NRCSS
E- News Letter

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FROM DIRECTOR'S DESK



Seed spices are our real wealth and sustaining their production is the prime motive of our centre. Seed spice research at NRCSS, Ajmer has taken due pace in the recent times and during the ensuing crop season I experienced the fragrance of seed spices at the flowering stage. All the crops are under the blooming stage and research trials at the centre are properly managed. The present rabi season was found to be highly fluctuating, very huge difference of day and night temperature was observed in the early weeks of the year. Cool nights followed by bright sunny days might have caused oxidative damage and in response hyper-red-pigmentation occurred in cumin plants parts, which was one of the major problem found at NRCSS and at farmers field, in the later phase plants recovered and gained normal growth. Moreover, this year was very much blessed by the winter rain showers, saving crores of rupees that would have been spent on electricity and diesels for uplifting water from bore-wells for irrigation, two showers in whole of the Northern Indian plains during critical flowering and post flowering stages had significantly increased the chances to harvest bumper yields in most of the crops. Though these natural rains benefited a lot but they also created favorable climatic conditions for plant enemies, a repeated bounce from low to high, high to low and again low to high temperature affected the population dynamics of diseases and pest population in all the crops for cumin alternaria blight incidence was also reported from most of the parts of the State. Yellowing in cumin plants at flowering and post flowering phase was a very common problem reported from various cumin growing areas. Studies on the factors responsible for yellowing in cumin is under progress and soon NRCSS may be able to answer the cause of the problem and definitely its control measure. In all the major seed spices fertigation system research is undergoing and promising results are visible both under drip and sprinkler irrigation system taken under raised bed planting, in the coming times improved resource efficient production technology models can be advised to farmers by the centre for harvesting best yields. Various other issues of genetic improvement, nutrient management, plant protection and basic sciences are under investigation. NRCSS is putting its best with the available resources to make seed spice everlasting.

Balraj Singh

Organized Modal Training Course on "Resource conservation techniques and micro-irrigation for precision input application in seed spices" from 18th to 25th January, 2013

Dr A. S. Faroda Sahab, Former Chairman, Agricultural Scientist Requirement Board, New Delhi and Former Vice Chancellor, Maharana Pratap University of Agriculture and Technology, Udaipur, has inaugurated the **Modal Training Course** on **17, January, 2013** at NRCSS. 24 officials/ teachers/ scientist from State Development agencies, ICAR Institutes/ SAUs from Kerala, Gujarat, Odessa and Rajasthan were participated and trained on different aspects of resource conservation technologies in the training course. The course directors were Dr Ravindra Singh and Dr Gopal Lal and Course Coordinators' were Dr R. S. Mehta and Dr Sharda Choudhary. Dr Balraj Singh Director NRCSS informed to participants that the idea of organizing this training on RCTS and Micro irrigation is to update the knowledge and to improve the skill of the officials from state development department/Scientist/Teachers from ICAR institutes, SAUs about the recent developments and strategies of RCT and micro irrigation to be followed for sustainable seed spice production in the country. The present training course designed by adopting the participatory approach, covering different aspects of RCTs and Micro irrigation. During 8 days of training different aspects of RCTs include a wide range of practices: No-till / minimum tillage approaches or reduction in tillage operations, were covered and participants seen all these aspects practically at NRCSS fields as well as farmers field visit. Other technologies include raised-bed planting, skip furrow irrigation in row planted cropping systems or with options of complementary crop (intercropping of seed spices with fruit crops), water harvesting and supplemental irrigation, mulching and residue management, live fences and vegetative barriers, agroforestry and horticulture, integrated nutrient management, integrated pest management, integrated tree-crop-livestock farming systems, and the rationale use of sloping land (contour farming, upwards planting in







residues etc.), nursery raising, protected cultivation were also covered for the benefit of participants. The participants seen and worked practical's on new innovations for nursery raising, protected cultivation (walk in tunnel, low tunnel) as well as with offseason production of vegetables and seed spices, micro irrigation, low pressure drip irrigation and fertigation opened the window for practicing conservation agriculture in arid and semi arid areas of the country. The training was completed on 25th January, 2013 and Sh. Ramchandra Choudhary, President, Ajmer Cooperative Dairy, Ajmer was chief guest in valedictory function and distributed the certificates to the participants.

NRCSS organized two days (2-3 February, 2013) National seminar on" Production, Productivity and quality of spices" at Jaipur

National seminar on" Production, Productivity and quality of spices" was organized at Panchayti Raj Bhavan by National Research Centre on Seed Spices, Ajmer. The programme was chaired by Padma Bhusan Dr. R. S. Paroda, Chairman Haryana Kisan Ayog. The other dignitaries were Dr. S.A. Patil (Chairman Karnataka Farmers Mission), Dr. O.P. Gill (Vice Chancellor, MPUAT), Dr. Umesh Srivastava (ADG, ICAR). Dr. Paroda stated the need to "Think globally and act locally". He mentioned the need to adopt improved cultivation practices. Dr. Patil told that government policies should be relooked and promotion of technologies already available should be emphasized, in his remarks he stated that just by policy reorientation India can feed another India. Dr. Gill is his address cited that farmers should take benefits of scientific knowledge and should adopt them at high level for harvesting high yield. Dr. Selvan explained the status of spice production and export, our country is the leader in spice consumption and export and nearly 6 percent of GDP share is from spice commodities. The programme was dedicated to spice improvement and development at broader level. The seminar was attended by various scientist from across the country along with industrialist, processors, farmers and students. In the function various issue of spice development were addressed. A thorough discussion happened on crop improvement, crop production and protection technologies. Time has come to break the ice of traditional farming practices and adopt the newly available hi-tech farming techniques. In his address Dr. Balraj Singh, Director of NRCSS, Ajmer emphasised on the adoption of improved varieties, better production technologies like raised bed planting with drip and sprinkler fertigation system.





Techniques of seed priming and pelleting have high potential if applied in seed spices, he also explained the sensitization for GAP (Good Agricultural Practices) in seed spices. The whole function is aimed with the motive to update the present status of spice research and development happening in the country and it is also a target to bring all the stakeholders together on a common platform for giving new direction to make India sustain as Spice Hub globally. In the function a huge gathering of seed spice growers was





also observed, they all came from different parts of Rajasthan and even from Gujarat. A innovative farmer coming from Gujarat was motivated by awarding a appreciation certificate by Dr. Paroda for his valuable invention of Solar driven Knapsack sprayer. On the occasion 4th Issue of International Journals of Seed Spices published by ISSS, Ajmer and two books 'Good Agricultural Packaging Practices' and 'Spices Fragrance' were also released. The Indian Society of Seed Spices, Ajmer also presented fellow awards to Dr. S.K Dubey, Dr. J.K Ranjan, Dr. Ravindra Singh, Dr. S.S Rathore and Dr. B.K Misra for their significant contrition in the research and development of Seed Spices. Vote thanks were presented by Dr Gopal Lal, Organizing Secretary, of the National Seminar.

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दिनांक 19 जनवरी को तबीजी अजमेर स्थित राष्ट्रीय बीजीय मसाला अनुसंधान केन्द्र ने अपने तेहरवें



स्थापना दिवस समारोह का आयोजन किया । स्थापना दिवस समारोह की अध्यक्षता डॉ. अमर सिंह फरोदा, पूर्व अध्यक्ष कृषि वैज्ञानिक चयन मण्डल नई दिल्ली ने कि जबकि डॉ एस. ए. पाटिल, पूर्व कुलपति कृषि विश्वविद्यालय धारवाड़ कर्नाटक एवं पूर्व निदेशक भारतीय कृषि अनुसंधान संस्थान, नई दिल्ली, समारोह के मुख्य अतिथि रहे तथा उन्होने इस अवसर पर स्थापना दिवस व्याख्यान भी दिया। समारोह में विशिष्ट अतिथि के रूप में श्री दीनबन्धु चौधरी, महासचिव, अजमेर नागरिक परिषद ने भाग लिया। स्थापना दिवस समारोह पर अतिथियों एवं आगन्तुकों का स्वागत करते हुए संस्थान के निदेशक, डॉ बलराज सिंह ने इस अवसर पर इस केन्द्र द्वारा बीजीय मसाला फसलों के क्षैत्र में पिछले 12 वर्षों में की गयी विभिन्न अनुसंधान उपलब्धीयों की जानकारी दी तथा उन्होने इन फसलों में वर्तमान में चल रहे विभिन्न अनुसंधान कार्यों का भी

विवरण प्रस्तुत किया तथा साथ–साथ इन फसलों में भविष्य में आने वाली चुनौतियों पर शुरू किये गये अनुसंधान कार्यों की भी जानकारी दी।

तेहरवें स्थापना दिवस समारोह में ^^jkstxkj d volj ,o ;okvk dh Hkfo"; e df"k e Hkfedk** विषय पर मुख्य अतिथि के रूप में अपना व्याख्यान प्रस्तुत किया। व्याख्यान में डॉ पाटिल ने भविष्य में कृषि क्षेत्र में युवाओं के लिए अनेकों रोजगार के अवसर उपलब्धता पर जोर दिया। उन्होनें कृषि एवं बागवानी के विभिन्न क्षेत्रों में शिक्षित बेरोजगार युवाओं के लिये अनेकों रोजगार के अवसर उपलब्ध होने की जानकारी दी। उन्होने बताया कि सब्जियों के संकर बीज उत्पादन तथा अन्य नकदी फसलों के बीज उत्पादन, आधुनिक तरीके से सब्जियों, फलों व फूलों की पौध उत्पादन, संरक्षित खेती में फसल प्रबंधन, ग्रीन हाऊस नेटहाउस जैसी संरक्षित संरचनाओं के बनाने तथा उनके रखरखाव, ड्रिप सिंचाई प्रणाली को लगाने व उसके रखरखाव, (कस्टम) किराये के आधार पर पादप संरक्षण, खरपतवार नियंत्रण, लेसर लेवलिंग, फार्म स्तर पर मूल्य वर्धन, लघु स्तरीय प्रोसेसिंग, एग्रो क्लीनिक तथा कृषि जानकारी हेतु सूचना केन्द्र चलाने, विभिन्न क्षेत्रों में किसानों के उच्च गुणवत्ता बीज व अन्य कृषि आदान उपलब्ध कराने, कृषि टूरिजम, कृषि क्षेत्र में माइक्रोफाइनेनसिंग आदि अनेकों क्षेत्रों में भारी संख्या में रोजगार उपलब्ध होने के विषय में विस्तार पूर्वक जानकारी दी। उन्होने बताया कि अब समय आ गया है कि देश में कृषि की दिशा व दशा दोनों को बदलने की आवश्यकता है तथा बदलाव युवाओं की भागीदारी द्वारा ही संभव है। युवाओं को कृषि की नवीनतम प्रौद्योगिकीयों के बारे में प्रशिक्षित करना अत्यन्त आवश्यक है तथा इसके लिए शिक्षित बेरोजगार युवाओं को बड़े पैमाने पर प्रोत्साहित करके इस क्षेत्र में आकृषित करने की गंभीर आवश्यकता है। समारोह की अध्यक्षता करते हुए डॉ अमर सिंह फरोदा ने भी कृषि क्षेत्र में भविष्य में आवश्यक विभिन्न बदलाव की आवश्यकता पर जोर दिया। उन्होने बताया की अब समय आ गया है कृषि के विभिन्न क्षेत्रों में नवीनतम प्रौद्योगिकीयों को अपनाकर उत्पादकता व गुणवत्ता दोनों को काफी हद तक बढ़ाने की आवश्यकता है। उन्होने डॉ. पाटिल द्वारा दिये गये स्थापना दिवस व्याख्यान की प्रशंसा की तथा कहा कि विभिन्न नवीनतम तकनीको को अपनाकर युवा खेती मे अनेको रोजगार पैदा कर सकते है । समारोह मे कृषि विज्ञान केन्द्र अजमेर के वैज्ञानिक, कृषि विभाग के अधिकारीयो, डी ए वी कालेज अजमेर के प्राध्यापको के अतिरिक्त भारतीय कृषि अनुसंघान परिषद् के मुख्यालय मे कार्यरत प्रधान वैज्ञानिक डॉ एस. के. मल्होत्रा, संस्थान के पूर्व निदेशक डॉ. एम. एम. अनवर, काजरी जोधपुर स्थित एन. बी. पी. जी. आर. के क्षेंत्रिय अध्यक्ष डा ओमवीर सिंह के अतिरिक्त अनेको वेज्ञानिक, छात्रो व कई गणमान्य लोगो ने भाग लिया श्री दीनबन्धु चौधरी ने विशिष्ठ अथिति के तोर पर बोलते हुऐ इस सस्थान द्वारा बीजिय मसाला फसलो मे किये जा रहे अनुसंघान कार्यो की प्रशंसा की तथा विश्वास व्यक्त किया कि सस्थांन भविष्य मे और प्रगति करेगा । डा. रविन्द्र सिंह वरिष्ठ वैज्ञानिक ने पूरे कार्यक्रम का संचालन किया जबकि डा. गोपाल लाल प्रधान वैज्ञानिक ने सभी अथितियो का धन्यवाद व्यक्त किया । इसके बाद विभिन्न लोगो व अथितियो ने केन्द्र के फार्म पर चल रहे विभिन्न अनुसंघान कार्यो का अवलोकन किया ।





National Farmers Fair and *Kisan Gosthi* organized on 15th February 2013

National Farmers Fair and Kisan Gosthi was organized on 15th February 2013 on the mela ground of National Research centre on seed spices, Tabiji, Ajmer (Rajasthan). Around 1000 farmers, agriculture students, teachers, scientists and traders of agricultural inputs participated in this fair. The farmers fair was inaugurated by the Chief Guest of the function Shri Hawa Singh ji Hudda, Advocate General, Haryana Government. Shri A.M. Tiwari, IAS and Managing Director, Gujarat Narmada Valley Fertilizers & Chemicals Ltd.(GNFC) and Dr. S. M. K. Naqvi, Director, Central Sheep and Wool Research Institute, Avikanagar 304501 (Rajasthan) were present as Special Guest on this occasion. There was a very informative and interactive speech delivered by Dr. Balraj Singh, Director, NRCSS during the national farmers fair. He advocated for









technology driven agriculture for attracting youths of country and making seed spices production a more remunerative enterprise. In K*isan Gosthi* , experts answered the questions raised by farmer on various problems face by them in day to day agriculture operations and easy solution were provided in local languages . Besides these, various teachers and researchers from state



agricultural universities, KVKs as well as from officers from state government agencies involved in development, extension and marketing of spices and spice growers exchanged their views and discussed with farmers on many aspects of crop production with special focus on seed spices. One of the major emphases of *kisan gosthi* was to educate youth farmers and farm women about the latest technological developments to ensure the higher production of quality spices. Innovative farmers were praised for their work and awarded with appreciation certificate by the chief guest Shri Hawa Singh Huda and farmers were also given prizes during question–answer session in the *kisan gosthi*. Stalls from various agri-inputs and ICAR institutes were awarded with appreciation certificate by Shri A.M. Tiwari, M D, GNFC and Dr. S. M. K. Naqvi, Director, CSWRI.



The farmers fair was jointly by National Research Centre on Seed Spices, Ajmer, Indian Society of Seed Spices, Ajmer and National Horticulture Mission, Directorate of Arecanut and Spices Development, Calicut. At the end of function, Dr. S.S. Meena, Sr. Scientist and Convener of the National Farmers fair and Kisan Gosthi presented formal vote of thanks and expressed his gratitude for making this event a great success.

Farmers training on “Improvement in production, productivity and quality of seed spices” in Mewar and Malwa region at Pratapgarh, Rajasthan.

A farmers training on “Improvement in production, productivity and quality of seed spices in Mewar and Malwa region” was organized at Pratapgarh, Rajasthan under NHM project on 23 and 24 February 2013. During the inaugural, importance of training in the Mewar and Malwa region was narrated by the Patron of the training programme Dr Balraj Singh, Director NRCSS, Ajmer. Dr Singh also delivered the lecture on production and productivity of seed spices in the country and international scenario for export purpose. In his second lecture, emphasis was given on protected cultivation for improving resource use efficiency and rural youth employment and obviously quality also. Apart from the seed spices, farmers were interacted with Dr Singh on other crops especially on vegetable crops and felt their satisfaction. In the afternoon, Dr Y.K. Kanaujia, KVK Basar, Pratapgarh delivered the lecture on weed management in seed spices. Lectures on nutrient management and on vulnerability and adaptability of seed spices with abiotic stresses under changing climatic scenario were delivered by Dr O.P. Aishwath. On the next day, Dr Y.K. Sharma delivered the lectures on insect-pest and disease management in seed spices. Dr R.K. Solanki delivered the lectures on varieties of seed spices and seed production technology as well as precaution during seed storage. The last lecture of the training was delivered by Dr R.S. Rathore, KVK, Chittorgarh on production technology of cumin. In this training programme, farmers were participated from the periphery of 50 kilometre of the region. Most of the farmers were from the tribal belt of the district, where agricultural technologies dissemination is quite essential. On 24.02.2013, there was a closing ceremony of the training programme with the distribution of certificates among the participants. The programme was ended with vote of thanks simultaneously highlighting importance of seed spices in agro-biodiversity and inter-cropping by the training coordinator Dr O.P. Aishwath. There was a wide coverage of training by the news papers and local TV channels.







On and Off-campus Farmer's Training Programme Organized

Two farmers training programmes were organized in the month of January 2013. First training from 8-12 January 2013. Second training from 13-18 January, 2013 for the farmers of Bhilwara district at NRCSS ajmer under ATMA project, Bhilwara. 60 seed spices growing farmers were benefited by these trainings. Title of the training was " Navintam Bijiye Masala Utpadan Takniki". Dr. Balraj Singh was Chairman, Dr. Gopal Lal was Secretary, Dr. Sharda Choudhary and Dr. R.K. Solanki were the convener of the training.

Organizing Mass Campaign week (14-23 Feb, 2013) under National Horticulture Mission

A mass campaign week(14 -23, Feb, 2013) was organized in seed spices growing areas



of Rajasthan for dissemination of technologies for improvement in quality of seed spices, their post harvest handling, processing and value addition.



The mass campaign programme was organized under the leadership of Dr Balraj Singh,



Director, NRCSS, Ajmer which is sponsored by Directorate of Arecanut



and Spice Development, Horticulture Mission, of the centre, Scientists Sharma, Ravindra Singh, R. K. Solanki, R. S.



Calicut under National Government of India. Director (G. Lal, R. K. Kakani, Y. K. O. P. Aishwath, R. S. Mehta, Meena, R. D. Meena, and

Mukesh Vishal, technical officers (S. P. Maheria, M. A. Khan & S.R. Meena) and field technician (S. R. Balai & G.K. Tripathi) visited in seed spice growing area of Rajasthan state during the event for dissemination of technologies for improvement in quality of seed spices. The main objective of the campaign beside improved production technology and post harvest management was to enhance the quality of seed spices. Different group of stake holders viz. farmers farm women, extension worker, students and traders were contacted through meetings, discussion, field days at various places like farmers field, Chopal, temples, schools, Patwar Bhavan, KVK premises etc.

During meetings seed spices expert delivered lecture on various aspect of improved





production technology, post harvest management, quality improvement and value addition of seed spices. During meeting folders on improved production technologies of seed spices were also given to stake holders. Farmers ranging from 25 to 2000 participated in various meetings and





farmers fairs during the occasion. Nearly 10,000-12, 0000 stake holders covered during the mass campaign who were made aware for adoption of improved production technology of seed spices specifically use of proper pesticide, correct dose

and method of application for ensuring better quality of seed spices. Besides, these the various problems of farmers in respect to seed spice cultivation were also addressed for enhancing production and productivity of seed spices. The various activities of mass campaign were coordinated by Dr. G. Lal, Principal Scientist (Horticulture) and principal Investigator the project**.** The campaign was undertaken with the collaboration of SAUs, their KVKS, state department of Agriculture and Horticulture and some NGO in seed spice growing area of Sekar, Nagore, Jalore, Jodhpur, Barmer, Jaisalmer, Chottorgarh, Pratapgarh, Jaipur, Ajmer, Jhalawad and Kota districts of Rajasthan.

Up comings:

Farmers Training Programme at the centre	**:**	**5-8 March, 2013**
Research Advisory Committee Meeting	**:**	**14-15 March, 2013**
Farmers Training Programme at CSWCTRI, Kota	**:**	**18-19 March, 2013**
Farmers Training Programme under DBT project	**:**	**25-26 March, 2013**

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