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INFORMATION FORESTRY

PACIFIC FOREST RESEARCH CENTRE Vol. 12 • No. 2 • 1985

Government of Canada
Canadian Forestry Service

Gouvernement du Canada
Service canadien des forêts

Canada/British Columbia Forest Agreement Signed

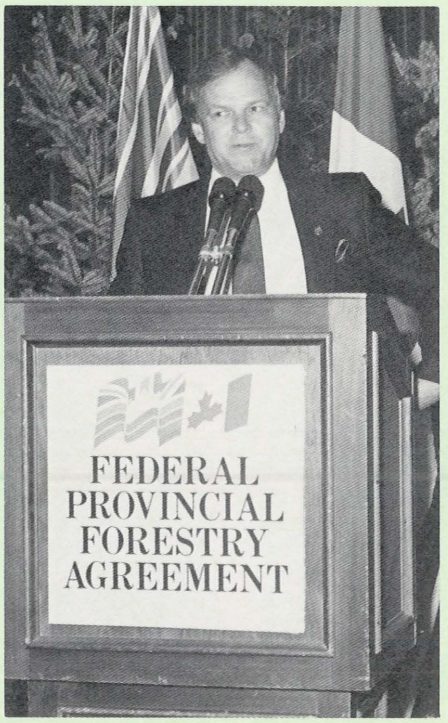
5-years, $300 million

On May 25, 1985 the governments of Canada and British Columbia signed a five-year, $300 million Forest Resource Development Agreement (FRDA), to be funded equally by both governments.

In keeping with the federal policy statement, *A Framework for Forest Renewal* and the provincial five-year *Forest Resource and Range Analysis*, the new Forest Resource Development Agreement emphasizes backlog reforestation and intensive forest management.

This Agreement enables both governments to undertake measures to renew and improve the forest resource of the province and thus maintain the annual rate of harvest at levels above those supported by current management programs. Employment will be created in areas of chronic unemployment, and over the longer term the potential for expanded employment will be improved. To a large degree, private sector employment opportunities will be offered in implementing this Agreement. Consistent with federal and provincial government guidelines, native people will be encouraged to participate in program implementation as they have in the past.

Coincident with this Agreement is the commitment of the Government of British Columbia to maintain its basic silvicultural program at levels sufficient over the life of this Agreement so that there is no net increase in the backlog of not-satisfactorily restocked (NSR) forest lands. This 5-year Agreement addresses only a portion of the 644 000 ha (estimated in 1979) of NSR land.



Gerald Merrithew calls upon all sectors of the forest community to become actively involved in the future of B.C.'s forest resource.

"Backlog reforestation provides for the reforestation of at least 150 000 hectares of the backlog not-satisfactorily restocked Crown provincial forest lands deforested by harvesting, fire or pests."

The previous 1979-84 Canada-British Columbia Intensive Forest Management Subsidiary Agreement and its one-year extension ended on March 31, 1985. During the course of this Agreement both governments spent $61 million collectively on intensive forest management programs and backlog planting. Approximately 43% of the funding was spent on juvenile spacing and 49% was spent on backlog reforestation.

Programs:

Major programs funded under the new Agreement include:

1. Backlog reforestation;
2. Intensive forest management; and
3. Implementation, communication and evaluation.

Some Highlights of Each Program:

Backlog reforestation provides for the reforestation of at least 150 000 hectares of the backlog not-satisfactorily restocked Crown provincial forest lands deforested by harvesting, fire or pests. This will be accomplished by using a variety of techniques including surveys, prescriptions, seed procurement, seed production, site preparation, planting, implementation and extension, demonstration and R&D. Cost-shared projects on provincial Crown land of high forest potential will

be delivered by the B.C. Ministry of Forests who will also deliver support for seed processing and supply. The Canadian Forestry Service will deliver the planting of NSR backlog on private lands and on federal Crown lands through third party arrangements with industry on tenured lands, and through consultation and some assistance to Indian bands for reforestation.

Intensive forest management will enhance the productivity of stocked forested lands by applying intensive state-of-the-art silvicultural treatments to the existing resource base. Juvenile stands covering approximately 150 000 hectares will be subjected to spacing and fertilization treatments in order to increase their growth, and another 36 700 hectares will be subjected to other treatments such as brushing, weeding and conifer release. Cost-shared projects on provincial Crown lands of high forest potential will be delivered by the B.C. Ministry of Forests. The Canadian Forestry Service will deliver intensive forest management projects on private woodlots and federal Crown lands, which will include Indian reserves as well as land owned by the Department of National Defence.

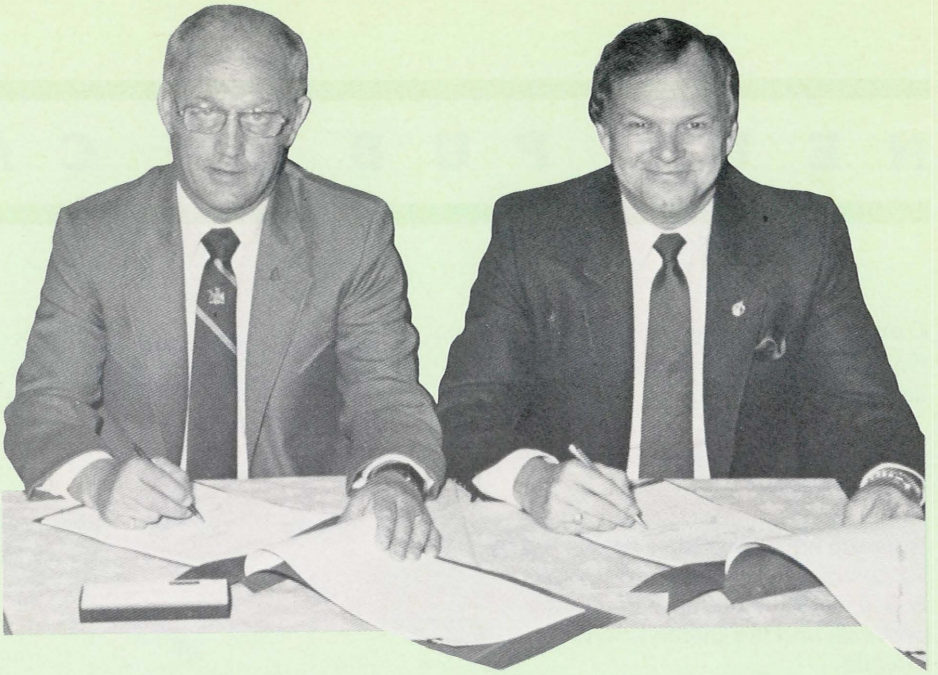
Implementation, communication and evaluation will ensure that the terms and conditions of the Agreement are met, that proper and correct forestry is practiced, and that the results of this work are communicated to the general public. Within a subprogram of implementation, monitoring and evaluation, British Columbia will be responsible for implementing cost-shared activities. The Canadian Forestry Service and the British Columbia Ministry of Forests will jointly carry out the primary evaluation of the total Agreement. Private sector professionals will be engaged for part of this work. A subprogram of communications will be delivered jointly.

Program Delivery

This Agreement has been jointly developed by the Government of Canada and the Government of British Columbia. While most of the programs will be implemented on a cost-shared basis, each government will directly deliver selected subprograms.

The B.C. Ministry of Forests will directly deliver several subprograms associated with provincial Crown forest. These activities focus on growth and yield performance monitoring, seed supply and processing needs, technology development and transfer for seedling supply, applied research support and pest control.

The Canadian Forestry Service will directly deliver several subprograms focussing on management of federal forests and privately owned land, improved forestry education, technology development and transfer, and identification of economic development opportunities.



Tom Waterland (left), B.C. Minister of Forests and Gerald Merrithew, Minister of State (Forestry) add the required signatures to "seal" the Forest Resource Development Agreement.

"Juvenile stands covering approximately 150 000 hectares will be subjected to spacing and fertilization treatments in order to increase their growth."

Employment

Over the term of the Agreement it is expected that 15 000 person-years of employment will be generated in forest management. Most of this work will be carried out by the private sector in areas where unemployment and resource depletion are prevalent.

A federal-provincial Management Committee with two representative from each government will be established to oversee the implementation of the Agreement. Further details concerning the management and implementation will be released following the first meeting of the Management Committee.

During and at the end of this five-year period, both governments will jointly evaluate future financial commitment, based on the extent to which activities have met the objectives of the Agreement. ■

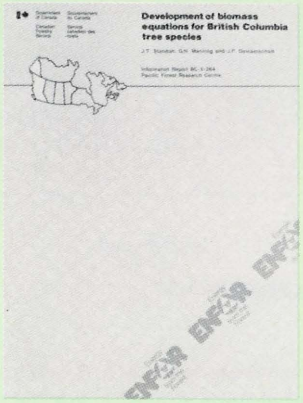
NEW PUBLICATIONS

■ **Development of biomass equations for British Columbia tree species**

J.T. Standish, G.H. Manning and J.P. Demaerschalk

Biomass equations were developed for 22 commercial species covering all of B.C. except the northern part of the province and the Queen Charlotte Islands.

BC-X-264

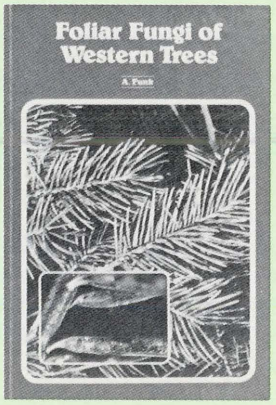


■ **Foliar fungi of western trees**

A. Funk

Descriptions of foliar fungi of principal western trees and some shrubs are presented — all from the Ascomycetes and Deuteromycetes. Notes on host range, disease symptoms and taxonomy are included.

BC-X-265



■ **Reports & Publications - 1984**

A listing of all reports and publications authored by Pacific Forestry Centre staff, during 1984.

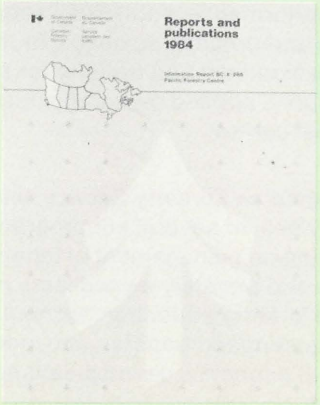
BC-X-266

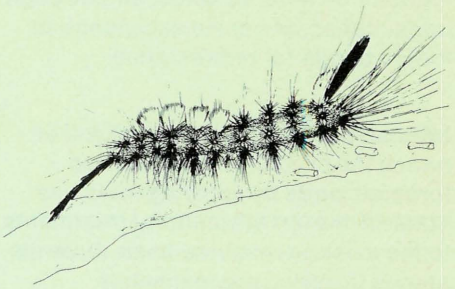
■ **Isozymes and forest trees: an annotated bibliography**

Y.A. El-Kassaby and Eleanor E. White

This bibliography contains references on forest isozyme research, with author, species and subject indices. It covers the period 1970-85.

BC-X-267



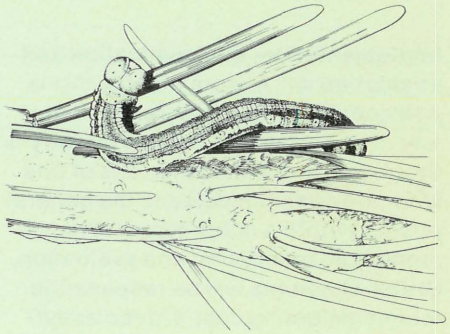


■ **The Douglas-fir tussock moth in British Columbia, 1916-84**

J.W.E. Harris, A.F. Dawson and R.G. Brown

This report summarizes observations on outbreaks of the Douglas-fir tussock moth, *Orgyia pseudotsugata*.

BC-X-268



■ **The western false hemlock looper in British Columbia, 1942-84**

J.W.E. Harris *et al.*

This report summarizes observations on outbreaks of the western false hemlock looper, *Nepytia freemani*, an important defoliator of Douglas-fir stands in the dry belt areas of southern B.C.

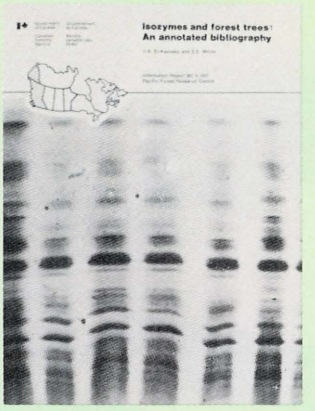
BC-X-269

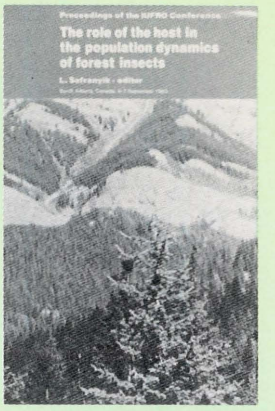
■ **Fertilization and thinning effects of a Douglas-fir ecosystem at Shawnigan Lake: 12-year growth response**

H.J. Barclay and H. Brix

Responses of tree and stand growth to thinning and nitrogen fertilizer of a 24-year old Douglas-fir stand near Shawnigan Lake, B.C., 12 years after treatment, are reported.

BC-X-271





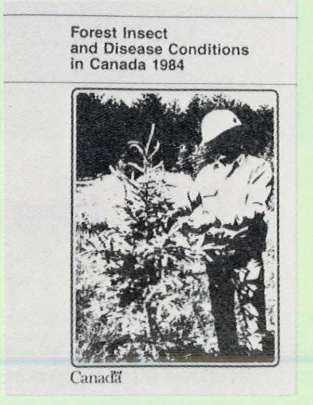
■ **Proceedings of the IUFRO Conference: The role of the host in the population dynamics of forest insects**

L. Safranyik, editor

Report contains proceedings from the conference held in Banff, Canada September, 1983 to which some 51 scientists from 10 countries attended.

■ **Forest insect and disease conditions in Canada, 1984**

This document contains a national overview of major forest insects and diseases with special emphasis on those pests which are likely to significantly affect the forest economy or environment. Regional surveys of pest problems are also included.

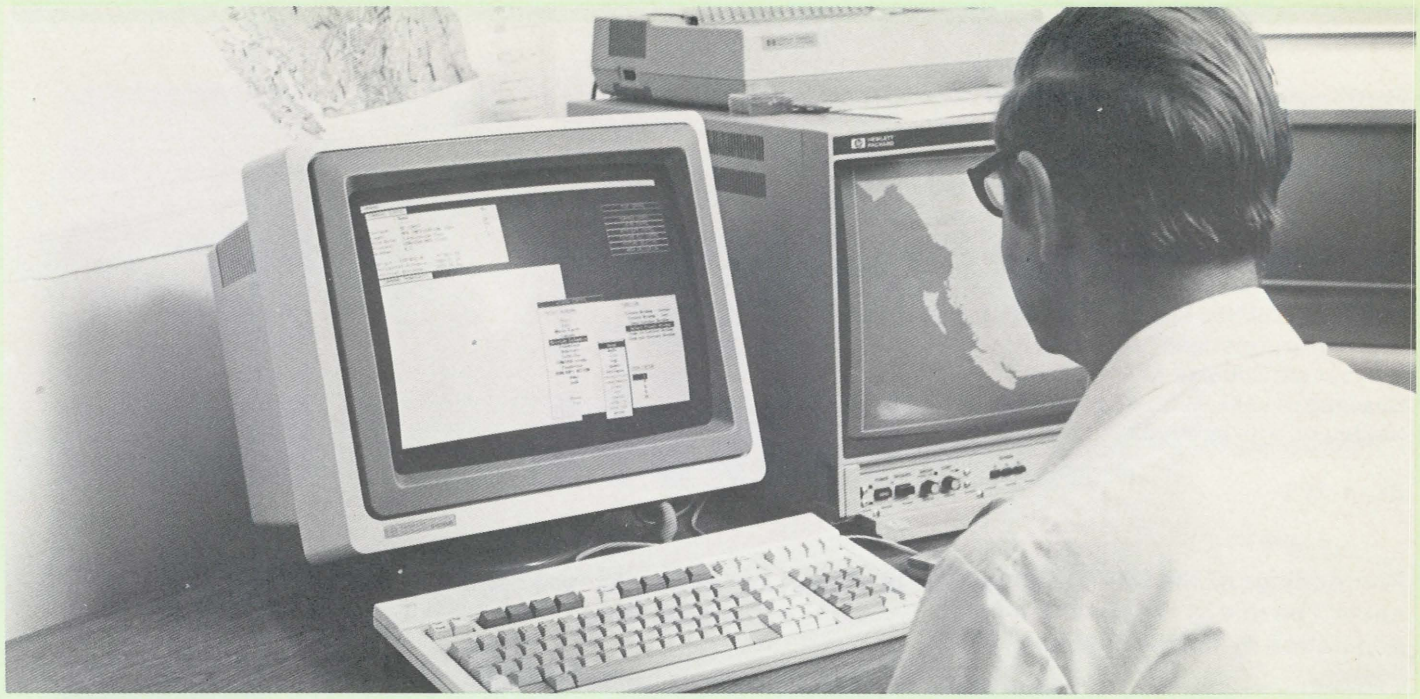


■ **Canada/British Columbia Forest Resource Development Agreement**

Copies of these publications may be obtained by filling out the enclosed card and returning it to the PFRC Information Office.

Australian delegation

An Australian forestry delegation recently paid a visit to the Pacific Forestry Centre and the Shawnigan Lake thinning and fertilization trials. Pictured with Ross Macdonald, Regional Director-General (left) are: Mr. Bill Glassen, Minister for Lands, Forestry and Police, Queensland; Mrs. Shirley Glassen; Mrs. Margaret McLaren, secretary to Mr. Glassen; Mr. Tom Ryan, Assistant Conservator of Forests; and, Cliff Brown, Regional Deputy Director, Pacific Forestry Centre.



PFC tests new digital mapping system

Deborah Barkhouse

Each fall, Canadian Forestry Service's Forest Insect and Disease Survey rangers (FIDS) return from field surveys with mountains of data on pest conditions to tabulate, analyze and labouriously turn into map and report form. But this year will be different. FIDS is testing a new digital mapping system called OVERLAY that should make hand drawn maps and present data storage systems obsolete.

Developed by Northwest Digital Research of Vancouver, the OVERLAY software system integrates spatial data, such as maps of infestations, parkland or forests with data from text, such as field reports or statistics. Complex comparisons can be made quickly and accurately.

OVERLAY mimics the effect of transparent overlays on maps, where each transparent sheet provides different information, and a comparison is drawn by placing one sheet over another. With OVERLAY, the manual overlaying of transparent sheets is no longer necessary because all the overlaying procedures are accomplished by the software. One digital image can now take the place of twenty labouriously drawn maps and eliminate the need for large, space consuming map storage boxes!

"OVERLAY can do it (create maps) and tabulate results so much faster and eliminate human error. Ultimately, we may use terrain models to predict where pests may occur. This would take years of manual effort."

Project leader, **Dr. Allan Van Sickle**, is very excited about the new software.

"In the past we've known what and where the pests are, but haven't been able to easily overlay or compare this information historically or against biogeoclimatic zones or forest inventory maps. It was very time-consuming. OVERLAY can do it (create maps) and tabulate results so much faster and eliminate human error. Ultimately, we may use terrain models to predict where pests may occur. This would take years of manual effort."

Other Features

Other features of the system will also make the FIDS work much easier. Maps can be produced in a great variety of scale and colours, using polygon instead of square shapes. The result, says Van Sickle, is a more accurate map. In addition to pest information, details such as as forest boundaries, Indian reserves, and parks can be entered, and labelled with text that can be sized and placed on the map in any location or angle. Because some maps and people change from year to year, the system will ensure a standardized

and consistent data system for FIDS. A big plus for users is that the software can be used on a small, desktop computer, such as the Hewlett Packard Series 200, and does not require special facilities.

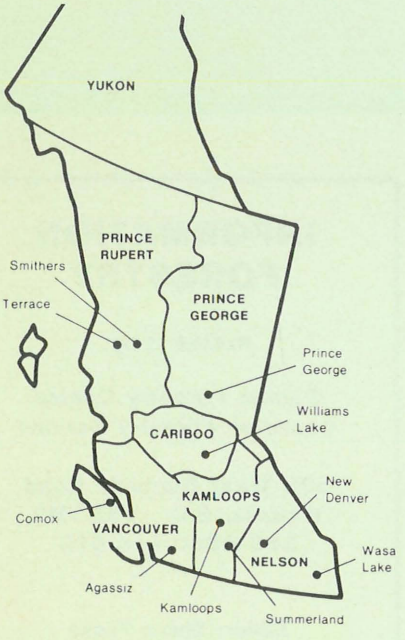
Three years ago the Pacific Forestry Centre (PFC), started looking for a computer mapping system that would more efficiently analyze their large data system and meet their needs.

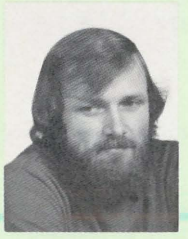
FIDS annual survey of pest outbreaks and disease conditions is part of an annual national overview of important forest insect and disease conditions and their implications. The six survey units within Canada maintain close liaison with each other, with provincial and federal agencies, and with U.S. and international workers, to keep up-to-date on forest pest conditions, sampling procedures and damage assessment methodology. This close liaison is important because pests, such as bark beetles, cross provincial, as well as international boundaries.

The testing has been rewarding for both parties. Northwest has fine-tuned a system they had been developing and testing for four years. They wanted an example of a real live problem, such as mapping and tabulating pest conditions, and an opportunity to present the material to a wide range of users and potential customers. Both have incorporated changes to the system for mutual benefit.

When the trial is over, PFC should have a fast, efficient and accurate means of storing, analyzing and presenting many years of data, both regionally and nationally. In a time when wood supply is being increasingly reduced by forest insects and diseases, good communication and accurate statistics about pest conditions are vitally important. This information will allow forest managers to make sound management decisions that will reduce forest losses. ■

1985 FOREST INSECT AND DISEASE SURVEY FIELD ASSIGNMENTS





LEO UNGER
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ALAN STEWART
Terrace
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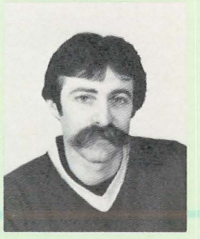
ROD GARBUTT
Prince George
963-7238



JIM LORANGER
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DICK ANDREWS
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NICK HUMPHREYS
Agassiz
796-2042

JOHN VALLENTGOED
Comox
339-4722

BOB ERICKSON
Kamloops
372-1241

BOB FERRIS
Summerland
494-8742

PETER KOOT
Wasa Lake
422-3465

ROD TURNQUIST
New Denver
358-2264

Roots in Forest Soils: Biology & Symbioses

The conference "Roots in Forest Soils Biology and Symbioses", to be conducted under the auspices of the International Union of Forestry Research Organizations' Working Party on Root Physiology and Symbioses (S201-13), will be held at the University of Victoria, Victoria, British Columbia on August 4 to 8, 1986.

The purpose of the conference will be to discuss the biology of forest tree roots and their symbionts. Topics will include the physiology and function of roots, mycorrhizae, actinorhizae, their effects on soil processes such as decomposition and potential applications in reforestation.

The conference will include keynote and submitted discussion papers, poster session mixers, site visits, social events, workshops, demonstrations and optional tours. Keynote and contributed, discussion and poster papers will be published.

Those wishing to receive the call for papers and provisional registration forms and whose names are not on the mailing list should contact:

Tom Lietaer, Conference Officer,
Division of University Extension and Community Relations
University of Victoria, P.O. Box 1700,
Victoria, B.C. V8W 2Y2 (604) 721-8475

Those requiring information about program should contact

Dr. John A. Trofymow,
Conference Chairman,
Canadian Forestry Service,
Pacific Forestry Centre,
506 West Burnside Rd.,
Victoria, B.C. V8Z 1M5
Canada (604)388-0677

IUFRO S2.01-13

Provisional agenda

MONDAY, AUGUST 4 — Registration and Reception

TUESDAY, AUGUST 5 — Roots: Physiology and Form
Topics include: root growth capacity, physiological control of root growth, ecophysiology, frost hardiness and stress testing, genetic improvements of root stock, methods for determining root activity, physical factors affecting root growth.

WEDNESDAY, AUGUST 6 — Symbioses: Physiology and Function
Topics include mycorrhizal physiology, actinorhizal physiology, tripartate associations, effect on roots of acid rain induced forest decline.

THURSDAY, AUGUST 7 — Roots and Symbionts: Their Effects on Soil Processes
Topics include effects on decomposition and nutrient cycling effects on soil formation, changes in soil biology at the interface, root turnover.

FRIDAY, AUGUST 8 — Potential Applications to Reforestation
Topics include use of N2-fixing species in plantation establishment, effects of site preparation on inoculum biological potential roots and slope stability, mycorrhizal inoculation in forest regeneration.

SATURDAY, AUGUST 9 — Optional one to two day study tour of managed forest lands on Vancouver Island. ■

Official opening of $14 million extension to take place September 16, 1985.

INFORMATION FORESTRY

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