



## FALLOW DISKING AS A MANAGEMENT TOOL FOR WILDLIFE

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### Introduction

Fallow disking for wildlife has long been an accepted management practice to improve the availability of naturally occurring food plants for wildlife. Targeted wildlife species are primarily white-tailed deer, bobwhite quail, Rio-Grande turkey and mourning dove. However, other seed eating songbirds and small mammals may also benefit from this practice. Fallow disking alone is not a suitable wildlife habitat management practice. However, when used with other range management practices, such as, rotational grazing systems, proper stocking rates, and adequate deer harvest, it can be beneficial.

Fallow disking is more cost effective than planting food plots. Supplemental food plots require at least 2 plowings, fertilizer application, seed planting and the use of at least 2 types of farm implements. Fallow disking requires 1 plowing, fertilizer is optional, no seed, and only one type of farm implement.

This brochure is intended to give basic information on why, what, when, where and how to perform fallow disking.

### What is Fallow Disking?

Fallow disking is defined as disking an area after the first freeze and before the last freeze of winter. The practice gets its name from "fallow" which is an agricultural term for land that has been, but is not currently in crop production. Fallow land is also referred to as "laid out" or "idle". "Disking" refers to the farm implement used. A disk is a type of plow that uses a round-toothed blade to actually cut the surface of the soil. Disking, as a general rule, does not break the soil up as deep as other types of plows and leaves a quantity of plant litter on the surface of the field. Disking is usually accomplished with a

tandem or offset disk plow. The disk is allowed to cut or plow 2-4 inches deep.

### Why Fallow Disk?

The most productive deer, turkey and quail habitat is found on ranches with diverse vegetation. These conditions result from properly managed habitat "disturbance" or manipulation. Tools for proper habitat manipulation used in Central and North Central Texas include rotational grazing systems, controlled burning, fallow disking and selective brush clearing. Without this managed disturbance, native prairies evolve into solid grass stands, brush becomes thick and tall, and oak timber loses its mid and understories vegetative structure. All of these conditions result in a reduced supply of natural foods available to wildlife.

In most areas of Central Texas, sheep, goats, cattle or a combination of the three have historically grazed rangelands. With the upward trend in hunting and recreational lease values, landowner emphasis has shifted to proper wildlife habitat management. Landowners are seeing the benefit of increasing the numbers and quality of game and non-game wildlife in their bottom line. This has, in some cases, led to the removal of sheep and goats and the implementation of proper stocking rates and rotational grazing systems for cattle. High-stocking rates and improper grazing management can prevent many beneficial wildlife plants from reproducing. A total lack of cattle grazing, which is currently occurring on some lands purchased for recreational purposes, also creates conditions that are unfavorable for germination of beneficial wildlife plants.

Most seed producing plants can be classified as a forb or weed. White-tailed deer readily consume forbs and both game and non-game birds use their

seeds. Deer will also consume certain grasses, but only for a very short time when the grass is in the first stages of growth. Even though some forbs do not have a chance to reproduce, their seeds will lie dormant in the soil for extended periods of time. This fact makes the technique of fallow disking an effective method of habitat enhancement by stimulating the germination and growth of native forb seeds already in the soil.

### **What will grow after fallow disking?**

In most areas of central Texas, the most likely plants to appear after fallow disking are croton (or doveweed) and ragweed. However other plants can occur depending on the individual site (seed bank, soil type, etc.) and amount and timing of rainfall. Other plants that occur in areas treated with fallow disking include partridge pea, bush-sunflower, cockleburs, native annual sunflowers, Johnson grass, bluebonnets, antelope horn (milkweed), annual broomweed, and many other species.

### **What time of year do you Fallow Disk?**

It is best to fallow disk in the fall or winter of the year during the months of October, November and December. Make sure that fallow disking operations are completed prior to the last freeze and on-set of spring growth and green-up. Exposing the seed to the winter weather will allow the seed coats to become “scarified”(removal of the protective coating on the meat of the seed). This process promotes seed germination. By putting the seeds in contact with bare soil and moisture, you are providing ideal conditions for scarification and germination when the soil temperature rises in the spring.

### **Where would Fallow Disking work?**

Fallow disking should be performed in areas in close proximity to available cover, where wildlife can readily escape from predators or other disturbances. Other factors to consider are terrain, drainage areas and the location of soils suitable for disking. Areas suitable for disking include old crop fields or 1-5 acre areas located in the middle of dense woods or brush. Cleared fence lines, old well sites, abandoned roads and other previously cleared sites can also be considered. Areas that

have slopes or shallow type soils should not be disked due to the risk of soil erosion.

The selected area can vary in size; however, the smaller (1-5 acre) areas seem to work best. The shape of the fallow-disked areas is also important. Try to make the areas long and narrow rather than large squares or rectangles. Depending on the size of the property and the available soils, disked plots should be distributed throughout the ranch and in different pastures to accommodate a rotational grazing system. This technique will allow some of the plots to mature and drop their seeds while others will be grazed before a seed head is produced.

Individual fields or plots should not be treated on an annual basis. Fallow disk individual areas every other year.

### **Other Considerations and Conclusion**

While not required, soil testing and appropriate fertilization of fallow-disked plots will improve germination and seed production rates. Contact your local Texas Agricultural Extension Service agent for information on soil testing. County soil survey maps books are also available from the Natural Resources Conservation Service. Timing and amount of spring rainfall will also have an impact on the quantity, quality and types of native plants resulting from fallow disking.

Fallow disked plots is just one of many tools necessary for proper wildlife habitat management. Your local Texas Parks and Wildlife Department wildlife biologist or wildlife technician can provide comprehensive technical assistance and management planning tailored to the individual property. Contact your local Wildlife Division office or the TPWD Austin Headquarters (800-792-1112) for more information on available wildlife management assistance.

