

Quail Covey Headquarters

Job Sheet

Natural Resources Conservation Service (NRCS)
Missouri Department of Conservation (MDC)
University of Missouri Extension – The School of Natural Resources

For:	County:
Field(s):	Farm #:
Date:	Tract #:
Designed By:	Contact Information:

QUAIL COVEY HEADQUARTERS ARE IMPORTANT FOR QUAIL SURVIVAL

PURPOSE:

Covey headquarters (CHQ's) are clumps of dense shrubby/woody cover with a canopy at least three feet high and little vegetation at ground level. Quail need and use this type of patchy "escape" cover on a daily basis. They use headquarters to avoid hot summer sun and seek protection from predators and harsh winter weather. Without this habitat component, few quail will be present. Placement of CHQs within the landscape can influence where and how much time quail spend within their home range. This habitat component should be placed next to early successional vegetation such as managed wildlife friendly grasses/legumes/forbs and tilled or disked soil in order to be most effective. CHQ's can be created by planting shrubs, edge feathering, placing downed tree structures, or improving existing shrub thickets.



GENERAL SPECIFICATIONS:

Establish at least 0.1 to 1.0 acre of dense shrubby/woody cover per 5-40 acres adjacent to wildlife friendly plantings of grasses/legumes/forbs and adequate bare ground. The minimum size of a CHQ is 30'X50' totaling 1500 square feet in size. It takes three CHQ's of this size to equal 0.1 acre. In general, optimum CHQ's are 3'-12' in height. For optimal quail habitat, the CHQ's should be no more than 150' apart and adjacent to early successional vegetation such as managed wildlife friendly grasses/legumes/forbs, field borders, food plots, or cropland. Kill existing grass (regardless of type) before installing new headquarters, and around existing CHQs. Removing this vegetation provides good growing conditions for annual food plants and shrubs and maintains an open structure along the ground that allows for easy quail movement. It may be necessary to re-treat any invasive grasses every 2-5 years within and adjacent to CHQ's. It will generally take at least five years for planted shrubs to gain enough growth to provide adequate protective cover. To provide instant usable protective cover while the shrub plantings are developing, simultaneously utilize either Edge Feathering and/or Downed Tree Structures in close proximity to the newly planted shrubs.

RECOMMENDED ACTIONS:

- Establish 30'x50' CHQs.
- Kill existing grass/vegetation before installing CHQ, or in existing shrubby cover (if present).
- Plant Shrubs for CHQs. Refer to JS-MO612, Tree and Shrub Establishment job sheet for planting details.
 - Plant bare root seedlings at 3' x 3' spacing (167 seedlings/CHQ)
 - Plant container shrubs at 5' x 5' spacing (60 shrubs/CHQ).
- Utilize Edge Feathering to create CHQs by creating 30' x 50' cutback areas. Refer to JS-BIOL-18, Edge Feathering job sheet, for detailed information.
- Utilize Downed Tree Structures (DTS) for CHQs by creating 30' x 50' DTS. Refer to JS-BIOL-21, Downed Tree Structure job sheet for detailed information.
- Re-treat invasive grasses every 2-5 years to maintain open understory structure.
- Renovate existing shrubby cover by removing competing overstory trees.

COVEY HEADQUARTERS DESCRIPTIONS

PLANTED CHQ's:

Plant bare root or container grown shrubs. Preferred native shrub species include gray or roughleaf dogwood, American or Chickasaw plum, or blackberry. Other good species include hazelnut, elderberry, chokecherry, nannyberry, witch hazel, false indigo bush, or aromatic sumac. CHQs may be planted to a single species to mimic a natural shrub thicket or multiple shrub species can also be used to provide vegetative diversity within a CHQ. A more diverse planting will usually provide the more optimal habitat. Do not use weed mats in the planting because spreading and suckering of the shrubs is desired. If deer damage is a concern, aromatic sumac, false indigo bush, and blackberry are recommended for use. Placing shrub protectors around planting stock will also help deter deer and rabbit damage.

EDGE FEATHERED CHQ's:

Edge feathering is a border of brushy and downed vegetation, a minimum of 30' wide, created along woodland edges, existing tree lines, woody draws, and hedgerows. This practice creates a transitional zone of woody escape cover made of downed trees, shrubs, vines, and herbaceous vegetation between cropland and grassland and the wooded edge. Refer to JS-BIOL-18, Edge Feathering job sheet, for detailed information.

DOWNED TREE STRUCTURE CHQ's:

Downed tree structures (DTS) are a temporary source of woody cover and can be used where adequate cover does not already exist. DTS must be a minimum of 30' x 50' in size. Trees used will be well-branched and resistant to decay, such as osage orange, pin oak, or cedar.

EXISTING SHRUB THICKET CHQ's:

Existing dogwood and plum CHQ's can be improved by removing any trees that are adjacent to or overtop the shrubby area. Existing shrub CHQ's should be completely renovated once they attain a height of 15 feet with a

chainsaw or clipper. Do not treat the shrub stumps with an herbicide since resprouting and/or suckering is desired. Cutting down older stems will encourage new shoot growth. Fescue, brome and other grasses often invade many

existing shrub CHQ's making them unusable to quail and other grassland birds. These grasses should be treated with an herbicide after the shrubs go dormant in the fall. Re-treat every 2-5 years to keep the grasses suppressed.

MAINTENANCE:

- Exclude livestock from CHQs.
- Use herbicides to suppress invasive vegetation and to control noxious weeds.
- Protect new CHQs from management practices such as prescribed burning or disking. Plantings should be protected from non-selective herbicide applications.
- Consider marking CHQ plantings with a permanent marker to help identify these areas when conducting management practices or weed control.
- Supplement edge feathered and downed tree structure CHQs with new felled trees when the existing downed material begins to rot away.

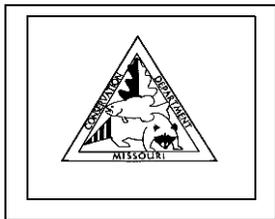


PRIMARY HABITAT CONSIDERATIONS:

- Provide natural cover sources for quail and other wildlife.

Consult with NRCS, MDC, or University Extension for additional recommendations.

Comments:



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