

Wheat Stubble Management

PURPOSE:

Numerous options exist for improving wildlife habitat in wheat stubble. When properly managed, wheat stubble can provide for all the needs of pheasants, as well as benefitting quail, deer, and a host of other wildlife. Unsprayed and untilled wheat stubble is particularly important to pheasants in Kansas by providing brood rearing habitat (Figure 1). Wheat stubble which has not be sprayed or tilled provides a

source of food in the form of



Figure 1. Unsprayed, untilled wheat stubble provides important cover and brood rearing habitat.

insects and seeds. It also provides escape cover and protection from harsh winter weather. The open canopy provided by wheat stubble and annual weed growth allows young pheasant and quail chicks to easily move under the canopy in the search for insects, while still providing overhead protection from predators. Short wheat stubble that is sprayed or tilled offers little to no benefits for wildlife (*Figure 2*).

SPECIFICATIONS:

- Managing wheat stubble for wildlife occurs at the time the combines first roll into the field. The most important
 part of managing wheat stubble for wildlife is to harvest wheat so the remaining stubble is at least 15 inches tall.
 Studies have shown that use by pheasants decreases as stubble height decreases below 15 inches.
- A stripper header may also be used to allow for taller wheat stubble. The use of a stripper header may double
 the height of wheat stubble. In order to benefit wildlife, taller wheat stubble will have weed composition that is
 dominated by broadleaf plants like sunflowers.
- Broad-leaved plants attract insects that pheasant and quail chicks need to survive. These plants also produce seeds for forage during the winter months. The more robust plants, like sunflowers, may also provide winter cover for wildlife.
- When wheat stubble is less than 15 inches, weed composition is dominated by annual grasses, which offer fewer benefits to wildlife.
- There are three options that will improve the value of wheat stubble for wildlife; leave whole fields or portions of the field unsprayed and untilled, delayed spraying, and cover crops.
- The best option for improving wheat stubble for wildlife is leaving stubble unsprayed and untilled. This allows for broadleaf plant growth following harvest. Allow the stubble to remain fallow until the following spring.
- Portions or strips of wheat stubble fields may be left unsprayed or untilled instead of leaving the whole field fallow.

SPECIFICATIONS:

- If strips are left, they should be a minimum of 20 feet wide, however wider strips offer more benefits to wildlife. Strips located adjacent to other cover types like CRP are most important, but unsprayed strips can be left throughout the field, or simply around the field edges.
- Delayed spraying is another option. Leave wheat stubble unsprayed until at least August 1st to allow for some broadleaf plant growth to provide necessary brood rearing habitat. If spraying can be delayed into September, use by pheasants will generally increase due to broadleaf plant growth.
- Cover crops planted shortly after wheat harvest may also provide numerous benefits to wildlife. Summer planted cover crops like sunflower, millet, safflower, sorghum, buckwheat, and clovers can provide the same benefits as unsprayed wheat stubble.
- Most summer planted cover crops will terminate after the first killing frost of fall. Leave the residue of the cover crops untilled to allow for winter cover and a winter food source.

SUMMARY:

- Harvest wheat so stubble is at least 15 inches tall.
- Leave portions of wheat stubble untilled and unsprayed until the following spring.
- If cover crops are planted after wheat harvest, let them grow until a killing frost. Leave the residue undisturbed through the winter months to maximize wildlife use.



Figure 2. Short, sprayed wheat stubble provides no wildlife habitat benefits.

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