



timberlines

Forestry Canada, Northwest Region

Second Quarter 1992



Tree Plan Canada was launched across the Northwest Region this spring in Slave Lake, Alberta (top), Winnipeg, Manitoba (center, with federal Forestry Minister Frank Oberle), and Prince Albert, Saskatchewan (bottom).

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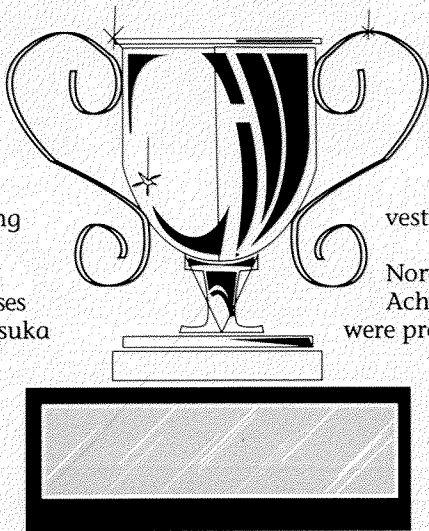
Canada

Northwest Region staff receive honors

What is honor? the Prince asks himself in Shakespeare's *King Henry IV*. A word, he replies. To a number of Northwest Region staff members honored recently it was much more than that. Recognition by coworkers, the department, and others for accomplishments and performance has resulted in them receiving awards from Forestry Canada and others.

Forest Tree Diseases Researcher Yasu Hiratsuka has won one of four prestigious Forestry Canada Science and Technology Development Awards for his contributions to forest science. The \$8,000 award will be used for 5 weeks of travel throughout eastern Russia and China to conduct cooperative research on pine stem rusts.

Honorable Mention in Forestry Canada's Merit Awards went to Forest Resources Program Director Dennis Dube (for his Green Plan



work while at Headquarters), Word Processor Operator Joyce Simunkovic (for outstanding performance and service to the department), and

retired Mixed-wood Silviculture Project Leader Lorne Brace (for participation in the award-winning mixed-wood harvesting project).

Forestry Canada, Northwest Region, Achievement Awards were presented to Private Lands Forestry Specialist Jim Johnston, Communications Officer Louise Worster, and former Forest Renewal and Intensive Manage-

ment Specialist Derek Sidders (all with the Saskatchewan District Office) for organizing the 1991 Western Canada Woodlot Exhibition near Prince Albert, Distribution Clerk Cynthia Brokop for her work on the Northern Forestry Centre's 1991 United Way campaign, and

Information Systems Specialist Andre Kruger for modification of the Forestry Canada library management system.

Doug Maynard, Project Leader of the Environmental Stresses on Forest Ecosystems Project, was recipient of Environment Canada's Citation of Appreciation in recognition of his contribution to national and regional programs of research into acid rain.

Steve Zoltai, Canadian Forests and Climate Change Project Leader, was elected as a Fellow of the Royal Canadian Geographical Society.

In another area of achievement, Derek Sidders (who is now Silviculture Operations Specialist with the Northwest Region's Technology Development Unit in Edmonton) has been granted an American patent on a soil tillage mixing head (known as the Grizzly) used for site preparation.

In recognition of their achievements and awards, these employees were guests of honor at a dinner in Edmonton on March 25 that was hosted by Assistant Deputy Minister Yvan Hardy and Northwest Regional Director General Dave Kiil.

—J. Samoil

Tree Plan Canada takes root in region

Tree Plan Canada, the national community tree planting program, has sprung to life in villages, towns, and cities across the prairie provinces.

The National Community Tree Foundation, a nonprofit organization established by Forestry Canada, has approved more than 36 projects in Alberta, Saskatchewan, and Manitoba and has more to review in the next month. These are just the spring projects. Fall project applications will be arriving over the next few months.

"It's a really exciting program to be involved with," said Joe De Franceschi, Chief, Development Coordination, who is managing the Tree Plan Canada program for Forestry Canada's Northwest Region. "When community groups get together to plant trees, the resulting

benefit is not just an environmental one. Planting trees does result in a reduction in atmospheric carbon dioxide, but tree planting also brings about a greater sense of community—a pride in one's community and a commitment to the place we live in. It is very gratifying to see a group of children packing soil around a newly planted tree."

The goal of the 6-year program is to plant 325 million trees in communities across Canada. Official launch ceremonies in the Northwest Region have taken place in Winnipeg, Manitoba, Slave Lake, Alberta, and Prince Albert, Saskatchewan. "We also hope to launch the program in the Northwest Territories before the end of summer," said Mr. De Franceschi.

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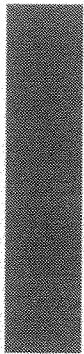
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PROGRAM PERSPECTIVES

Forestry Canada, Northwest Region

1991-92



Forestry Canada's Northwest Region has experienced a period of incredible expansion as a host of new national programs were initiated and four new federal-provincial/territorial forestry partnership agreements were signed. After a year in which it seemed we were forever planning, 1992-93 is being welcomed as a time to finally get down to the jobs at hand.

The Government of Canada's Green Plan has brought significant new opportunities to the

Forest in north-central Saskatchewan, and the Manitou Abi Forest in southeast Manitoba). We see ourselves participating actively in research and general program administration.

Finally, Tree Plan Canada, the community tree planting program, was launched at the beginning of May, directing our efforts for the first time to working with community groups and organizations.

Renewed federal-provincial/territorial forestry agreements have now been signed with Manitoba, Saskatchewan, the Northwest Territories, and Alberta. Applied research and technology transfer initiatives, coordinated for the most part by Northwest Region staff, are major components of each agreement and will be proceeding at full speed in the summer of 1992.

These are some of the more significant challenges we in the Northwest Region will be facing in the year ahead. Add to that the ongoing programs that are the backbone of our research and development program and our status as a trial region for a Government of Canada initiative in global budgeting, and you can see we will have our hands full.

Program Perspectives is designed to give you a sense of the many ways we are responding to the needs of the forestry community in our region. It is not a comprehensive listing of all our programs and activities, so if you would like more details please give us a call. 🍁

—Dave Kill
Regional Director General



INTRODUCTION

Northwest Region. The Partners for Sustainable Development of Forests program (announced in the fall of 1991), which includes enhanced science programs and the Model Forests initiative, has given our region lead roles in three national research and technology transfer thrusts.

Northwest Region staff are coordinating the following programs: climate change and Canada's forests; fire management systems; and the mixedwood component of the overall decision support systems program.

Model forests will be located in each of the Northwest Region's provinces (The Foothills Forest in west-central Alberta, the Prince Albert

Ensuring the sustainable development of Canada's forests implies an understanding of the stresses and disturbances to forest ecosystems. The Forest Protection and Environment program concerns itself with identifying and assessing the factors that can have an impact and examining ways to lessen their effects.

The recognition of climate change as a potential threat to our forests resulted in the creation last year of the Canadian Forests and Climate

Aeronautics and Space Administration) and NBIOME (Northern Biosphere Observation and Modeling Experiment).

Without basic knowledge of how forest ecosystems function and change over time, it is difficult to assess the effects of stresses such as forest management practices and air pollutants on the sustainable development of forest ecosystems.

Significant effort is being directed toward a base-line data study that will provide ecological benchmarks for analyzing the impacts of forest management practices on forest health. Another study is being implemented to look at the specific effects of forest harvesting and other practices on water quality.

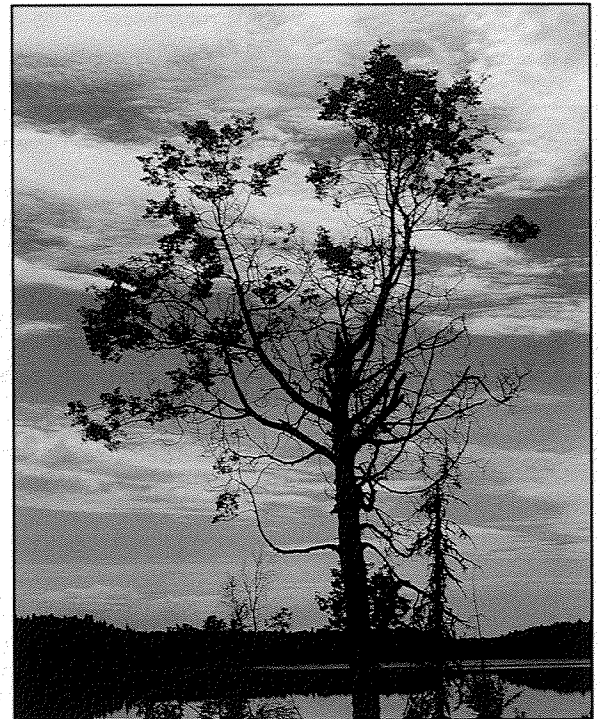
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FOREST PROTECTION AND ENVIRONMENT

Change project to carry out the Northwest Region's role as the departmental lead agency in climate change investigations. Staff in the project are coordinating Forestry Canada's science-related activities nationally (under the Green Plan's Partners in Sustainable Development of Forests program) and internationally in addition to conducting regional research.

The initial efforts have focused on preparation of a national strategic plan and a research action plan. Work is now under way to develop models to predict the impacts of climate change on forest productivity, with reference to the role of forests in storing atmospheric carbon and the effect of climate change on forest biology.

In addition, there will be ongoing cooperation in national and international studies such as BOREAS (Boreal Ecosystem Atmosphere Study) in conjunction with NASA (the U.S. National



F. Dendwick

Forestry Canada's Northwest Region carries out federal forestry activities in Alberta, Saskatchewan, Manitoba, and the Northwest Territories. Through forestry research, technology transfer, and implementation of

Green Plan initiatives and federal-provincial/territorial forestry agreements, our scientists, foresters, and other staff work to promote the sustainable development and competitiveness of Canada's forest sector.

Regional activities are directed from the Northern Forestry Centre in Edmonton, with assistance from district offices in Prince Albert and Winnipeg. About 150 staff work with a 1992-93 budget of about \$25 million. The Northwest Region is one of six regions and two national forestry institutes of Forestry Canada, which has its headquarters in Ottawa. ♣

ABOUT US

In the year ahead the Forest Resources program will be concentrating on developing computerized systems that will make forest management decision making more effective and efficient—and not dependent on just a few people with a wide knowledge base and years of experience.

A major emphasis continues to be cooperative research toward the development of decision support systems (DSS) for management of

FOREST RESOURCES

aspen and mixedwood forests. The vast storehouse of knowledge we have collected from our past research efforts will provide the basic information on how trees and forests are affected by biological and environmental factors.

Advances in geographic information systems (GIS), remote sensing, and computing are providing our researchers with powerful tools to integrate land-related information such as site classification, forest inventory, growth and yield, soils, topography, and insect and disease outbreaks into a total systems framework.

To this end, the Northwest Region is taking a leading role as coordinator of the Dynamic Spatially Oriented Biophysical Inventory component of the Mixedwood DSS program under the Green Plan's Partners in Sustainable Development of Forests program. The objective is to develop decision support models or systems that will be compatible with a range of provincial and industrial timber inventory formats and can grow or project the spatially oriented inventory through time.

As a result, work is continuing on the NAIA program in cooperation primarily with the Alberta Research Council and Hughes Aircraft of Canada Limited. In the coming year Forestry Canada staff will be developing the knowledge base and ecosystem rules to be incorporated into a site classification oriented mapping system using expert systems, GIS, and uncertainty models. The resulting DSS will enable Alberta's forest industry to make

integrated resource management decisions more quickly and accurately and at less cost.

Increasing utilization of aspen and mixedwood stands has shifted attention from softwood-oriented research on mixedwood sites to an emphasis on aspen silviculture in mixedwood and hardwood management. One overall program objective toward which a number of studies are directed is the development of a mixedwood DSS that will integrate regeneration and silviculture components. A major study involving methods of harvesting aspen to preserve the white spruce understory will be remeasured this year.

Fire has a significant impact on the sustainable development of our forests. Our fire management research project works to improve fire management policies through research into fire behavior, fire impact assessment, improved suppression methods, and fire effects and by the development of computer-based fire management information systems and models.

The Northwest Region has the lead role nationally in the Forest Fire Research program of the Green Plan's Partners in Sustainable Development of Forests program. The objective will be to develop advanced fire management decision aids to reduce the amount of forested land lost as a result of fire.



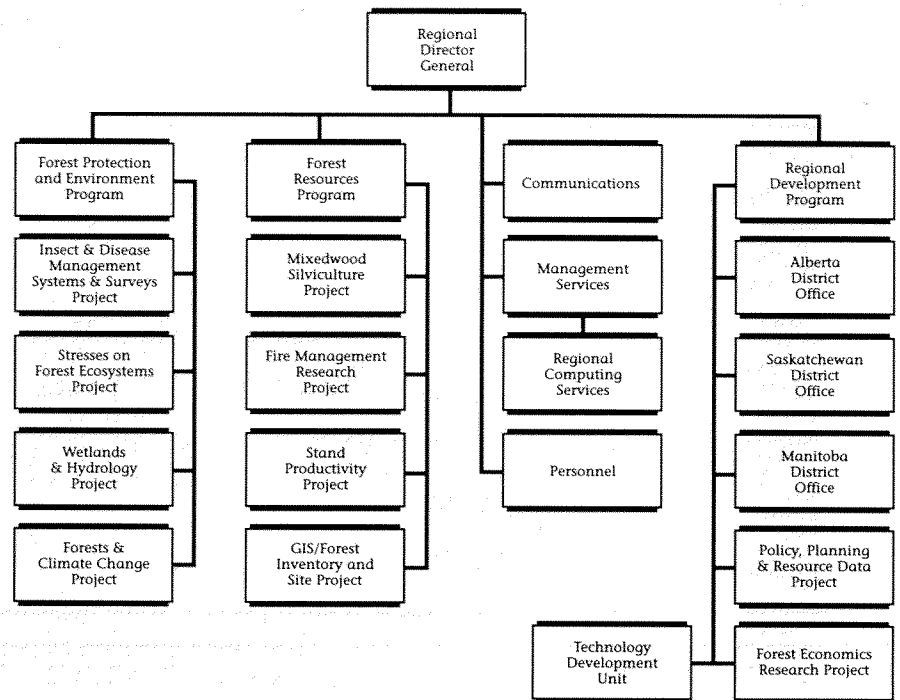
K. MacDonald

Regional fire studies will concentrate on refinement of the forward-looking infrared scanner being adopted by the Alberta government for air attack operations, assisting in the implementation of a fire management information system for the Northwest Territories' Forest Fire Centre, and installation of the National Fire Management Information System in Manitoba. 🍁

Four new federal-provincial/territorial forestry partnership agreements will make the Regional Development program the focus of a great deal of activity over the next year. Development staff in Edmonton, Prince Albert, and Winnipeg will be busy processing applications for funding and supervising projects under the agreements, which all expire by the end of 1996.

The district offices will be bringing their staff numbers up to strength to coordinate agreement activities. As agreement-funded research projects are approved, fieldwork will begin by Forestry Canada staff and others from government, industry, or universities.

Over \$10 million in federal funds will be injected into the economies of Alberta, Saskatchewan, Manitoba, and the Northwest Territories this



The Policy, Planning and Resource Data project will be working to establish evaluation frameworks for all four agreements in addition to preparing and publishing forest industry profiles and directories. The first to be published will be directories of Manitoba's primary and secondary wood-using industries.

Tree Plan Canada, the national community tree planting program announced this spring, is a Regional Development responsibility. An initiative of Canada's Green Plan, Tree Plan Canada takes Forestry Canada into the somewhat unfamiliar field of working directly with community groups in our region to assist them in planting trees that will help reduce atmospheric carbon dioxide and beautify their communities.

The Technology Development Unit will be fully staffed in the next year and is busy planning workshops and conferences to promote the transfer of our vast storehouse of knowledge and technology achievements to our clients throughout the region. The Aspen Resource Center will be up and running this year.

The Northern Forestry Centre's Library, an essential service for all our research and development activities, is settling into renovated quarters and leaping ahead in its automation drive with the addition of CD ROMs and computerized data bases. 🍁

REGIONAL DEVELOPMENT

year as a result of the agreements. A major focus of each agreement is integrated resource management that considers both forestry and nontimber (such as wildlife) values, and the Forest Economics Research project now has staff specialists in this area.

Another important component of the agreements is a continuing federal program that provides Indian bands with a comprehensive computer-based forest inventory and a forest management plan for their land. The program also funds silvicultural activities on native reserves that have a current inventory and plan in place.

Tree Plan Canada

Continued from page 2

Spring projects have ranged from 125 spruce seedlings planted by children from Win Ferguson Community School in Fort Saskatchewan, Alberta, to 15,000 trees of all shapes and sizes planted by volunteers for a reclamation and town beautification program in Weyburn, Saskatchewan. Planting projects have taken place in the hot, dry, agricultural area of Morden in southern Manitoba to the cool, moist, forested zone of Peace River in northern Alberta, plus many places in between.

Tree Plan Canada applications are reviewed by Forestry Canada staff in Edmonton to determine whether they fit into the national criteria, then are forwarded to the Foundation in Ottawa for approval. The Foundation then contacts applicants to advise them of the status of their application.

Partners

Tree Plan Canada works with partners such as community groups, environmental organizations, service clubs, municipalities, and provincial governments. Once the trees are planted, the partners must commit themselves to maintaining them for at least 3 years.

"People are very enthusiastic about the program," said Mr. De Franceschi. "Without Tree Plan Canada, 300,000 fewer trees would be planted this spring in this region alone. And that is just the beginning—the numbers will become even more significant once the program becomes better known."

Tree Plan Canada is a component of the Green Plan, the federal government's action plan for a healthy environment. It was initiated and is being implemented by Forestry Canada, which allocated \$75 million for the program. More information on the program is available from your nearest Forestry Canada office, or by calling toll-free 1-800-563-0202.

—R. Holehouse

UPCOMING EVENTS

Environmental Soil Science;

August 8-15, 1992; University of Alberta, Edmonton, Alberta; Canadian Society of Soil Science and Canadian Land Reclamation Association; Yash Kalra (403) 435-7210.

Vegetation Management on Mixedwood Sites for the Practitioner;

August 25-28, 1992; Waskesui Resort, Prince Albert National Park, Saskatchewan; Forestry Canada, Saskatchewan Natural Resources, and the Regional Reforestation Technical Committee; Ron Bronstein (403) 435-7210.

FORS Ninth Annual Computer Conference and Trade Show;

August 25-26, 1992; Michigan State University, East Lansing, Michigan; Forest Resources Systems Institute; David Gilluly (205) 767-0250.

Demo '92;

September 17-20, 1992; Kelowna, B.C.;

1992 Forest Sector Conference;

September 22-24, 1992; Vancouver, B.C.; Canadian Pulp and Paper Association; Wayne Novak (514) 866-6621.

Forestry: the Cornerstone of Canadian Society;

September 22-25, 1992; Vancouver, B.C.; Canadian Institute of Forestry Annual Meeting Committee (604) 985-8680.

Minimizing the Risk of Wildfire: A Symposium to Address Wildfire Problems in the Wildland/Urban Interface;

September 27-30, 1992; Jasper, Alberta; Partners in Protection; Kelvin Hirsch (403) 435-7210.

Erosion: Causes to Cures;

November 2-4, 1992; Regina, Saskatchewan; Canadian Water Resources Association, Soil and Water Conservation Society, and International Erosion Control Association; Ray Pentland (306) 949-8288.

6th International Congress of Plant Pathology;

July 28 to August 6, 1993; Montreal, Quebec; Canadian Phytopathological Society and National Research Council of Canada; Doris Ruest (613) 993-9228.

Staff changes

Edmonton: Dr. Ian Campbell is the Canadian Forests and Climate Change project's new Climate Change Modelling Scientist.

Colin Myrholm is the new Forest Pathology Technician. Insect Taxonomist/Entomologist **David Langor** has been appointed adjunct professor in the Department of Entomology at the University of Alberta.

Derek Sidders, formerly in the Saskatchewan District Office in Prince Albert, is now part of the Technology Development Unit in Edmonton as Silviculture Operations Specialist.

The new GIS Technician/Analyst in the GIS, Forest Inventory, and Site project is **Rex Kalenith**.

Gwen Peacock has been appointed Pay and Benefits Clerk with Personnel Administration, and **Greta Cannan** has been appointed Publications Clerk with the Regional Development program.

Winnipeg: The new Forest Insect and Disease Specialist is **David Ip**. Also joining the office is **Robert McMahon** as Information and GIS Specialist.

Prince Albert: Gerald Brahniuk and **Rod Froc** are the new Silviculture Technicians, and **Bart Smith** has been appointed Federal Lands Project Officer. Private Lands Forestry Specialist **Jim Johnston** has left to take a forestry job with the Department of National Defence in Gagetown, New Brunswick.

New agreement to strengthen forestry in Alberta

The \$30 million Canada-Alberta Partnership Agreement in Forestry was signed on April 23 by Canada's Forestry Minister Frank Oberle and Alberta's Forestry, Lands and Wildlife Minister LeRoy Fjordboten. The new agreement reinforces Alberta's thrust in the areas of reforestation, intensive forest management, research, public involvement, and public education. Each partner will contribute \$15 million to the agreement, which expires in 1995.

New publications

Cerezke, H.F.; Gates, H.S. 1992. Forest insect and disease conditions in Alberta, Saskatchewan, Manitoba, and the Northwest Territories in 1991. For. Can., Northwest Reg., North. For. Cent., Edmonton, Alberta. Inf. Rep. NOR-X-325.

Langor, D.W.; Drouin, J.A.; Wong, H.R. 1992. The lodgepole terminal weevil in the prairie provinces. For. Can., Northwest Reg., North. For. Cent., Edmonton, Alberta. For. Manage. Note 55.

Moody, B.H.; Amirault, P.A. 1992. Impacts of major forest pests on forest growth and yield in the prairie provinces and Northwest Territories: a literature review. For. Can., Northwest Reg., North. For. Cent., Edmonton, Alberta. Inf. Rep. NOR-X-324.

Quintilio, D.; Alexander, M.E.; Ponto, R.L. 1991. Spring fires in a semimature trembling aspen stand in central Alberta. For. Can., Northwest Reg., North. For. Cent., Edmonton, Alberta. Inf. Rep. NOR-X-323.

Inventory and integrated forestry-wildlife research will identify critical habitat areas in the province and provide a better understanding of how forestry practices impact on wildlife. These and other forest management research and technology transfer initiatives will receive \$6.3 million over the next three years.

The commitment to new forest product development research amounts to \$5.75 million. New products developed from Alberta hardwoods, small-diameter trees, and mill wastes will maximize the efficient use of the timber resource. This program follows the highly successful forest products research program of the 1984-90 federal-provincial forestry agreement.

Under the new agreement, \$14.7 million is being allocated to a reforestation and intensive forest management program. Over 12,000 hectares of provincial Crown land

will receive silvicultural treatments, ensuring the sustained yield of Alberta's "future forests". Funding for forest management on federal Crown lands will assist Indian bands in developing forestry opportunities. Additional funds under this program will go toward data collection, forest management on private woodlots, and completion of provincial ecological site classification.

Both partners recognize the importance of promoting forestry awareness and education in Alberta. Over the duration of the agreement, \$1.5 million will be used to develop public awareness and education opportunities. Alberta's Focus on Forests curriculum package will be supported by the agreement and will introduce forest education to Alberta's schools. The agreement will also support public involvement in the development of Alberta's Forest Conservation Strategy.



Summer is traditionally the busiest season for Forestry Canada fieldwork. Sometimes Northwest Region staff make startling discoveries that they talk about for years.

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