BI-MONTHLY SEED SPICES
E - Newsletter
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Important Events

Celebration of Vigilance Awareness Week

In accordance to the instruction of Central Vigilance Commission, Vigilance Awareness Week-2016 was celebrated during 31st October to 5th November-2016.The main focus of Vigilance Awareness Week was "**Public participation in promoting integrity and eradicating corruption**". During the week different activities like taking oath, easy writing, debate competition, and paragraph writing were organized. The themes of debate competition essay writing and paragraph writing were : Public contribution in promotion of integrity and eradication of corruption: Integrity of public servant is a tool for eradication of corruption in the public system and Integrity of a person is a Nobel character in public life respectively. Officials of ICAR-NRCSS, Ajmer participated in these events and prizes were also given to winners in different activities. During the week posters at important places were also displayed for creating awareness about the subject. On 5th November,2016 a seminar on "**Public participation in promoting integrity and eradicating corruption**" was also organized. Scientists and other staff members expressed their views on public participation in promoting integrity and eradicating corruption.





Research Highlights

First interaction meeting of 3rd QRT of ICAR-NRCSS, Ajmer

First interaction meeting of 3rd QRT of ICAR-NRCSS, Ajmer was held during 29-30, November, 2016. QRT chairman, Dr. A.R. Pathak, Honourable Vice-chancellor, JAU, Junagadh with all the members visited NRCSS research farm and interacted with the scientists at the centre's experimental site itself. After that the formal meeting was conducted in Meeting Hall of the centre. Each scientist presented research work and achievement made by him during June, 2011 to May, 2016. QRT members critically reviewed the research work of scientists presented during the meeting and scientists were advised to prepare detail account of impact and outcome of technologies generated by them during the reporting period.





Celebration of 115th Birth Day of former Prime Minister Late Sh. Choudhary Charan Singh as Kisan Diwas in Kalesara Village

On the occasion of 115th Birth day of former Prime Minister Late Sh. Choudhary Charan Singh Ji, ICAR-NRCSS, Ajmer celebrated Kisan Diwas on 23rd Dec., 2016 at village Kalesara, Panchyat Samiti Pisangan of Ajmer district. More than 30 farmers participated on this important occasions besides Dr. G. Lal, Director, NRCSS, Dr. R.S. Mehta, Principal Scientist, Dr. Ravindra Singh, Principal Scientist, Dr. R. S. Meena, Sr. Scientist and Dr. R.D. Meena, Scientist, participated from NRCSS. On the occasion farmers were made aware about the contribution of former Prime Minister, Late Shri Choudhary Charan Singh, for the benefit of farmers. Dr. G. Lal, advised farmers for inclusion of seed spices in their existing cropping system for enhancing their income. Other scientists also advised farmers for adoption of improved varieties, precision nutrient management, intercropping of seed spices and use of safe plant protection chemicals for getting residue free produce. At the end of programme farmers desired to organise field day and off campus training programme for imparting training on improved technology of seed spices production.



Transfer of technology

Mass production and sale of Bio-control agents products at ICAR-NRCSS, Ajmer

Krishna Kant, B.K. Mishra & Siya Ram Meena

A modern bio-control production laboratory was established at ICAR-NRCSS, Ajmer in 2013 which was inaugurated by Dr. NK Krishna Kumar, the then DDG (H.S.) ICAR, New Delhi. The laboratory is now working on mass production of various bio-agents ranging from control of insect pests, diseases and bio fertilizers. Presently bio control laboratory is producing 9 types of various entomopathogens, soil antagonist, nematopathogenic fungal bio-control agents and organic insecticide soap. Among entomopathogens *Metarhizium anisopilae*, *Beauveria bassiana*, *Verticilium lecani* are produced for management of sucking and lepidopterous pests, especially aphids, thrips, mites, cutworm etc. which are important economic pests of seed spice crops. Soil antagonist *Trichoderma asperellum an*d *Trichoderma harzanium* are produced for management of soil born fungal diseases of seed spice crops. Besides theses nematopathogen *Paecilomyces lilacinus* is also produced and in great demand due to problem of nematodes in sandy loam soils of Rajasthan. Bio-control lab is also involved in producing bio-fertilizers for organic farming of seed spice crops namely Phosphate Solubilising Bacteria (PSB) and Azotobacter. Farmers are showing keen interest in application of these bio fertilizers and bio control agents in their fields for the management of different problems organically.

During 2015-16, bio control agents produced on large scale for sale and distribution to farmers during Farmer's Fair, Seed Distribution Mela and in the various field experiments at the Institute. Various bio-control agents and bio fertilizers of worth more than 50,000 rupees sold during the year 2015-16 and distributed more than two quintal of bio agents free of cost to farmers.

Participation in GRAM-2016 held during 09-11, November,2016 at Jaipur

ICAR-NRCSS, Ajmer, participated in different activities during Global Rajasthan Agritech Meet (GRAM) -2016 held during 09-11, November, 2016 at Sitapura Industrial Area, Jaipur.

Display of NRCSS products and activities in exhibition:

A team of scientists comprising Dr. G. Lal, Director (Act.), Dr. R.S. Mehta, Principal Scientist (Agronomy), Mr. M.A. Khan, ACTO and Mr G.K. Tripathi, STA participated in display of products and important technologies of seed spices to farmers and other visitors of GRAM-2016 from 9-11 November, 2016 at Jaipur (Rajasthan).

Jajam Programme of GRAM:

Dr. Y.K. Sharma, Principal Scientist (Plant Pathology) Dr. R.S. Mehta, Principal Scientists (Agronomy), Dr. R.S. Meena, Sr. Scientist (Plant Breeding) Dr. N.K. Meena, Sr. Scientists, participated in Jajam Programme organised at Jaipur on 9.11.2016 during GRAM-2016.





Transfer of technology

Farmers training programme in Sikkim

Organised two days farmers training on organic production technology of seed spices for Sikkim

Two days farmers training on "Organic production technology of seed spices for Sikkim" was organised during 16-17, December, 2016 at ICAR- National Organic Farming Research Institute, Gangtok, Sikkim under Tribal Sub Plan programme. In the inaugural function Dr. G Lal, Director, ICAR- National Research Centre on Seed Spices appraised about importance of seed spices for farmers and informed that for last two to three years export of seed spices is increasing. Hence, production of quality spices through organic production management is having great scope in international trade. In the welcome address Dr. R.S. Mehta, Principal Scientist (Agronomy), NRCSS, Ajmer, told that seed spices are seeds of annual plants which add taste and aroma in food and hence different dishes are made including spices. He also pointed out that seed spices are normally grown in rabi season can be introduced in Sikkim in the existing cropping systems. Dr. R.K. Avasthe, Joint Director, ICAR- NOFRI, Gangtok was the Chief Guest of Inaugural function. Dr. Avasthe, in his speech pointed out that Sikkim is the first organic state in our country and playing leading role in movement of organic farming in our country. In the training programme 60 farmers from different districts of Sikkim participated. Scientists of ICAR-NRCSS, Ajmer and ICAR-NOFRI, Sikkim delivered lectures on different aspects of organic seed spice production technology. Dr. G. Lal also delivered a lecture on different value added products of seed spices. Dr. R.S. Mehta delivered a talk on organic production technology of seed spices in Sikkim and different seed spice based cropping systems. Dr. R. S. Meena, Sr. Scientist (Plant Breeding), NRCSS, shared his views on different varieties and technology of seed production. Dr. N.K. Meena, Sr. Scientist (Entomology), NRCSS, delivered a lecture on insect pest and disease management in seed spices by using different organic methods. Dr. R.K. Avasthe, Dr Raghavendra Singh and other scientists from NOFRI, Sikkim also delivered lectures on various aspects of seed spice production. Dr. N. K. Meena and Dr R. S. Meena from NRC on Seed Spices, Ajmer and Dr. Raghavendra Singh, Sr. Scientist (Agronomy) and Sh. B. Lepcha, from NOFRI, Sikkim were the coordinators of the training.





Human Resource Development

Winter School/Symposia/seminars/conferences/workshop attended

1.	Dr. G. Lal, Director (Act.), attended 7th Horticulture Congress and presented a lead paper on "enhancing the farmers income through seed spices production". during 15-18, Nov., 2016 at New Delhi.
2.	Dr. G. Lal, Director (Act.), attended International Agronomy Congress during 21-23 November, 2016 at New Delhi.
3.	Dr. A.K. Verma, Scientist, attended short course on "Climate change adaptation and mitigation strategies for sustainable agriculture" at SKN Agriculture University, Jobner from 24 November to 03 December, 2016. He also attended 1st International Agro biodiversity Congress during November 6-9, 2016, New Delhi, India and presented paper on "Effect of acute doses of ionizing radiation on growth and yield characteristics of *Foeniculum vulgare* Mill.
.4 .	Dr. Sharda Choudhary, Scientists(SS) attended "4th International Conference on Recent Advances in Agriculture and Horticulture Sciences" at Jodhpur from 30/12/2016 to 31/12/2016 organized by International Journal of Tropical Agriculture and serial publications. In the conference she presented paper on "Molecular diversity analysis in Coriander using RAPD and ISSR markers".
5	Dr. G. Lal, Director (Act.), Dr. R.K. Kakani, Principal Scientist (Plant Breeding) Dr K Kant, Principal Scientist (Entomology), Dr. S.S. Meena, Principal Scientist(Horticulture) Dr. B.K. Mishra, Sr. Scientist(Microbiology), Dr. R.D. Meena Scientist, Dr. Arvind Verma, Scientist and Sh. S.P. Maheria, CTO attended conference held during GRAM-2016.

Publications

1.	Krishna Kant, G. Lal, B.K. Mishra & Siya Ram Meena, "MANAGING SEED SPICE BORER". INDIAN HORTICULTURE Volume 61, no.4 July-August 2016.

Honours/awards

1.	Dr. Sharda Choudhary honoured by the YOUNG SCIENTIST AWARD 2016 in "4th International Conference on Recent Advances in Agriculture and Horticulture Sciences" organized by International Journal of Tropical Agriculture and serial publications at Jodhpur from 30/12/2016 to 31/12/2016 and she also received the BEST RESEARCH PAPER PRESENTATION award. Further she was also honoured by "KRISHI VIGYAN GAURAV" Manad Upadhi from Bhartiya Krishi Anusandhan Patrika *molik shodh patr tatha Rajbhasha hindi ki sewa karne ke liye.*

From the Director's Desk



November-December months are very crucial period regarding yield of seed spices because this is the pre flowering time of the crops. During one and half decades, efforts were made to develop a technologically driven, economically profitable and environmentally sustainable seed spices production system including package of practices (POP) and high yielding quality varieties of seed spices.

In this year three important varieties of seed spices viz., coriander -ACr-1, Dill-AD-2 and Fennel-AF-2 have been developed besides several crop production and crop protection technologies. Production techniques like drip fertigation, crop geometry management, protected cultivation, pollination management, organic seed spices production are some that need special attention in our future course of action. Over all, seed spices cultivation remains an opportunity for both researchers and farmers due to emerging pest problems and changing geopolitical situations at global level, respectively. To ensure livelihood security to seed spice growers, viable post-harvest management and value addition technologies are being promoted. We celebrated vigilance awareness week and 115th birthday of former prime minister late Shri Choudhary Charan Singh Ji during Nov-Dec, 2016. During interaction meeting of 3rd QRT under the Chairmanship of Dr. A.R. Pathak, Hon'ble V.C., Junagadh Agril. University, Junagadh, many pertinent issues emerged for R&D of seed spices. I am sure that we as a team ICAR- NRCSS, certainly moving in the right direction for seed spices research and development.

(Gopal Lal)

