

SEED PRODUCTION AREAS IN MARYLAND

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INTRODUCTION

What I have to say represents the forest practitioners approach to tree improvement; that is, making the best use of what we have - here and now. In seed orchard and seed production area work, this means finding the best individuals, releasing and protecting them, and using seed from them. Obviously, this won't give us superior trees overnight. However, until the superior and elite individuals are found and proven, we propose to make the best of what we have and generally improve our seed quality.

The selection of better seed producing trees began in Maryland during 1929 when former State Forester, F. W. Besley, asked me to collect seed from outstanding white pine at Swallow Falls. Seed from these trees appear above average. We feel there has been some improvement of individuals through this particular selection. In fact, second generation seedlings from the original at Swallow Falls are now in several outplantings throughout western Maryland and at the State Forest Nursery.

SEED PRODUCTION AREAS ESTABLISHED SINCE 1949

1. In 1949, with the help of Dr. Schreiner, we developed a seed production area in red pine at Herrington Manor. Selected trees were released, some topped and all sprayed for cone weevil control. In an effort to stimulate seed production we tried partial girdling and fertilizing other red pine. The results to date are negative insofar as partial girdling and fertilizing are concerned.

2. In 1950 and 1951 the largest seedlings in the seed beds were used to form a windbreak around the perimeter of the Nursery. This windbreak has made rapid growth and should be a fine source of seed. In addition a formal seed orchard was laid out using seedlings from the "Brigham Pine" of Montgomery County. In order to speed up seed production the practice of pollinating cones with pollen from the "Brigham Pine" will be continued as started by Whitesell four years ago. To control the cone weevil a spraying program has been started and shows some promise of success.

3. In 1956, we started a white spruce seed production area at Herrington Manor. Dr. Jonathan Wright, then of the Northeastern Forest Experiment Station, guided the project. The objective here was to find well-formed trees with needles that were longer and that had a well-defined bluish cast for Christmas tree productions. Parent trees were identified, flowers bagged, and females pollinated with selected pollen. The seed was collected, seedlings grown and resulting seedlings outplanted.

4. More recently, in cooperating with the Northeastern Forest Experiment Station, seed production areas in loblolly pine are being established. I understand Silas Little of the Station will report on cooperative program to cross loblolly and pitch pine so that we may produce progeny that will have loblolly growth and form, and grow further north.

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SUMMARY

- 1 We are interested in getting the best seed here and now, and are establishing orchards and seed production areas.
2. We need more information on hardwood seed and outplanting.
3. In order to make the best use of superior seed, we need to plant such trees on sites best suited to them.