BI-MONTHLY SEED SPICES E-Newsletter

ICAR-National Research Centre on Seed Spices

An ISO 9001:2015 Certified Institute

VOLUME 11, No. 1&2 January-April, 2018

CONTENTS

Important Events.....1

•रा बी म अ केन्द्र का 19वां स्थापना दिवस मनाया.....

•Organized 8 days Model Training Course .....

•State Seminar on "Sustainable Agricultural...

•International Women's Day" on.....

•Farmers Training at Piprali.....

Research.....7

Popularization of biocontrol agents, ...

Transfer of technology.....8

•Field days were organized in different.....

HRD.....9

•Training/seminars/symposia/ meetings .....

•International programme training/study.....

From Director's Desk 10

EDITORIAL COMMITTEE

Dr. Gopal Lal	Chairman
Dr. O.P. Aishwath	Editor
Dr. B.K. Mishra	Editor
Dr. N.K. Meena	Editor
Sh. M.A. Khan	Editor

Photograph by: M. A. Khan
G.K. Tripathi

www.nrcss.res.in

Important Events

रा बी म अ केन्द्र का 19वां स्थापना दिवस मनाया

दिनांक 19.01.2018 को राष्ट्रीय बीजीय मसाला अनुसंधान केन्द्र पर केन्द्र का 19वां स्थापना दिवस मनाया गया। इस अवसर पर डॉ. अमर सिंह फरोदा, पूर्व ए.एस.आर.बी., अध्यक्ष एवं कुलपति, एम.पी.य.ए.टी., उदयपुर, मुख्य अतिथि, डॉ. टी. जानकीराम, सहायक महानिदेशक (उद्यानिकी), भा.कृ. अनु.प., नई दिल्ली, कायक्रम अध्यक्ष, डॉ. एस. के. सिंह, निदेशक, अटारी, जोधपुर एवं डॉ. पी. एल. सरोज, निदेशक, सी. आई.ए.एच., बीकानेर, विशिष्ठ अतिथि के रूप में उपस्थित थे। कायक्रम के पूर्वारभ में डॉ. गोपाल लाल, निदेशक, भा.कृ.अनु.प.–रा.बी.म.अनु. केन्द्र, तबीजी, अजमेर नें मंचासीन अतिथियां एवं सभागार में उपस्थित सभी आमंत्रितों का स्वागत करते हुऐ इस संस्थान के स्थापना के पश्चात आज तक की यात्राा का एक समुचित रूपरेखा, अनुसंधान एव अन्य विधाओं पर प्रकाश डालते हुऐ वर्तमान में चल रही सभी गतिविधियां से अवगत करवाया।

इस कायक्रम के पूर्व सभी अतिथियों के द्वारा प्रक्षेत्रा भ्रमण का कायक्रम आयोजित किया गया था जिसमें केन्द्र पर चल रहे सभी अनुसंधान कायक्रमों, विभिन्न प्रयोगशालाओं के अंतर्गत क्रियाशील कायक्रमों एवं अनुदेशीत फसलों की पूर्ण वैज्ञानिक परिचर्चा की गई। प्रधानमंत्राी महोदय द्वारा चलाय जा रहे स्वच्छता अभियान का पूर्ण रूपेण क्रियान्वयन इस केन्द्र पर उपस्थित पा कर सभी अतिथियों नें भूरीभूरी प्रशंसा की।जैसा की ज्ञात है कि इस केन्द्र की स्थापना वर्ष 1999 में डॉ. राजेन्द्र सिंह परोदा के कुशल नेतृत्व एवं परिकल्पना में क्षेत्रा की फसलों एवं किसानों की आवश्यकताओं को मद्दे नजर रखते हुऐ की गई थी। जीरा, धनिया, सौंफ, मेथी, अजवायन, कलोंजी, सेलरी आदि बीजीय मसालों पर विगत 18 वर्षों से यह संस्थान अनुसंधान एवं विकास के साथ–साथ किसानों के हितार्थ प्रचार–प्रसार में लगा हुआ है।



Important Events

डॉ. एस. के. सिंह, निदेशक, अटारी, जोधपुर नें संस्थान के 19वें स्थापना दिवस पर सभी वैज्ञानिक, कर्मचारियों एवं मसाला उत्पादक किसानों को बधाई देते हुए संस्थान की उपलब्धियों की सराहना की। उन्होनें कहा कि बीजीय मसालों के मूल्य अर्जन क्षमता द्वारा भारत सरकार के 2022 तक किसानों की आय दोगुनी करने के लक्ष्य में यह एक अहम भूमिका निभा सकता है। डॉ. टी. जानकीराम, सहायक महानिदेशक, नई दिल्ली नें इस अवसर पर स्थापना दिवस व्याख्यान प्रस्तुत करते हुऐ कहा कि आज हम आने वाले समस्याओं के प्रति कितने तैयार हैं, इस बात की परिचर्चा आवश्यक है। उन्होनें इसी दौरान प्रारंभ हो रहे मॉडल प्रशिक्षण कायक्रम के प्रशिक्षणार्थियों एवं उपस्थित आगुंतुकों बताया कि भारत में कृषि की विविधता का सही से उपयोग करते हुऐ हमें देश को कृषि उन्नति के पथ पर ले जाना है। किसानों तथा वैज्ञानिकों के अथक प्रयासों एवं विज्ञान के प्रति निष्ठा की सराहना करते हुऐ कहा कि बागवानी उत्पादन में देश अग्रणी हो रहा है। खाद्यन्न उत्पादन में बायोफोर्टिफाइड किस्मों के विकास द्वारा खाद्यन्न एवं पोषण सुरक्षा सुनिश्चित की जा रही है। इन्होनें संस्थान द्वारा इस अवधि में विकसित बीजीय मसाला की नवीनतम किस्मों एवं प्रौद्योगिकीयों के महत्व को प्रतिपादित करते हुऐ। किसानों द्वारा इसके भरपूर उपयोग एवं लाभ के लिए प्रोत्साहित किया। इस अवसर पर राष्ट्रीय बीजीय मसाला अनुसंधान केन्द्र के कृषि महत्व को देखते हुऐ इसके अपग्रेडेशन (उच्चीकरण) की आवश्यकता बताई तथा डॉ. फरोदा नें इस केन्द्र को संस्थान बनाने की संस्तुति भी की। बीजीय मसाले इस शुष्क एवं अर्द्ध शुष्क क्षेत्रों के किसानों के लिए सोना है। ब्रांड के साथ–साथ गुणवत्ता एवं न्यूनतम रसायनिक अवशेषों के साथ बीजीय मसालों का विपणन एवं निर्यात और अधिक बढ़ाया जा सकता है।

डॉ. पी. एल. सरोज, निदेशक, सीआईएच, बीकानेर नें इस संस्थान के स्थापना पूर्व दिनों को याद करते हुऐ उनके महत्वपूर्ण योगदान को याद दिलाया तथा इस संस्थान के साथ हृदय से जुड़ाव को व्यक्त किया।

स्थापना दिवस के अवसर पर संस्थान प्रमोद कुमार अग्रवाल, सुनील कुमार अग्रवाल, भीम सिंह, डॉ. शारदा चौधरी, डॉ. आर. एस. मीणा, डॉ. बी.के. मिश्र एवं डॉ. वाई.के. शर्मा को उत्कृष्ठ काय हेतु प्रोत्साहन पुरस्कार वितरित किय गय। इसी दौरान संस्थान द्वारा प्रकाशित राजभाषा हिन्दी के पत्रिाका ''मसाला सुरभि'' एवं बीजीय मसालों के अंतर्राष्ट्रीय जर्नल का विमोचन भी किया गया। अंत मे कायक्रम के समन्यवक डा. रविन्द्र सिंह, प्रधान वैज्ञानिक ने सभी अथितियो का धन्यवाद व्यक्त किया



Important Events

Organized 8 days Model Training Course (MTC) on "Protected cultivation and precision resource management for horticultural crops and seed spices"

A model training course on **"Protected cultivation and precision resource management for horticultural crops and seed spices"** sponsored by Directorate of Extension, Ministry of Agriculture, Govt of India was organized during 19th to 26th January, 2018 at ICAR-NRCSS, Ajmer during to update the knowledge of the officials from central/state development departments about the recent developments and strategies of protected cultivation, precision resource management techniques, RCT and micro irrigation for horticultural crops including seed spice production in the country. The objectives of organizing model training course programme are : (I) to provide advance training to the state agricultural officers and scientists of ICAR/SAUs/KVKs and improve their skills in the area of protected cultivation, RCTs, fertigation management, and time/microclimate management in horticultural crops, (ii) to show the trainees live demonstrations/ experiments on protected structures, precision resource conservation practices, fertigation/ time/ climate management and micro irrigation and (iii) to provide an opportunity to discuss and exchange ideas/knowledge sharing between the academicians and with the experts/resource persons who have made notable contributions in this area. Course consists of lectures by faculty members, practical, laboratory work, field training, field visits and subject expert guest lectures. Participants will be exposed to various aspects of protected cultivation and precision resource management techniques, protected structures, precision input application including micro irrigation and fertigation applied to different horticultural and seed spices crops grown in open field/ protected structures. The course content will broadly cover the following topics: (I) Protected cultivation for horticultural crops including fruits, flowers, vegetables and seed spices (ii) Precision resource management in horticultural crops and seed spices (iii) Micro irrigation and fertigation, (iv) Water-Stress-Sensing in Field crops/Fruit Trees for Irrigation Management (v) Resource use efficiency, (vi) Precision farming (vii) Mulching for vegetables and seed spices (vii) Procedures and methodology for protected cultivation of horticultural crops and seed spices etc.

The Model Training Course was started on 18th January 2018 after inauguration by Dr A. S. Faroda, Former Chairman, Agricultural Scientist Requirement Board, New Delhi and former Vice Chancellor, Maharana Pratap University of Agriculture and Technology, Udaipur. Dr. T. Janakiram, Assistant Director General (Hort. II), ICAR, KAB- II, Pusa campus, New Delhi, Dr. P.L. Saroj, Director, CIAH, Bikaner and Dr. S. K. Singh, Director, ATARI, Jodhpur also witnessed the inaugural pragramme. Twenty six participants from State Development agencies, ICAR/SAUs and KVKs from Uttar Pradesh, Madhya Pradesh, Asam and Rajasthan have participated and trained on different aspects of protected cultivation and precision resource management technologies for the horticultural crops and seed spices during the training course. The course director Dr. Ravindra Singh gave brief introduction of model training course, its objective and about background of the participants. Course Coordinators Dr. Sharda Choudhary and Dr. A. K. Verma were also present in the programme.



Important Events

State Seminar on "Sustainable Agricultural Practices for Seed Spices" on 24-25 Feb., 2018

A State Seminar on "Sustainable Agricultural Practices for Seed Spices" was organized jointly by ICAR-National Research Centre on Seed Spices, Ajmer and DASD, Calicut under MIDH during 24-25th February, 2018 at Dr. R. S. Paroda Auditorium, ICAR-National Research Centre on Seed Spices, Ajmer. The main aim of the seminar was to discuss the challenges faced by seed spices growers like extreme weather conditions in form of high as well as low temperature, drought, declining soil fertility and increasing aridity, low availability of high yielding varieties, low seed replacement rate and emergence of new pests and diseases. Hence, the theme areas of the seminar were sustainable agriculture for improving soil health, crop production with sustainable natural resource management, plant health management, climate resilience technologies, post-harvest handling, processing and value addition for high profitability, marketing & export of seed spices.

In the inaugural session, Hon'ble Dr. B. S. Chundawat, Former Vice Chancellor, SDA University, Dantiwara (Gujarat) was the Chief Guest. Dr. I.J. Mathur, Former Director, Extension Education, MPUA&T, Udaipur and Sh. B. L. Meena, Assistant Director, DASD, Calicut were the Guests of Honor and Dr. Dinesh Arora, Sr. Scientist & Head, Krishi Vigyan Kendra, Ajmer was the Special Guest. Dr. Gopal Lal, Director, ICAR-NRCSS, Ajmer Presided over the function was started with the lightening of lamp in front of the Goddess MA sarashwati by the lightening on the dias. Dr. Gopal Lal, Director, NRCSS and Chairman Organizing Committee, welcomed the dignitaries, briefed about the achievements and progress made by the institute, about MIDH Programmes being carried out at ICAR-NRCSS and also given the welcome address. He urged to farmers to come forward to adopt the technologies developed by ICAR-NRCSS, Ajmer. He also informed scientists and farmers about the coriander variety ACr-1 which is resistant against stem gall disease, can be grown in Kota, Baran, Jhalawar as well as adjoining area of Madhya Pradesh and Gujarat, wherein farmers are leaving coriander cultivation due to stem gall problem. He also elaborated the potential of other varieties of cumin, fenugreek, fennel, ajwain, nigella and their many value added products. Dr. B.S. Chundawat, Chief Guest of the function address the delegates and farmers participants and appreciated the efforts made by the NRCSS in the field of germplasm collection, variety and technologies development, package of practices for an individual crop and variety and extension activities taking by the institute for the farmers welfare. He also advised the Scientists of institute to develop new varieties of cumin and coriander as per the choice of farmers and market preferences during his field visit at NRCSS, research farm. He highly appreciated the Director and his scientific team for systematically carrying out the experimental trials and keeping their respective experiments and farm neat and clean and well managed. He also shared his vast research experience with delegates present in the event NRCSS, Ajmer from different places and asked them to do something novelty in research for the benefit of farmers in era of climate change.





Important Events

Dr. I.J. Mathur, Guest of Honor in the function addressed the delegates and highlighted the importance of seed spices and for improvement of income of farming community in the country. He advised the scientists to work on value addition and oil extraction from the straw and underutilized produce of seed spices for earning additional income. Sh. B.L. Meena, Guest of Honor of the function, also addressed the gathering and asked them to spread the spices and seed spices among farming community. He assured to give all possible support to NRCSS, Ajmer for more works on seed spices research and extension activities for the benefit of farmers in Rajasthan and nearby states like Gujarat and Madhya Pradesh. During the inaugural session publications (Like a ***Book of lead papers and abstracts of seminar on "Sustainable Agricultural Practices for Seed Spices,*** an extension bulletins, International Journal of Seed Spices (July Issue) and NRCSS Profile document were released by the dignitaries. At the end of the inaugural function, Dr. N. K. Meena, Organizing Secretary, presented the vote of thanks to guests, delegates, farmers' participants, media persons and staff, ICAR-NRCSS, Ajmer for successful completion of the seminar.

In the seminar, there were four Technical Sessions (Technical Session-I on Crop Improvement and Basic Science, Technical Session-II on Crop Management, Technical Session-III on Plant Health Management and Technical Session-IV on Social Science and TOT) and a Plenary Session were conducted in two days scientific deliberations.









Important Events

International Women's Day" on 8 March 2018

Organized celebrations of "International Women's Day" on 8 March 2018 at ICAR-National Research Centre on Seed Spices, Tabiji, Ajmer (Rajasthan). Chief Guest of the function was Dr. Dinesh Arora, PC, KVK, Ajmer, Programme was chaired by Dr. S.N. Saxena, Principal Scientist. NRCSS, Ajmer and was organized by Dr. Sharda Choudhary, Nodal officer, Women Complaint Cell. Dr. Arora delivered lecture on "**Women Empowerment and role of women in farming" He told that** Women empowerment refers to increasing and improving the social, economic, political and legal strength of the women, to ensure equal-right to women, and to make them confident enough to claim their rights. Farm laborers, contractual workers, students and other female participants have also shared their views on women equality and rights**.** To encourage the women employees of NRCSS a quiz programme was also organized and the winners were awarded with prizes.

















Research

Popularization of biocontrol agents, botanicals and PSB in seed spices and other horticultural crops.

Krishna Kant, Siya Ram Meena and B K Mishra

A modern biological control laboratory has been working in the Institute since 2009 -10. The bio control laboratory involved in maintenance and mass production different bio agents for control of pests and diseases. During the year 2017. Total nine different Bioagents including bio fertilizer were produced and distributed among the farmers in different districts of Rajasthan. The coverage and extent of bioagents utilization showed that 17 district covered for distribution of various bio agents.

A total of 1565.5 kg of different bioagents were produced for distribution to among farmers. The maximum utilization of Bioagents was recorded in protected cultivation (731.0 Kg) followed by seed spice crops (561.5 kg) and the minimum was used by chilli growers. Percent of share of different bioagents showed that in protected cultivation contribute 46.69% of total bio agents consumption followed by Seed Spice Crops 35.86%. Distribution of bioagents in different district of Rajasthan showed that total fifteen districts were covered for supply of various bio products (fig.3). Ajmer district was accounted that maximum share (594 kg) followed by Bharatpur (175 kg) and Nagour (171.5 kg) district.

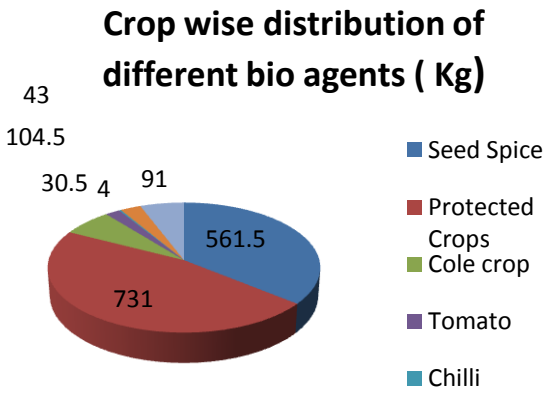


Fig.1

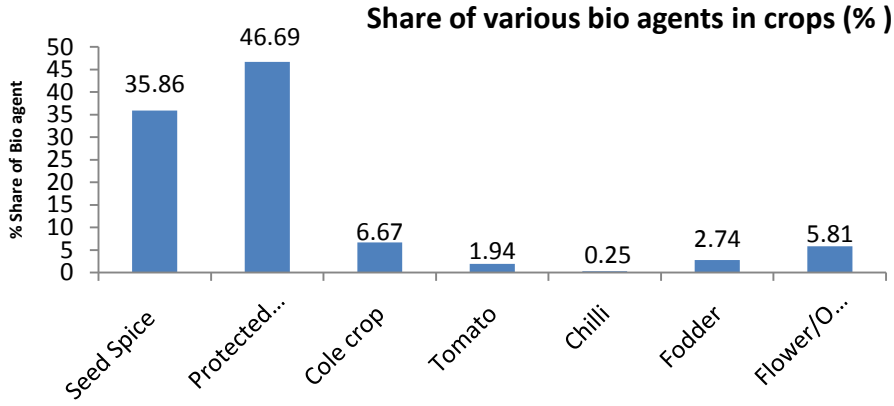
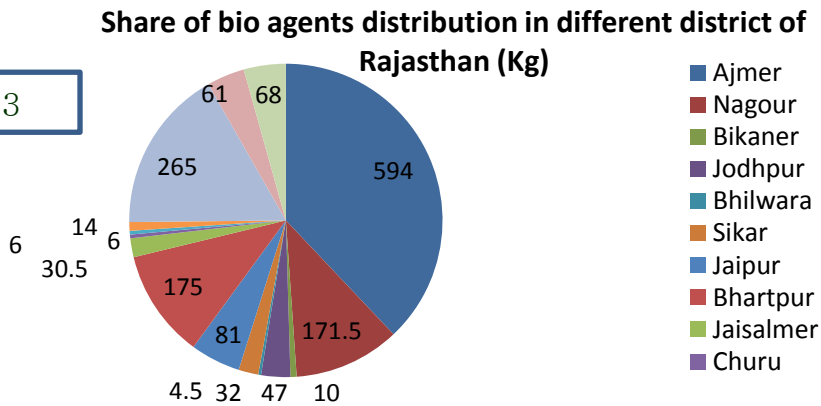


Fig.2

Fig.3



Transfer of

Field days were organized in different villages by ICAR-NRCSS, Ajmer

Four Field Days were conducted at four different places in the cropping season to show the performance of FLDs on fenugreek variety AFg-3 and fennel variety AF-2. Two Field Days on FLD on fenugreek variety AFg-3 and fennel (variety AF-2) was conducted at Mohbatsar (Jhunjhunu) and Prempura (Nagaur) on 29.03.2018. In the field day, Director and scientists of ICAR-NRCSS discussed with farmers about the interventions made in FLDs and showed the effect of different interventions of FLDs on the performance fenugreek variety AFg-3 for growth and yield in comparison to local varieties. Similarly the Director, ICAR-NRCSS along with his team also organized a field day on fenugreek variety AFg-3 at Prempura (Nagaur) on same day and seen the impact of FLDs and compared with local cultivar for growth and yield of FLDs. In both the programme, 40 and 70 farmers including farm women and youths, respectively were participated.

A field day on frontline demonstration (FLDs) for fennel (variety AF-2) was conducted at Sanju (Nagaur) on 3rd April, 2018. In this field day, Director and a team of Scientists, ICAR-NRCSS, Ajmer interacted with the farmers (including farm women) about the motive of FLDs on farmer's field. Director, Dr. Lal address the farmers and advise them to adopt the cultivation of fennel, fenugreek and cumin as region has a huge potential for these crops. In the programme, Dr. N.K. Meena, Sr. Scientist (Ag. Entomology), Sh. Honnapa Asangi, Scientist, Sh. S.P. Maheria, CTO, ICAR-NRCSS, Ajmer, Sh. Om Prakash, AAO and Sh. Kishna Ram, Ag. Supervisor, Sanju were present and discussed with the farmers. Scientists, NRCSS exhibited the FLD results. In the programme, 65 farmers, farm women and youths were participated and benefited. Similarly Dr. Gopal Lal, Director, ICAR-NRCSS, Ajmer and his scientific team, organized a field day on frontline demonstration (FLDs) for fennel (variety AF-2) at Udliyawas (Bilada), district Jodhpur on 9th April, 2018. In the programme, Dr. Lal addressed the farmers and discussed various issues related to seed spice's importance, its role in upliftment of farmer livelihood through different interventions (quality production, stage and method of harvesting, processing, packaging and value addition). In the programme, Dr. N.K. Meena, Sr. Scientist (Ag. Entomology), Sh. Honnapa Asangi, Scientist, ICAR-NRCSS, Ajmer, Sh. Ramkaran Bagwan, AAO, Bilada and Sh. Damodar Nath Yogi, Ag. Supervisor, Bilada were also present and discussed with the farmers on various aspects on improved production technology of seed spices in the area. In the programme, a total of 53 farmers were participated and benefited.









Human Resource Development

International programme training/study visit for students of University of Arkansas, USA.

Farm visit (field crops, spices, vegetables and flowers) and interaction of foreign students and professors with scientists and farmers at NRCSS, Ajmer, Nadi, Pushkar, Govindgarh and other nearby villages with the help of NRCSS scientist. The programme was organized from 6 January to 7 January 2018 by Dr. Sharda Choudhary, Dr. Ravindra Singh and Dr. Arvind K. Verma. Seven female students and two professors of the University of Arkansas, USA, participated in the training cum exposure visit. After going back to their country students have appreciated the visit by their blogs on university sites.





Training/seminars/symposia/ meetings Attended

➢Mr. Ravi Y undergone three months professional attachment training from 23rd November 2017 to 22nd February 2018 at Division of Vegetable crops, ICAR-Indian Institute of Horticultural Research, Hessaraghatta, Bengaluru, under the mentorship of Dr. Veere Gowda R. During this period, he has worked on research topic entitled"Studies on Performance of Tropical Carrot (*Daucus carota*L.) Genotypes under Bengaluru Condition" Out of ten carrot genotypes evaluated, Carrot variety-4 performed better with respect to growth and yield parameters with better orange red colour roots.

➢Dr. O.P. Aishwath Participated in the symposium organised by ICAR-IISR and Indian Society of Spice in association with Nagaland University during 15-17.03.2018. He presented a paper and received the Dr. H.S. Mehta Memorial Award and also awarded by **Fellow of Indian Society of Spices** by the ISS in SYMSAC - IX at SASRD, Medziphema, Nagaland .



From the Director's Desk



(Gopal Lal)

Published by: Dr. G. Lal, Director, ICAR-NRCSS, Tabiji, Ajmer (Rajasthan), India