

DIRECT SEEDING OF HARDWOODS IN NORTHEAST IOWA AND SOUTHEASTERN MINNESOTA

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Direct seeding of hardwoods has been done in northeast Iowa since 1883 and in Southeast Minnesota since 1999. This method of reforestation has been completed on Conservation Reserve Program acres and on other non-forested lands including both abandoned pasture and cropland acres. Direct seeding is an alternative to traditional seedling planting for establishment of tree cover on open ground. There are several advantages over seedling planting when an area is direct seeded. These include: 1. Rapid conversion of open sites to forest cover. 2. Straight, dense, naturally pruned trees. 3. Decreased length of time that is needed to control competing weeds, noxious weeds and rodent pests, such as pocket gophers. 4. Reduced impact from white-tailed deer. The benefits of direct seeding are not always achieved. Some of the problems that have been identified are 1. Weed and competing vegetation control 2. Poor seed germination and survival due to any of several factors that include; poor cultural practice, herbicide deficiency, poor seed quality, rodent, bird and squirrel predation. The poster shows photos of direct seeding projects at various stages of growth from open fields to successfully seeded young hardwood forest. Regeneration surveys show the wide range of successes and attempts to identify reasons for good and bad results. Heavy weed growth can nearly eliminate some species such as oak. Other species such as walnut and ash have a greater ability to grow through the competition and become established. Test plots have evaluated cultural practices, herbicide effectiveness for weed control and decreased seed germination. Cover crops have been evaluated for their ability to reduce soil erosion and competing vegetative growth. As in most private land (and public land) projects, the ability of the land owner to do the weed control and other follow up work is critical to the success of the project. A landowner who is determined to stay committed to the project for the 3-5 years needed for establishment, will likely be rewarded with a dense, diverse young stand of hardwoods.

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