

# Farming for Wildlife



**Life Skill:** Wise use of resources

**Project Skill:** Enhancing wildlife habitat through food planting

**Objective:** Learn how to plant food plots and manipulate the seed bank to improve food resources for white-tailed deer and other wildlife species

**Success Indicator:** Participants assess and enhance existing food supply for wildlife

## Provisions Needed

- Minimum ¼ acre planting plot
- Commercial mix of grain and legumes (buckwheat, cow-peas, rapeseed, corn, grain sorghum, clovers, ryegrass, oats, rye, and wheat)
- Seed inoculant
- Herbicide
- Fertilizer
- Soil test kit
- Tractor, broadcast spreader, culti-packer, disc



## Trailhead

Have you ever wondered how people actually **manage** wildlife? After all, it's hard to tell wild animals what to do. Wildlife managers typically manage wildlife by improving their habitat (food, water, cover, and space) and controlling the amount of hunting. Wildlife managers work to keep deer and other wildlife populations below the **carrying capacity** of a given area. **Carrying capacity is the maximum number of animals that an area can support.**

When deer become too numerous on a piece of property, they can eat—or browse—all of the available vegetation from the ground to a height of 5 feet, forming what is called a **browse line**. With little left to eat, deer become malnourished and are weakened by disease

and parasites. Also, high browse lines affect other wildlife species, such as songbirds and rabbits, which need low-growing vegetation for nesting and places to escape from predators. To allow plants to regenerate, wildlife managers might allow additional hunting in the area to reduce the number of deer. Over time, this would allow low-growing vegetation to return, providing additional food for deer once again.

Habitat also might be managed by planting crops and trees, discing strips in fields, using prescribed burning on fields and woodlots, and cutting and/or thinning forest stands.

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## Trailblazing

You can help manage habitat for white-tailed deer by directly and indirectly stimulating food production. If you do not have access to farmland, your county Extension agent may be able to help you identify a cooperating landowner.

**Prime deer habitat may exist on private farmland where there is an abundance of oak woodlots** (providing



18 U.S.C. 707

# Farming for Wildlife

**mast**, or nuts, such as acorns), young pine or cedar thickets (providing cover), and agricultural crops (corn, alfalfa, etc.) interspersed in a manner that provides lots of **edge**. Edge is an area where two or more habitats come together.

■ **Direct Enhancement:** Planting a crop is one direct way to enhance food growth. Many different plantings are used for wildlife food plots. You can find commercial mixes at your local farm and garden supply store. These grow well in most areas, are widely adapted to a variety of soil conditions, and are relatively inexpensive.



Before planting, talk with the landowner and decide on the best spot for your food plot(s).

Food plots in fairly secluded areas are usually the most desirable. They should never be visible from a road. It is best if your plot is at the corner of two or three different habitats (old field, woods, creek, etc.). Food plots don't have to be big—1/4 acre to 1 acre is a good size.

**It is much better to have several small food plots than one or two big ones.**

For your plots to grow and be successful, it is critical that you properly analyze and prepare the soil. Your Extension agent or parent will help you with these steps. Consider the following questions as you make your plan:



- How can you find out what type of amendments the soil needs to produce a healthy crop? If lime or fertilizer is needed, how will you apply the amendment?
- How will you prepare the beds for planting seeds?
- Is there existing vegetation that needs to be removed or destroyed before planting? If so, how will you accomplish this?



The planting method you use will vary, depending on whether you're planting a warm-season forage crop or a cool-season mixture. Some types of seeds must be covered by soil after broadcasting. Others need sunlight to germinate and should be sown on top of the ground. Some seeds require firm seed-to-soil contact. Also, some types of seed must be coated with an inoculant before sowing. Investigate the requirements for your particular planting mix. **Ask your Extension agent or seed supplier for advice.**



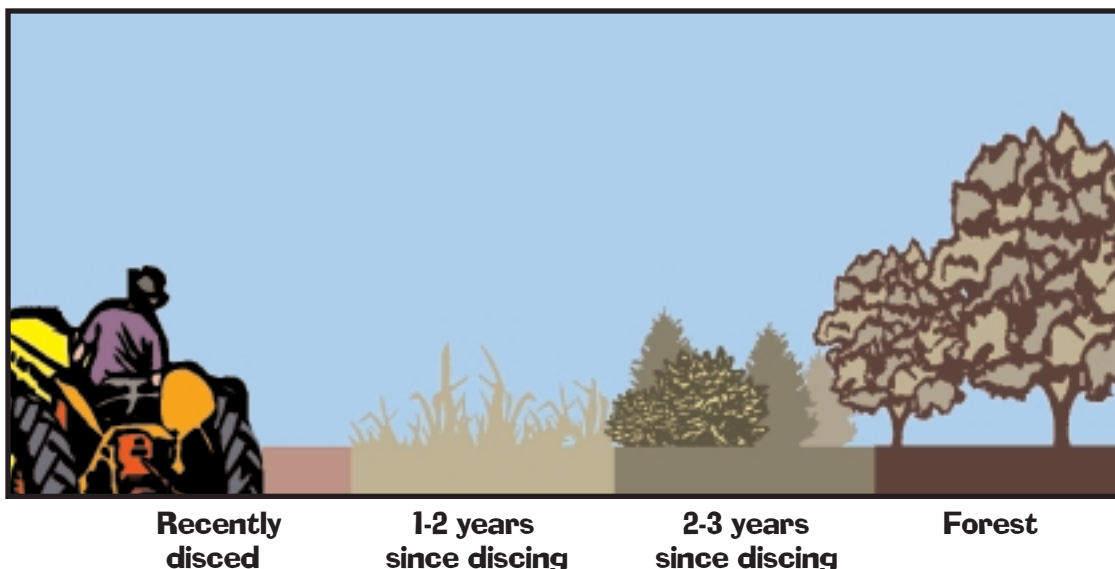
■ **Indirect Enhancement:** Food growth also can be enhanced indirectly through several methods, including discing. Seeds of weeds may lie dormant in the soil for many, many years before germinating. This collection of seeds is called the **seed bank**. These seeds have

not been able to germinate and grow because they are either suppressed by competition (tall fescue, for example) or they are not close enough to the ground's surface. By discing, seeds from the seed bank can be stimulated into germinating.

# Farming for Wildlife

**The best place to disc is at the edges of a field.** This provides a weedy patch around the field for deer and several other species of wildlife. In particular, bobwhite quail benefit from the nesting cover and seed produced by many weeds (ragweed, partridge pea, beggar's lice, Carolina geranium, native lespedezas, etc.) in disced strips. Some of the weeds that begin growing after discing are favorite foods of deer during spring and summer.

Strips should be approximately 30 feet wide and as long as you can make them. If the field currently contains an exotic grass (tall fescue, orchardgrass, crabgrass, Bermudagrass, dallisgrass, Johnsongrass, etc.) and your objective is wildlife management, you should kill the grass cover with an appropriate herbicide. Most non-native grasses don't provide suitable cover or forage for wildlife. **Ask your Extension agent or parent (or the landowner) to help you identify existing grasses.**



## Field Guide

■ During spring and summer, **forbs** make up the majority of a deer's diet. Forbs are broad-leaved herbaceous plants that include weeds and other plants, such as clover, soybeans, cowpeas, and buckwheat. In fall and winter, deer look for **acorns, beechnuts, and corn**—foods that are high in carbohydrates and provide lots of energy during the cold months. Leaves and twigs of woody plants, called **browse**, are eaten all year long; however, browse is most

important when preferred foods are not available. Examples include winters following poor acorn production or dry summers when forb availability is reduced.

**Deer also eat mushrooms, a good source of phosphorus.** According to diet studies conducted on white-tailed deer across the South, grasses are ranked last among foods eaten by deer. The exception to this is annual cereal grains (oats, rye, wheat) and ryegrass, which are eaten in the fall and winter.

# Farming for Wildlife



■ Establishing **food plots** is a popular method of habitat management and is an excellent way to provide additional food resources for deer and other wildlife species all year long. There are two main types of food plots, warm-season and cool-season. Food plots may be **annual** or **perennial**. Annual plants grow during one growing season, then die after the plants

mature and seed. Perennials may survive for several years if managed correctly.

**Most successful food plots contain three or more plant species.** They may be a mixture of annuals and perennials, but not a mixture of warm- and cool-season plants (although there are a few plants that grow well during both seasons).



## The Extra Mile

To monitor growth, success, and the use of your plot, place a 4-by-4-foot cage made of chicken wire in the middle of the plot to keep out deer, rabbits, groundhogs, and other animals. Record the growth of your food plot both inside and outside the exclusion cage. You will see how much the deer are eating by measuring the difference in height between the plants inside and outside the exclusion cage. Managers use this important clue to tell if additional habitat management is needed and if additional harvest through hunting is needed to keep the deer population below carrying capacity.



## Field Notes

share

- How did you decide where you would plant your forb crops?
- How did you save money and effort in growing food plots?
- What conclusions were you able to draw from measuring crop growth?

process

- If managers are concerned with wildlife dying off, why do they allow hunting?
- How did you evaluate the success of your planting?
- How did you use good judgment in managing this project?
- How do you think wildlife managers keep track of the numbers of deer in a given habitat?

generalize

- Why is it necessary to manage wildlife at all?
- How do humans use wildlife?
- What are the pros and cons of using the indirect approach to promote native plants, compared to directly planting food plots?

apply

- If you can manage space and natural resources, how can you be more resourceful in other areas of your life?
- In what other ways can you enhance habitat through indirect methods? Direct methods?