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.

CRITERA

General Criteria Applicable to All Purposes

See the jobsheet and appendix for information regarding the establishment of clover cover crops in pecans and row crops.

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 legume seed with the proper Rhizobium bacteria unless legumes of the same cross-inoculation group have been planted previously on the site.

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

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.

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 such as RUSLE2. As mentioned in the introduction, it is not the intention of this standard to prevent erosion on critical sites (Georgia Critical Area Planting Standard, Code 342). See the Georgia Tree and Shrub Establishment Standard (Code 612) and the Upland (Code 645) or Wetland (Code 644) Wildlife Habitat

Management Standards for more information regarding the establishment of vegetation, especially native plants, for reducing soil loss as a result of sheet and rill erosion.

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.

Additional Criteria to Enhance Wildlife, Pollinator and Beneficial Organism Habitat

Plant mixtures of native grasses at the rate of 40 seeds PLS ft^2. Seed mixtures of grasses and forbes at a total of 20 seeds PLS/ft^2 for both of these groups of plants. See the 327 Pollinator Jobsheet for a list of species.

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 soil conditioning index procedure. See the Georgia Cover Crop (Code 340) and Pasture and Hay Planting (Code 512) Standards for more information regarding the establishment of vegetation for improving soil quality.

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 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.

Adequate cover for wildlife and pollinator purposes must consist of at least one desirable native plant per square foot.

If interseeding is necessary to improve cover for a wildlife or pollinator purpose, a minimum PLS seeding rate of 20 seeds per square foot will be planted. When interseeding with a grass and forb mixture, use a PLS interseeding rate of 10 seeds per square foot for grass and 20 seeds per square foot for forbs.

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, such as the jobsheet.

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. The State of Georgia does not have a list of noxious weeds; however, the state has adopted the federal list. Information about specific species is available through the NRCS PLANTS Database at http://plants.usda.gov/java/noxiousDriver. Invasive weeds are found at http://www.gaeppc.org/.

Mowing may be needed during the establishment period to reduce competition from weeds. Do not mow during the fawning/nesting period of April 1 – August 31.

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 INCLUDING NRCS, NHCP SEPTEMBER 2014

Georgia Department of Natural Resources, Wildlife Resources Division, Nongame-Endangered Wildlife Program. 1996. Georgia breeding bird atlas handbook. Georgia Department of Natural Resources, Forsyth, Georgia. p. 52-65

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. Agron. Tech Note 9. Washington, DC. http://directives.sc.egov.usda.gov/