



CONSERVATION ENHANCEMENT ACTIVITY

E412A

CONSERVATION STEWARDSHIP PROGRAM

Enhance a grassed waterway

Conservation Practice 412: Grassed Waterway

APPLICABLE LAND USE: Crop (Annual & Mixed); Crop (Perennial)

RESOURCE CONCERN ADDRESSED: Water Quality Degradation

ENHANCEMENT LIFE SPAN: 10 year

Enhancement Description

Extending, enlarging or increasing protection for an existing grassed waterway for better water quality protection.

Criteria

This enhancement shall include all the following:

- Enhance the waterway by improving either size, length or outlet, using one or more of the following options:
 - Lengthen the waterway further up the slope
 - Extend the waterway further past its current outlet location
 - Reshape, widen, or reconstruct part of the waterway to achieve more flow capacity
- Protect the waterway to help it function properly and improve life expectancy by completing 3 out of 4 the following:
 - Create GPS shapefiles and must be used by applicators for auto-shut off of equipment (spraying and/or fertilizing) passing by or through waterway
 - For fields that the producer owns or operates in the watershed, The STIR value shall be no greater than 40 for each crop in the rotation (maintain high residue)
 - Uniformly distribute residues over the entire field (don't bale residue)
 - Install drain tile on one or both sides of the waterway to maintain vegetation



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Documentation and Implementation Requirements

Participant will:

- Prior to implementation, choose which fields contain waterways that will be addressed using this enhancement. Decide what will be done from the criteria list.

Field	Waterway ID	Criteria Chosen

- IF selecting to GPS the boundary of the waterway, provide NRCS with the shapefiles.
- Prior to implementation, if seeding will be done, prepare the planned acres for vegetation establishment. Total planned amount of waterway = _____ feet. Prior to implementation, select grasses best suited to site conditions. Refer to NRCS Conservation Practice Standard Grassed Waterway (Code 412).

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Species	Seeding Rate (lb/ac pure live seed)	Note specific species characteristic(s)

NRCS will:

- As needed, provide technical assistance in selecting the best option that would meet the criteria of the enhancement.
- As needed, design the grassed waterway for the participant as requested.
- As needed, provide additional assistance to the participant as requested.
- If selecting the option to improve water infiltration in the watershed above the waterway, NRCS will provide the STIR value.



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NRCS Documentation Review:

I have reviewed all required participant documentation and have determined the participant has implemented the enhancement and met all criteria and requirements.

Participant Name _____ Contract Number _____

Total Amount Applied _____ Fiscal Year Completed _____

NRCS Technical Adequacy Signature

Date



ALABAMA – E412A Supplement- Enhance a grassed waterway

Extend, enlarge, or increase protection for an **existing** grassed waterway for better water quality protection.

Requirements:

1. Plan map will show all fields and locations of the grassed waterways that are to be enlarged along with extents (width and length). Grassed waterways must meet or exceed the minimum designed size.
2. Only the actual acreage of waterway increased is eligible for payment.
3. The option to install drain tiles on one or both sides of the waterway is applicable only if seepage is so severe that vegetation cannot be maintained.
4. Grasses must be perennial but can be introduced or native. Refer to NRCS Conservation Practice Standard 342-Critical Area Planting.
5. Rows should be oriented as closely as possible to perpendicular to sheet flow direction and drain into the waterway without end rows.
6. Grassed waterways should not be used as storage areas.
7. No herbicide overspray should occur on grassed waterways when spraying field crops. Any vegetation destroyed by herbicides or tillage must be re-established.
8. Grassed waterways with introduced grasses should be mowed annually for maintenance. Apply lime and fertilizer as needed to maintain vegetation in vigorous condition. Spot spray invasive or woody vegetation. Follow all herbicide label requirements.
9. Apply lime and fertilizer according to soil test recommendations for establishment.
10. Receipts for seed, fertilizer, and lime are required. Seed tags should include species and variety, germination, and purity. Complete all documentation on the national jobsheet.

Table 2. Perennial Grasses, Legumes and Mixtures; Seeding Rates; and Planting Dates for Critical Area Plantings on Prepared Seedbeds

Species	Seeding* Rate/Acre	Planting Depth (in.)	Planting Dates and Adapted Area			Remarks
			North	Central	South	
Bahiagrass*/ **	40 lbs	¼ - ½	Mar 1 – Jul 1	Mar 1 – Jul 1	Feb 1 – Nov 1**	Low growing, sod forming and may be slow to establish. Tolerant of droughty, low fertility sites.
Bermudagrass, Common, (Hulled)	10 lbs	¼ - ½	Apr 1 – Jul 15	Mar 15 – Jul 15	Mar 1 - Jul 15	Quick cover, low growing and sod forming. Intolerant of shade, low fertility and poor management.
Bahiagrass*/**+ Common Bermudagrass (Hulled)	27 lbs 7 lbs	¼ - ½	Mar 1 – Jul 1	Mar 1 – Jul 15	Mar 1 – Jul 15	Bermuda will provide quick cover until bahiagrass established.
Bermudagrass, Sprigs (Forage Type) or Common	30 bu – Rows or 45 bu – B. C.	3-6 2-4	Apr 1 – Jul 15	Mar 15 – Jul 15	Mar 1 – Aug 15	All hybrids are not adapted for North Alabama. Hybrid's Intolerant to low fertility and poor management.
Bermudagrass, Hybrid (Lawn types)	Solid Sod	---	Anytime during year	Anytime during year	Anytime during year	Usually needs irrigation to establish.
Bermudagrass, Hybrid (Lawn types)	Sprigs 217bu/ac, 6 in. rows Plugs- 1/ft ²	¼ - ½	Mar 15 – Aug 1	Mar 1 – Aug 15	Feb 15 – Sep 1	Usually needs irrigation to establish.
Fescue, Tall****	D – 40 lbs*** B – 50 lbs	¼- ½	Mar 1 – Apr 15 Sep 1 – Nov 1	---	---	Good shade tolerance and does well on wet sites. Slow to establish. Does not establish well from spring planting
Fescue, Tall**** and White Clover	D – 40 lbs B - - 50 lbs D&B – 3 lbs	¼ - ½	Mar 1- Apr 15 Sep 1 – Nov 1	---	---	Good shade tolerance. Does well on wet sites and clay soils of Black Belk.
Sericea	D – 40 lbs B – 60 lbs	¼	Mar 15 – Jul 15	Mar 1 – July 15	Feb 15 – Jul 15	Suited for low maintenance. Well adapted to low fertility soils and mine spoil. Slow to establish.

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			North	Central	South	
Sericea + Bermudagrass (Hulled)	D-40 lbs, B-60 lbs D & B – 10 lbs	¼ in.	Mar 15- July 15	Mar 1- July 15	Feb 15-July 15	Bermudagrass will provide quick cover until Common sericea is established.
Switchgrass	D & B – 10 lbs. PLS	¼ in.	April 1 – Jul 1	Mar 15 – Jul 15	Mar 1 – Jul 15	Native grass adapted to a wide range of sites. Do not mow below 8 – 12 inches.

* Bahiagrass planting: Sand Mountain variety: N,C,S

Pensacola, Tift9, UF Riata, Tifquick: S, C, counties contiguous to Central Alabama plus St. Clair, Calhoun, & Cleburne. Argentine bahiagrass may be planted in South AL.

** Fall planting of bahiagrass should contain 45 pounds of small grain to provide cover during winter months.

*** D - drilled, B - broadcast, and PLS - pure live seed.

**** Tall fescue plantings in South Alabama are limited to land capability subclass w soils. Use novell endophyte infected types of fescue, or fungus freefescue.

Notes: 1. Legume seed will be properly treated with the inoculant specific for the species of legume.

2. Seeding rates for FSA and State cost share practices shall be the rate specified in the program handbook.

3. PLS – Pure Live Seed (lbs. of live seed x % purity = lbs. Pure Live seed)

4. Use hybrid broadcast rates for rows greater than 24 inches.

