

Hardwood Management for Deer

Hardwood stands can provide many benefits for white-tailed deer. One benefit of hardwood stands for deer is mast production including acorns, which are an important energy source and preferred forage during periods of limited vegetation and browse such as fall and winter. The diverse herbaceous understory of properly managed hardwood stands provide forage and cover for deer. Hardwood regeneration or young hardwoods provide cover and, depending on the species, browse for deer. During hot summer months, hardwood lowlands can provide loafing areas and areas of thermal cover. Hardwood draws provide travel corridors for numerous species including deer. Additionally, hardwoods along waterways can stabilize banks and limit flooding, which benefits the entire ecosystem.

In Georgia, most hardwood stands are oak-hickory or beech-maple stands with interspersed sweet gum and tulip poplar. Land use practices like timber production and agriculture has confined most hardwood stands to lowland areas, riparian zones, and areas unsuitable for timber production; however, some upland areas still have hardwood stands. Hardwood stands often receive little management, resulting in closed canopies with little understory growth limiting the benefit for deer to solely mast production. Most management of hardwood stands for deer should focus on Timber Stand Improvement (TSI). TSI, a term originally coined by foresters to describe practices used to improve the quality of a stand, has been adopted to cover practices used to improve a stand for wildlife. TSI generally focuses on improving the vigor, composition, productivity, and quality of a forest stand for a desired purpose, such as improving deer habitat. TSI of hardwood stands should focus on selective removal of undesired trees, prescribed fire, and control of non-desired species.

A common TSI practice for improving hardwoods for deer is selective removal of trees. The purpose of selective removal of trees is to increase light reaching the forest floor and release remaining trees. Increasing the amount of sunlight reaching the forest floor facilitates increased growth of herbaceous forage and cover for deer. Releasing remaining trees allows increases in growth, vigor, and mast production. This practice should target removal of non-desired mid- and overstory species such as non-mast producing species like sweet gum, elm, and maple and trees of low economic value. The most common methods to selectively remove trees is cutting, girdling, hack-and-squirting, or basal bark treatments of herbicide. This practice should be limited to only removing enough mid- and overstory trees to facilitate ground level herbaceous growth. Research has shown that fertilizing oaks does not increase acorn abundance, size, or palatability.

Prescribed fire can be used to improve hardwood stands for deer. Prescribed fire can be used to manage ground level herbaceous growth in hardwood stands but only if enough sunlight reaches the forest floor to promote herbaceous growth, so this practice is usually best when used with other practices. Prescribed fire also helps cycle nutrients, reduces debris, and can stimulate growth of forage and cover. Prescribed fires in hardwood stands should be low intensity to avoid damaging desired trees. Fire intervals in hardwood areas can vary greatly from every year to every 7 years depending on goals, but generally is recommended every 2-3 years to promote a mixture of forage and cover.

Controlling non-desired and invasive species can be important for managing hardwood stands for deer. Invasive species can outcompete preferred deer forages and limit the overall productivity of an ecosystem. Additionally, streams and waterways often associated with

hardwood areas tend to spread seeds from invasive species during flooding events. Common invasive species found in hardwood areas are privet, tree of heaven, kudzu, Japanese stilt grass, oriental bittersweet, and multiflora rose. Many methods can be used to control invasive species in hardwood stands, but herbicides generally are the most effective. When applying herbicide always use manufactures recommendations and use herbicides approved for use near water in waterways or floodplains.