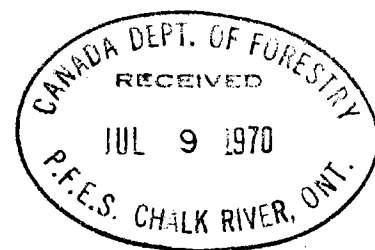


**PROCEEDINGS of the
ELEVENTH MEETING of the
COMMITTEE ON
FOREST TREE BREEDING
IN CANADA**



HELD JOINTLY WITH THE
NORTHEASTERN FOREST TREE IMPROVEMENT
CONFERENCE
AT MACDONALD COLLEGE, QUEBEC,
AUGUST 8-10TH, 1968.

PART I
MINUTES AND DISCUSSIONS

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Note: Reports, Papers and Abstracts of N.E.F.T.I.C. papers presented at the meeting are published in Part II, Proceedings.

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Ottawa, 1970

A. ATTENDANCE

Mr. F.B. Armitage Department of Fisheries and Forestry,
25 Dafoe Rd., Winnipeg 19,
Manitoba, Canada.

Mr. J.P. Campagna Quebec Department of Lands and Forests,
Provincial Tree Nursery, C.P. 80,
Berthierville, Quebec,
Canada.

Mr. J.B. Carlaw International Paper Co.,
Glen Falls, N.Y., 12801,
U.S.A.

Dr. A. Carlisle Department of Fisheries and Forestry,
Petawawa Forest Experiment Station,
Chalk River, Ontario, Canada.

Mr. A.J. Carmichael Ontario Department of Lands and Forests,
Southern Research Station,
Maple, Ontario, Canada.

Mr. J. Cayford Department of Fisheries and Forestry,
Program Coordination,
Canadian Forestry Service,
West Memorial Bldg.,
Wellington St.,
Ottawa, Ontario, Canada.

Dr. F. Cech West Virginia State University,
Morgantown, West Virginia, 26505,
U.S.A.

Mr. D.P. Connola New York State Museum and Science Service,
State Education Bldg.,
Albany, N.Y., 12224,
U.S.A.

Mr. D.B. Cook New York Conservation Service,
12 McPherson Terrace,
Albany, N.Y., 12206,
U.S.A.

Mr. D. Dorn U.S. Forest Service,
Allegheny National Forest,
Box 847, Post Office Building,
Warren, Pennsylvania, 16365,
U.S.A.

Mr. W.G. Dyer Ontario Department of Lands and Forests,
Parliament Buildings,
Toronto, Ontario, Canada.

Mr. E.J. Eliason New York Conservation Service,
75 McMaster St.,
Ballston Spa, N.Y., 12020,
U.S.A.

| | |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Dr. R. Ellis | Department of Fisheries and Forestry, P.O. Box 490, Sault Ste. Marie, Ontario, Canada. |
| Mr. K.C. Eng | Ontario Department of Lands and Forests, Timber Branch, Parliament Buildings, Toronto, Ontario, Canada. |
| Mr. E.R. Falkenhagen | Department of Fisheries and Forestry, Quebec Region, P.O. Box 35, Sillery, Quebec, Quebec, Canada. |
| Dr. C.E. Farnsworth | N.Y. State College of Forestry at Syracuse University, Syracuse, N.Y., 13210, U.S.A. |
| Mr. R.A. Farrington | Vermont Department of Forests and Parks, Towne Hill Road, Montpelier, Vermont, 05602, U.S.A. |
| Dr. G.H. Fechner | Colorado State University, Forest and Wood Sciences Department, Fort Collins, Colorado, 80521, U.S.A. |
| Dr. D.P. Fowler | Department of Fisheries and Forestry, Maritimes Region, P.O. Box 4000, Fredericton, New Brunswick, Canada. |
| Dr. D.A. Fraser | Department of Fisheries and Forestry, Petawawa Forest Experiment Station, Chalk River, Ontario, Canada. |
| Mr. J. Fryer | Yale University, School of Forestry, 205 Prospect St., New Haven, Conn., U.S.A. |
| Mr. W. Gabriel | U.S. Forest Service, Northeastern Forest Experiment Station, Box 968, Burlington, Vermont, 05401, U.S.A. |
| Dr. P.W. Garrett | U.S. Forest Service, Northeastern Forest Experiment Station, P.O. Box 640, Durham, New Hampshire, 03824, U.S.A. |
| Dr. A.G. Gordon | Ontario Department of Lands and Forests, Forest Biology Laboratory, P.O. Box 490, Sault Ste. Marie, Ontario, Canada. |

Mr. A.C. Hart U.S. Forest Service,
Northeastern Forest Experiment Station,
U.S.D.A. Office Bldg.,
University of Maine,
Orono, Me., 04473,
U.S.A.

Dr. H. Hattemer Institut für Forstgenetik,
351 Hann. Münden,
Schöne Aussicht 40,
W. Germany.

Dr. C. Heimbürger Ontario Department of Lands and Forests,
(Chairman, 1967-68) Southern Research Station,
Maple, Ontario, Canada.

Dr. A.K. Hellum Department of Fisheries and Forestry,
Alberta-N.W.T. Region,
132 - 9th Avenue,
Calgary 2, Alberta, Canada.

Dr. H. Hocker School of Forest Resources,
University of New Hampshire,
Durham, New Hampshire, 03824,
U.S.A.

Mr. M.J. Holst Department of Fisheries and Forestry,
Petawawa Forest Experiment Station,
Chalk River, Ontario, Canada.

Mr. C.M. Hunt U.S. Forest Service,
Northeastern Forest Experiment Station,
6816 Market St.,
Upper Darby,
Pennsylvania, 19082,
U.S.A.

Mr. R. Jeffers U.S. Forest Service,
Northern Institute of Forest Genetics,
Rhineland, Wisconsin, 54501,
U.S.A.

Dr. J.L. Ladell Ontario Research Foundation,
Sheraton Park, Ontario,
Canada.

Mr. Y. Lamontagne Quebec Department of Lands and Forests,
Provincial Forest Tree Nursery,
C.P. 80, Berthierville, Quebec,
Canada.

Mr. H. LeBlanc Canadian International Paper Co.,
1540 Sun Life Bldg.,
Montreal, Quebec,
Canada.

Mr. F.R. Johnson Johnson-Salisbury Inc.,
254 West 31 St.,
New York, N.Y., 10001,
U.S.A.

| | |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Mr. G.K. Kiss | B.C. Forest Service, Red Rock Forest Nursery, R.R. 1, 15-Mile Road, Prince George, British Columbia, Canada. |
| Dr. J.I. Klein | Department of Fisheries and Forestry, Manitoba-Saskatchewan Region, 25 Dafoe Road, Winnipeg 19, Manitoba, Canada. |
| Mr. C.H. Lane | Ontario Department of Lands and Forests, Timber Branch, Parliament Buildings, Toronto, Ontario, Canada. |
| Mr. H.C. Larson | Ontario Department of Lands and Forests, Southern Research Station, Maple, Ontario, Canada. |
| Dr. F.T. Ledig | Yale University, School of Forestry, 205 Prospect St., New Haven, Connecticut, 06511, U.S.A. |
| Dr. D. Lester | University of Wisconsin, Department of Forestry, 126 Russell, Madison, Wisconsin, 53706, U.S.A. |
| Dr. J.S. Maini | Department of Fisheries and Forestry, West Memorial Bldg., Wellington St., Ottawa, Ontario, Canada. |
| Mr. J.A. McPherson | Kimberly-Clark Pulp and Paper Co. Ltd., Longlac, Ontario, Canada. |
| Dr. F. Mergen | Yale University, School of Forestry, 205 Prospect St., New Haven, Connecticut, 06511, U.S.A. |
| Dr. E.K. Morgenstern (Exec. Secretary, 1969-70) | Department of Fisheries and Forestry, Petawawa Forest Experiment Station, Chalk River, Ontario, Canada. |
| Mr. J. Mortimer | Domtar Ltd., Research Centre, P.O. Box 300, Senneville, Quebec, Canada. |
| Mr. J. Nicholson | Department of Fisheries and Forestry, Newfoundland Region, P.O. Box 5213, St. John's, Newfoundland, Canada. |

Dr. H. Nienstaedt U.S. Forest Service,
Northern Institute of Forest Genetics,
Rhineland, Wisconsin 54501, U.S.A.

Mr. E. Palant Penn. State University,
Forestry Research Laboratory,
University Park,
Pennsylvania 16802, U.S.A.

Dr. L. Parrot Laval University,
(Chairman, 1969-70) Faculte de Foresterie et Geodesie,
Quebec 10, Quebec, Canada.

Dr. F.J. Pearson 748 Ostrum St.,
Bethlehem,
Pennsylvania 18015, U.S.A.

Dr. J.R. Pelletier Department of Regional Economic Expansion,
Sir Guy Carleton Building,
161 Laurier Ave. West,
Ottawa, Ontario, Canada.

Mr. J. Pleunis Valley Tree Nursery,
Island View,
R.R. #6, Fredericton,
New Brunswick, Canada.

Dr. H.A. Plummer University of Maine,
School of Forest Resources,
Orono, Me., 04473, U.S.A.

Miss R.M. Rauter Ontario Department of Lands and Forests,
Southern Research Station,
Maple, Ontario, Canada.

Mr. K.H. Reese Ontario Department of Lands and Forests,
Timber Branch,
Parliament Buildings,
Toronto, Ontario, Canada.

Dr. L. Roche Department of Fisheries and Forestry,
Quebec Region,
P.O. Box 35,
Sillery, Quebec,
Quebec, Canada.

Dr. R. Rogers Rutgers University,
College of Agriculture, Forestry Section,
1091 Rector Road,
Somerville, New Jersey 08876, U.S.A.

Dr. K.J. Roller Department of Fisheries and Forestry,
Manitoba-Saskatchewan Region,
25 Dafoe Road,
Winnipeg 19, Manitoba, Canada.

Dr. E.J. Schreiner U.S. Forest Service,
Northeastern Forest Experiment Station,
P.O. Box 640, Durham,
New Hampshire 03824, U.S.A.

| | |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Mr. D.A. Skeates | Ontario Department of Lands and Forests, Southern Research Station, Maple, Ontario, Canada. |
| Dr. O. Sziklai | University of B.C., Faculty of Forestry, Vancouver 8, British Columbia, Canada. |
| Dr. F.A. Valentine | N.Y. State College of Forestry at Syracuse University, Syracuse, New York, 13210, U.S.A. |
| Dr. G. Vallée | Ministère des Terre et Forêts, Service de le Recherche, 875 Amable Street, Quebec 4, Quebec, Canada. |
| Mr. J. Vanderfeyst | Canadian Pulp and Paper Ind., 2055 Peel St., Montreal, Quebec, Canada. |
| Mr. J.A. Winieski | Commonwealth of Pennsylvania, Department of Forests and Waters, Harrisburg, Pennsylvania, 17120, U.S.A. |
| Dr. C.W. Yeatman (Exec. Secretary, 1967-68) | Department of Fisheries and Forestry, Petawawa Forest Experiment Station, Chalk River, Ontario, Canada. |
| Dr. L. Zufa | Ontario Department of Lands and Forests, Southern Research Station, Maple, Ontario, Canada. |

B. BUSINESS MEETING

August 8th, 1968

124. Welcome

Dr. Heimburger welcomed members to the eleventh business meeting of the Committee.

125. Minutes of the Last Meeting

On a motion by J.I. Klein, seconded by E.K. Morgenstern, the minutes of the last meeting were adopted as printed.

126. Acquisition and Maintenance of Breeding Stock

The acquisition of seed of precisely known origin was discussed with particular reference to the I.U.F.R.O. organization for the collection of seed tree species from western North America. The background and progress of the scheme were reviewed by Prof. Sziklai.

Seven European cooperators established the organization in 1965, under the leadership of Mr. H. Barner, Denmark. Direct assistance in North America was given by Dr. R. Silen in Oregon and Dr. O. Sziklai in British Columbia. Extensive collections of Douglas fir seed were made in Oregon, Washington and B.C. from the 1966 cone crop. Canadian and U.S. government forest services were not directly involved at this time. Lodgepole pine cones were collected from California to Alaska in 1967. Collections of Douglas fir were extended to the southern coastal range in 1968. By 1968, 22 countries outside of Europe had contributed \$500. each to join the scheme and had agreed to pay approximately \$100. per pound for seed ordered in advance. It is intended to continue the scheme over a period of time for the collection of seed of a total of 16 western tree species.

The question of Canadian participation in the I.U.F.R.O. scheme was debated. It was suggested that the Federal Government should buy into the scheme and acquire representative provenances for distribution by the recently established seed unit at P.F.E.S. It was argued that western species are of little practical interest to breeders working in eastern or central Canada. Conversely, it was contended that western Canada included an important part of the ranges of a number of eastern tree species. Criticism was voiced of too narrow a Canadian view with respect to seed exchange. It was argued that the I.U.F.R.O. scheme provided a unique opportunity to join in a cooperative effort to acquire precisely documented seed of up to 16 species at minimal cost.

Motion: moved by D.P. Fowler, seconded by A. Gordon, that the Canadian Government be encouraged to join the seed collection and exchange programme presently sponsored by I.U.F.R.O., and that Canadian participation in this programme be ~~cancelled~~ ^{CHANNELLED} through the seed bureau located at the Petawawa Forest Experiment Station.

Carried.

127. Applied Forest Genetics

Mr. H.S.D. Swan stated that he had been requested to write an appreciation of forest genetics in Canada and to make recommendations concerning possible action by the Pulp and Paper Research Institute of Canada. He requested the cooperation of members of the Committee.

In the course of the ensuing discussion, emphasis was placed on the importance of practical results rather than theory alone. Tree improvement must be 'sold' in straightforward terms in relation to the future needs of the forest industries. As examples of present application, it was noted that Ontario has seed production areas coming into production and has established seed orchards, for example with rust resistant white pine selected by Dr. Heimburger. Following past advice given by the Committee, seed is collected from average or above average quality stands.

The objective of tree breeding is increased yield per acre, but the extent of possible genetic gains have yet to be established. Priorities in needs and species will vary from one part of the country to another. It was again emphasized that support for tree breeding would not be forthcoming unless results are produced that can be applied on a practical scale.

Motion: moved by H.S.D. Swan, seconded by C.H. Lane. In view of the imminent expansion of tree planting programmes in Canada, top priority should be given to applied tree improvement programmes for the production of genetically improved seed and plants through the cooperation of federal and provincial government services, forest industries and universities.

Carried.

In further discussion, it was noted that, in addition to industry, research administrators would have to be convinced of the value of tree improvement. It was pointed out that proof would require from 30 to 60 years, yet the potential of genetic gains in wood production has been appreciated by many forest authorities throughout the world. It was agreed that more publicity was required concerning the objectives and potential of tree breeding in Canada, an appreciation particularly needed by the forestry profession.

L. Roche was appointed to head a sub-committee to determine ways and means of effectively encouraging foresters and forest authorities to be interested, and to participate actively, in forest tree improvement.

128. Seed Certification

Attention was drawn to a letter from the Deputy Minister of Forestry to all provincial forest services requesting advice concerning the scheme for seed certification recently formulated by the O.E.C.D. It was noted that provincial services are responsible for their individual seed requirements and have set up controls appropriate to their needs. Formal certification is primarily applicable to seed dealers, and of greatest interest to customers outside of Canada.

Mr. Cayford confirmed that the scheme is under consideration and that replies to the Deputy Minister's letters had been received. This Committee could assist by answering questions such as:- What are the benefits to Canada by participation in seed certification? Who wants certification, who does not? What needs will it serve? What organization is required to implement the scheme and how should it be done?

It was agreed that there is a present need to work towards uniform standards of certification in Canada.

For the United States, the U.S. Forest Service is the designated agency responsible for seed certification, and implementation is assigned to the states on a voluntary basis. Difficulties have arisen in the western states where seed dealers are reluctant to accept certification because of the possible difficulty in disposing of present stock.

Motion: moved by O. Sziklai, seconded by C.W. Yeatman, that the Committee on Forest Tree Breeding in Canada highly endorses the O.E.C.D. scheme for Canada in principle.

Carried.

Mr. Holst was appointed chairman of a sub-committee to investigate the implementation of the O.E.C.D. Scheme in Canada. Other members are to be chosen by the chairman to assist him.

129. Membership

(a) Honorary Members.

Dr. C. Heimbürger and Dr. A.H. Hutchinson were unanimously elected Honorary Members of the Committee on Forest Tree Breeding in Canada in recognition of their outstanding contributions to the field of forest genetics in Canada.

(b) New Members. The following were elected members of the Committee:

| | | |
|----------------------|------------|-----------------------------------------------------------------------------------------------------------------------------|
| Dr. Pierre Gendron | Sponsoring | President, Pulp and Paper Research Institute of Canada, 570 St. Johns Rd., Pointe Claire, Quebec. |
| Mr. B. Armitage | Active | British Columbia Region, Department of Fisheries and Forestry, 506 West Burnside Road, Victoria, British Columbia. |
| Dr. A. Carlisle | Active | Petawawa Forest Experiment Station, Department of Fisheries and Forestry, Chalk River, Ontario. |
| Mr. K.C. Eng | Active | Timber Branch, Ontario Department of Lands and Forests, Parliament Buildings, Toronto, Ontario. |
| Mr. E.R. Falkenhagen | Active | Quebec Region, Department of Fisheries and Forestry, P.O. Box 35, Sillery, Quebec 6, Quebec. |

| | | |
|--------------------|--------|----------------------------------------------------------------------------------------------------------------------------|
| Mr. J.M. Fortin | Active | Service de la Restauration, Min. de Terres et Forets, Hotel de Gouvernement, Quebec 4, Quebec. |
| Dr. A.G. Gordon | Active | Ontario Department of Lands and Forests, Forest Research Laboratory, P.O. Box 490, Sault Ste. Marie, Ontario. |
| Dr. A.K. Hellum | Active | Alberta-N.W.T.-Yukon Region, Department of Fisheries and Forestry, 132 - 9th Avenue, Calgary, Alberta. |
| Mr. K. Illingworth | Active | Research Division, B.C. Forest Service, Victoria, British Columbia. |
| Mr. G.K. Kiss | Active | Red Rock Forest Nursery, B.C. Forest Service, R.R. 1, 15-Mile Road, Prince George, British Columbia. |
| Dr. J.L. Ladell | Active | Ontario Research Foundation, Sheraton Park, Ontario. |
| Mr. C.H. Lindquist | Active | P.F.R.A. Tree Nursery, Canada Department of Agriculture, Indian Head, Saskatchewan. |
| Mr. J.A. McPherson | Active | Kimberly Clark Pulp and Paper Co., Longlac, Ontario. |
| Mr. S. Manley | Active | Maritimes Region, Department of Fisheries and Forestry, P.O. Box 4000, Fredericton, New Brunswick. |
| Mr. J. Nicholson | Active | Newfoundland Region, Department of Fisheries and Forestry, P.O. Box 5213, St. John's, Newfoundland. |
| Mr. R.F. Piesch | Active | British Columbia Region, Department of Fisheries and Forestry, 506 West Burnside Rd., Victoria, British Columbia. |
| Miss R.M. Rauter | Active | Research Branch, Ontario Department of Lands and Forests, Southern Research Station, Maple, Ontario. |
| Dr. G. Vallée | Active | Service de la Recherche, Min. des Terres et Forets, 875 St. Amable St., Quebec 4, Quebec. |
| Mr. B.S.P. Wang | Active | Petawawa Forest Experiment Station, Department of Fisheries and Forestry, Chalk River, Ontario. |

| | | |
|------------------|---------------|---------------------------------------------------------------------------------------------------------------|
| Dr. L. Zufa | Active | Research Branch, Ontario Department of Lands and Forests, Southern Research Station, Maple, Ontario. |
| Mr. J.H. Cayford | Corresponding | Canadian Forestry Service, Department of Fisheries and Forestry, Ottawa, Ontario. |
| Dr. J.S. Maini | Corresponding | Canadian Forestry Service, Department of Fisheries and Forestry, Ottawa, Ontario. |

(c) Change in Membership. The following men requested they be changed from Active to Corresponding members:

Dr. F.C. Bent and Mr. A. Demers

(d) Resignations.

Dr. C. Gagnon, Mr. M. Hagner, Mr. E.R. Humphreys, Mr. R.N. Johnston (retired), Mr. A.P. Leslie (retired), Dr. P.G. Pointing.

130. Election of Officers

Prof. L. Parrot accepted Chairmanship of the Committee for 1969-70, with Dr. L. Roche as alternate. Dr. E.K. Morgenstern accepted the position of Executive Secretary, with Dr. C.W. Yeatman as alternate.

131. Appreciation

On behalf of members of the Committee, Dr. Roche thanked Dr. Heimbürger for his chairmanship during 1967-68. Before adjourning the meeting, Dr. Heimbürger thanked Prof. Jones and Mr. MacArthur and the staff of Macdonald College for their assistance in providing the accommodation and facilities for the meeting of the Committee.