CENTRAL HARDWOOD NOTES

Treating Seedling And Sapling Stands For Wildlife

What you want to focus on during the seedling-sapling stage is understory development and species selection. By thinning newly regenerated stands you increase sunlight and therefore the abundance and nutritional value of herbaceous vegetation. Thinning allows you to favor understory species that provide browse, forage, and seeds for wildlife. Precommercial thinning in sapling stands should promote vertical and horizontal diversity. This will benefit both timber and wildlife as stands mature.

Precommercial thinning can be used to favor mast-producing species. Encourage a variety of trees and shrubs for a more diverse habitat. Maintain a wide spacing (greater than 10 x 10 feet) between selected crop trees to delay canopy closure. If canopy closure is held below 50 percent during the sapling stage, residual tree crowns will develop rapidly and a diverse understory will flourish. All competing trees within 5 feet of selected mast trees should be cut.

Strive to maintain a combination of some hard mast trees like oak and hickory, soft mast trees like dogwood and blackgum, and mast-producing shrubs in every 5-acre patch. The oak species having the most consistent acorn production should be favored during thinning operations; i.e., red oaks in the Appalachians and a mix of red and white oaks in the Ozarks. Thinnings should be made during winter in areas where deer use is heavy. Slash available as browse will reduce feeding pressure on seedlings.

Pile slash from thinnings loosely to provide cover. Also slash piles can be used to protect trees and shrubs susceptible to deer browsing. Additional cover can be provided by "half-cutting" trees that are 6 to 8 feet tall. Make cuts 3 to 4 feet above the ground half way through the stem and then push the top over to provide a living brush pile. Avoid livestock grazing. For additional guidelines see Note *6.03 Silviculture Treatments in Sapling Stands.*

Maintain 10 to 20 percent of oak-pine stands in pines, in blocks no larger than 2 acres. Pine clumps provide shelter and cover for many wildlife species.

"Daylight" roads (cut back roadside woody vegetation) in a 25- to 50-foot band to encourage sapling growth. Don't cut back the entire road border at the same time, but in stages to provide valuable habitat. Old log landings in seedling and sapling stands can provide valuable habitat. They should be cleaned of woody debris so they can be mowed once every 3 years. They can also be planted with legumes, but first test the soil so it can be properly limed and fertilized before planting. For additional information *see Note 9.08 Logging Roads and Log Decks for Wildlife Habitat.*

Openings are an essential ingredient of any forest stand being managed for wildlife including sapling stands. Openings should be 1 to 10 acres, irregularly shaped, and occupy at least 5 percent of the stand. Make them adjacent to roads or trails to improve access by wildlife. Openings on poor sites will last longer and cost less. Such sites include narrow ridges, southwest exposures, and natural frost pockets. For additional information *see* Note 9.11 *Wildlife Openings.*

Don't prescribe fires during the seedling and sapling stage until trees are old enough to tolerate a light burn. Although burning increases wildlife food and cover, it should not be done from May through June when wildlife is most vulnerable.

References

Henderson, F.R. 1984. Increasing wildlife on farms and ranches. Manhattan, KS: Kansas State University, Great Plains Agricultural Council, Wildlife Research Commission, Cooperative Extension Service. 573 p.

Payne, N.F.; Copes, F. 1986. Wildlife and fisheries habitat improvement handbook. Washington, DC: U.S. Department of Agriculture, Forest Service. 382 p.

Michael, E.D.; Dickson, J.M. 1986. Coordinating timber and wildlife management practices in immature Appalachian hardwood stands. In: Smith, H.C.; Eye, M.C., eds. Guidelines for managing immature Appalachian hardwood stands. Parsons, WV: U.S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station: 167-l 80.

Edwin D. Michael
Division of Forestry
West Virginia University
Morgantown, West Virginia