

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

CONSERVATION COVER

(Ac.)

CODE 327

DEFINITION

Establishing and maintaining permanent vegetative cover

PURPOSE

This practice is applied to support 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.

CONDITION 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 and are suitable for the planned purpose and site conditions. Periodic removal of some products such as medicinal herbs and fruits is permitted provided the conservation purpose is not compromised by the loss of vegetation or harvesting disturbance.

Species selection, seedbed preparation, planting rates, dates, depths, fertility requirements, and planting methods will be consistent with the Oklahoma NRCS Plant Materials Technical Note OK-21 (for grasses, forbs and legumes).

When fertility is required for maintenance of grass stands, refer to the Oklahoma State University Extension Publication for *OK NRCS Cost Share Lime and Fertilizer Recommendation*. <http://www.soiltesting.okstate.edu/extension-fact-sheets/NRCSCostShare2009.pdf>

Grass stands will maintain the number of plants per square foot as required for stand establishment. Refer to the Plant Materials Technical Note OK-21 for *Criteria for Determining Stand Establishment*. If the stand fails to provide the required plant density, re-establishment, additional seeding, fertilizing, prescribed burning, and/or pest management may be used to achieve the desired stand density.

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 Integrated Pest Management (595) and/or Herbaceous Weed Control (315) standards.

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.

Conservation practice standards are reviewed periodically and updated if needed. To obtain the current version of this standard, contact your Natural Resources Conservation Service [State Office](#) or visit the [Field Office Technical Guide](#).

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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 Integrated Pest Management (595) standard.

Additional Criteria to Reduce Sheet, Rill, and Wind 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, WEPS or RUSLE2.

Additional Criteria to Reduce Emissions of Particulate Matter (PM), PM Precursors, and greenhouse 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.

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 to Enhance Wildlife, Pollinator, and Beneficial Organism 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 and meet the needs of the targeted species.

The food and cover value of the planting can be enhanced by using a habitat appraisal guides, 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 Upland Wildlife 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.

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

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 NRCS approved soil condition index procedure in RUSLE2.

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 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,
- other management actions needed to insure and adequate stand

Specifications and operation and maintenance shall be recorded using Oklahoma NRCS Conservation Cover (327) Certification Sheet.

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

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: <http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/>

Wind Erosion Prediction System (WEPS)

website: <http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/>

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