



CONSERVATION ENHANCEMENT ACTIVITY

E666132Z1

CONSERVATION STEWARDSHIP PROGRAM

Crop tree management for mast production

Conservation Practice 666: Forest Stand Improvement

APPLICABLE LAND USE: Forest; Associated Ag Land; Farmstead

RESOURCE CONCERN ADDRESSED: Degraded Plant Condition

PRACTICE LIFE SPAN: 10 Years

Enhancement Description

Forest stand improvement using crop tree management techniques to increase mast production.

Criteria

- States will apply general criteria from the NRCS National Conservation Practice Standard (CPS) Forest Stand Improvement 666 as listed below, **and additional criteria as required by the NRCS State Office.**
- Identify the number of mast crop trees to be developed based on site productivity and spacing guidelines for the mast tree species. See State guidelines.
- Crop tree crowns should be in the upper level of the forest canopy (dominant and/or codominant trees), and not suppressed by other tree crowns.
- Cut or kill all trees whose crowns touch the crown of the crop tree on four sides (three sides if adjacent to another crop tree), and leave additional space for large crown development of mast crop trees. Crop trees will have >15' of space on all treated sides.
- Retain a diversity of tree species to reduce the potential impact of an epidemic event (e.g. insect outbreak) that may kill some/all trees.



CONSERVATION STEWARDSHIP PROGRAM

- Trees that are below the crown of the crop tree or are not affecting crown development will be left to provide protection from wind damage, limit epicormic sprouting, and provide diversity for wildlife habitat.
- Trees removed that have marketable quality can be sold.
- All killed trees shall be left standing to provide wildlife habitat, except where snags will become a safety hazard (within 100 ft. of a building, power line, road, etc.) or create a fire hazard. Snags that must be cut for safety reasons shall be left on site to become coarse woody debris on the forest floor (unless they create a fire hazard).
- As applicable, additional actions include:
 - Cutting damaging vines away from crop trees
 - Treatment of invasive plants that may be stressing crop trees
- Refer to criteria in CPS Integrated Pest Management (595) to assist with site-specific strategies for pest prevention, pest avoidance, pest monitoring, and pest suppression. Time tree felling to avoid buildup of insect or disease populations.
- Implement forest stand improvement activities in ways that avoid or minimize soil erosion, compaction, rutting, and damage to remaining vegetation, and that maintain hydrologic conditions. Protect site resources by selecting the method, felling direction and timing of tree felling, and heavy equipment operation. For temporary access use CPS Forest Trails and Landings (655), to protect soil and site resources from vehicle impacts.
- Use CPS Access Road (560), for more heavily used roads associated with forest stand improvement activities.
- Where slash and debris will be generated, use CPS Woody Residue Treatment (384) to appropriately treat slash and debris, as necessary, to assure that it will not present an unacceptable fire, safety, environmental, or pest hazard. Remaining woody material will be placed so that it does not interfere with the intended purpose or other management activities. Do not burn vegetative residues except where fire hazard or threats from diseases and insects are of concern or when other management objectives are best achieved through burning. When slash and other debris will be burned onsite use CPS Prescribed Burning (338).



- The enhancement will comply with all applicable federal, state, and local laws and regulations, and with States' Forestry Best Management Practices for Water Quality.

CONSERVATION STEWARDSHIP PROGRAM

Documentation Requirements

- Plans and specifications for applying this practice shall be prepared for each site and recorded using approved specification sheets, implementation requirements, technical notes, and narrative statements in the conservation plan, or other acceptable documentation. Clearly state the goals and objectives of the treatment, including documenting spacing needs for large crown development on mast crop trees.
- Document average spacing and number of crop trees per acre following treatment.
- **Additional documentation as required by NRCS State Office.**