Practice: 327 - Conservation Cover

Scenario # 1 Grass

Scenario Description: **Louisiana**

This practice applies on land to be retired from agricultural production and on other lands needing permanent protective cover. This practice typically involves conversion from a clean-tilled (conventional tilled) intensive cropping system to permanent non-native vegetation (scenario includes non-native grass). The typical size of the practice is 50 acres. This practice scenario is typically used to reduce soil erosion, reduce soil quality degradation, improve water quality, develop wildlife habitit, and reduce air quality impacts.

Before Practice Situation:

Crops such as corn, soybeans, or cotton are conventionally grown and harvested. Full width tillage is utilized, weeds controlled by cultivation and/or chemical application. Soil surface residue amounts average 10% or less. Soil erosion occurs with visible rills present, sediment may be moving offsite into surface water degrading water quality. Soil quality (soil organic matter) declines over time as a result of tillage practices, low residue, and long periods of bare soil. Air quality may be impacted during field operations by the creation of particulates. The system provides little to no wildlife habitat.

After Practice Situation:

Land covered with permanent non-native grass vegetation has reduced soil erosion, reduced water/sediment runoff, and significant dust emissions are eliminated therefore, air quality is improved. Plants sown for conservation cover may provide cover for beneficial insects and wildlife. This scenario does not apply to plantings for forage production or to critical area plantings.

Scenario Feature Measure:

Area planted

Scenario Typical Size:	50	Acre	Unit Cost	$184.04

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Smooth Bromegrass (Bromus inermis)	200	Pound	$3.15	$630.00
Materials	Orchard Grass (Dactylis glomerata)	100	Pound	$2.04	$204.00
Materials	Timothy (Phleum pratense)	50	Pound	$2.46	$123.00
Materials	Redtop (Agrostis gigantea)	75	Pound	$9.45	$708.75
Materials	Phosphorus, P2O5	2500	Pound	$0.78	$1,950.00
Materials	Nitrogen (N), Ammonium Nitrate	2500	Pound	$0.78	$1,950.00
Materials	Potassium, K2O	2000	Pound	$0.52	$1,040.00
Materials	Herbicide, Glyphosate	50	Acre	$11.04	$552.00
Equip./Install.	Seeding Operation, No Till/Grass Drill	50	Acre	$12.90	$645.00
Equip./Install.	Tillage, Light	100	Acre	$8.86	$886.00
Equip./Install.	Chemical, ground application	50	Acre	$3.93	$196.50
Equip./Install.	Fertilizer, ground application, dry bulk	50	Acre	$6.33	$316.50
				Total Cost:	$9,201.75

Practice: 327 - Conservation Cover

Scenario # 2 Native Grass

Scenario Description: **Louisiana**

This practice applies on land to be retired from agricultural production and on other lands needing permanent protective cover. This practice typically involves conversion from a clean-tilled (conventional tilled) intensive cropping system to permanent native vegetation (scenario includes native grass). The typical size of the practice is 50 acres. This practice scenario is typically used to reduce soil erosion, reduce soil quality degradation, improve water quality, develop wildlife habitit, and reduce air quality impacts.

Before Practice Situation:

Crops such as corn, soybeans, or cotton are conventionally grown and harvested. Full width tillage is utilized, weeds controlled by cultivation and/or chemical application. Soil surface residue amounts average 10% or less. Soil erosion occurs with visible rills present, sediment may be moving offsite into surface water degrading water quality. Soil quality (soil organic matter) declines over time as a result of tillage practices, low residue, and long periods of bare soil. Air quality may be impacted during field operations by the creation of particulates. The system provides little to no wildlife habitat.

After Practice Situation:

Land covered with permanent native grass vegetation has reduced soil erosion, reduced water/sediment runoff, and significant dust emissions are eliminated therefore, air quality is improved. Plants sown for conservation cover may provide cover for beneficial insects and wildlife. This scenario does not apply to plantings for forage production or to critical area plantings.

Scenario Feature Measure:

Area planted

Scenario Typical Size:	50	Acre		Unit Cost	$170.42

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Switchgrass, Blackwell (Panicum virgatum)	100	Pound	$9.62	$962.00
Materials	Wild Rye, Virginia (Elymus virginicus)	100	Pound	$9.81	$981.00
Materials	Big Blue Stem (Andropogon gerardii)	250	Pound	$11.81	$2,952.50
Materials	Herbicide, Glyphosate	50	Acre	$11.04	$552.00
Equip./Install.	Tillage, Light	50	Acre	$8.86	$443.00
Equip./Install.	Chemical, ground application	50	Acre	$3.93	$196.50
Equip./Install.	Mechanical weed control, Vegetation termination	100	Acre	$17.89	$1,789.00
Equip./Install.	Seeding Operation, No Till/Grass Drill	50	Acre	$12.90	$645.00
				Total Cost:	$8,521.00

Practice: 327 - Conservation Cover

Scenario # 3 Pollinator Habitat

Scenario Description: **Louisiana**

Permanent vegetation, including mix of native grasses, legume, forbs (mix may also include non-native species), established on any land needing permanent vegetative cover that provides habitat for pollinators. Typical practice size is variable depending on site, this scenario uses 1 ac as the typical size. In addition to providing pollinator habitat, this practice scenario may also reduce sheet and rill erosion, improve soil quality, improve water quality, and improve air quality. The practice may also provide wildlife habitat. Practice applicable on cropland, odd areas, corners, etc.

Before Practice Situation:

Crops such as corn, soybeans, or cotton are conventionally grown and harvested. Full width tillage is utilized, weeds controlled by cultivation and/or chemical application. Soil surface residue amounts average 10% or less. Soil erosion occurs with visible rills present, sediment may be moving offsite into surface water degrading water quality. Soil quality (soil organic matter) declines over time as a result of tillage practices, low residue, and long periods of bare soil. Air quality may be impacted during field operations by the creation of particulates. The system provides little to no wildlife or pollinator habitat.

After Practice Situation:

Land covered with permanent pollinator habitat including a mix of native grasses, legume, forbs (mix may also include non-native species). This practice may also have reduced soil erosion, reduced water/sediment runoff, and significant dust emissions are eliminated therefore, air quality is improved. Plants sown for pollinator habitat may also provide cover for beneficial insects and wildlife. This scenario does not apply to critical area plantings.

Scenario Feature Measure:

Area planted

Scenario Typical Size:	1	Acre	Unit Cost	$669.61

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Wild Rye, Virginia (Elymus virginicus)	1	Pound	$9.81	$9.81
Materials	Little Blue Stem (Schizachyrium scoparium)	1	Pound	$15.43	$15.43
Materials	Eastern Gamagrass (Tripsacum dactyloides)	1	Pound	$17.45	$17.45
Materials	Black-Eyed Susan (Rudbeckia hirta)	1	Pound	$33.55	$33.55
Materials	Herbicide, Glyphosate	3	Acre	$11.04	$33.12
Materials	Purple Coneflower (Echinacea purpurea)	1	Pound	$32.78	$32.78
Materials	Smooth Aster (Aster laevis)	1	Pound	$217.74	$217.74
Materials	Wild Senna (Cassia hebecarpa)	1	Pound	$68.25	$68.25
Materials	Partidge Pea (Chamaecrista fasciculata)	1	Pound	$15.70	$15.70
Materials	Blue Wild Indigo (Baptisia australis)	1	Pound	$156.45	$156.45
Equip./Install.	Tillage, Light	1	Acre	$8.86	$8.86
Equip./Install.	Chemical, ground application	3	Acre	$3.93	$11.79
Equip./Install.	Mechanical weed control, Vegetation termination	2	Acre	$17.89	$35.78
Equip./Install.	Seeding Operation, No Till/Grass Drill	1	Acre	$12.90	$12.90
				Total Cost:	$669.61

Practice: 327 - Conservation Cover

Scenario # 4 Organic Introduced Mix

Scenario Description: **Louisiana**

This practice applies on organically managed land needing permanent protective cover. This practice typically involves conversion from an intensive organic cropping system to permanent non-native vegetation (scenario includes non-native grass/legume mix). The typical size of the practice is 20 acres. This practice scenario is typically used to reduce soil erosion, reduce soil quality degradation, improve water quality, develop wildlife habitit, and reduce air quality impacts.

Before Practice Situation:

Crops such as vegetables and small fruit crops are organically grown and harvested. Full width tillage is utilized, weeds controlled mainly by cultivation. Soil surface residue amounts average 10% or less. Soil erosion occurs with visible rills present, sediment may be moving offsite into surface water degrading water quality. Soil quality (soil organic matter) declines over time as a result of tillage practices, low residue, and long periods of bare soil. Air quality may be impacted during field operations by the creation of particulates. The system provides little to no wildlife habitat.

After Practice Situation:

Organically managed land covered with permanent non-native grass/legume mix vegetation has reduced soil erosion, reduced water/sediment runoff, and significant dust emissions are eliminated therefore, air quality is improved. Plants sown for conservation cover may provide cover for beneficial insects and wildlife. This scenario does not apply to plantings for forage production or to critical area plantings.

Scenario Feature Measure:

Area planted

Scenario Typical Size:	20	Acre		Unit Cost	$478.97

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Certified Organic, Smooth Bromegrass (Bromus inermis)	80	Pound	$4.41	$352.80
Materials	Certified Organic, Orchard Grass (Dactylis glomerata)	40	Pound	$5.02	$200.80
Materials	Certified Organic, Alfalfa (Medicago sativa)	80	Pound	$4.38	$350.40
Materials	Potassium, Organic	800	Pound	$1.32	$1,056.00
Materials	Phosphorus, Organic	1000	Pound	$2.99	$2,990.00
Materials	Certified Organic, Red Clover (Trifolium pratense)	60	Pound	$8.46	$507.60
Materials	Nitrogen, Organic	1000	Pound	$2.49	$2,490.00
Equip./Install.	Tillage, Light	60	Acre	$8.86	$531.60
Equip./Install.	Fertilizer, ground application, dry bulk	20	Acre	$6.33	$126.60
Equip./Install.	Mechanical weed control, Vegetation termination	40	Acre	$17.89	$715.60
Equip./Install.	Seeding Operation, No Till/Grass Drill	20	Acre	$12.90	$258.00
				Total Cost:	$9,579.40

Practice: 327 - Conservation Cover

Scenario # 5 Organic Native Mix

Scenario Description: **Louisiana**

This practice applies on organically managed land needing permanent protective cover. This practice typically involves conversion from an intensive organic cropping system to permanent native vegetation (scenario includes native grass/legume mix). The typical size of the practice is 20 acres. This practice scenario is typically used to reduce soil erosion, reduce soil quality degradation, improve water quality, develop wildlife habitit, and reduce air quality impacts. *Certified Organic Native Seed is typically NOT available, therefore non-organic seed components were used.

Before Practice Situation:

Crops such as vegetables and small fruit crops are organically grown and harvested. Full width tillage is utilized, weeds controlled mainly by cultivation. Soil surface residue amounts average 10% or less. Soil erosion occurs with visible rills present, sediment may be moving offsite into surface water degrading water quality. Soil quality (soil organic matter) declines over time as a result of tillage practices, low residue, and long periods of bare soil. Air quality may be impacted during field operations by the creation of particulates. The system provides little to no wildlife habitat.

After Practice Situation:

Organically manage land covered with permanent native grass/legume mix vegetation has reduced soil erosion, reduced water/sediment runoff, and significant dust emissions are eliminated therefore, air quality is improved. Plants sown for conservation cover may provide cover for beneficial insects and wildlife. This scenario does not apply to plantings for forage production or to critical area plantings.

Scenario Feature Measure:

Area planted

Scenario Typical Size:	20	Acre		Unit Cost	$329.27

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Switchgrass, Blackwell (Panicum virgatum)	40	Pound	$9.62	$384.80
Materials	Wild Rye, Virginia (Elymus virginicus)	40	Pound	$9.81	$392.40
Materials	Big Blue Stem (Andropogon gerardii)	100	Pound	$11.81	$1,181.00
Materials	Slender Bush Clover (Lespedeza virginica)	5	Pound	$224.95	$1,124.75
Materials	Canada Tick Trefoil (Desmodium canadense)	5	Pound	$171.45	$857.25
Materials	Blue Wild Indigo (Baptisia australis)	5	Pound	$156.45	$782.25
Equip./Install.	Tillage, Light	60	Acre	$8.86	$531.60
Equip./Install.	Mechanical weed control, Vegetation termination	60	Acre	$17.89	$1,073.40
Equip./Install.	Seeding Operation, No Till/Grass Drill	20	Acre	$12.90	$258.00
				Total Cost:	$6,585.45

Practice: 327 - Conservation Cover

Scenario # 6 Organic Pollinator Habitat

Scenario Description: **Louisiana**

Permanent vegetation, including mix of native grasses, legume, forbs (mix may also include non-native species), established on organically managed land needing permanent vegetative cover that provides habitat for pollinators. Typical practice size is variable depending on site, this scenario uses 1 ac as the typical size. In addition to providing pollinator habitat, this practice scenario may also reduce sheet and rill erosion, improve soil quality, improve water quality, and improve air quality. The practice may also provide wildlife habitat. Practice applicable on cropland, odd areas, corners, etc. *Certified Organic Native Seed is typically NOT available, therefore non-organic seed components were used.

Before Practice Situation:

Crops such as vegetables and small fruit crops are organically grown and harvested. Full width tillage is utilized, weeds controlled mainly by cultivation. Soil surface residue amounts average 10% or less. Soil erosion occurs with visible rills present, sediment may be moving offsite into surface water degrading water quality. Soil quality (soil organic matter) declines over time as a result of tillage practices, low residue, and long periods of bare soil. Air quality may be impacted during field operations by the creation of particulates. The system provides little to no wildlife or pollinator habitat.

After Practice Situation:

Organically managed land covered with permanent pollinator habitat including a mix of native grasses, legume, forbs (mix may also include non-native species). This practice may also have reduced soil erosion, reduced water/sediment runoff, and significant dust emissions are eliminated therefore, air quality is improved. Plants sown for pollinator habitat may also provide cover for beneficial insects and wildlife. This scenario does not apply to critical area plantings.

Scenario Feature Measure:

Area planted

Scenario Typical Size:	1	Acre	Unit Cost	$660.31

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Wild Rye, Virginia (Elymus virginicus)	1	Pound	$9.81	$9.81
Materials	Little Blue Stem (Schizachyrium scoparium)	1	Pound	$15.43	$15.43
Materials	Eastern Gamagrass (Tripsacum dactyloides)	1	Pound	$17.45	$17.45
Materials	Black-Eyed Susan (Rudbeckia hirta)	1	Pound	$33.55	$33.55
Materials	Purple Coneflower (Echinacea purpurea)	1	Pound	$32.78	$32.78
Materials	Smooth Aster (Aster laevis)	1	Pound	$217.74	$217.74
Materials	Wild Senna (Cassia hebecarpa)	1	Pound	$68.25	$68.25
Materials	Partidge Pea (Chamaecrista fasciculata)	1	Pound	$15.70	$15.70
Materials	Blue Wild Indigo (Baptisia australis)	1	Pound	$156.45	$156.45
Equip./Install.	Tillage, Light	3	Acre	$8.86	$26.58
Equip./Install.	Mechanical weed control, Vegetation termination	3	Acre	$17.89	$53.67
Equip./Install.	Seeding Operation, No Till/Grass Drill	1	Acre	$12.90	$12.90
				Total Cost:	$660.31

Practice: 327 - Conservation Cover

Scenario # 7 Native Grass with Forgone Income

Scenario Description: **Louisiana**

This practice applies on land to be retired from agricultural production and on other lands needing permanent protective cover. This practice typically involves conversion from a clean-tilled (conventional tilled) intensive cropping system to permanent native vegetation (scenario includes native grass). The typical size of the practice is 50 acres. This practice scenario is typically used to reduce soil erosion, reduce soil quality degradation, improve water quality, develop wildlife habitit, and reduce air quality impacts.

Before Practice Situation:

Crops such as corn, soybeans, or cotton are conventionally grown and harvested. Full width tillage is utilized, weeds controlled by cultivation and/or chemical application. Soil surface residue amounts average 10% or less. Soil erosion occurs with visible rills present, sediment may be moving offsite into surface water degrading water quality. Soil quality (soil organic matter) declines over time as a result of tillage practices, low residue, and long periods of bare soil. Air quality may be impacted during field operations by the creation of particulates. The system provides little to no wildlife habitat.

After Practice Situation:

Land covered with permanent native grass vegetation has reduced soil erosion, reduced water/sediment runoff, and significant dust emissions are eliminated therefore, air quality is improved. Plants sown for conservation cover may provide cover for beneficial insects and wildlife. This scenario does not apply to plantings for forage production or to critical area plantings.

Scenario Feature Measure:

Area planted

Scenario Typical Size:	50	Acre		Unit Cost	$392.98

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Switchgrass, Blackwell (Panicum virgatum)	100	Pound	$9.62	$962.00
Materials	Wild Rye, Virginia (Elymus virginicus)	100	Pound	$9.81	$981.00
Materials	Big Blue Stem (Andropogon gerardii)	250	Pound	$11.81	$2,952.50
Materials	Herbicide, Glyphosate	50	Acre	$11.04	$552.00
Equip./Install.	Seeding Operation, No Till/Grass Drill	50	Acre	$12.90	$645.00
Equip./Install.	Mechanical weed control, Vegetation termination	100	Acre	$17.89	$1,789.00
Equip./Install.	Chemical, ground application	50	Acre	$3.93	$196.50
Equip./Install.	Tillage, Light	50	Acre	$8.86	$443.00
Forgone Income	FI, Soybeans Dryland	12.5	Acre	$168.41	$2,105.13
Forgone Income	FI, Rice	12.5	Acre	$401.74	$5,021.75
Forgone Income	FI, Cotton Dryland	12.5	Acre	$197.01	$2,462.63
Forgone Income	FI, Sorghum Dryland	12.5	Acre	$123.07	$1,538.38
				Total Cost:	$19,648.88

Practice: 327 - Conservation Cover

Scenario # 8 Interseeding Native Plants

Scenario Description: **Louisiana**

This practice scenario typically involves interseeding native grasses, legumes, and/or forbs into an existing native plant stand to increase diversity. The typical size of the practice is 20 acres. Increased plant diversity will improve wildlife habitat, pollinator habitat, and overall soil health.

Before Practice Situation:

The site has an established native plant cover. Typically, little diversity exists in the plant community, with 1-2 grass species dominating the stand. Wildlife populations are healthy, some pollinator habitat is being provided, and soil health is improving.

After Practice Situation:

With the introduction of additional native plant species, wildlife populations improve considerably, pollinator habitat is improved and exists for a longer period of time, and soil health improves at a faster pace.

Scenario Feature Measure:

Area Planted

Scenario Typical Size:	20	Acre	Unit Cost	$197.39

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Little Blue Stem (Schizachyrium scoparium)	60	Pound	$15.43	$925.80
Materials	Eastern Gamagrass (Tripsacum dactyloides)	80	Pound	$17.45	$1,396.00
Materials	Black-Eyed Susan (Rudbeckia hirta)	20	Pound	$33.55	$671.00
Materials	Partidge Pea (Chamaecrista fasciculata)	60	Pound	$15.70	$942.00
Equip./Install.	Seeding Operation, No Till/Grass Drill	1	Acre	$12.90	$12.90
				Total Cost:	$3,947.70