



# C. T. R. I. NEWS LETTER

Vol. 6 No. 2 NEWS LETTER OF CENTRAL TOBACCO RESEARCH INSTITUTE, RAJAHMUNDY, JUNE 1984.

## RESEARCH HIGHLIGHTS

### CTRI, Rajahmundry :

Germplasm of 148 new accessions of tobacco (*N. tabacum* L) were acquired during 1983-84 from Japan, Spain, Newzealand, Poland and Maryland through NBPGR and regenerated after following the usual quarantine procedure. In addition, NBPGR has sent three collections of tobacco, two of them belonging to the species rustica are also regenerated.

An exotic nucleus culture of *Apanteles marginiventris* Cresson, (Hymenoptera : Braconidae) originated from USA and West Indies, was obtained through NCBC Bangalore, for control of *S. Litura* F. in larval stage.

Technique for mass breeding of the parasite has been standardized in the laboratory. The parasite is quite promising since 90 - 100% parasitisation is observed. Field releases have been initiated.

Leaf and fruit extract of *Azadirachta indica*, *Jatropha* *Cureas*, *Cleome viscosa*, *Cassia tora*, *Datura stramonium*, *Boerhavia diffusa*, *Phyllanthus niruri* and *Croton sparsiflorus* @ 1 : 10 dilution was found highly toxic to root-knot nematode (*Meloidogyne javanica*) larvae. All the larvae were killed within 72 hours of treatment. On

a)

b)



- (a) Parasitised host larva with feeding and growth inhibited.
- (b) Same age non-parasitised larva with normal growth and feeding

the other hand, green leaf extract of *Ficus bengalensis*, *Mirabilis jalapa*, *Peltophorum ferrugenum*, *Eucalyptus* sp when applied to the larval suspension, kept the larvae unconscious for 24 hours after which the larvae regained activity when transferred to water.

Two sprays of Topsin M70% W.P. (Thiophanate) @ 0.1% was found effective against Frogeye spot disease of Burley tobacco, the percentage control being 65%. Bavistin 50 W.P. @ 0.02% (two sprays) gave 52.0%.

control of the disease. Incidence of the disease was very severe this season on Burley tobacco at Chintapalli.

Growing sorghum in kharif and rabi seasons followed by tobacco in the 2nd year was found promising in reducing the orobanche incidence in black soil. The incidence was reduced by 48.2% in addition to delaying the emergence of orobanche shoots by 18 days. Sorghum-tobacco rotation (2 year cycle) is worth testing on a large scale for orobanche control.

In CTRI News letter Vol. 7 No. 1, March, 1984 issue, in page 5 under Research Highlights, it was mentioned that from the screening of tobacco germplasm, 9 varieties were found *Resistant* to damping off disease. This is not correct and inadvertently reported. But this should be read as follows :

" The following 9 varieties of tobacco from the germplasm were found tolerant to damping off disease caused by *Pythium aphanidermatum* and *not resistant* as reported in CTRI Newsletter Vol. 7 No. 1 March, 1984 issue. However, these varieties are being retested for confirmation of their tolerance Kuaka 860; NC. 79; Alpines; Riwaka-1; Bahia; Bahia. Cigar; K. 14; V. 168 S.N. 37453 and V. 163, High Nicotine."

#### CTRI Research Station, Guntur :

The line 754-2-1 from the advanced breeding lines of

FCV was found to be superior than the existing cultivar Jayasri.

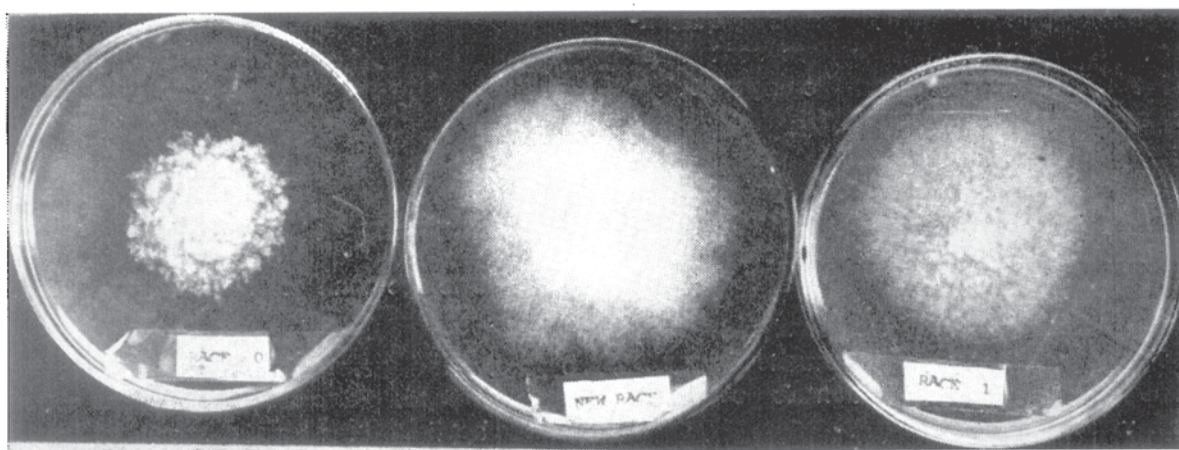
#### CTRI Research Station, Vendasandur :

Sun cured chewing tobacco advanced breeding lines HV. 80-4 and HV. 81-3 fared well in yields over the popular variety 'Bhagyalakshmi'. The smoke cured chewing tobacco selection HV. 81-5 yielded 10% more total leaf over the control variety 'Thangam'.

Raising tobacco as an intercrop in sugarcane is showing promise in the Cauvery delta at Mannargudi area of Thanjavur district.

#### CTRI Research Station, Hunsur :

In the survey of black shank disease, in Hunsur tract and study of culture isolates, a new race of *Phytophthora nicotianae* var. *parasitica*, the causal organism has been identified based on pathogenicity reaction of *Nicotiana* differentials and cultural characteristics. The new race is prevalent in H. D. Kote area of Mysore district. Identification of the new race made by the Commonwealth Mycological Institute, England indicated that it is of A 1 mating type while races 0 and 1 of A 2 mating type of the black shank pathogen.



Four day growth in Potato-Dextrose-Agar medium of *Phytophthora nicotianae* var. *Parasitica* : slow in race 0, profuse in new race and medium in race 1



### CTRI Research Station, Dinhata :

Intercropping potato with Motihari tobacco under water-hyacinth mulch was found to be quite economical as this practice fetched a net receipt of Rs. 13,982/- per hectare as against Rs. 5,237/- and Rs. 5,580/- realised from mono-cropping of Motihari tobacco and potato respectively.

Motihari tobacco performed very well at 80 : 100 : 50 Kg NPK/ha and registered 2373 Kg total leaf and 810 Kg first grade leaf yield per hectare as against 1201 kg total and 370 kg first grade leaf yield per hectare recorded by control ie. no fertilizers.

Diammonium phosphate was adjudged to be superior in its effects on total as well as first grade Motihari tobacco yield while Purulia-phos and Mussori-phos were inferior in the agro-climatic zone of North Bengal.

### LAB - TO - LAND PROGRAMME

Twenty goats were distributed to the landless agricultural labourers and Girijan Mahila nursery growers by

the Division of Agricultural Extension of Central Tobacco Research Institute. Small and marginal farmers were supplied with saplings like coconut, cashewnut, mango, jack-fruit etc. amounting to Rs. 7,070/- at the end of the II phase of Lab-to-Land programme.

The III phase of Lab-to-Land programme commenced from June, 1984 with 500 farm families, out of which 150 were allotted to the Main Institute, 150 to Krishi Vigyan Kendra of CTRI Rajahmundry and 200 to the Research Station, Pusa.

National Agricultural Input Fortnight was organised on 15th June, 1984 at 'Thorredu' (East Godavari Dist. Andhra Pradesh) in collaboration with the State Department of Agriculture. Dr. N. C. Gopalachari, Director of Tobacco Research inaugurated the function in which Sri D. V. L. N. Murthy, IAS, District Collector, East Godavari was the Chief Guest. On this occasion the department of Agriculture has distributed incentives like seeds, implements and fertilizers to the beneficiaries while CTRI has distributed improved tobacco seed like Jayasri, Godavari Special and G. 11/1 to the progressive farmers.



Inaugural speech by Dr. N. C. Gopalachari, in connection with National Agricultural Input Fortnight at Thorredu



Dr. N. C. Gopalachari welcoming the Chief Guest Sri D. V. L. N. Murthy, IAS., District Collector to the exhibition arranged in connection with the National Agricultural Input Fortnight at Thorredu

In the pre-released varietal trials conducted in different agroclimatic zones of Andhra Pradesh the varieties G. 11/1 and G. 8/1 have proved their superiority over the standard variety Jayasri in all the four locations. The maximum yields that were recorded for G. 11/1 and G.8/1 were 1609 kg and 1875 kg respectively per hectare at Annadevarapeta (West Godavari district).

Demonstrations on the use of Neem oil emulsion as suckercide were conducted in East Godavari and West Godavari districts. The results indicated that an extra yield ranging from 30 to 100 Kg/ac could be obtained which accounts for about Rs. 240/- to Rs. 800/- (on an average @ Rs. 8/- per Kg) as extra monetary benefit to the farmer.

## SEMINARS, CONFERENCES AND SYMPOSIA

### Seminars :

#### CTRI Rajahmundry :

1. "Computers and its application" by Sri T. B. R. Nagendra Gupta, ICRISAT, Hyderabad, from 11th to 13th June, 1984.
2. "Introduction to computers" by Dr. B. Kanta Rao, Head & Professor, Computer Science and Electrical Engineering, Birla Institute of Engineering, Mesra (Ranchi) Orissa on 7th June, 1984.

#### CTRI Research Station, Hunsur :

1. "Subabul, the wonder plant" by Dr. Chandrashekappa, Chief Scientist, BAIF, Karnataka on 23rd May, 1984.
2. "Nematodes in Coffee" by Sri A. C. Kumar, Nematologist, Coffee Research Institute, Balehonnur, Karnataka on 1st June, 1984.
3. "Impressions on visit to Zimbabwe" by Sri V. K. Pani, Manager, Special Projects, I.T.C. Limited, I L T D Division on 7th June, 1984.

#### Conferences and Symposia :

Sri M. Someswara Rao, Head of the Division of Agricultural Extension, CTRI, Rajahmundry has participated in the State Level Technical Workshop organised by the Joint Director of Agriculture (Pulses), Directorate of Agriculture, Andhra Pradesh, Hyderabad on 2nd and 3rd May, 1984. He has also attended the Kharif Workshop at Eluru on 1st June, 1984.

Sri V.K. Dobhal, Scientist S-1 (Plant Breeding) CTRI Research Station, Dinhatu underwent two months training course at NAARM, Hyderabad from 14th March to 12th May, 1984 and continued Rural Orientation Training course at Uttarakasi (U.P.) from 12th June, 1984.



Sri M. Sannibabu, Scientist S-1, CTRI Research Station, Kalavacherla has participated in the Summer institute course on "Appropriate Technology on Water Resources Development and Management" from 21st May to 4th June, 1984 at Indian Institute of Technology, Kharagpur (W.B.).

Dr. B. V. Ramakrishnayya, Officer-in-charge, CTRI Research Station, Hunsur has participated in the Regional Committee Meeting of Tobacco Board held on 5th June, 1984 at Bangalore under the Chairmanship of Dr. T. V. Sampath, Director of Agriculture, Karnataka.



Dr. N. C. Gopalachari, Director of Tobacco Research discussing with the Officer-in-Charge and Scientists of CTRI Research Station, Hunsur.

Dr. S. N. Tripathi, Officer-in-Charge, CTRI Research Station, Dinahata has attended the 15th Tobacco Development Committee meeting held at Madras on 5th and 6th June, 1984.

Sri T. Sitaramachari, Officer-in-Charge, CTRI Research Station, Guntur, has participated in the Summer Institute Course on "Energy Management in Agriculture and Rural Sectors Sources and Technologies" from 5th to

28th June, 1984 at Central Institute of Agricultural Engineering, Bhopal.

Sri M. C. Mahapatra, IAS, Chairman, Sri J. Bapus Reddy, IAS, Executive Director and Sri B. N. Betkrur, IAS, Director of Auctions of Tobacco Board, Guntur, visited the CTRI Research Station, Hunsur and conducted a meeting to discuss training programmes for the benefit of Tobacco Board Officials on plant position grading and preparation of technical Bulletins on cultural practices, plant protection measures and curing and grading. Sri N. A. Elias, Scientist (Retd.) of the Station and presently Consultant to Tobacco Board, Dr. B. V. Ramakrishnayya, Officer-in-Charge and Scientists of the Station participated in the discussions and helped in planning suitable schemes.

Sri K. Devappa, Scientist S-2 (Agronomy) CTRI Research Station, Hunsur addressed the farmers in the FCV Tobacco cultivation training programme arranged by the State Agricultural Department in Nilavagulu village of Hassan district on 18th June, 1984. On 21 June, 1984 he addressed the farmers in the Bidi Tobacco cultivation training programme arranged by the State Agricultural Department in Salekoppal village in Mysore district.

Sri K. Devappa, Scientist S-2 (Agronomy) and Sri S. M. Abdul Wajid, Scientist 'S' (Pathology) addressed growers in the FCV Tobacco cultivation training programme arranged by State Agricultural Department in Holenarasipura, Hassan district on 30th June, 1984.

## HONOURS AND AWARDS

Dr. N. C. Gopalachari, Director, Tobacco Research, was honoured and felicitated as one of the outstanding personalities during 1983-84 by the Lions Club Godavari on the occasion of their 3rd Charter Nite Celebrations held at YMVA Hall, Rajahmundry on 29th April, 1984.



Lions Club Godavari felicitating Dr. N. C. Gopalachari



Sri A. V. H. Prasada Rao, Asst. Administrative Officer & Sr. Administrative Officer I/c. has been adjudged as the 'Best Administrative Worker' for the year 1983 and was awarded the Rolling Cup donated by Sri J. Surayanarayana, Ex. Administrative Officer of CTRI Rajahmundry.



Sri R. Brahmanandam

Sri R. Brahmanandam, T-1 -3, CTRI Rajahmundry has obtained B.Sc., degree with Chemistry main, Botany and Zoology as ancillaries by the Andhra University, Waltair.

Sri R.N. Sharma, Technician, CTRI Research Station, Pusa has got B.Sc. Degree from L.N. Mithila University, Darbhanga.

Sri R.K. Jha, Stenographer Gr. II CTRI Research-station Pusa got B.Lib. Sc. Degree from Sanskrit University, Darbhanga.

#### Recreation Club :

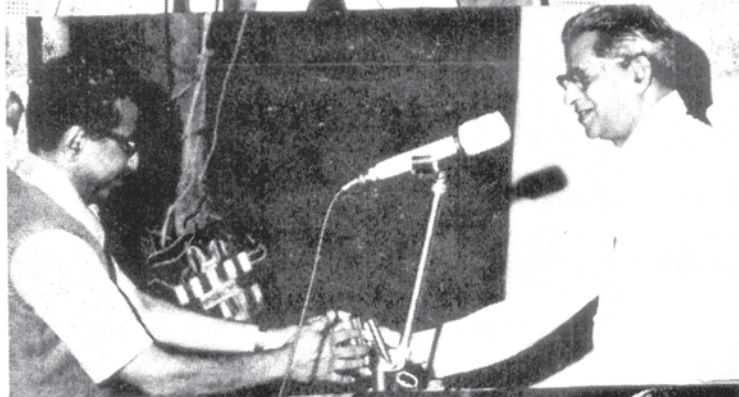
The Anniversary Day of the Hunsur Stations' Recreation Club was celebrated on 24th April, 1984. Sri H. Shashidar, Assistant Commissioner, Hunsur presided over the function and Dr. N.C. Gopalachari, Director, Central Tobacco Research Institute, Rajahmundry was the Chief Guest and gave away prizes to the winners in the games events organised. Dr. B.V. Ramakrishnayya, Ex. Officio President of the club welcomed the gathering. Sri Singaroy, Secretary presented the annual report and Sri K. Devappa, Vice-President proposed the vote of thanks.

Photos of Recreation club function of  
CTRI Res. Stn. Hunsur

Dr. N. C. Gopalachari delivering his address as  
Chief Guest →



Distribution of Prizes by the Director of Tobacco  
Research →



A scene from the Kannada play-let 'Hennige  
ondu gandu →



## APPOINTMENTS AND PROMOTIONS

### Appointments :

Sri M. S. N. Acharyulu, S. S. Gr. I has been appointed to the post of Jr. Clerk at C. T. R. I., Rajahmundry with effect from 5th May, 1984.

Sri K. V. V. Satyanarayana has been appointed to the post of Stenographer Gr. II at C. T. R. I., Rajahmundry with effect from 7th May, 1984.

Sri K. V. S. Satyanarayana has been appointed to the post of Jr. Clerk at C. T. R. I., Rajahmundry with effect from 10th May, 1984.

Sri M. B. Gururaja, S. S. Gr. I of CTRI Research Station, Hunsur has been appointed to the post of Jr. Clerk with effect from 10th May, 1984 at CTRI Research Station, Hunsur.

Sri Y. Satyanarayana has been appointed to the post of Jr. Clerk at C. T. R. I., Rajahmundry with effect from 11th May, 1984.

Kum. M. H. Uma has been appointed to the post of Jr. Clerk at C. T. R. I., Rajahmundry with effect from 16th May, 1984.

Smt. V. V. Lakshmi Kumari, Tech.T-4 (Home Science) has been appointed to the post of Tech. T-6 (Home Science) under KVK of CTRI, Rajahmundry with effect from 17th May, 1984.

Smt. B. Swarna Kumari has been appointed to the post of Junior Clerk at C. T. R. I., Rajahmundry with effect from 18th May, 1984.

Sri Ch. Srinivasarao has been appointed to the post of Jr. Clerk under KVK of CTRI, Rajahmundry with effect from 26th May, 1984.

Kum. D. V. L. Satyavathi has been appointed to the post of Technician T-II-3 at C.T. R. I., Rajahmundry with effect from 1st June, 1984 under compassionate grounds.

Sri M. C. M. Reddy, Technician T-5 has been appointed to the post of Tech. T-6 (Jr. Technical Officer) at C. T. R. I., Rajahmundry with effect from 30th June, 1984.

Sri S. Ramesh, T-II-3, CTRI Research Station, Hunsur has been appointed as T-5 (Asst. Farm Superintendent) at CTRI Research Station, Hunsur with effect from 25th May, 1984.

### Promotions :

Sri M. Bangarayya, Scientist S-2 promoted as Scientist S-3 with effect from 1st January, 1983.

Sri A.B. Sastri, Scientist S-2 promoted as Scientist S-3 with effect from 1st January, 1983.

Sri S.S.L. Dwivedi, Scientist S-1 promoted as Scientist S-2 with effect from 1st July, 1982.

Dr. S.N. Tripathi, Scientist S-1 promoted as Scientist S-2 with effect from 1st July, 1982.

Sri K. Devappa, Scientist S-1 promoted as Scientist S-2 with effect from 1st July, 1981.

Sri R.S.N. Rao, Scientist S-1 promoted as Scientist S-2 with effect from 1st July 1982.

Sri G. Ramaprasad, Scientist S-1 promoted as Scientist S-2 with effect from 1st July, 1983.

Dr. V. Krishnamurty, Scientist S-1 promoted as Scientist S-2 with effect from 1st July, 1983.

Dr. R.V. Srinivasarao, Scientist S-1 promoted as Scientist S-2 with effect from 1st January, 1983.

Dr. C. Venkata Rao, Scientist S-1 promoted as Scientist S-2 with effect from 1st July, 1982.

Sri J.S.L. Moses, Scientist S-1 promoted as Scientist S-2 with effect from 1st July, 1982.

Sri A.I. Narayanan, Scientist S-1 promoted as Scientist S-2 with effect from 1st July, 1982.

Dr. S. Veerabhadra Rao, Scientist S-1 promoted as Scientist S-2 with effect from 1st July, 1983.

Sri R. V. K. Thampuran, Scientist S-1 promoted as Scientist S-2 with effect from 1st July, 1982.

Sri T. Venkateswarulu S-1 promoted as Scientist S-2 with effect from 1st July, 1983.

Sri M. Umamaheswara Rao, Scientist S-1 promoted as Scientist S-2 with effect from 1st July, 1982.

Sri V. Soundararajan, Tech. T-4 promoted as Tech. T-5 with effect from 1st January, 1983.

Sri A. Hanumantha Rao, Tech. T-4 promoted as Tech. T-5 with effect from 1st January, 1983.

Sri B. V. V. Satyanarayana Murty, Tech. T-II-3 promoted as Tech. T-4 with effect from 1st January, 1983.

Sri K.P.S.N. Murthy, Tech. T-II-3 promoted as Tech. T-4 with effect from 1st July, 1983.

Sri I.B. Ramamohana Rao, Tech. T-II-3 promoted as Tech. T-4 with effect from 1st July, 1983.

Sri D. Prabhakara Babu, Tech. T-II-3 promoted as Tech. T-4 with effect from 1st July, 1983.

Smt. V. Mahalakshmi, Tech. T-II-3 promoted as Tech. T-4 with effect from 1st July, 1983.

Sri Ahibaran Singh Bhaskar, Tech. T-II 3 promoted as Tech. T-4 with effect from 1st July, 1983.

Sri M. Narasimha Rao, Tech. T-2 promoted as Tech. T-I-3 with effect from 1st January, 1983.

Sri G.V. Raghavaiah, Tech. T-2 promoted as Tech. T-I-3 with effect from 1st January, 1983.

Sri M. Durgaiah, Tech. T-2 promoted as Tech. T-I-3 with effect from 1st January, 1983.

Sri Md. Abbas, Tech. T-2 promoted as Tech. T-I-3 with effect from 1st January, 1983.

Sri G.V. Rama Sastry, Tech. T-2 promoted as Tech. T-I-3 with effect from 1st January, 1983.

Sri M. Veerraju, Tech. T-2 promoted as Tech. T-I-3 with effect from 1st January, 1983.

Sri M Prabhakara Rao, Tech. T-2 promoted as Tech. T-I-3 with effect from 1st January, 1983.



Sri A. Sivaramakrishna, Tech. T-2 promoted as Tech. T-1-3 with effect from 1st January, 1983.

Sri Shankar Mazundar, Tech. T-1 promoted as Tech. T-2 with effect from 1st January, 1983.

Sri G. Jesuratnam, Tech. T-1 promoted as Tech. T-2 with effect from 1st July, 1983.

Sri Nalam Narasimha Murthy, Tech. T-1 promoted as T-2 with effect from 1st January, 1983.

Sri P. Anjaneyulu, Tech. T-1 promoted as Tech. T-2 with effect from 1st January, 1983.

Sri R. Suryanarayana Murty, Tech. T-1 promoted as Tech. T-2 with effect from 1st July, 1983.

Sri K. Muthusamy, Tech. T-1 promoted as Tech. T-2 with effect from 1st July, 1983.

## RETIREMENTS

Sri S. Lakshmanan, S.S. Gr. II, CTRI, Rajahmundry retired from Council's service with effect from 30th April, 1984.

Sri K.M. Gounder, CTRI Research Station, Veda sandur retired from Council's service with effect from 30th April, 1984.

Sri H. N. Ranga Rao, Asst., CTRI Research Station, Hunsur retired voluntarily from Council's service with effect from 31st May, 1984.

Sri M. Durgaiah, Tech. T-II-3 (Driver), CTRI, Rajahmundry retired from Council's service with effect from 30th June, 84.

## RESIGNATIONS

Kum. M. Subrahmanyeswari, Jr. Clerk. CTRI Rajahmundry resigned from Council's service with effect from 4th April, 1984.

Sri K. V. Lakshminarayana, Jr. Clerk of CTRI, Rajahmundry resigned from Council's service with effect from 23rd April, 1984.

Sri P. Subba Rao, Jr. Clerk, of CTRI, Rajahmundry resigned from Council's service with effect from 8th June, 1984.

## PAPERS PUBLISHED

Heterosis and combining ability studies in inter varietal crosses of flue-cured tobacco (*Nicotiana tabacum* L.). Sastri, A. B.; Rao, R. V. S.; Subrahmanyam, M. and Prasadarao, P. V. Tob. News 7 (2) : 7-12, 198'.

Effect of granular systemic insecticides on the chemical composition of FCV tobacco at different stages of plant growth.

Prasadarao, J.A.V.; Hanumantharao, A.; Subbarao, D. and Ramprasad, G.

Pestology 8 (3) : 12-14, March, 1984.

Diseases and control of nurseries of tobacco Ramjilal, and Nagarajan, K.

Bharateeya Tambaku 12 (4) : 4-10, Jan.-Mar. 1983.

Field observations on impact of egg parasite *Telenomus remus* (Hym : Scelionidae) on tobacco caterpillar. *Spodoptera litura* (Lepidoptera S. Noctuidae) in tobacco nurseries in Andhra Pradesh, India.

Joshi, B. G.; Sitaramaiah, S. and Ramprasad, G. Entomophaga 27 (3) : 331-4, 1982.

Curing virginia tobacco with solar energy and briquet-  
ter as fuel sources.

Gopalachari. N. C. ; Nageswararao, B. and Sitarama-  
chari, T.

Tob. News 6 (3) : 5-7, Oct-Dec. 1983.

Can smoking be made less hazardous.

Srivastava, R. P.

Tob. News 7 (1) : 4-5, 1984.

Quality characteristics of Indian Cigar Wrapper on  
the basis of physicochemical properties. (In Hindi)

Srivastava, R.P. and Subbarao, D.

Bharateeya Tambaku 13 (1) : 5-18, April-June, 1983.

#### Publication :

Tobacco Literature-A bibliography of publications in  
the Library of CTRI, Rajahmundry.

Suryanarayana, Y.V. (Comp.)

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