

Managing Edges for Wildlife

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Edges (or **ecotones**) are areas where two habitat types meet, such as a forest and a meadow. Edges also occur between different aged patches of the same habitat type. Edges occur naturally where there are abrupt changes in soil characteristics or where fire or severe wind destroy part of a forest, but most edges are created by human activities, such as agriculture or timber harvest.

EDGES ARE IMPORTANT

Edges are unique because they combine some of the characteristics of two or more habitats. Edges are inhabited by some of the animals and plants that are characteristic of each original habitat, plus species that are specially adapted to live in edges. Therefore, edges usually have more diverse wildlife communities than unbroken blocks of habitat. This increased diversity is known as the **edge effect**. The brushy nature of some field edges provides nesting, brooding, feeding, and escape cover for a wide variety of animals. Predators often concentrate their hunting activities near edges because of the abundance and variety of prey animals that are attracted to this special habitat.

Edges are also important because they form a refuge for many soft-mast producing plants (fruits and berries) that cannot survive in mature forests or cultivated fields. Most of these plants need full sunlight to thrive and cannot tolerate the shade and competition within a forest or the repeated disturbance associated with cultivation and grazing. Soft mast is an important source of food for many wildlife species during the summer.

Soft Mast Plants	
Trees	
Plum	Mulberry
Persimmon	Crabapple
Mountain Ash	Hawthorn
Dogwood	Redbud
Honey Locust	Black Locust
Chinaberry	
Shrubs	
Greenbrier	Wax Myrtle
Blackberry	Raspberry
Dewberry	Sumac
Titi	Gallberry
Yaupon	Serviceberry
Elderberry	Autumn Olive
Strawberry Bush	Huckleberry
Passion Flower	Blueberry
	Beautyberry
Vines	
Poison Ivy	Wild Grape
Virginia Creeper	Honeysuckle

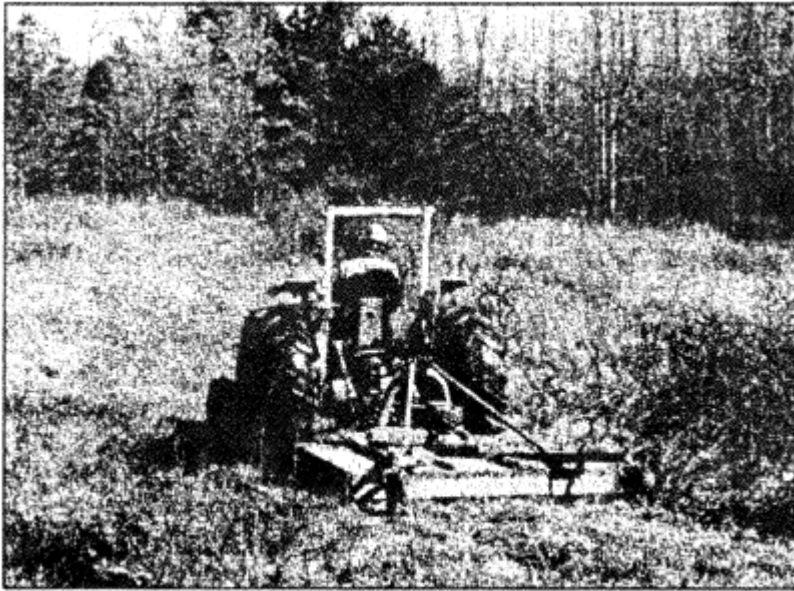
Figure 1. Soft mast plants associated with edges.

Landowners can increase the diversity of wildlife on their land by actively managing edges. Parcels of land that already have forested and open areas interspersed are excellent candidates for edge management. Below are some suggestions for increasing the amount of edge on your property:

TIPS FOR EDGE MANAGEMENT

- When harvesting timber, make several small, irregularly shaped cuts to increase the amount of edge
- Retain strips of forest along streams for water protection and for wildlife travel lanes
- Leave about 5% of recently harvested areas untreated to provide brushy edges
- When possible, allow fingers of native vegetation to creep out into open areas
- Allow native vegetation to take over fencerows, terraces, roadsides, and field borders

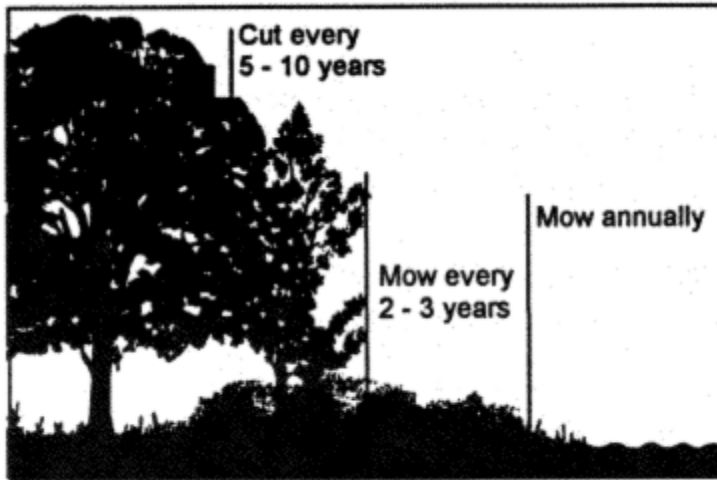
- Plant trees and shrubs to speed up the development of cover along edges
- Plant wildlife travel lanes (corridors) or hedgerows to connect large forested areas where edge is limited
- Create brush piles in pastures, clearcuts, and other open areas
- Cut and leave large trees on field edges to provide cover



Successful edge management involves periodic mowing and disking.

Figure 2. Using a tractor and mower for edge management.

Although active edge management can increase wildlife diversity on small landholdings that are a mosaic of open and forested areas, it should not be used on tracts of contiguous forest larger than 200 acres. Such large, unbroken forests are vital for maintaining populations of forest interior songbirds, which have declined greatly in recent decades because of forest fragmentation. Edges that protrude into extensive, unbroken forested tracts can provide a pathway for aggressive competitors and predators, like the brown-headed cowbird, raccoons and opossums, that can severely impact forest interior songbirds.



Schedule for maintaining forest/field edge

Figure 3. Schedule for maintaining forest/field edge.

MANAGING EDGE VEGETATION

- Mow or disk low vegetation nearest the open area every year
- Mow or disk medium-height vegetation midway between the open and forested areas every two to three years
- Mow or cut tall shrubs and saplings nearest the forest on a rotation of 5 to 10 years
- For the medium and tall levels, do not perform maintenance on more than one-third of an area in the same year
- Avoid edge maintenance from April to August, the period when many edge species are nesting

When considering edge management on your property remember that there are some definite tradeoffs associated with edge management, namely, impact on interior forest species, increased predation, crop loss, and increased management costs. Still, edge management can be very beneficial in enhancing habitat and wildlife species diversity. Consult your local wildlife biologist to discuss the merits of edge management for the target species on your property.

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