

Food Plots

The planting of food plots is possibly the most implemented and, in most cases, the least needed wildlife management practice in Kentucky. Many landowners believe that food plots provide everything that wildlife need when in fact they comprise the smallest piece of the wildlife habitat puzzle. The key elements for wildlife survival are food, water, cover, and space. However, given the mild climate and diverse vegetation in the state, food is seldom a limiting factor for wildlife. In fact, animals feed on a wide variety of native vegetation, some of which is often considered to be worthless weeds by most landowners. Cover, because it is most often lacking, is virtually always much more important than food in determining the abundance of local populations. However, food plots can be a piece of the puzzle, when they are done properly.

Before implementing any wildlife management practice it is important to weigh the advantages and disadvantages of the practice to see if it fits into your overall management plan. One of the advantages of food plots is that they can concentrate animals for viewing and/or hunting. Deer and turkey especially often respond very quickly to a new food plot. Food plots have also been used, with varying degrees of success, to attract wildlife away from valuable cash crops. For example, some farmers have planted buckwheat between forested areas and soybeans. Deer eat the buckwheat and have less of a negative impact on the soybeans. In addition, food plots can provide a critical source of late winter food and cover in years of poor production of native food sources or very severe winters. Soil disturbance resulting from food plot establishment is often of greater value to wildlife than grain production due to native plant regrowth. An excellent natural food plot can be created by simply strip disking* an area and allowing natural revegetation* to occur.



Figure 1. This sunflower field provides cover and food for many species of wildlife.



Many landowners believe that food plots provide everything that wildlife need when in fact they comprise the smallest piece of the wildlife habitat puzzle.

On the other hand, a disadvantage of food plots is that without adequate cover in close proximity they can concentrate wildlife and expose some species to higher than normal predation levels, especially in winter, thus actually becoming detrimental to certain wildlife populations. Also, in terms of actual grain produced, annual grain food plots are only of value to wildlife for one year. Food plots also need to be maintained and cared for just like agricultural crops to attain the maximum benefit of the grain. This requires a lot of work each year on the part of the landowner/manager for one year's return. Finally, food plots can artificially inflate the number of animals the land can support in a year. Then, if the food plots are not planted in following years, there may be a food shortage for the number of animals present.

Unless allowed to remain fallow for several years, food plots generally do not help with what is most needed to wildlife in Kentucky, namely cover. There are various native plantings that would last indefinitely with proper management.



Figure 2. An excellent food plot can be made by simply disking an area and letting natural revegetation do the rest.

Size, location and shape are key considerations. If food plots are a part of your management plan, allocate no more than 5-10 percent of your open lands to them.

Planning and Design

The first step, after deciding if and how a food plot fits into your overall management plan, is proper planning and design to most benefit the species you wish to attract. Size, location and shape are key considerations. If food plots are a part of your management plan, allocate no more than 5-10 percent of your open lands to them. Ideal plot sizes are 1/4 to 1 acre for small game plots,

1-5 acres for deer and turkey, and 5-20 acres for dove and geese. Larger plots can lessen the impact of predators because they do not concentrate wildlife to as small an area. Smaller food plots may be beneficial to less mobile wildlife because they can be incorporated within or adjacent to secure cover such as native grasses*, brushy field edges* or thick woods.

Location of food plots can also be very important. Songbirds, for example, rarely venture to food sites more than 1/4 mile from protective cover. Quail and rabbits need a food source no more than 100 yards in any direction from thick cover. Always try to locate plots in close proximity to brushy escape cover.

Shape is another important consideration. Food plots should be long and a minimum of 50-60 feet wide by as long as possible. Irregular shapes are preferable to square or rectangular plots since they provide more edge.

A variety of plantings can be used as food plots depending on the particular animals you wish to attract. Table 1 lists a few wildlife species and preferred plantings for each. Each food type has advantages and disadvantages. For example, corn

stands up well to snow and ice and provides the benefit of cover as well as a food source. The mix of bare ground and native vegetation between the rows of corn can be beneficial in allowing ease of movement, as well as an additional food source, for small mammals, songbirds, quail and rabbits. Sunflowers provide an excellent fall food source for songbirds, upland gamebirds, and small mammals. However, they are such a favored food they provide little or no seed through the winter. Buckwheat needs little to no fertilizer or weed control because its roots produce their own toxins. It has a very fast maturation allowing it to be planted as late as July 1 and still produce seed by September. It also grows well on poorly drained sites. Millets also do well on wet areas but do not stand up well to snow. Wheat grows well in relatively well drained sites and provides browse from early fall through spring as well as seed in mid to late summer. However, snow severely reduces the winter food and cover value of wheat. Grain sorghum or milo is very drought resistant and provides excellent winter cover. The small seeds provide a food source for songbirds, quail, deer and turkey. Clover and lespedeza (*not sericia*) are legumes* commonly planted for wildlife. The most common food plots are pure stands of one type of grain or legume. These are generally easier to plant, fertilize, and control for weeds. However, mixing different types of annual grains and/or legumes could yield more benefits through added cover or a longer period of food availability. Use caution in choosing which species you plant in areas of high deer density. For example, if corn, milo or sunflower is planted in these areas, deer may eat the plants at an early stage leaving you with little or no actual seed production.

Table 1. Quick reference to food preferences of different animals

Species	Plants
Northern Bobwhite Quail	Millets Milo Chufa Clovers Korean lespedeza Kobe lespedeza Bicolor lespedeza Birdsfoot trefoil Partridge pea Wheat Warm season grass mixture Redtop Orchard grass Soybeans
Wild Turkey	Milo Chufa Clovers Korean lespedeza Kobe lespedeza Alfalfa Wheat Orchard grass Warm season grass mixture
White-tailed deer	Canola Milo Corn Clovers Bicolor lespedeza Alfalfa Wheat Orchard grass Warm season grass mixture Birdsfoot trefoil
Cottontail rabbit	Bluegrass Orchard grass Warm season grass mixture Korean lespedeza Kobe lespedeza Clovers
Mourning Dove	Sunflowers Millets Wheat



Figure 3. Winter wheat is an attractive food source for whitetail deer.



Figure 4. Quail and rabbits need a food source no more than 100 yards in any direction from thick cover. Always try to locate plots in close proximity to brushy escape cover.

Site Preparation

Careful thought should be given to food plots prior to planting them. Things to consider before planting include potential weed problems, drainage, erosion potential and soil type/fertility. Before planting any food plot, it is recommended that you contact your local cooperative Extension agent for information on obtaining a soil test to determine the appropriate soil amendments* needed for the site.

Weeds are very beneficial as food and cover for wildlife. However, if weeds threaten production of the food plot some weed control may have to be dealt with before or after planting. This can be accomplished through herbicide treatments, prescribed burning* or plowing and disking.

Other factors also need to be considered. Avoid excessively wet or dry sites unless the selected planting is specifically adapted to those conditions. Consider the slope before doing any planting to eliminate erosion problems. If no-till seeding is not an option, you should not plant on areas with greater than a six-percent slope. Old fields or pastures may need to be mowed and sprayed with a herbicide prior to planting.

Planting

Planting can be accomplished through several methods depending on the type of vegetation and the site chosen. Seed can be drilled into the soil using no-till methods with a corn planter or grain drill. Alternatively, broadcast seeders that are attached to a tractor, pick-up truck bed, four-wheeler, or cranked by hand can be used to sow seed onto a prepared seedbed. If broadcast seeding is the planting method used, you will need to plow and disk (or till) the area to prepare a seedbed and use a disk or culti-packer to lightly cover the seed after planting. Refer to the Annual Grains or Legumes *Habitat How-To's* for specific instructions on planting a particular species.

Management

In general, food plots should be managed just like any other crop. Grain crops will need broadleaf weed control through application of a selective herbicide and/or cultivation. However, as previously mentioned, perfectly clean rows are not necessary because the “weeds” also have value for wildlife. Smartweed, ragweed, foxtail, partridge pea and other native broadleaf plants considered weeds by most landowners provide food for wildlife and add diversity to your food plot. As a general rule you can allow 10-30 percent of your food plot to be taken over by weeds without concern. Management of legume plantings, such as clover, may require clipping early

in spring and/or late summer to promote lush new growth as well as periodic reseeding every 3-5 years. You can also manage food plots with practices such as strip disking*, strip mowing* or brush piles* within and/or adjacent to the plot to provide added benefits to wildlife.

The best management technique for annual grain food plots and one that should be considered as part of regular food plot management rather than an option, is plot rotation. This simply means not planting the same sites in successive years, but instead allowing sections to sit fallow for several years in between plantings. For example, take the area you have set aside as a food plot and divide it into thirds. Initially you may plant the entire area in the plant(s) of your choice. In successive years you would plant a different third of the area while allowing the rest to remain idle. The idle sections will quickly grow up in native vegetation that will provide abundant seed and attract numerous insects that supply valuable protein to young quail, songbirds, grouse and turkey. If desired, a legume such as clover or lespedeza can be overseeded onto the idle sections early the following spring. The idle fields also provide protective cover. By using this method, you have three different levels of succession in close proximity, which is very beneficial to wildlife. Food plots can also be used as a smother crop to eliminate fescue before planting to a more permanent wildlife planting. Plant a field or section of a field to a food plot for a year or two. The food plot will smother out fescue allowing native grasses or other more permanent cover to be established. The following year do another field or section of the same field. You eliminate competition, while providing food, cover, and different levels of growth in close proximity.

Remember, with careful planning, hard work and attention to detail food plots can be a helpful piece of the habitat puzzle. But they cannot be expected to provide everything wildlife need and are the last piece you should think of in the overall management of your property.



Figure 5. This browntop millet/ Korean lespedeza plot provides a food source now, but if left idle next year will provide valuable cover.

The best management technique for annual grain food plots is plot rotation.



Figure 5. Clovers are popular choices for food plot plantings.

SUMMARY OF OPTIONS:

Size:

1/4 - 1 acre, 1 - 5 acres,
5-20 acres

Location:

Near shrubby escape cover

Shape:

Irregular

Type of Crop:

Annual Grain, Legume,
Both

Site Preparation:

Weed Control, Soil Amend-
ments, Herbicide Treat-
ment, Conventional tillage

Planting Method:

No-till seeding, Broadcast
seeding, Natural
regeneration

Management:

Weed Control, Mowing,
Disking, Reseeding, Fallow
Fielding

*Related *Habitat How-To* references:

Fescue Eradication
Soil Amendments
Annual Grains
Legumes
Strip Disking
Mowing
Fencing
Brush Piles
Cover Thickets
Prescribed Burning
Field Borders and Filter Strips
Native Warm Season Grasses
Natural Revegetation

Planning for My Property



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