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## BIOLOGY TECHNICAL NOTE

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### Food Plots for Pheasants and Other Birds

The following discussion is based on a presentation by Andy Gabbert of the South Dakota Game and Parks during the January 2003 Pheasants Forever 20<sup>th</sup> Anniversary convention. Other literature references and personal observation are also included.

Pheasants rarely starve to death during winter throughout their primary range. So why are food plots necessary? The answer lies in the relationship between predation, exposure, and food availability. As the winter proceeds, pheasants must venture farther from winter cover to find food. They must forage in the open as food sources and associated cover are buried by drifting snow. Even though adequate food is available, predation and bad weather take a heavy toll on birds feeding in the open. Food plots also reduce foraging energy requirements since snow cover on stubble field necessitates digging for food and modern farming techniques leave less waste grain compared to earlier methods.

Placing well-designed food plots adjacent to winter cover significantly improves pheasant survival and breeding conditions in the spring. Survival may be as low as 3% during severe winters without food plots. However, a South Dakota study during the 1990's showed that pheasants using food plots had much greater survival rates compared to populations which didn't have access to such habitat. In fact, food plots were the most selected habitat during bad weather, followed by woody cover. A close interspersion of food plots and woody cover reduces the rate of predation loss because pheasants do not have to feed in the open or travel between cover and food sources. Hens using food plots were in better condition and produced more chicks than hens without food plots.

Here are some generalities about food plots for pheasants and other birds:

- A block configuration is superior to narrow, linear food plot designs, which encourage predation.
- Food plots must be in the snow drift-free zone to be useful.
- Food plot use increases with food plot acreage.
- Food plot use increases with increasing snow cover.
- Food plot use increases near secure winter cover.
- Second year, weedy food plots tend to be used more than "clean" plots. Have first year plots available as a back-up.
- Preferred winter cover near the food plot consists of tall, rank grass. As the grass fills with snow, cattail marshes are preferred. In severe weather and snow conditions, woody cover is critical. Locate food plots adjacent to a variety of cover types to maximize habitat use.

- Food plots can increase winter survival, even during mild winters.
- Food plots will increase pheasant production the following spring.
- Sorghum and corn are excellent food plot species because they produce nutritious, abundant seed and stand up well under snow cover. Wheat, barley, millet, etc. are also used if they are protected from lodging.
- Plan for enough food plots to get the bird population through the winter. Don't leave the birds hanging part way through this critical season.
- Perennial food plots of legumes and other forbs are also valuable sources of seed as well as succulent herbage and insects during spring and summer. White-tailed deer will also utilize perennial food plots. Combine forbs such as small burnet, alfalfa, sanfoin, and birdsfoot trefoil with tall, stiff-stemmed grasses to prevent lodging of the forbs during winter.
- Examples of wildlife species benefiting from both annual and perennial food plots: pheasant, Hungarian partridge, sharp-tailed grouse, mourning dove, American gold finch, white-crowned sparrow, red-winged blackbird, Canada goose, mallard, sandhill crane and white-tailed deer.

There has been a significant increase in requests for information about food plots in recent years. This increase reflects a rising interest in wildlife management assistance among private landowners. Local Pheasants Forever chapters as well as NRCS and wildlife agency biologists can help meet this need.

Note: Pheasants Forever's Essential Habitat Guide is an excellent source of current information. Call 1-877-773-2070 if you would like a hard copy of this guide for \$4.95.