

DOGR Nevys

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From Director's Desk



It is onions yet again. The prices of onion had peaked in later half of 2013, particularly during August to October, creating ripples in the trade and also in political circles. Onion, an indisputable ingredient in Indian cooking, has lately become an indisputable ingredient of many policy decisions also. Despite of increased onion production

over last ten years, the critical shortage in arrivals of onion produce in the market is being experienced during August to January. *Rabi* onion, which is main crop, remains available from May to September. Thereafter, the market prices are highly dependent on the arrival of *kharif* produce from October to December.

As per the latest estimates of National Horticulture Board the area under onion in 2012-13 was 9.58 lakh hectares with a production of 163.08 lakh tonnes, which was lower than that of an area of 10.97 lakh hectares and production of 175.11 lakh tonnes in 2011-12. However, this marginal reduction should not have resulted in observed steep hike in the onion prices. Nor export appears to be a reason for this as onion exports have remained between 14 - 18 lakh tonnes for the last five years. The continuous and late rains during 2013 have affected the timely arrival of the *kharif* crop in the market. Maharashtra, Gujarat, Karnataka, Bihar and Andhra Pradesh are the major producers of *kharif* onion. Nasik, Pune, Solapur and Ahmadnagar are the main kharif onion producing districts of Maharashtra, while Dharwad, Chitradurga, Gadag, Haveri, Bagalkot and Davengere are the zones that produce most onions in Karnataka. The districts of Surendranagar and Bhavnagar are the onion zones of Gujarat. Due to unseasonal rains in these onion producing areas, the *kharif* crop had been adversely affected and this also delayed the arrival of the onions in the market. These factors perhaps also acted as triggers for hoarding of the onions and that further aggravated the problem of onion supply.

miggen

Jai Gopal

Research Highlights

White Multiplier Onion - 'WM-514'

Multiplier onion belongs to "aggregatum" group (*Allium cepa* var. *aggregatum*) where single bulb divides into multiple bulbs. Multiplier onions usually form fairly uniform sized bulbs per clump. A few varieties of multiplier type of onion have been developed which are of red colour only. These are commercially grown in southern part of India. Multiplier onion has a great export potential. It is used whole for cooking especially for "rasam".

Till date white Multiplier onion varieties have not been developed in India. DOGR has collected a white multiplier onion from Karimnagar District of Andhra Pradesh. This germplasm "WM-514" was evaluated from 2009 to 2012 during late *kharif* and *rabi* seasons for the first time at DOGR. Observations were recorded for 22 characters in both the seasons. Average total yield during late *kharif* and *rabi* seasons was about 20 t/ha. The number of bulblets was 4 to 6 in a cluster with cluster diameter of 3.54 to 4 cm and length up to 3 cm. Total soluble solids ranged between 12.3 and 13.7%. Bulblets are ovate and attain maturity after 110 – 125 days of transplanting. The main advantage of this line is that it can be multiplied clonally as well as through seeds under plain conditions. It can be used for pickling as well as cooking.



Crop of 'WM-514'



Bulbs of 'WM-514'

Vijay Mahajan, A.J. Gupta and Jai Gopal

Improved INM Module for Rabi Onion

Chemical fertilizers play a major role in increasing onion bulb yield. However, the fertilizer application in India is mainly restricted to nitrogen, phosphorus and potassium nutrients. Further, application is unbalanced, tilted more towards N followed by P and K, which is the root cause for low yields and declining soil fertility status in many areas. Application of organic manures not only improves soil organic carbon content but also supplies secondary and micronutrients required by the crops, and maintains soil quality, crop growth and yield. Although organic production provides better quality food and a balanced environment, almost 25- 40% lesser yield was recorded in organic farming of onion. The largest challenge at present is to increase the productivity through integrated use of organic manures, microbial inoculants, and inorganic fertilizers as per crop requirement at right time without endangering the environment. Keeping this in view, the Directorate (DOGR) evaluated the integrated nutrient management (INM) modules in comparison to previous recommendation of 150:50:80:50 kg NPKS + 20 t FYM/ha for onion crop.

Combined application of 75% recommended dose of fertilizer (110:40:60:40 kg NPKS/ha) along with organic manures equivalent to 75 kg N (approximately FYM 15 t/ha or poultry manure 7.5 t/ha or vermicompost 7.5 t/ha) and biofertilizers @ 5 kg/ha each *Azospirillum* and phosphorus

solubilizing bacteria recorded the highest marketable bulb yield. It was statistically at par with previous recommendation of DOGR (150:50:80:50 kg NPKS + 20 t FYM/ha). The INM modules gave significantly higher marketable bulb yield over the inorganic fertilizer treatment alone. However, no significant difference was observed for storage losses. Combined application of organic manures and inorganic fertilizers improved soil organic carbon and soil available NPKS content as compared to initial soil fertility status. The cost benefit ratio in the improved INM module was higher as compared to the previous recommendation of DOGR with an increased profit of 4-5%. These INM modules were also tested in All India Network project on Onion and Garlic for three years at 13 locations. The results of these multilocation trials under varying conditions confirmed that combined application of 75% recommended dose of fertilizer (110:40:60:40 kg NPKS/ha) along with organic manures equivalent to 75 kg N and biofertilizers @ 5 kg/ha each Azospirillum and phosphorus solubilizing bacteria produced higher bulb yield and recorded higher benefit cost ratio over the previous recommendation. Adoption of this recommendation not only saves costly inorganic fertilizers by 25%, but also protect environment from pollution. Thus, this should be adopted for profitable and environmentally sustained onion production.

DOGR News

MoU Signed

In its attempt to commercialize improved onion varieties through public-private partnership, Directorate of Onion and Garlic Research (DOGR) licensed onion variety Bhima Super to Jindal Crop Sciences Pvt. Ltd., an ISO 9001:2008 certified company. A Memorandum of Understanding (MoU) in this regard was signed by the Director, DOGR with the Director of Jindal Crop Sciences Pvt. Ltd. on 27-08-2013 at DOGR, Rajgurunagar. Jindal Crop Sciences Pvt. Ltd. located at Jalna (India), is in seed business since 1979 and specialist particularly in onion breeding, production and marketing. The MoU has been formulated as per the ICAR guidelines and approved by the Zonal Technology Management Committee, CIRCOT, Mumbai. As per MoU, DOGR extended a non-exclusive license to Jindal Crop Sciences Pvt. Ltd. for seed production and distribution of Bhima Super. Bhima Super is a red onion variety from DOGR that has been recommended for kharif season in Chhattisgarh, Delhi, Gujarat, Haryana, Karnataka, Madhya

DDG (Hort.) visits DOGR



Inauguration of extended building by Dr. N.K. Krishna Kumar

Signing of MoU with Jindal Crop Sciences Pvt. Ltd.

Pradesh, Maharashtra, Odisha, Punjab, Rajasthan and Tamil Nadu. It can also be grown in late *kharif*. DOGR is confident that the said MoU will promote the widespread adoption of this variety in India and ensure the availability of quality seed to the farmers.

Dr. N.K. Krishna Kumar, Deputy Director General (Horticulture), ICAR, New Delhi visited DOGR on July 5, 2013. Dr. Jai Gopal, Director DOGR formally welcomed the DDG. Dr. Krishna Kumar inaugurated the extended building and discussed about its appropriate utilization. To mark this occasion, he planted a sapling in the premises of new building. The inaugural function was followed by a meeting with scientists. Dr. Krishna Kumar had one-to-one interaction with the scientists, discussed their research projects in detail and offered valuable suggestions. He also visited the laboratories, field experiments and demonstration park wherein relevant kharif technologies of DOGR had been exhibited. He also had a meeting with administrative staff and encouraged them to facilitate the office procedures for efficient working. He praised the DOGR for its well maintained farms and urged that scientists should dedicate fully to the assigned work so that DOGR excels in development and commercialization of products and technologies.

Institutional Activities IMC Meeting

The 17th meeting of Institute Management Committee (IMC) of the Directorate was held on 5th August 2013 at DOGR, Rajgurunagar, Pune. It was chaired by Dr. Jai Gopal, Director, DOGR and attended by all other members including Dr. Madhuban Gopal, National Fellow, Division of Agricultural Chemicals, IARI, New Delhi, Dr. G.S. Karibasappa, Principal Scientist, Fruit Crops Division,

IIHR, Bangalore, Dr. L. Pugalendhi, Professor, Tapioca and Castor Research Station, Yethapur, Tamilnadu, and Dr. V. Mahajan, Principal Scientist, DOGR. Shri S. Neeraj AO, DOGR and member secretary IMC, Shri C.M. Wakodkar, AAO, DOGR, Ms. V.N. Chaudhari, AFAO, DOGR and Shri D.B. Mundharikar, PS to Director DOGR were also present. The Director welcomed the committee members and presented the progress report of the Directorate. Dr. V. Mahajan Principal Scientist, presented the Vision 2050 of the Directorate and it was appreciated by all the members. Director elaborated the aspirations of the directorate for the XII Plan EFC and also expressed that the primary focus of DOGR is on innovative measures. The committee discussed the agenda items and approved the works and equipment proposed for 2013-14 in XIIth plan EFC. The members offered valuable suggestions in the light of ICAR guidelines and as per need of the Directorate. Other agenda items were also approved unanimously by the IMC. The meeting ended with the vote of thanks by Mr. Subodh Neeraj, Member Secretary, IMC.

कृ.वि.के. की वार्षिक क्षेत्रीय कार्यशाला में प्याज एवं लहसुन अनुसंधान निदेशालय

डॉ. पंजाबराव देशमुख कृषि विद्यापीठ, अकोला में 29-31 जुलाई 2013 के दौरान आयोजित जोन – पांच (आंध्र प्रदेश और महाराष्ट्र) के कृ.वि.के. की वार्षिक क्षेत्रीय कार्यशाला में प्याज एवं लहसुन अनुसंधान निदेशालय ने भाग लिया। कार्यशाला का उद्घाटन डॉ. के. डी. कोकटे, उप महानिदेशक (कृषि विस्तार), भारतीय कृषि अनुसंधान

हिन्दी सप्ताह का आयोजन



हिंदी सप्ताह का समापन समारोह

प्याज एवं लहसुन अनुसंधान निदेशालय, राजगुरूनगर, पुणे में दिनांक 13/09/013 से 19/09/2013 तक हिन्दी सप्ताह मनाया गया । दिनांक 13/09/013 को हिन्दी कार्यशाला आयोजित की गई । इस में श्री सुबोध नीरज, प्रशासनिक अधिकारी ने निदेशालय के कार्मिकों को हिन्दी में अधिकाधिक कार्य करने के लिए उपलब्ध स्रोतों की जानकारी दी, साथ ही परिषद द्वारा हिन्दी भाषा के अधिकतम उपयोग संबंधी निर्देशों



IMC Meeting in progress

परिषद, नई दिल्ली द्वारा, श्री संजय धोत्रे, सांसद की अध्यक्षता में किया गया। प्याज एवं लहसुन अनुसंधान निदेशालय द्वारा विकसित तकनीकों और किस्मों को डॉ. एस एस घाडगे, वरिष्ठ वैज्ञानिक (कृषि विस्तार), प्या. ल. अनु. नि., राजगुरुनगर द्वारा प्रदर्शित किया गया। कृ.वि.के. कार्यक्रम के समन्वयकों और अधिकारियों ने प्याज एवं लहसुन अनुसंधान निदेशालय द्वारा विकसित इन विभिन्न प्रकाशनों और प्रौद्योगिकियों में बहुत रुचि दिखाई।

की भी जानकारी दी गई। कार्यशाला के दौरान डॉ. जय गोपल, निदेशक प्या.ल.अनु.नि., राजगुरूनगर ने कार्मिकों को हिन्दी में अधिकाधिक कार्य करने के लिए प्रेरित किया।

हिन्दी सप्ताह के दौरान निदेशालय में प्रश्न मंजुषा, शुध्द लेखन, हिन्दी अनुवाद, वाद-विवाद, कविता पाठ एवं निबंध प्रतियोगिताओं का आयोजन किया गया जिसमें निदेशालय के अधिकारियों/कर्मचारियों ने बढ़-चढ़ कर भाग लिया । हिन्दी सप्ताह के समापन समारोह का कार्यक्रम दिनांक 19/09/2013 को अपरान्ह में प्रभारी निदेशक डॉ. विजय महाजन, प्रधान वैज्ञानिक की अध्यक्षता में सम्पन्न हुआ, जिसमें डॉ. ए. जे. गुप्ता, वरिष्ठ वैज्ञानिक ने सूत्र संचालन किया । डॉ. ए. ए. मुरकुटे, वरिष्ठ वैज्ञानिक ने अध्यक्ष महोदय का पुष्प गुच्छ देकर स्वागत किया । अध्यक्ष महोदय ने अपने भाषण में कहा कि एक हिन्दी दिवस, सप्ताह या पखवाड़ा मनाने से काम नहीं चलेगा । वर्ष के पूरे बारह महीने हिन्दी में काम करो और प्रतिदिन हिन्दी दिवस मनाओ । इस तरह अपने विचारों से अवगत करने के पश्चात् प्रतियोगिताओं के विजेता प्रतियोगियों को पुरस्कार वितरित किये गये । श्री सुबोध नीरज, प्रशासनिक अधिकारी के आभार प्रदर्शन के साथ हिन्दी सप्ताह का सफलता पूर्वक समापन हुआ ।

निदेशालय में सतर्कता जागरूकता सप्ताह का आयोजन

केन्द्रीय सतर्कता आयोग, नई दिल्ली और भारतीय कृषि अनुसंधान परिषद् के आदेशानुसार प्याज एवं लहसुन अनुसंधान निदेशालय में सतर्कता जागरूकता सप्ताह का आयोजन दिनांक 28 अक्टूबर 2013 से 2 नवम्बर 2013 तक किया गया। सतर्कता सप्ताह हेतु इस वर्ष का विषय था सुशासन को बढ़ावा देने में सतर्कता का सकारात्मक योगदान । सतर्कता सप्ताह के दौरान प्रथम दिवस दिनांक 28 अक्टूबर 2013 को निदेशालय के समस्त कार्मिकों ने प्रात: 11 बजे सभा कक्ष में लोक सेवा, सत्यनिष्ठा, ईमानदारी एवं पारदर्शिता की प्रतिज्ञा ली, साथ ही अपने संस्थान को भ्रष्टाचार रहित बनाए रखने के लिए भी प्रतिज्ञा ली । सतर्कता जागरूकता सप्ताह के प्रचार प्रसार के लिए निदेशालय के मुख्य प्रवेश द्वार पर बैनर एवं सूचनापट्ट पर परिपत्रों द्वारा जागरूकता लाने का प्रयास किया गया।

सतर्कता सप्ताह के दौरान जागरूकता गोष्ठी का आयोजन दिनांक 01 नवम्बर 2013 को अपराह्न 3.30 बजे निदेशालय के सभागार में रखा गया। इस कार्यक्रम में सर्वप्रथम निदेशालय के प्रशासनिक अधिकारी श्री सुबोध नीरज ने अपने विचार व्यक्त किये। तत्पश्चात् सतर्कता अधिकारी डॉ. विजय महाजन ने समस्त कार्मिकों से सतर्कता के साथ सत्यनिष्ठा, ईमानदारी एवं पारदर्शिता से कार्य करने का आह्वान किया। निदेशालय की सहायक वित्त एवं लेखा अधिकारी सुश्री विजया एन चौधरी एवं तकनीकि अधिकारी श्री एन एल गोरे ने भी भ्रष्टाचार मुक्त कार्यकलाप करने पर बल दिया। अंत में संस्थान के निदेशक डॉ. जयगोपाल ने विभिन्न प्रकार के भ्रष्टाचार को परिभाषित किया और इनसे मुक्त रहने पर संस्थान को बधाई दी, साथ ही इस संकल्प को बनाये रखते हुए लोक सेवा में सत्यनिष्ठा, ईमानदारी एवं पारदर्शिता से कार्य करने का आह्वान किया। प्रशासनिक अधिकारी श्री सुबोध नीरज के धन्यवाद प्रस्ताव के साथ कार्यक्रम सम्पन्न हुआ।

जनजातीय उपयोजना (टी.एस.पी.) के तहत गतिविधियां

प्याज एवं लहसुन अनुसंधान निदेशालय, राजगुरूनगर, पुणे ने 1 अप्रैल 2013 से जनजातीय उपयोजना के अंतर्गत महाराष्ट्रं के नंदुरबार एवं गुजरात के दोहद, नर्मदा, डाग्स और वल्साड जिलों के आदिवासियों के विकास के लिए योजना बनायी है। इस उपयोजना द्वारा आदिवासियों को प्याज एवं लहसुन की खेती के लिए प्रशिक्षण, प्रदर्शनी एवं उत्पादन सामग्री प्रदान की जाएगी जिससे उनकी आजीविका में सुधार आएगा।

कृषि विज्ञान केन्द्र, नंदुरबार में प्रशिक्षण कार्यक्रम का आयोजन



डॉ. जय गोपाल द्वारा किसानों को मार्गदर्शन

जनजातीय उपयोजना के तहत, 30 सितम्बर 2013 को एक दिवसीय प्रशिक्षण कार्यक्रम का आयोजन किया गया। यह प्रशिक्षण टी.एस.पी. योजना के तहत चयनित किसानों के लाभ के लिए आयोजित किया गया, जिससे आदिवासी क्षेत्र में प्याज और लहसून का उत्पादन क्षेत्र बढ़ाया जाए। कार्यक्रम की अध्यक्षता श्री के. के. पाटील, अध्याक्ष डॉ. हेडगेवार सेवा समिती द्वारा की गयी और संचालन डॉ. जय गोपाल, निदेशक (प्या. ल.अनु.नि.) द्वारा किया गया। नंदरबार के विभिन्न गांवों से लगभग 250 किसानों ने कार्यक्रम में भाग लिया । डॉ. अमर जीत गुप्ता, वरिष्ठ वैज्ञानिक (उद्यान) एवं नोडल अधिकारी (टी. एस. पी.) योजना ने इस क्षेत्र में किए जा रहे टी. एस. पी. कार्यक्रम की गतिविधियों के बारे में किसानों को जानकारी दी। डॉ. जय गोपाल और श्री. के. के. पाटील ने प्याज और लहसून की खेती के प्रति किसानों के उत्साह की सराहना की। किसानों को प्या. ल. अनु. नि. द्वारा विकसित की किस्म भीमा शक्ति और लहसुन की किस्म भीमा ओमकार के बारे में जानकारी दी गयी, जो की इस क्षेत्र मे प्रसारित की जाएगी । श्री विश्वनाथ (वैज्ञानिक) ने बताया कि 3 बचत गट के प्रक्षेत्र पर प्याज बीजोत्पादन किया जाएगा। डॉ. गुप्ताह ने टी. एस. पी. द्वारा किसानों को मिलनेवाले लाभांशों के बारें में भी जानकारी दी । तत्पश्चात् कृषि विज्ञान केन्द्र, नंदुरबार द्वारा 8 वां कृषि तंत्रज्ञान महोत्सव का आयोजन भी किया गया। डॉ. जय गोपाल, निदेशक (प्या.ल.अनु.नि.) इस कार्यक्रम के मुख्य अतिथी थे। श्री नायक, सी.ई.ओ., जिला परिषद; श्री नवले, निदेशक, डॉ. हेडगेवार सेवा समिती; श्री निकम, परियोजना निदेशक, आत्मा और श्री राठी, उपनिदेशक कृषि विभाग आदि गणमान्य व्यक्ति भी उपस्थित थे । यह कार्यक्रम सफलता पूर्वक सम्पन्न हआ और इस कार्यक्रम के माध्यम से किसान उत्साहित हुए । श्री ललितजी पाठक, सचिव, डॉ. हेडगेवार सेवा समिती ने नंदुरबार में टी. एस. पी. योजना शुरू करने के लिए प्या. ल. अनु. नि. की सराहना की । डॉ. पाटील (बागवानी विशेषज्ञ) ने धन्यवाद प्रस्तुत किया।

प्रक्षेत्र दिवस और प्रदर्शनी परिक्षणों का आयोजन

जनजातीय उपयोजना को आगे बढाते हुए कृषि विज्ञान केन्द्र, नंदुरबार के सहयोग से दो प्रक्षेत्र दिवस आयोजित किए गए । प्रथम प्रशिक्षण "प्यााज का उन्नत बीजोत्पोदन" विषय पर कल्याणी महिला बचत गट, पालीपाडा के प्रक्षेत्र पर 13 नवम्बंर 2013 को किया गया जबकी दसरा प्रशिक्षण "प्याज में पौधशाला प्रबन्धन" विषय पर गंगा महिला बचत गट, करनजाली के प्रक्षेत्र पर 15 नवम्बर 2013 को मनाया गया। प्रशिक्षण कार्यक्रम का आयोजन डॉ. अमर जीत गुप्ता, वरिष्ठ वैज्ञानिक (उद्यान) एवं नोडल अधिकारी (टी. एस. पी.), श्री आर. एम. पाटील एवं श्री ए. आर. वाखरे के द्वारा किया गया । व्याख्यानों के अलावा कुल 10 प्रक्षेत्र प्रदर्शनी परिक्षण की भी शुरूवात नंदरबार के नवापुर, धडगांव एवं अक्कलकुआ तहसिल में की गयी है जिसमें से 4 प्रदर्शनी परिक्षण प्याज के भीमा शक्ति प्रजाति का उत्पादन, 3 प्याज के भीमा सुपर प्रजाति का बीजोत्पादन एवं 3 लहसुन के भीमा ओमकार और भीमा पर्पल का उत्पादन पर शुरू किए गए । प्रत्येक प्रदर्शनी 0.5 -1.0 एकड भूमि पर है। इस प्रदर्शनी के लिए चयनित किसानों के समूह को उत्पादन सामग्री जैसे प्याज का बीज, प्याज एवं लहसुन के कन्द, उर्वरक, कीट एवं रोगनाशक एवं खरपतवार नाशक प्रदान किए गए।

टी. एस. पी. परियोजना के तहत चल रही गतिविधियों का ब्योारा

गतिविधि	किसान समुह	स्थल
भीमा शक्ति किस्म के प्याज का उत्पादन	 जय बजरंग जलस्रोकत उपभोक्ता गट, निंबोनी नवचैतन्य पुरूष बचत गट, निजामपुर एकलव्य पुरूष बचत गट, पालीपाडा गंगा महिला बचत गट, करंजाली 	नवापुर
भीमा ओमकार और	1. कल्यााणी महिला बचत गट, पालीपाडा	नवापुर
भीमा परपल किस्म	2. महाराणा तंत्र मंडल, धनाजे	धडगांव
के लहसुन का उत्पादन	3. राजेन्द्र पाड़व शेतकरी मंडल, मालपाड़ा	अक्कलकुआ
भीमा सुपर और	1. रानी काज़ल शेतकरी मंडल, शेलकुई	धडगांव
भीमा शुभ्रा किस्म के	2. नृसिंग भगवान शेतकरी मंडल, उमरानी खुर्द	धडगांव
प्याज का बीजोत्पादन	3. देव पाड़व शेतकरी मंडल, मालपाड़ा	अक्कलकुआ



प्याज का उन्नत बीजोत्पादन पर प्रक्षेत्र दिवस

प्याज में पौधशाला प्रबन्धन पर प्रक्षेत्र दिवस



Extension Activities Training-cum-Demonstration Programme at Wardha



Demonstration to farmers

Training-cum-demonstration programme on 'Advance Production Technology of late *kharif* Onion' was organized by the DOGR in Wardha district during September 25 – 26, 2013. The objective of the programme was to train the farmers of Vidarbha region and demonstration of seed treatment and nursery raising technology. Dr. S. S. Gadge, Sr. Scientist from DOGR was the convener of this programme. The programme was presided over by Shri. Shantaram Sarage, a progressive farmer from Jalgaon village and Shri. Namdeorao Adhau, a progressive farmer from Akola district was the chief guest. The programme was attended by 50 farmers. Dr. S. S. Gadge, Sr. Scientist delivered a lecture on advance farming of late *kharif* onion, highlighted various kinds of late *kharif* onion varieties, improved farming technologies developed by DOGR and also answered the queries of the farmers. Shri. Namdeorao Adhau, the chief guest narrated his experience of successful production of *kharif* onion in Vidarbha. After training programme, two demonstrations on seed treatment and nursery raising were conducted at villages Jalgaon Tal. Arvi and Palora Tal. Karanja. The varieties developed by DOGR- Bhima Super, Bhima Raj, Bhima Red, Bhima Shakti, Bhima Shubhra and one local variety were sown in the farm of Shri. Narendra Mule, the progressive farmer of Jalgaon village. Another demonstration was given on the farm of Shri. Liladhar Gakhare of Palora village.

Workshop on Scientific Onion Cultivation by DOGR at Solapur

The Directorate (DOGR) conducted a workshop on 'Scientific Onion Cultivation' at Wangi Village of Solapur district on July 21, 2013. The event was organized by Lokmangal Sheti Pratik Sriram Pratishthan Mandal (LSPSPM), Wadal, Dist. Solapur and it was attended by about 50 onion growers from Wangi and nearby villages. The under graduate students of Lokmangal Agriculture College, Wadala were also present. The programme was presided over by Shri Tatyasaheb Sopate, a progressive farmer in the Wangi. Mr. Mandar Pawar, Mr. Salman Shaikh of LSPSPM and Mr. Humane, Agriculture Supervisor, Solapur were also present. Dr. A.A. Murkute, Senior Scientist (Horticulture), elaborated the different aspects of onion cultivation vis-à-vis scientific inputs pertaining to integrated nutrient management, integrated pest management, micro-irrigation and postharvest management. Farmers' queries about kharif onion production, mechanization, storage and marketing



Lecture by Dr. A.A. Murkute

issues were answered. Farmers expressed their desire to visit DOGR in near future to see the technologies and improved onion cultivation practices developed at DOGR.

Training-cum-Demonstration Programme for Farmers at Akola



Lecture by Dr. S.S. Gadge

Training-cum- demonstration programme on 'Advance Production Technology of *Kharif* Onion' was organized by DOGR for farmers at Tandali, Tal. Patur, Dist. Akola on June 11, 2013 and it was attended by about 50 farmers. On this occasion, Dr. S. S. Gadge, Sr. Scientist delivered a lecture

ATMA Training at DOGR

A training programme on "Scientific cultivation of onion and garlic" was organized by Directorate of Onion and Garlic Research (DOGR) under ATMA scheme for 25 farmers from Chandwad taluka of Nashik district from October 22-24, 2013 at DOGR. In the inaugural lecture Dr. on advance technology of *kharif* onion production and also elaborated about the onion varieties developed by DOGR for kharif season. The queries from the farmers regarding different aspects pertaining to selection of varieties, production practices including nursery management, irrigation, fertilizer application, pest control etc. were also answered after the lecture. Shri. Namdeorao Adhau, a progressive farmer from Patur taluka of Akola district also narrated his success story and attributed his success to DOGR. The programme ended with vote of thanks given by Shri. Manohar Atkar, a progressive farmer from Tandali. After the training programme, Dr. S. S. Gadge also demonstrated the nursery raising techniques to the participants in the field of Shri. Manohar Atkar using DOGR developed verieties namely Bhima Raj, Bhima Red, Bhima Super and Bhima Shubhra along with Baswant 780. Seeds were sown at the farm of Shri. Manohar Atkar. The frontline demonstration was also given on June 12, 2013 at the farm of Shri. Dinkar Pore, Sangola village, district Akola.

Jai Gopal, Director, DOGR welcomed all the participants and briefed about the ongoing activities of DOGR for the farmers. He elaborated about technologies developed by DOGR and their impact. Through nine lectures and seven practicals, different topics related to onion and garlic cultivation were covered by respective scientists of DOGR. The topics covered were: improved varieties of onion and garlic, nutrient and water management, pest and disease control, postharvest management, value addition, DUS characterization of varieties, seed production and role of self help groups in improving socio-economic status of farmers. Farmers were exposed to different agro-innovative techniques and various agro-practices were demonstrated to them at Rajgurunagar and Kalus farms of the Directorate. They were also taken to onion market. Interactive session was conducted after scheduled training programme in which the queries from the farmers were answered by the scientists. Speaking in valedictory function, Dr. Jai Gopal emphasized on application of Broad Bed Furrow with drip irrigation technology in Nashik district to save crop from water stagnation. He also suggested the village level



Field demonstration to farmers

production of quality onion seed following the guidelines given to farmers during this training. The programme ended with the distribution of certificates and vote of thanks by Dr. S.S. Gadge, coordinator of the training programme.

Human Resource Development

National deputations

Scientist	Title of training	Date	Venue
Dr. S.S. Gadge	Brainstorming session on Research in Agricultural Extension	April 26, 2013	CIFE, Mumbai
Ms. Ashwini Chavan	Short course training on Managing IP under PVP and PGR	May 15-24, 2013	DSR, Hyderabad
Dr. S. Anandhan	National Seminar on Horticultural Biotechnology	June 14, 2013	IIHR, Bangalore
Dr. V. Mahajan	Management Development Programme in Agricultural Research	July 23-27, 2013	NAARM, Hyderabad
Mr. Vishwanath	National Training on Varietal Purity Testing through Conventional and Biotechnological Tools	October 15-19, 2013	DSR, Mau
Dr. A. Thangasamy	National short course on Adaptation and Mitigation Strategies for Climate Resilient Agriculture	October 22-31, 2013	CRIDA, Hyderabad

Foreign deputation

Dr. S. J. Gawande completed International Training under HRD programme of NAIP- Hort in the area of Biosecurity during September 17 to December 16, 2013 at Washington State University, Pullman, WA, USA.

Recognition

First prize was awarded to poster entitled "Management of biodiversity in onion" authored by A. J. Gupta and V. Mahajan at National Conference on Agro- biodiversity management for sustainable rural development" held at NAARM, Hyderabad during November 14-15, 2013.



Dr. A. J. Gupta receiving the Best Poster Award



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