NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

TREE AND SHRUB ESTABLISHMENT

(Acre)
CODE 612

DEFINITION

Establishing woody plants by planting seedlings or cuttings, direct seeding, or natural regeneration.

PURPOSES

- To establish woody plants for forest products.
- Provide long-term erosion control.
- To provide energy conservation and sequestration of carbon.
- To enhance aesthetics.
- To maintain or restore natural genetic diversity.
- To provide shade.
- To improve water quality and treat waste.
- To establish wildlife habitat.

CONDITIONS WHERE PRACTICE APPLIES

On any area where woody plants can be grown.

Utilize other practice standards for specialized tree/shrub establishment situations, e.g.,Riparian Forest Buffer, 391;Alley Cropping, 311; Windbreak/Shelterbelt Establishment, 380; Critical Area Planting, 342.

CRITERIA

General Criteria Applicable to all Purposes

Species will be adapted to soil-site conditions and suitable for the planned purpose(s).

Planting or seeding rates will be adequate to accomplish the planned purpose.

Planting dates, and care in handling and planting of seed, cuttings or seedlings will ensure that planted materials have an acceptable rate of survival.

A precondition for tree/shrub establishment is appropriately prepared sites. Refer to practice standard Tree/Shrub Site Preparation, 490.

Only viable, high quality, and adapted planting stock or seed will be used.

Site preparation shall be sufficient for establishment and growth of selected species.

Adequate seed or advanced reproduction needs to be present or provided for when using natural regeneration to establish a stand.

Timing and use of planting equipment will be appropriate for the site and soil conditions.

The acceptability and timing of coppice regeneration shall be based on species, age, and diameter.

The planting will be protected from unacceptable adverse impacts from pests, wildlife, livestock damage or fire.

Each site will be evaluated to determine if mulching, supplemental water or other cultural treatments will be needed to assure adequate survival and growth.

Transplants (bare root or containerized) will be monitored for two years and supplemental water will be provided when necessary to ***insure*** survival

All activities under this practice will comply with applicable laws and regulations, including New Mexico Best Management Practices (BMPs).

Additional Criteria For Maintaining Or Restoring Natural Genetic Diversity.

Species selected will be indigenous to the site and will reflect species components of the desired stands.

Additional Criteria for Increasing Carbon Storage in Biomass and Soils

For optimal carbon sequestration, select plants that have higher rates of sequestration in biomass and soils and that

are adapted to the site to assure strong health and vigor. Plant the appropriate stocking rate for the site.

When using trees and shrubs for greenhouse gas reductions, prediction of carbon sequestration rates shall be made using current, approved carbon sequestration modeling technology.

CONSIDERATIONS

When underplanting, trees should be planted sufficiently in advance of overstory removal to ensure full establishment.

Use locally adapted seed, seedlings or cuttings. Priority will be given to plant materials that have been selected and tested in tree/shrub improvement programs. All plant materials should comply with a minimum standard, such as the American Nursery and Landscape Association, Forest Service, or state-approved nursery.

Plans for landscape and beautification plantings should consider foliage color, season and color of flowering, and mature plant height.

Where multiple species are available to accomplish the planned objective, consideration should be given to selecting the species which best meets wildlife needs.

Tree/shrub arrangement and spacing should allow for and anticipate the need for future access lanes for purposes of stand management.

Residual chemical carryover should be considered prior to planting.

Species considered locally invasive or noxious should not be used.

Species used to treat waste should have fast growth characteristics, extensive root systems, capable of high nutrient uptake, and may produce wood/fiber products in short rotations.

For optimal carbon storage, select plant species that are adapted to the site to assure strong health and vigor and plant the full stocking rate for the site.

PLANS AND SPECIFICATIONS

Specifications for applying this practice shall be prepared for each site and recorded using approved specification sheets, job sheets, technical notes, and narrative statements in the conservation plan or other acceptable documentation.

Plans and specifications will include the following: adapted trees for the purposes outlined, spacing, planting methods, cultural practices, and maintenance requirements, and variations in methods and species between interplanting, underplanting, and planting in open areas. Separate specifications can be prepared for each of these planting methods.

OPERATION AND MAINTENANCE

The following actions shall be carried out to insure that this practice functions as intended throughout its expected life. These actions include normal repetitive activities in the application and use of the practice (operation) and repair and upkeep of the practice (maintenance):

If needed, competing vegetation will be managed until the woody plants are established. Noxious weeds will be controlled.

Replanting will be required when survival is ***less than the specified stocking rate***

Supplemental water will be provided as needed.

The trees and shrubs will be inspected periodically and protected from adverse impacts including insects, diseases or competing vegetation. The trees or shrubs will also be protected from fire and damage from livestock or wildlife.

Periodic applications of nutrients may be needed to maintain plant vigor.