



ICAR-CTRI

News



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From the Director's Desk



Indian FCV Tobacco and ICT Applications

The whole process of FCV tobacco production, post-harvest processing and marketing is organized and regulated by the Tobacco Board that possesses information about registered FCV tobacco growers. The ICAR-Central Tobacco Research Institute, on the other hand, has been playing a very crucial role in development of FCV tobacco segment by providing research backup. Besides improved varieties, the FCV production and post-production practices being followed by the farmers are the result of concerted research efforts made over the years by ICAR-CTRI. The Information and Communication Technologies (ICTs) are essential for rapid communication, creation, storage, dissemination and management of information and its applications electronically. The ICTs play an important role particularly in FCV tobacco farming as it is fully organized with database of information about who grows, and where, and about marketing/auctioning of leaf produce.

The ICTs enable transmission of accurate information at right time and right place for improving the FCV tobacco production efficiency and produce quality and thereby augmenting farmers' income. The FCV tobacco growers, mostly with small and marginal farm holdings, are often constrained with poor access to information about new and improved crop varieties, innovative technologies, scientific know-how, input availability and quality, weather conditions and market intelligence. Knowledge and technology gaps and the resultant yield gaps can be effectively and meaningfully addressed with the aid of ICTs. The ICAR-CTRI developed ICTs such as mobile apps, decision support systems, e-portals, expert systems and Whatsapp groups have proven to be effective in terms of disseminating precise, reliable, timely and updated information to the tobacco farmers and contributing to knowledge-rich FCV tobacco farming for enhanced farm income. Presently, the ICTs enabled information flow covers new crop varieties and their suitability including special traits, fertilizer prescriptions, innovative production and protection technologies/practices, post-harvest processing interventions, weather based in-season advisories, pest and disease management advisories etc. The e-auction system of cured leaf marketing, introduced by Tobacco Board, has already become a huge success in the recent past.

There still exists a vast scope for development and application of ICTs in FCV tobacco farming. Some of the important ICTs interventions needing priority attention include: (i) Creating and operationalizing a 'Tobacco Seed Portal' for efficient, transparent and seamless supply of seed to all registered FCV tobacco growers, (ii) e-advisory portal and information kiosks, (iii) Market intelligence and dissemination and (iv) Creating and using scannable barcoding feature in TBGR books for retrieving particulars of registered growers.


(D. DAMODAR REDDY)

RESEARCH HIGHLIGHTS

Cultivar Improvement

- Distinguiveness, uniformity and stability (DUS) guidelines developed by ICAR-CTRI for registration of FCV and *bidi* varieties have been reviewed by Protection of Plant Varieties and Farmers Rights Authority, New Delhi and published in Plant Variety Journal of India (Vol 16, No.5).
- A total number of 3386 tobacco germplasm accessions were maintained.
- National Identify Number was obtained for the burley cultivar, YB-22 (IC642489).

Natural Resource Management

- Tobacco based integrated farming system model was developed in one ha for enhancing total system productivity and net income of the farmers in Vertisols of AP.
- In sandy soils, mulching improved the castor yields by 43% alongwith saving of 38.4% irrigation water.
- Among four varieties of turmeric evaluated, Prathibha recorded higher turmeric yield followed by Duggirala red, Acc-48 and Rajendra Sonali in light textured soils.
- Turmeric (variety: Selam) crop was demonstrated as an alternative to tobacco at CTRI RS, Guntur.
- Application of calcium nitrate fertilizer as a starter dose at 25 kg/ha effectively improved the crop establishment, growth and yield/quality of FCV tobacco in KLS.
- Addition of 10% solution of palmyrah jaggery with 5% solution of different astringent tasterers viz. coconut mesocarp or banana peduncle or banana pseudostem improved the quality of chewing tobacco.
- Fixing of polycarbonate roof chamber on conventional curing barn at CTRI Research station, Jeelugumili reduced the wood consumption to an extent of 25%.
- Solar augmented tobacco curing facility created at CTRI, Rajahmundry reduced the curing time in burley tobacco through the utilisation of solar energy. Tying leaves with rubber bands reduced the labour and drudgery in burley tobacco curing compared to convention threading.

- The existing multipurpose crop thresher was customized for processing of tobacco seed.

Crop Protection

- Seven lakh marigold seedlings were supplied to FCV tobacco farmers in Southern light soils of Andhra Pradesh to act as a trap crop for reducing the pest infestation.
- Application of Fluopyrum 400SC @ 0.05% was found promising against root knot nematodes in FCV tobacco nurseries in KLS.

Agricultural Extension and ICT

- Trend analysis indicated that castor production is concentrated in a few geographical pockets of the country and India enjoys virtual monopoly in world castor production.
- A workshop was organised in FCV tobacco growing areas of Karnataka in collaboration with Tobacco Board, Ministry of commerce, Govt. of India on 07.06.2022 on Good Agricultural Practices for improving the yield and quality of FCV tobacco.
- A bilingual (English and Telugu) android based static mobile app on 'Good Agricultural Practices of FCV tobacco' was developed and hosted on Google Play Store. This free app was currently downloaded by more than 1000 users.

All India Net Work Project on Tobacco

- A total number of 129 entries were tested in multilocation trials and superior lines identified for further evaluation.
- Technology outreach activities viz., 14 Front Line Demonstrations and 20 training Programmes were conducted for technology dissemination to stakeholders.

RAC MEETING

The Research Advisory Committee meeting of ICAR-CTRI was held on 10-11 May, 2022 under the Chairmanship of Dr. H.S. Gupta, Former Director, IARI, New Delhi. The committee thoroughly reviewed and given directions for improvement of the research programmes of the institute.



Functional Industry-Institutional Linkages

- ICAR-CTRI is collaborating with M/s Gujarat Boron Derivatives PVT Ltd., Baroda, Gujarat for evaluation of boron fortified potassium scheonite for FCV tobacco grown in Karnataka and Andhra Pradesh.
- ICAR-CTRI is partnering with Tobacco Board for development of protocols, comprehensive analysis of cost of cultivation of FCV tobacco in different soil regions of Andhra Pradesh and evaluation of bio-consortia for nutrient supplementation, nematode/ disease control for enhancing productivity and quality of FCV tobacco in KLS region.
- ICAR-CTRI signed MoU with Adikavi Nannaya University, Rajahmundry, Andhra Pradesh for facilitating post graduate research programmes.

Infrastructure Developed

- Administrative building of Krishi Vigyan Kendra, Kandukur, Prakasam Dist. was completed and inaugurated virtually by Shri Narendra Singh Tomar, Hon'ble Union Minister of Agriculture and Farmers Welfare on 09.06.2022.



- Multi-Purpose Farmers Pavilion was constructed at ICAR-CTRI, Rajahmundry and ICAR-CTRI RS, Vendasandur for conducting the technology outreach activities.
- Established drought screening facility at Kandukur.

SC SUB-PLAN

ICAR-CTRI implemented the SCSP programme at Rajahmundry, its six research stations and also at KVKs with an outlay of around Rs. 85 lakhs. Facilities were created for value addition, data base management, capacity building and technology outreach activities. Different programmes covering Integrated pest management, post-harvest value addition, supply of seed and planting material, demonstrations, capacity building, awareness programmes, and animal husbandry were implemented. Critical inputs like improved high yielding variety seeds (tobacco, turmeric, maize, bengal gram and biofortified korra seed, castor hybrid, coriander and ground nut), planting

material (arecanut and marigold seedlings), irrigation pipes, poly trays for nursery, sprayers, taurpaulins, cattle feed, millet nutri kits were supplied. A total number of 4270 farm families were benefited through the sub-plan.



TRIBAL SUB-PLAN

ICAR-CTRI Implemented Tribal Sub-plan at CTRI RS, Jeelugumilli, CTRI RS, Dinahra, CTRI RS, Vedasandur and CTRI RS, Hunsur with a total financial outlay

of Rs.18 lakhs. Capacity building programmes including awareness programmes, trainings and exposure visits were organized. Critical inputs such as seed, taurpalins, battery operated sprayers, cattle feed, polytrays and shade net were supplied to farmers. A total number of 1235 farmers covered under this plan.

NEH PROGRAMME

ICAR-CTRI implemented the NEH Programme in collaboration with ICAR Research Complex, Umiam at KVK, Tura, West Garo hills, Meghalaya. Under the programme, the KVK was strengthened by procuring equipment for value addition, capacity building, digitization and ICT.

Celebrations of India @ 75 Azadi Ka Amrit Mahotsav

Various events and special lectures were organised as part of Azadi Ka Amrit Mahotsav as detailed below:

(i) Events

- "International Women's Day" was celebrated at ICAR-CTRI, Rajahmundry on 08.03.2022.



- Under Kisan Bhagidari Prathamika Hamari Campaign, ICAR-CTRI, Rajahmundry, conducted "Kisan Mela" at its two KVKs on 26.04.2022.
- An Awareness programme was organised on "Crop Diversification for Enhanced and Sustainable Farm Returns" at ICAR-CTRI Research Station, Jeelugumilli, Andhra Pradesh on 28.04.2022.
- ICAR-CTRI celebrated "World Pulses Day" at ICAR-CTRI, Rajahmundry on 10.02.2022.
- "FLD on GBG-1 pulse variety" was conducted in 10 locations at Gadarada village of Korukonda Mandal, East Godavari Dist., Andhra Pradesh.

- "Nationwide Interaction programme of Prime Minister with farmers and other scheme beneficiaries" was organised on 31.05.2022 at Rajahmundry and CTRI RS, Kandukur. Shri Rajeev Chandrasekhar, Hon'ble Minister of State for Skill Development and Entrepreneurship & Minister of State for Electronics and Information Technology, GoI, New Delhi presided the function at Rajahmundry. Local MP and MLAs participated in the programme. A total number of 3,100 farmers and beneficiaries were participated in the programme.



- Conducted an Awareness programme on "Crop Intensification and Diversification for enhancing the farmers income in the rainfed ecosystem" at ICAR-CTRI RS, Kandukur on 31.05.2022.
- Further, "International Day of Yoga (IDY)", Farmers' Awareness Campaign on 'Efficient and Balanced Use of Fertilizers (including Nano-Fertilizers) and Awareness on region

specific agro-forestry were conducted by ICAR-CTRI on 21.06.2022.



(ii) Lecture Series

The following three special lectures were organised.

- "Indian Agriculture: Transformation from Subsistence to Commercial farming" by Dr. G.R. Chintala, Chairman, NABARD, Mumbai on 27.01.2022.
- "Soil Ecological Stewardship - Soil Health and Microbial Inoculants" by Dr. D.L.N. Rao, ICAR-Emeritus scientist (Retd.), EX-Project Coordinator-AINP(SB-B), IISS, Bhopal, MP on 23.04.2022.
- "Processing and Value Addition in High Value Commercial Crops: Research Priorities" by Dr. Ch.V.V. Satya Narayana, Professor and Head, Food Process Engineering, Dr. NTR College of Food Science and Technologies, ANGRAU, Bapatla on 27.05.2022.

KRISHI VIGYAN KENDRAS

KVK, Kalavacharla

- As a part of 'Azadi Ka Amrit Mahotsav', a Kisan Goshti on Farmer Producer Organisations was conducted in collaboration with ATMA-East Godavari at KVK, Kalavacharla on 03.02.2022.



- Scientific Advisory Committee Meeting was conducted on 26.02.2022 at ICAR-CTRI under the Chairmanship of Dr. D. Damodar Reddy, Director, ICAR-CTRI. The committee reviewed the work done for the period 2021-22 and finalized the action plan for 2022-23.



- District level seminar on Cashew was organized in collaboration with DCCD, Cochin on 11.03.2022. A total number of 125 farmers participated in the programme. Two farmers were felicitated as 'Best Farmer' for their contributions in innovative methods in cashew cultivation.



- Kisan Mela on Natural Farming was organized at KVK campus in collaboration with ATMA, East Godavari on 26.04.2022. Organically grown vegetables were displayed by the farmers and products related to natural farming by representatives of IFFCO and other agri-based firms. The live telecast and address of

Shri Narendra Singh Thomar, Union Minister for Agriculture and Farmers' Welfare on Importance of Natural Farming was arranged for the benefit of farmers and farm women. KVK felicitated two 'Best Farmers' for their contribution in Natural farming. Also, seedlings of cashew, dragon fruit and vegetables were distributed to farmers.



- National Campaign on 'Efficient and Balanced Use of Fertilizers (including Nano Fertilizers)' was organized by KVK on 21.06.2022. A total number of 89 farmers participated in the meeting.



- As an identified CBBO, KVK, Kalavacharla facilitated the registration of two FPOs. The FPOs registered are 'Shreshta Green Farms' with a group of 386 farmers at Karapa village and 'Mythri Raithu Utpathidarula Paraspasa Sahayaka Sahakara Sangham' with 414 farmers at Panduru village. Both the FPOs were launched through a workshop on 27.06.2022 at KVK, Kalavacharla.



KVK, Kandukur

- The KVK, Kandukur has organised 12 on-farm testing of technologies, 10 front line demonstrations and 25 capacity building programmes.

AWARDS

- Dr. D. Damodar Reddy, Director, ICAR-CTRI was inducted as Fellow of National Academy of Agricultural Sciences, New Delhi on 05.06.2022.



- Dr. B. Hema, Scientist has been conferred with Young Scientist Award-2022 by Society for Community Mobilization for Sustainable Development, New Delhi on 28.05.2022.



- Dr. T. Kiran Kumar, Scientist (Agronomy) and Mrs. B. Sailaja Jayasekharan, Scientist (Entomology) were conferred with



'Young Scientist Awards-2022' by Society of Agriculture Research and Social Development, New Delhi on 05.06.2022.

PERSONALIA

Retirements

Following nine employees of the Institute retired from the Council's service on attaining the age of superannuation during January-June, 2022.

SN	Name	Date
1	V.V.P.L. Acharyulu	31.01.2022
2	P.V.V.S. Siva Rao	31.03.2022
3	P. Kotababu	30.04.2022
4	Md.Mohammed Ali	30.04.2022
5	C.V. Krishna Reddy	31.05.2022
6	P. Nagesh	31.05.2022
7	G. Ramakrishna Raju	31.05.2022
8	C. Mahadeva	30.06.2022
9	Mannem Vijayamma	30.06.2022