



CITRUS NEWSLETTER



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From the Director's Desk.....



Dear Readers,

Mandarins (easy peeler citrus) constitute bulk of citrus exports from India. During 2002-03, 31,525 metric tonnes of citrus fruits worth 33.95 crore Indian rupees were exported, the bulk was sent to Kolkata from where it was sent to Bangladesh. Several successful attempts have been made to export citrus by reefer containers. Main constraints are stiff competition, non-availability of exportable quality fruit in required quantity over the period of time and non availability of seedless varieties. Recently, ICAR-CCRI has identified a promising variety

NRCC Nagpur mandarin seedless-4 and its planting material is being given to the growers. Due to low productivity, prices in domestic market are high and hence export is not so lucrative. During 2016-17, India exported 85,785 metric tonnes of citrus worth Indian rupees 223.37 crore while imported citrus fruits in the country were 56,783 metric tonnes worth Rs. 221.38 crore. Now a days, new and exotic type imported citrus fruits are available in big stores/super bazaars across the country. This indicates need to grow new varieties with attractive colour and taste and also marketing with required packaging and advertisement.

CITRUS SECTOR

Recently private sector has started showing great interest in citrus industry probably due to favourable conditions for private sector as outlined in the policies of the central government. Several corporate and small companies have shown interest in starting high – tech citrus nurseries and also in processing of fruit. These are welcome developments if citrus growers get good quality planting material through these nurseries. Moreover corporate companies like Jain Irrigation systems pvt. Ltd. (with subsidiary Jain Farm Fresh Foods Ltd.), Coca Cola India, Pepsico India holdings and Patanjali group have become very active and started showing interest in processing citrus fruits. Patanjali is new and late starter in this field but they have shown interest in starting nursery. The contract farming models are being adopted by them and in long run they will have to provide all inputs and technical knowledge and will have to buy the fruit thus making it win-win situation for growers and these companies. Mainly Coca Cola India and Pepsico India holdings group have contacted ICAR-CCRI for training of growers. Coca-Cola has plans of Orange Unnati project in Amravati district and with a circular economy model they are

planning contract farming. Already they have procured 1800 tonnes of Mosambi. Products with a brand of Minute Maid- like Minute Maid Pulpy Orange (santra), Minute Maid Pulpy Mosambi, Fanta Fruity Orange (santra) and Minute Maid Nimbu Fresh have been launched by Coca-Cola.

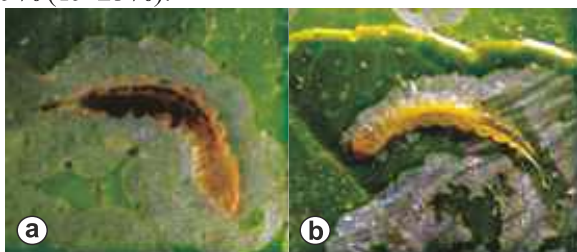
FROM THE INSTITUTE

Research Highlights

Insecticides resistance in Citrus leaf miner, *Phyllocnistis citrella* Stainton

Baseline toxicity data for commonly used insecticides (acephate, dimethoate, abamectin, fenvalerate, imidacloprid and thiamethoxam) against citrus leaf miner was studied during 2013-16 and LC_{50} values were worked out using leaf dip method to assess the resistance and susceptibility levels of the leaf miner populations in the selected locales. Citrus leaf miner population was collected from Nagpur, Amravati and Wardha districts during 2013-16 and at present the resistance levels are in low to moderate levels (maximum RR value of 4.59 and 4.29 for fenvalerate and imidacloprid in nursery population; 5.63 and 8.64 for dimethoate and imidacloprid for field collected population).

Further, the efficacy of the insecticides (acephate, dimethoate, abamectin, fenvalerate, imidacloprid and thiamethoxam) was evaluated during *Mrig* 2014 and 2016 in young Nagpur mandarin, *Mrig* 2015 in acid lime orchards against citrus leaf miner. Results showed that thiamethoxam 25WG @ 0.008 % (pooled mean data of upto 16-20% infestation levels only) was found to be the best in controlling the leaf miner infestation upto 15 days after spraying followed by imidacloprid 17.8SL @ 0.009% (19-23%).



Dead and live second instar Citrus leaf miner larvae in insecticide treated (a) and control (b).

Performance of New Sweet orange varieties at ICAR-CCRI

Central Citrus Research Institute (CCRI) is in the process of introducing and evaluating imported varieties of sweet orange in Vidarbha region. It is also trying to cultivate certain sweet orange varieties from Punjab in Vidarbha region of Maharashtra.

Most of the varieties tried here have yielded good results.

In another 2-3 years, these will be available for cultivation by farmers and could be in the market in another 4-5 years.

Many varieties have been found to be very good for processing. They will add value to the citrus fruits in region and give a fillip to the farmers income.

The institute has tried five varieties of sweet orange imported from Brazil in Institute farm. These include Hamlin, Pera, Natal, Valencia and Westin.

Natal has yielded best results with respect to juice content and TSS. Blood Red, Pineapple and Jaffa have been introduced from Punjab and shown encouraging results.

All these varieties have been planted on raised bed system. Water and fertilizers are being provided by drip/fertigation.

Institute Activities / Events Organized

- **Intellectual convention on Doubling of farmers income:** ICAR-CCRI, Nagpur organised a one-day Programme “Intellectual Convention on Doubling of Farmers' Income through Citrus Cultivation” on 23rd November, 2017. The inaugural programme was presided by Dr. C. D. Mayee, Ex-Chairman, ASRB, New Delhi. Dr. Anil Bonde, MLA from Morshi constituency was the Chief Guest. Morshi Taluka is the important belt of Nagpur mandarin cultivation in Amravati District. Dr. S. K. Singh, Director, ICAR-NBSS&LUP, Nagpur and Shri Girish Gandhi, President, VANARAI, NGO were the Guests of Honour. Dr. M.S. Ladaniya, Director spoke about the efforts of the Institute to increase farmers income. The programme was attended by about 100 delegates. This



Dignitaries releasing the Publication

included all stakeholders including progressive growers, their societies, agriculture department representatives etc. A publication entitled “Citrus Cultivation Technologies for Doubling of Farmers' Income” was also released.

- **Agriculture Education Day:** Agriculture Education Day was celebrated on 4th December, 2017. A total of

around 200 students from educational Institutions viz. Bharti Krishna VidyaVihar, Nagpur; Kendriya Vidyalaya, Nagpur and Shri Sant Shankar Maharaj College of Agriculture, Pimpalkhuta, Dist. visited the Institute. Students were shown the Citrus museum, Nursery and Farm to inculcate the interest in them so that they can choose agriculture as their profession/ career.



Dr. V. Anavrat Pr. Scientist (Ag. Ext.), explaining importance of Citrus to students

- **World Soil Health Day:** ICAR-CCRI in collaboration with TMC for Vidarbha and Dept. of Agriculture, Maharashtra State jointly celebrated 'World Soil Health Day' at Morshi, Amaravati District on 5th December, 2017 which was attended by 145 citrus growers. A total of 11 Soil Health cards were distributed at the hands of Dr. M. S. Ladaniya, Director to the citrus growers. So far Institute distributed 129 Soil Health Cards.



Dr. M. S. Ladaniya, Director giving away Soil Health Card to citrus growers

- **World Orange Festival 2017 :** The 'World Orange Festival 2017' was organised at Nagpur from 16-18th December, 2017. ICAR-CCRI, was the knowledge partner while it was funded by UPL, Bajaj electricals, Lokmat Media Group and Govt. of Maharashtra. Institute arranged the Fruit Show and awarded Cash prizes and certificates in the category of Nagpur mandarin, Sweet orange and acid lime. Under the Indian Society of Citriculture (ISC), Dr. Shyam Singh Best Citrus Grower Awards were given to Shri. Balwinder Singh Tikka of Muktar sahib, Punjab; Shri.

S. Brahmam Reddy of Cadappa, Andhra Pradesh ; Shri. H.C. Lalbiaka of Serchip, Mizoram and Shri. Raysingh Sundarde of Jalna, Maharashtra at the hands of Union Agriculture Minister Shri. Radhamohan Singhji on 17th December, 2017. The farmers were given Rs.5000/- cash, memento and the citation for their outstanding achievements. The four citrus growers were selected from four prominent regions like north-west, north-east, central and south India representing Kinnow, Khasi, Nagpur and Sathgudi orange industry of the country.

ICAR-CCRI, organized three seminars during the three-day event in which Institute scientists, experts from Israel, Bhutan and SAUs and ICAR Institutes presented overviews of citrus industry.



Minister of State for Agriculture & Farmers Welfare, Shri Gajendra Singh Shekhawat inaugurating the "Citrus Fruit Show" during World Orange Festival



Felicitation of farmer with Dr. Shyam Singh Best citrus grower award by the Hon'ble Union Agriculture Minister

Training Programmes

- Dr. D.K. Ghosh, Pr. Scientist provided hands-on training on "PCR based indexing of *Citrus tristeza virus*, *Candidatus Liberibacter asiaticus* (Citrus greening), *Citrus yellow mosaic badna virus* and *Indian citrus ring spot virus*" to Mr. Asaram Nanote and Mr. Shoeb Quadri from Mahyco Seeds, Jalna, Maharashtra during 4-5 December, 2017.

Off-Campus

- One-day training programme on citrus cultivation

practices w.r.t. crop regulation, fruit drop, management of waywar, greening, insect-pest and disease management was organised at Village, Pathrot, Tah. Achalpur, Dist. Amravati on 2nd November, 2017 which was attended by 60 farmers.

- Six-day training program on PCR-based detection of CTV and citrus greening disease at College of Horticulture and Forestry at Jhalawar, Rajasthan during 6-11 Nov, 2017 under the guidance of Dr. D.K. Ghosh, Pr.Scientist (Pl. Path.).

Memorandum of Understanding (MoU)

- MoU signed between ICAR-CCRI, Nagpur and Indira Gandhi Krishi Vishwa Vidyalaya, Raipur for attachment of PG and Ph.D. students of IGKV, Raipur for their research work at ICAR-CCRI, Nagpur.
- A Power Purchase Agreement (PPA) was signed between Clean Max Enviro Energy Solutions Pvt. Ltd, Mumbai and ICAR-CCRI, Nagpur for the implementation of the Rooftop Solar PV system.

Meetings organized

IJSC meeting : IJSC meeting on 4th October, 2017.

Linkages and collaboration

- The Institute has tied-up with IIT, Roorkee for collaborative Research work on Citrus Greening Disease under the DBT project on Structure-function studies on antioxidant defense system of *candidatus Liberibacter asiaticus* towards developing antimicrobials against citrus greening (HLB). Dr. D.K. Ghosh, Pr. Scientist (Plant Pathology) visited IIT, Roorkee to discuss and finalise the action plan of the programme.

Publications :

Research Papers (In peer Reviewed Journals)

- Anavrat Vinod, Ropan Bante and Mokde Mamta (2017). Acid lime Growers' Feasibility perception of Contract farming. *Curr. Agric. Res. J.*, 5(3) : 331: 335.
- Anavrat Vinod, Mokde Mamta and Ropan Bante (2017). Constraints analysis of citrus nursery owners in Vidarbha. *Prog. Agric* 17 (2) : 227 : 230.
- Lakshmi Mukunda, L., Venkata Ramana, K.T., Patil, Prakash and Srivastava, A.K, (2017). Soil fertility norms for Sathgudi sweet oranges (*Citrus sinensis* Osbeck). *Indian J. Agric. Sci.* 87: 1303-1306
- Srivastava, A. K., Shrigure, P. S., Saroj Deshmukh and Paresh Bhojar (2017). Soil fertility and soil healthcare in Citrus: A review. *Ann. pl. and Soil Resource* 19(2):

127-136.

Extension Bulletins/Folders

- Ladaniya, M.S., Srivastava, A.K., Vijayakumari, N., Huchche, A.D., Singh, I.P., Sonkar, R.K., Das, A.K., Anavrat V., Kumar Dinesh, Shrigure, P.S. and Rao, C.N. (2017). Citrus Cultivation Technologies for Doubling of Farmers' Income. Extension Bulletin No. 59, ICAR-CCRI, Nagpur, Maharashtra, 48p.
- Kumar Dinesh, Ladaniya M.S. (2017). Nutritional and Health Promoting Properties of Oranges and Other Citrus Fruits. Extension Bulletin No. 60, ICAR-CCRI, Nagpur, Maharashtra, 14p.
- Rao C.N., George Anjitha, Ladaniya M.S. (2017). Mite pest in their management in citrus. Extension Folder No. 28, ICAR-CCRI, Nagpur Maharashtra.

Participation of Scientists in conferences /workshop/ symposia/meeting etc.

- Dr. M. S. Ladaniya, Director : Assessment Committee meeting for CAS in the discipline of Horticulture on 6th October, 2017 at ASRB, New Delhi.
- Dr. M. S. Ladaniya, Director : Mid-term review meeting of MIDH, New Delhi on 24th October, 2017.
- Dr. A. D. Huchche, Pr. Scientist (Hort.): Mid-term review meeting of ICAR Regional Committee No. VII held on 10th November, 2017 at ICAR-CIAE, Bhopal.
- Dr. (Mrs.) N. Vijayakumari, Pr. Scientist (Hort.) : Workshop on Impact Assessment of Agriculture technologies on 13th November, 2017 at ICAR-NIAEPR, New Delhi and presented the success stories of CCRI technologies viz. Rejuvenation & Production of disease-free Citrus planting stock through Shoot tip grafting.
- Dr. M. S. Ladaniya, Director, Dr. A. K. Srivastava, Dr. I. P. Singh, Dr. A. K. Das, Dr. Dinesh Kumar, Dr. C. N. Rao, and Dr. P. S. Shrigure : Rashtriya Krishi Vikas Parishad Workshop on "Orange Cultivation, Management of orchards and export" on 9th December, 2017 at KrishiUthpanna Bazar Samiti, APMC, Warud, Distt. Amravati.
- Dr. I.P. Singh, Pr. Scientist (Hort.) : 71st meeting of Standing Finance Committee (SFS) for Central Sector Scheme for Conservation, Development and Sustainable Management of Medicinal Plants of National Medicinal Plants Board, Ministry of Ayush, Govt. of India, New Delhi on 18th December, 2018 in Ayush Bhawan.

- Dr. I.P. Singh, Pr. Scientist (Hort.) attended IMC (Institute management Committee) meeting of ICAR-Directorate of Groundnut Research, Junagarh, Gujarat on 20th December, 2017.

AICRP (Fruits) : Citrus research

Following activities were undertaken during the quarter under the All India Coordinated Research Project (Fruits) at ICAR-CCRI, Nagpur.

- Status of technologies recommended during XII Plan and Half Yearly Progress Report in respect of ICAR-CCRI, Nagpur on 10/11/2017
- Submitted Background Report of ICAR-CCRI for QRT of ICAR-AICRP (F) 12/12/2017
- Submitted Session - wise edited and compiled Research Report, of AICRP Citrus experiments collected from different centres at ICAR-CCRI, Nagpur for the period of October 2016 to September 2017 on 29/12/2017
- Submitted centres report of different AICRP experiments conducted at ICAR-CCRI Nagpur on 26/12/2017
- Submitted action taken report (ATR) at ICAR-CCRI Nagpur on 26/12/2017
- Audio conference on 7th & 28th November, 2017.

Lectures delivered by CCRI scientists in training at other Institute/Organisation

- Dr. A. K. Srivastava : Soil Fertility and Soil Health Care in Citrus Development and Challenges. In Seminar on Soil and Plant Health Sustainability Scenario towards Changing Needs organised by VNMAU, Parbhani, 7-8 October, 2017.
- Dr. (Mrs.) N. Vijayakumari : Skill oriented Citrus propagation technique. Regional Centre of Organic Farming, Govt. of India, Ministry of Agriculture & Farmers Welfare, Nagpur, 17th October, 2017.
- Dr. A. K. Srivastava: Climate - Smart Soil Fertility Management in Citrus: An Appraisal. In National Conference on Managing Soil Health for Sustainable and Nutritional food Production organised by GKV Society, Agra, UP., 28-29 October, 2017 at JNKVV, Jabalpur, MP.
- Dr. Dinesh Kumar : Marketing and Post-harvest Management” and “Processing and Value addition of Citrus fruits”, Directorate of Marketing and Inspection, Nagpur, 22nd and 24th November, 2017.
- Dr. D. K. Ghosh : "Molecular diagnosis, characterization and management of citrus greening disease in India", 17th November, 2017, IIT, Roorkee.

Other Extension Activities

Exhibition

The institute along with TMC participated in Agricultural/ Krishi exhibitions and disseminated technologies through sale of publications and display of exhibits in the following events :

- “Agro-vision 2017” at Reshimbagh Ground, Nagpur during 10-13th November, 2017.
- “KrishiVikasParishad - 2017” at Warud, Distt. Amravati during 7-10th December, 2017.
- World Orange Festival 2017 at Suresh Bhatt Auditorium, Nagpur during 16-18 December, 2017.
- Agro Tech - 2017 at PDKV, Akola during 27-29th December, 2017.



Dr. Anil Bonde, MLA, Morshi visiting CCRI stall at Krishi Vikas Parishad, Warud

Visit to CCRI

During the quarter, farmers, students and trainees were shown the institute activities while they visited museum, farm and nursery:

Farmer's

States	No. of Famers
Madhya Pradesh	181
Maharashtra	40
Haryana	15
Total	236

Students

- Bhartiya Krishna Vidya Vihar led by Smriti Phule on 4-12-2017 (44 Students).
- Shri Sant Shankar Maharaj College of Agriculture, Pimpalkhuta, Dhamangaon (Rly) led by Yogesh Munde Asstt. Prof. (Ento.) on 4-12-2017 (107 Students).
- K V VSN Nagpur led by Mrs. Deepti Awasthi on 4-12-2017 (48 Students).
- Janata Shikshan Mandal's college Alibag, Raigad on 6.12.2017 (25 Students).

- School of Earth Sciences, Solapur University, Solapur visited on 15.12.2017 (20 students) of M.Sc. Environment Science.
- 47 students' alongwith 2 teachers from Kolkata (WB) visited on 22.12.2017.

Trainees

- Six trainee officers from Bhutan undergoing training at NBSS&LUP visited on 5th October, 2017.
- Thirty-seven farmers undergoing training at ICAR-CIRCOT, Nagpur visited on 8th Nov., 2017.
- Forty officers' alongwith Assistant undergoing training on "Citrus Crop management" from RAMETI, Amravati visited on 29th November, 2017.
- Twelve trainees undergoing training at Deptt. of Agric., Burhanpur (MP) on 31st October, 2017.



Dr. Anavrat, Pr. Scientist interacting with trainees

Regional Research Centre for Citrus (RRCC), Biswanath Chariali, Assam

Training Programmes

- One-day training programme on "Production Technology of Citrus" on 28th December, 2017 under TSP in NEH region in which 80 Citrus growers including 8 women citrus growers from 3 districts (Sonitpur, Biswanath and Lakhimpur) of Assam participated. Dr. A. A. Murkute, Pr. Scientist (Hort.) and Dr. C. N. Rao, Pr. Scientist (Ento) coordinated the programme. The faculty of Biswanath college of Agriculture also delivered the lecture. Dr. R. Burman, Associate Dean, BNCA, inaugurated the programme.



Dr.C.N. Rao, Pr. Scientist (Ento) addressing the trainees

Good Governance / Swachh Bharat Mission

- Cleanliness was observed in the office campus and residential quarters.

Celebration

- Vigilance Awareness Week was observed at ICAR-CCRI, Nagpur during 30th October to 4th November, 2017.
- Constitution Day on 26th Nov., 2017.
- Dr. B. R. Ambedkar Maha Parinivan Diwas was observed on 6th December, 2017.

Distribution of disease-free planting material (under ICAR nursery)

A total of 3576 disease-free planting material of citrus rootstocks, fruits and seed distributed and revenue of Rs.1,04,194/- generated during the quarter.

Honours and Recognition

- Dr. (Mrs.) N. Vijayakumari, Pr. Scientist (Hort.) received Shri Girdhari Lal Chaddha Memorial Gold Medal in fruit Science from the Horticultural Society of India on 6th October, 2017 for significant contribution and excellence in R & D in Horticulture at NASC complex, New Delhi. Medal was presented at the hands of Dr. A. K. Singh, DDG (Hort. Sci.), ICAR.
- Dr. A. K. Srivastava, Pr. Scientist (Soil Science) Conferred with Fellowship of GraminKrishiVikas Society, Agra, (Annals of plant and Soil Resource) during National Conference on Managing Soil Health for Sustainable and Nutritional food Production during 28-29 October, 2017, JNKVV, Jabalpur, Madhya Pradesh.
- Dr. Dinesh Kumar, Pr. Scientist (Hort.) conferred with fellowship of the Horticultural Society of India, 2017 for significant contributions in the field of Horticulture (Post-harvest Technology) on 16th December, 2017 at NRC on Plant Biotechnology Auditorium, IARI, New Delhi.

Distinguished Visitors

National

- Sh. Sachindra Pratap Singh, Agriculture Commissioner, Govt. of Maharashtra alongwith officials visited on 21-12-2017. He was apprised with success of production of disease-free planting material of citrus. Proposal of Referral lab for diagnostics of diseases, indexing and identification of R/S through molecular characterization was submitted for funding through State Agric. Deptt.
- Shri Acharya Balkrishna, General Secretary, Patanjali Research Foundation visited on 11th December, 2017 to get first-hand information about the research activities and new citrus varieties for farmers. He was shown the



Sh. S. P. Singh, Agri. Commissioner, GoM visiting CCRI & TMC nursery

citrus varieties being grown at the Institute for processing purpose and also the research farm and hi-tech nursery. The Patanjali plans to setup a citrus germplasm unit at Rishikesh.



Shri Acharya Balkrishna, General Secretary, Patanjali Research Foundation visited the CCRI & TMC nursery

Survey/Visit to citrus grower's orchard

- A team of ICAR-CCRI Scientists including Dr. A. D. Huchche, Dr. D. K. Ghosh, Dr. A. K. Das and Dr. C. N. Rao visited Kharpi & adjoining areas of Paratwada tehsil of Amravati district on 9th October, 2017 in response to the problem of fruit drop. The discussions were held and orchards were visited along with the growers to assess the situation in field itself.
- A team of ICAR-CCRI scientists including Dr. A. D. Huchche, Dr. A. K. Das, Dr. C. N. Rao and Shri. B. V. Mahalle, SMS (Hort.) TMC, visited Pathrot village, Achalpur Tahsil and its adjoining areas of Amravati district on 2nd Nov., 2017 in response to the problem of fruit drop and oblongation (Wai War). On the spot discussions were held in presence of 50 farmers for solution to their problem.

Welfare Activity

- NOGA put-up a stall on 9th November, 2017 for selling their products to CCRI staff.



CCRI scientists visited citrus orchard at Pathrot (Achalpur Tahsil, Dist. Amravati)

- One-day awareness programme on “Firefighting mock drill techniques and evacuation” organised at the Institute by the Fire Brigade Department, NMC, Nagpur. Asstt. Station Officer and Fireman Rescuers demonstrated fire control drill and other basic information through power point presentation to the CCRI staff.

Technology Mission on Citrus (TMC) for Vidarbha, Marathwada and Chhindwara

Technology Mission on Citrus was started in the year 2007 at Vidarbha, further extended to Marathwada region in 2009 and Chhindwara region of Madhya Pradesh in 2011 by the National Horticulture Mission (now Mission for Integrated Development of Horticulture, MIDH) Ministry of Agriculture, Govt. of India, New Delhi. During the quarter following activities were undertaken:

Skill Development

Vidarbha

- ICAR-CCRI in collaboration with TMC for Vidarbha organized Skill Development Programme (200 hrs.) for citrus fruit growers as per qualification pack of ASCI from 1-30 November, 2017 in which 7 candidates participated. Dr. I. P. Singh, Pr. Scientist (Hort.) Co-ordinated the one-month long programme.
- ICAR-CCRI in collaboration with TMC for Vidarbha organized Skill Development Programme (200 hrs.)



Participants having hands on practice for seed sowing in primary nursery

for citrus fruit growers as per qualification pack of ASCI from 2-30 December, 2017 in which 19 candidates participated. Dr. A. K. Das, Pr.Scientist (Pl. Path.) Co-ordinated the one-month long programme.



Participants having hands on practice on the various activities Chhindwara (Madhya Pradesh)

- Four-days (32 hours) training programme on “Citrus nursery & orchard management” for Agriculture Extension officers of M.P. Department from 12-15 December, 2017 in which 53 officer weretrained.



Group photo at the four-days training programme of TMC Chhindwara

Distribution of disease free planting material under TMC

Vidarbha: A total of 2243 disease-free planting material of citrus distributed and revenue of Rs. 1,17,559/- generated.

Marathwada: A total of 6,211 disease-free planting material of citrus and rootstock seedlings were distributed and revenue of Rs.3,02,220/- generated.

Chhindwara: A total of 66 disease-free planting material of citrus was distributed and revenue of Rs. 3960/- generated.

Personnel

Appointment/Joining

- Mr. Ashish Warghane, SRF, joined at CCRI, Nagpur on

10.10.2017 under CRP Vaccines

- Sh. Sagar Nerkar, JRF, joined CCRI, Nagpur under DBT project on 1.11.2017
- Ms. Snehal Jadhav, RA, joined at CCRI, Nagpur on 1.11.2017 under FSSAI Project
- Dr. A. Thirugnanavel, Scientist (Hort.) transferred from ICAR-NRC for Banana, Tiruchirapalli and joined at CCRI, Nagpur on 9.11.2017
- Mrs. Sonali Ghike, RA and Mrs. Shaila Bute, Computer Operator, joined at CCRI, Nagpur under HORTSAP on 22.11.2017
- Ms. Manju Gurjar, JRF, joined at CCRI, Nagpur under IPR on 1.12.2017
- Mr. Anup Tatewar, SRF, joined at CCRI, Nagpur on 16.12.2017 under NICRA Project
- Ms. Shraddha Dahat, YP-II, joined at CCRI, Nagpur on 26.12.2017

Transfer / Resignation

- Ms. Nirlap Kour, RA resigned on 21.10.2017
- Dr. R. A. Marathe, Pr. Scientist (SSSP) transferred to NBSS & LUP, Nagpur w.e.f. 26.10.2017
- Ms. Sarita Choubey, JRF resigned on 25.11.2017
- Mr. Anup Tatewar, TA resigned on 15.12.2017

FEEDBACK

Skill development, awareness creation and capacity building are going to be the deciding factors in new technology adoption by the growers and ultimately achievement of target of doubling of farmers' income. In order to follow e-NAM (electronic- National Agriculture Market) growers will have to register themselves and understand the procedures. Similar is the case in adopting micro-irrigation and fertigation. Since land holdings are small and growers are resource-poor, the group farming or contract farming will ensure remunerative price. Farmer producer companies or FPOs are coming in to existence in Vidarbha region and started providing inputs to the growers and selling produce like grains, fruits and vegetables including Nagpur mandarin. More volume of produce is providing bargaining power to growers. As per records available, 16 FPO are functioning in Amravati district of Vidarbha and marketed 5800 tonnes of Nagpur mandarin fruit providing better returns to member growers during 2017-18.

Edited by : Dr. M. S. Ladaniya, Director, Dr. A. K. Das, Pr. Scientist (Pl.Path.), Dr. C. N. Rao, Pr. Scientist (Ento.) and Dr. A. A. Murkute, Pr. Scientist (Hort.)

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