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NATIONAL RESEARCH COUNCIL OF CANADA

PROCEEDINGS
OF THE
NINTH MEETING
OF THE
SUBCOMMITTEE ON FOREST TREE BREEDING

OTTAWA

19 JUNE, 1942

NATIONAL RESEARCH COUNCIL

P R O C E E D I N G S

of the

Ninth Meeting

of the

SUBCOMMITTEE ON FOREST TREE BREEDING

Held at the Field House, National Research Council Annex, Ottawa, 19 June, 1942.

Present:

Members: Dr. J. G. Malloch, Chairman,
Mr. D. R. Cameron
Dr. N. H. Grace
Dr. C. Heimburger
Mr. M. B. Morison
Mr. C. G. Riley
Mr. W. M. Robertson
Dr. H. A. Senn
Dr. L. P. V. Johnson, Secretary

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97. Minutes

The minutes of the Eighth Meeting were read and approved with the provision that certain nomenclature dealing with Populus in Appendix B be subject to revisions to be supplied later by Dr. Heimburger.

98. Reorganization of research program.

The Chairman stated that the meeting had been called primarily to consider the matter of reorganizing the research program of the Subcommittee. He indicated that considerable thought had been given to the matter by Mr. Cameron and himself following the last meeting. It had been decided that, in the past, the work of the Subcommittee had been too diffuse and without sufficient emphasis on the more important projects. By request, Mr. Robertson and Dr. Heimburger had drawn up a tentative classification of major and minor projects. This, the Chairman said, would provide a useful starting point for discussion

of reorganization of the research program at the present meeting.

After a full discussion it was decided that the Committee would direct its main effort on four major projects (outlined in Appendix A). These were divided into sub-projects and the responsibility for pressing the work forward on these was specifically assigned to individual members of the Committee (Appendix A). It was further agreed that members of the Committee should undertake, at their own discretion, independent research on other forest-tree breeding problems provided that time and facilities are available after the work on the main projects has been fully provided for. The Committee recognized that a group of problems of secondary practical importance are worthy of study as independent researches. These are listed in Appendix B.

99. Procedure in reviewing manuscripts.

Dr. Johnson stated that he was preparing two papers for publication, each of which deals with research related to forest-tree breeding and undertaken on his own initiative. He wanted to be clear on the procedure to be followed in having the manuscripts reviewed and authorized by the Subcommittee — a point not previously discussed at any of the meetings. Dr. Malloch and Mr. Cameron agreed that all manuscripts should be first reviewed in the author's department, then transmitted by the head of that department to the head of co-operating department concerned for such further review as the latter might consider advisable.

100. Transfer of materials.

The Chairman said that he foresaw difficulties if definite provision were not made for suitable notification of transfer of stock from one nursery to the other. He suggested the establishment of a regular practice of placing an item dealing with this matter on the agenda of each Spring meeting. The meeting agreed unanimously.

101. Reports on Subcommittee projects.

It was agreed that members of the committee should submit to the Secretary full reports covering separately the work on each subproject assigned to them and plans for the work of the ensuing year sufficiently in advance of the spring meeting to permit circulation to the members at least one week before the date of the

meeting. Members will also prepare a brief abstract of their report for use at the meeting. The Secretary will remind members of this arrangement in the January preceding the meeting.

102. Reports on independent researches

It was agreed that in order to obviate unnecessary duplication and to keep the Subcommittee fully informed, the members will report to the Committee on any research work related to the field of forest tree breeding which they are conducting independently.

After the meeting an inspection tour was made of the facilities and experimental material at the Annex nursery.

APPENDIX A

Reorganization of the Major Projects of the Research Program of the Subcommittee

1. Production of blister-rust and weevil-resistant white pine of good quality and rapid growth. This project is considered to be the most important at the present time and should receive the greatest emphasis.

The work of the Project is divided into six Subprojects with responsibility for each specifically assigned to a member of the Subcommittee as follows:

A. Acquisition of promising natural materials.

Dr. Heimburger will be responsible for acquiring native or exotic white pine and related stock, as seedlings, cuttings or seed, which may be useful either for direct propagation or as parent material. He will select promising types and individuals from this material and arrange for the testing for disease and insect resistance. Members are asked to notify Dr. Heimburger of any promising material they may acquire or observe among native stands.

B. Production of new forms.

Dr. Johnson will be responsible for the production of new forms by hybridization or by chromosome doubling and for all genetical and cytological problems related thereto. He will arrange for adequate testing of all promising material.

C. Disease Garden.

Dr. Johnson will be responsible for maintaining the Disease Garden at the N.R.C. Annex. The facilities of this garden will be available to the members on approval of the transfer of material as provided in Minute 100. Dr. Johnson will be responsible for reporting the results of disease garden tests to the member submitting the material. These tests will include both blister rust and weevil attacks.

D. Vegetative propagation.

Dr. Grace will be responsible for the development of methods of vegetative propagation and related problems. He will cooperate with Dr. Heimburger in nursery phases of this work.

E. Pathological problems.

Mr. Riley will be responsible for developing more expeditious methods of testing disease resistance. He will also act as advisor to other members of the Subcommittee on pathological problems and will make periodical examinations of the material in the disease garden or otherwise under test for disease resistance.

F. Entomological problems.

The entomologist on the Subcommittee will act as advisor to the other members of the Committee on entomological problems and will be responsible for periodical examinations of the materials under test.

2. Production of rapid-growing, high-quality spruce for both pulpwood and lumber plantations in the accessible parts of the Eastern forest region.

The division of responsibility will be along the same lines as in Project 1. Dr. Heimburger will be responsible for the acquiring and growing of selected native and exotic plantation stock; Dr. Johnson for producing new forms through hybridization, chromosome doubling, etc., and for the genetical and cytological problems involved; and Messrs. Grace, Riley and the Entomologist for the vegetative propagation, pathological and entomological problems respectively.

3. Production of hardy, drought- and disease-resistant poplars for shelterbelt plantings on the Western prairies.

Division of responsibility as in Project 1 with the exception that Drs. Heimburger and Johnson will be jointly responsible for the sub-project assigned to them individually under Project 1.

4. Production of rapid-growing, disease-resistant, high-quality poplars for pulpwood, match stock, veneer, etc.

Division of responsibility will be the same as for Project 3.

APPENDIX B

Minor Projects for Independent Research

The Subcommittee recognizes that there are a number of problems which should receive attention, but which cannot at present be investigated on the scale of the Major Projects. It is agreed that where time and facilities permit attention to these problems, without detracting from the Major Projects, members may undertake researches on their own initiative.

Minor Projects (specified at the Ninth Meeting)

5. Production of high-quality, rapid-growing hard pines, including red, jack, lodgepole, and Scotch pine.

6. Production of high-quality, rapid-growing, easily-propagated basswood.

7. Production of high-quality, rapid-growing birch for veneer.

General (unspecified)

Work could profitably be undertaken on many secondary species: e.g., on elm, ash, Manitoba maple, hard pines, spruce, birch, etc. for prairie shelterbelt purposes; or on sugar maple, Douglas fir exotics, etc. for other regions.

Distribution List

Copy No.	Name
1	Dr. J. G. Malloch, Chairman
2	Mr. D. Roy Cameron
3	Dr. N. H. Grace
4	Mr. D. E. Gray
5	Dr. C. Heimburger
6	Dr. L. P. V. Johnson, Secretary
7	Mr. M. B. Morison
8	Mr. C. G. Riley
9	Mr. W. M. Robertson
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