

Brush Piles

Few wildlife management practices can provide a more important part of wildlife habitat for the amount of effort as brush piles. In just a few minutes, a person may construct a place suitable for wildlife to escape from severe weather and predators, as well as a place to rest or raise their young. The main benefactor of brush piles is most often thought to be rabbits. While it is true that rabbits will readily use them, brush piles are also havens to box turtles, fence lizards, songbirds, small rodents and other mammals as large as black bears.

The term “brush pile” is commonly understood to be a pile of limbs arranged to permit entry of small wildlife to the exclusion of larger animals that may prey on them. Brush piles are not necessarily made of trees, limbs or brush. Scrap building lumber, wooden pallets, rocks, concrete blocks, plastic pipe, clay tiles or old culverts may also be used though some landowners prefer the “natural” appearance of brush or field stones.

The species of wildlife that will use a brush pile is determined by the type and/or size of material used in construction and the arrangement of those materials. For example, a pile of bowling-ball sized rocks would be a likely place for chipmunks or fence lizards, but the relatively small spaces between the rocks would exclude larger animals, while the careful placement of stones may provide a larger entrance and cavity.



Figure 1. Brush piles provide excellent sources of cover for many species of wildlife.





Brush piles may be built using material removed from woodland trails or while clearing fields of stones or limbs from storm damaged trees.



Figure 2. Brush piles placed at the edge of a forest opening provide excellent cover to complement whatever planting goes into the opening.

Where should brush piles be built?

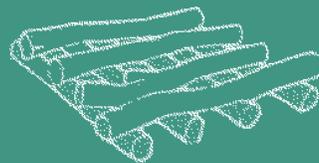
The location of brush piles may be more a matter of personal preference or convenience of the landowner than the needs of wildlife. However, there are also some practical considerations to choosing a site. Although the even distribution of brush piles throughout a property would be most beneficial to wildlife, there are some places landowners may choose not to build them. Since rabbits, skunks, groundhogs and other rodents will utilize brush piles, it may not be a good idea to create them near a home where these species may create problems for lawns, vegetable gardens or ornamental plants and house foundations. Logically, a farmer would not want to build a brush pile in the middle of a crop field either. Where, then, should they be built?

Construction of brush piles can easily be done during the maintenance of woodland trails or while picking up tree limbs that have fallen into fields. It is practical to pile the brush near where it is being collected or cut, such as in the woods next to a woodland trail or just inside the woodland edge next to a field. Most farmers would choose not to put brush piles in fields to be used for agricultural purposes such as hay or row crops, but they could be built in pastures without conflicting with livestock production or field maintenance. If placed in pastures, brush piles should be fenced* from livestock or, better still, constructed within a cover thicket*. If not

placed in fields, brush piles would greatly benefit wildlife if constructed in the corners of fields, field borders* or buffers, streamside management zones* and fencerows.

In native warm season grasslands, it is unadvisable to create brush piles made of combustible materials such as trees, limbs, brush, wooden fence posts or wooden pallets. This is because these grasslands may someday be managed by prescribed burning* which would destroy the brush pile you created for wildlife. There are, however, a few alternatives. A brush pile built using wooden materials may be protected from prescribed burning by surrounding it with a 10 foot wide strip of clover (see Legumes*) or by mowing* around it just prior to the burn. Another alternative is to construct brush piles in native grassland stands out of materials such as stones, concrete blocks, clay tiles or construct in-ground dens. These type of structures can withstand fire and decay, making them much more permanent than those made of logs, limbs or brush.

Figure 3. Construction of brush piles showing base construction methods



Log base

(A - C. Dotted lines indicate additional brush)

A. Log base w/brush



B. Boulder base w/brush



C. Log/boulder combination base w/brush



What kind of brush pile should I build?

Several of the commonly used types of brush piles are described below:

1. Brush piles made of tree limbs or brush

Construct by placing 4 or 5 large (6" to 12" diameter) and fairly straight limbs or posts on the ground parallel to one another with about 12" spaces between each. Criss-cross similar sized and number of limbs on top. Smaller limbs should be added to the top. The final product should be 15 to 20 feet in diameter and 3 or 4 feet high.

Build this type:

- in woodlands along woodland trails or the edges of fields.
- in the center of cover thickets*
- in areas not maintained by prescribed burning*



Do not build brush piles using combustible materials in areas to be maintained by prescribed fire.



Figure 4. Exits and hollows should be constructed with the base layer of stone and covered with two to three layers to be effective.



Figure 5. This rock pile makes an excellent long term brush pile which could allow management by burning.



Think big when it comes to brush piles. A few large brush piles are much more beneficial than many small ones.

2. Rock piles or other non-combustible “brush piles”

Construct using rock, concrete blocks or clay tiles. Create the first layer of stones or blocks leaving several hollow areas inside and providing at least 3 exits 4 or 5 inches wide. Stack stones or blocks as a second layer to cover the exits and protect the hollow areas below. A third and fourth layer may be used to provide additional protection. The openings in short sections of clay tiles may be used in the first layer as exits. If desired, the stones may be neatly fitted and mortared to create an attractive, long-lasting structure.

Build this type:

- in fields being maintained by prescribed burning.
- where a “neat” appearance is desired
- where nearly permanent structures are desired.
- where stones are readily available.

3. In-ground dens

Though not really considered a brush pile, in-ground den structures may be built by burying wooden boxes, concrete or plastic septic field distribution boxes or even 5-gallon buckets and providing at least two 4 or 5 inch drain pipe exits. Do not construct these in wet soils, low-lying areas, or areas prone to flooding.

Build this type:

- in fields being maintained by prescribed burning.
- where the appearance of an above-ground structure is undesired.
- where long-lasting structures are desired

4. Windrows of trees

These structures are sometimes created during the clearing of woodlands or logging operations. When working on sloping lands, pile trees to create windrows at the bottom of the slope to reduce soil loss from opening. Leave 10 feet wide openings or gaps in windrows every 50 yards. Do not burn windrows as they provide valuable wildlife habitat.

Build this type:

- in areas where trees are being cleared using a bulldozer.

5. Living brush piles

Cedar trees, 4 to 6 inches in diameter, may be partially cut through the trunk or “hinge cut” in a manner that allows the tops of the trees to rest on the ground while remaining connected to the root system. If done correctly, the top of the cedar provides cover for small wildlife. Cut several cedars to fall to a central point with the tops all touching.

Build this type:

- in areas where 4 or 5 cedars grow closely together.
- in areas that will not be prescribed burned.

How big should a brush pile be?

A good rule of thumb is that if the brush pile does not provide shade, protection from rain or snow or if you can easily see or reach the animal you are trying to protect, then the brush pile is too small. Brush piles made of tree limbs should generally be 15 to 20 feet in diameter and 3 to 5 feet high. If made of more durable and protective material such as stones, the structure may be as small as 4 or 5 feet in diameter.

Maintenance

Brush piles made of trees, limbs or other wooden materials will not last forever. Over time they will rot and collapse. It is not worthwhile to attempt to reconstruct another brush pile at the original location. It is much better to build another one nearby and before the first one has lost its usefulness. Depending on the size and type of material used, a brush pile may remain functional for 10 years or more. Well-made rock piles would certainly last much longer. Plan ahead and keep a good number of brush piles available for wildlife at all times.

Conclusion

Cover is the portion of habitat most crucial for many Kentucky wildlife species, and brush piles create suitable cover for many kinds of wild animals. Therefore, there is no such thing as too many brush piles. The only limiting factor is your desire to build them. Be creative when choosing how, where and from what materials you make this important component of good wildlife habitat. Your main concerns should be that you like the location and appearance of it and that it provides the necessary habitat for wildlife.



These small trees are only partially cut through and will continue to live for some time.



Low limbs can be broken and bent to the ground.

SUMMARY OF OPTIONS:

Material used to build brush piles

Trees, tree limbs, scrap
lumber, pallets, rocks,
concrete blocks, plastic
pipe, clay tiles, culverts

Location of brush pile

Along woodland trails,
in woodland edge near
fields, in cover thickets,
field corners, buffer zones,
fencerows and streamside
management zones.

Types of brush piles

Tree limbs, Rock pile, In-
ground den, Windrow,
Living brush pile

Size of brush pile

Maintenance

*Related *Habitat How-To* references:

Prescribed Burning
Native Warm Season Grasses
Cover Thickets
Forest Openings
Fencing
Streamside Management
Field Borders and Filter Strips
Nesting Structures
Legumes
Edge Feathering
Timber Stand Improvement
Wildlife Corridors

Planning for My Property



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