



HABITAT MANAGEMENT FOR TURKEYS IN NORTHEAST TEXAS

Kay M. Fleming, Natural Resource Specialist, Athens

Turkeys, like all species of wildlife, must be provided with adequate habitat on a year-around basis in order to flourish. The birds that have been stocked throughout East Texas were released within areas that offered good habitat and protection. This was critical, so they could reproduce and eventually stock all the suitable habitats in the county. But as good as these areas are, none are perfect. Each area's habitat could be improved for eastern wild turkeys and made better for wildlife. Since most landowners and sportsmen are anxious to do everything possible to establish turkeys on their property or lease, a few suggestions are being offered for improving the bird's home.

The key to getting turkeys established is protection of the valuable brood stock and increasing reproduction. Unless turkeys produce young, the population is doomed. Anything that can be done to allow the turkeys to remain healthy and reproduce will help an established population increase in number and newly released flocks become established. Texas Parks and Wildlife Department biologists initially released turkeys in areas that were thought to be prime habitat and basically met the bird's immediate needs. These areas provided habitat where turkeys could wander over their new home and find the food and cover necessary to become established. However, the less turkeys have to move in search of food and cover, the greater their potential for survival. A few food plots and minor changes in the habitat can sometimes decrease the range required to meet the turkeys' needs.

There are three ways landowners can immediately improve the habitat for turkeys and assist them as they increase in numbers. They include planting food plots, establishing permanent openings, and controlled burning. By far, controlled (or prescribed) burning of leaf litter and dense growths of understory vegetation in woodlands is the cheapest, most effective of the three.

It is usually not recommended that feed be put out for turkeys. Automatic feeders that are commonly used for deer are tempting but may cause more problems than solutions. Feeders tend to concentrate the birds making them easier to view but greatly increases the threats of disease and predation. Planting food plots or enhancing the native vegetation by controlled burning, shredding, and/or fertilizing will provide a food source that we identify as good land management. Openings planted to food plots and/or enhanced for native forage growth potentially provide tremendously more food for turkeys than sack-feeding. There is also the chance that your sack feed may contain deadly aflatoxin, which can poison turkeys. If you just absolutely have to feed wild turkeys, make sure the feed is aflatoxin free and your feeder is placed in an area open enough that it provides some safety from predators. Placing feeders next to a brushy or grassy area sometimes allows predators, like coyotes and bobcats, the opportunity to hide and ambush the turkeys as they feed. Feeders should also be moved from one site to another about twice a year. This will reduce the chance of a disease outbreak occurring.

CONTROLLED BURNING OF WOODLANDS AND FIELDS

Controlled burning is the most cost-effective habitat management technique in northeastern Texas. Wild turkeys prefer an open forest where they have good visibility and ease of movement. Areas that have excessive understory growth of brush and shrubs tend to be avoided by the birds. Removing the thick understory also opens up the forest floor for new growth and burning stimulates the growth of tender weeds, grasses, and shrubs that are preferred by turkeys. Seeds that have lain dormant under the forest litter are uncovered and given the opportunity to germinate. Control burning of about 20 percent of your ranch's upland woods every four to five years during late November (after frost and leaf drop) through February (before spring green-up) is recommended. Burns will do best if conducted shortly after leaf drop, while leaves are still fluffed up with air space and before winter rains and time compact the litter. Since the burns are not conducted in the same year but in somewhat of a checkerboard fashion, the developing understory growth will be in different successional stages of growth on each burn site. This creates diversity in the habitat and provides more variety of wildlife foods. **Burning should be avoided in hardwood bottoms.** Repeated burns in these bottomland areas tend to reduce the hardwood component that is so valuable to the wild turkey and other wildlife species.

It might also be advisable to burn selected native grass openings on a similar 4-5 year rotation. This will also remove old growth and help control the growth of young, invasive woody plants such as cedar, locust, mesquite, and persimmon. New plant growth will be stimulated from seeds that often become dormant when fires are omitted from land management. These grassy burn sites should normally be less than 40 acres and be burned

in late summer (late August through September) weather conditions permitting. The Texas Agricultural Extension Service has an excellent publication titled "Prescribed Range Burning in Texas." This publication offers some good general guidelines on burning, especially for controlled burning of native pastures. Insect numbers normally increase in these areas after a burn. Studies show as many as seven times more insects can be found in burned native grass areas when they are compared to unburned areas, thus providing much more spring and summer high protein food for turkeys. This high protein food source is especially important for young birds.

GENERAL BURN PRESCRIPTIONS FOR POST OAK SAVANNAH AND NORTHERN PINEYWOODS WOODLANDS AND NATIVE PASTURES OF EAST TEXAS

1. Prepare disked bare-ground fireguard around all sites before burning. Disked fireguards, which can include roads and right-of-ways, should be 15 to 20 feet wide. (Disked areas can be planted to winter supplemental food plots between burn years.
2. Humidity should be between 25-40%.
3. Wind speed should be between 10 - 15 miles per hour.
4. Always burn into the wind first (backfire) 50 yards into the woods or pasture, then set fire with the wind (head fire).
5. Initiate burns in the morning, after 9 a.m.

Consult with TPWD, Natural Resources Conservation Service or Texas Forest Service, and notify local volunteer fire department before conducting burns.

PERMANENT OPENINGS

With the extensive amount of East Texas that is devoted to improved pastures, it would appear that we have all the permanent openings that we would ever need for wild turkeys. In some cases this is true, but often pastures and fields offer little for turkeys. Openings are needed to provide important summer range for young turkeys and can provide an excellent source of food for the flock year-around. Before we discuss food plots one thing should be made clear, we are talking about openings that are already established. **Do not clear trees to create openings.** It is a lot harder to grow a mast producing oak or dogwood than grass. Use the openings that already exist.

A 10 to 20-foot wide strip of high weeds should be left along the edge of mowed fields, fencerows, and pastures for nesting and escape cover. You can also increase spring and summer production of annual weeds and grasses next to these unmowed strips by shallow disking an adjacent 15-foot strip after the first winter freeze. This will make obtaining food easier for hens that nest in the weeds during the spring and will provide a ready supply of insects for the young when they hatch.

Vegetation in fields and openings should be reduced by late winter with mowing, disking, close grazing, or burning to discourage hens from nesting where mowing may later destroy their nests. Therefore, do not mow, disc, or burn the high weeds purposely left along fence rows and woodland borders to encourage nesting. Pastureland can provide much of the open habitat needed for turkeys if the adjacent woodlands contain a variety of mast producing hardwoods and fruit producing shrubs. When pastureland is used for both wild turkey

habitat and hay production, care must be taken during cutting and bailing operations. **Nesting hens may be killed or their nests destroyed if fields are mowed during the nesting season.** Even mowing around a nest site will usually be of little benefit since this just tends to pinpoint the nest for predators. Leaving a small, unmowed area in an otherwise mowed field appears to act as a red light alerting predators to an area needing investigation. Most turkey nesting is completed by the end of May, waiting to mow until early June will give your turkeys a chance to “do their thing”.

FOOD PLOTS

The creation of food plots for wildlife has proven to be an excellent method of supplementing the birds’ natural food supply and reducing the movement of a localized flock. Cultivated crops cannot replace the need for good natural habitat, but they can often help supplement any inadequacies that seasonally exist over the turkey’s home range.

Planting for wildlife can be expensive, so before investing in a feeding program your property should be inventoried to determine where additional forage could best be utilized. Both wildlife and livestock can use often plantings. For instance, oats and ryegrass provide winter pasture for cattle and are also be used by deer and wild turkeys. It is often best to fence off food plots from livestock for use exclusively by wildlife. Your local Texas Parks & Wildlife Department biologist or the County Agricultural Extension Agent can assist you in selecting a compatible crop that will be vigorous and productive for your area. The following Table lists a number of plants that are preferred by wild turkeys. Many are excellent for livestock grazing and hay production.

CROPS COMMONLY PLANTED FOR WILD TURKEY *

FALL AND WINTER CROPS

Plant	Soil Type	Planting Date	Type of Seeding	Seedling Rate Per Acre	Season Utilized
Clover (LA S-1)	Moist clays and loams	Sep - Oct	Broadcast	5 pounds	Winter/spring
Clover (Crimson)	Moist clays	Sep - Oct	Broadcast	20 pounds	Winter/spring
Clover (Arrowleaf)	Moist clays and loams	Sep - Oct	Broadcast	15 pounds	Winter/spring
Ryegrass	Moist clays and loams	Sep - Oct	Broadcast	10 pounds	Winter/spring
Elbon Rye	Moist clays and loams	Sep - Oct	Broadcast	60 pounds	Winter/spring
Oats	Sandy loams	Sep - Oct	Broadcast	80 pounds	Winter/spring
Wheat	Moist clays and loams	Sep - Oct	Broadcast	60 pounds	Winter/spring
Peas (Winter)	Sandy loams	Sep - Oct	Drill in rows	60 pounds	Fall/winter
Soybeans	Fertile, well drained	May - Jun	Drill in rows	40-50 pounds	Fall/winter
Milo/Sorghum	High organic, well drained	Mar - Jun	Drill or broadcast	10-20 pounds	Fall/winter
Millet	Sandy loams	Jun - Aug	Drill or broadcast	30 pounds	Fall/winter
Chufa	Well-drained, Sandy-loams	Apr - Jun	Drill in rows	30-40 pounds	Fall/Winter

SPRING AND SUMMER CROPS

Plant	Soil Type	Planting Date	Type of Seeding	Seedling Rate Per Acre	Season Utilized
Corn	High organic, well-drained	Apr - Jun	Drill in rows	10 pounds	Fall/winter
Peas (Iron&Clay)	Sandy-loams	Apr - Jun	Drill in rows	40 pounds	Summer/fall
Clover (Alyceclover)	Sandy-loams	May - Jun	Broadcast	20 pounds	Summer/fall

* Feed stores as well as your local county agricultural extension agent can give more specific information on planting and varieties to plant.

CLOVER

Clover is an excellent crop to be considered when establishing a food plot. It provides both green vegetation and seeds. The succulent green forage provides Vitamin A which is needed by hens in early spring for egg shell development. Clover does best when planted alone, but cool season clover is often planted with Elbon rye so the field will have green vegetation for deer and turkeys through both winter and spring (15 lbs/ac arrowleaf clover and 10 lbs/ac rye.) Even though it does not do as well, clover can be over-seeded in hay meadows and other fields. It will produce an excellent winter pasture for cattle and provide forage for the wildlife. Arrowleaf clover is commonly planted during the fall by many landowner/ranchers but depending on soils other clover varieties may produce better.

PEAS, GRAINS, AND GRASSES

Seasonal plants like iron & clay peas, winter peas, soybeans, oats, ryegrass, elbon rye, and corn will provide turkeys with a good source of food if enough acreage is planted to allow for their use by other wildlife species. Where deer and feral hog populations are high, they will readily compete with turkeys for the crops. Cattle may have to be fenced out temporarily during the growing season to allow use by wildlife. A single strand electric fence will usually keep livestock out and allow wildlife to enter. During spring green-up, cattle can be allowed to finish up the food plot.

All food plots should be kept out of view of public roads and away from perimeter fences to avoid poaching problems. A large flock of turkeys feeding in an opening may be too much of a temptation to the unethical hunter. Even though expensive fines are levied against these criminals, a few birds lost this way may mean the difference in a wild turkey population's success or failure.

CHUFA

Chufa is considered by many as the premier crop for wild turkeys. It is high in protein and relished by the birds. The plant produces nut-like tubers on its roots which turkeys dig from the soil. When planted in the spring, chufa matures in about 100 days and will provide turkey food well into the winter. Optimum yields will produce one ton of feed per acre but poor planting and soil management will usually produce disappointing results. The high cost of the seed should encourage careful farming for those interested in planting food plots of chufa. Chufa is a heavy nutrient user of the soil and should not be planted in the same site for more than two years.

Rich sandy loam soils produce the best chufa crops when properly disced, limed, and fertilized as indicated by soil tests. Thirty to 40 pounds of seeds are usually drilled or broadcast per acre. It is most productive on "new ground", therefore crops should not be planted in the same field more than two years consecutively. A planting of clover on the site the third year will help rejuvenate the field for future crops.

Almost any size opening can be planted in chufas, but larger plots should be favored. Plots smaller than 2 acres in size are quickly depleted. Raccoons, hogs, and even crows are alert to the new delicacy and compete with wild turkeys for the food. Plots should be large enough to provide feed into the fall and winter months. If hogs are a problem, plots may require hog proof fencing. Chufa plants that are heavily grazed by cattle or mowed during the growing season, will not produce a good crop of tubers. After it has had a chance to mature it can be mowed or grazed and a few plants probably should be plowed under to expose the clusters of tubers that cling to the roots. Once turkeys discover the food they will scratch and do their own digging.