Rao. Member-Research, MIs ILTD are also seen along with the progressive farmers.
2. R & D Expert Committee members along with the Officials of Tobacco Board and others discussing prospects of tobacco crop in project areas.
3. R & D Expert Committee members with the Scientists of CTRI Research Station, Hunsur visiting the experimental farm.
4. Chinese Trade Delegation discussing on cured leaf quality aspects with Sri K. Devappa, Agronomist, CTRI Research Station, Hunsur.

**CONFERENCES, SYMPOSIA, SEMINARS & RADIO TALK**

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**Director's Diary :**

July 10-11, 1986 : Attended the Production Committee meeting of Tobacco Board at Guntur.

July 15, 1986 : Attended the Zonal Advisory Committee meeting of Lab to Land Programme in Andhra Pradesh at Hyderabad.

July 16, 1986 : Visited Indian Council of Agricultural Research, New Delhi and held discussions on the 7th plan finalisation with Deputy Director General (CS) and other officials.

July 21-22, 1986 : Visited C. T. R. I. Research Station, Hunsur to see the project area on transfer of technology in Karnataka.

July 29, 1986 : Attended the Farmers Technical Training Workshop at Narsipadu (Mandapet Taluk) organized by the Asst. Director of Agriculture (T & V), Rajahmundry.

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VFC tobacco in Shimoga area' conducted on 18-8-86 at Agricultural Research Station, Navile, Shimoga. Dr. Ramakrishnayya has also attended the 51st Annual Conve-nsion of Indian Society of Soil Science held from 23-25 September, 1986 at Tamil Nadu Agricultural University Coimbatore and presented a paper entitled "Distribution pattern of potassium in flue-cured tobacco leaf according to its position in stalk in healthy and K-deficient plants",

2. Sri Y. V. Suryanarayana, Asst. Librarian, CTRI Rajahmundry has attended the workshop on 'Information service management in ICAR Institute Libraries and Information Centres at NAARM, Hyderabad from July 8-11, 1986 and presented a paper entitled "Reorganisation of Libraries and Information & Documentation units in ICAR Institutes"

3. Sri B. G. Joshi, Scientist S-3 & Head of the Division of Entomology, CTRI, Rajahmundry was invited by the German Agency for Technical Co-operation to deliver a talk on "Use of Neem products in tobacco in India" in the Third International Neem Conference at Nairobi during July 10-15, 1986.

4. Dr. (Mrs.) Subhashini & Sri T. Venkateswarulu Scientists S-2, Division of Genetics & Plant Breeding, CTRI, Rajahmundry have attended the 'National Symposium on recent advances in plant cell and tissue culture of economically important plants' organised by the Department of Genetics, Osmania University & Plant Tissue culture Association of India at Hyderabad during July 24-27, 1986.

1 Dr. B. V. Ramakrishnayya, Officer-in-charge, Sri K. Devappa, Dr. S. V. Rao and Dr. M. M. Sheno, Scientists of CTRI Research Station, Hunsur have participated in the Seminar on 'maximising quality and production of

5 Dr. D. V. Subba Rao, Scientist S-2 & Head (Statistics), CTRI, Rajahmundry has attended the "National Conference of Agricultural Statisticians of ICAR" held at CAZRI, Jodhpur during July 29-31, 1986



6. Sri N. S. Murthy Scientist S-2, Ag. Statistics, CTRI, Rajahmundry has attended the short term course on the "use of computer in Agricultural Research" conducted by IASRI, New Delhi from September 1-27, 1986.

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### TRAINING PROGRAMME

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1. Sri S. Ramesh, Tech. T-5 (Asst. Farm Superintendent), CTRI Research Station, Hunsur underwent training in 'Farm machinery management for research and commercial farms' at the Central Institute of Agricultural Engineering, Bhopal from 2-12th September, 1986.

2. Field Assistants (70) of Tobacco Board have undergone training in two batches at CTRI Research station, Guntur from 13-24th October, 1986 on Tobacco crop management.

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### VISITORS

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1. Sri V. Sobhanadreswara Rao, MP and Sri D. Veerayya, Tobacco Board members; Trade Delegation from China; Sri S. Kori, Director, Directorate of Tobacco Development, Madras, visited the CTRI Research Station, Hunsur.

2. World Bank Team of ICAR consisting of Dr. D. P. Motiramani, Dr. A. R. Seshadri, Dr. O. Rahman, Dr. Choke Singh & Dr. B. K. Rastogi visited the CTRI Research Station, Pusa and recorded in the Visitors' book as follows.

"Small is beautiful - Very interesting and educative visit to CTRI. We all are pleased to visit the Institute."

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### APPOINTMENTS

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Shri K. N. Subrahmanya has been appointed to the post of Scientist Gr. S-1, at CTRI Research Station, Vadasandur w. e. f. 1-9-1986.

Kum. N. Aruna Kumari has been appointed as Tech. T-4 (Home Science) w. e. f. 29-8-1986 at Krishi Vigyan Kendra, CTRI, Rajahmundry.

Smt. Ch. Subbayamma has been appointed as S. S. Gr. 1, w. e. f. 8-8-1986 at Krishi Vigyan Kendra CTRI, Rajahmundry.

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### TRANSFERS

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Dr. R. Lakshminarayana, Scientist Gr. S-2 has been transferred from CTRI Research Station, Vadasandur to CTRI, Rajahmundry w. e. f. 28-7-1986.

Sri C. B. Sarma, Tech. T-5 has been transferred from CTRI, Rajahmundry to CTRI Research Station, Vadasandur w. e. f. 24-7-1986.

Sri J. V. Ramana Murthy, Tech. T-1-3 has been transferred from CTRI Research Station, Guntur to CTRI, Rajahmundry w. e. f. 18-8-1986.

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### RETIREMENTS

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Sri D. Nasaraiah, Tech. T-1-3, CTRI Research Station, Guntur has retired from Council's service on superannuation w. e. f. 31-7-1986.

Sri G. V. Raghavaiah, Tech. TI-1-3, CTRI Research Station, Guntur has retired from Council's service on superannuation w. e. f. 31-7-1986.

Sri V. Krishna Rao, Asst. Administrative Officer, CTRI, Rajahmundry has retired from Council's service on superannuation w. e. f. 31-8-1986.

Sri Madina Basha, Tech: T-1-3, CTRI, Rajahmundry has retired voluntarily from Council's service w. e. f. 31-8-1986.

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### LIST OF PUBLICATIONS

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1. Quality evaluation of certain hybrids of cigarfiller tobacco.

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

Tob. News 9 (3) : 11-13, May-June, 1986.

2. Studies on heterosis and inbreeding depression in tobacco ( *N. tabacum* L)

Krishnamurthy, A. S.

Tob. News 9 (3) : 16-19, May-June, 1986

3. Breeding short duration variety in chewing tobacco

( *N. tabacum* ) for Tamil Nadu.

Prasannasimha Rao, GSB and Ilyas Ahmed.

Indian Tob. J. 17 (3) : 3-4, October-December 1985.

4. Embryo Rescue *Nicotiana* Hybrids by *in vitro* culture.

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

Plant Sci. 43 : 219-222, 1986.

5. Alternate Skip/furrow irrigation method to check the undue usage of under ground water resources with reference to irrigated FCV tobacco in Andhra Pradesh.

Sanjibabu M.

Indian Tob J. 17 (2) : 6-9, 1985

6. Effect of planting patterns and intercropping on yield and quality of flue-cured tobacco ( *Nicotiana tabacum* L) in vertisols.

Raghavaiah C. V, Someswara Rao M. and Ramachandram D.

Indian J Agron. 31 (1) : 5-10, 1986.

7. Pilot studies on the possibility of growing aromatic tobacco in Chintapalli tribal area of Visakhapatnam district in Andhra Pradesh.

- Someswara Rao M, Gopalachari N. C. and Subba Rao R.  
Indian Tob J 18 (1) : 6-8, April-June, 1986
8. New bacterial leaf spot disease on *natu* tobacco.  
Nagarajan K. Ramjilal and Reddy, T.S.N.  
Indian Tob J 15 (4) : 13-14, 1984
9. Mosaic disease of tobacco and its control  
Ramjilal  
Indian Tob J 17 (3) : 5, 1986.
10. Relative efficacy of different dosage and number of sprays of Bavistin for the control of frog-eye spot disease on burley tobacco.  
Anjaneyulu C. Nagarajan K. and Ramjilal.  
Indian J Plant Pathol 3 (2) : 218-223, 1985.
11. Leaf spot diseases of tobacco in India and their control.  
Ramjilal  
Indian Tob J 17 (4) : 6-7, Jan-March, 1986.
12. Suitable soil conditions for best quality flue-cured tobacco production.  
Krishnamurthy, V.  
Indian Tob J 18 (1) : 9-10, April-June, 1986.
13. The study of factors influencing the production of FCV tobacco in southern light soils of Andhra Pradesh.  
Wilson, M. J. and Naidu S. K.  
Tob Res. 11 (1) : 35-39, 1985.
14. Control of leaf blight disease in light soils of West Godavari district : Guidelines to tobacco farmers (in Telugu)  
Sannibabu M, Krishnamurthy G. V. G, Naidu S. K. and Satyanarayana Murthy C. V. V.  
Bharateeya Pogaku 15 (4) : 3-6, Oct-Dec, 1985.
15. Parallel multiple cropping of sugarcane and tobacco  
Singh KD and Sinha R.  
Indian J Agron 30 (3) : 334-8, 1985.
16. Quality of Cigar filler tobacco II : Correlation studies

- on some chemical and physical quality parameters. 17. Efficacy of non-volatile nematicides for control of *Meloidogyne incognita* in fcv tobacco.
- Srivastava, R. P. Hussaini, S. S.
- Indian Tob J 18 (1) : 3-5, April-June, 1986. Indian J Nematol 16 (1) : 100-1, June, 1986.

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

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