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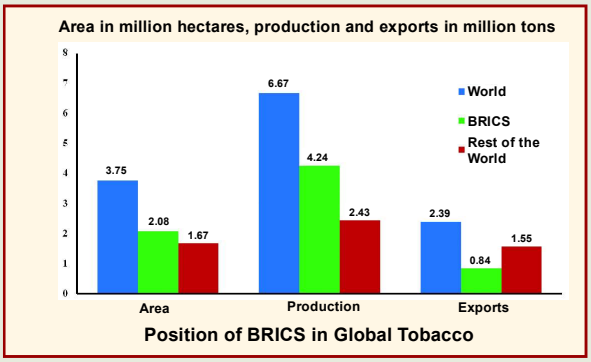
From the Director's Desk



World Tobacco Scenario and Dominance of BRICS Countries

Tobacco, an important commercial crop grown in more than 120 countries across the world, is valued for its high potential to generate farm income and employment providing direct and indirect livelihoods to many in farm sector. At present, the tobacco is cultivated in an area of 3.76 million ha in the world with annual production of 6.66 m t. Tobacco continues to play a significant role in fast emerging economies, notwithstanding the growing negative public perception stemming from health risks associated with its consumption. The past two decades witnessed several anti-tobacco campaigns across the world and emergence in 2005 of the first global health treaty called Framework Convention on Tobacco Control (FCTC) with more than 180 parties under the aegis of WHO, which intend to curb both demand and supply of tobacco. However, the global tobacco sector at present is surrounded by conflicting interests and concerns relating to the livelihood security of people associated with tobacco production, processing and marketing on one hand and the health risks for those consuming tobacco on the other. In order to address the uncertainty and draw a clear roadmap for tobacco sector, it is important to frame and effectively implement a pragmatic and stakeholder-friendly balanced policy, particularly in individual countries/group of countries that account for significant share in global tobacco production, trade and consumption.

Association of five fast growing economies namely Brazil, Russia, India, China and South Africa (BRICS) is of great significance geo-strategically and economically, and strives for political coordination and multi-sectoral economic cooperation among its member countries. Accounting for about 41% of global population, more than 25% of world's land and about 32% of world's GDP-PPP, the BRICS nations can have significant influence at regional and international level and contribute to shaping of future policies in several sectors including agriculture. The BRICS countries have complete dominance in global tobacco landscape. They account for more than half of global tobacco area, produce about two-third of total production and contribute to one-third of world tobacco exports. Significance of BRICS in tobacco sector is further evident from the fact that 3 of top 5 tobacco producers (China, India and Brazil), 2 of top 5 tobacco consumers (China and Russia), 3 of top 5 tobacco exporters (Brazil, India and China) in the world are in BRICS grouping.



Position of BRICS in Global Tobacco

Given such dominant position, the BRICS nations can play a key role in breaking uncertainty prevailing in the tobacco sector. It is important for the BRICS, rather than whole world, to develop a long-term tobacco policy framework shaping future course of global tobacco sector. Success in this direction surely depends on commitment for cooperative action by BRICS nations.

(D. DAMODAR REDDY)

RESEARCH HIGHLIGHTS

Tobacco Cultivar Improvement

- Black soil region of A.P.: FCV entries, FCR-17 and FCR-3 were found superior in bulk trial with 10% and 15 % increase in cured leaf yield, respectively, over check Siri.
- Karnataka Light Soils (KLS): FCV hybrid KLSH-10 performed better in the bulk trial with higher cured leaf yield than the checks, Kanchan, FCH-222 and CH-3.
- Irrigated Natu Tobacco: The entries NF_7- 8 and NF_7-1 were found superior with higher cured leaf yield, improved quality (Melimi and Gulla) over check, Kommugudem.
- A total quantity of 5,633 kg truthfully labelled seed of different varieties was supplied to farmers through CTRI, Rajahmundry and its Research stations to meet seed requirement in Andhra Pradesh, Karnataka, Tamilnadu and West Bengal.

Agro-technologies

- Growing tobacco after sesamum with application of neem cake @10g/plant at 30 DAP proved promising for curtailing *Orobanche* infestation in tobacco grown on irrigated Alfisols.
- Drought management practices involving supply of starter dose of N through application of calcium nitrate at planting coupled with foliar nutrition of N and K at 45 and 60 DAT proved effective in maximizing the cured leaf productivity and bright grade production in dry regions of KLS.
- In Motihari tobacco, balanced fertilizer regime consisting of N, P and K (112 kg N + 112 kg P_2O_5 + 112 kg K_2O /ha) maintained significantly higher productivity in terms of green leaf yield, cured leaf yield and first grade leaf yield as compared to imbalanced fertilizer use.
- Tobacco Agridaksh was developed to provide global accessing on two important modules :(i) identification of weeds and their control, and (ii) identification of nutrient deficiencies in tobacco and their management strategies.

Tobacco for alternative uses

- The Selection F6 -2-2 (A.145 x Bhagyalakhsmi) record seed yield of 1600 kg/ha thereby making it suitable for tobacco seed oil purpose.
- Bio-equivalence study indicated that tobacco seed oil has a similar type of properties that match with characteristics of other edible oils. Hence, tobacco seed oil has the potential to be an edible oil.

Resource Management for tobacco productivity and quality

- The Multiple linear regression models were developed for non-destructive estimation of quality parameters of FCV tobacco using Hyper Spectral Reflectance.
- A polycarbonate chamber on roof-top of tobacco curing barn was designed to make use of solar energy through 'green house effect'. This intervention supplemented the energy and saved 29% fuel wood.
- Higher yields were recorded with dense planting (40,000 plants/ ha) compared to normal planting (23,670 plants/ha) under moisture stress conditions in Southern Light Soils of A.P.

Integrated Management for Biotic stresses

- Tray seedlings treated with chlorantraniliprole 25 SC @ 0.0075 % a day before planting was found effective for management of ground beetle in FCV tobacco.
- Integration of barrier crop and three sprays of selective insecticides viz., flonicamid 50 WG @ 0.02%, pymetrozine 50 WG @ 0.02% and imidacloprid at 10, 25 & 40 DAP protects FCV tobacco from leaf curl.
- Validation of management modules for sucking pests in FCV tobacco showed that chemical control module consisting of four sprays of insecticides at 10, 25, 40 and 55 recorded least sucking pest population and incidence of viral diseases followed by IPM module consisting of two rows of sorghum as border crop + Application of 2 % NSKS @ 10 and 35 DAP, foliar spray with pymetrozine 50 WG @ 0.02% at 20 DAP and flonicamid 50 WG @ 0.02% at 45 DAP.
- Hi tech sprayer with nozzle discharge rate of 550 ml/min was superior over 650 to 1200 ml/min discharge rate,with 40 PSI, 3.6-4 kmph operator speed and 50 cm above crop canopy in providing uniform coverage and effective management of insect pest infestation.

IRC MEETING

The Institute Research Committee (IRC) Meetings of ICAR-Central Tobacco Research Institute were held during 9-11 August, 2017 at Rajahmundry. The progress of research work carried out during the previous year was reviewed and the technical programme for the crop season 2017-18 were finalized during the deliberations. A stakeholders interaction session was also held on the sidelines of IRC to identify researchable issues.



TRANSFER OF TECHNOLOGY

Training programmes conducted

- Training programme on 'Agro-chemicals Management in Burley Tobacco Production' for Managers and Field technicians of M/s. Godfrey Phillips India Ltd., Guntur was conducted from 5-7 October 2017 at ICAR-CTRI, Rajahmundry. A total of 30 trainees from Godfrey Phillips India Limited attended the training programme.
- A training programme was organized on FCV tobacco harvesting, curing and grading at model village Ramannagudem under Jangareddygudem-I auction platform on 20-12-2017. About 50 farmers, CTRI scientists, Tobacco Board officials and Officers from M/s ITC, GPI and PSS participated in the training programme.
- A one day workshop was organized at CTRI RS Hunsur on 1.9.2017 on Good Agricultural Practices and Post-harvest Product Management. Director (Auctions), Regional Managers and Auction Superintends of Tobacco Board and 80-100 growers from Periyapatna zone of KLS region participated in the meeting and discussed the strategies to enhance the productivity.
- A farmer's meet was conducted at Kethaiyurumbu village, Tamil Nadu on 09.11.2017 and sensitized the famers about new crop production technologies. About 50 farmers attended the meeting.

Field Friends Programmes

- Field friends' programmes were conducted in collaboration with Tobacco Board and Trade in December 2017 in the Auction Platforms of NLS, CBS, SBS and SLS. The farmers were suggested to follow the recommended cultural practices in raising the tobacco crop.

Diagnostic visit to SLS and SBS areas

Scientists of CTRI along with officials of Tobacco Board and trade visited the farmers fields in Prakasam and Nellore districts (Ongole-I & II, Vellampalli, Tangutur-I & II, Kandukur-I & II, Kondepi, Podili, DC Palli and Kanigiri Auction Platforms) during 27-29 December, 2017 and suggested immediate remedial measures to improve the crop condition.

Field Visit

- Officials of CTRI RS, Vedasandur visited the standing crops of Annual Moringa and Onion in farmers fields of Kethaiyurumbu and Thirumanikkapuram villages on 07.07..2017 and tobacco nursery growing areas in Kosavapatty village on 06.10.2017. Necessary advisories suggested.

Tobacco Scientist - Farmer - Board - Trade interface meeting

- Tobacco Scientist - Farmer - Board - Trade interface meeting was held on 09.08.2017 at ICAR-CTRI, Rajahmundry. The scientists of ICAR-CTRI, Managers of Tobacco Board, tobacco industry and farmers representatives participated in the meeting. Key issues were identified for undertaking research.
- Six scientists of 106 FOCARS Batch from ICAR-NAARM, Hyderabad visited ICAR-CTRI Research Station, Vedasandur on 17.08.2017 and were explained about the ongoing research activities of the station.

FOREIGN VISITS

- Dr. D. Damodar Reddy, Director, ICAR-CTRI, Rajahmundry participated in the "Regional Annual Meeting of the WHO Framework Convention on Tobacco Control (WHO FCTC) held at Tunis, Tunisia during 6-7th December, 2017.
- Dr. K. Suman Kalyani, Principal Scientist attended the "Study Mission to a Non-member Country on Enhancing Access for Agrifood Products" held at Munich and Cologne, Germany during 9-14 October, 2017.

VISITORS

CTRI RS, Hunsur: Mr. Chhabilendra Roul, Additional Secretary, DARE & Secretary, ICAR, Krishi Bhavan, New Delhi visited Sollepura farm on 25.08.2017.



AWARDS

Dr. D. Damodar Reddy, Director, ICAR-CTRI; Dr. K. Sarala, Head, Division of Crop Improvement; Dr. U. Sreedhar, Head, Division of Crop Protection; Dr. K. Suman Kalyani, Principal Scientist; Dr. K. Prabhakara Rao, Scientist; Dr. K. Baghyalakshmi, Scientist and Dr. B. Hema, Scientist have been honoured with prestigious awards/ recognitions for their outstanding contribution in Science and Technology.

AINPT WORKSHOP

XXIII Tobacco Workshop of All India Network Project on Tobacco was held during 23-24 October, 2017 at RARS (ANGRAU), Nandyal, Andhra Pradesh. The progress of ongoing research programmes during the biennium of 2015-17 was reviewed and new research experiments/ projects to be taken up at different centres during 2017-18 were finalized.



CELEBRATIONS

Swachh Bharat Abhiyan

- As a part of the Swachh Bharat Campaign, the institute organized several programmes at its headquarters and Research Stations. With the central theme of 'Safai Ke Saath Kamaayi', the cleaning exercise carriedout in old CTRI premises has led to generation of handsome income of Rs. 4.4 lakhs, without incurring any expenditure.
- Swachh Bharat Pakhwada was celebrated at ICAR -CTRI from 17-09-2017 to 1-10-2017 and taken up activities for cleaning the surroundings of institute, labs, farms and tourist spots.



Sankalp Se Siddhi

- In response to the Hon'ble Prime Minister Sri Narendra Modiji's clarion call for New India Movement (2017-2022), the 'Sankalp Se Siddhi' programme was organized at CTRI – KVK, Kandukur on 30.08.2017. On this occasion, pledge for New India and for doubling the farmers' income by 2022 was administered by Director, ICAR-CTRI, Rajahmundry.



Hindi week

- Hindi week was celebrated from 14-20 September, 2017 at ICAR-CTRI, Rajahmundry and its research stations. Staff of the Institute actively participated in various competitions conducted in this occassion.

Vigilance Awareness Week

- Vigilance Awareness Week was celebrated from 30th October to 4th November, 2017 at ICAR-CTRI, Rajahmundry. Staff adopted the integrity pledge and taken e-pledge on CVC website. A sensitisation programme on preventive vigilance conducted for staff (31.10.2017) and students (3.11.2017). Competitions conducted for staff (1.11.2017), Degree students (3.11.2017) and school children (3.11.2017) and prizes distributed to winners.



- Vigilance awareness programme was organised at Gadarada grampanchayat, E.G.Dt. in collaboration with KVK, Kalavacharla.

IJSC Meeting

- The 4th Meeting of the XIII ICAR-CTRI Institute Joint Staff Council was held on 30.11.2017.

Agricultural Education Day

- Agricultural Education Day was conducted on 3rd December 2017 at KVK, Kalavacharla, ICAR-CTRI, Rajahmundry.

KRISHI VIGYAN KENDRA

Training Programmes

CTRI-KVK has organised training programmes on Garment making (1.7.2017 to 31.07.2017), Backyard Poultry Management (19.10.2017 to 22.10.2017), Rejuvenation of mango and cashew orchards (23.11.2017 to 26.11.2017) and Protection of Plant Varieties & Farmer's Rights Act (28.12.2017). Also organised Internship Programme (25.11.2017 to 24.12.2017) for ANGRAU Students.

Mahila Kisan Diwas: CTRI-KVK has organized 'Mahila Kisan Diwas' on 15th October, 2017 at KVK, Kalavacharla. Farm women and KVK beneficiaries of participated in the programme. Farm women involved in agricultural and allied sectors viz., Smt. K. Srilakshmi, (Milky Mushroom Production); Smt.Akula Rajeswari (Garment making, Fibre Products, Compost making); Smt. Elizebeth Rani (Pickles, Toys and bags making); Smt.P.Suryavathi (Dairy and poultry), Smt. K.Dameswari (Soya milk products and Embroidery) were awarded with mementos as a token of encouragement and recognition.

Jai Kisan & Jai Vigyan Week: Organised during 23.12.2017 to 29.12.2017 by CTRI, Rajahmundry at KVK, Kalavacharla and Gadarda Village of Korukonda Mandal. Participating officials highlighted the importance of this programme to farmers and students.

Farmers visit Kalavacherla

Tribal farmers (30 nos.) from Pandirimamidi and Rampachoda-varam Mandal visited KVK on 13.07.2017 & 19.07.2017 and were exposed to palmyrah fibre extraction and making of decorative articles.

Farmers from Odisha State Department of Horticulture along with Assistant Horticultural Officer, Odisha visited KVK under National Horticultural Mission programme as exposure visit during 14.11.2017 to 16.11.2017. They interacted with Scientist & Head on various production technologies of Tapioca and other tuber crops.

PERSONALIA

Retirements

Following ten employees of the Institute retired from the Council's service on superannuation during the period.

S.No.	Name	Date
1.	Sri N. Gopinath	31.07.17
2.	Sri S. Rajeswara Rao	31.07.17
3.	Sri M. Muthu	31.07.17
4.	Sri B. Krishna Kumar	31.08.17
5.	Sri M. Rambabu	31.08.17
6.	Sri N. Kanakanandam	31.08.17
7.	Sri V. Madhava Rao	30.09.17
8.	Sri V.N. Acharyulu	31.10.17
9.	Sri P.V.V.R.S. Rao	31.10.17
10.	Sri I. Dharma Raju	30.11.17