



## Chaudhary Charan Singh Haryana Agricultural University

Hisar

### Courses

1. Organizational Human Resource Development – Challenges & Strategies
2. Intellectual Property Rights and its Management Techniques in Agriculture
3. Application of Molecular, Genomic and Bioinformatic tools in Agriculture
4. Dynamics of Forage Development Seed Production, Health and Quality Assurance

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Chaudhary Charan Singh Haryana Agricultural University, a leading agricultural university in the country, has made a significant contribution in the development of the state of Haryana. As a result of the concerted efforts made by the university, the state has witnessed remarkable agricultural growth during the last three decades. The university has established an Academy of Agricultural Research and Education Management, under the aegis of Directorate of Human Resource Management, which is responsible for institutionalized training of scientists, teachers, extension specialists and senior officers working in the field of agriculture and allied sciences. The Academy has developed unique expertise and facilities for institutionalized trainings and has offered over 38 tailor-made courses for foreign nationals. Through its various advanced and specialized training programmes, the Academy has so far trained more than 5000 university teachers, research managers, academicians, administrators, policy makers and agricultural officers.

The academy organizes national and international training programmes including induction training course, faculty development programmes on educational technology, research and extension management and personality development on a regular basis. It also conducts training courses on communication and reporting skills and human resource management. During the current academic session four international training courses are planned. The faculty is drawn from senior professors in the university and other institutions of repute.

# 1. Organizational Human Resource Development – Challenges & Strategies

Human Resource Development has become an important tool for improving the efficiency and efficacy of administrative set up of an organization. An organization needs HR Managers who are innovative with clear-vision, are efficient in communication and possess entrepreneurial skills of HR and Information Technology. These abilities would make a person an efficient HR Manager, who in turn would serve the organization as its backbone. The HR team should be committed to developing and implementing dynamic and forward looking HR strategies to support the organization's vision. Success can be achieved only through including all staff, and by creating right environment where every person can flourish and gets support to succeed. The job of the HR team is to inculcate positive attitudes, support the development of the skills and knowledge in the areas of personal management and leadership development of all employees.

The Academy has, therefore, designed this course on Organizational Human Resource Development with the objective of helping the participants in developing strategies to face the emerging HR challenges in their contexts. This course has been designed for senior academicians, policy-makers, planners and administrators engaged in teaching, research and extension jobs in their organizations.

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|-----------------|---|
| Course Director | : Dr R K Kashyap  |
| Duration        | : 2-3 weeks   |
| Course fee      | : US \$1,500 per trainee  |
| No. of trainees | : 15 per course   |
| Accommodation   | : Will be provided at a very reasonable cost in the University Guest house                      |
| Eligibility     | : Bachelor degree/diploma in agriculture or allied field with basic knowledge of Computer usage |

## Course Contents

The course will have four modules, the contents of which



- **Organizational Success:** Teamwork, Commitment to continuous quality/process, Creativity/Innovation, Flexibility/Adaptability to change, Continuous learning/Development
- **Group dynamics:** Interpersonal skills, communication fidelity, Understanding of diversity and related issues, Conflict management and positive attitude, Instructional design & instructional media, e-learning
- **Job Effectiveness:** Planning/Organization, Problem solving/judgment, Effective Decision making, Communication fidelity, Effective use of Technology, Job/Organizational Knowledge.
- **Leadership:** Coaching/ counselling/ evaluating staff, Influence Management, Team leadership, Staff empowerment and Performance improvement, Understanding of diversity issues and creating supportive environment for diverse employees.

This programme will provide the participants a unique opportunity and wider exposure to get acquainted with the complexities of HRD in contextual situations. The training will be a composite one including lectures, group discussions, video presentations, audio-video demonstrations and practicals from real life situations. The course will engage the participants in building professional development activities for all staff. There will also be activities to contribute to improved people management.



## 2. Intellectual Property Rights and its Management Techniques in Agriculture

Intellectual Property (IP) is an invaluable commercial asset. In this competitive era Intellectual Property Rights (IPRs) are being used as tools for establishing strategic research collaboration, technology transfer and strengthening knowledge-based global economy, by both public and private institutions as IPRs effectively boost the performance levels and maintain a distinct competitive edge.

The agricultural occupation is now slowly but definitely emerging as knowledge based industry. Therefore, the Agricultural Research Institutions (SAUs & ICAR Institutes) need to build and enhance competencies in core areas that would provide them the distinct advantage in global market. It is, therefore, essential to understand the basics of IP, its protection & commercialization, Institutional IP policy development and related issues.

The very purpose of this training programme on “Intellectual Property and its Management Techniques in Agriculture”, is to acquaint and sensitise the agricultural scientists, extension specialists, policy makers and planners about Intellectual Property, Intellectual Property Rights, Plant Variety Protection & Farmers’ Rights and associated issues.

### Training programme

This course is specially designed to apprise the participants of latest developments in the field of agricultural biotechnology and hands-on practical training on genetic transformation, DNA fingerprinting, linkage mapping and certain aspects of microbial technology.

### Faculty

Department of Biotechnology and Molecular Biotechnology has experienced trained faculty.

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| Course Director | : Dr R B Srivastava  |
| Duration        | : 2-3 weeks  |
| Course fee      | : US \$1,500 per trainee   |
| No. of trainees | : 15 per course  |
| Accommodation   | : Will be provided at a very reasonable cost in the University Guest house |
| Eligibility     | : Bachelor degree/diploma in agriculture or allied field                   |

### Course Contents

- TRIPS Agreement

- Copyrights
- Patent Filing & Issues
- Plant Variety Protection and Farmers’ Rights
- Geographical Indications
- Trademark
- Design Protection
- Commercialization of Technologies
- Infringement Issues
- Drafting of MoU / MoA
- SPS issues



### 3.

## Application of Molecular, Genomic and Bioinformatic tools in Agriculture

Primary focus of agricultural growth is to assure food self-sufficiency and nutritional security. In the last thirty years, a rapid progress has been made in biotechnology, genomics and bioinformatics resulting in paradigm shift in crop breeding programs. With the complete sequencing and annotation of *Arabidopsis* and rice genomes, research is now being carried out on genomics, allele mining, marker-assisted breeding and positional cloning and genetic transformation with sole objective to improve crop productivity and quality. Bioinformatic tools, which find application in biological databases, data mining, gene search, genomic studies, phylogenetic analysis, biodiversity informatics etc, have greatly accelerated the efficiency of breeding programs in various crop species.

### Training programme

This course is specially designed to apprise the participants of latest developments in the field agricultural biotechnology and hands-on practical training on genetic transformation, linkage mapping & marker-assisted selection and genomic and bioinformatic tools.

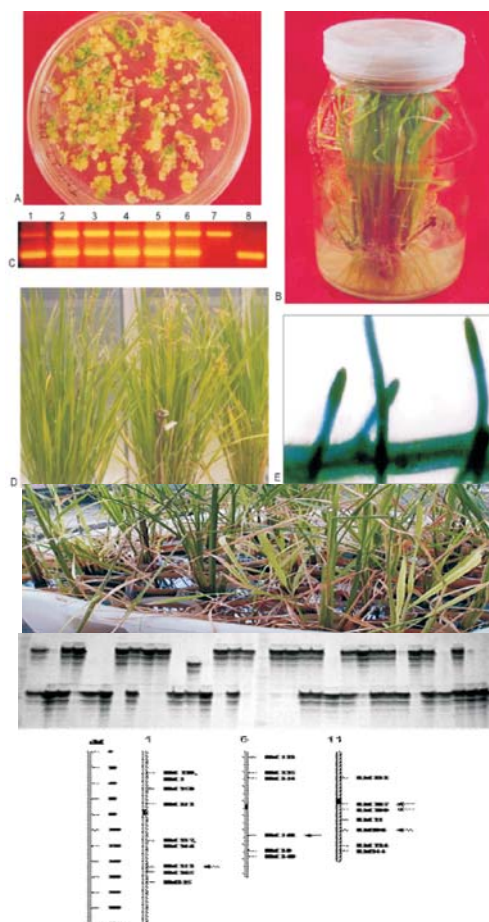
|                 |   |
|-----------------|---|
| Course Director | : Dr V K Chowdhury  |
| Duration        | : 3 -4 weeks  |
| Course Fee      | : US\$ 1500   |
| No. of trainees | : 25  |
| Accommodation   | : Available in University Guest House on Payment  |
| Eligibility     | : Bachelor degree/diploma in agriculture or allied field with basic knowledge of Computer Usage |

### Course Contents

- Application of molecular vis-à-vis conventional tools for improving crop productivity and nutritional quality.
- Molecular markers, DNA fingerprinting and diversity analysis.
- Use of various DNA markers including SSR, SNP, and InDel markers for genome analysis, linkage mapping, marker-assisted breeding, and positional cloning in crops.
- Development of transgenic crops with improved resistance against various diseases, pests, drought and salinity and improved yield and photosynthetic efficiency.
- Micronutrient malnutrition and biofortification using conventional and molecular tools.
- Genomics, allele mining, functional/ comparative

genomics, proteomics, and metabolomics.

- Biological databases, data mining, NCBI resources and bibliographic search.
- Genome annotation, sequence alignment, phylogenetic analysis, biodiversity informatics, etc.
- IPR and Biosafety issues, Breeder's Rights and Patenting in WTO regimes.



## 4.

# Dynamics of Forage Development Seed Production, Health and Quality Assurance

### Introduction

To balance the human diet and nutrition the grain intake should be supplemented with dairy products, meat and poultry. To increase the dairy productivity, it is essential that our cattle should be healthy. For this, development of quality forage is important. It follows that to grow the best quality forage; we need the best quality of seed. Seed is not only the carrier of life but also the instrument for social change as it enriches the natural agricultural wealth. This course is designed to strengthen the Human Resource and to upscale the knowledge and skill of the participants.

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| Course Director | : Dr R K Kashyap   |
| Duration        | : 2-3 weeks  |
| Course fee      | : US \$1,500 per trainee   |
| No. of trainees | : 15 per course  |
| Accommodation   | : Will be provided at a very reasonable cost in the University Guest house |
| Eligibility     | : Bachelor degree/diploma in agriculture or allied field                   |

### Course Contents

- Classification and characteristics of forage plants (grasses

and legumes)

- Role of forage species in farming systems
- Seed industry: Past, present and future
- Role of quality seed in agricultural production and economy and impediments.
- Principles of Seed Production.
- Basic Genetic/breeding strategies, Agronomic principles & Crop husbandry.
- Forage Seed Physiology (hard seededness, Dormancy, Vigour and viability).
- Forage seed testing (Physical purity, standard germination, Moisture Determination).
- Forage seed health testing (seed hygiene)
- General and specific seed certification procedures and standards.
- Recent trends of assessing the forage seed quality.
- Forage seed processing and storage
- Fodder production, funding/feeding value of storage and storage technique.
- PVP & FR and other related WTO/IPR issues

