Interaction with the farmers at their fields on agroforestry at Rasulpur Jattan

Scientists, CAFRI in action at Rasulpur Jatttan and distribution of poplar ETP to the farmers

Planting at farmer's field

Katar Singh at his field (PH-2)

Inder Dev, S B Chavan, A R Uthappa, K B Sridhar, A K Handa, S K Dhyani and Salil Tewari*
ICAR-Central Agroforestry Research Institute, Jhansi
AICRP on AF, GBPUAT, Pantnagar

ICAR-CAFRI celebrated New Year -2015 with Human Chain

The Institute celebrated New Year - 2015 by forming Human Chain wherein all the staff, Research Scholars and other Stakeholders joined hands to bring awareness, among all the employees and general public about the ***Swachh Bharat Abhiyan***.

Dr. S K Dhyani, Director, ICAR-CAFRI, while greeting the staff on this occasion asked them to get fully involved to make the annual action plan and five year action plan successfull chalked out by the Institute for the National Sanitation Campaign (Swachh Bharat Abhiyan) launched by the Hon'ble Prime Minister of India. In compliance to the instructions by the ICAR Head Quarter, the Institute has taken up a series of cleanliness drive in and around the Institute as well as nearby villages. The activities have also been extended in the six villages of the two watersheds being implemented by the Institute in Bundelkhand Region at Garhkundar-Dabar in Tikamgarh District of M. P. and Parasai-Sindh Watershed in Jhansi District of U. P.

Krishak Gosthi

A *Krishak Gosthi* was organized by ICAR- Central Agroforestry Research Institute, Jhansi at village-Veerpura, Tehsil- Gauratha (Jhansi) on 12th February, 2015. The village is about 100 Km away from ICAR-CAFRI, Jhansi. Farmers have shown their keen interest in various systems of agroforestry and tree plantation on bunds and boundaries. Farmers raised various queries related to agroforestry systems. About 145 farmers participated in *Krishak Gosthi*. Dr. R K Tewari, Pr. Scientist (Horticulture), Dr. Rajendra Prasad, Pr. Scientist (Soil Science), Dr. Ramesh Singh, Pr. Scientist (SWC), Sh. S B Chavan, Scientist (Forestry) and Dr. R P Dwivedi Pr. Scientist (Agril. Extension) of ICAR-CAFRI, Jhansi delivered their subject matter talk and actively interacted with the farmers on various agroforestry related issues. The programme was presided over jointly by Ex-Village Pradhan Dr. Ram Singh Patel and Present village Pradhan Sh. Har Prasad Patel. The programme was anchored by Dr. R P Dwivedi, Convener.

Supervision and Guidance : Dr. S K Dhyani, Director
Compiled and Edited : Inder Dev, Asha Ram Rajeev Tiwari and Ramesh Singh
Photographs : Sh. Rajesh Srivastava
Published by : Director, ICAR-Central Agroforestry Research Institute, Gwalior Road, Jhansi-284003, (U.P.) India
Telephone : +91-510-2730213, 2730214
Fax : +91-510-2730364
Telefax : +91-510-2730214
E-mail : krishivaniki@nrcaf.res.in
Web site : http://www.nrcaf.res.in

army printing press
www.armyprintingpress.com
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भाकृअनुप ICAR

स्वच्छ भारत एक कदम स्वच्छता की ओर

राकृवाअनुकें NRCAF

कृषिवानिकी समाचार पत्र
Agroforestry Newsletter

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राष्ट्रीय विज्ञान दिवस एवं कृषक अधिकारों के प्रति जागरूकता प्रशिक्षण

भा.कृ.अनु.प.–केन्द्रीय कृषिवानिकी अनुसंधान संस्थान में राष्ट्रीय विज्ञान दिवस के अवसर पर किसानों के लिए एक दिवसीय प्रशिक्षण निदेशक डॉ. एस. के. ध्यानी की अध्यक्षता में 28 फरवरी, 2015 को आयोजित किया गया। इस वर्ष विज्ञान दिवस का विषय ''राष्ट्र निर्माण हेतु विज्ञान'' रखा गया था। इसके मद्देनजर किसानों, छात्र–छात्राओं एवं शोधकर्ताओं की जागरूकता हेतु कार्यक्रम आयोजित किए गए। इस अवसर पर पौधों की नई किस्म विकसित करने में किसानों के योगदान की चर्चा हुई व किसानों को पौधा किस्म एवं कृषक अधिकार संरक्षण अधिनियम के बारे में जानकारी दी गई। वक्ताओं ने बताया कि इस अधिनियम के अन्तर्गत किसान अपनी उत्कृष्ट किस्मों की फसल का पंजीकरण करा सकते हैं, जिससे व्यवसायीकरण होने की स्थिति में उससे रॉयल्टी प्राप्त करने के अधिकारी हो जाएंगे। यह अधिनियम किसानों को अपने बीज को पुनः उपयोग करने का अधिकार प्रदान करता है। इस प्रशिक्षण में वीरपुरा गाँव, झाँसी (उ.प्र.) एवं ब्यावरा गाँव, जिला राजगढ़ (म.प्र.) के किसानों ने भाग लिया। किसानों को व्याख्यान, प्रक्षेत्र भ्रमण एवं अधिनियम संबंधी जानकारी पोस्टरों के माध्यम से भी दी गई। प्रतिभागी किसानों को अपने खेतों की मेड़ पर वृक्षारोपण करने का आवाहन किया गया तथा वृक्षारोपण हेतु उपयुक्त वृक्ष किस्मों की जानकारी भी प्रदान की गयी। इस प्रशिक्षण का संचालन डॉ. अरूण कुमार हाण्डा, डॉ. इन्द्र देव, डॉ. एस विमाला देवी एवं श्री ए.आर. उथ्थप्पा ने किया।

संस्थान द्वारा कृषि शिक्षा एवं उद्योग दिवस का 28 फरवरी, 2015 को आयोजन किया गया। कृषि शिक्षा दिवस में ब्लू बेल्स् स्कूल, शेरवुड स्कूल, लोकमान्य तिलक कन्या इन्टर कॉलेज तथा महारानी लक्ष्मी बाई पब्लिक स्कूल के छात्र/छात्राओं ने भाग लिया। कार्यक्रम के दौरान ब्लू बेल्स् स्कूल के प्रधानाचार्य श्री नितिन विलियम्स् एवं विज्ञान अध्यापिका श्रीमती नीति शर्मा, साइन्स सेन्टर, झाँसी से श्रीमती दीप्ति गुलाटी उपस्थित रहे। इसमें कृषि एवं कृषिवानिकी आधारित उद्योगों को प्रोत्साहन देने व युवाओं को कृषि शिक्षा की ओर आर्किषत करने के लिए व्याख्यान दिये गये। छात्र/छात्रों एवं उनके अध्यापकों को व्याख्यान के पश्चात् प्रक्षेत्र भ्रमण एवं प्रयोगशालाओं को देखने का अवसर मिला। छात्र/छात्रों एवं उनके अध्यापकों ने इस तरह के कार्यक्रम पर प्रसन्नता व्यक्त की और भविष्य में इस तरह के और अवसर मिलने के लिए उत्सुकता जाहिर की। कृषि शिक्षा एवं उद्योग दिवस का संचालन डॉ. अरूण कुमार हाण्डा ने किया।

Forthcoming Events

1. Celebration of Krishivaniki Divas- 8th May, 2015
2. SAARC Regional consultation meeting -15-19 June, 2015
3. Annual IRC Meeting – 26th & 27th June, 2015
4. Institute Joint Staff Council/Women Cell / PME/ RFD Cell meetings

उक्त दोनों कार्यक्रमों के अन्त में प्रतिभागियों (किसानों/छात्र–छात्राओं) को माननीय प्रधानमंत्री जी के स्वच्छ भारत अभियान के संबंध में जानकारी प्रदान करते हुये उनके कार्य क्षेत्रों एवं निवास करने के आस–पास के स्थानों को स्वच्छ रखने के संबंध में उपायों से अवगत कराया गया। सुझाये गये उपायों को अमल में लाने हेतु प्रतिभागियों को शपथ भी दिलायी गयी।

Leucaena Germplasm Evaluation

Leucaena is an important MPTS under agroforestry systems specifically for silvipasture systems in semi-arid regions. In this context a study was initiated at ICAR-CAFRI with different *Leucaena* species for their growth characteristics and seedlings belonging to five different species *viz*., *Leucaena diversifolia, L. shannoni, L. lanceolata, L. collinsii, L. leucocephala* and a hybrid (*L. shannoni* X *L. leucocephala*) obtained from ICAR-IGFRI, Jhansi and planted at ICAR-CAFRI, experimental field during August, 2006 for evaluation and their selections for superior growth characters (Plate 1 & 2). The seedlings were planted at a spacing of 3m x 3m with three replications. The data for tree height and dbh at the age of nine years were recorded (Table 1). The average tree height was 11.78 m and it ranged from 8.0 to 14.57 m and the value for 18 accessions was higher compared to population mean. The maximum height was recorded in *L. leucocephala* S-18 and *L. leucocephala* S-22 (14.57m) and minimum height in *L. leucocephala* Silvi-4 (8.0 m). The average dbh was 11.59 cm and it ranged from 5.94 to 20.38 cm. Seventeen accessions recorded diameter over the population mean. The maximum dbh was recorded in *L. shannoni*-22/83 (20.38 cm) and minimum dbh was in *L. leucocephala* Silvi-4 (5.94 cm).

Plate 1: *Leucaena* germplasm evaluation site

Table 1: Growth parameters of different *Leucaena* accessions

Accession No	Accession name	dbh (cm)	Total height (m)	Accession No	Accession name	dbh (cm)	Total height (m)
1	*L. diversifolia*-504	13.64	12.10	19	*L. leucocephala* S-12	15.24	14.45
2	*L. diversifolia*- 83/92	7.20	9.67	20	*L. leucocephala* S-13	12.36	12.35
3	*L. diversifolia*-46/87	8.11	10.30	21	*L. leucocephala* S-14	7.74	9.07
4	*L.shannoni*-22/83	20.38	13.65	22	*L. leucocephala* S-15	12.60	12.70
5	*L. lanceolata*	12.55	11.80	23	*L. leucocephala* S-18	18.77	14.57
6	*L. lanceolata*-49/37	10.31	10.17	24	*L. leucocephala* S-22	6.94	14.57
7	*L.collinsii*-18/84	11.74	11.40	25	*L. leucocephala* S-23	9.08	10.12
8	*L.collinsii*-56/88	12.42	13.80	26	*L. leucocephala* S-24	8.11	11.30
9	*L.collinsii*- 15/83	11.74	10.73	27	*L. leucocephala* IGFRI-23-1	12.57	12.77
10	*L. shannoni* X *L. leucocephala*	13.18	13.63	28	*L. leucocephala* IGFRI-78	9.71	12.00
11	*L.leucocephala* S-1	14.20	14.00	29	*L. leucocephala* IGFRI-96	9.46	8.70
12	*L. leucocephala* S-2	18.06	10.40	30	*L. leucocephala* Conn-3	10.06	9.80
13	*L.leucocephala* S-4	11.39	11.27	31	*L. leucocephala* Silvi-4	5.94	8.00
14	*L. leucocephala* S-6	14.24	13.77	33	*L. leucocephala* K-29	13.22	12.30
15	*L. leucocephala* S-7	10.94	12.43	34	*L. leucocephala* K-217	11.34	11.90
17	*L. leucocephala* S-10	8.79	11.55	35	*L. leucocephala* K-340	7.39	9.90
18	*L. leucocephala* S-11	13.16	13.63				

Plate 2 : Variation in leaf characters among different species

L. shannoni x L. leucocephala | *L. shannoni* | *L. leucocephala* S -14 | *L. lanceolata* | *L. diversifolia*

A R Uthappa, A K Handa and S K Dhyani
ICAR-Central Agroforestry Research Institute, Jhansi

Remote Sensing Analysis for Land Use Change and Soil Erosion in Domagor-Pahuj Watershed

The land management and water on watershed basis has a scientific proven base, which helps in increasing the productivity along with sustainable utilization of resources. Watersheds are natural hydraulic entities, where water flows in a definite path. Domagor-Pahuj watershed is situated in Jhansi district of Bundelkhand region and located between $25^0$28' to $25^0$31' N latitude and $078^0$25' to $078^0$28' E longitude. This watershed has a total geographical area of 1646 ha out of which 1373 ha area is treatable and comprises of three villages *viz*., Naya Khera, Domagor and Dhikauli. GIS and remote sensing technologies can be effectively used for watershed characterisation and its planning. They are also useful in assessment of impact in watershed before and after implementation of different interventions. GIS integrated with hydrological models can supply watershed information including watershed slope, aspect, stream lines, soil attributes, land use and numerous other data in grid and vector format.

Domagor-Pahuj watershed programme was started in year 2009 and various soil and water conservation measures have been introduced since then. In order to assess the impact of these interventions, land use and land cover (LULC) analysis was done using remote sensing data of Landsat TM for the years 2009 and 2014. The LULC classification was done using maximum likelihood method and the area has been estimated for two periods. LULC analysis revealed that area under crops and plantation was increased by 26.0 and 34.5 ha, respectively from 2009 to 2014. Whereas, wasteland and scrubland area also decreased by about 39.4 and 23.2 ha, respectively from 2009 to 2014(Table 1).

Soil erosion in watershed was also estimated using NDVI and slope maps generated from Cartosat DEM for pre- and post-scenario periods. Soil erosion in watershed was estimated to be 16.65 t ha^{-1} $year^{-1}$ in 2009, which declined to 10.95 t ha^{-1} $year^{-1}$ in 2014. Soil erosion in watershed when compared with vegetation, soil erosion was found high in low vegetation area or wasteland (Fig. 1 to 4). During this five year period, vegetation cover has increased by introduction of soil and water conservation measures as exhibited by NDVI maps. This in turn led to reduction in soil erosion in the Domagor-Pahuj watershed.

Table 1: Change in land use and land covers in Domgor-Watershed

Sl. No.	LULC classes	2009 (ha)	2014 (ha)	Change in Area (ha)
1	Agroforestry / Plantation	40.93	75.47	34.54
2	Cropland	1351.68	1377.67	25.99
3	Scrubland / Degraded Forest	103.71	64.31	-39.4
4	Wasteland	120.80	97.60	-23.20
5	Waterbody	49.74	50.73	0.99
6	Builtups	25.28	26.36	01.08
Total		**1692.14**	**1692.14**	

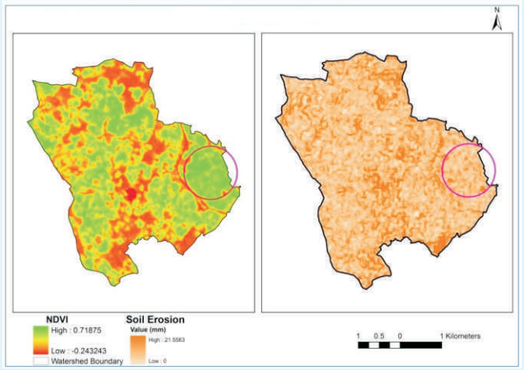

Fig. 1: NDVI & soil erosion maps of watershed for year 2009

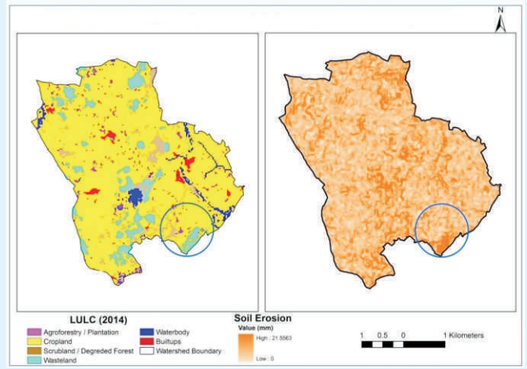

Fig. 2: LULC & soil erosion maps of watershed for year 2009

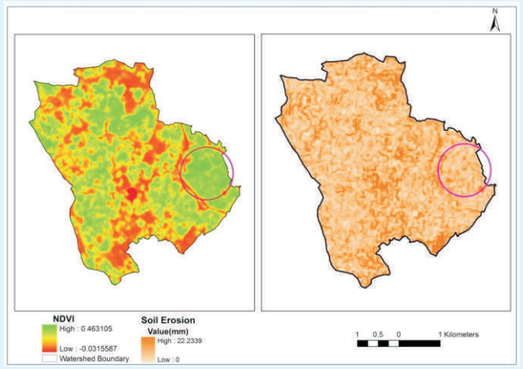

Fig. 3: NDVI & soil erosion maps of watershed for year 2014

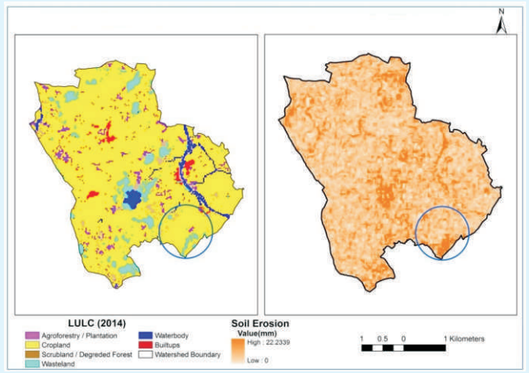

Fig. 4: LULC & soil erosion maps of watershed for year 2014

R H Rizvi, Ramesh Singh, P S Karmakar, R K Tewari, S N Pandey* and S K Dhyani
ICAR-Central Agroforestry Research Institute, Jhansi
*** Development Alternative, Pahuj Taragram, Jhansi**

Promising *Jatropha curcas* Accessions from CAFRI Germplasm Collections

Jatraopha curcas has been given importance as an important source of renewable biofuel source under the National biodiesel mission, because of its short gestation period, manageable tree stature, easy handling and its ability to grow in different agroclimatic regions of the country. *Jatropha curcas* L. is often referred to as Jatropha, Ratanjoth, Psychic nut, *etc*., belongs to the *Euphorbiaceae* family. It is a tall shrub or small tree that can grow up to 6 meters height, with a lifespan range of 50 years. The tree is a deciduous wood type with leaves falling off under conditions of stress. It produces seeds with high oil content and are toxic, hence non-edible. Jatropha grows under tropical conditions and can withstand conditions of severe drought and low soil fertility. As the oil from Jatropha can be directly used as biofuel with little or no modifications, it is a promising energy crop and the expectations form this species has attracted considerable researchers and investors for more than a decade.

The instability in yield pattern is the major concern for the commercial success of *J. curcas*. The possible solution is the large scale screening of germplasm variability available in the country for yield related traits. ICAR-CAFRI, Jhansi, has a total of 155 candidate plus trees from different geographical origin, maintained as germplasm collections. The evaluation of these germplasm accessions has led to the identification of some promising Jatropha genotypes, which have shown considerable stability in the yielding pattern over the past five years, which are presented in the Table 1 & 2 below.

Nine accessions NRC 84, NRC-111, NRC-124, NRC-127, NRC-128, NRC-129, NRC-145, NRC-158 and NRC-159 originally collected from Uttaranchal, Madhya Pradesh and Maharashtra are showing continuously stable yields during the recorded period from 4-8 years of age. Of these, NRCJ-111, NRCJ-124, NRCJ-145, NRCJ-158 and NRCJ-159 are most promising with an average yield of 701.00, 519.00, 497.00, 629.00 and 983.00 kg ha^{-1}, respectively.

Table 1: Details of *Jatropha curcas* genotypes collected from different locations

S.No.	Accession code	IC No.	Location	Longitude and Latitude	Altitude (m)	Collection site
1	NRCJ-84	IC-545516	Nainital, Uttarnchal	29.23^{0}N, 78.30^0 E	275	Field boundary
2	NRCJ-111	IC-545543	Bageshwar, Uttranchal	29.37^0 N,79.40^0 E	1000	Natural wild
3	NRCJ-124	IC-545556	Guna, Madhya Pradesh	24.40^0 N,77.20^0 E	520	Natural wild
4	NRCJ 127	IC-545558	Rajgarh, Madhya Pradesh	24.00^0 N,76.47^0 E	530	Natural wild
5	NRCJ 128	IC-545559	Indore, Madhya Pradesh	22.44^0 N,75.50^0 E	580	Natural wild
6	NRCJ 129	IC-545560	Indore, Madhya Pradesh	22.44^0 N,75.50^0 E	650	Natural wild
7	NRCJ 145	IC-545576	Ahmadnagar, Maharashtra	19.05^0 N,74.48^0 E	800 m	Natural wild
8	NRCJ-158	IC-545587	Jalna, Maharashtra	19.51^0 N,75.56^0 E	650	Natural wild
9	NRCJ-159	IC-545588	Buldana, Maharashtra	20.32^0 N,76.14^0 E	640	Field boundary

Table 2: Yield and Oil content of the promising *Jatropha curcas* accessions form ICAR-CAFRI, Jhansi

Sl	Accession code	Seed yield (kg plant^{-1})						Seed yield (kg ha^{-1})						Av. oil content (%)
		2010	2011	2012	2013	2014	Av.	2010	2011	2012	2013	2014	Av.	
1	**NRCJ 84**	0.05	0.51	0.51	0.19	0.06	**0.26**	55.00	566.00	566.00	211.00	66.00	**293.00**	25
2	**NRCJ 111**	0.20	1.46	0.45	0.45	0.60	**0.63**	216.00	1622.00	500.00	500.00	666.00	**701.00**	37
3	**NRCJ 124**	0.13	1.04	0.68	-	0.23	**0.52**	140.00	1150.00	755.00	-	255.00	**460.00**	23
4	**NRCJ 127**	0.09	1.01	0.67	0.04	0.53	**0.47**	96.00	1122.00	744.00	44.00	588.00	**519.00**	33
5	**NRCJ 128**	0.18	0.72	0.29	0.05	0.28	**0.30**	200.00	794.00	316.00	55.00	305.00	**334.00**	32
6	**NRCJ 129**	0.26	0.53	0.45	-	0.43	**0.41**	283.00	583.00	94.00	-	472.00	**366.00**	37
7	**NRCJ 145**	0.05	1.34	0.71	-	0.15	**0.56**	55.00	1488.00	783.00	-	161.00	**497.00**	24
8	**NRCJ 158**	**2010**	**2011**	**2012**	**2013**	**2014**	**0.57**	180.00	131.00	294.00	77.00	677.00	**629.00**	29
9	**NRCJ 159**	0.05	0.51	0.51	0.19	0.06	**0.89**	116.00	2950.00	596.00	383.00	872.00	**983.00**	30

The oil content in these accessions varied from 23 to 37%. The seedlings of these accessions are being raised in the nursery at ICAR-CAFRI Research Farm for further progeny trials and confirm their stable yield.

S Vimala Devi, Vishal Singh, S K Dhyani, A K Handa
ICAR-Central Agroforestry Research Institute, Jhansi

हिन्दी कार्यशाला

संस्थान में मार्च, 2015 को समाप्त तिमाही कार्यशाला दिनांक 20.03.2015 को डा. एस. के. ध्यानी, निदेशक की अध्यक्षता में सम्पन्न हुई। कार्यशाला के मुख्य वक्ता श्री विशाल, वरिष्ठ शोध अध्येता द्वारा **"करंज के पेड़ की जैव ईधन के रूप में उपयोगिता"** विषय पर करंज के पेड़ के गुणों की चर्चा करते हुये उन्होंने अवगत कराया कि यह सदाबहार पुष्पीय वृक्ष सामान्य ऊँचाई का होता है तथा चार–पाँच वर्ष में वयस्क होकर चार–सात वर्ष में फूलना फलना प्रारम्भ कर देता है। शुष्क एवं अर्द्ध शुष्क क्षेत्रों के किसान अपनी खेतों की मेड़ पर कृषिवानिकी के रूप में रोपित कर इससे लाभ अर्जित कर सकते हैं। उन्होंने बताया कि सामान्यतः इसके बीजों से 27% तेल प्राप्त होता है। संस्थान में मूल्यांकन हेतु एकत्रित करंज के जनन द्रव्यों से 27% - 43% के मध्य तेल की प्राप्ति हुई है। वर्तमान में करंज के तेल का व्यावसायिक उपयोग अभी देश में साबुन निर्माण के क्षेत्र में होता है, परन्तु इस का उपयोग डीजल में मिश्रित कर जैव ईधन के रूप में करने की अपार सम्भावनाऐं हैं। इसके उपयोग से डीजल के आयात में प्रयोग होने वाली विदेशी मुद्रा की बचत होगी। मधुमक्खी पालन हेतु भी यह एक आदर्श पेड़ है। इस सदाबहार पुष्पीय पेड़ का वृक्षारोपण सड़कों ,मार्गों के दोनों ओर छाया एवं भूदृश्य सुन्दरता हेतु किया जाता है। कार्यशाला संयोजक डा. सी. के. बाजपेयी, प्रभारी अधिकारी राजभाषा ने सभी का स्वागत करते हुए कार्यशाला की उपयोगिता पर प्रकाश डाला। उन्होंने संस्थान के सभी कार्मिकों से अनुरोध किया कि तिमाही के दौरान आयोजित होने वाली कार्यशाला में सभी लोग अवश्य भाग लें। कार्यशाला में संस्थान के वैज्ञानिक, अधिकारी तथा कर्मचारी उपस्थित थे।

Consultation Workshop on Present Status and Future Prospects of Agroforestry in Nepal

A Consultation Workshop was jointly organized by Ministry of Agricultural Development, Government of Nepal, World Agroforestry Centre, and Asia Network for Sustainable Agriculture and Bio-resources (ANSAB) to review the present status of Agroforestry research and the future prospects in Nepal during 26th - 28th March, 2015 and the future prospects. The delegates from various ministries, departments and organizations from Nepal, representatives of World Agroforestry Centre India, Kenya, Sri Lanka, Bangladesh, China, ANSAB and representatives from Department of Agriculture and Cooperation (DAC), Ministry of Agriculture, India and Indian Council of Agricultural Research (ICAR) deliberated during the workshop. Dr. Javed Rizvi, Regional Director, South Asia, ICRAF welcomed the delegates. The Workshop was inaugurated by Hon'ble Minister of Forest and Soil Conservation, Government of Nepal Sh. Mahesh Acharya. There were six technical sessions during the workshop. The deliberations showed that Nepal has rich knowledge of traditional agroforestry systems which needs to be strengthened and coordinated to achieve full potential. The future thrust areas where agroforestry can play an

important role in Nepal are development of feed and fodder resources, income generation, food, nutritional, energy security, germplasm conservation and quality planting material, arresting land degradation and restoration of soil health and development of suitable agroforestry models for different agro-climatic zones. Sh. R B Sinha, Joint Secretary to the Ministry of Agriculture, Government of India presented the process adopted for Agroforestry Development in India and its key features. Dr. S K Dhyani, Director, ICAR- Central Agroforestry Research Institute, Jhansi, India deliberated on the contribution of research for development in implementation of Agroforestry Policy in India and major agroforestry technologies and systems. Dr. A K Handa, ICAR-CAFRI also participated in the wokshop.Dr. V P Singh, Senior Advisor, ICRAF discussed the outputs and outcomes of the Agroforestry Policy implementation in India. Dr. Pushpakumara presented agroforestry systems and opportunities in Sri Lanka and Dr. Eric from ICRAF presented soil health mapping in Nepal. The delegates discussed and deliberated on Kathmandu Declaration on Agroforestry and finalized it. The Declaration emphasized to have to develop National Agroforestry Policy for Nepal for easing of regulatory constraints and development of Agroforestry in the country. The Declaration was signed by Mr. Sharad Chandra Paudel, Secretary, Ministry of Forest and Soil Conservation and Sh. Shyam Kishore Shah, Secretary, Ministry of Agricultural Development, Government of Nepal in the presence of Hon'ble Minister of Agricultural Development, Sh. Hari Prasad Prajuli. The Declaration appreciated the development of National Agroforestry Policy in India and contribution of ICRAF in its development and looking forward for same support and assistance in development of National Agroforestry Policy for Nepal.

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

- Visited AICRPAF Centre at GBPUA&T, Pantnagar on 12th February, 2015.
- Visited Krishi Vigyan Kendra, Shivpuri of Rajmata Vijya Raje Scindhiya Krishi Vishwa-vidhyalaya, Gwalior on 21st Feb., 2015.
- Visited AICRPAF Centre at PDKV, Nagpur on 26th Feb., 2015.

Participation in the Meetings/Workshop

- Dr. S K Dhyani participated in the "Standing Technical Committee" meeting for NMSA" on 09th January, 2015 held at Krishi Bhawan, New Delhi.
- Dr. S K Dhyani, Dr. R K Tewari, Dr. A K Handa and Dr. S Vimala Devi participated in the Workshop on "Quality Planting Material Production & Supply System" during 16th & 17th Jan., 2015 held at RVSKVV, Gwalior (M. P.).
- Dr. R K Tewari and Dr. K B Sridhar participated in the Training training was sponsored by DST on Role of Scientists in Natural Resource and Evironment Management during 16th to 20th February, 2015 held at IIFM, Bhopal (M.P.)
- Dr. Badre Alam participated in the 5th International Conference on Climate Change & sustainable management of Natural resources during 9th-11th February, 2015 at ITM Universe, Sithouli, Gowalior and delivered an invited lecture on "Trees for modulating the climate change scenarios through improved land use system" in a Plenary session. He also participated in the Workshop of the Nodal Officers (HRD) for "Training Needs Analysis" on 26th Feruary, 2015 organized at NAARM, Hyderabad.
- Dr. S K Dhyani participated in the Interactive Meeting held on 04th February, 2015 at CEFIPRA, New Delhi with Prof. Robert Habib, Director of International Programs in INRA, France in connection with Indo-French Workshop to be held at New Delhi.
- Dr. S K Dhyani delivered Keynote address in the National Symposium on Agroforestry during 13th -14th February, 2015 held at GBPUA&T, Pantnagar.
- Dr. S K Dhyani delivered a lecture on 26th February, 2015 in training programme for Forest Officials at College of Agriculture, PDKV, Nagpur.
- Dr. S K Dhyani attended the meeting held on 05th March, 2015 at 04:00 PM under the Chairmanship of DDG (CS), ICAR, New Delhi regarding the requirement of land by the RLBCAU, Jhansi.

- Dr. S K Dhyani organized Session-I of the Indo-French Workshop on Scientific Cooperation for Agricultural Research during 9th - 11th March, 2015 held at New Delhi.
- Dr. S K Dhyani attended the meeting with DDG (ICRAF) on 12th March, 2015 regarding ICAR-ICRAF work plan held at New Delhi.
- Dr. S K Dhyani and Dr. A K Handa were on deputation to Kathmandu, Nepal for participation in two days Consultation Workshop on Agroforestry during 27th -28th March, 2015.

ICAR Inter Zonal Sports Meet at ICAR-NDRI, Karnal

Mr. Rajesh Srivastav (Sr. T.O.) and Mr. Attar Singh (SSS) from ICAR-CAFRI participated in ICAR Inter Zonal Sports Meet held during 11th -14th March, 2015 at ICAR-NDRI Karnal. Mr. Rajesh Srivastava won the ICAR Championship in chess and Mr. Attar Singh got 3rd position in cycle race.

Promotion

- Dr. A Datta, ACTO promoted to the post of CTO w. e. f. 30th December, 2013.
- Sh. K P Sharma, Assistant promoted to the post of AAO w.e,f. 6th February, 2015.

Poplar Demonstration Trial at Rasulpur Jattan (Muzaffarnagar)

As desired in the *Kisan Goshti*-cum-Exhibition at Rasulpur Jattan and Barwala villages under Muzaffarnagar district on 13th and 14th December, 2014, the activity of poplar based agroforestry demonstration was to be initiated as a research cum extension activity of ICAR- CAFRI, Jhansi (through AICRP on Agroforestry Centre at GBPUAT, Pantnagar) and IIFSR, Modipuram.

As a follow up action, the team comprising of 05 scientists (03 scientists from ICAR-CAFRI, Jhansi and 02 scientists from IIFSR, Modipuram) visited during 1st week of February, 2015 to discuss about the poplar demonstration at Rasulpur Jattan. The scientists of ICAR-CAFRI, Jhansi also visited the some pockets of the Muzaffarnagar district to understand the status of agroforestry in that region.

It was observed that farmers of this area are engaged in agroforestry practices mainly dominated by poplar and followed by eucalyptus. By and large most of the farmers are growing G-48 clone of poplar in that area and it was observed that poplar plantations been suffered by the stem borer and leaf blight disease.

The issue related to poplar demonstration was discussed in the presence of village Pradhan, farmers and scientists at Rasalpur Jattan. Famers were keen to grow new clones of poplar which are resistant to leaf blight and stem borer with higher productivity.

Therefore, it was decided to demonstrate PP-5 (Pant Poplar-5), PH-2 (Pant Hybrid-2) and L-34 (Lakuan 34), the improved clones of All India Coordinated Research Project on Agroforestry– G.B. Pant University of Agriculture & Technology, Pantnagar.

The team of scientists from ICAR-CAFRI visited Rasulpur Jattan again during the last of February and took 600 ETP (Entire transplant) of poplar (200 each of PP-5, PH-2 and L-34) from AICRP on AF, GBPUA&T, Pantnagar with them which were distributed to farmers on 25.2.2015 and were transplanted on 26.2.2015 in the village . The scientists also provided the technical guidance to the farmers and got the poplar ETPs transplanted at spacing of 5×4m. The poplar demonstrations have been laid out at the following farmers' field of Rasapur Jattan.

1. Sh. Jasbir s/o Sh. Pritam Singh (PH-2)
2. Sh. Katar Singh s/o Sh. Charan Singh (PH-2)
3. Sh. Neeraj s/o Sh. Harbir (L-34)
4. Sh. Subrampal s/o Sh. Shivkaran (L-34)
5. Sh. Vinay Kumar s/o Sh. Harikrishan (PP-5)
6. Sh. Shukrapal s/o Sh. Bachan (PP-5)