

Tree Seed Technology Training Course Student Outline

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GOALS OF THE COURSE

The objective of this course is to provide a basic understanding of the following topics:

- A. Reproductive cycles, from flowering through seed germination
- B. Seed origin
- C. Seed collection
- D. Seed maturity
- E. Collection and postharvest care
- F. Seed extracting, cleaning, and conditioning
- G. Insect and disease problems
- H. Seed storage
- I. Seedlot sampling
- J. Tests for moisture, purity, weight, germination, and vigor
- K. Rapid viability estimates
- L. Seed test results
- M. Seed handling in nurseries
- N. Seed programs
- O. Seed labeling and certification
- P. Germplasm conservation
- Q. Seed center design and staffing
- R. Applied seed research

SCOPE

The emphasis in this course will be on indigenous, multipurpose tree species suited for forestry and rural agroforestry. However, exotics are included, because fast-growing exotics have a definite place in forestry programs.

SOURCES OF INFORMATION AND TECHNICAL HELP

Sources of information and technical help include journals, reference books, international organizations, regional organizations, and research institutions.

Journals

Seed Science and Technology
International Seed Testing Association (ISTA)
Reckenholz, P.O. Box 412, CH-8046
Zurich
Switzerland

Journal of Seed Technology
Association of Official Seed Analysts (AOSA)

Seed Abstracts
CAB International Information Services
Wallington, Oxon OX 10 8 DE
UK

Agroforestry Abstracts
(same as above)

New Forests
Dr. Mary Duryea, Editor-in-Chief
Department of Forestry
118 N-Z Hall
University of Florida
Gainesville, FL 32611
U.S.A.

Indian Forester
(includes seed technology articles)

Indian Journal of Forestry
(includes seed technology articles)

Journal of Tropical Forest Science
Business Manager
Forest Research Institute of Malaysia
P.O. Box 201
Kepong, 52109 Kuala Lumpur
Malaysia

Commonwealth Forestry Review
Commonwealth Forestry Institute
11 Keble Road
Oxford
UK

Pakistan Journal of Forestry
Editor
P.O. Pakistan Forestry Institute
Peshawar, N.W.F.P.
Pakistan

Canadian Journal of Forestry Research
Editor
Forestry Canada
P.O. Box 490
Sault Ste. Marie, Ontario
P6A 5M7 Canada

Forest Science
Society of American Foresters
5400 Grosevenor Lane
Bethesda, MD 20814-2198
U.S.A.

Reference Books

The following reference books provide information and technical assistance:

Bewley and Black 1982
Chin and Roberts 1980
Murray 1984a, b
Schopmeyer 1974
von Carlowitz 1986
Willan 1985

International Organizations

Food and Agriculture Organization (FAO) of the
United Nations
Forest Resources Development Branch
Forest Resources Division
Via delle Terme di Caracalla
I-00100 Rome
Italy

International Union of Forestry Research Organizations (IUFRO)

Secretariat
Schonbrunn
A-1131 Vienna
Austria

IUFRO Seed Problems Project Group

Current Chair: Dr. D.G. Edwards
Forestry Canada
Pacific Forestry Centre
506 West Burnside Road
Victoria, BC
V8Z 1M5 Canada

International Seed Testing Association (ISTA)

ISTA Secretariat
Reckenholz, P.O. Box 412
CH-8046 Zurich
Switzerland

Regional Organizations

F/FRED Coordinating Unit

c/o Kasetsart University
Faculty of Forestry
P.O. Box 1038, Kasetsart Post Office
Bangkok 10903
Thailand

Organization for Economic Cooperation and Development (OECD)

Directorate for Agriculture and Food
Paris
France

Research Institutes

ASEAN-Canada Forest Tree Seed Centre

Mauk Lek, Saraburi
Thailand

Nitrogen Fixing Tree Association

P.O. Box 680
Waimanalo, HI 96734
U.S.A.

International Council for Research in Agroforestry (ICRAF)

P.O. Box 30677
Nairobi
Kenya

DANIDA Forest Seed Centre

Krogerupvej 3A
DK 3050, Humlebaek
Denmark

Forest Research Centre

P.O. Box HG 595
Highlands, Harare
Zimbabwe

Centre National de Semences Forestieres

PB 2682, Ouagadougou
Burkina Faso

CSIRO Division of Forest Research

P.O. Box 4008
Queen Victoria Terrace
ACT 2600, Canberra
Australia

Commonwealth Forestry Institute (CFI)

University of Oxford
Department of Forestry
Oxford
UK

USDA Forest Service

Tree Seed Research Unit
Forestry Sciences Laboratory
P.O. Box 906
Starkville, MS 39759
U.S.A.

USDA Forest Service

National Tree Seed Laboratory
Rt. 1, Box 182-B
Dry Branch, GA 31020
U.S.A.

USDA Forest Service

Institute of Tropical Forestry
University of Puerto Rico, Agricultural Experiment
Station
P.O. Box 25000
Rio Piedras, PR 00928-2500
U.S.A.

Centro Agronomico Tropical de Investigacion y Ensenanza (CATIE)

Turrialba
Costa Rica

Petawawa National Forestry Institute

Box 2000
Chalk River, Ontario
K0J 1J0 Canada