

Keys for using seeds for forest regeneration

Seed Source	Longevity of Seed Supply	Keys of successful regeneration
Buried seed or seed within the slash	Seed in slash is usually available for only the first year after harvest. Some species' seed remain viable for a number of years after seed fall: examples include yellow-poplar whose buried seed remain viable from four to seven years and pin cherry whose seed may remain viable for decades.	Ensure that the harvest operations produce enough scarification of the site. Scarify inoperable areas independently of the harvest. A prescribed burn prior to harvest usually helps. For best chance of success, harvest should coincide with good seed year. For serotinous cones, a site preparation burn after the harvest ensures that cones will open.
Seed from edge trees	Available for as long the edge is intact. Could be as long as 10 years.	The width of the clearing cannot exceed the dissemination distance of the seed from the edges. For best success, prepare site just before seed fall in good seed years. Site preparation is usually intensive to control competing vegetation. Preparation of proper number of microsities (seedbed). Wind disseminated seed usually require contact with bare mineral soil. Repeat until unit is adequately stocked. Usually not an option with heavy seeded species.
Seed trees	Available for a long as trees remain standing. Longevity of supply is less than that from edge trees because seed trees are exposed to wind, lightning, and beetle infestation. Duration of seed supply increased with increasing number of seed trees (dense seed tree). Dense seed trees can be used to regenerate intolerant species if overstory removed soon after establishment.	Sufficient numbers and quality of seed trees to uniformly distribute adequate numbers of seed across site. Intensive site preparation before seed fall to control competing vegetation in good seed years. Preparation of proper number of microsities (seedbed).
Direct Seeding	Infinite -- can sow seed any year	Correct storage of seed to maintain viability. Scarify or stratify seed to ensure prompt and uniform germination. Intensively prepare site. Sow seed in fall or winter to proper depth to minimize seed depredation. May need to control seed predators.