

## EASTERN COTTONTAIL RABBITS



**F**ound throughout the state, eastern cottontail rabbits are most common in southern Michigan landscapes with abundant edge habitat. An edge is the area where two different habitats meet, such as a field and a forest. Cottontails are edge-dependent, and they require a large mix of habitats including sparsely forested areas, brushy thickets, dry and grassy wetland edges, hayfields, grassy cornfields, brushy fencerows, and to the concern of fruit and vegetable growers, densely planted orchards and gardens.

Rabbits need a good supply of food and cover throughout the year. Without an adequate source of food they will turn to landscape plants, and may cause considerable damage. They also need adequate winter and escape cover. This cover includes protected woodlots, rock or brush piles, hollow logs, shrub thickets, low-growing evergreens, woodchuck holes, and other abandoned dens. Here, they hide from predators and seek shelter from bad weather. Distinct "runways" sometimes lead to and from these hiding places. Corridors of cover, such as brushy fencerows or grassy strips that link larger

habitats, will also help to increase cottontail numbers. The corridors need only be five to fifteen yards wide.

Although the cottontail's home range may vary from one to sixty acres, it is typically small, averaging six to eight acres for males and two to three acres for females. Young rabbits may move two or three miles in an effort to find suitable habitat, and once they find it they lead a fairly solitary life.

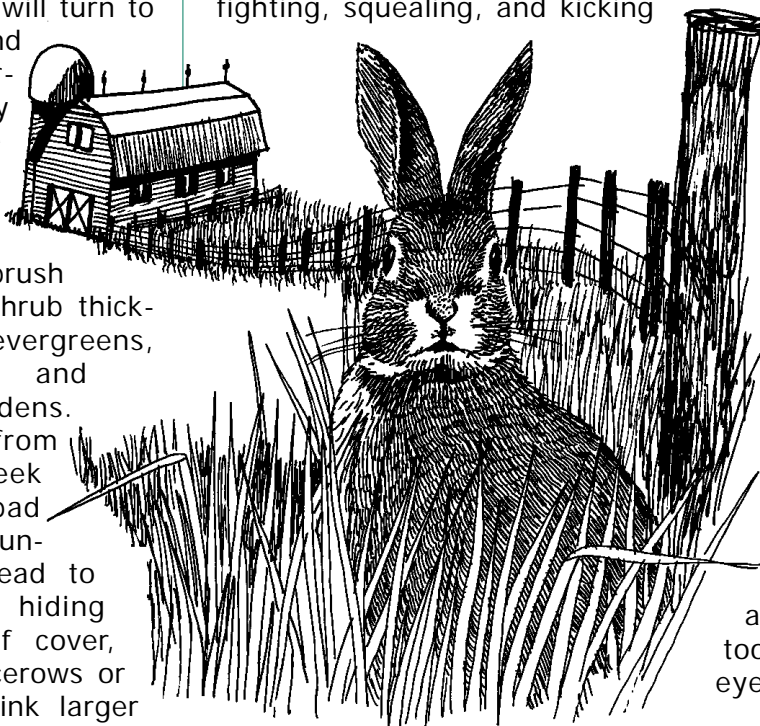
### Life Cycle

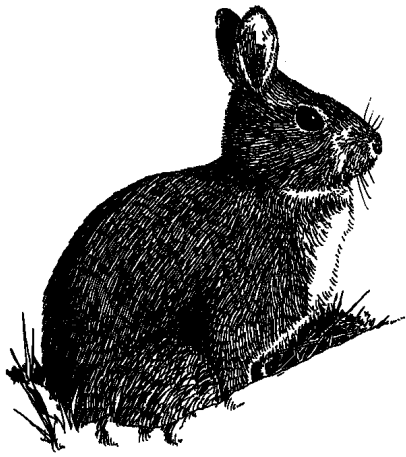
Cottontails may begin mating as early as February and continue through September. Courtship is best described as a "frolic" of racing, jumping, fighting, squealing, and kicking

animals. Dominant males drive off competing bucks for the right to breed. People often mistake the scattered bits of hide and fur resulting from these battles as predator kills.

Cottontail rabbits are very prolific. The average production is three or four litters a year, with four or five young per litter. However, many of these do not survive. The number of young that survive is largely a function of habitat quality; especially the availability of food and shelter within this habitat. Females typically mate again soon after their young are born. The number of times she renests is dependent upon her health and the weather.

First litters usually occur in early April in grassland areas. The mother scrapes out a nest that is four to six inches deep and three to five inches wide. She lines this small, shallow depression first with grass and then with fur from her own body. The young, which weigh only about one ounce and measure four inches in length, are born blind, naked and almost totally helpless. The offspring grow rapidly, and in only 10 or 12 days are too large for the nest. Their eyes are then open and





they begin to forage for grass, clover, and the buds, sprouts, and shoots of woody plants. Mature at four months old, some young cottontails from early litters may breed in their first year of life. Most, however, do not breed until the following spring.

## Seasonal Foods

### Winter

Winter is the most critical time period for rabbits. When they have to forage far, they become vulnerable to predation. The rate of exposure increases when snow covers the ground because the cottontail does not turn white in winter, as does its larger cousin the snowshoe hare.

If snowfall is persistent, rabbits must shift from tall grasses and other herbaceous foods to agricultural crops and woody foods such as raspberry twigs, stems of wild rose and the bark of sumac. Highbush cranberry, silky and gray dog-

wood, thornapple, and other planted shrubs will supplement their winter diet. Mixing these shrubs with spruces, junipers, jack pine, Canada yew, balsam fir, black or white spruce, hemlock, or other conifers which retain their lower branches will increase protection. Half-acre food patches of corn or grain sorghum will provide high energy food.

### Spring and Summer

Cottontails are animals with constantly growing incisors specially adapted for ripping and gnawing vegetation. Opportunistic vegetarians, cottontails depend on succulent green plants for nutrition and water. However, they will also drink free-standing water when it is available. During spring and summer, their main fare is green plantlife, and they are especially fond of legumes (alfalfa, clover, peas and beans), grasses, dandelions, and domestic garden vegetables.

A mixture of legumes and grasses (timothy grass and orchardgrass), along with tall native grasses such as switchgrass provide food and cover throughout the spring and summer. Clovers such as ladino, medium red, alsike, white dutch, and sweet, mixed with grass, create optimal forage areas for rabbits as well as deer, and are also used as

brood sites for pheasants, quail, turkeys, and songbirds.

### Autumn

Food and cover change dramatically as the growing season wanes. Cultivated grains ripen, trees and bushes lose their leaves, and lush grasses turn brown and become less palatable causing rabbits to turn to cultivated crops of corn, soybeans, apples, and other fruits. Clovers are also a good autumn food source since they stay green late into the fall.

## Brushpiles

Brushpiles provide a hiding place from ground predators (dogs, foxes, coyotes, mink, and weasels) and give rabbits thermal protection during cold weather. Brushpiles should be placed away from the tall edge of the woodlot and closer to an open food source. Doing so denies avian predators (hawks and owls) a perch from which to launch their attack.

The best brushpiles are five feet high and 15 feet wide (about the size of a small car) and have more than one entrance/exit. Build a base of large logs or stumps or use nondecaying materials such as stones, at least six inches in diameter. Criss-cross a second layer of 12-inch diameter logs, and then add a third criss-crossed layer of 6- to 10-inch



diameter logs. Brushpiles can be placed 20-30 yards apart. Succeeding layers become smaller in diameter. Built in this manner, the brushpile should last for several years. As the material decays you can add fresh layers.

For additional cover place live-lopped trees on top of the pile. Live-lopping is the practice of cutting a tree trunk on a 30-degree angle three-fourths of the way through. The tree should be growing next to the brushpile. The best candidates have large side branches and are four to eight inches in diameter. If you make the cut about three feet from the ground, the tree will fall over the brushpile. Because the tree will not be severed, its branches may continue to provide green cover for several years.

Winter is a good time to build brushpiles from tree-cutting operations on your land.



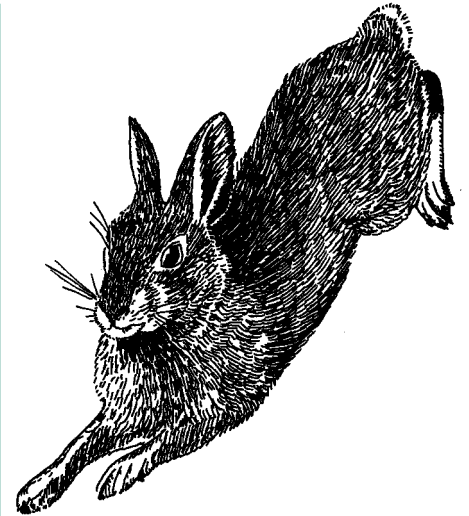
Diagram of a brushpile.

The tops and branches of felled trees make for a ready supply of material. As you thin your woodlot, build a series of brushpiles on the border with an open grass field or grain field. If you don't plan to thin trees throughout the stand, consider felling those immediately next to the open area so as to create favorable edge habitat and to have materials for building brushpiles. Brushpiles in areas with dense saplings or shrubs make outstanding rabbit habitat.

## Management Considerations

The following are options to consider when managing for eastern cottontail rabbits:

- Maintain a large amount of edge (a mix of woodlots, brushlands, and grasslands) as rabbits are edge-loving species.
- Provide an adequate source



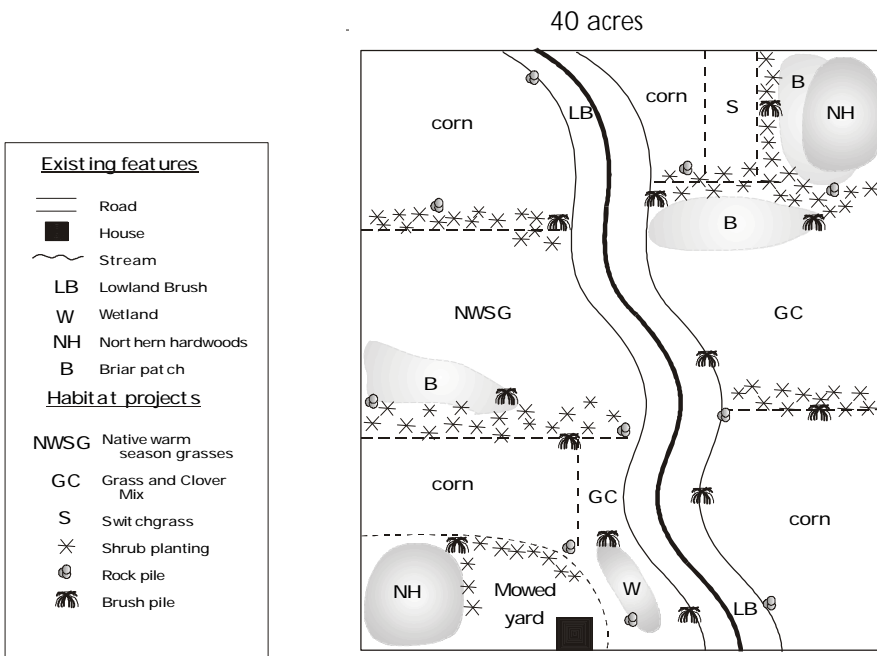
of year-round food (shrubs, grasses, legumes, and grain plots) next to cover (woodlots, rock or brush piles, hollow logs, shrub thickets, and low-growing evergreens).

- Do not plant food patches directly next to woodlots. Instead, provide a buffer strip of shrubs between the food source and woods. Make this buffer strip at least fifty yards wide, and be sure to include some brushpiles.

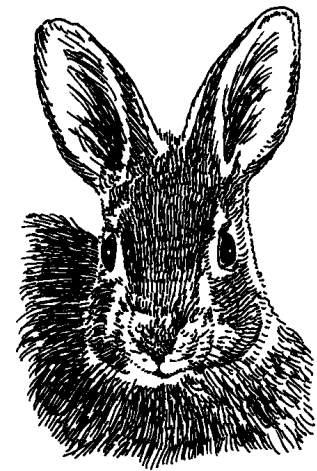
- Plant grasses at least 50 yards wide next to escape cover that contains denning sites, brushpiles, and hedgerows at least 60 feet wide. Grasses will provide food throughout the spring and summer, and if tall grass cover is available in autumn, along with a good food supply, rabbits will go into winter in healthy condition.

- Allow fallow croplands to develop brush. Croplands are not essential to rabbits; however, the habitat created by fallowed or abandoned croplands, with its briars and

# RABBITS



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.



brambles, provide excellent habitat.

## Concerns

No matter how we manage our property for wildlife, our decisions will always have impacts. For example, if you plant grasses and clovers to encourage rabbits and deer to use the habitat, you will discourage forest-loving wildlife such as thrushes, woodpeckers and squirrels. Cutting trees for brushpiles will eliminate former habitat where turkeys, squirrels, and wood thrushes once lived.

You should be aware that creating or enhancing habitats may invite unwanted guests. For example, if you plant trees and shrubs you will most likely lure deer, rabbits and mice that can become a nuisance by eating the new plantings and even killing them. Rabbits can have a tremendous detrimental impact on woody plant regeneration and establishment. Free-roaming dogs and cats may also be attracted to any habitat that suddenly has an abundance of wildlife. Rabbits are a key prey species for many predators, including these domestic pets.

### FOR ADDITIONAL CHAPTERS CONTACT:

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