

FIELD BORDERS AND CORRIDORS

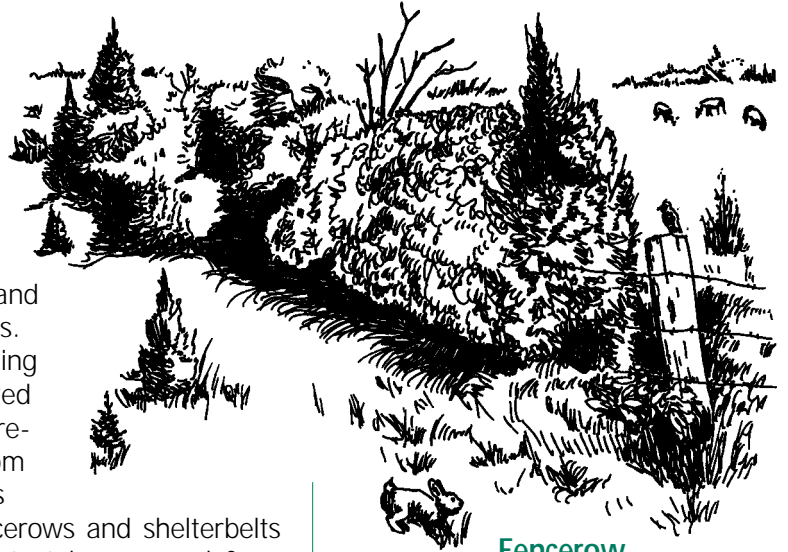


Vegetated fencerows, farm lanes, field borders, roadsides, ditch banks, shelter belts, and other linear features of the rural landscape can provide key habitat for many species of wildlife. These strip-type covers often lie next to large nesting and feeding areas, they provide edge habitat, and they give wildlife secure travel lanes between unconnected habitats. Pheasants and rabbits escape into the thickets that often grow there. Wild turkeys, ruffed grouse, cardinals, and chickadees regularly feed on the fruits and seeds found along fencerows.

Naturalized field margins are species-rich sanctuaries for worms and other invertebrates and are important for the conservation of overall species diversity in croplands. Tree corridors improve habitat for birds, both as breeding territories and as feeding zones for migrants and residents. Corridors also serve as environmental filters, windbreaks, and streambank stabilizers. When snow is driven by

west winds, fencerows and buffer strips that are oriented north and south keep snow on the land and out of ditches. Gradual melting of accumulated snow later prevents soil from drying out as quickly. Fencerows and shelterbelts may also protect houses and farm buildings from harsh weather conditions, decreasing energy needed to heat in winter and cool in summer.

If you have such field borders and corridors on your property, consider enhancing them for wildlife. As travel lanes, the best fencerows are at least 30 to 50 feet wide and contain a mix of fruitbearing shrubs, conifers, and ground covers such as goldenrod, and aster along with weeds such as foxtail, ragweed, and smartweed. Other corridors may include sumac stands, piles of brush, and other micro-habitats of woody vegetation such as grapevines, blackberry, and dogwood. Wider is usually better, but any corridor is better than none at all. Selective cutting, prescribed burning, and planting of low-growing trees, highbush cranberry, silky and gray dogwood, nannyberry, crabapples and other shrubs can rejuvenate fencerows.

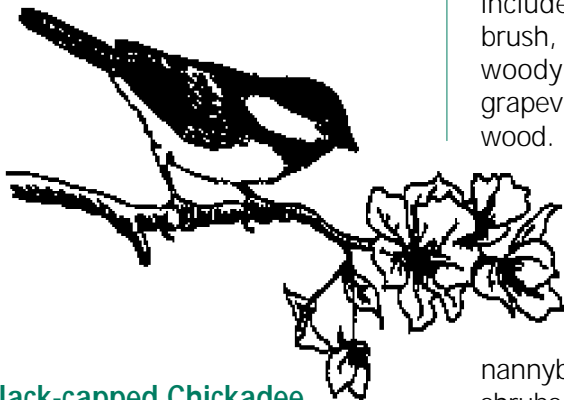


Fencerow

These and other plants can be purchased through your county Conservation District and local nurseries.

Fencerows

In heavily farmed areas of Michigan, such as the thumb region, fencerows offer one of the last traces of wildlife habitat. Clear farming practices have removed fencerows or reduced their width and eliminated their weedy and shrubby vegetation. Many people do not realize how important fencerows are to wildlife. Results show that 12 different bird species use herbaceous fencerows. When the fencerows contained scattered trees and shrubs, the number of bird species increased to 38. Those planted to continuous trees and shrubs attracted 48 species. Similarly, Michigan researchers found the density and diversity of bird nests increased as the number



Black-capped Chickadee

of fencerow shrubs increased because the shrubs added habitat variety through layers of understory structure.

Vegetated fencerows that are 30 feet or wider lessen the impact of predation, especially on ground-nesting birds, and increase the opportunity for habitat diversity. Selective mowing, cutting and burning can increase the habitat mosaic, giving wildlife varying heights and densities of vegetation, especially grass. On the other hand, protecting the fencerow from grazing or burning encourages development of shrubs. Piling rocks and stones from adjacent fields along the fencerow gives reptiles and small mammals a place to hide. Planting or preserving trees provides opportunities for birds to nest and to rest. They also give hawks and owls perches. The management practices you employ will either encourage or discourage certain wildlife species, and that is why the wise landowner has an overall management plan.

Hedgerows

Hedgerows, which may contain trees, shrubs, or a mixture of both, grow naturally along fences that are protected. Where there are no fences, hedgerows can be created. Set fence posts in a line or staggered every 20 feet down the center of a plowed strip. String wire or twine about three feet high between the posts so they can serve as bird perches. Bird droppings are usually full of viable seed, and the plants from such deposits will often grow as fast as those from rootstock. Hedgerows protect farm fields from wind and water erosion, they provide borders for farmland that may be adjacent to your property, and they attract wildlife by providing

secure travel corridors. Some people plant hedgerows to draw deer and other wildlife to their backyards where they can be observed.

If hedgerows do not already exist on your property, create them by planting shrubs or a shrub-conifer mixture. Consider locating the hedgerows across big, open fields, along present fencerows, in gullies, along streams, and around ponds, springs, food patches, nesting and breeding grounds, and other well-used wildlife sites. After site preparation, plant shrubs eight to ten feet apart. Plant evergreens (conifers) at the rate of one per every eight to twelve feet. Shrub rows should be spaced eight feet apart and conifer rows 10 feet apart to provide contiguous cover in eight to 12 years. A hedgerow with one row of conifers and two of fruitbearing shrubs will provide a strip that is 20 to 25 feet wide. Plan on thinning the conifers at 10 to 15 years of age. For hedgerows containing shrubs only, at least four rows spaced eight to ten feet apart should be planted in early spring and weed control should be used for the first three years. Control the weeds manually or with a selective

herbicide or use mulches or clippings. Protect from fire and grazing.

Some of the most effective hedgerows are those planted on south-facing slopes. For a second choice consider east- or west-facing slopes. On level ditch banks, planting the north and west edges will be most effective. If your plan is to divide a large field, exposure to the southeast works best. On slopes exceeding four percent, separate hedgerow and row crops with a six-foot wide border of sod. When planted across a natural waterway, space the shrubs and trees wide enough to allow a vigorous understory of grass and forbs to develop.

Roadsides

Roadsides offer one of the best opportunities for habitat management because at least 40 species of wildlife use the associated grasslands. Species include pheasants, quail, mallards, goldfinches, meadowlarks, mourning doves, cottontails, and woodchucks. Although the acreage of roadside along a mile of road may seem small, collectively the figure in Michigan is at least several hundred thousand acres.



Hedgerows may contain a mixture of trees and shrubs.

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Unfortunately, such habitat becomes a death trap for many nesting birds and mammals since most landowners mow or spray their roadsides throughout the nesting season.

The key is to curtail mowing, at least until July 15 when birds have had a chance to complete nesting and brood rearing broods. When weed control is necessary, use spot mowing or spot spraying. To improve visibility for drivers, highway shoulders should be mowed 12 feet wide or not past the ditch. After July 15, clipping the grass to a height of 10 or 12 inches will leave nesting cover for the following spring. To establish grasslands along roadsides, consider planting a mixture of native warm season grasses (little bluestem, big bluestem, switchgrass, Indiangrass) or a cool season grass mixture (timothy, orchardgrass).

Shelterbelts

Creating shelterbelts around farm homes and outbuildings keeps snow out, cuts wind erosion, and provides a cooler environment in the summer and warmer environment in the winter. They also reduce livestock feed costs and increase crop production. Wildlife benefits include nesting, rearing, roosting, and escape cover. Mourning doves and other songbirds nest in evergreens of the shelterbelt, which also provide food and protection from predators. A study found an average of 22 bird nests per shelterbelt, which averaged less than two acres each in size. Species, which are native to Michigan, included grackles, mourning doves, robins, gray catbirds, chipping sparrows, blue jays, black-billed cuckoos, Brewer's blackbirds, indigo buntings, brown thrashers,

goldfinches, yellowthroats, and red-winged blackbirds.

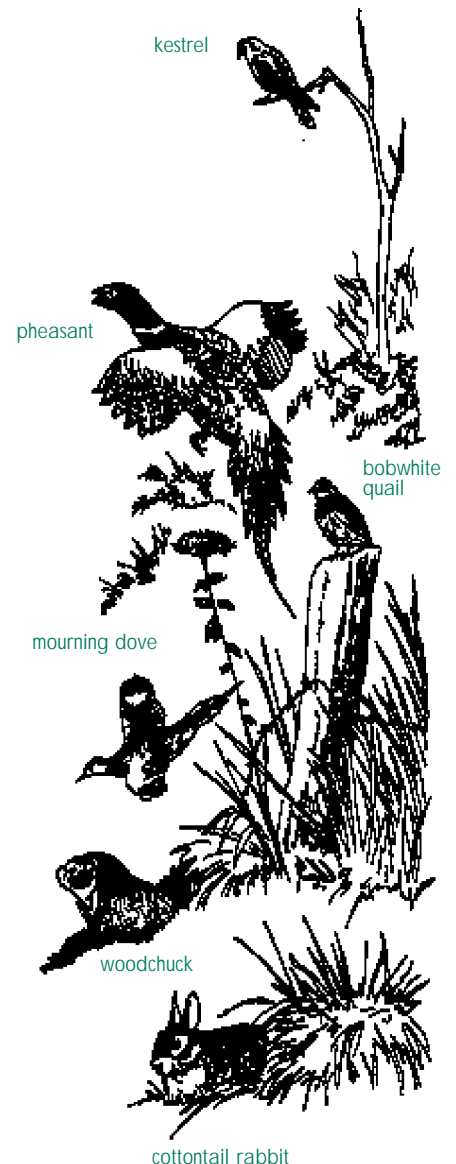
The porosity of a shelterbelt determines how effective the shelterbelt is. Wind that encounters resistance either sifts through the resistance or sweeps up and over or both. Once it reaches the other side of the resistance, the wind begins to gather strength again. How densely you plant shrubs and trees in the shelterbelt itself determines how effective it will be at stopping wind and checking drifting snow. Shelterbelts with close-growing trees and shrubs contribute to unnecessary drifting in the farmyard. They also have a shorter life span than more porous designs.

Four rows each of deciduous trees (non-evergreens) and conifers (evergreens) make good shelterbelts when planted 20 feet apart in rows that are 20 feet apart. Locating the taller deciduous trees on the outside (windward side) of the shelterbelt will help achieve the primary purposes of protection and long life. Placing two additional rows of black cherry, black walnut, butternut, chokecherry, hawthorn, hickory or oak in the center (between rows 3 and 4 and 4 and 5) will help provide wildlife food and homes. To provide even more food and cover, add one to three rows of chokecherry, red-osier dogwood, gray dogwood, Juneberry, highbush cranberry, elderberry, crabapple and American or beaked hazel.

Keep several features in mind as you develop a farmstead shelterbelt:

- The innermost row should not be too close to the house, barn or feedlot. Close spacing can cause problems with drifting snow and reduce other ben-

efits. Your county Natural Resource Conservation Service office (NRCS) has detailed advice to consider, including what tree and shrub species are best suited to the soils and special conditions on your land. NRCS personnel can also advise you on proper spacing of trees and shrubs.

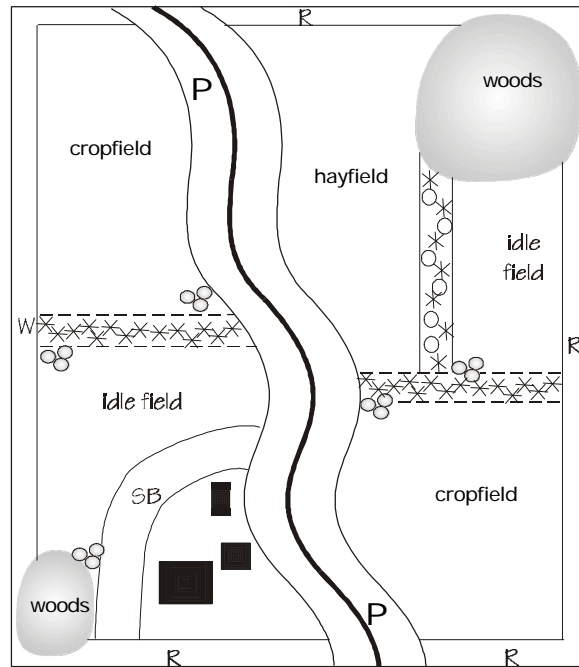


Varying heights and densities of vegetation attract a variety of wildlife.

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40 acres

Existing features	
	Road
	House & yard
	Stream
	Permanent grass strip
Habitat projects	
	Shelter belt
	Windbreak
	Roadside for wildlife (wider, no mowing)
	Rockpile
	Fencerow (grass, trees, shrubs)
	Hedgerow (shrubs, conifers)



This map is an example that demonstrates the many management options discussed throughout this chapter. The option(s) you choose should depend not only on your goals, but the location, condition, and present use of your land.

- Avoid planting under or near powerlines or other utilities. If this plan is not possible, consider using shorter-growing trees and shrubs.

- Do not create driving hazards or other obstructions that will deposit snow on highways or blind corners. Locate the downwind row of any shelterbelt no closer than 100 feet north or west of a road or rights-of-way.

- The shelterbelts should extend at least 50 feet and preferably 100 feet beyond the

last main building at the east and south ends of the farmstead to provide maximum protection from snow drifting. Rows of trees should be spaced 20 feet apart. In order to be effective, a farmstead shelterbelt may require an area from 200 to 225 feet wide.

- You can simplify the establishment of a new shelterbelt by maintaining conifer seedlings in plastic containers for a couple years until they are at least two feet tall. When planted, they will compete better with weeds and save initial herbicide costs. Also, container stock grows two

to three times faster, when planted properly, than bare root stock.

- Order about five percent more trees and shrubs than are needed. Excess plants that aren't used for replacement can be planted elsewhere and transplanted back into the shelterbelt later if needed.

In summary, field borders and corridors not only provide a variety of benefits to wildlife, but also provide numerous benefits to you, the landowner. Enjoy watching and helping wildlife thrive in these areas around your home.

FOR ADDITIONAL CHAPTERS CONTACT:

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Private Land Partnerships: This partnership was formed between both private and public organizations in order to address private lands wildlife issues. Individuals share resources, information, and expertise. This landowner's guide has been a combined effort between these groups working towards one goal: Natural Resources Education. We hope this guide provides you with the knowledge and the motivation to make positive changes for our environment.

FOR ADDITIONAL ASSISTANCE: CONTACT YOUR LOCAL CONSERVATION DISTRICT