

## REPORT OF THE NEFTIC COMMITTEE ON BASIC RESEARCH

The Basic Research Committee was set up in 1972 with the aim to stimulate basic research in forest genetics. I was appointed Chairman of that Committee and served in that function throughout the existence of that Committee.

Actually, the aims of a committee of this sort are to encourage fundamental studies with forest trees, and, if possible, help to stimulate meetings and/or publications which report on the scientific aspects of forest genetics. Because this is a nation-wide or even world-wide effort, it is difficult to separate the results from the effort of this Committee from those of other people and similar committees.

However, I might mention that, at least I think, the request of the NEFTIC Committee was instrumental in obtaining a special issue of the Journal of Forestry. The November 1958 issue of the Journal was devoted to Progress in Forest Tree Improvement. We had approached Philip Wakely, an associate Editor of the Journal during 1957, to look into the possibilities of publishing a special Journal issue.

Your Chairman is also a member of the Committee on Forest Tree Improvement, and helped to encourage the establishment of a meeting of a semiformal nature where research papers in forest genetics could be presented. The first such workshop meeting was held prior to the 1959 S.A.F. annual meeting and provided good exchange between the various members.

A number of other efforts were made through talks to high school groups, industrial foresters, and by participation in the S.A.F. Visiting Scientist Program, during which the importance of basic research in a forest tree improvement program was stressed.

I feel that the Committee serves a useful function, and in the future it shall perhaps be implemented by starting specific projects. By close cooperation with the S.A.F. Committee on Forest Tree Improvement we have, and should in the future, stimulate interest in the initiation of research that will give us answers to the basic principles that underlie the improvement potentials of the forest trees.

Francois Mergen, Chairman

## DISCUSSION

HOCKER How large are the areas for which you determined average sugar concentrations?

GABRIEL These are averages for relatively small individual sugar bushes. Instead of intensive sampling in a small area, we felt that with this particular survey method we could cover possibly the whole Northeast, within a few years. This extensive sampling will give us a better idea of the range in variation in sugar sap concentration over a large area and we plan to do most of our selection work in those areas where the greatest variation is found.

BUCKINGHAM Do you have any intention of making a study from the standpoint of lumber value of the trees, their quality, etc?

GABRIEL At this particular time, no. But I certainly would not be adverse to recording any trees that we may find that have desirable timber characteristics.

BUCKINGHAM The question has been raised in Maryland as to what we are doing at the present time to improve the quality of the hard maple.

GABRIEL Well, at the present time we can say with reference to timber quality we are doing too much. We do have our eyes open for desirable timber phenotypes, but we are currently organizing our efforts toward the improvement of this particular by-product of sugar maple. This doesn't mean that we will remain exclusively in this particular field and not branch out later into the timber aspects of maple.

BALDWIN I'd like to ask Claud (in regard to the recommendation that we try to get the Federal Seed Law amended), to whom we should write or how we should proceed individually or collectively to influence or at least to educate the powers-that-be in order to get the seed law amended. I also would like to make a second comment: some of us are aware I know of the activities of the Seed Certification Committee of the S.A.F. Division of Silviculture, their controversy, and relation with some of the other groups in the country that have proposed seed certification standards. Are we liable to run into any conflict with that effort or is this more or less fundamental or simple certification, so that we should proceed as a Conference here or individually without conflicting with the efforts of the other committees?

HEIT The first thing we should make clear is that tree seed certification and labeling laws or provisions are entirely different. Also, rules and regulations or germination standards pertaining to imports of tree seed entering our country are different than tree seed certification provisions. Labeling provisions for purity, germination and geographic origin and some control of imports on tree seed are the basic requirement we should have had years ago. Then we should proceed on to the various phases and problems of tree seed certification. There is no conflict between labeling laws or control of imports and present tree seed certification discussion, progress or enactment.

Each state has a seed law which governs the sale and regulations of certain seeds. There are only a few states, however, which have labeling provisions for tree seed, namely Georgia, Massachusetts, Michigan, New York, and Pennsylvania. These laws vary somewhat but they should be set up as uniform as possible so as to make it more simple for Interstate shipments.

As individuals, you can check in your own state and learn the need for such labeling provisions. Copies of our New York State tree and shrub provisions are available for study and for your use to recommend similar laws in your states.

You can interest the nurserymen or other users of tree seed to do something to enact such provisions in order to improve the quality of seed being sold within your state. The commercial nurserymen and Christmas tree growers are becoming active in this field. Check with these groups in your state and work with them as outlined in our Committee recommendations.

As a Conference we should work and cooperate with other groups interested in tree seed quality progress. Such groups include Christmas tree growers associations, nurserymen associations, other tree improvement committees various sections of the Society of American Foresters, etc We should stimulate and encourage our colleges, forestry schools, extension personnel, conservation officials, etc., to cite the need for tree seed control both on a local, national and international level.

The Association of American Seed Control Officials should be contacted and our problems, views and recommendations presented to them. Eventually, after definite recommendations have been agreed upon by all organizations concerned, our resolutions should be presented to the Secretary of Agriculture in Washington if they involve regulations of interstate shipments or foreign imports into this country.

SCHREINER I suggest that you put your ideas in the form of a resolution and submit it to the Resolutions Committee. In this way we can best obtain the opinion and vote of the members present at this meeting.

DINEEN You have shown slides and devoted part of your talk to the fact that poor quality seed of many kinds is being sold to the unsuspecting purchaser. You indicate that laws governing sale of seed do not appear adequate to provide for safeguards to see that only clean, pure seed with a high germination ability is placed on the market. If this is the case, and you have the proof of it in your 35 mm. slides, would one procedure be to provide copies of these slides to people so that they could intelligently show and discuss this problem with legislators and other groups who would be interested and instrumental in promoting suitable legislation?

HEIT The facts on tree seed quality requirements and labeling provisions are presented in our Committee report. We will be pleased to make duplicate slides of our findings as presented here in case of such requests.

DINEEN In addition to the slides, I would feel that a write-up giving pertinent information on what the slides are intended to portray should be included.

HEIT We can furnish a brief story of each slide as you suggest. We also have published reprints and information which would assist you in your presentation of the problem.

DINEEN Mr. Heit mentioned in his article that the group has been talking 20 years about doing something about improvement of our woodland tree species. Awhile back in Maine we had some U. S. Government employees discussing our forestry programs and suggesting to us what Maine ought to be doing for example, hire a geneticist, set out seed orchards, etc. From their talk, and from what it appears that I have heard here the past day or so, it seems that everyone wants to get into the act, and everyone wants them to get into the act. I wonder if perhaps there should not be some direction to it should not there be some type of overall planning and thinking to avoid waste and duplication of effort?

For example, should Maine New Hampshire and Vermont be a work unit area, or should New England be a work unit designated to solve the problems of white pine? Should the states and the federal Government pool their money and resources to work upon this one species, or those naturally assigned to it, rather than dissipate it by every state endeavoring to work on the same problem at the same time? Could't this group be influential in getting some direction put into these state tree improvement programs?

SCHREINER This Conference, meeting once a year, is hardly in a position to direct specific improvement work; but this is the purpose of our technical committees. For example, on the Larch Committee, we now have members from four states. For white pine and spruce the committee chairmen should look for a member from the states that are interested in these species. Gabriel's Maple Committee is another example of how our technical committees can coordinate the improvement work between states. It's the technical committees, with representation from each interested state, that could do this coordinating. It isn't this body as it sits here today. I'd like to see these committees build up to the point where there is at least one man on each committee for the states where the species is important.

DINEEN You have a good point if you fellows are going to do it, but you are talking about states where these specific trees are important. It should not be too hard to convince that state to do something about that tree. My point is, that if you have been trying for 20 years, as Mr. Heit said, to awaken people to the importance of tree improvement, and if he and you feel that your efforts have not been entirely successful, is it because your program has not been sold to the key people--the forest commissioners, the state foresters, etc.? They are the people who decide policy and direction that programs should take in their states. I am sure you can sell yourselves and forest management personnel on the need for tree improvement and that they will work hard to promote its need. But if you could talk to the state foresters as a group, outline a specific program, suggest assigning specific species to specific states or groups of states to avoid duplication of effort, let them ask you searching questions on your subject, you could be successful in reaching your objectives. I know the state foresters of the states in Region 7 of the U.S.F.S. meet as a group at least once a year in Upper Darby at the U.S.F.S. headquarters. A meeting such as this would be the place to present your program.

KLAHEHN Along the line of cooperation, the States of Pennsylvania and New York are planning, at least during the next few years, to exchange quite a bit of their material. What we have in mind is this there are certain states that have spent a great deal of time and effort in selection of outstanding specimens. They have collected seed or scion material. Now by offering the same materials to our friend in the next state, we have an opportunity, particularly in exotic species, to broaden our selection area considerably. In exchange, we hope, that in the future, other people working with this material, and their own material, will send us information on comparative performance.

I have a grafting arboretum in Syracuse, some of you were there last year. The material is getting so tall I have to prune it. I postponed this pruning business until spring so I have surplus material. I don't know how much I would like to plant them elsewhere. If anyone comes to Syracuse you can look it over and take it home.

I am planning to prepare a list of selections we have made (hardwoods as well as conifers). I'll include detailed information as to where the tree is growing, their age and what qualities they have. Whenever somebody wants the same material you're certainly welcome to get it from us free of charges.

I don't want to keep it, but as I mentioned, it broadens our program. We should consider the whole Northeast as a relative unit from New England down to Maryland and I would strongly favor more exchange. We exchange seed to a certain degree, but I think that we should consider in the future other plant material, I mean particularly grafts. If anyone wants some scion material from larches, Norway spruce, pine, ash or other hardwoods, you realize a good selector doing his job excellently will take at least two or three years to gather 25 outstanding trees together. So you're very welcome to take advantage of our early selections.

BALDWIN Fred Klaehn's offer is one that I heartily approve and I have already had the benefit of some exchange of materials with New York myself. I would call your attention to a proposal that Section 22 of the International Union of Forest Research Organizations has recently made. It is trying to coordinate this matter of getting sources of seed of different species so that there will be one man who will act as a sort of a liaison man for all the different sources of one species. If anyone here wants to get authentic seed sources of Norway spruce, for instance, he should write to Prof. Olof Langlet in Sweden or if he wants to get larch he should write to another person, etc. Now this preclude exchange among ourselves or getting material direct, of course, but I thought it might be of interest to report this because it has just come out within the last 2 or 3 days. They are interested especially in getting individuals or institutes in this country to serve as agents for handling all requests for white pine or Douglas fir, etc. If anyone in Europe wants to get some Douglas fir they can write to one place and the agent will endeavor to locate the seed sources they wish. So if anyone here wishes to take on the job of being the seed bank for Virginia pine or whatnot you can communicate with John Matthews in England who is Chairman of Section 22.

JORANSON I would like to very briefly throw out this comment that maybe the forest geneticist by himself is not, as we've often implied, in a position all by himself to work out a program of forest tree improvement which will give the maximum value to the political constituency which he serves. I'm more and more interested in seeing a state, for instance, begin to think in terms of a formal justification statement for whatever program is adopted. I think the economist frequently has a large contribution to make, indirectly to be sure, but with a considerable impact on a forest tree improvement program. Just to say this in a word then, it seems to me that it would be desirable to give some thought to having each state or other appropriate territorial organization prepare a statement about objectives with the help of other people who are in a good position to provide contributing information for such a program.

NUTTING - I'd like to say that the objectives of this group are still to bring out this type of thing which Fred has mentioned. That by getting better acquainted, by exchanging ideas and information on what we are doing we will gradually bring some of the things into being which Bob Dineen speaks of. I think we have two different groups involved. We have the administrators of whom he has spoken, and we also have the administrative group in the research agencies as well as the researchers themselves; there are a number of different groups of people here involved. I certainly believe that there is a real need for their understanding what the various groups are doing and then carrying it to the point of a great many exchanges of materials as well as viewpoints.