

जुलाई-सितम्बर, 2014, अंक 26, संख्या 3

# कृषक वार्ता, कृषक प्रशिक्षण एवं वृक्षारोपण



भारतीय कृषि अनुसंधान परिषद के स्थापना दिवस के उपलक्ष में केन्द्र ने परासई–सिन्ध जलसमेट में 16 जुलाई, 2014 को वृहद वृक्षारोपण एवं मानसून में विलम्ब की स्थिति में किसानों द्वारा खरीफ बुवाई के लिए विकल्पों पर चर्चा का आयोजन किया। साथ–ही–साथ बिहार राज्य के किसानों के लिये तीन दिवसीय अध्ययन भ्रमण कार्यक्रम शुरू किया | इस वर्ष 01 जून से 16 जुलाई तक इस क्षेत्र में लगभग 97 मिमी. वर्षा हुई जो कि सामान्य से लगभग 55 प्रतिशत कम है, बावजूद इसके कृषिवानिकी आधारित जलसमेट के उपायों के कारण इस जलसमेट के कुओं, हैण्डपम्पों एवं नालों में पर्याप्त पानी उपलब्ध है। केन्द्र के निदेशक डॉ. एस. के. ध्यानी ने अपने सन्देश में

अधिक से अधिक बहुउपयोगी वृक्षों के रोपण, वर्षा जल के भण्डारण एवं उसके उपयोग से कम पानी की आवश्यकता वाली फसलों को उगाने एवं किसानों को अनूसंधान का लाभ पहुँचाने पर बल दिया।

परासई–सिन्ध जलसमेट परियोजना राष्ट्रीय कृषिवानिकी अनुसंधान केन्द्र एवं इक्रीसेट, हैदराबाद के द्वारा सन् 2011 से चलाई जा रही है। जलसमेट का कुल क्षेत्रफल 1246 हैक्टेयर है, जिसमें से खेती योग्य भूमि 89% (1106 हैक्टेयर) है। जलसमेट के सभी गाँव असिंचित हैं। खेती और पशुपालन इन गाँवों की आजीविका का एक मात्र स्रोत हैं। जलसमेट में जल संसाधन विकास के समुचित प्रबन्धन द्वारा कूल एक लाख घनमीटर पानी भण्डारण की क्षमता विकसित की गई है। अब तक कृषिवानिकी के अर्न्तगत किसानों ने लगभग 14000 बहुउपयोगी वृक्ष जिनमें बाँस, अमरूद, आँवला, नीबू, कटहल, सागौन आदि शामिल हैं एवं 90,000 घास की जड़ें रोपित की गई हैं। बेरों का उन्नयन किया गया है एवं लाख की खेती करने के प्रयास किए जा रहे हैं। इस दिवस के उपलक्ष में वैज्ञानिकों, किसानों एवं नवयुवकों द्वारा सहजना एवं बाँस का रोपण किया गया। इस वर्ष किसानों द्वारा लगभग 9000 वृक्षारोपण का लक्ष्य रखा गया है। वृक्षारोपण के पश्चात् वर्तमान मानसून / बरसात की स्थिति के मद्देनजर किसानों से खरीफ फसलों के विषय में चर्चा की गई। कार्यक्रम में वैज्ञानिकों तथा तकनीकी अधिकारियों ने किसानों को कृषिवानिकी एवं फसलोत्पादन से सम्बन्धित जानकारी दी।

#### **Forthcoming Events**

- RAC Meeting 6<sup>th</sup> & 7<sup>th</sup> November, 2014
- Farmer's Innovation Day: 16th November, 2014.
- Institute Joint Staff Council/Women Cell's / PME Cell meetings.

## Round table scientific exchange workshop on "Drought Proofing Strategy for Semi-Arid Region of Bundelkhand" at NRCAF

In order to help the farming communities of Bundelkhand to manage drought like conditions in semiarid region, scientific experts and civil society experts working in drought prone region of Bundelkhand participated in the round table scientific exchange workshop, "Drought Proofing Strategy for Semi-Arid Region of Bundelkhand" on 4th July, 2014 at NRCAF, Jhansi. The workshop was organized by the Development Alternatives in association with India Water Partnership and Global Water Partnership under the Water and Climate Resilience Programme. Scientific experts from ICAR institutions viz. NRCAF, IGFRI, CSWCR & TI, Regional Station, Datia, National Institute of Disaster Management, Krishi Vigyan Kendras, Bundelkhand University and Development Alternatives participated in the workshop to



Participants from various scientific institutions in the workshop

provide expertise for drought preparedness and sharing experiences for drought mitigation in the region. Scientists participating in the workshop with vast knowledge on the subject and experience from field helped us to develop a package of robust adaptation options for drought mitigation in the region. Subsequent to the presentations by the speakers, the participants discussed to identify key adaptation strategies for increasing the resilience of communities against drought like situations

### Annual Group Meeting of All India Coordinated Research Project on Agroforestry

On 26<sup>th</sup> July, 2014 Prof. M. Kar, Hon'ble Vice Chancellor of OUAT, Bhubaneswar inaugurated the three days Annual Group Meeting of All India Coordinated Research Project on Agroforestry organized at OUAT, Bhubaneswar. In his inaugural speech Prof. Kar stressed upon dissemination of appropriate agroforestry models for the benefit of small and marginal farmers. He emphasized the need for integrating livelihood options in the agroforestry models. Mr R.S. Gopalan, IAS, Director of Agriculture and Food Production, Govt. of Odisha emphasized on the need to initiate work on tree borne legumes and ecosystem services of agroforestry. Dr. S. K. Dhyani, Project Coordinator and Director, NRCAF, Jhansi presented the Coordinator's Report and brief summary of the research achievements of the project for the year 2013-14 and thrust areas for the XII Plan. In the beginning, Dr. P. K. Das, OUAT welcomed the dignitaries and delegates. On the occasion a Souvenir and one Technical Bulletin on *Acacia mangium* was released. The AICRP on Agroforestry was initiated in 1983 and it has 37 centres at



present. The meet was attended by 24 coordinating centres located in SAUs and three volunteer centres in ICAR Institutes. During the three days meeting there were 9 Technical sessions including inaugural and plenary sessions in addition to field visit to the agroforestry experimental area of the University. The group meet emphasized upon the dissemination of agroforestry technologies for benefit of the farmers. One of the sessions was devoted for formulating workable linkages between AICRP on AF and AICRPs of Dryland Agriculture, Forage Crops and Integrated Farming System. The deliberation were held on the subject in the presence of Dr. A. K. Roy, (Project Coordinator, AICRP on FC), Dr. J.V.N.S. Prasad (Principal Scientist, AICRP on DA) and Dr. Gananayak (OIC, AICRP on IFS, OUAT).

### **Institute Management Committee (IMC)**

The 18<sup>th</sup> IMC meeting was held on 5<sup>th</sup> July, 2014 at NRCAF, Jhansi under the chairmanship of Dr. S. K. Dhyani, Director, NRCAF, Jhansi. Dr. Ramesh Singh made a presentation on watershed management in the semi-arid region. In his presentation, he informed that there was severe drought in Bundelkhand region from 2004-07. More than 81% wells became dry resulting into severe scarcity of drinking water. There was huge migration towards metros in search of livelihoods. NRCAF took up the initiative to develop technological options in participatory mode for sustainable agriculture production through integrated watershed interventions. All members appreciated the efforts of the Center



particularly for dissemination of the technology to the stakeholders. They emphasized that technology should be developed for small holder farmers, need of strong linkages between the Centre and State departments and collaboration with KVKs. After the discussion, the Committee confirmed the proceedings of 17<sup>th</sup> IMC. The Committee thereafter discussed the new proposals.

### Agroforestry based Conservation Agriculture - A New Initiative at NRCAF



Increasing foodgrains production were accompanied by widespread problems of resource degradation, stagnating productivity, increasing production costs, declining water tables and increasing environmental problems. The nature and dimensions of the problems being faced today are much different and complex than those faced in the 1960s and 1970s. Therefore, there is a need to increase the crop yields and maximise the profits through alternate technologies. Conservation agriculture, hence, have become a critical component for growth of agriculture. Conservation agriculture (CA) aims to achieve sustainable and profitable agriculture and subsequently aims at improved livelihoods of farmers through the application of the three CA

principles: minimal soil disturbance, permanent soil cover and crop rotations. It is a way to combine profitable agricultural production with environmental concerns and sustainability. Conservation agricultural systems are gaining increased attention worldwide as a way to improve soil water infiltration, increasing soil water retention and reducing runoff. CA technologies in India are spreading mostly in the irrigated areas of the Indo-Gangetic plains where rice-wheat cropping system dominates.

Adopting CA systems further offers opportunities for achieving more crop diversification. Agroforestry is other alternative options for CA practices. This indicates that the concept of CA has to be adopted in a broader perspective for arid and semi-arid areas. At presemnt location specific CA practices in conjunction with the agroforestry intervention are essentially required. Therefore, an Agroforestry based Conservation Agriculture project has been initiated at this Centre for sustainable land use and improved productivity. The fields were prepared by blasting and removing large boulders, followed by laser levelling. Three agroforestry systems *viz.*, teak (*Tectona grandis*), bael (*Aegle marmelos*) and teak + bael each with different cropping systems have been initiated to study the impact of trees in conservation agriculture. The quality planting material of teak (MHEM-R-2) and bael (CISH-B-2) have been planted on the onset of monsoon. On the boundaries Leucaena (K-636) has been planted, to be used as soil mulch.

### Inder Dev, S. K. Dhyani, R. K. Tewari, Ramesh Singh, Asha Ram, Sridhar, K. B., Anil Kumar, Mahendra Singh and A.R. Uthappa National Research Centre for Agroforestry, Jhansi (U.P.)- 284 003, India

# Training programme on Willow mortality in Lahaul & Spiti Distt. of Himachal Pradesh under Tribal sub Plan

The farmer's training programme on "Modern cultivation of seed potato, wheat and agroforestry" was organized at Dalang Maidan, Lahual & Spiti from 5<sup>th</sup> to 7<sup>th</sup> August, 2014. The training was jointly organized by Regional Station, DWR, Dalang Maidan, NRCAF, Jhansi and CPRI, Shimla alongwith the coordinating centre of AICRP on Agroforestry *viz*. YSP UHF, Solan and CSK HPKV, Palampur. The training was attended by about 50 farmers from different villages of Lahaul-Spiti. The training was organized as a follow up action of the scientist-farmer's interface meet organized last year at this venue during the visit of Dr. S. Ayyappan, Secretary, DARE and DG, ICAR, where farmers raised the question of



Willow plants drying

*Salix* mortality in the region. After the registration of the participating farmers, the inauguration session was held under the chairmanship of Dr. S. K. Dhyani, Director, NRC for Agroforestry, Jhansi. After brief introduction of farmers and experts, Dr. Dhayni briefed the gathering about the role of agroforestry in providing livelihood support and income generation in the region and how the farmers of the valley can utilize different tree species and resistant clones of willow to solve their problems. Dr. A. K. Handa, Pr. Scientist & PL, NRCAF informed about the agroforestry activities undertaken under Tribal Sub Plan of the Project and suitable agroforestry systems for the region. The pest management of willow tree and other options, besides willow were explained by Dr. Kishore Khosla and Dr. K. S. Pant from YSP UHF and Dr. Rameshwar, CSK HPKV, Palampur.

Dr. N. K. Pandey and Dr. Dhurv Kumar from Regional Station, CPRI, Meerut also interacted with the farmers. The scientists visited the Lahaul-Spiti valley from 5<sup>th</sup> to 7<sup>th</sup> August, 2014. During the visit, the willow trees were found drying on a large scale in the valley. There were wide stretches of dried willow trees especially in the villages Sissoo (70-80%), Gondhla (75-85%), Tandi (50-60%), Kargha (70-80%) and Keylong and adjoining areas (50-60%). In Tholang, Tilling, Keylong, Karding and Gondhla villages also high mortality was observed. In addition,

trees were observed in varying proportions at other localities in the valley. Unlike the tree trunk, branches were severely affected having cankerous lesions (3-15cm) at emergence point of branches. A large number of branches were observed dried resembling die-back symptoms as a result of girdling due to canker. The affected part was depressed, somewhat flattened, light brown to dark brown with raised edges (callus) and split bark. The dried branches were light brown to yellow in colour with tight skin having pimples in which amber yellow or orange coloured exudations of spore masses in cirrhi (thread like spore



Director, NRCAF and Scientists interacting with farmers

tendrils) pushing through the epidermis were commonly observed.

The severely cut/lopped and water stressed trees were found more affected than the trees near water channels or in the irrigated area. In addition to it, the trees were also found severely infested with white scale insects. The infestation of giant willow aphid was also reported by the scientists of Himalayan Forest Research Institute



Scientists visiting the villages reporting high mortality of willows

(ICFRE), Shimla. The association of the sap sucking insects (scale and aphid) and water stress may have rendered the plants vulnerable to the attack of the *Cytospora* fungus. Moreover, the injuries inflicted as a result of unscientific cutting/ lopping of the trees have further aggravated the situation as the associated fungus is otherwise a weak pathogen which attacks the stressed/ weakened plants and requires injuries for infection. The observations gathered from time to time during the previous survey/visits of the valley since 1999 by the scientists of YSP UHF, Solan conclusively revealed that water

stress, changes in weather conditions, ageing of the trees, nutrient depletion, infestation of sucking insects and injuries inflicted as a result of unscientific cutting/lopping of the trees have rendered the willow plantation weak and vulnerable to the attack of the *Cytospora* fungus. The ultimate drying of the trees is due to the attack of this fungus causing cankers and girdling of the branches/shoots.

With the changing environment scenario farmers were advised to use improved management practices like lopping of fully crown tree, use of disease free saplings plants. Planting of single sapling in place of three in a pit and also use of improved clones of willow developed by the YSP UHF, Solan is recommended. In addition the following suggestions were given to the farmers to overcome the problem of Salix mortality;

- Farmers were advised to plant other fodder species like higher altitude Mulbrery (Morus laevigata).
- Planting trees in good/deep soil on a proper site.
- Water stress to the plants should be avoided and adequate moisture in the root zone may be maintained through adequate irrigation.
- Avoid excessive lopping or pruning of bigger branches.
- Bark of the young planted seedling/cutting should be protected from animal damage.
- Avoid south-west facing slopes; sandy and gravelly soils.
- Select only healthy sticks for plantation purpose which are free from canker and scale infestation.
- Replacement of the existing poor stock with superior clones developed by YSP UHF, Solan.

- Creating awareness for proper planting stock among the growers. Since wild willow is least affected by disease, therefore its potential in plantation and producing new resistant willow planting material needs further investigations.
- New plantations may be raised through entire transplantation instead of cuttings from old existing plantations.

An action plan with the involvement of the AICRP on Agroforestry Centres at YSPHUF, Solan and CSK HPKV, Palampur was also developed to tackle the willow mortality and providing alternate sources for fuel-fodder.

# हिन्दी पखवाड़ा (15–27 सितम्बर, 2014)

दिनांक 15 सितम्बर, 2014 को डा. एस. के. ध्यानी, निदेशक की अध्यक्षता में हिन्दी पखवाड़ा (15–27 सितम्बर, 2014) का शुभारम्भ किया गया। कार्यक्रम के मुख्य अतिथि डा. डी. एन. तिवारी, पूर्व सदस्य, योजना आयोग, नई दिल्ली थे। कार्यक्रम का संचालन करते हुए डा. सी.के. बाजपेयी, प्रभारी अधिकारी, राजभाषा ने मंचासीन महानुभावों तथा कार्यक्रम में उपस्थित केन्द्र के वैज्ञानिकों, अधिकारियों एवं कर्मचारियों का स्वागत करते हुए हिन्दी पखवाड़े की व्यापक रूप–रेखा एवं कार्यक्रमों की जानकारी प्रस्तुत की। डा. डी. एन. तिवारी ने सभी वैज्ञानिकों एवं अधिकारियों से अपील की कि हिन्दी में अधिक से अधिक पुस्तकें, तकनीकी बुलेटिनों तथा प्रसार बुलेटिनों का प्रकाशन किया जाए जिससे आपके अनुसंधान को पढ़कर उसका



भरपूर लाभ उठा सकें। कार्यक्रम में डा. इन्दर देव, कार्यालय प्रमुख द्वारा माननीय कृषि मंत्री, भारत सरकार का हिन्दी दिवस पर संदेश तथा डा. आर. के. तिवारी, प्रधान वैज्ञानिक एवं कार्यक्रम प्रमुख, मानव संसाधन विकास द्वारा महानिदेशक, भारतीय कृषि अनुसंधान परिषद्, नई दिल्ली का सरकारी कामकाज में राजभाषा का अधिक से अधिक कार्य करने की अपील पढ़कर सभी को सुनायी गयी। कार्यक्रम की अध्यक्षता करते हुए डा. ध्यानी ने सरकारी कामकाज में पत्राचार को बढ़ावा देने के लिए केन्द्र के समस्त वैज्ञानिकों एवं अधिकारियों से अपील की कि पत्राचार को बढ़ाने में अपना सहयोग प्रदान करें जिससे राजभाषा विभाग द्वारा दिये गये लक्ष्यों को पूरा किया जा सके। निदेशक द्वारा केन्द्र पर राजभाषा में किये जा रहे कार्यों की सराहना करते हुए अवगत कराया गया कि केन्द्र द्वारा जलागम पर बुन्देलखण्ड के भूमि संरक्षण अधिकारियों, स्वयं सहायता समूहों के प्रतिनिधियों एवं किसानों के लिए अनेकों प्रशिक्षण हिन्दी माध्यम से आयोजित किये गये है, जिसका विषयवस्तू तथा प्रशिक्षण सामग्री हिन्दी में तैयार की गई।

दिनांक 16.09.2014 को वाद—विवाद प्रतियोगिता का आयोजन किया गया जिसका शीर्षक ''कृषि बेरोजगारी का सक्षम समाधान'' पक्ष एवं विपक्ष था। दिनांक 17.09.2014 को निबन्ध प्रतियोगिता का आयोजन किया गया जिसका शीर्षक ''बदलती जलवायु में कृषिवानिकी का योगदान'' था। इन प्रतियोगिताओं में केन्द्र के वैज्ञानिकों, अधिकारियों, कर्मचारियों, शोध अध्येता, शोध छात्र एवं छात्राओं ने भाग लिया। केन्द्र के तकनीकी एवं प्रशासनिक श्रेणी के अधिकारियों एवं कर्मचारियों के लिये दिनांक 18.09.2014 को सुलेख प्रतियोगिता का आयोजन किया गया। दिनांक 19.09.2014 को इमला प्रतियोगिता का आयोजन किया गया जिसमें केन्द्र के तकनीकी, प्रशासनिक, कुशल सहायक एवं समान वेतन के अधिकारियों एवं कर्मचारियों द्वारा भाग लिया। दिनांक 20.09.2014 को हिन्दी कार्यशाला का आयोजन किया गया जिसका विषय ''मृदा स्वाख्थ्य'' था। कार्यशाला के मुख्य वक्ता डा. राजेन्द्र प्रसाद, प्रधान वैज्ञानिक (मृदा विज्ञान) ने उपरोक्त विशय पर व्याख्यान देकर सभी को मृदा स्वाख्थ्य के बारे में जानकारी प्रदान की गयी। दिनांक 22. 09.2014 को अनुवाद प्रतियोगिता में केन्द्र के तकनीकी एवं प्रशासनिक श्रेणी के अधिकारियों एवं कर्मचारियों द्वारा मा लिया विनांक 23.09.2014 को अनुवाद प्रतियोगिता सां क्षेत्र के अधिकारियों / कर्मचारियों के लिए पत्र लेखन / प्रार्थना पत्र प्रतियोगिता तथा कुशल सहायक एवं समान वेतन कर्मचारियों के लिए अवकाश प्रार्थना पत्र प्रतियोगिता का आयोजन किया गया। जिसमें अहिन्दी भाषी क्षेत्र के अधिकारियों तथा कुशल सहायक कर्मचारियों एवं समान वेतन कर्मचारियों द्वारा भाग लिया गया। डा. के. बी. श्रीधर, वैज्ञानिक ने दिनांक 24.09.2014 को क्विज प्रतियोगिता का आयोजन किया। किया प्रतियोगिता में केन्द्र के वैज्ञानिकों, अधिकारियों, कर्मचारियों, अनुसंधान अध्येता, शोध छात्र एवं छात्राओं ने बढ़—चढ़ कर भाग लिया। दिनांक 25.09.2014 को शोध—पत्र पोस्टर प्रतियोगिता का आयोजन किया गया जो कि केन्द्र के वरिष्ठ वैज्ञानिक एवं उसके नीचे स्तर के प्रतिभागियों के लिए थी। दिनांक 26.09.2014 को एक वर्ष (अक्टूबर, 2013 से सितम्बर—2014) के दौरान प्रशासनिक वर्ग से 20,000 शब्द हिन्दी टिप्पणी लेखन प्रतियोगिता तथा वैज्ञानिकों एवं तकनीकी वर्ग से हिन्दी में टिप्पणी एवं पत्राचार प्रतियोगिता का मूल्यांकन किया गया।

दिनांक 27.09.2014 को हिन्दी सप्ताह का समापन समारोह डा. आर. के. तिवारी, प्रभारी निदेशक की अध्यक्षता में सम्पन्न हुआ। समापन समारोह के मुख्य अतिथि श्री धीरेन्द्र कुमार सक्सेना, राजभाषा अधिकारी, भारत संचार निगम लिमिटेड, झाँसी थे। इस अवसर पर मुख्य अतिथि महोदय द्वारा प्रतियोगिता में विजयी प्रतिभागियों को पुरस्कार वितरित किये गये। कार्यक्रम में वार्षिक राजभाषा पत्रिका ''कृषिवानिकी आलोक–2014'' अष्टम अंक का विमोचन भी मुख्य अतिथि महोदय द्वारा किया गया।

### **Training Programmes**

The Centre organized following Farmers trainings on Agroforestry Development. In these training programmes 110 farmers from Bihar state participated. Training was sponsored by Forestry Research and Extension Centre (ICFRE), Patna under Kisan Study Tour (KST) programme.



Date	Topics	Training Coordinators
16 <sup>th</sup> - 18 <sup>th</sup> July, 2014	Krishivaniki Dwara Satat Vikas:	Dr. R K Tewari, Dr. Mahender Singh & Sh.
	Adhyayan Evam Bhraman	Mahendra Kumar
5 <sup>th</sup> to 8 <sup>th</sup> August, 2014	Krishivaniki Dwara Satat Vikas:	Dr. Inder Dev, Sh. Rajendra Singh & Sh.
	Adhyayan Evam Bhraman	Tridev Chaturvedi
26 <sup>th</sup> - 28 <sup>th</sup> August, 2014	Krishivaniki Dwara Satat Vikas:	Dr. Ramesh Singh, Sh. R K Singh & Sh.
	Adhyayan Evam Bhraman	Birendra Kumar
16 <sup>th</sup> -18 <sup>th</sup> September, 2014	Krishivaniki Dwara Satat Vikas:	Dr. Rajender Prasad, Sh. Sunil Kumar &
	Adhyayan Evam Bhraman	Sh. Om Prakesh

### ICAR-Sponsored Short Course on "Agroforestry for biofuels and bioenergy"

ICAR sponsored 10-days short course on "Agroforestry for biofuels and bioenergy" was organized at National Research Centre for Agroforestry, Jhansi during 15<sup>th</sup> to 24<sup>th</sup> September, 2014. Dr. S. Vimala Devi was Course Director. Dr. K. B. Sridhar and Sh. S. B. Chavan were Course Coordinators. Dr. D. N. Tewari, Ex-DG, ICFRE, Ex. Member Planning commission and QRT Chairman inaugurated short course and Dr. S. K. Dhyani gave the inaugural lecture. A total of 25 participants from 10 states *viz.*, Karnataka, Telangana,



Seemandhra, Maharashtra, G u j a r a t ,



Madhya Pradesh, Uttar Pradesh, Uttarakhand, J&K and Himachal Pradesh participated in the training program. Lectures on biofuels and bioenergy lectures were delivered by resource persons from NRCAF, IGFRI, HAU, IIT Delhi, University of Pune and ICAR, NRM Division. Practical demonstrations on the oil properties for biofuels including the saponification value, free fatty acids value and the method of trans-esterification of oil to produce biofuels were demonstrated. Field visits were organized to Development Alternatives and watershed program of NRCAF. The industrial experience on biofuel production and processing was shared by the resource person from Ruchi biofuels in tie up with Indian Oil Corporation limited.

# Director & Project Coordinator, AICRP on Agroforestry visits during the period

- OUAT, Bhubaneswer, Odisha (26<sup>th</sup> -28<sup>th</sup> July, 2014) for organizing the Annual Group meeting of AICRP on AF.
- Brain Storming Session on Tree cover mapping organized by ICARDA, New Delhi on 17.07.2014
- ICAR Foundation Day & meeting at NASC, New Delhi on 29<sup>th</sup> 30<sup>th</sup> July, 2014.
- Lahaul valley in H.P. for organizing Farmer's Training on Willow mortality at DWR, Regional Station, Dalang Maidan on 5<sup>th</sup> -7<sup>th</sup> August, 2014.
- AICRP on Agroforestry Centre at YS Parmar UHF, Solan, 08<sup>th</sup> -09<sup>th</sup> August, 2014.
- Inter Ministerial meeting for National Agroforestry Policy at Krishi Bhawan, New Delhi on 27<sup>th</sup> Aug., 2014.
- ICAR Regional Committee No. IV meeting at IISR, Lucknow on 5<sup>th</sup> & 6<sup>th</sup> Sept., 2014.
- Presentation by the DG, FAO at NASC, New Delhi on 8<sup>th</sup> Sept., 2014.

## **Human Resource Development**

- Dr. Badre Alam participated in the Annual Workshop of NICRA during 3<sup>rd</sup> to 5<sup>th</sup> July, 2014 held at NASC Complex, New Delhi.
- Dr. Rajendra Prasad, Dr. Sudhir Kumar, Dr. A. K. Handa and Dr. Inder Dev; Dr. Mahendra Singh and Sh. S.B. Chavan participated in the Annual Group Meeting of All India Coordinated Research Project on Agroforestry from 26<sup>th</sup> to 28<sup>th</sup> July, 2014 held at OUAT, Bhubaneswar (Odisha).
- Sh. S. B. Chavan participated in the 21 days ICAR Summer School on "Temperate Agroforestry for Sustenance and Climate Moderation" from 5<sup>th</sup> -25<sup>th</sup> August, 2014 held at SKUAST-K, Main Campus Shalimar, Srinagar (J&K).
- Dr. Mahendra Singh participated in the training on "MDP on Consultancy Services" from 22<sup>nd</sup> to 27<sup>th</sup> August, 2014 held at NAARM, Hyderabad (A.P.).
- Dr. S. K. Dhyani and Dr. A. K. Handa delivered the lecture in Training Programme on "Agroforestry and Mortality of Salix" under Tribal Sub-Plan for Tribal Farmers on 6<sup>th</sup> & 7<sup>th</sup> August, 2014 held at DWR, Regional Station, Dalang Maidan (Lahaul Spiti), H.P. in association with AICRP on AF Centres located at YSP UHF, Solan and CSK HPKV, Palampur (H. P.).
- Dr. Inder Dev participated in the regional workshop on "Strengthening partnerships and refined methodology for on-station experiments of AICRP on IFS" during 26<sup>th</sup> to 29<sup>th</sup> August, 2014 held at S. K. Nagar (Gujarat).
- Dr. R. H. Rizvi and Dr. A. K. Handa delivered the lecture in Summer School on Agroforestry on 8<sup>th</sup> & 20<sup>th</sup> August, 2014, respectively held at SKUAST-K, Main Campus Shalimar, Srinagar (J&K).

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