



CENTRAL HARDWOOD NOTES

Wildlife Openings

Openings provide important feeding areas for forest wildlife because herbaceous vegetation grows much more abundantly in the open than beneath a forest canopy. Herbage (grasses and forbs) is generally more nutritious and digestible than woody plant growth. Herbage is important in the diet of deer, especially in late winter and early spring. Voles and rabbits use openings year round, and these small mammals are eaten by many larger predators. Insects, a primary food of young wild turkeys and other birds, may be 25 times more abundant in clearings than in forest undergrowth. So, wildlife openings and the herbage and insects they provide are an important component of forest wildlife habitat. In addition, clearings and the roads and trails that connect them may provide scenic vistas and excellent opportunities for seeing wildlife.

The value of wildlife openings depends partly on undergrowth conditions in the adjacent forest. The amount of herbage in forest undergrowth is generally greater on good sites than on poor sites.

Thinning mixed hardwoods and elm-ash-cottonwood stands usually results in abundant herbage and woody undergrowth. In contrast, thinning oak-hickory and oak-pine stands usually produces more woody than herbaceous undergrowth. Thinnings and regeneration cuts provide important browse and some herbage for wildlife, but they are not equivalent to permanent wildlife openings in terms of herbage and insect production. For optimum habitat we usually recommend maintaining 5 to 10 percent of the management area in wildlife openings along with an active timber management program.

A good system of wildlife openings will include both agronomic forages and native plant communities. Domestic legumes and grasses provide high quality forage early in the growing season when little else is available. Native plant communities provide good cover, seeds and fruits, and abundant forage later in the growing season.

Distribution and Size

Ideally, wildlife clearings should be uniformly distributed through the management unit and connected by roads that have been planted to forage crops and incorporated into the opening management program. The best spots for new clearings are log decks, log roads, utility rights-of-way, poorly stocked stands, or regeneration failures.

The arrangement of clearings in the landscape and the total proportion of the management unit occupied by openings are as important as the size of individual clearings. A 1 -acre wildlife opening can be highly beneficial if: it is part of a system that includes larger clearings; it is within 600 feet of another opening; and it is connected to other openings by grassy roads or other corridors of herbaceous vegetation. Wild turkeys favor openings of 10 to 20 acres, but turkeys and other wildlife will use much smaller clearings. There are usually more opportunities for making small openings (1 to 3 acres) than large ones (10 to 20 acres). Systems composed of a few large openings and increasing numbers of smaller ones are effective in distributing high quality forage through a management unit.

Establishment

Once the trees have been removed, you need to establish the herbaceous community. If the natural ground cover is adequate, the grasses and forbs can usually be encouraged by lime and fertilizer. If the area has been heavily disturbed (log landing, skid trail) or is large enough for agricultural management, it should be seeded to a forage crop as soon as possible.

Mixtures of cool-season grasses and legumes such as birdsfoot trefoil, orchard grass, bluegrass, or quackgrass are generally recommended for planting in openings (see Note 9.13 Planting for *Wildlife*). These mixtures provide succulent forage through the growing season, and have proven to be effective in enhancing wildlife habitat. The species used depend on local site conditions and your management objective. Your local Soil Conservation Service Office and wildlife managers are the best source of specific planting recommendations. Management recommendations for forage crops are based on the needs of commercial agriculture, so the suggestions for lime and fertilizer applications usually exceed what is needed to maintain wildlife openings.

Whole-tree chipping has the potential for converting low value timber stands to wildlife openings. Because the stumps are sheared at ground level, the woody sprouts can be eliminated annually with "flailing-chain" mowers or herbicides applied to the stumps. Mowing will produce a "volunteer" herbaceous community. In 5 or 6 years the stumps will decay and the site can be disked and planted to forage crops if further development is considered necessary.

Maintenance

Periodic treatments are necessary to maintain forage species and prevent the invasion of woody plants. The keys to managing clearings are simplicity and flexibility. The acreage to be treated should be set in advance; prescriptions for individual clearings should be based on an annual inspection. The prescription should be based on the condition of the opening, the local wildlife populations, and your management objective. Heed the adage, "Don't fix it if it isn't broken."

Agronomic forages require relatively intensive management-one or more annual mowings, periodic applications of fertilizer, and replanting. Native plant communities can often be maintained by mowing late in the growing season every 1 or 2 years and by burning in the spring at intervals of 3 to 5 years. Generally, you should not treat during the nesting and early brood rearing period-May and June for most of the central hardwoods area. Remember, it is almost always easier to keep an opening clear than to make a new one.

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