

### TRAVELLING, BOARDING and LODGING FACILITIES

- Travel charges up to AC-II tier (train)/ State Transport Bus by shortest route will only be admissible, and the same will be reimbursed as per ICAR norms.
- TA will be paid only on production of a photocopy of tickets by the participants.
- Free boarding and lodging will be provided to the participants during the Winter School as per ICAR norms.

Participants are advised not to bring family members due to paucity of accommodation. No boarding and lodging will be provided to the family and guests of participants.

### IMPORTANT DATES

- Last date for receipt of duly filled applications: **July 15<sup>th</sup> 2018.**
- Intimation of selection to the applicants: **August 15<sup>th</sup> 2018.**
- Commencement of winter school: **Sept. 11- Oct. 1, 2018.**

The applicants are advised to reserve their tickets well in advance however in case of their non-selection no reimbursement will be made.

### FOR FURTHER DETAILS/ CORRESPONDENCE

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**Course Director & Head**

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## ICAR-Winter School Training on



## Maintenance breeding and assured quality seed production in dual purpose crops and grasses

11<sup>th</sup> Sep to 1<sup>st</sup> Oct 2018



Course Director  
**Dr. Vijay Kumar Yadav**

Course Coordinators  
**Dr. C.K Gupta and Dr. V.K Wasnik**

Course Co-Coordinator  
**Dr. Sanjay Kumar**

Sponsored by  
Indian Council Of Agricultural Research New Delhi -110012

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## BACKGROUND

Dual purpose crops offers versatility by being utilized both as food and fodder purposes. Effective utilization of such crops can contribute significantly towards meeting food requirements especially in areas where food security and malnutrition is a challenge in addition to provide quality fodders for livestock. Crop residues, such as straw, leaves and stalks, of many dual purpose crops are already popular source of fodder in India, providing more than 40 per cent of the available dry matter for feeding livestock; estimated to rise up to 70 per cent by 2020. Similarly, perennial grasses are also rich fodder resources in our country and equally important under both grazing and cut-carry system in an ecologically and environmentally sustainable manner. Continuous efforts of strong and vibrant National Agricultural Research Systems has led to the development and release of many superior cultivars in dual purpose crops, although such efforts are limited in perennial fodder grasses. A well planned maintenance breeding enhances the longevity of a superior variety and also ensures dissemination of advantages to the growers.

Indian Grassland and Fodder Research Institute (IGFRI) is the premier ICAR institute working on grasslands and fodder crops. IGFRI, established in 1962, is the leading R&D institute in South Asia and is instrumental in fostering research, training and extension programmes on all aspects of forage production and utilization. The Division of Seed Technology initiated in 1972, is one of the seven divisions of IGFRI working on multidisciplinary approach with scientists from various disciplines undertaking seed research. The major thrust areas of the division are developing seed standards and testing protocols in range grasses and legumes, technology development for economically viable quality seed production in fodder crops, identification of eco-friendly seed storage technologies and quality seed production in fodder crops, range grasses and legumes. The division has generated several interventions for enhanced seed production and health management technologies for seed storage.

The Institute harbors all the facilities to conduct research in the areas of seed physiology, seed pathology, seed agronomy, economics of seed production etc. Apart from lab facilities, more than 50 ha of farm area is exclusively devoted to Breeder/ TL seed production at its Central Research Farm.

Based on the exclusive experience on forage seed research and production, the Institute is organizing winter school on "Maintenance breeding and assured quality seed production in dual purpose crops and grasses" to decipher the knowledge through theoretical lectures and hands on experience by practical exercises suitable to a diverse group of teachers, researchers and field & lab workers of fodder crops.

## OBJECTIVE

The objective of the winter school is to impart knowledge and augment the skills of the participants on latest developments in maintenance breeding and seed research through innovations towards meeting the challenges in quality seed production of forage crops. This is to emphasize that seed production of forage crops, particularly range species requires specialized knowledge

## ABOUT THE COURSE

The course includes theoretical training by class room lectures, exposure to various forage crops by field visits and hands on experience through practical sessions interwoven to have a holistic understanding of the subject. The course contains various aspects of seed development, production, testing, physiology, seed pathology, seed law enforcement, biochemical and molecular markers for varietal identification, mechanization and post-harvest technology with special emphasis to forage crops. The course also provides an opportunity to the participants to interact with the experts in different agricultural disciplines (Agriculture, Horticulture and Animal husbandry) having vast experience in forage crops and with fellow workers from various parts of the country to update their knowledge.

## DURATION

The duration of winter school is 3 weeks i.e. Sept. 11 to Oct. 1, 2018

## ELIGIBILITY & SELECTION CRITERIA

The training course is open for the participants from the ICAR Institutes/ State Agricultural Universities/ Central Agricultural University/ Krishi Vignan Kendra/ National Institutes/Central and State Universities/ Deemed Universities/ Colleges recognized by ICAR/ UGC etc. The candidate should be working not below the rank of Scientist/ Assistant Professor/ Lecturer. Seats are limited and selection will be on first come first serve basis as per ICAR guidelines.

## HOW TO APPLY

Application to be made through online CBP portals (<https://cbp.icar.gov.in>). Completed registration form duly forwarded by the Competent Authority of applicant's Institute must reach the Course Director **on or before July 15<sup>th</sup> 2018**. Applications not forwarded through proper channel and without registration fee will not be considered. Advanced copy of the application will be considered only after the receipt of the original copy through proper channel. A non-refundable Postal Order / DD for Rs. 50/-drawn in favor of Director, IGFRI payable at SBI, Karari branch, Jhansi must be sent along with application towards registration fee. The selected candidates will be intimated through email / post about their selection. Selected candidates are requested to confirm their participation by return mail/ post/ fax along with their itinerary.

## ABOUT JHANSI

Jhansi, the historical fort city is well connected through rail and road to major cities across India. IGFRI, popularly known as Grassland, is located on Gwalior Road of Jhansi which is ~ 10 km away from the railway station and ~12 Km from bus station. Auto Rickshaw, Taxi and Tempos (Shared Auto Rickshaw) are available from the rail/ bus station to IGFRI (Grassland). The nearest airport is Gwalior airport which is ~100 km from Jhansi. During September the weather will be hot humid with 28 to 38°C temperature and some spells of rain.