

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

CONSERVATION COVER

(Ac.)

CODE 327

DEFINITION

Establishing and maintaining permanent vegetative cover

PURPOSE

This practice may be applied to accomplish one or more of the following:

- Reduce soil erosion and sedimentation.
- Improve water quality.
- Improve air quality
- Enhance wildlife habitat.
- Improve soil quality
- Manage plant pests

CONDITION WHERE PRACTICE APPLIES

This practice applies on all lands needing permanent vegetative cover. This practice does not apply to plantings for forage production or to critical area plantings.

CRITERA

General Criteria Applicable to All Purposes

Species shall be adapted to soil, ecological sites, and climatic conditions.

Species planted shall be suitable for the planned purpose and site conditions.

Species selection, seedbed preparation, planting rates, dates, depths, fertility requirements, and planting methods will be consistent with the Oklahoma NRCS Pasture and Hay Planting (512), Range Planting (550),

and Tree/Shrub Establishment (612) standards.

Nutrients shall be applied according to the Oklahoma NRCS Nutrient Management (590) standard. When fertility is required on improved grass species in CRP, a minimum of 1 ton/ac yield goal will be used.

Grass stands will maintain the number of plants per square foot as required for stand establishment. Refer to the Oklahoma NRCS Pasture and Hay Planting (512) and Range Planting (550) standards ***Criteria for Determining Stand Establishment***. If the stand fails to provide the required plant density, reestablishment, additional seeding, fertilizing, prescribed burning, and/or pest management may be used to achieve the desired stand density.

Replanting and maintenance of tree stands will be in accordance with the Oklahoma NRCS Tree/Shrub Establishment (612) standard.

Weed control will be applied when a 50% or greater canopy of undesirable weeds exists or 3 weed plants per square foot exist on 50% or more of the field. Noxious weeds will be controlled to prevent proliferation and spreading to adjacent fields. The use of herbicides will be in accordance with the Oklahoma NRCS Pest Management (595) standard.

When undesirable brush species occupy an area of the field, brush will be controlled chemically and/or mechanically. Brush will be controlled consistent with guidance in the Oklahoma NRCS Brush Management (314) or Prescribed Burning (338) standards.

When forbs and legume species are established as a component of the vegetative

cover, weed control measures will be planned to minimize the negative impacts on these species.

Burning, mowing, or managed grazing may be done to improve plant vigor over the life of the grass stand. Fields with grass having residue amounts of ≥ 5000 lbs/ac shall be evaluated for signs of dead plant crowns and smothering of grass plants causing stand deterioration. Grasses should be evaluated during their appropriate growing season. Stands showing signs of deterioration due to excessive plant residue will have excess mulch removed. Harvesting hay shall be in accordance with minimum cutting heights and harvest dates found in Table 1 and Supplement 1 of the Oklahoma NRCS Forage Harvest Management (511) standard. Burning will be consistent with guidance in the Oklahoma NRCS Prescribed Burning (338) standard. Managed grazing to improve plant vigor will be in accordance with the Oklahoma NRCS Prescribed Grazing (528) standard.

Insect populations will be evaluated for threshold levels. When populations exceed threshold levels in the field or threaten adjacent lands, insect control will be applied consistent with the Oklahoma NRCS Pest Management (595) standard.

Additional Criteria to Reduce Soil Erosion and Sedimentation

The amount of plant biomass and cover needed to reduce wind and water erosion to the planned soil loss objective shall be determined using the current NRCS approved wind and/or water erosion prediction technology.

Additional Criteria for Improving Air Quality

In perennial crop systems such as orchards, vineyards, berries and nursery stock, vegetation established shall provide full ground coverage in the alleyway during mowing and harvest operations.

To sequester carbon, plant cover established will result in a positive CO₂ equivalent value when determined by the current approved carbon sequestration prediction technology. The COMET-VR can be accessed at the link

below and shall be used to determine C and CO₂ values.

<http://www.cometvr.colostate.edu/>

Additional Criteria for Enhancing Wildlife Habitat

Native grass mixtures shall be planted to meet the needs of the targeted species of wildlife. In addition to the native grass mixture, forbs, legumes, trees and shrubs can be planted on adapted sites to promote bio-diversity of the field and to enhance the wildlife habitat.

The food and cover value of the planting can be enhanced by using a habitat evaluation procedure to aid in selecting plant species and providing or managing for other habitat requirements necessary to achieve the objective. Refer to the Oklahoma NRCS Wildlife Upland Habitat Management (645) standard for habitat requirements.

For additional guidance in determining plants for wildlife habitat, refer to the Oklahoma NRCS Restoration and Maintenance of Declining Habitats (643) standard and current Biology Technical Notes.

Management methods used shall be designed to protect the soil resource from erosion.

Maintenance practices and activities such as mowing, should not be done between May 1 and July 1 so as not to disturb cover and nesting activity during the reproductive period for grassland wildlife species. Exceptions should be considered for periodic burning or mowing when necessary to maintain the health of the plant community.

Additional Criteria to Improve Soil Quality

Plants will be selected on the basis of producing high volumes of organic material to maintain or improve soil organic matter. The amount of biomass needed will be determined using the current NRCS approved soil condition index procedure.

Additional Criteria to Manage Plant Pests

In perennial crop systems such as orchards, vineyards, berries and nursery stock, permanent vegetative cover shall be established and managed according to OSU Integrated Pest Management (IPM) recommendations for the target pest species.

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.

Inoculating legume seed with the proper Rhizobium bacteria should be considered on sites where the legumes to be planted have not been previously grown.

Mowing may be needed during the establishment period to reduce competition from broadleaf annual 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 providing or managing for other habitat requirements necessary to achieve the objective.

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.

PLANS AND SPECIFICATIONS

Specifications for this practice shall be prepared for each site. They shall include, but are not limited to:

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

Specifications shall be recorded using approved specifications sheets, job sheets, narrative statements in the conservation plan, or other acceptable documentation.

OPERATION AND MAINTENANCE

Mowing and harvest operations in perennial crop systems 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.

Maintenance measures must be adequate to control noxious weeds and other invasive species.

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.

REFERENCES

K. G. Renard, G. R. Foster, G. A. Weesies, K. 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 (checked May 2007): http://fargo.nserl.purdue.edu/rusle2_dataweb/RUSLE2_Index.htm