THE EFFECT OF LIGHT ON SEED GERMINATION

For many years we have had difficulty in germinating the seeds of certain species of trees even when stratified in the usual manner. If, however, the seeds are left on the surface of the ground under the trees, they germinate readily. Germinating seeds collected in early spring are planted on moist sphagnum, where they develop rapidly. The young seedlings are then transferred to pots or flats. In this way we have been able to get early germination of Cedrus libani, Pseudolarix and Acer griseum.

The more rapid and complete germination of seeds exposed over winter on the surface of the soil may be related to experiments recently reported by Dr. Risto Sarvas of the Forest Research Institute of Helsinki (Oikos Acta oecologica Scandinavica 1950). Dr. Sarvas finds that the seeds of Picea excelsa, Betula verrucosa, Betula pubescens and Pinus sylvestris, germinate much more rapidly if exposed to light. The seeds sown on the surface of the soil, or very lightly covered, germinated more rapidly than those kept in the dark or planted deep enough to exclude the light.

If light is a factor in the early germination of seeds exposed on the ground under natural conditions, the method of germination developed by Dr. Sarvas may give equally rapid germination under artificial conditions and without the hazards of exposing seed to rodents during the winter.

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