Using the Axe, Cow, Plow, Gun, and Match to Benefit Quail

By Derek Wiley, Upland Game Biologist

When thinking about upland game bird management in Oklahoma the main bird that jumps to my mind is the bobwhite quail. Bobwhites are steeped in history in Oklahoma and have been pursued by hunters for generations. Despite the past couple of years of excellent hunting, the bobwhite is declining in Oklahoma.

Some of this decline is due to habitat loss from urbanization and fragmentation of land parcels, but the vast majority of habitat loss is due to lack of management on the landscape, or in some cases detrimental management (overgrazing, planting improved grasses, etc.). To combat these issues the five main management techniques set forth by Aldo Leopold still apply: the axe, cow, plow, gun, and match. However, the way we use those techniques may have changed.

The Axe - This technique has largely been replaced with the heavy machinery used in today’s timber management, but the principle of thinning woody vegetation still holds. When done properly, thinning has the potential to create fantastic bobwhite habitat. Pushmataha Wildlife Management Area in southeastern Oklahoma is an excellent example of how timber management can benefit quail.

The Cow - Cattle have been and can be one of the best tools for bobwhite management. When thinking about upland game bird management in Oklahoma the main bird that jumps to my mind is the bobwhite quail. Bobwhites are steeped in history in Oklahoma and have been pursued by hunters for generations. Despite the past couple of years of excellent hunting, the bobwhite is declining in Oklahoma.

Unfortunately, a large portion of grazing across the bobwhite’s range occurs on “improved” pastures of bermudagrass and fescue rather than native rangeland, leaving little diversity for quail. In many cases, this “easier” or “simpler” improved pasture approach to grazing eliminates quail altogether. If possible, graze cattle on native rangeland without overgrazing. Restoring improved pastures back to native rangeland will greatly improve bobwhite habitat in relatively little time.

Five upland game management techniques stand the test of time, helping Oklahomans maintain their proud quail hunting traditions.
The Plow - Plowing or diskimg turns the ground and stimulates growth of the forbs or weeds quail love and need. Disking a few strips next to grasslands or low-growing shrubs mimics the once abundant patchwork of small crop fields mixed with strips of grassy and weedy buffers that produced high numbers of upland game birds. November through early February is the best time to strip disk for quail and will create brood rearing habitat and food sources the following summer.

The Gun - While the gun lacks the same influence as the other upland game management techniques that focus on habitat, it is still an important aspect of bobwhite management. Quail hunters may number fewer than in years past but their harvest data is still important. Examining the crops of harvested birds also allows managers to better understand which foods are specifically selected by quail.

The Match - Perhaps more than any other practice, fire has the greatest potential to bring back quail, including in areas nearly absent of quail. Our view of the match has changed over time with a focus on fire suppression rather than the benefits that fire provides. As a result, Oklahoma's landscape has drastically changed, leading to a decline in our quail population. The return of fire on the landscape can provide habitat required for bobwhites. Properties in the eastern half of our state could benefit from a three-year burn schedule while western Oklahoma properties could benefit from a five-year burn interval.

The axe, cow, plow, gun, and match have worked well for bobwhites in the past, and it's not too late to employ them again to bring back bobwhites to your property. Contact our private lands biologists to get more information on managing your land for bobwhites and other wildlife.

Winter disking promotes an explosion of important quail foods and ideal brood rearing habitat for quail.