



Downed Tree Structures



PURPOSE:

Shrubby escape cover is often a missing habitat component for bobwhite quail in fields managed for early successional wildlife. Downed tree structures (DTS) provide an immediate temporary source of woody cover in areas where shrubby cover is lacking. Longer lasting benefits of the DTS can be achieved by incorporating shrub plantings. In the winter, quail rarely travel further than 80 feet from shrubby cover. The location and quantity of shrubby cover can determine how much of an area will be available for use. By the addition and distribution of DTS

throughout large grassland fields, the amount of available habitat for quail will increase. To be effective, place DTS within or adjacent to early-successional vegetation such as managed wildlife friendly grasses/legumes/forbs, field borders, food plots, or cropland.

SPECIFICATIONS:

- Create 0.1 acre to 1.0 acre of dense woody cover per 5-40 acres of wildlife friendly habitat. The minimum size of a downed tree structure is 30'X50' for a total of 1500 square feet in size. It takes three downed tree structures of this size to equal 0.1 acre. For optimal quail habitat, the downed tree structures should be no more than 150' apart and be placed next to early successional vegetation such as managed wildlife friendly grasses/legumes/forbs, field borders, food plots, or cropland. Choose a minimum of 8 well-branched, durable trees that are at least 20 feet in height (do not count the unbranched trunk), and have a trunk approximately 10 inches wide at breast height. When complete, the interlaced branches will cover at least 1500 square feet. DTS's can be further enhanced by half-cutting trees which is the practice of cutting 1/2 to 2/3 of the way through the trunk leaving a hinge attached so the tree falls over yet remains alive. This creates a living brush pile. If vines such as wild grape or green briar are present, they will eventually cover the brush pile further improving its effectiveness.
- Downed trees should not be pushed into dense brush piles. These structures are intended to be "open" to allow space for the movement of quail and other upland wildlife within the structure. Simply drag the downed trees to the desired location and place in a loose arrangement. Oak, hickory, cedar, and Osage orange make good downed tree structures. Elm, cottonwood, and willow do not make good downed tree structures.
- Kill existing grass (regardless of type) with an approved herbicide before installing downed tree structures. This provides good growing conditions for annual food plants and shrubs which keeps the structure free of thick grasses that will impede movement of quail and other wildlife.
- Downed tree structures should be used to enhance new shrub plantings or placed in large fields or field borders with inadequate shrubby cover. For additional benefits plant shrubs such as American plum, fragrant sumac, rough leaf dogwood, blackberry and indigo bush in and around structures.

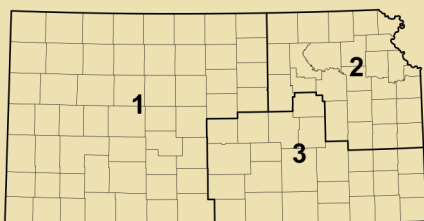


Ground level view. Note overhead protection and openness.

MAINTENANCE:

- Use herbicides to suppress invasive vegetation and to control noxious weeds.
- Over time downed trees will eventually deteriorate. Enhance by periodically adding more downed trees.
- Protect downed tree structures from prescribed burning by disking or mowing firebreaks around each structure prior to the prescribed burn.

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