For example, increased harvesting efficiency has reduced the amount of waste grains left in fields. In addition, new crop varieties are being planted and harvested earlier in the year, allowing waste grains more time to decompose before wintering waterfowl arrive in large numbers.

Finally, disking fields after harvest to reduce crop residue for the following planting season is also a common practice that causes further decline in waste grain availability. When feasible, using some of the techniques discussed below will help increase available waste grain for waterfowl even in harvested production agriculture fields.

**INITIAL CONSIDERATIONS**

During the initial planning stages of planting, landowners must remember that in most cases these crops will be planted in wetland soils. Wetland soils are typically finely textured clays, have excellent water holding capacity, and are difficult to prepare for planting. These characteristics are great for ducks but may make planting unsuccessful in many cases. Excessive soil moisture may delay planting, and summer rains may cause crop failures (as in the past year). Thus, it is important to plan for potential problems and manage your expectations.

For comprehensive waterfowl habitat management in wintering areas like Mississippi is a complex job that, when done intensively, is a year-round activity. Wintering ducks need a suite of habitats that provide natural plant seeds and roots (often called moist-soil habitats), invertebrates, agricultural grains, forested and scrub-shrub areas (for both food and cover), and permanent, deep water areas.

Obviously, not every landowner can provide all of these habitats on their property, but the overall goal should be to provide as many pieces of the habitat puzzle as possible.

In Mississippi, agricultural crops and other planted foods are vitally important pieces of the wetland landscape puzzle during winter, but it is important to remember that plantings are only one of these pieces. In this article, we will discuss several popular waterfowl food plantings and their role in comprehensive waterfowl habitat management.

Historically, the Mississippi Alluvial Valley (commonly called the Delta) was a vast bottomland hardwood landscape that provided natural foods for waterfowl in the form of acorns and other natural vegetation. Although most of this bottomland hardwood ecosystem has since been converted to agriculture, the Mississippi Delta has remained vitally important for wintering waterfowl and other wetland-dependent wildlife. However, many farming practices have changed over the years and have contributed to the decline in waterfowl foods left in fields during winter.

**By Houston Havens**

Comprehensive waterfowl habitat management in wintering areas like Mississippi is a complex job that, when done intensively, is a year-round activity. Wintering ducks need a suite of habitats that provide natural plant seeds and roots (often called moist-soil habitats), invertebrates, agricultural grains, forested and scrub-shrub areas (for both food and cover), and permanent, deep water areas.

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CORN

One of the most popular crops planted for waterfowl is corn. Corn contains high levels of carbohydrates, which ducks use to build quick supplies of winter energy, particularly in extremely cold temperatures. While it does not contain many other needed nutrients, corn can be an attractive waterfowl food when combined with natural wetland plants. An increasingly popular method of planting corn to attract ducks is commonly called “grassy corn” or “dirty corn.” The goal for grassy corn is to incorporate natural annual grasses throughout the planted corn and provide a more diverse supply of food. Grassy corn is planted from mid-April to June at a lower seed-per-acre rate (about 18,000 seeds per acre) and if feasible, in wider rows (about 38 inches) to allow room for natural grasses to grow in sunlight. If Round-up ready corn is planted, we recommend spraying Round-up when corn is about 12 inches tall to reduce competition. For conventional corn, we recommend using a pre-emergent herbicide and, if needed, an additional spraying of pre-emergent herbicide and grass herbicides in low production areas of fields preventing seeds from maturing and dropping too early. We often recommend that landowners plant a 50/50 mixture of Japanese and browntop millets at 20 to 25 pounds per acre. This mixture gives a higher chance for success, no matter what conditions Mother Nature provides. In a wet growing season, the Japanese millet will thrive. If conditions remain dry most of the season, the browntop millet will grow better. Fertilizers are generally not needed to achieve good stands of millet, but they can be applied as directed by a soil test if warranted. Millets can be mowed during the growing season before seed heads begin to develop. This allows the landowner to plant early enough to take advantage of soil moisture while preventing seeds from maturing and dropping too early.

MILLETS

Millets are popular plantings for waterfowl because these “crops” are relatively inexpensive and easy to grow and are very attractive to ducks. Millet is easily planted with small equipment, such as ATVs, and can grow well in a variety of locations that otherwise may not feasibly grow other crops. There are several species and varieties of millets, but two are very attractive for ducks. When burning cannot be done, we recommend heading fire to remove some of the standing stubble and litter. We often recommend that landowners plant a 50/50 mixture of Japanese and browntop millets at 20 to 25 pounds per acre. This mixture gives a higher chance for success, no matter what conditions Mother Nature provides. In a wet growing season, the Japanese millet will thrive. If conditions remain dry most of the season, the browntop millet will grow better. Fertilizers are generally not needed to achieve good stands of millet, but they can be applied as directed by a soil test if warranted. Millets can be mowed during the growing season before seed heads begin to develop. This allows the landowner to plant early enough to take advantage of soil moisture while preventing seeds from maturing and dropping too early.

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SOYBEANS

Purely from an acreage standpoint, flooded soybeans are another important crop to Mississippi waterfowl. However, we do not recommend planting soybeans solely for waterfowl because they rapidly deteriorate when flooded and provide relatively little food value for waterfowl. However, flooded soybeans can be managed effectively as part of a comprehensive waterfowl habitat management plan. As with other crops, leaving strips of standing soybeans can increase the food availability in a field. Also, avoiding spraying grass herbicides in low production areas of fields can boost waterfowl food production by allowing natural grasses to produce seed heads. When possible, harvested soybean fields can be irrigated to promote the growth of natural vegetation like wild millet. Another way to increase the food value of an early-planted soybean field is to broadcast Japanese millet over the field when the leaves begin to turn brown. When the soybeans are harvested, the millet will begin to grow and put on a small seed head if given enough moisture and time before the first frost.

RICE

Rice is a very important crop for waterfowl, particularly in the Mississippi Delta. Similar to corn, rice is high in energy that can be readily used by ducks. Also, when flooded, rice decomposes much slower than other crops. Because it is somewhat expensive, rice is typically grown in production agriculture and intended for harvest, although it is sometimes grown in small areas for a waterfowl food plot. Even when harvested, there are several methods to make rice fields more attractive for waterfowl. If feasible, leaving standing strips of unharvested rice for waterfowl can greatly increase the amount of food available for ducks. Unharvested strips can be left in areas of fields where weeds may be a problem or where rice did not grow well. When leaving strips of rice is not possible, rice stubble can be modified to attract waterfowl after harvesting. After harvest, we recommend burning rice stubble with a head fire to remove some of the standing stubble and litter left from harvest. When flooded, this creates a patchy distribution of stubble and open water that is attractive to ducks. When burning cannot be done, we recommend rolling patches of rice stubble after harvest. This also will create open areas where ducks can access the rice field. We do not recommend disking or mowing harvested rice stubble because these methods reduce both the amount of waste rice and the abundance of waterfowl using the field.

SUMMARY

Planning crops for waterfowl can be an important part of an overall habitat management strategy. However, crops cannot meet all the needs of wintering waterfowl. For more information on waterfowl habitat management, please contact us through our Web site at www.mdwfp.com/waterfowl.

Houston Havens is a Migratory Game Bird Biologist for the Mississippi Department of Wildlife, Fisheries and Parks based in Grenada. Houston works statewide helping landowners and leaseholders develop waterfowl habitat management plans.