

# HABITAT MANAGEMENT FOR WILD TURKEYS IN MARYLAND: A Landowner's Guide



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*The wild turkey is a treasured part of Maryland's landscape and heritage. Though nearly extirpated due to extensive timber-cutting and unrestricted hunting, a 30-year effort by the Department of Natural Resources with contributions from the National Wild Turkey Federation has resulted in the resounding comeback of this great bird throughout the Free State. The restoration of the wild turkey is perhaps the greatest conservation success story in history.*

*Although the wild turkey is now well-established throughout its historic range in Maryland, the abundance of turkeys will depend on the quality of the habitat they are so dependent on. Turkeys have proven themselves exceptionally adaptable, flourishing everywhere from the rugged wilderness of Garrett county to the lowland swamps of the Eastern Shore. But despite their adaptability, turkeys will only be found when their year-round habitat requirements are present: Nesting habitat, brood-rearing habitat, and fall/winter habitat.*

*This booklet is intended to give landowners, farmers, hunting club members, or anyone interested in wildlife an overview of what they can do to help create, conserve, and enhance turkey habitat. By using the techniques presented here, you will be doing your part to ensure that this magnificent gamebird is abundant for many future generations of Maryland hunters and outdoor enthusiasts.*



## NESTING HABITAT

In Maryland, nesting by hen turkeys will usually occur from early April until July. A full clutch of eggs is typically between 10 and 12, and once all are laid, hens will incubate for approximately 28 days. Nesting failure is common, and as many as 60% or more of the nests laid will be destroyed by predators. For this reason, it is important to maintain abundant nesting cover to maximize the chances for successful hatching.



Turkeys will nearly always nest in an area that is somewhat concealed from predators at the ground level. In the extensively forested areas of Maryland, turkeys will nest in recently cut forests in tree topplings and brushy areas. In agricultural areas, nest sites are commonly

found in hedgerows, thick woodlots, fallow fields, and hay fields. Disturbance of grassy and weedy fields between April and August is not recommended, as many nests can be destroyed by hay-cutting and mowing activities.

Fortunately, habitat management for turkey nesting is not particularly difficult. Preservation of shrubby and brushy areas is perhaps the easiest way to make sure hens have the proper cover. Do not clear all of the brush out of woodlots and leave several acres of a field fallow for 3-4 years. Then mow or disk the field in late-August and leave it alone for another several years.



Fields planted in native warm-season grasses can also provide high-quality nesting habitat. Federal cost-share programs such as the Conservation Reserve Program (CRP) and the Conservation Reserve Enhancement Program (CREP) often provide incentives to establish permanent grass cover around the edges of crop fields, benefiting both wildlife and water

quality. Grasses established through these programs should be maintained by prescribed burning or light disking to provide optimum nesting and brood habitat for turkeys.

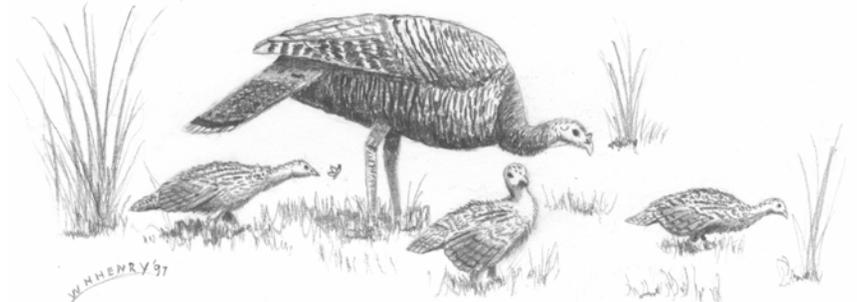
## BROOD-REARING HABITAT

After hatching wild turkey poults will leave the nest within hours. As many as 50-75% of the young poults can die within the first few weeks of life due to exposure or predation. A high-protein diet of insects, spiders, and other invertebrates is essential to the survival of poults and therefore broods are often found where insects are abundant. Not only do poults need a readily-available food source, but they also need concealment from predators while foraging.



Suitable brood habitat is the most specific type of habitat turkeys require. It is also the element most-often lacking on many properties throughout Maryland. Increasing brood habitat should be a high-priority for land managers seeking to boost turkey numbers. Brood habitat should have at least 70 percent of the ground covered in grasses, forbs (weeds) and legumes (such as clover). Optimum vegetation height is about 12-20 inches, which allows the hen to spot approaching predators while the small poults are concealed.

One of the easiest ways to create high-quality brood cover is to establish *field borders*. Broods rarely use row crop fields because pesticide and herbicide use usually limits the amount of insects present. Field borders are simply strips of herbaceous vegetation located between a forest edge and a cropland. The borders can be planted in legumes such as clovers or alfalfa, a cool-season grass like orchardgrass, or warm-season grasses. An easier and just-as-beneficial practice is to simply let the borders grow up in native weeds and grasses.





The same techniques can be applied in more forested areas. Small forest openings and forest roads can be either planted in clover or grasses or left fallow to provide important brood cover during the summer period.

Maintenance of field borders and forest openings is necessary to keep woody shrubs and trees from

encroaching. The types of plants in the borders will dictate the type and frequency of maintenance practices required. Clovers, alfalfa, and cool-season grasses should be mowed in late-August and overseeded every few years if needed. Fallow areas and warm-season grasses can be burned or lightly-disked in early spring every 3-4 years. This will reduce the amount of litter on the ground and allow the small poults to move about freely through the vegetation. Burning and disking also helps to stimulate the growth of desirable forbs and legumes that attracts insects. Management activities (mowing, burning, disking) should always be conducted outside of the nesting and early brood-rearing period (April 1-August 1) to minimize disturbance to hens and newly-hatched poults.



Mature forestlands, particularly pine forests, can be managed to provide exceptional brood-habitat. Thinning of pine stands through timber harvest, followed by the prescribed burning of the understory every 3-4 years encourages lush herbaceous growth under a canopy of pines that is preferred by turkeys year-round.

### Legumes for Wildlife

Legumes are a particularly useful group of plants for wildlife. Legumes include clovers, alfalfa, bird's foot trefoil, partridge-pea, and others.

Legumes are beneficial to wild turkeys and other wildlife for a variety of reasons:

- They are used during the summer as valuable brood cover
- Legumes attract many insects, the main diet of turkey poults and adult turkeys in the summer
- The leaves of legumes are eaten during fall, winter, and spring when available
- Legumes are "nitrogen-fixers" which incorporate nitrogen from the air into the soil to increase plant growth and soil fertility.

A variety of clovers are available and species best suited for a particular climate and soil type should be selected. Mixing of clovers with taller species such as ryegrass, orchardgrass, alfalfa, or warm-season grasses creates the best brood habitat for turkeys and other wildlife.

## FALL AND WINTER HABITAT



As fall approaches, wild turkeys will gradually use open areas less and spend more time in forested areas. Larger flocks will begin to form and they will become concentrated where food is abundant. They will feed heavily on foods such as acorns, beechnuts, crabapples, and various berries. Corn and other waste grains will be consumed in agricultural areas when available.

To provide fall and winter habitat on lands being managed for turkeys, food sources and roosting areas should be maintained. Mature oak and beech trees, crabapples, greenbrier and blackberry patches, and wild grapes should be preserved whenever possible.

Planting trees or shrubs like sawtooth oak, crabapple, and dogwood can also increase the diversity and abundance of fall and winter foods on small properties. Tree shelters at least 3 feet high should be used in areas with high deer densities to ensure that the planted trees and shrubs survive.



In fields, strips of unharvested grains left standing next to woodlands can be beneficial to winter turkey flocks. Corn is a highly preferred crop and standing corn will provide nourishment during severe weather when other natural foods are buried under snow. Chufa, a popular planting for turkeys in the southeast, also can provide a high-quality winter food source.

### Which Trees and Shrubs Should I Plant?

*Below are a few of the fruit and mast-producing trees and shrubs that are most valuable to turkeys and other wildlife:*

#### TREES

Flowering Dogwood  
Oaks (*Sawtooth, Chinquapin, or White*)  
Crabapple  
Black Cherry  
American plum

#### SHRUBS

Gray Dogwood  
Silky Dogwood  
Indigobush  
Black-Haw (*Viburnum*)  
Witch-hazel  
Winterberry

*It is recommended to seek additional advice when choosing specific species for your land; some will be adapted to your climate and soil types better than others.*

Supplemental feeding of grains or other foods is not recommended. Feeding of wild turkeys can concentrate flocks and increase the transmission of diseases and parasites. Additionally, human-fed turkeys become less wary and more dependent on humans, leaving them vulnerable to predators and sometimes creating a nuisance situation.



Roost sites are usually not limited in Maryland, but the preservation of stands of large, mature trees that are somewhat protected from strong winter winds may be important if they are not abundant in your area.

### **PLANTING CHUFA**

Chufa is often planted to serve as a food source from late-fall through early spring and as an attractant for wild turkeys. Chufa is an agricultural version of the native plant nutsedge that produces an underground tuber preferred by turkeys. In Maryland, chufa should be planted in May or early June to allow enough time to mature. One-acre patches are usually ideal. Although it will grow in most soil types, moderately to well-drained sandy or loam soils produce the best results.

#### **Follow these steps for the best chance of success:**

- Test the soil and add the recommended amounts of lime and fertilizer for best growth.
- Work the lime and fertilizer into the soil with a disc or drag.
- Broadcast chufa at a rate of 40 to 50 pounds per acre.
- Cover the seeds 1 to 1.5 inches with a harrow or drag
- Control weeds before planting with either Treflan (1 quart per acre) or Prowl (1 quart per acre).
- OR control weeds after germination with Poast (1.5 pints plus 1 quart of surfactant per acre) or Fusilade (1.5 pints plus 1 quart of surfactant per acre) OR 2,4-DB (1 – 2 pints per acre).
- In areas not planted before, the turkeys may not know to look for the tubers. Once the leaves turn brown and the underground tubers are mature, pull up several plants turned or disk a strip through the plot to expose the tubers. Once turkeys find them, they will scratch the ground to get to the other plants.

Chufa seed is available through the NWTF's Project HELP (Habitat Enhancement Land Program; call 1-800-THE-NWTF or go to [www.nwtf.org](http://www.nwtf.org)). It can also be purchased at a discounted rate through the NWTF's Maryland State Chapter seed subsidy program (Contact information on back of this pamphlet).

## **PLANTING GUIDELINES**

	Seed	Lbs./Ac.*	Planting Time	Turkey Use	Comments
<b>ANNUALS</b>	Wheat	120	Fall	Fall/Winter/Spring	Easy establishment
	Chufa	40-50	May, June	Underground tubers eaten fall-early spring	See detailed instructions inside
	Sorghum	15-20	Spring	Seeds eaten in late summer/Fall/Winter	"Grain Sorghum" is best variety for wildlife
	Annual Ryegrass	50-60	Aug.-Sept.	Fall/Winter/Spring	Inexpensive, easy establishment; often mixed with legumes
	Buckwheat	30-60	Late spring	Summer/Fall	Deer eat heavily
	Millet (Various)	15-25	May, June	Seeds eaten in Fall/Winter	Quick maturing
<b>GRASSES</b>	Orchardgrass	20-40	Aug-Sept.	All year; Seeds, insects	
	Perennial Ryegrass	15-30	Fall or spring	Fall/Winter/Spring	Will grow in cooler, more shaded areas than Warm-seasons
	Warm-Season Grasses	Varies	Spring	Summer; Nesting, Broods	Need special grass drill for many species; contact DNR for assistance
<b>PERENNIAL LEGUMES</b>	Alfalfa	12-18	Aug-Sept.	Spring/Summer; Broods	Best on well-drained soils
	Red Clover	10-15	Aug-Sept.	Spring/Summer; Broods	Performs well on sandy-loam soils
	Alsike Clover	6-8	Aug-Sept.	Spring/Summer; Broods	Withstands flooding
	Ladino Clover	6-8	Aug-Sept.	Spring/Summer; Broods	Withstands wetness
	White Dutch Clover	6-8	Aug-Sept.	Spring/Summer; Broods	Well-suited for shaded areas
	Birdsfoot Trefoil	6-12	Fall or spring	Spring/Summer; Broods	Will readily reseed

\*Note: Planting rates based on broadcast seeding – Rates will vary if using a drill. Recommended rates refer to planting pure stands – when mixing seeds, adjust seeding rates accordingly.

### **FOR MORE INFORMATION:**

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