

TECHNICAL REVIEW COMMITTEE

June 17th, 2015

L.Y. Ballentine Building

2109 Blue Ridge Road, Raleigh, NC

Teleconference phone number: (919) 733-2416

To join the Connect Pro meeting: <https://ncag.adobeconnect.com/trc/>

TRC Business Meeting – Kelly Hedgepeth, Chair
9 am

DRAFT AGENDA

Welcome

Update on Soil & Water Commission Actions from last TRC meeting

Action Items

1. Considerations of changes to Precision Agrochemical Application BMP David Williams
2. Consideration of changes to Livestock Mortality Management System BMP Ken Parks/Kelly Hedgepeth
3. Consideration of forming a Pollinator Workgroup Kelly Hedgepeth

Reports

1. Agriculture Input Management Project Update Kelly Hedgepeth

Discussion items

1. Work group reports
 - a. Precision Farming – David Williams
 - b. Pasture BMPs – Ralston James/Matt Flint/Ken Parks
 - c. Compost Workgroup – Lisa Fine/Chester Lowder
 - d. Conservation Effects Workgroup – Kelly Hedgepeth
 - e. Enhanced Water Management Workgroup – Kelly Hedgepeth
 - f. Animal Waste Policy Workgroup-Julie Henshaw
 - g. Alternative Waste Management-Natalie Woolard/David Harrison/Tom Ellis

2. Member/guest comments

Precision Agrichemical Application

Definition/Purpose

Precision Agrichemical Application means using a system of components that enable reduction and greater control of fertilizer and pesticide application. This is accomplished through avoidance of excessive overlapping, unnecessary application to end/turn rows, and more precise control of application rates (DIP).

Policies

1. Cost share for this practice shall be based upon actual cost with a cap. The cap for each tier is additive upon the previous tier. It is acceptable for an applicant who has already adopted a lower tier to receive cost share to adopt higher tiers and receive cost share up to the incremental cap(s).
2. This practice can be used to either retrofit existing application equipment or to replace existing equipment with new equipment with precision technology.
3. The applicable cost share cap for this practice shall be based upon the capabilities of the system according to the following tiers (To qualify for the higher tiers, the applicant must also implement or have already adopted all of the lower tiers):
 - a. **Tier 1:** GPS guidance system
 - i. Guidance system must have at least sub-meter pass-to-pass accuracy
 - ii. System must include capability to compensate for tilt if used on slopes > 4%.
 - b. **Tier 2:** Automatic Application Rate Control
 - i. Rate control system must be capable of recording application rate data and producing application map
 - ii. Must include automatic correction for ground speed and number of boom sections being used.
 - c. **Tier 3:** Boom section control
 - i. Guidance system must have at least ~~decimeter~~sub-meter pass-to-pass accuracy
 - ii. The system must have enough controls that the average length of each independently-controlled section is no more than ~~9-12~~ feet.
4. Before applicant can receive payment for this practice, he must demonstrate operation of ~~the~~ properly calibrated equipment while applying agrichemicals.
5. For spot checks the district staff should either observe the cooperator using the equipment for agrichemical application or view the data stored or downloaded by the control system to insure the system is being used.
6. The cooperator may upgrade any component of the precision application system without additional cost share during the maintenance period, as long as the upgraded system has components that are equivalent or better than the system originally cost shared.

7. This practice is limited to one system per cooperator. However, a cooperator is free to utilize components of the system on multiple pieces of equipment, provided the cooperator can produce the cost shared components for spot checks with adequate advance notice.

8. Cooperator is eligible to receive the precision nutrient management incentive while using this practice.

9. The life of the practice is 5 years.

Specifications

System components must meet ISO 12188 Tractors and machinery for agriculture and forestry — Test procedures for positioning and guidance systems in agriculture

Average Costs:

Based on percentage of actual cost not to exceed a cap.

Formatted: Font: Bold

Caps:

	<u>75% Cap</u>	<u>90% Cap</u>
<u>Tier 1: Guidance System</u>	<u>\$2,250</u> <u>\$2,400</u>	<u>\$2,700</u> <u>\$2,880</u>
<u>Tier 2: Rate Control</u>	<u>\$1,500</u> <u>\$1,800</u>	<u>\$1,800</u> <u>\$2,160</u>
<u>Tier 3: Boom Section Control</u>	<u>\$1,250</u> <u>\$1,800</u>	<u>\$1,500</u> <u>\$2,160</u>

Livestock Mortality Management System

Definition/Purpose

A livestock mortality management system is a facility for managing livestock mortalities such as to minimize water quality impacts or to produce a material that can be recycled as a soil amendment and fertilizer substitute. Cost shareable mortality management system components include: composter, rotary drum composter, forced aeration static pile composter, mortality freezer, mortality incinerator and mortality gasification system.

A composter means a facility for the biological treatment, stabilization and environmentally safe storage of organic waste material (such as manure from poultry and livestock and dead animal carcasses) to produce a material that can be recycled as a soil amendment and fertilizer substitute.

A freezer means a unit capable of freezing and storing poultry and other small animal carcasses until such time they can be moved offsite rendering.

An incinerator or gasifier means a piece of equipment used to cremate dead poultry, swine, or other small animals.

Policies

1. ACSP funds will only be used to fund one mortality management system for each operation. Operations that have already received cost share for one mortality management system and are still in the required maintenance period for the practice have the option of repaying the prorated portion of their cost share to buy back eligibility. Recipients of cost share for composters have the additional option of converting the composter to a dry stack, provided the dry stack was of sufficient volume to meet NRCS standards. Cost share funds cannot be used to replace the same type of mortality management system.
2. A permit is required from the North Carolina Department of Agriculture, State Veterinarian for all composters, and all state regulations must be followed.
3. If a composter is approved, then a Waste Management Plan will be completed for the entire confined animal operation and not just the acreage associated with composter and compost. The Waste Management Plan must address storage of litter needs for the entire confined animal operation. If compost or waste is land applied by the cooperator on any land under his/her control (owned, rented, etc.), then a detailed site location map delineating the fields and compost/waste is moved off the farm by a commercial contract hauler, the name address of the hauler is required with the contract. Waste Management Plan Statement (NC-ACSP-WMP) is required.
4. A composter shared by landowners is eligible for cost share if a landowner agreement is being attached to the contract. This agreement must be signed and dated by all landowners sharing the facility and must state that the facility may be used by each landowner for a minimum period of ten (10) years.

Agriculture Cost Share Program

5. Landowners requesting commercial composters may receive 75% of treatment and storage volume. Payment will then be limited to the minimum volume required using the design criteria of the NRCS and the Cooperative Extension Service.
6. Payment will be made for the minimum volume required using NRCS and Extension Service design criteria for primary and secondary treatment, and/or storage of composted material in one structure. Storage volume is equal to a maximum of four (4) times the primary volume. Additional volume needed to accommodate the producer's equipment and/or desires will be at the producer's expense.
7. Pursuant to 15A NCAC 2H.0100 and 2H.0200 regulations, poultry waste storage structures must be located at least 100 feet from perennial streams and groundwater wells.
8. All NRCS and NC Agriculture Cost Share Program standards and policies relative to vegetation of critical areas must be followed, if applicable.
9. North Carolina Division of Air Quality exempts incinerators used to dispose of dead animals or poultry under the following conditions:
 - a. The incinerator is located on a farm and is owned and operated by the farm owner or by the farm operator.
 - b. The incinerator is used solely to dispose of animals or poultry originating on the farm where the incinerator is located.
 - c. The incinerator is not charged at a rate that exceeds its design capacity.
 - d. The incinerator complies with visible emissions and odorous emissions requirements.
10. An Operation and Maintenance Plan Statement (NC-ACSP-OMP) is required for mortality incinerators, gasifiers and freezers.
11. A Waste Management Plan Statement (NC-ACSP-WMP) is required.
12. A mortality management system can only be used to dispose of mortalities associated with the planned operation.
13. Farmers with freezers must include in their waste management plans the name and telephone number of the rendering plant or recycling plant responsible for handling animal carcasses.
14. A Mortality System for poultry with an incinerator may include a roof over the incinerator.
15. BMP soil impact is not required on this BMP. Include the amount of fresh manure in nitrogen and phosphorus units, which will be generated and properly managed under the

Agriculture Cost Share Program

waste management system. Also include the number of acres affected, animal type, and animal units.

16. Minimum life of BMP is ten (10) years for composters, rotary drum composters, forced aeration static pile composters, mortality freezers, and mortality gasification systems. Minimum life of BMP is five (5) years for mortality incinerators.
17. Any additional area needed to accommodate the producer's equipment and/or desires will be at the producer's expense. The additional area must be stipulated on the design and not receive cost share assistance. For example, if the operator stores equipment other than waste handling equipment in the structure and the design plan did not stipulate that the area of the designed structure was increased at the producer's expense, then the operator is out of compliance.
18. All buildings and structures shall comply with the NC State Building Code. If the facility is covered with a roof, whether cost shared on or not, it shall be made of metal and at least 6 inches of air space is required between the chimney and any combustible roof part. In addition, the size and other clearances shall be as recommended by the incinerator manufacturer.

Specifications

North Carolina NRCS Technical Guide, Section IV, Specification #316 (Animal Mortality Facility).

Conservation Cover (Wildflowers for Pollinators)

S. C. Practice Job Sheet 327

Prepared for: _____

Prepared by: _____

Farm: _____ Tract: _____ Date: _____



DEFINITION

Establishing and maintaining permanent vegetative cover especially beneficial for pollinators using forb species native to the Southeastern United States and South Carolina.

PURPOSE

This practice may be applied to enhance wildlife habitat for pollinators by providing:

- Nectar and pollen throughout the growing season
- Host sites for butterfly and moth species
- Cover
- Increased plant species diversity

WHERE USED

This practice applies on all lands needing permanent vegetative cover for the benefit of wildlife. This practice does not apply to plantings for forage production or to typical critical-area plantings.

OPERATIONS

Pre-planting:

Scout the fields that are planned to have conservation cover applied at least one year prior to the planned seeding date. Identify all of the vegetation that will compete with the native herbaceous species or desired planted native species. It is critical to the success of the seeding that ALL of the competition from other plants be removed prior to seeding.

Follow the recommendation of the Clemson Weed Guide or Clemson Extension for the correct herbicide treatment prior to seeding. It can often be necessary to apply a chemical treatment in the fall before seeding and also a second treatment in the spring just before seeding. Delay seeding for the recommended time necessary for selected herbicide.

Seeding:

A stand with a minimum of 9 wildflower species should be established, including at least three flowering species from each of the three bloom periods (spring, summer, and fall). The stand should include a minimum of one legume species and one native bunchgrass for a total of 10 or more species. A species list can be found in the Pollinator Technical Guide (327c) and as a table in the EFOTG in practice 327.

Drill grass, forb, and legume seed $\frac{1}{4}$ inches deep or broadcast uniformly over area.

The average planting rate for pre-mixed seeds is about 12 lbs. per acre (or 8-22 lbs. per acre). Each species can make up 0.25 % to 20% of the mix depending on seed size and seeds per lb. (*no single species should exceed 20% of the mix*). The ultimate goal for pollinator benefit is 40-60 pure live seed (PLS) per square foot.

Woody Plants for Pollinators: Specific flowering native tree and shrub species that are

specifically beneficial to pollinators can be used as part of the 9 forbs in the planting plan.

MAINTENANCE:

Where wildlife habitat is the primary purpose, maintenance activities should not disturb cover during the primary nesting season from April 1 September 1, annually. Exceptions should be considered for periodic burning, mowing, or spot herbicide treatment when necessary to maintain the health of the desired plant community.

Noxious and invasive species should be controlled to prevent proliferation and competing with the desired plant community.

Inspect after major storms, remove trapped sediment, repair eroding areas and reseed any areas where cover has been destroyed during the next appropriate seeding period.

Common Name (List of Native Grasses)	
Big Bluestem	
Bushy Bluestem	
Splitbeard Bluestem	
Wiregrass (can plant plugs)	
River Oats/Indian Wood Oats	
Toochache Grass	
Canada Wild Rye	
Bottlebrush Wild Rye	
Riverbank Wild Rye	
Virginia Wild Rye	
Fowl Manna Grass	
Muhly Grass	
Beaked or Fall Panicum	
Deer Tongue Rosette Grass	
Switchgrass (aggressive, no more than 1 lb. PLS/ac)	
Little Bluestem	
Indian grass (better with spring planting)	
Lopsided Indian Grass	
Pineywoods Dropseed	
Purple Top	
Eastern Gama Grass (plant 1 in. deep, can use a corn planter)	
Common Name (List of Native Wildflowers)	Season
Indian Blanket	spr-fall
Ox Eye Sunflower	spr-fall
White Wild Indigo (legume)	spring
Spiked Wild Indigo (legume)	spring
Blue Wild Indigo (legume)	spring
Catbells (legume)	spring
Blue Flag Iris	spring
Wild Blue Lupine (legume)	spring
Pickernelweed	spring
Greyheaded Coneflower	spring
Narrowleaved Blue-eyed Grass	spring
Wreath Goldenrod	spring
Virginia Spiderwort	spring
Largeflower Tickseed	spr-sum
Lance Leaved Coreopsis	spr-sum
Showy Primrose	spr-sum
Appalachian Beard Tongue	spr-sum

Annual Phlox	spr-sum
Black-Eyed Susan	spr-sum
Goat's Rue (legume)	spr-sum
Ohio Spiderwort/Bluejacket	spr-sum
Zigzag Spiderwort	spr-sum
Golden Alexanders	spr-sum
Common Milkweed	summer
Butterfly Milkweed	summer
Horsefly Weed (legume)	summer
Panicle-leaf Trefoil (legume)	summer
Rattlesnake Master	summer
Woodland Sunflower	summer
Crimson-eyed Rose Mallow	summer
Grass-leaf Blazing Star	summer
Scaly Blazing Star	summer
Lemon Mint	summer
Wild Bergamot	summer
Spotted Bee Balm	summer
Wild Quinine	summer
Clustered Mountain Mint	summer
Maryland Senna (legume)	summer
Cup Plant	summer
Pinebarren Goldenrod	summer
Gray Goldenrod	summer
Smooth Blue Aster	sum-fall
New England Aster	sum-fall
Eastern Showy Aster	sum-fall
Showy Tickseed Sunflower/Bur-marigold	sum-fall
Partridge Pea (legume)	sum-fall
Tall Coreopsis	sum-fall
Blue Mistflower	sum-fall
Joe Pye Weed	sum-fall
Swamp/Narrow-Leaf Sunflower	sum-fall
Thin-Leaf Sunflower	sum-fall
Marsh Blazing Star	sum-fall
Cardinal Flower	sum-fall
Downy Lobelia	sum-fall
Evening Primrose	sum-fall
Orange Coneflower	sum-fall
Starry Rosinweed	sum-fall
Rigid Goldenrod	sum-fall
Wrinkle-Leaved Goldenrod	sum-fall
Showy Goldenrod	sum-fall
Yellow Wingstem	sum-fall
Giant Ironweed	sum-fall
New York Ironweed	sum-fall
Eastern Swamp Milkweed	fall
New York Aster	fall
Purple Stemmed Aster	fall
Boneset	fall
Sneezeweed	fall
Elegant Blazing Star	fall
Rough-Leaved Goldenrod	fall

Woody Plants for Pollinators	
Spring Bloom	Summer Bloom
wild plum	false indigobush/leadplant
choke cherry	beauty berry
raspberry, blackberry	new jersey tea
blueberries	buttonbush
red buckeye	sweet pepperbush
redbud	Viburnums
dogwoods	smooth sumac
southern crabapple	winged sumac
black willow	sourwood
maple (red, silver, sugar)	linden, basswood
serviceberry	trumpet creeper
persimmon	coral honeysuckle
tulip poplar	Virginia creeper
swamp tupelo	
black gum/tupelo	
black locust	cross vine (Spring)

Buffers for Birds, Bees and Beetles

CP33 Buffers Can Provide Habitat for Wild Birds and Beneficial Insects



Cropland borders containing a combination of native grasses and wildflowers can provide habitat for birds like bobwhite quail while improving natural pollination services and farms' natural defenses against insect pests.

The CRP Continuous Signup allows enrollment of land in a practice called Upland Bird Habitat Buffer (CP33) at any time during the year. This program offers:

- Enrollment at any time
- Automatic acceptance for eligible land
- Eligibility for land owners and renters
- Cost-share for establishment and management
- 10-year land rental contracts
- Maintains agricultural use value

How Much Money's At Stake?

The CRP payment will be based on soil rental rate, signing incentive, maintenance payment, and practice incentive, if applicable.

Cost sharing for the required habitat management is also available.

The CRP contracts run for 10-years.

Who and What's Eligible?

Land owners or tenants may enroll in CRP. Land must have been cropped in at least four years during 2002 to 2007.

Ideal sites receive full sun and have good drainage.

Planted habitat patches should not be more than 300 ft. from one another to provide best results.

What's Expected?

The buffer must be protected from production of hay, forage, or crops and participants must prevent their use as turn rows, roads, or storage areas.

Any disturbance during the primary bird nesting season running from April 15th to September 1st must be prevented.

All enrolled buffers must have an average width between 30 and 120 feet. A whole field may not be enrolled.

Although managing fallow, volunteer vegetation strips is an acceptable option, establishing stands of mixed native grasses and wildflowers will maximize the habitat for birds and desirable insects. A sample planting specification is included on the back of this sheet.

Plant diversity and wildlife habitat must be actively managed to sustain the buffer's benefits. It is necessary to conduct one or more of the following management actions every year on 1/3 to 1/2 of the buffer:

- mowing and raking off the straw,
- prescribed burning,
- spot-killing undesirable woody plants and exotic grasses like tall fescue, Bermuda grass, and Bahia grass.

Buffer boundaries must always be identified by 1-inch by 5-foot (or larger) poles or pipes, driven at least 1-foot into the soil.

Want More Information?

To learn more about creating habitat for wildlife or beneficial insects visit a local NRCS office, or read *Manage Insects On Your Farm: A Guide to Ecological Strategies*, published by the USDA's Sustainable Agriculture Research and Education program <http://www.sare.org>.

To enroll land in CRP, contact a local office of the USDA's Farm Service Agency.



Example Establishment Specifications

1. Establish Habitat Buffers for Upland Birds at locations indicated on the attached layout map, according to the specifications provided below.
2. Use pipes, or sticks to identify buffer edges, and provide “aiming sticks” for equipment operators.
3. Establish this planting to provide the habitat structure and complexity required by birds, pollinators and desirable predatory insects that nest or forage in early succession habitat close to agricultural land.

Plants Plant all species in a mix, or broadcast separately to create a mixed stand	Seeding Rate	Bloom Normally Begins	Bloom Can Last
Big bluestem (<i>Andropogon gerardii</i>)	2 lbs. per acre	-	-
Indiangrass (<i>Sorghastrum nutans</i>)	1 lbs. per acre	-	-
Butterflyweed (<i>Asclepias tuberosa</i>)	1 lb. per acre	June	60 days
Black-eyed Susan (<i>Rudbeckia hirta</i>)	1 lb. per acre	June	40 days
Purple coneflower (<i>Echinacea purpurea</i>)	1 lb. per acre	June	90 days
Common milkweed (<i>Asclepias syriaca</i>)	1 lb. per acre	July	40 days
Lance leaved coreopsis (<i>Coreopsis lanceolata</i>)	1 lb. per acre	July	40 days
Swamp sunflower (<i>Helianthus angustifolius</i>)	1 lb. per acre	Sept	40 days
Showy Goldenrod (<i>Solidago speciosa</i>)	1 lb. per acre	Sept	60 days
Heath Aster (<i>Aster pilosus</i>)	1 lb. per acre	Oct	40 days

4. Ideal planting time for all seed is the month of May. Broadcast seed on the surface of very finely-disked and firmly rolled (fully settled) conventional seedbed, then roll seed into the top 1/4 to 1/2 inch of topsoil. Do not rake in seed or apply fertilizer at planting time. Use of an herbicide to provides pre-emergent and post-emergent warm season weed control is usually desirable when this type of planting is made on cropland. All the species to plant from seed have some tolerance to the herbicide Imazapic (an active ingredient in Plateau, Journey and Impose). Where herbicide cannot be used mow to about 6 inches (not lower) each time the buffer vegetation reaches a height of 12-15 inches during the first growing season. Mowing up to 4 times during the first season may be necessary. Do not continue mowing during the second growing season.

Example Management Specifications

After establishment, this planting requires active management to stay productive. Begin management during the year of practice establishment using the following specification:

1. Control unwanted woody vegetation (like sweetgums and pines) and exotic grasses (like Bermuda grass, Johnson grass, Vasey grass and Bahia grass each year during the growing season. Keep the amount of trees and shrubs at or below 10% of the total canopy cover. Woody vines may comprise up to 25% of the total groundcover.
2. Prescribed burn, or mow and rake off the plant residue during Sept - Oct to sustain the plant diversity. Bush-hogging without raking off or burning off the straw will drive down wildflower diversity. Light disking will damage wildflowers' basal rosettes. Management that occurs during November through April 15th is allowed, however at that time, fewer seedlings will be recruited into the stand during the next growing season.

Example Maintenance Specifications

Each year of the contract you must ensure the practice is maintained according to the following specifications:

1. Replace damaged marker pipes, or sticks along the buffer edges.
2. Maintain the buffers' original width and length.
3. Protect buffers from disking, mowing, and fire during the nesting season (April 15th to September 1st).
4. Do not plant wildlife food plots in buffers.
5. Do not use buffers for production of hay, forage, or crops.
6. Do not use buffers for turn rows, roads, or storage areas for crops or equipment.
7. Inspect for erosion after major storms, remove accumulated sediment and re-grade washouts, stabilize repaired area by planting a small grain cover crop.

**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 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.

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.

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 a diverse mixture grasses and forbs

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](#).

**NRCS, NC
February 2015**

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.

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.

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

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/>