United States Department of Agriculture

Natural Resources Conservation Service

CONSERVATION PRACTICE STANDARD

CONSERVATION COVER

CODE 327

(ac)

DEFINITION

Establishing and maintaining permanent vegetative cover

PURPOSE

This practice is used to accomplish one or more of the following purposes:

- Reduce sheet, rill, and wind erosion and sedimentation
- Reduce ground and surface water quality degradation by nutrients and surface water quality degradation by sediment
- Reduce emissions of particulate matter (PM), PM precursors, and greenhouse gases.)
- Enhance wildlife, pollinator and beneficial organism habitat
- Improve soil health

CONDITIONS WHERE PRACTICE APPLIES

This practice applies on all lands needing permanent herbaceous vegetative cover. This practice does not apply to plantings for forage production or to critical area plantings. This practice can be applied on a portion of the field.

CRITERIA

General Criteria Applicable to All Purposes

Select species that are adapted to the soil, ecological sites, and climatic conditions that are suitable for the planned purpose and site conditions. Periodic removal of some products such as high value trees, medicinal herbs, nuts, and fruits is permitted provided the conservation purpose is not compromised by the loss of vegetation or harvesting disturbance.

Inoculate legumes at planting time.

Choose seeding rates and planting methods that will be adequate to accomplish the planned purpose.

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Planting dates, planting methods and care in handling and planting of the seed or planting stock shall ensure that planted materials have an acceptable rate of survival.

Refer to the Oregon and Washington Guide forConservation Seedings and Plantings, USDA-NRCS, April 2000, or other approved guides to determine species and rates to be planted.

Prepare the site by establishing a consistent seeding depth. Eliminate weeds that would impede the establishment and growth of selected species.

Base the timing and equipment selection on the site and soil conditions.
Apply nutrients as needed to ensure crop establishment and planned growth.

Additional Criteria to Reduce Sheet, Rill, and Wind Erosion and Sedimentation

Determine and maintain the amount of plant biomass and cover needed to reduce wind and water erosion to the planned soil loss objective by using the current approved wind and/or water erosion prediction technology.

Additional Criteria to Reduce Emissions of Particulate Matter (PM), PM Precursors, and green- house gases

In perennial crop systems such as orchards, vineyards, berries and nursery stock, establish vegetation to provide full ground coverage in the alleyway during mowing and harvest operations to minimize generation of particulate matter.

Additional Criteria to Enhance Wildlife, Pollinator and Beneficial Organism Habitat

Plant a diverse mixture grasses and forbs species to promote bio-diversity and meet the needs of the targeted species using approved habitat appraisal guides, evaluation tools, and appraisal worksheets for the respective state. In Oregon, Oregon Biology Technical Note No. 27, *Wildlife Habitat Evaluation Guides* will be used, and are located in Section III of the FOTG.

Locate habitat plantings to reduce pesticide exposures that could harm wildlife, pollinators, and other beneficial organisms.

Refer to Plant Materials Technical Note No. 13, *Plants for Pollinators in Oregon*, March 2008 for species selection when the purpose includes enhancing pollinator and beneficial organism habitat.

Additional Criteria to Improve Soil Health

To maintain or improve soil organic matter, select plants that will produce high volumes of organic material. The amount of biomass needed will be determined using the current soil conditioning index procedure.

CONSIDERATIONS

This practice may be used to promote the conservation of wildlife species in general, including threatened and endangered species.

Certified seed and planting stock that is adapted to the site should be used when it is

available. Mowing may be needed during the establishment period to reduce competition

from weeds.

On sites where annual grasses are an expected weed problem it may be necessary to postpone nitrogen fertilizer application until the planted species are well established.

Where applicable this practice may be used to conserve and stabilize archeological and historic sites.

Consider rotating management and maintenance activities (e.g. mow only one-fourth or one-third of the area each year) throughout the managed area to maximize spatial and temporal diversity.

Where wildlife management is an objective, the food and cover value of the planting can be enhanced by using a habitat evaluation procedure to aid in selecting plant species and by providing or managing for other habitat requirements necessary to achieve the objective. Encouraging plant species diversity and establishing plantings that result in multiple structural levels of vegetation within the conservation cover will maximize wildlife use.

Where pollinator and wildlife habitat are primary purposes consider less dense seeding rates as long as soil loss is within tolerable soil loss limits.

To provide habitat for natural enemies of crop pests, select a mix of plant species that provide year round habitat and food (accessible pollen or nectar) for the desired beneficial species. Consider habitat requirements of predatory and parasitic insects, spiders, insectivorous birds and bats, raptors, and terrestrial rodent predators. Consult Land Grant University Integrated Pest Management recommendations for beneficial habitat plantings to manage the target pest species.

Use a diverse mix of cover plant species that come into bloom at different times and provide a sequence of bloom throughout the year (e.g., plant at least three flowering species from each of the three bloom periods (spring, summer, and fall).

Where practical, use native species that are appropriate for the identified resource concern and management objective. Consider trying to re-establish the native plant community for the site.

If a native cover (other than what was planted) establishes, and this cover meets the intended purpose and the landowner's objectives, the cover should be considered adequate.

During vegetation establishment, natural mulches, such as wood products or hay, can be used to conserve soil moisture, support beneficial soil life, and suppress competing vegetation.

PLANS AND SPECIFICATIONS

Prepare plans and specifications for the site to include, but are not limited to:

- recommended species,
- seeding rates and dates,
- establishment procedures,
- management actions needed to insure and adequate stand

Specifications and operation and maintenance shall be recorded using approved Implementation Requirement document.

OPERATION AND MAINTENANCE

Mowing and harvest operations in a perennial crop system such as orchards, vineyards,

berries, and nursery stock shall be done in a manner which minimizes the generation of particulate matter.

If wildlife habitat enhancement is a purpose, maintenance practices and activities shall not disturb cover during the reproductive period for the desired species. Exceptions should be considered for periodic burning or mowing when necessary to maintain the health of the plant community.

Control noxious weeds and other invasive species.

Mowing may be needed during the establishment period to reduce competition from weeds.

To benefit insect food sources for grassland nesting birds, spraying or other control of noxious weeds shall be done on a “spot” basis to protect forbs and legumes that benefit native pollinators and other wildlife.

Re-vegetate bare spots.

REFERENCES

Oregon and Washington Guide for Conservation Seeding and Plantings, USDA- NRCS. April

2000. Oregon Plant Materials Technical Note No. 13, Plants for Pollinators in Oregon. March

2008.

Renard, K.G., G.R. Foster, G.A. Weesies, D.K. McCool and D.C. Yoder. 1997. Predicting Soil Erosion by Water: A Guide to Conservation Planning with the Revised Universal Soil Loss Equation (RUSLE), Agricultural Handbook Number 703.

Revised Universal Soil Loss Equation Version 2 (RUSLE2) website:
https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/tools/rusle2/

Wind Erosion Prediction System (WEPS) website:
https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/tools/weps/software/?cid=nrcs144p2_0 80196

Preventing or mitigating potential negative impacts of pesticides on pollinators using IPM and other conservation practices. National Agronomy Technical Note 9. Washington, DC.
http://directives.sc.egov.usda.gov/