

REPORT OF TECHNICAL COMMITTEE II
FOREST TREE SEED CERTIFICATION

Forest tree seed certification has received attention from foresters in Europe and in this country for a good many years. The need for and the problems associated with certification have been described in our literature by H. L. Shirley, H. I. Baldwin, E. W. Littlefield, and Paul O. Rudolf, among others, so at this conference, it may be assumed that the importance of knowing the origin and quality of tree seed is clearly appreciated.

Inter-Sectional Committee on Seed Certification S.A.F.

Dr. H. I. Baldwin presented a paper on Seed Origin and Reforestation at the annual meeting of the New York Section of the Society of American Foresters on January 31, 1935. Following this meeting, a joint committee of the New England, New York, and Alleghany Sections of the Society was set up to provide more active consideration of seed source in the Northeast. The committee consisted of H. I. Baldwin and Charles R. Meek, with E. W. Littlefield as chairman.

In the March, 1937, issue of S.A.F. Affairs, this committee presented its observations. These are reported here because they emphasize that the problems found to be important today have been recognized for many years.

The committee report stated that the use of forest seed of unknown source or of uncertain quality by professional foresters constitutes malpractice of a kind that would not be tolerated within other professional groups.

The committee also observed that the collection and sale of forest tree seed is primarily controlled by seed dealers or local collectors, working for profit, who can hardly be expected to take greater interest in the quality of the goods than is demanded of them by the consumer. Unless this consumer demand is expressed forcibly, and by a large group, quality will continue to vary within unpredictable limits.

The problems of maintaining continuity of record for tree seed as it passes through successive handlings are enormous and well recognized. In several European countries, however, these have been overcome to a large extent by concerted, cooperative action of foresters, nurserymen, and seed dealers, backed by a certain amount of governmental regulation. Of even greater importance has been the creation of a centralized association or seed institution which furnishes opportunity for collectors and dealers to have their seed tested and certified.

The minimum requirements in the use of forest seed, according to the committee's report, should include:

1. Use of local seed. wherever desirable strains are known to exist.
2. Control of local collection by the forestry organization or organizations which will eventually use the seed.
3. Insistence by foresters on definite proof of origin by the seed dealer.
4. Consistent attempts, in the case of imported seed to secure seed having a provenance compatible with conditions where the stock is to be planted, particularly as regards elevation, rainfall, and June-September temperature.

The committee concluded its report, with the comment that any comprehensive solution of the seed problem lies in definite legislative and cooperative action sponsored by foresters as a professional body.

The Intersectional Committee on Seed Certification reported again in the February, 1938, number of the Journal of Forestry. This report dealt primarily with returns obtained from questionnaires that had been sent to 50 individuals and agencies in the Northeast. Among other points, the returns from the questionnaire showed that purchase procedures of many public agencies would need revision so that certified seed could be purchased at higher prices than less well documented seed; also, that foresters have not kept accurate plantation records to identify the seed sources; and that dealers, foresters, and others using tree seeds would welcome a central agency of some sort to set up standards and specifications for the guidance and protection of both buyer and seller.

The 1938 report concluded with the suggestion that a committee of the Society of American Foresters be appointed to outline ways and means for setting up a Forest Seed Certification Board in this country.

Appointment of Present Committee

The Forest Tree Seed Certification Committee of the Northeastern Forest Tree Improvement Conference was appointed in the spring of 1954 and charged with the following tasks:

1. Report on the adequacy and accuracy of seed dealer certification under present conditions.
2. Report on the need for certification, and suggest an organization.
3. Suggest a practical region-wide seed certification policy.
4. Collect information on superior seed sources.

Adequacy and Accuracy of Seed Dealer Certification. Observations extending over the past several years indicate that large seed dealers do not usually provide information concerning seed sold beyond that demanded by their customers. Large purchases are usually made under contracts which provide protection for the purchasers, but smaller lots are sold with varying degrees of assurance by the seller of the source and quality of the seed. If seed proves to be too low in viability, the purchaser may claim an adjustment from the dealer. It would be difficult to make a general statement regarding the degree of confidence the purchasers have in the dealers, but a strong impression exists that most purchasers of tree seed believe that greater legislative control should be provided to insure more complete labelling and more adequate testing.

As shown by the report of the Joint Committee, referred to previously, this situation is not new and, in the light of increasing appreciation of the need for more complete and adequate information, it is indeed unfortunate that greater progress has not been made during the past 20 or more years. It is easy to lay the blame to the seed dealers, to state that they fail to meet their responsibilities when they do not provide complete and accurate data with each seed lot sold. It is more realistic, however, to acknowledge that

the dealer is primarily a business man, operating in a competitive market, who supplies services at a price and at the demand of his customers. The dealers report that they are willing to relay all information regarding their seed that is available to them, but frequently the data are incomplete or suspect.

Need for Seed Certification and Suggested Organization. It can be categorically stated that some provision for tree seed certification is needed; however, there is disagreement regarding the way to do it. Some prefer compulsory certification under state or federal law. In correspondence or in recent meetings, Gustave and Fred Herbst (of Herbst Bros., New York's largest dealer in tree seeds) have expressed the opinion that closer legislative control of the tree seed business is to be expected and that they are not basically opposed to constructive legislation. At present, however, the Herbst brothers are opposed to the New York Seed Law on the basis that it discriminates against dealers located in New York, but has no control over out of state dealers. Federal legislation could overcome this difficulty. Probably the majority of foresters and nurserymen who have expressed an opinion prefer a voluntary seed certification program in which seed need not be certified, but cannot be labelled

"certified seed" unless it meets certain standards. A federal labelling law which would control the amount and kind of information placed on each lot of seed, together with certifying and testing agencies recognized under the law but not necessarily operated by government, could provide satisfactory general organization.

An example of this type of organization, which certifies farm crop seeds, is to be found in New York. Here, the state seed law authorizes the Department of Agriculture and Markets to enforce labelling standards and to officially designate certification agencies; and the Seed Growers Cooperative certifies the seed according to standards that have been set up for each species or variety.

The New York Certified Seed Growers Cooperative, Inc., is a non-profit organization of growers and distributors. It is designated by the Commissioner of Agriculture as the official seed certifying agency in the State of New York. The New York Certified Seed Growers Cooperative, Inc., works in cooperation with the New York State College of Agriculture, the New York State Experiment Station, and the New York State Department of Agriculture and Markets in carrying out the purposes of seed certification. It is not a seed growing or a seed distributing organization, but it serves to coordinate the Seed Certification Program. Its purpose is to maintain and make available to the public, through certification, high quality seed and propagating material of superior crop varieties so grown and distributed as to insure genetic identity and purity.

According to the New York Seed Law, as recently revised in legislative committee but not yet presented to the legislature, "certified" refers to seed of the Foundation, Registered, or Certified class which has been produced or collected, and labelled in accordance with the procedures and in compliance with the rules and regulations of an officially recognized certification agency. (The term "or collected" was inserted so that certification could be extended to tree seeds.) Only seed meeting the requirements can be labelled "certified".

A Practical Region-Wide Seed. Certification Policy. The eventual objective will be to limit certification to seed that has been collected from stands that have been examined and certified by a competent agency as being of superior quality for seed production purposes, and carefully labelled, extracted, and stored. Detailed information should be required regarding:

- a. Species; time and place of collection -- including location, and altitude; and stand, climatic, and soil data.
- b. Quality; including purity, ;number of seeds per pound, germination, and date of test.

Eventually quality standards and testing locedures will be required for each species or variety. This standard is being met in certain European countries but at present, seems quite remote for this country.

More immediately, we must be concerned with the requirement that complete and accurate data be obtained whenever tree seed is collected and that these data be available to the user of the seed.

Collection of Information on Superior Seed Sources to be Superior. In the absence of established standards for judging superiority, the task of identifying superior seed sources is a dfficult one. Locality, site, and use of product are all frequently of importance. For exotic species, a considerable number of years must pass after planting before judaent can be valid. Unless care is exercised both in classification and in using the seed collected, serious mistakes and considerable confusion will result. Eventually, it is hoped that the committees of the conference, working on Tree Races and on Individual Tree Selection and Testing, will provide information that will assist in developing standards to be used in selecting superior stands for seed collection purposes.

In the meantime, your committee offers its services as a clearing house and suggesus that information regardng superior seed sources be relayed to it. On request, we will supply whatever information we have available.

Recent Developments

Two items related to tree seed certification merit mention.

1. During the past year, as mentioned above, the New York Seed Law (passed in 1939) has been undergoing study and revision by a committee wrking under Dr. B. E. Clark of the New York State Experiment Station. The specific labelling requirements for tree and shrub seed in the revised law remain the same as in the 1939 law; however, several noti fications in the body of the law have been made which will simplify the setting up of certification of tree seeds.

2. The Food and Agriculture Organization of the United Nations has set up a Seed Exchange Clearing House in order to make internatonal exchange of seeds easier and more efficient. In the exchange, each lot of seeds is to be accompanied by a detailed certificate of seed quality and origin.

Your committee finds the present situation regarding certification of tree seeds to be very similar to that reported in 1937 by the Intersectional Committee on Seed Certification. Work should be continued to obtain certification, preferably authorized by federal laws. Some progress is being made.

During the coming year, we hope to continue with the tasks assigned us by the Organization Committee of the Conference with emphasis on the collection of information regarding superior seed sources.

C. E. Farnsworth, Chairman
E. C. Childs
C. E. Heit
H. E. McQuilkin