

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

**CONSERVATION COVER
(Acre)
CODE 327**

DEFINITION

Establishing and maintaining perennial vegetative cover to protect soil and water resources on land retired from agricultural production.

- Plantings which will be established on critically eroding areas which usually cannot be stabilized by ordinary conservation treatment and management (refer to conservation practice standard Critical Area Planting, Code 342).

PURPOSES

- Reduce soil erosion and sedimentation.
- Improve water quality.
- Create or enhance wildlife habitat.
- Improve Soil Quality

CONSIDERATIONS

- Consider the long-term land use objectives of the client. If the land user is interested in providing wildlife habitat, consider the wildlife species or groups of species to be supported and the habitat needs which can be met on the managed property.
- Assess site conditions including surrounding land uses, soils, residual herbicides (to the extent known), available moisture during the growing season, and existing vegetation on the site and in adjacent areas.
- Favor plant species that are native and have multiple values such as those suited for nesting, biomass, timber, nuts, fruit seeds, browse, aesthetics and tolerance to locally used herbicides.
- Avoid plant species, which may be alternate hosts to undesirable pests or that may be considered invasive or undesirable. Species diversity should be encouraged in order to minimize problems due to species-specific pests.

**CONDITIONS WHERE PRACTICE
APPLIES**

This practice is applied on land retired from agricultural production, including land entered into conservation program sponsored by USDA or other government agencies and private organizations.

This practice does not apply to:

- Plantings primarily intended for forage production (refer to the conservation practice standard Pasture and Hayland Planting, Code 512).

- Other constraints may be economic feasibility, access, regulatory or program requirements, social effects, or visual aspects.
- Consider long-term maintenance requirements of the established vegetation.

CRITERIA

Vegetative cover shall be selected to accomplish the intended purpose of the practice, conditions of the site, and the objectives of the land user. Herbaceous and/or woody species may be appropriate.

Selection of locally native species shall be a priority when feasible.

Selection of two or more species to achieve greater diversity is encouraged.

Species selected for planting shall be suited to the seasonal variation of soil moisture on the planting site. Plant types and species shall be selected based on their compatibility in growth rates, shade tolerance, and other characteristics.

Site preparation and planting to establish vegetative cover shall be done at a time and manner to ensure survival and growth of selected species.

Only viable, high quality seed and planting stock shall be used. The method of planting shall include hand or machine planting techniques, suited to achieving proper depths and placement for the selected plant species.

Livestock shall be excluded as necessary to establish and maintain the vegetative cover to meet its intended purpose.

Plant and animal pest species shall be controlled as necessary to achieve and maintain the intended purpose of the vegetative cover.

Noxious weeds shall be controlled as required by state law.

Specific program requirements may dictate criteria in addition to those specified above.

SPECIFICATIONS

Plans and specifications for establishment of vegetative cover shall be prepared in accordance with the previously listed criteria. Plans and specifications shall contain sufficient detail concerning site preparation and establishment to ensure successful installation of the practice. Documentation shall be in accordance with the section "Supporting Data and Documentation" in this standard.

Selection of Plant Species

Select the plant species to be established from Tables 1 & 2 of Technical Guide Reference No. 122.

Planting Rates

For herbaceous species, use the seeding rates as listed in Tables 1 & 2. For trees and shrubs, use the following table to determine the appropriate planting rate:

| | |
|--|------------|
| | April 2006 |
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| Plant Types/Heights at 20 years: | Plant-to-Plant Spacing (Feet): |
|---|---------------------------------------|
| • Shrubs less than 10 feet in height | 4 to 6 |
| • Shrubs and trees from 10 to 25 feet in height (includes columnar trees) | 6 to 8 |
| • Trees greater than 25 feet in height | 10 to 12 |

Be sure to consider management when planting woody species. If mowing will be used for weed control during the establishment period, row widths must be wide enough to allow access.

Types of Plant Materials

Vegetation may be established by using seed, cuttings, bare-rooted seedlings, and containerized stock. Younger planting stock is generally preferred to older stock because younger plants adapt more readily to new conditions.

Seedbed Preparation

Establishment using no-till planting is recommended. A fall herbicide burn-down of existing perennial vegetation is recommended for spring planting. For establishment of herbaceous species follow establishment guidelines under forages in the current Penn State Agronomy Guide.

When planting trees or shrubs in the spring mow, brush-hog, or apply herbicide to the rows where planting will be done. If woody vegetation is present, also treat with an appropriate herbicide in the fall before planting.

Planting

For establishment of warm season species, use an appropriate drill suited to the specific seed being planted.

a. Containerized stock shall be planted by making a hole in the soil wide enough and deep enough to hold the root ball. Remove the container (or if a peat pot, tear the peat pot in several places). To facilitate spreading of the plant’s roots, slightly crush, cut, or disturb the root ball if the stock is heavily rooted or is root bound in container. Install the plant in the ground so that the soil level on the root ball is at or just above ground level. When the root ball is in the hole, push the soil firmly around it to eliminate large voids in the soil. To ensure good root to soil contact and to completely cover the root ball.

b. Bare-root seedlings shall be planted in a similar fashion, but the holes must be made deep enough to accommodate the roots. Install the plants at a depth such that the topmost roots shall be covered by approximately 1 inch of soil. Spread out the roots as much as possible when the plants are set into the holes. Firm the soil around each plant after planting.

Proper Treatment of Plant Materials

All plant materials (seed, bare-root seedlings, and containerized stock) must be correctly handled before planting. In general, plants shall be planted as soon as possible after receiving them from the supplier. Seed shall be kept cool and dry until planted. For bare-rooted seedlings, the roots shall be kept moist at all times and the plants shall be kept out of direct sunlight as much as possible.

OPERATION AND MAINTENANCE

An operation and maintenance plan shall be prepared for each planting site. At a minimum, the following components shall be addressed in the plan. Additional operation and management requirements shall be developed on a site-specific basis to assure performance of the practice as intended.

1. **Quality and quantity of vegetation** - Inspect to determine whether the desired vegetation is present in suitable quantity, quality, and distribution to meet the intended purpose of the practice. Describe the extent of management needed to maintain vegetation in the desired species composition or age class (if applicable), or no management is required (e.g., natural area). If the area is to be maintained by mowing, light disking or prescribed burning, indicate time-of-year restrictions to protect nesting wildlife and provide sufficient regrowth for winter cover.
2. **Plant and animal pests** - Describe the extent and timing of management needed for control of undesirable plants and animals. Weeds should be controlled for two to three years after planting. Biological control of undesirable plant species and pests shall be implemented where available and feasible. Noxious weeds shall be controlled as required by state law. Spot treatment shall be used to the extent feasible.
3. **Acceptable uses of the site** - Indicate the acceptable uses (e.g., timber production, grazing, hunting, nature preserve, etc.) and time of year/frequency of use restrictions, if any, especially for sites enrolled in set-aside or cost-sharing programs.

4. **Frequency of inspection** - The frequency of inspections shall be based on the intended functions and uses of the site. At a minimum, annual inspections should be required.

SUPPORTING DATA and DOCUMENTATION

The following is a list of the minimum data and documentation to be recorded in the case file:

1. Purpose(s) of the planting (e.g., soil conservation, water quality, wildlife habitat).
2. Field location of the planting, acres, and assistance notes. Also note the location of the planting on the conservation plan map.
3. Planting details: Seeding and/or planting requirements, including species selected, stocking/seeding rates, type of planting stock to be used (e.g., seed, cuttings, containerized stock, etc), date(s) planted.
4. Operation and maintenance plan.

REFERENCES

1. Vegetating with Native Grasses in Northeastern North America.
2. NRCS, Conservation Practice Standard for Critical Area Planting (Code 342).
3. NRCS, Conservation Practice Standard for Wildlife Upland Habitat Management (Code 645).

4. NRCS, Conservation Practice Standard for Wildlife Wetland Habitat Management (Code 644).
5. Penn State Agronomic Guide - Current Edition.

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service.