

## **DOWNED TREE STRUCTURES PROVIDE IMMEDIATE WOODY COVER FOR BOBWHITE, OTHER GRASSLAND BIRDS AND UPLAND WILDLIFE**

### **PURPOSE:**

Shrubby/woody escape cover is often the missing habitat component for bobwhite quail in fields managed for early successional wildlife. Downed tree structures provide an immediate temporary source of woody cover in areas where shrubby cover is lacking. Longer lasting benefits of the downed tree structures can be achieved by incorporating plantings of new shrubs. In the winter, quail rarely travel farther than 80 feet from shrubby cover. The location and quantity of shrubby cover can determine how much of the area will be available for use. By the addition and distribution of downed tree structures throughout large grassland fields, the amount of available habitat for quail will increase. To be effective, place downed tree structures 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 downed tree structure is 30'x50' and 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.

Downed trees should not be pushed into dense brush piles. These structures are intended to be "open" in order 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. Maples, osage orange, ash, honey locust, buckthorn, and sweetgum are preferred species to make downed tree structures. While other species,



Downed Tree Structure – Photo by NRCS MO

like oaks, hickories, and cedars make good downed tree structures, avoid using them and other valuable nut and fruit producing trees unless there is an abundance of them. Elm, cottonwood and willow do not make good down tree structures.

Kill existing grass (regardless of type) with an approved herbicide before establishing downed tree structures. This provides good growing conditions for annual food plants and shrubs and 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 shrub dogwoods, American plum, blackberry, indigo bush, or aromatic sumac, in and around structures. A mix of plants provides greater vegetative diversity.

### **OPERATION AND MAINTENANCE**

- Exclude livestock from downed tree structure.
- Use herbicides on a spot basis to suppress invasive vegetation and noxious weeds.
- Periodically add more downed trees to the structure as the pile deteriorates.
- Protect downed tree structures from prescribed burns by disking firebreaks around each structure prior to burn.

## Downed Tree Structure - Specifications Sheet

Client		County		Date	
Farm No.	Tract No.	Field No.	Planned Date	Date Installed	

**Establishment:**

- ✓ Establish \_\_\_\_\_ 30' x 50' downed tree structures.
- ✓ Kill existing grass with an approved herbicide before installing downed tree structure.
- Plant \_\_\_\_\_ shrubs within or adjacent to each downed tree structure
  - Use \_\_\_\_\_ bare root seedlings adjacent to each downed tree structure
  - Use \_\_\_\_\_ container shrubs adjacent to each downed tree structure
  - Broadcast \_\_\_\_\_ pounds of \_\_\_\_\_ shrub seed on bare ground within each downed tree structure. Refer to attached planting plan for details.

**Operation and Maintenance:**

- ✓ Exclude livestock from downed tree structures.
- ✓ Re-treat invasive grasses with herbicides every 2-5 years to maintain open understory structure.
- ✓ Over time, downed trees will eventually deteriorate. Enhance each structure by periodically adding more downed trees.
- ✓ Protect downed tree structures from prescribed burning by disking firebreaks around each structure prior to the prescribed burn.

**Additional Instructions:**

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Pre-installation Conference: \_\_\_\_\_ Date: \_\_\_\_\_

Designed by: \_\_\_\_\_ Date: \_\_\_\_\_      Checked by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Signature \_\_\_\_\_      Signature \_\_\_\_\_

**Practice as applied meets or exceeds USDA/NRCS specifications**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### Site Location Map