

## **Timber stand improvement for wildlife benefits**

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Many producers and landowners in Kansas have wooded areas on their property that can provide beneficial habitat for wildlife. These forests offer protection from wind and snow, refuge from predators, and a variety of foods not found in other landscapes. While these areas might be taken for granted, they can often be enhanced with little or no loss to timber production. Properly managed forests provide habitat for wildlife such as squirrels, deer, turkey, and songbirds.

Other wildlife species such as rabbits, quail, and raptors use the forest edge (the border where two different cover types come together) and benefit from the management of these areas. For the landowner, wooded areas offer aesthetic beauty, improve water and air quality, provide valuable wildlife habitat, and offer income opportunities.

Timber stand improvement (TSI) is one option for enhancing the wildlife value of a wooded area. TSI removes inferior trees to improve the growth rate and/or quality of the best, high-valued (crop) trees. Use this practice to thin a forest by removing trees that are restricting the growth of the more valuable trees. By incorporating some of the following suggestions, wildlife and forest health will benefit from TSI.

1. Leave around seven den trees (trees with a cavity or hollow pocket) of various sizes per acre.
2. Do not remove standing dead trees.
3. Kill poor quality, low-valued trees that inhibit the growth of crop trees or those that are suppressing natural regeneration of favorable species. Deaden the undesirables and allow them to remain standing, a process called girdling. To do this, make a continuous encircling cut 1 to 2 inches deep with a chain saw; application of an approved herbicide prevents resprouting.
4. When deadening undesirable trees, chemically treat stumps of species such as honeylocust and Osage-orange. Sprouts from untreated stumps (such as mulberry, elm, oak, and walnut) provide beneficial browse and low-level cover.
5. Thin around food trees such as mulberry, oaks, persimmon, walnut, hickories, dogwood, and pawpaw.
6. Kill vines that are growing into future crop trees, but leave vines that are growing in low-value trees. Wildlife benefit from vines left in poor quality or low-valued trees, as well as those along forest edges.
7. Place thinning material into brush piles near the woodland edge or in the woods to decompose and provide habitat for invertebrates, as this may be important food for other wildlife species.
8. Remember to retain wooded buffer strips along creek channels. The Kansas Forest Service recommends leaving a strip of trees and shrubs at least 66 feet wide to protect the stream bank from erosion, enhance fisheries, and to reduce sediment and chemicals from entering the creek. Generally, wider buffers are necessary to maximize wildlife benefits.

When performing TSI work, do not aim for a park-like setting where all of the understory vegetation is removed. These ground-level plants are an important source of food and cover to wildlife.

For complete information, see Forest Management for Wildlife, K-State publication MF-2899, at: <http://www.bookstore.ksre.ksu.edu/pubs/MF2899.pdf>