

Target Group

- Those who wish to employ in agricultural institutes / industries, nurseries where plant breeding techniques are directly involved.
- Those who are already employed in different plant industries and need to refresh and / or improve their knowledge in techniques applied in breeding plants.
- Those who want to acquire skills and knowledge in the field of plant breeding and begin nurseries, farms, laboratories or industries.

Entry requirement

Pass in Advanced Level Biology / Botany / Agriculture / Bio-System Technology or one year experience in relevant field.

Venue

Department of Botany,
The Open University of Sri Lanka,
Nawala, Nugegoda.

Course Duration

8 consecutive weekends (Sundays).

Course Outline

The short course will consist of 24 h lectures, 15h laboratory classes and four field visits to RRDI Batalagoda, HORDI Gannoruwa and Royal Botanical Garden, Peradeniya, and a Plant Nursery for Grafting Techniques.

Course Fee

Rs. 15,000/= (Limited number of partial sponsorships are available for early registrants)

Participant intake

Maximum 30

A certificate of participation will be awarded on successful completion of short course

Application Procedure

Applications and the brochures are available at the Public Relations office OUSL, Nawala, Nugegoda from 15th March to 31st October 2022.

Completed application forms should be either handed over or posted to Prof. S.R. Weerakoon, Department of Botany, The Open University of Sri Lanka, Nawala, Nugegoda on or before 31st October 2022.

To download the registration form, please visit our website:

<http://www.ou.ac.lk/home/index.php/find-a-programme/short-programmes>

Further Information

Web site: <http://www.ou.ac.lk>
Telephone: 0112881383 / 0714933922
Email: srwee@ou.ac.lk

Application closing date 31th October 2022.
Commencing date 04th December 2022.

Short Course in Plant Breeding Techniques



The Open University of Sri Lanka
Department of Botany





Objectives

- To Acquaint participants with the commercial and scientific nature of the modern plant breeding industry, on a global basis.
- To Familiarize the participants with techniques involved in plant breeding with special reference to crop improvement and new cultivar development.
- To provide the experienced personnel working within agriculture sector with the scientific basis, the biology and technology behind plant breeding and up-date their knowledge on new technologies of plant breeding.
- To Inspire the participants to pursue employment opportunities in the area of plant breeding (self employment or in industries) and to assist in career development of those who are already employed in research institutes and laboratories undertaking crop improvement and variety development of crop and ornamental plants.
- To develop the ability to transfer relevant knowledge and skills of appropriate plant breeding practices for the progress of agriculture industry in Sri Lanka.



Course contents

- **The scope and nature of Plant breeding Industry.**
- **Basic concepts in plant reproduction**
Sexual reproduction in plants, self and cross fertilization in plants and reproduction barriers
- **Heredity in plants**
Chromosomes and genes, genetic interactions and gene expressions
- **Practical plant breeding techniques**
Hybridization, Production of pure lines, Tissue culture in plant breeding & Molecular techniques in plant breeding.
- **Seed production practices**
Classes of certified seeds, How a variety is certified and reaches the farmers and practical problems in seed production.
- **Plant breeding as a hobby**
Selecting pollen & seed parents, Collecting and storing pollen, Selfing and crossing techniques, Pre-pollination steps, Steps adopted in pollination, Methods of emasculation, Post-pollination steps and Harvesting and storing seeds.
- **Developing methodologies to improve any plant of your own interest.**
- **Practical Skills**
Breeding techniques used in self-pollinated, cross-pollinated and vegetatively propagated crop / ornamental plants. Application of tissue culture techniques and molecular tools in breeding crop/ornamental plants and grafting techniques .



Resource persons

Prof. Tara D Silva
B.Sc. (Colombo), Ph.D (UK)
Senior Professor in Plant Sciences,
University of Colombo.

Prof. S.A.C.N. Perera
B.Sc. (Peradeniya), Ph.D. (U.K.),
Professor in Agricultural Biology,
University of Peradeniya.

Dr. K.G.P.B. Karunaratne
B.Sc. (Peradeniya), M.Sc. (PGIA), Ph.D. (UPLB -Philippines)
Assistant Director of Agriculture (Research),
Rice Research Development Institute (RRDI).

Dr. M.A.P.K. Seneviratne
B.Sc. (Peradeniya), M.Phil (Peradeniya),
M.Phil (U.K), Ph.D. (Peradeniya),
Retired Director General ,
Department of Export Agriculture.

Prof. S.R. Weerakoon
B.Sc. (Colombo), Ph.D. (Western Australia)
Senior Professor of Botany,
The Open University of Sri Lanka.

