COTTON Innovate

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SCIENTIFIC TALK

Dr. B. Dhara Jothi, Principal Scientist (Entomology), delivered a talk on 'Pollinators in Agriculture' at CICR, Regional station, Coimbatore under the weekly Scientist seminar series on February 3, 2014. The topic covered the importance of pollination and the pollinator community. Detailed information was presented about the crops which are fully depended on pollinators for pollination, and agents of pollination etc. Role played by pollinators other than honeybees such as butterflies, moths, flies, and humming birds were also highlighted. Importance of bee pollination, conservation of bee colony, causes for the colony disappearance and the enemies of the beehives were highlighted. In her talk she outlined the steps to be followed to save the honeybee colonies . Creating awareness among the people about the cultivation of native plants especially those that provide nectar and forage for pollinators, usage of minimum pesticide/insecticide and providing natural space in urban and monoculture agricultural farming are some steps to promote and protect pollinators.

VISITS

M. Sc. (Agri.) Plant Breeding and Genetics students of Vanavarayar Institute of Agriculture, Pollachi, Tamil Nadu visited CICR Regional Station, Coimbatore on February 01, 2014. Dr. S. Manickam, Principal Scientist (Plant Breeding) delivered a lecture on Indian cotton scenario, varietal scenario, crop improvement activities undertaken in the station, breeding methods employed in the development of varieties and characteristic features of varieties and hybrids released from Coimbatore station. Later, they were exposed to cotton fibre quality evaluation methods by demonstration using High Volume Instrument and AFIS.

A group of 25 farmers from Bhilwara (Rajasthan) visited CICR Regional Station, Sirsa, on 4th Feb, 2014 on an exposure visit under the training organized by Agriculture Technology Management Agency (ATMA), Bhilwara. Dr D. Monga Head, CICR, RS, Sirsa welcomed the farmers and apprised the group about the technologies generated so far at the centre. Dr R. A. Meena briefed the group about hybrid seed production techniques in cotton and other activities in progress at the centre.

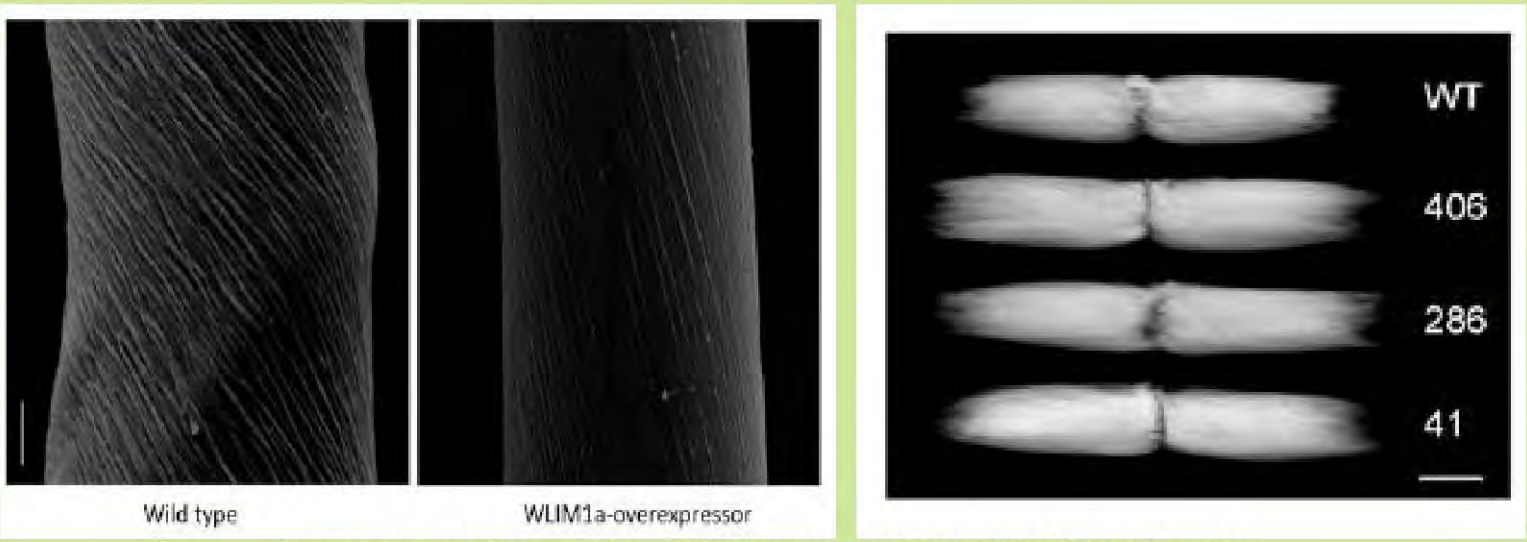
OTHER ACTIVITIES

Dr. S. Manickam, Principal Scientist (Plant Breeding) was nominated as External Expert by the Vice Chancellor of Tamil Nadu Agricultural University, Coimbatore for the Recruitment of Assistant Professor for Plant Breeding and Genetics. The Selection Committee meeting was held on February 05, 2014 and Dr. Manickam participated as a Member of Committee.

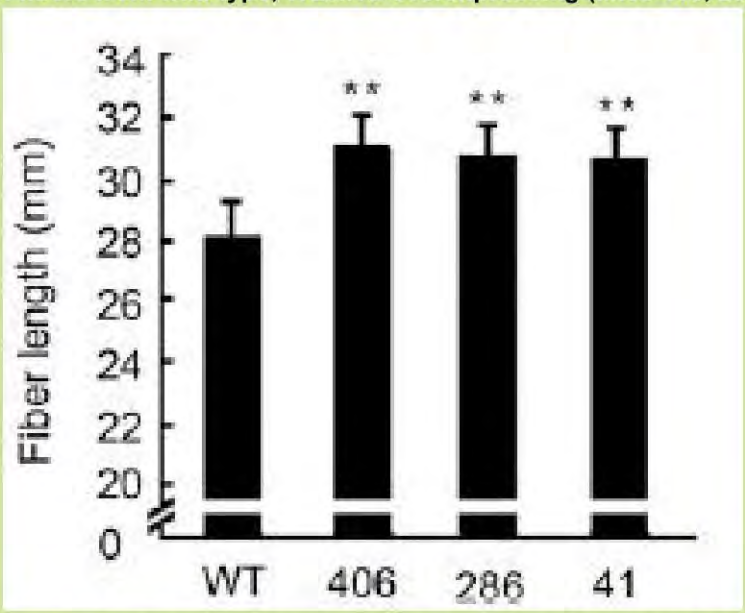
LITERATURE SCAN

Breeding STRONG but FINE Cotton Fibres

Concurrent improvement of fibre strength and fineness represents a bottleneck in cotton breeding. In the process of unraveling the mechanism underlying secondary cell wall formation in cotton, Han *et al*. 2013, characterized a protein whose expression simultaneously increases fiber fineness and strength. WLIM1a (LIN-11, Isl1 and MEC-3) is preferentially expressed during the elongation and secondary wall synthesis stages in developing fibers. Fibres of WLIM1a-overexpressing *Gossypium hirsutum* plants grew longer and formed a thinner and more compact secondary cell wall, which contributed to improved fiber strength and fineness when compared to wild type. WLIM1a acts as an actin bundler to facilitate elongation of fiber cells and also functions as a transcription factor to activate expression of Phe ammonia lyase–box genes involved in phenylpropanoid biosynthesis to build up the secondary cell wall. WLIM1a localizes in the cytosol and nucleus and moves into the nucleus in response to hydrogen peroxide. Simultaneous improvement of fiber fineness and strength makes WLIM1a, a promising target for cotton breeding.



Images of fibers from wild-type, WLIM1a-overexpressing (lines 406, 286, and 41



Average fiber length of wild-type, WLIM1a-overexpressing (lines 406, 286, and 41) Image Source: Plant Cell, Han et. al., 2013

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Contributed by J. Annie Sheeba, Scientist, Plant Physiology, CICR, Nagpur.

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Studies on heterosis for yield and fibre quality traits in GMS hybrids of upland cotton (*Gossypium hirsutum* L.)

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ABSTRACT: Forty four cotton (*Gossypium hirsutum* L.) hybrids were produced from a line x tester crossing programme with 15 parents (four lines and eleven testers). The primary objective of this study was to determine the useful heterosis in *Gossypium hirsutum* for seed cotton yield, its component traits and fibre quality parameters in 44 GMS (genetic male sterility) based cross combinations. The analysis of variance indicated that the mean squares of genotypes were significant for seed cotton yield (kg/ha), monopodia, sympodia and bolls/plant, boll weight (g), GOT (%), micronaire value and strength (g/tex) except 2.5 per cent span length (mm) indicated the presence of variability among hybrids and their parents. Studies revealed that none of the cross combinations exhibited significant heterosis over the check hybrid CSHH 198 for seed cotton yield, number of bolls per plant, boll weight and sympods/plant and micronaire value. Significant heterosis monopods/plant, seed index, ginning percentage, 2.5 per cent span length and fibre strength were detected over the conventional check hybrid CSHH 198. For number of monopods in GMS 17 x CISV-1 (81.1%), seed index in GMS 20 x *Bikaneri narma* (15.9%), ginning percentage in GMS 17x 007 DA (10.4%) showed the highest and significant positive heterosis over the conventional check hybrid CSHH 198. For quality traits, 2.5 per cent span length in GMS 26 x 006 DA (7.4%) and for fibre strength GMS 21 x 006 DA (13.4%) showed the highest and significant positive heterosis over the conventional check hybrid CSHH 198. The cross combination involving female parent GMS 21 and male parent 006 DA. *Bikaneri narma* recorded the significant positive heterosis for most of the characters so could be exploited in producing hybrid cotton.

Key words: Cotton, genetic male sterility, *Gossypium hirsutum*, standard heterosis

CICR IN PRESS

Hitavada 7.2.14

Preparations on for *Krishi Vasant* – National Agriculture Fair-cum-Expo

- Around two lakh farmers from across the country are likely to visit the exhibition while 50 lakh farmers will connect through web-cast of the grand event
- Sanjeev Gupta, Joint Secretary, Ministry of Agriculture, and Dr Sudhir Kumar Goel, Additional Chief Secretary, Agriculture Department, reviewed arrangements at the venue

Satish Raut

Sanjeev Gupta briefing mediapersons about Vasantrao Naik Pavilion erected at Central Institute of Cotton Research - the venue of 'Krishi Vasant'. Dr K R Kranthi, Dr Sudhir Goel and Hakimuddin Ali look on.

■ **Special Correspondent**

PRESIDENT of India Pranab Mukherjee will inaugurate National Agriculture Fair-cum-Exhibition -- 'Krishi Vasant' at Central Institute of Cotton Research (CICR) premises on February 9 at 11 am. Around two lakh farmers from all parts of the country are likely to visit India's biggest ever Agriculture Exhibition while 50 lakh farmers will connect through web-cast. The preparations for the exhibition are in final stages.

The event will be inaugurated in the presence of Maharashtra Chief Minister Prithviraj Chavan and Union Agriculture Minister Sharad Pawar.

Sanjeev Gupta, Joint Secretary Ministry of Agriculture, Government of India and Dr Sudhir Kumar Goe Additional Chief Secretary Agriculture Departmen Government of Maharahtra jointl shared information about the meg event during a walk at the venue o Thursday.

The exhibition is jointly organise by Union Government, Maharashtr Government and Confederation o Indian Industry (CII).

Gupta said, India ranks first in the world in production of milk, pulse and jute; second in rice, wheat, sug arcane, groundnut, vegetables, fruits and cotton; and is a leading producer of spices and plantation crops, live-stock, fisheries and poultry. This stupendous success story has been made possible due to innovation by scientists, assistance under governmental schemes and programmes and most importantly, hard work of farmers.

To celebrate farmers' great contribution to our economy, 'Krishi Vasant 2014' is being organised as a large congregation of farmers and other stake-holders from the entire

(Contd on page 2)

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Preparations on for *Krishi Vasant*...

Sanjeev Gupta and Dr Sudhir Goel inspecting a display stall at the venue on Thursday. (Pic by Satish Raut)

(Contd from page 1)

country. Millions of farmers and others will also be reached out through web-cast at District/Block level and telecast of the event in regional languages. Unique features of the event also include more than 300 live demonstrations of different crops, animals, birds and fish and intensive interactions between farmers and scientists in regional languages. The event also commemorates birth centenary celebrations of longest serving Chief Minister of Maharashtra late Vasant Rao Naik, who steered agricultural development in Maharashtra during Green Revolution era. A full-fledged pavilion has been set up to highlight the immense contribution made by him to Indian Agriculture. This stall will also showcase 100 years of Agricultural growth in the country.

Dr. Goel said, the exhibition will be held from February 9 to 13 at CICR campus. The event also focuses on about 100 success stories of various farmers (who will be present personally) in the field of agriculture and allied sectors and innovations made by these agripreneurs. For instance, Ketanbhai Patel from Gujarat who has done value addition of banana stem and fruits for production of growth promoter, compost, handicrafts and wafers. Jikarali Khokhar is another one who has made necessary scientific modification to his poultry farm and adopted more advanced approach in poultry farming to transform his loss making enterprise into a profitable venture.

This five-day multi-sectoral event will see participation from the agro industries, Central and state government organizations, research institutes such as Krishi Vigyan Kendras, farmers, producers and financial institutions long with students, academics and scientists. In this biggest ever congregation of farmers, over 300 live demonstration plots of cereals, pulses, fodder, oilseeds, vegetables and fibre-crops will be made. There are 757 indoor stalls by agro-industries, research institutes, universities, States, government organisations, NGOs and farm innovators. Beside this, best quality animals, poultry and fish will also be displayed in the event.

Dr Sudhir Goel believed that events like these are a step in the direction of putting India's farmers and farming sector at the centre stage on our agro-based economy, and this is just the beginning.

The Government has arranged 80 marriage halls for accommodation of farmers visiting the city from across the country. The farmers have registered themselves for the event through the Internet. They can directly come to venue to see the exhibition. The department has made special arrangements of meals at marriage hall and at venue. CII Vidarbha Zonal Council Chairman Hakimuddin Ali and CICR Director Dr K R Kranthi were also present on the dais.

Highlights

- Live demonstrations of 307 varieties of 54 crops with specifications and instructions for farmers to actually experience the benefits of growing a particular species. Similar live demonstration of some of the best livestock under the animal husbandry division and live demonstrations on fodder
- Over 1000 stalls covering various agriculture and agriculture related fields like Horticulture, Medicinal Plants, Aromatic plants, Fruits, Vegetables, Field crops and samples of seeds etc
- 100 kinds of books in various regional languages to be shared with farmers on specific crops and issues related to them
- Daily Seminars: Breakout sessions to be held in various regional languages on agriculture and allied sectors where in the farmers issues will be addressed by experts (scientists) in their own language
- Live web-cast in various regional languages for all these scientist farmers' interactions as well as the exhibition that will be covered through a live commentary and those farmers who cannot make it to the exhibition shall be invited at district or block levels will be invited. They can ask question to expert in the interaction.
- Various cultural programme will be present during the event. South Central Zone Cultural Centre (SCZCC) and Theater Artist India, Delhi are organising this event for the visitors. The dance form of Maharashtra, Chhattisagarh, Tamil nadu, Rajasthan, Manipur, Meghalaya, Orissa and others will be present in the event.

शहर विशेष

लोकमत 7.2.14

६० कोटी एसएमएस : परिसर 'वायफाय'

'कृषी वसंत'ची हायटेक तयारी

प्रदर्शनस्थळी उभारण्यात आलेली मोबाईल फोनवर बोलणाऱ्या महिला शेतकऱ्याची प्रतिकृती.

नागपूर : शेतकऱ्यांना केंद्रस्थानी ठेवून आयोजित करण्यात येत असलेले राष्ट्रीय कृषी प्रदर्शन 'कृषी वसंत'ची तयारी करताना आधुनिक तंत्रज्ञानाचा वापर केला जात आहे. प्रदर्शनाची माहिती देणारे ६० कोटी एसएमएस पाठवण्यात आले आहेत. अडीच लाख शेतकऱ्यांशी इंटरनेटच्या माध्यमातून संपर्क साधण्यात आला आहे तर शेतकऱ्यांची नोंदणी 'ऑनलाईन' केली जात आहे. 'वेब कास्ट'च्या माध्यमातून संपूर्ण देशात तालुका पातळीवर प्रदर्शनाचे प्रक्षेपण करण्यात येणार आहे. संपूर्ण प्रदर्शनस्थळ 'वायफाय'केले जाणार आहे.

वर्धा मार्गावरील केंद्रीय कापूस संशोधन संस्थेच्या (सीआयसीआर) ५० एकर परिसरात ९ ते १३ फेब्रुवारीदरम्यान होणाऱ्या 'कृषी वसंत'च्या तयारीची पाहणी करण्यासाठी गुरुवारी प्रसिद्धी माध्यमांना निमंत्रित करण्यात आले होते. केंद्रीय कृषी सहसचिव संजीव गुप्ता, राज्याच्या कृषी खात्याचे अतिरिक्त मुख्य सचिव डॉ. सुधीर गोयल आणि सीआयआरच्या(कॉन्फेडरेशन ऑफ इंडियन इंडस्ट्रीज) विदर्भ शाखेचे प्रमुख हकीमुद्दीन अली यांनी तयारीची माहिती दिली.कृषी प्रदर्शनात माहिती तंत्रज्ञानाच्या जास्तीतजास्त वापर करण्यात येत असल्याचे संजीव गुप्ता यांनी स्पष्ट केले. देशभरातील शेतकऱ्यांना प्रदर्शनाची माहिती देण्यासाठी ६० कोटी एसएमएस पाठवण्यात आले आहेत. शेतकऱ्यांची नोंदणीसुद्धा 'ऑनलाईन' केली जात आहे. प्रदर्शनस्थळी येणाऱ्या मोठ्या कंपन्या, त्यांचे प्रतिनिधी आणि इंटरनेटचा वापर करणाऱ्या शेतकऱ्यांसाठी संपूर्ण प्रदर्शनस्थळच 'वायफाय' करण्यात आले आहे. बीएसएनएलची यासाठी मदत घेण्यात आली असून यावर फक्त ३.५० लाख रुपये खर्च करण्यात आले.ते शेतकरी प्रदर्शनाला येऊ शकत नाही त्यांच्यासाठी संपूर्ण देशभरात तालुकास्तरावर 'वेबकास्ट'च्या माध्यमातून प्रदर्शनातील चर्चासत्र आणि परिसंवादाचे थेट प्रक्षेपण त्यांना समजेल अशा भाषेत केले जाणार आहे. ५० लाख शेतकऱ्यांना याचा फायदा मिळू शकेल. कृषी खाते आणि विविध संशोधन संस्थांच्या माध्यमातून वेळोवेळी माहिती पुस्तिका काढल्या जातात. काही चित्रफितीही तयार केल्या जातात. पण ते शेतकऱ्यांपर्यंत पोहोचत नाही. प्रदर्शनात देशभरातून येणाऱ्या शेतकऱ्यांची संख्या पाहता आणि अलीकडच्या काळात प्रत्येकाकडून होणारा मोबाईलचा वापर लक्षात घेता प्रदर्शनाला भेट देणाऱ्या शेतकऱ्यांना अत्यल्प दरात चित्रफिती आणि महत्त्वाच्या पुस्तिका मोबाईलमध्ये 'डाऊनलोड' करून दिल्या जाईल. एकूणच प्रदर्शनाच्या आयोजनात मोठ्या प्रमाणात माहिती तंत्रज्ञानाचा वापर केला जात आहे.

'कृषी प्रगती' राष्ट्रपती बघणार

- गेल्या पाच दशकात देशाने कृषी क्षेत्रात केलेल्या प्रगतीची माहिती देणारे प्रदर्शन येथे लावण्यात येणार असून त्याला राष्ट्रपती प्रणव मुखर्जी भेट देणार आहेत. उद्घाटनाच्या कार्यक्रमानंतर फक्त एकमेव पेन्डॉलला ते भेट देतील, असे कृषी खात्याचे अतिरिक्त मुख्य सचिव डॉ. सुधीर गोयल यांनी सांगितले.

दोन लाख शेतकऱ्यांची नोंदणी

राष्ट्रीय 'कृषी वसंत' प्रदर्शनासाठी देशभरातील सुमारे २ लाखांपेक्षा शेतकऱ्यांनी नोंदणी केली असून यात महाराष्ट्रातील १ लाख ३० हजार शेतकऱ्यांचा समावेश असल्याची माहिती केंद्रीय कृषी सहसचिव संजीव गुप्ता यांनी गुरुवारी दिली.

येत्या ९ ते १३ फेब्रुवारी दरम्यान वर्धा मार्गावरील केंद्रीय कापूस संशोधन संस्थेच्या (सीआयसीआर) परिसरात होत असलेल्या या प्रदर्शनाच्या पूर्वतयारीचा गुरुवारी आढावा घेण्यात आला.

यावेळी आयोजित एका पत्रपरिषदेत ते बोलत होते. या प्रदर्शनाचे येत्या रविवारी सकाळी ११ वाजता राष्ट्रपतींच्या हस्ते उद्घाटन होईल. प्रदर्शनाविषयी सविस्तर माहिती देताना गुप्ता पुढे म्हणाले, 'कृषी वसंत' हे केवळ प्रदर्शन नसून एक मोठा उत्सव आहे. हरित क्रांतीचे प्रणेते व महाराष्ट्राचे माजी मुख्यमंत्री वसंतराव नाईक यांची जन्मशताब्दी आणि वसंत ऋतू यांचा सुरेख मेळ घालून हा उत्सव साजरा केला जात आहे. यात कृषी क्षेत्रातील संशोधन, तंत्रज्ञान व शेतकरी यांचा सुरेख संगम साधला जाणार आहे. तरी या प्रदर्शनाचा देशभरातील शेतकऱ्यांनी मोठ्या संख्येने लाभ घ्यावा, असे त्यांनी आवाहन केले. प्रदर्शनासाठी वर्धा मार्गावरील केंद्रीय कापूस संशोधन संस्थेचा (सीआयसीआर) ५० एकर परिसर सुसज्ज केला जात आहे. पाच दिवसीय प्रदर्शनात देशभरातील ८२ कृषी क्षेत्रातील संशोधन संस्थांसह २० कृषी विद्यापीठांचा प्रत्यक्ष सहभाग राहणार असून, येथे रोज सुमारे ५० ते ६० हजार शेतकरी भेटी देतील. यावेळी राज्याचे अपर मुख्य सचिव (कृषी) डॉ. एस. के. गोयल यांनी माहिती देताना, प्रदर्शनानिमित्त देशभरातून येणाऱ्या शेतकऱ्यांसाठी शहरातील ८८ मंगल कार्यालये आरक्षित करण्यात आल्याचे ते म्हणाले. शिवाय शेतकऱ्यांना प्रदर्शनस्थळी पोहोचविण्यासाठी खास व्यवस्था करण्यात आली असून, त्यासाठी ३०० ते ४०० बसेस सज्ज राहणार असल्याचे त्यांनी सांगितले. पत्रपरिषदेला सीआरसीआरचे संचालक डॉ. के. आर. क्रांती व सीआयआयचे विदर्भ विभागाचे अध्यक्ष हकीमउद्दीन अली उपस्थित होते. (प्रतिनिधी)

अशी राहणार वैशिष्ट्ये

- ७५० वातानुकूलित स्टॉल
- ५४ पेक्षा अधिक पिकांच्या 309 वाणांची प्रात्याक्षिके
- कृषीसंबंधित ज्ञान सेवा, औषधनिर्मिती, सुगंधी वनस्पती, फळे, भाज्या, बियांचे नमुने आदींचे १०० पेक्षा अधिक स्टॉल्स
- देशभरातील ८२ कृषी संशोधन संस्थांसह २० कृषी विद्यापीठांचा सहभाग
- ९२ प्रगतिशील शेतकऱ्यांची यशोगाथा
- शेतकऱ्यांना प्रादेशिक भाषांमधील १०० पेक्षा अधिक पुस्तके दिली जाणार

मनोरंजनासाठी सांस्कृतिक कार्यक्रम

भव्य प्रमाणात असलेले कृषी प्रदर्शन पाहताना शेतकरी कंटाळले तर त्यांच्यासाठी मनोरंजनाच्या कार्यक्रमाचीही व्यवस्था करण्यात आली आहे. पाच दिवस विविध राज्यातील कलावंत सांस्कृतिक कार्यक्रम सादर करणार आहेत.

९२ यशस्वी शेतकऱ्यांचा सत्कार

कृषी क्षेत्रात उल्लेखनीय कामगिरी करणाऱ्या देशातील ९२ शेतकऱ्यांचा प्रदर्शनात सत्कार करण्यात येणार आहे. त्यांनी काय कामगिरी केली याची माहितीही शेतकऱ्यांना देण्यात येईल.

शेतकऱ्यांना आवाहन

'कृषी वसंत' मध्ये शेती आणि शेतीशी निगडित उद्योग, संशोधन, विविध प्रकारची यंत्रसामुग्री आणि या क्षेत्रात आलेले अद्ययावत तंत्रज्ञानाची माहिती देण्यात येणार असल्याने जास्तीत जास्त शेतकऱ्यांनी या संधीचा फायदा घ्यावा, असे आवाहन कृषी खात्याचे अतिरिक्त मुख्य सचिव डॉ. सुधीर गोयल यांनी केले.

१०० संशोधन संस्थाचा सहभाग

देशातील कृषी क्षेत्रात काम करणाऱ्या १०० संशोधन संस्था, सर्व कृषी विद्यापीठ या प्रदर्शनात सहभागी होणार आहेत. या संस्थांनी केलेले विविध संशोधनाची माहिती प्राप्त करण्याची संधी शेतकऱ्यांना मिळणार आहे.

स्टॉल्ससाठी प्रतीक्षा यादी

कृषी प्रदर्शनाला सर्वच पातळीवरून उत्स्फूर्त प्रतिसाद मिळत आहे. ७५० स्टॉल्सची नोंदणी झाली असून ५०० पेक्षा अधिक कंपन्यांची स्टॉल्सची मागणी आहे.त्यांची नावे प्रतीक्षा यादीत टाकण्यात आली आहे.

'व्हायब्रन्ट गुजरात'वर मात

गुजरात सरकारने यापूर्वी आयोजित केलेल्या 'व्हायब्रन्ट गुजरात'या प्रदर्शनाला पाच हजार शेतकऱ्यांनी भेटी दिल्या होत्या. मात्र नागपुरातील प्रदर्शनाला रोज ५० हजार शेतकरी भेट देतील असा अंदाज आहे.

TIMES CITY

Times of India 7.2.14

Expo deploys latest tech to reach farmers across India

Webcast Of Seminar, Interactive Sessions To Reach 50 Lakh Farmers

Ramu Bhagwat | TNN

Nagpur: The country's largest agriculture exposition to be held here from February 9 to 13 will also use the latest technology in communications to reach around 50 lakh farmers across the country. Sitting in their villages, these farmers will be able to view the webcast live and also participate in interactive sessions from distant locations.

The five-day farm event Krishi Vasant, to be inaugurated by President Pranab Mukherjee on Sunday in the presence of union agriculture minister Sharad Pawar and chief minister Prithviraj Chavan, is expected to be visited by around two lakh farmers. Around 1.20 lakh farmers from Maharashtra have already registered their names on the Krishi Vasant website, with some 65,000 from other states. However, with all state agriculture departments now coordinating farmers visits under ATMA scheme, the footfalls are expected to be much more. Registration will also be open at the venue.

Two main seminars will be held every morning in two convention halls, where agriculture scientists will explain modern techniques and practices to 800 participants and interact in Hindi or Marathi. In the second half of the day, seminars will be held at four venues for smaller groups in regional languages that farmers from all states can attend. These seminars will be webcast and can be seen at 50,000 block-level meeting places. Around 5 lakh people across the country are expected to benefit from these sessions.

"This event is more of a celebration of India's century-long farm research. The forest Indian agriculture organization PUSA was set up in 1913. Since Maharashtra government is partnering the event, and centenary celebrations of one of the towering leaders from these parts, Vasantrao Naik, were on, his name was given to the event that is also coinciding with the Vasant (spring), a season for celebrations," said Sudhir Kumar Goel, state's additional chief secretary. Goel and joint secretary union agriculture ministry Sanjeev Gupta have been working relentlessly for last few months to make the arrangements.

"We want each farmer to take away some useful knowledge from here and adopt it. Each farmer can download on his mobile phone tips on new technology or methods of cultivation of a specific crop of his interest in the form of video clips. Most farmers carry mobile phones and even a simple phone can store clips on memory cards," said Gupta.

With assistance from government agencies, it is being ensured that at least 50% of those visiting the expo are small and marginal farmers while 30% are women, as they contribute a lot in all agrarian activities," said Gupta.

Keshav Kranthi, director of CICR, who is hosting the event, also explained how ecological engineering techniques were used to time peaking of the crops just in time for the big show. The expo will showcase important developments of the last one century on the farm front at a special pavilion that President Mukherjee is also expected to glance through during his short visit here.

GROWING FOOTFALLS

- 2-5 lakh footfalls expected at five-day farm extravaganza
- Special pavilion to showcase India's strides in farm research and development in last 100 years
- Four hangars to house over 700 stalls; 112% booking
- Larger enclosures to display heavy equipment like harvesters and machinery. Poultry, fisheries and cattle rearing to be showcased besides greenhouse technology and watershed techniques
- Seminars and interactive sessions to be webcast all over the country, enabling 50 lakh people to interact with experts
- Farmers can get video clips of farming techniques and tips on mobile phones that can help them better equipped
- Auditorium where President Pranab Mukherjee will inaugurate event to accommodate 5,000 people
- For inauguration, farmers to dress in ethnic outfits, displaying country's rich unity in diversity
- South Central Zone Cultural Centre to organize traditional cultural shows from all regions every day to entertain visitors

> "This event is more of a celebration of India's century-long farm research. The forest Indian agriculture organization PUSA was set up in 1913. Since Maharashtra government is partnering the event, and centenary celebrations of one of the towering leaders from these parts, Vasantrao Naik, were on, his name was given to the event that is also coinciding with the Vasant (spring), a season for celebrations"
>
> Sudhir Kumar Goel | STATE'S ADDITIONAL CHIEF SECRETARY

S Mishra

Preparation are in full swing for the National Agriculture Fair Krishi Vasant Exhibition at Central Institute of Cotton Research (CICR). It is for the first time live crop growing in the field are part of the exhibition

'कृषी वसंत' ची तयारी अंतिम टप्प्यात

लोकमत 6.2.14

नागपुरात प्रथमच आयोजन :

रोज ४० ते ५० हजार शेतकरी भेटी देणार

नागपूर : येत्या ९ फेब्रुवारीपासून नागपुरात होऊ घातलेल्या 'कृषी वसंत' प्रदर्शनाची तयारी आता अंतिम टप्प्यात पोहोचली आहे. या प्रदर्शनाच्या तयारीसाठी मागील अनेक महिन्यांपासून संपूर्ण यंत्रणा कामाला लागली आहे. केंद्रीय कृषी मंत्रालयासह राज्य शासन व कॉन्फडेशन ऑफ इंडियन इंडस्ट्रीज (सीआयआय) यांच्या संयुक्त विद्यमाने हे प्रदर्शन होत आहे.

यंदा संपूर्ण विदर्भातील शेतकऱ्यांना अतिवृष्टीचा जोरदार फटका बसला. यामुळे आर्थिक संकटात सापडलेल्या येथील शेतकऱ्यांना नवीन तंत्रज्ञानाची माहिती देऊन त्याच्यात नवी उमेद निर्माण करणे, हा या प्रदर्शनामागील मुख्य उद्देश राहणार आहे. या प्रदर्शनाला देशभरातील सुमारे तीन लाख शेतकरी बांधव भेटी देतील. यासाठी वर्धा मार्गावरील केंद्रीय कापूस संशोधन संस्थेच्या सुमारे ४५ एकर परिसरात या प्रदर्शनासाठी जय्यत तयारी केली जात आहे. यात कोरडवाहू क्षेत्रातील एकात्मिक शेती पद्धती, सिंचन व्यवस्थापन, कृषी यांत्रिकीकरण, कृषी क्षेत्रात महिलांचा आणि तरुणांचा सहभाग, कृषी उत्पादन व व्यवस्थापन, आणि कृषी मालाच्या निर्यातीसाठी मूल्यवर्धित साखळी निर्माण व्हावी, अशी या प्रदर्शनाची संकल्पना राहणार आहे.

शेती व्यवस्थापन, फलोत्पादन, दुग्ध व्यवस्थापन, शेळी-मेंढी पालन, कुक्कुटपालन, कृत्रिम रेतन पद्धती व रेशीम उद्योग यासारख्या कृषी क्षेत्राशी संलग्न उद्योगांची या प्रदर्शनातून शेतकऱ्यांना माहिती दिली जाईल. या प्रदर्शनाच्या आयोजनाची धुरा कॉन्फडेशन ऑफ इंडियन इंडस्ट्रीज या संस्थेच्या खांद्यावर देण्यात आली आहे.

या पाच दिवसीय प्रदर्शनात रोज वेगवेगळ्या विषयांवर चर्चासत्र होणार असून, गेल्या ५० वर्षांतील कृषी क्षेत्रातील कामगिरीचा आढावा घेतला जाणार आहे. मत्स्यपैदास व देशभरातील विविध प्रजातींची जनावरे या प्रदर्शनाचे मुख्य आकर्षण ठरणार आहेत. येथे रोज सुमारे ४० ते ५० हजार शेतकरी भेटी देतील, असा अंदाज व्यक्त केला जात आहे.

येथे कृषी क्षेत्रातील अत्याधुनिक तंत्रज्ञानासोबतच धान्य, डाळी, चारा पिके, तेलबिया व भाजीपाला आदी पिकांचे ३०० हून अधिक प्रात्यक्षिके सादर केली जाणार आहेत. या प्रदर्शनासाठी देशभरातून येणाऱ्या शेतकऱ्यांसाठी शहरातील सुमारे १३० मंगल कार्यालये व सर्व शासकीय निवासस्थाने आरक्षित करण्यात आली आहेत. या प्रदर्शनाचे मुख्य वैशिष्ट्य म्हणजे, येथे लाखो शेतकरी वेबकास्टिंगद्वारे जोडल्या जाणार आहेत. (प्रतिनिधी)

SUNDAY • FEBRUARY 2 • 2014 • NAGPUR • The Hitavada

Guardian Minister reviews preparations for 'Krishi Vasant'

■ Staff Reporter

Guardian Minister Shivajirao Moghe along with officers visiting Agriculture Exhibition venue.

THE preparations for 'Krishi Vasant', a farmers centric fair-cum-exhibition is in final stages in Nagpur. Union Ministry of Agriculture and Government of Maharashtra are jointly organising exhibition from February 9 to 13 at Central Institute for Cotton Research (CICR), here. President of India Pranab Mukherjee will inaugurate the exhibition on February 9.

Guardian Minister Shivajirao Moghe along with a battery of officers inspected on-going preparation of 'Krishi Vasant' at CICR on Saturday. Additional Chief Secretary Dr Sudhir Kumar Goyal, District Collector Saurabh Rao, NMC Commissioner Shyam Wardhane, and CICR Director Dr K R Kranti were present during inspection.

Moghe visited every gallery installed in the premises of agriculture exhibition. He also inspected 300 varieties of 54 different crops. Around 40,000 farmers will take their daily lunch in the exhibition. Around 750 different stalls are also installed in the expo.

Joint Secretary of Union Agriculture and Co-operative Department Daleep Singh took review of on-going preparations of exhibition. The department will organise visit of various educational institutes in the exhibition. The Government is also making arrangements temporary residence of farmers visiting exhibition.

The event also coincides with centenary celebrations of Late Vasantrao Naik, who steered agricultural development in Maharashtra through Green Revolution. Indian agriculture has experienced a turnaround. It has seen 3.64 per cent growth rate. The country has produced 260 million tonnes of food grain that is enough to feed the entire population and export too. India was the largest exporter of rice and second largest exporter of wheat, sugar and cotton in the world in the year 2012-2013.

The event will have over half-a-million visitors and over five million more farmers will be benefited from dedicated webcasting of the event across every nook and corner of the country, down to the block level.

India ranks first in the world in production of milk, pulses and jute; second in rice, wheat, sugarcane, groundnut, vegetables, fruits and cotton; and is a leading producer of spices and plantation crops, livestock, fisheries and poultry. This stupendous success story has been made possible due to innovation by scientists, assistance under governmental schemes and programmes and, most importantly, hard work of farmers.

Hitavada 6.2.14

Preparations for *Krishi Vasant* in full swing

■ Staff Reporter

Anil Futane

KRISHI Vasant is all set to showcase the achievements of last 50-years in the field of agriculture in the country and aims to bridge the gulf between lab research and its end beneficiaries working in the field. The grand national level agricultural expo is being hosted by city based Central Institute for Cotton Research (CICR) at its 45 acre campus off Wardha Road. Preparations are in full swing for the expo that starts from February 9 and is on till February 13.

The national level exhibition is being hosted as part of birth centenary celebrations of former Maharashtra Chief Minister Vasantrao Naik. Government has roped in Confederation of Indian Industry (CII) for presenting the expo. The aim is to provide latest trends in agriculture at national and also international level.

The exposure of farmers to new techniques in farming, interaction with researchers, would go long way in addressing the problems in rain fed areas. About three lakh visitors, mostly farmers, is expected for the expo for which massive arrangements have been put in place by the Government administration.

A well laid out layout at CICR campus would showcase integrated crop management technique, irrigation management at micro level, modern equipments available for farming, techniques to harness production and its post harvest management etc. Also several live interaction has been planned to focus on involvement of youth and women in farming. Similarly farmers would also get to witness over three hundred cropping techniques of food grains, cereals, vegetables, fodder etc.

Alongside farming the exhibition would also showcase information about horticulture, dairy, rearing of goat and sheeps, poultry, sericulture, and also on methods and advantages of artificial insemination. The mandate for CII is to organise scientific session during the five-days of expo.

The district administration has booked 130 halls, all Government rest houses for accommodating the visiting officers, businessmen and farmers. Special trains and buses have been booked to ferry the farmers for the said expo.

Times of India 5.2.14

Farm fair will feature 54 live crops on 10ha land

₹58cr Expo To Draw 2 Lakh Farmers

Snehlata Shrivastav | TNN

Nagpur: Agriculture fairs are known for agriculture products like pesticides, fertilizers, machinery or even the crop products. For the first time, Krishi Vasant, the biggest ever national agriculture fair of country being held in city from Feb 9, will have 54 standing crops in the premises of the Central Institute for Cotton Research (CICR), the host institution.

These crops include 304 different varieties including the 260 best ones from across India. Amazingly, these are not just the rabi crops (winter crops, the season now) but majority of them are kharif crops. They also belong to all agro-climatic zones across India. When the idea of the having live demonstrations of these crops was first mooted by the union agriculture minister Sharad Pawar a few months back, CICR director Keshav Kranthi grabbed the opportunity. The live crops would be useful for demonstrating crop damage assessment. Pawar told Kranthi that Nagpur's Agro Vision was a success but it lacked components like fishery, poultry, and animal husbandry etc and challenged him to bring all these in the fair he had suggested to be held in January 2014.

Kranthi successfully involved 41 agriculture institutions and universities from the country for the purpose. "We are demonstrating the crops on 10 acres in different blocks like cereals, oil seeds, fodder, fibre, medicinal plants, vegetables, multiple crops to showcase the concept of integrated pest management etc. We had to definitely do a lot of planning for displaying varieties from all types like early, medium and late maturing," Kranthi told TOI.

He said he readily agreed to host the fair at CICR as otherwise he would never have got an opportunity to showcase cotton and his institute's work to as many as 1.46 lakh farmers from all over India and 46,000 from state in one go. Now Kranthi, his CICR team and the representatives from various agriculture institutes are set to demonstrate the 54 crops live to the farmers.

The fair being held at a cost of about Rs 58 crore with Rs 40 crore coming from Central and Rs 18 crore from state government. About Rs 22 crore is being spent on farmers' mobilization alone. They will be brought in by 31 special trains from various corners of India. Another added attraction is school for 2000 farmers daily where experts will educate them on different crops.

Pics: Ranjit Deshmukh

CICR director Keshav Kranthi shows the block with cereal crops specially developed ahead of National Agriculture Fair at Central Institute of Cotton Research, Wardha Road, on Tuesday. **Below:** Various crops at CICR

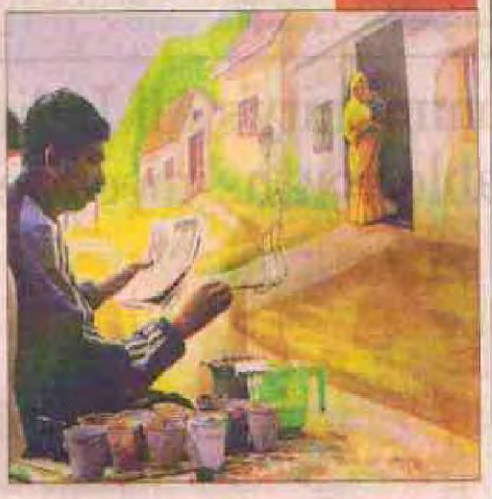
STAR CROPS

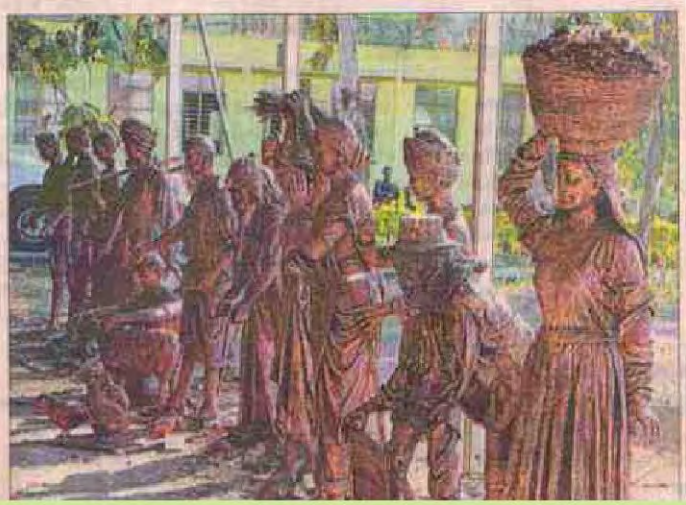
- **CEREALS AND PULSES BLOCK** | Wheat, maize, lentil and lathurus
- **OIL SEEDS** | Soyabean, sunflower, safflower, mustard, linseed, sesame, castor
- **FIBRES BLOCK** | Rami fibre (strongest fibre in world), flax, jute, sun hemp etc
- **VEGETABLES** | Cabbage, brinjal, cow pea, tomato, radish, coriander etc
- **ECOLOGICAL ENGINEERING** | (Integrated pest management) which means growing a variety of crops in which the pest of one crop is beneficial for other
- **COTTON BLOCK** | Conventional, high density plantation
- **FODDER BLOCK** | Berseem, oat (kent) etc

> We are demonstrating the crops on 10 acres in different blocks like cereals, oil seeds, fodder, fibre, medicinal plants, vegetables, multiple crops to showcase the concept of integrated pest management etc. We had to do a lot of planning for displaying varieties from all types like early, medium and late maturing
>
> **Keshav Kranthi** | DIRECTOR, CICR

12.CityLINE Hitavada 3.2.14

Artists called from across the country are giving final touches to the models and art pieces to be displayed in 'Krishi Vasant', a farmers centric fair-cum-exhibition which is in final stages in Nagpur. The exhibition has been organised jointly by Union Ministry of Agriculture and Government of Maharashtra from February 9 to 13 at Central Institute for Cotton Research (CICR). President of India Pranab Mukherjee will inaugurate the exhibition on February 9. (Pics by Satish Raut)





तैयारियां अंतिम चरणों में

कृषि वसंत राष्ट्रीय प्रदर्शनी

पुलिस ने भी की रिहर्सल

निज संवाददाता

नागपुर. आगामी 9 फरवरी को महामहिम राष्ट्रपति के हाथों शुभारंभ होने वाली राष्ट्रीय कृषि प्रदर्शनी 'कृषि वसंत' की तैयारियां अब सीआईसीआर में अंतिम चरणों में चल रही है. तैयारियों के संदर्भ में विभागीय आयुक्त वी.वी. गोपालरेड्डी सहित मंत्रालय के अधिकारी भी अब रोजाना फालोअप ले रहे हैं. परिसर का जायजा गोपालरेड्डी के साथ अतिरिक्त विभागीय आयुक्त एस.जी. गौतम, जिलाधिकारी मैरीभ रुह, मनपा आयुक्त श्याम वर्धने, पुलिस कमिश्नर के.के. पाठक ने आयोजन स्थल का निरीक्षण किया. राष्ट्रपति जिन मार्गों से होते हुए परिसर जाएंगे उन मार्गों पर पुलिस ने रिहर्सल भी की. राष्ट्रपति के दौरे के संदर्भ लगभग रोज ही विभागीय आयुक्त कार्यालय में अधिकारियों की बैठकें हो रही है जिसमें व्यवस्था के सभी पहलुओं की बारीकी से समीक्षा की जा रही है.

सड़कों की मरम्मत

राष्ट्रपति जिन सड़कों से गुजरेंगे उनकी मरम्मत का कार्य युद्धस्तर पर किया जा रहा है. एयरपोर्ट रोड को एयरपोर्ट अथारिटी व शेष सड़कों की मरम्मत का काम पीडब्ल्यूडी विभाग द्वारा किया जा रहा है. सड़कों के दोनों ओर सफाई करने के निर्देश मनपा आयुक्त ने संबंधित अधिकारियों को दिये है. इसके अलावा राजभवन परिसर जाने तक के मार्ग के स्ट्रीट लाइट सुधार करने का निर्देश भी दिया गया है.

सभी मंगल कार्यालयों में कैटरर्स

देश भर से आने वाले हजारों किसानों के रहने की व्यवस्था के लिए 130 मंगल कार्यालय, सभी सरकारी निवास स्थान आरक्षित किये गये है. सभी मंगल कार्यालयों में कैटरर्स की व्यवस्था की गई है. इसके अलावा जामठा में मोबाइल टायलेट, कैन्टीन, कंट्रोल रूम व पार्किंग की व्यवस्था भी रहेगी. अधिकारियों के अनुसार आयोजन स्थल में राज्य भर से आने वाले लगभग 50,000 किसानों के रहने की व्यवस्था रहेगी. रोज लगभग 40-50 हजार किसानों के प्रदर्शनी में आने की संभावना को देखते हुए सारी व्यवस्था की गई है.

राज्यपाल व कृषि मंत्री आएंगे

9 फरवरी को राज्यपाल के. शंकरनारायणन व केन्द्रीय कृषि मंत्री शरद पवार मुंबई से राष्ट्रपति प्रणब मुखर्जी के साथ वायुसेना के विशेष विमान से सुबह 10.40 बजे नागपुर आएंगे.

80 प्रजातियों के दुधारू पशु

कृषि प्रदर्शनी की खास विशेषता यह होगी कि लगभग किसान वेकअप्टिंग के द्वारा जोड़े जाएंगे परिसंवादों में अंतरराष्ट्रीय प्रतिनिधि हिस्सा लेंगे. चर्चासत्र में विशेषज्ञ मार्गदर्शन करेंगे. पानी की बचत के लिए जलसंवर्धन की जानकारी दी जाएगी. लगभग 80 प्रजाति के दुधारू पशु यहां देखने को मिलेंगे. साथ ही वसंतराव नाईक के जीवन कार्य पर आधारित डाक्यूमेंटरी का प्रदर्शन भी किया जाएगा. विविध राज्यों से आए कृषि विशेषज्ञ कृषि की आधुनिक तकनीकी की जानकारी देंगे.

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