

Instructional Scenario



Managing Small Woodlots for Wildlife Habitat

Course/Duty Area: Forestry Management, Advanced/Managing the Forest (Silviculture)

Scenario:

A landowner owns a 20-acre mixed hardwood tract in the Southern Piedmont region of Virginia that is 30 years post clear-cut. He is an avid hunter and would like to manage the tract to maximize the white-tailed deer and wild turkey populations. He states that he would like to cut some of the trees for personal use as firewood in his outdoor wood burning stove and would like to develop a management plan that will identify which species of trees would be most beneficial to leave for the wildlife and which would be best to remove for firewood. You visit the site and discover that the tract contains common hardwood species in this region including oak, hickory, maple, poplar, and sweetgum.

Focused Questions:

1. Which species are best suited to enhance deer and turkey populations?
2. Which species should be considered for removal?
3. What other considerations should be included in the plan?

Project-Based Assessment:

Create a management plan for this landowner that identifies which hardwood species should be culled for firewood and which trees should be left for growth and habitat, as well as suggestions for other habitat enhancement such as edge habitats. Include tips for proper tree identification and suggestions for native grasses and shrubs.

Teacher Resources:

- Fifteen Minutes in the Forest, Virginia Forest Landowner Education Program https://www.youtube.com/playlist?list=PLOhBz_SGRw8UZo9aAfShRbb-ZaVyK-uzT
- Small Woodlots, Virginia Forest Landowner Education Program <https://forestupdate.frec.vt.edu/resources/woodlots.html>
- Tree Identification, Virginia Department of Forestry <https://dof.virginia.gov/education-and-recreation/learn-about-education-recreation/tree-identification/>

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Answers to Focused Questions:

1. Oak and hickory trees are particularly valuable for wildlife. Oaks produce acorns, which are a crucial food source for white-tail deer and wild turkeys, especially in the fall and winter months when other food sources are scarce. Hickory nuts, while harder to crack, also provide a nutritious food source for these animals. Therefore, it would be beneficial to retain a significant number of oak and hickory trees on the property to support the wildlife population.
2. Maple and poplar trees grow relatively quickly and can dominate a forest if not managed properly. While they do provide some benefits, such as cover and nesting sites, they are not as critical to the diet of deer and turkey as oak and hickory are. These species could be selectively thinned to allow more sunlight to reach the forest floor, promoting the growth of understory plants that provide additional food and cover for wildlife. The wood from these trees can also be used as firewood for the landowner's outdoor stove. Sweetgum trees, while common in the region, are not particularly beneficial for deer and turkey. They produce spiky seed balls that are not a preferred food source for these animals. Removing some sweetgum trees could further open the canopy, encouraging the growth of more desirable plant species. The wood from sweetgum trees can also be used as firewood, making them a practical choice for removal.
3. To maximize the White-tailed deer and wild turkey populations, the management plan should focus on maintaining a diverse forest structure. This includes a mix of mature trees, young saplings, and a healthy understory. By selectively thinning less desirable species like maple, poplar, and sweetgum, the landowner can enhance the habitat for wildlife while also meeting personal needs for firewood. Additionally, creating small clearings or edge habitats can increase the availability of food and cover for deer and turkeys. These areas can be planted with native grasses and shrubs that provide additional forage and nesting sites.