

About the Short Course

Engineering is one of the major pillars of agriculture. Livestock production is major supporting activity in Indian agriculture. It contributes 4% to national GDP and gives employment to 70% population of rural areas. At present, the country faces a net deficit of 61.1% green fodder, 21.9% dry crop residues and 64% feed products. To meet the current level of livestock production and its annual growth in population, the deficit in all components of fodder, dry crop residues and feed has to be met by increasing productivity, utilizing untapped feed resources, increasing land under fodder in the form of cultivated or rangelands. There are multiple pressures of population, development and natural resources on agricultural land, so it is advisable to increase productivity by promoting farm mechanization, minimizing post-harvest losses, processing of feed products by different engineering interventions. Mechanization ensures economic and timely operations in fodder production and reduces the dependency on labour. Major requirements of machinery in fodder production and utilization involves for green fodder harvesting, grass harvesting, collection, baling and storage, wetting and soaking of roughages, grinding and pelleting of fibrous feedstuffs, enrichment of crop residues by urea/ molasses treatment etc. Improvement of nutritional quality, digestibility and palatability are also challenges associated with forage crops and roughages. These can be improved through nutrient fortification, chaffing, feed pelleting, drying and densification. Various efforts have been made by IGFRI, Jhansi and other related institutions to increase the value of fodder and feed for increasing productivity. Available technology needs to be passed on to the forage producing farmers and processing agencies for their proper use in boosting forage resources. The main objective for organizing this short course is to bring together multidisciplinary researchers/scientists working in fodder sector and to apprise them of the recent concepts and techniques. The course will also provide an opportunity to the participants to interact with subject-experts and fellow workers from different parts of the country and update themselves with the latest information in the field.

Course Content

This course will cover the following major areas.

- Mechanization in forage production and processing
- Recent advances in forage production technologies
- Crop residue economic harvesting and its management
- Post harvest technologies of feed and fodder
- Value addition and enrichment of low-grade roughages
- Forage conservation through drying and silage making
- Baling, densification, block making and formation of complete feed block
- Quality control standards of feed and fodder products
- Storage and fodder bank of feed and fodder resources
- Feed pelleting and supplementation to livestock ration
- Agro-processing activities and entrepreneurship opportunity through value addition
- IPR issues related to research and development in forage based feed product formulation
- Utilization of top feed and non-conventional fodder resources
- Technology dissemination and participatory approach
- Sharing experience from industry/bank/farmer/other related agencies
- Visit of different laboratories and institutes located in the region
- Watershed development approach for natural resources
- Role of GIS in forage post-harvest activities for estimating forage production
- Grassland development issues
- Urea treatment of crop residues
- Planning farm for maximizing profit of a medium sized dairy unit with optimum fodder utilization

Venue

The short course will be conducted at Farm Machinery & Post Harvest Technology Division of Indian Grassland and Fodder Research Institute (IGFRI), Jhansi. The institute is pioneer in conducting basic, strategic and applied research in the field of grassland, silvi-horti pasture, rangelands, cultivated forage crops, forage based feeding systems, nutrient utilization by small and large ruminates and improved feed and fodder technologies. The institute, locally known as 'Grassland' is situated near Pahuj Dam on Jhansi-Gwalior Highway, 10 km from Jhansi Railway Station and 12 km from Bus Stand.

About the City

Jhansi is located at an elevation of 275 m above the mean sea level. The city is famous as per patriotic city of Maharani Laxmi Bai, Rashtra kavi Maithili Saran Gupt, Hockey wizard Major Dhyanchand and Hindi writer Dr. Vrindavan Lal Verma. There are many places of interest in Jhansi like Jhansi Fort, Rani Mahal, UP Government Museum etc. The other tourist places of interest nearby Jhansi are Siddh Peeth Datia (20 km), Ram Raja Temple Orchha (30km) and the temples of Khajuraho (200km) a world heritage site by UNESCO. It is well connected by train and road routes to all the major cities of the country. The climate of Jhansi will be colder with temperature ranging from 10 to 15° C during the short course period.

Eligibility

The short course is open for the participants from ICAR Institute/State AUs/CAU/Agricultural faculty of AMU, BHU, Vishwa Bharti and Nagaland University/ /KVKs in the cadre of Assistant Professor/Scientist or equivalent and above with minimum qualification of Masters' degree from any recognized university in the relevant disciplines of Agriculture/ Agricultural Engineering/Agricultural Process & Food Engineering/ Veterinary Science/Animal Science/LPM and allied disciplines. A maximum of 25 participants will be selected.

Travel, Boarding and Lodging

The participants will be paid travel (to and fro) fare, as per their entitlement by train (restricted to maximum of AC-II tier) or by bus on production of tickets by the shortest route. No DA will be provided by the organizers. The participants will be provided free boarding and lodging facilities in the Institute Scientist Hostel/guest house.

How to Apply

As per the mandate by ICAR, the candidates **must** apply online at: <http://iasri.res.in/cbp/> or click on Capacity Building Program link at <http://icar.org.in>. Login using user id and password. To create user id, use "create new account" link. After login, click on "participate in training" link and fill the proforma. Take a printout. Get it signed by sponsoring/forwarding authority. Upload signed copy at CBP home page. Also send signed copy, along with the postal order/demand draft of Rs. 50/- in favour of 'Director IGFRI', payable at Jhansi (UP) through proper channel to the course Director of the summer school by post. These guidelines are available at: <http://www.iasri.res.in/cbp/HomePage.aspx>

Important Dates

Last date for receipt of application: 15.01.2017

Notification of selection: 16.01.2017

Commencement of the course: 30.01.2017

All correspondence may be addressed to:

1. Course Director

Dr. Chandrashekhar Sahay

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2. Course Coordinators

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3. Course Coordinators

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