

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD
TREE/SHRUB SITE PREPARATION**

(Ac.)

CODE 490

DEFINITION

Treatment of areas to improve site conditions for establishing trees and/or shrubs.

PURPOSE

- Encourage natural regeneration of desirable trees and shrubs.
- Support the artificial establishment of desirable trees and shrubs.

CONDITIONS WHERE PRACTICE APPLIES

On all lands needing treatment to establish trees and/or shrubs.

CRITERIA

General Criteria Applicable to All Purposes

Accomplish tree/shrub site preparation by mechanical, chemical, burning, or biological methods either alone or in combination. When burning is used as a method, the Prescribed Burning standard (338) will be applied. Otherwise, Tree/Shrub Site Preparation (490) will be the only practice planned. Conservation practices Forest Stand Improvement (666), Brush Management (314), and/or Herbaceous Weed Control (315) will not be planned or applied in conjunction with, in sequence with, or in advance of this practice to achieve the purposes of this practice.

The method, intensity, and timing of site preparation will address all of the following:

- Be appropriate for the limitations of the site and the equipment used
- Improve survival of the desired species by meeting their establishment requirements and creating a favorable micro-site

- Facilitate tree planting or seeding
- Protect or minimize damage to desirable vegetation
- Protect the site from excessive erosion, rutting, ponding or puddling, compaction, runoff, and soil displacement. Use complementary practices and measures needed.
- Protect water quality.
- Control or protect the site against invasive and noxious species that may arise from site preparation activities.
- Treat slash and debris so that it does not create habitat for or harbor harmful levels of pests, hinder the operation of necessary equipment or personnel, or create an undue fire hazard.

Additional Criteria Applicable To Planting In Reclaimed Mined Soils

Planting into reclaimed mined soils requires special considerations to allow for planted material to survive. Ripping the soil profile is required where compaction is a known issue. Earthmoving equipment large enough to pull a 3-4 foot ripping shank through the soil profile will be required to fracture the compacted soil. These "ripped" areas will be placed on approximate 8 foot centers, both parallel and perpendicular to the slope when less than 20% in severity and includes predominantly clayey soils. Plant seedlings at the intersection of the "rips" in the disturbed material to allow for adequate root expansion.

Rip slopes greater than 20% only parallel to the slope to prevent risk of rollovers. Operators should use their experience and sound judgement when installing "rips" on steep slopes. Scouting the area for gullies, large stones/boulders, and other obstructions

hidden by vegetation is advised.

CONSIDERATIONS

Consider the impacts on wildlife species, pollinators, habitat, and aesthetics when selecting site preparation methods.

Particulates, smoke, and other air pollutants generated by site preparation may have on-site and off-site effects on air quality.

PLANS AND SPECIFICATIONS

Prepare and record specifications for applying this practice and for protecting the site using approved specification sheets, job sheets, technical notes and narrative statements in the conservation plan or other acceptable documentation.

OPERATION AND MAINTENANCE

Maintain erosion control measures as necessary.

Control locally invasive and noxious plants as necessary.

Control access by vehicles or equipment during or after site preparation to minimize erosion, compaction and other site impacts.

REFERENCES

The Appalachian Regional Reforestation Initiative (ARRI), Forest Reclamation Advisory No. 4.

http://arri.osmre.gov/FRA/Advisories/FRA_No.4.pdf

“Site Preparation for Natural Regeneration of Hardwoods”, Professional Hardwood Notes, UT Extension Pub1799,

http://www.ca.uky.edu/forestryextension/Publications/FOR_FORFS/FOR120.pdf