

STUDY OF SPRUCE PINE CONE MATURITY AND SEED YIELD

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Cone and seed properties of spruce pine (*Pinus glabra* Walt.) are being studied at Alexandria, La., with a view toward developing methods for planting and seeding this minor but useful species. Two accompanying articles report storage and stratification requirements (1, 2). This note summarizes preliminary data on cone maturity and yields.

Collections in southeastern Louisiana indicate that cones should not be picked before their specific gravity drops to 0.89, which occurs in late October. If collected earlier, the cones caseharden and seed yields are reduced. Seed from ripe cones can be extracted within 48 to 72 hours at a kiln temperature of 100°F.

Numbers of cones per bushel have ranged from about 1,700 to 2,100, averaging 1,900. A bushel of cones may yield from 0.1 to 1 pound of cleaned seed, the amount varying with location and year of collection.

Number of seeds per pound has varied from 40,000 to 52,000, averaging 46,000. These values

are for 100 percent sound seed at 10 percent moisture content. The *Woody-Plant Seed Manual* (3) reports 65,000 to 80,000 seeds per pound, including empty seeds. Experience in the Louisiana collections is that the proportion of empties is often high enough to account for the difference between the two sets of values.

Literature Cited

- (1) Barnett, J. P., and McLemore, B. F.
1967. Improving storage of spruce pine seeds. U. S. Forest Serv. Tree Planters' Notes, Vol. 18, No. 2.
- (2) McLemore, B. F., and Barnett, J. P.
1967. Effective stratification of spruce pine seed. U. S. Forest Serv. Tree Planters' Notes, Vol. 18, No. 2.
- (3) U. S. Forest Service.
1948. Woody-plant seed manual. U. S. Dep. Agr. Misc. Publication 654, 416 pp., illus.