



CONSERVATION ENHANCEMENT ACTIVITY

E612F

CONSERVATION STEWARDSHIP PROGRAM

Sugarbush management

CONSERVATION PRACTICE: 612 - Tree/Shrub Establishment

APPLICABLE LAND USE: Forest

RESOURCE CONCERN: Animals, Plants

ENHANCEMENT LIFE SPAN: 15 years

Enhancement Description

Establish or maintain tree/shrub species diversity in a sugar maple (*Acer saccharum*) stand to enhance pollinator and wildlife needs.

Criteria

- States will apply criteria from the NRCS National Conservation Practice Standard Tree/Shrub Establishment (Code 612), and any additional criteria as required by the NRCS State Office.
- Maintain the sugarbush in a fully stocked condition based on an appropriate stocking guide. Maintain at least 20% of basal area in species other than sugar maple (or other species used in syrup production (e.g., red maple or paper birch)) to promote species diversity. Half of that 20 percent of basal area should be in mast producing species (hard or soft mast).
- Thin the sugarbush stand to achieve correct stocking levels (e.g. 80 percent sugar maple/20 percent other species), and/or allow space for planting new trees/shrubs. Use NRCS Conservation Practice Standard Forest Stand Improvement (Code 666) to identify characteristics of trees to remove and to remove trees.
- When the existing sugarbush does not have 20% of basal area in other species not used for syrup production, selection of species to be planted should be chosen according to the site's natural disturbance regime. Species should be selected based on traits, successional status, structure, and composition.



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- Use tree tapping guidelines that minimize tree damage. Tap trees should be tapped sustainably, minimizing impact to the trees and the forest, using appropriate equipment and methods for the geographic area.
- Build forest resilience by favoring existing species that are better adapted to projected future climate conditions, and by enhancing relative compositional and structural diversity.
- Do not plant species on the Federal or State invasive species or noxious weed lists.
- Only viable, high-quality and site-adapted planting stock or seed will be used.
- A precondition for tree/shrub establishment is appropriately prepared sites. Refer to criteria in NRCS CPS Tree/Shrub Site Preparation (Code 490).
- Implementation and timing of planting will be appropriate for the site and ensure successful establishment.
- Plantings must be protected from unacceptable adverse impacts from insects, disease, wildlife, and/or fire. Apply supporting practices and treatments as necessary to protect establishing trees and shrubs.
- The enhancement will comply with all applicable federal, state, and local laws and regulations, and with States' Forestry Best Management Practices for Water Quality.

Documentation and Implementation Requirements

Participant will:

- Prior to implementation:
 - provide an updated Forest Management Plan that documents intended objectives for sugarbush management.
 - prepare the planned acres for trees and/or shrub establishment. Refer to NRCS Conservation Practice Standard Tree-Shrub Site Preparation (490).
 - select tree species to plant based on adaptation to climatic region, soil properties and capabilities, and light requirements for establishment, if existing sugarbush does not have 20% of basal area in species that are not sugar maple. Remove the necessary number of trees to achieve the correct stocking level and/or allow space for new tree planting, as needed.
 - select planting technique, arrangement and spacing design, and timing appropriate for the site conditions.



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Species	Note selected species characteristic(s)

During implementation:

- install and maintain erosion control measures for the site, as needed.
- protect the planting(s) from plant and animal pests and fire.
- notify NRCS in writing of any planned changes to verify changes meet NRCS enhancement criteria.

TASK	Species	Species	Species
Planting Date			
Planting Technique			
Arrangement/Spacing			

NRCS will:

Prior to implementation:

- provide and explain NRCS Conservation Practice Standard Tree/Shrub Site Preparation (CPS 490) as it relates to implementing this enhancement. Verify the enhancement is planned for acres that have been appropriately prepared for tree/shrub establishment.
- provide and explain NRCS Conservation Practice Standard Tree/Shrub Establishment (Code 612) as it relates to implementing this enhancement.
- verify the enhancement is planned for the appropriate land use.
- verify no plants on the Federal or state noxious weeds list are included in the planning combination.
- NRCS will provide Technical Assistance, as needed, in the following:
 - Selecting a combination of species to meet enhancement criteria.
 - Selecting planting techniques, arrangement and spacing design, and timing appropriate for the site and soil conditions.
 - Planning the use of additional erosion control for the site, as needed.



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- Preparing specifications for applying this enhancement for each site using approved state implementation requirements, national technical notes, appropriate state technical notes, and narrative statements in the conservation plan, or other acceptable documentation.
- During implementation:
 - evaluate any planned changes to verify they meet the enhancement criteria and were established to specifications developed for the site.
- After implementation:
 - verify the plantings were protected from plant and animal pests and fire.
 - verify all erosion control needed for the site is functioning and is maintained to specifications developed for the site.

NRCS Documentation Review:

I have reviewed all required participant documentation and have determined the participant has implemented the enhancement and met all criteria and requirements.

Participant Name _____ Contract Number _____

Total Amount Applied _____ Fiscal Year Completed _____

NRCS Technical Adequacy Signature

Date