

SEED PRODUCTION AREAS IN MAINE

James A. Rollins¹

The Maine Forest Service has been interested in tree improvement work since 1961 when acreage goals for natural seed source areas were established. These goals were based on obtaining a three-year supply of seed during a good seed year. In terms of species, pounds, and acreage these goals are:

<u>Species</u>	<u>Pounds</u>	<u>Acreage</u>
White Pine	1,000	50
Red Pine	200	28
White Spruce	300	24
Norway Spruce	<u>300</u>	<u>14</u>
Total	1,800	116

These figures are based on rough estimates since there was little practical experience with the seed production of these species in Maine. In addition, climatic zones have been delineated which closely parallel zones 3, 4, and 5 of the Plant Hardiness Zone Map prepared by the United States Department of Agriculture. Production of seedling stock for these zones was estimated and acreage allotted accordingly.

The objective of the seed production area program is simply to provide seed of known geographic origin. Hopefully, this seed will produce seedlings that will be better adapted to the environment in which they are planted than would seedlings grown from seed purchased on the open market.

Management of these areas will be by the local service forester and will include thinnings based on phenotypic selection as well as various practices to stimulate cone production. Provenance tests will be made as seed becomes available and will include sources other than the seed production areas for comparison.

Accomplishments in the program to date are quite modest: the establishment of a 30-acre seed production area in Wyman Township, from which seed is now being collected, and the location of several more possible white spruce areas. The coming year will probably see the establishment of the latter.

Since the State of Maine owns very little land the establishment of seed production areas must be a cooperative venture involving the landowner and the State. The Wyman area is a good example of this. It is located on the Wyman Township Public Lot which is held in trust by the State pending the incorporation of the town. However, in the 1850's the legislature sold the timber and grass rights to the J. M. Huber Corporation. A fifteen-year agreement was reached with the Corporation for the use of the area.

Promising stands, located by the Service Foresters, other personnel of the Maine Forest Service, or the landowners themselves, are checked by the State Forest Nursery Supervisor, who is in charge of the tree improvement program. If the majority of the trees in the stand are thrifty, of good form, free of disease and insect damage, and have made reasonable growth, the stand is considered

¹Maine Forest Service, State Forest Nursery, Passadumkeag, Maine.

desirable as a seed production area. The landowner is then contacted and asked for cooperation. Once this is obtained the designation is made and a sign erected, Refinements in the specifications for seed production areas will be made as experience is gained.

The Wyman white spruce seed production area is an old-field stand, 2040 years old, and is located in Wyman Township near the Mt. Sugarloaf Ski Area. Growth has been about one foot in height per year, Spacing is quite variable, ranging from thickets to areas that are completely free of trees, A small portion, perhaps a quarter acre in size, was thinned to an eight foot spacing this spring. Because of the expense this will probably not be done in the remaining thickets. The plan in the open areas is simply to remove poor trees and to thin clumps of trees. The trees will be topped during cone picking operations to keep them within easy reach.