

**H**istorical records indicate that prior to European settlement, much of the landscape of Alabama was a mosaic of open forests and grasslands. This was largely due to the actions of Indians who cleared land for farming and frequently burned the landscape to maintain open fields and open woodlands. With the progression of European settlement, additional land was cleared for farming, and burning the landscape to keep it open continued. Quail were abundant and widely distributed as long as this pattern of land use persisted.

As the decades of the 20th century passed, farming declined. The common practice of burning the woods fell into disfavor as timber production from forests gained importance. The result of these land-use changes was the inevitable decline of quail populations from landscapes where they had long been taken for granted. The dependence of quail on open lands maintained by tillage and woods kept open by frequent burning was not well understood. Throughout the latter half of the 20th century and to the present, quail continued to disappear from the land.

Quail have survived, however, on the “piney woods” quail plantations. In addition, on some of the plantations, quail numbers have surged in recent years with more knowledgeable management. Quail survived on these lands because, for the most part, the lands maintained their character from the past when quail were widely abundant. That general character was one of “open” woods, meaning that the number of trees and the tree canopy were relatively sparse. The open nature was maintained by timber thinnings and frequent burning. These practices are fundamental in managing forests for quail because they create and maintain vital groundcovers. Quail live on the ground, so all management must focus on groundcover conditions.

To favor optimal groundcover in woodlands, the tree canopy should be open enough to allow half of the ground to receive full sunlight. This will allow the growth of grasses and weeds that quail require for reproduction and food. In silvicultural terms, a pine forest managed at a basal area of 40 to 60 square feet per acre permits an optimal groundcover environment for quail. For a stand of trees that average 12 inches in diameter, this would equate to 50 to 75 trees per acre.

After the tree canopy is open, groundcover is best managed with prescribed fire. Burning controls the growth of dense brush and maintains an environment of native grasses, legumes, and scattered brush. Fire must be frequent, but carefully applied. Ideally, prescribed burning is performed annually in a pattern that leaves 25 to 50 percent of the groundcover unburned. This unburned cover is necessary for nesting areas; however, these areas should escape fire only one year so that native grasses and herbaceous seed-bearing plants always predominate. Plant responses vary with the season when fire is applied. Spring fires control brush and favor grass. Fall fire reduces grass and favors seed-bearing plants such as legumes. Fall, winter, and spring fires all have application in quail management depending on the desired response. Summer fires are detrimental to nesting and should be limited to locations where hardwood control is needed.

Periodic thinning and frequent prescribed burning are necessary practices when managing forests for quail. One other practice will increase quail production in forests: the development of permanent openings. Even with an open canopy, quail production in forests is further increased with the development and management of well-distributed permanent openings that occupy at least

20 percent of the forest area. Small fields, three to five acres in size, managed with annual fall-winter disking will grow up in annual weeds that provide high quality summer brood habitat.

The practices of timber thinning, prescribed burning, and small field management re-create the forest conditions of the past when quail were formerly abundant. ♣

## Quail Need Wild, Weedy, Woolly Areas

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**T**he call of the bobwhite quail is heard during spring and summer months and is often associated with wild areas. Early successional habitats, those dominated by grasses, weeds and shrubs, are essential for quail to thrive. The loss and conversion of such habitat has resulted in an 80 percent decline in quail numbers since the 1960s.

The good news is that quail habitat can be improved or created. Many landowners actually already have beneficial quail habitat present. To some, these weedy areas of ragweed, broomsedge, and/or briar thickets are an eyesore and are regularly mowed. While mowing and keeping areas manicured is attractive to most people, little benefit is found by quail, which thrive in weedy habitats. Mowing is probably the management practice most overused by landowners. Not only does mowing destroy beneficial vegetation, but when performed during the nesting season, it can destroy quail nests.

Early successional habitat maintenance requires two things: ample sunlight to produce beneficial weeds, grasses, and shrubs, and some type of disturbance such as burning or disking. “Organized chaos” is a good way to describe good quail management. Keeping areas in varying stages of vegetation succession is the key. Rotational disking of one-third of the weedy, grassy areas throughout the property each year maintains desired vegetation. This may be accomplished by disking in strips or blocks depending on the size of the unit. A burning rotation in open timberland or fallow fields every two years usually provides the diverse habitat necessary for bobwhites. A combination of both burning and disking provides optimal habitat. The key is to maintain weedy and woolly areas – the “woollier” the better. However, if these areas are not maintained by some type of disturbance, they will quickly revert to unsuitable habitats dominated by a woody component.

Managing for weedy areas can be a difficult adjustment. We generally want our yards and roadways manicured, so it stands to reason that we use these values when managing other landscapes. Early successional habitats must be maximized to sustain bobwhite populations. If land managers will remember three words for quail management – wild, weedy, and woolly – the call of the bobwhite quail might indeed be music to your ears. ♣