Practice: 327 - Conservation Cover

Scenario # 1 Introduced Grass

Scenario Description: **Missouri**

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 row crop cropping system to permanent non-native vegetation (scenario includes non-native grass/legume species). The typical size of the practice is 10 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/legume 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:	10	Acre	Tot Unit Cost	$549.32

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Timothy (Phleum pratense)	20	Pound	$2.46	$49.20
Materials	Smooth Bromegrass (Bromus inermis)	40	Pound	$3.15	$126.00
Materials	Orchard Grass (Dactylis glomerata)	20	Pound	$2.04	$40.80
Materials	Potassium, K2O	400	Pound	$0.52	$208.00
Materials	Phosphorus, P2O5	500	Pound	$0.66	$330.00
Materials	Nitrogen (N), Ammonium Nitrate	500	Pound	$0.73	$365.00
Materials	Red Clover (Trifolium pratense)	40	Pound	$2.60	$104.00
Materials	Herbicide, Glyphosate	10	Acre	$11.04	$110.40
Equip./Install.	Fertilizer, ground application, dry bulk	10	Acre	$7.36	$73.60
Equip./Install.	Seeding Operation, No Till/Grass Drill	10	Acre	$14.99	$149.90
Equip./Install.	Chemical, ground application	10	Acre	$4.57	$45.70
Forgone Incom	FI, Corn Dryland	5	Acre	$392.59	$1,962.95
Forgone Incom	FI, Soybeans Dryland	5	Acre	$385.53	$1,927.65
				Total Cost:	$5,493.20

Payment types:

PayType	Unit Payment	PayType	Unit Payment
EQIP	$314.73	EQIP-HU	$436.03
WHIP	$314.73	WHIP-HU	$436.03
EQIP-CCPI	$314.73	EQIP-HUCCPI	$436.03
EQIP-MRBI	$411.99	EQIP-HUMRBI	$494.39
WHIP-MRBI	$411.99	WHIP-HUMRBI	$494.39

Practice: 327 - Conservation Cover

Scenario # 2 Native Grass

Scenario Description: **Missouri**

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 row crop cropping system system to permanent native vegetation (scenario includes native grass). The typical size of the practice is 10 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:	10	Acre	Tot Unit Cost	$587.61

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Wild Rye, Virginia (Elymus virginicus)	20	Pound	$9.81	$196.20
Materials	Little Blue Stem (Schizachyrium scoparium)	40	Pound	$15.43	$617.20
Materials	Purple Coneflower (Echinacea purpurea)	2.5	Pound	$32.78	$81.95
Materials	Herbicide, Glyphosate	20	Acre	$11.04	$220.80
Materials	Partidge Pea (Chamaecrista fasciculata)	40	Pound	$15.70	$628.00
Equip./Install.	Seeding Operation, No Till/Grass Drill	10	Acre	$14.99	$149.90
Equip./Install.	Chemical, ground application	20	Acre	$4.57	$91.40
Forgone Incom	FI, Corn Dryland	5	Acre	$392.59	$1,962.95
Forgone Incom	FI, Soybeans Dryland	5	Acre	$385.53	$1,927.65
				Total Cost:	$5,876.05

Payment types:

PayType	Unit Payment	PayType	Unit Payment
EQIP	$343.44	EQIP-HU	$470.49
WHIP	$343.44	WHIP-HU	$470.49
EQIP-CCPI	$343.44	EQIP-HUCCPI	$470.49
EQIP-MRBI	$440.70	EQIP-HUMRBI	$528.84
WHIP-MRBI	$440.70	WHIP-HUMRBI	$528.84

Practice: 327 - Conservation Cover

Scenario # 3 Organic Introduced Mix

Scenario Description: **Missouri**

This practice applies on organically managed land needing permanent protective cover. 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 row crop cropping system to permanent non-native vegetation (scenario includes non-native grass/legume species). The typical size of the practice is 10 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 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/legume 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:	10	Acre	Tot Unit Cost	$868.03

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Certified Organic, Smooth Bromegrass (Bromus	40	Pound	$4.41	$176.40
Materials	Certified Organic, Orchard Grass (Dactylis	20	Pound	$5.02	$100.40
Materials	Certified Organic, Alfalfa (Medicago sativa)	40	Pound	$4.38	$175.20
Materials	Potassium, Organic	400	Pound	$1.31	$524.00
Materials	Phosphorus, Organic	500	Pound	$2.96	$1,480.00
Materials	Nitrogen, Organic	500	Pound	$2.47	$1,235.00
Materials	Certified Organic, Red Clover (Trifolium	30	Pound	$8.46	$253.80
Equip./Install.	Fertilizer, ground application, dry bulk	10	Acre	$7.36	$73.60
Equip./Install.	Seeding Operation, No Till/Grass Drill	10	Acre	$14.99	$149.90
Equip./Install.	Mechanical weed control, Vegetation	20	Acre	$20.78	$415.60
Equip./Install.	Tillage, Light	20	Acre	$10.29	$205.80
Forgone Incom	FI, Corn Dryland	5	Acre	$392.59	$1,962.95
Forgone Incom	FI, Soybeans Dryland	5	Acre	$385.53	$1,927.65
				Total Cost:	$8,680.30

Payment types:

PayType	Unit Payment	PayType	Unit Payment
EQIP-NOI	$651.02	EQIP-HUNOI	$781.23

Practice: 327 - Conservation Cover

Scenario # 4 Organic Native Mix

Scenario Description: **Missouri**

This practice applies on organically managed land needing permanent protective cover. 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 row crop cropping system system to permanent native vegetation (scenario includes native grass). The typical size of the practice is 10 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 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:	10	Acre	Tot Unit Cost	$628.82

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Wild Rye, Virginia (Elymus virginicus)	20	Pound	$9.81	$196.20
Materials	Little Blue Stem (Schizachyrium scoparium)	40	Pound	$15.43	$617.20
Materials	Purple Coneflower (Echinacea purpurea)	2.5	Pound	$32.78	$81.95
Materials	Partidge Pea (Chamaecrista fasciculata)	40	Pound	$15.70	$628.00
Equip./Install.	Seeding Operation, No Till/Grass Drill	10	Acre	$14.99	$149.90
Equip./Install.	Mechanical weed control, Vegetation	20	Acre	$20.78	$415.60
Equip./Install.	Tillage, Light	30	Acre	$10.29	$308.70
Forgone Incom	FI, Corn Dryland	5	Acre	$392.59	$1,962.95
Forgone Incom	FI, Soybeans Dryland	5	Acre	$385.53	$1,927.65
				Total Cost:	$6,288.15

Payment types:

PayType	Unit Payment	PayType	Unit Payment
EQIP-NOI	$471.61	EQIP-HUNOI	$565.93

Practice: 327 - Conservation Cover

Scenario # 5 Pollinator Habitat

Scenario Description: **Missouri**

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 a mix of early, mid, and late season forbs, as well as habitat for pollinators. Typical practice size is variable depending on site, this scenario uses 5 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:	5	Acre	Tot Unit Cost	$694.86

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Blue Wild Indigo (Baptisia australis)	2.5	Pound	$156.45	$391.13
Materials	Little Blue Stem (Schizachyrium scoparium)	5	Pound	$15.43	$77.15
Materials	Wild Rye, Virginia (Elymus virginicus)	5	Pound	$9.81	$49.05
Materials	Herbicide, Glyphosate	15	Acre	$11.04	$165.60
Materials	Partidge Pea (Chamaecrista fasciculata)	2.5	Pound	$15.70	$39.25
Materials	Wild Senna (Cassia hebecarpa)	2.5	Pound	$68.25	$170.63
Materials	Purple Coneflower (Echinacea purpurea)	1	Pound	$32.78	$32.78
Materials	Smooth Aster (Aster laevis)	0.63	Pound	$217.74	$137.18
Materials	Black-Eyed Susan (Rudbeckia hirta)	0.63	Pound	$33.55	$21.14
Equip./Install.	Mechanical weed control, Vegetation	10	Acre	$20.78	$207.80
Equip./Install.	Seeding Operation, No Till/Grass Drill	5	Acre	$14.99	$74.95
Equip./Install.	Chemical, ground application	10	Acre	$4.57	$45.70
Acq. Tech. Kno	Training, Workshops	1	Each	$116.67	$116.67
Forgone Incom	FI, Soybeans Dryland	2.5	Acre	$385.53	$963.83
Forgone Incom	FI, Corn Dryland	2.5	Acre	$392.59	$981.48
				Total Cost:	$3,474.31

Payment types:

PayType	Unit Payment	PayType	Unit Payment
EQIP	$423.88	EQIP-HU	$567.02
WHIP	$423.88	WHIP-HU	$567.02
EQIP-CCPI	$423.88	EQIP-HUCCPI	$567.02
EQIP-MRBI	$521.15	EQIP-HUMRBI	$625.38
WHIP-MRBI	$521.15	WHIP-HUMRBI	$625.38

Practice: 327 - Conservation Cover

Scenario # 6 Organic Pollinator Habitat

Scenario Description: **Missouri**

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 a mix of early, mid, and late season forbs, as well as habitat for pollinators. Typical practice size is variable depending on site, this scenario uses 5 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:	5	Acre	Tot Unit Cost	$683.47

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Blue Wild Indigo (Baptisia australis)	2.5	Pound	$156.45	$391.13
Materials	Little Blue Stem (Schizachyrium scoparium)	5	Pound	$15.43	$77.15
Materials	Wild Rye, Virginia (Elymus virginicus)	5	Pound	$9.81	$49.05
Materials	Partidge Pea (Chamaecrista fasciculata)	2.5	Pound	$15.70	$39.25
Materials	Wild Senna (Cassia hebecarpa)	2.5	Pound	$68.25	$170.63
Materials	Purple Coneflower (Echinacea purpurea)	1	Pound	$32.78	$32.78
Materials	Smooth Aster (Aster laevis)	0.63	Pound	$217.74	$137.18
Materials	Black-Eyed Susan (Rudbeckia hirta)	0.63	Pound	$33.55	$21.14
Equip./Install.	Mechanical weed control, Vegetation	10	Acre	$20.78	$207.80
Equip./Install.	Seeding Operation, No Till/Grass Drill	5	Acre	$14.99	$74.95
Equip./Install.	Tillage, Light	15	Acre	$10.29	$154.35
Acq. Tech. Kno	Training, Workshops	1	Each	$116.67	$116.67
Forgone Incom	FI, Soybeans Dryland	2.5	Acre	$385.53	$963.83
Forgone Incom	FI, Corn Dryland	2.5	Acre	$392.59	$981.48
				Total Cost:	$3,417.36

Payment types:

PayType	Unit Payment	PayType	Unit Payment
EQIP-NOI	$512.60	EQIP-HUNOI	$615.13

Practice: 327 - Conservation Cover

Scenario # 7 Prairie Restoration

Scenario Description: **Missouri**

Permanent vegetation, including mix of native grasses, legume, forbs established on land needing permanent vegetative cover as a restoration to native prairie habitat. Typical practice size is variable depending on site, this scenario uses 10 ac as the typical size. In addition to restoring prairie cover, 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 restored to natural habitat including a mix of native grasses, legume, forbs. 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:	10	Acre	Tot Unit Cost	$927.35

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Bolander's Sunflower (Helianthus bolanderi)	1.25	Pound	$95.45	$119.31
Materials	Smooth Aster (Aster laevis)	1.25	Pound	$217.74	$272.18
Materials	Switchgrass, Blackwell (Panicum virgatum)	5	Pound	$9.62	$48.10
Materials	Black-Eyed Susan (Rudbeckia hirta)	1.25	Pound	$33.55	$41.94
Materials	Wild Rye, Virginia (Elymus virginicus)	10	Pound	$9.81	$98.10
Materials	Little Blue Stem (Schizachyrium scoparium)	10	Pound	$15.43	$154.30
Materials	Eastern Gamagrass (Tripsacum dactyloides)	10	Pound	$17.45	$174.50
Materials	Big Blue Stem (Andropogon gerardii)	10	Pound	$11.81	$118.10
Materials	Purple Coneflower (Echinacea purpurea)	5	Pound	$32.78	$163.90
Materials	Herbicide, Glyphosate	20	Acre	$11.04	$220.80
Materials	Wild Senna (Cassia hebecarpa)	5	Pound	$68.25	$341.25
Materials	Slender Bush Clover (Lespedeza virginica)	5	Pound	$224.95	$1,124.75
Materials	Partidge Pea (Chamaecrista fasciculata)	5	Pound	$15.70	$78.50
Materials	Canada Tick Trefoil (Desmodium canadense)	5	Pound	$171.45	$857.25
Materials	Blue Wild Indigo (Baptisia australis)	5	Pound	$156.45	$782.25
Materials	Prairie Cinquefoil (Potentilla arguta)	0.625	Pound	$168.78	$105.49
Equip./Install.	Seeding Operation, No Till/Grass Drill	10	Acre	$14.99	$149.90
Equip./Install.	Mechanical weed control, Vegetation	20	Acre	$20.78	$415.60
Acq. Tech. Kno	Training, Workshops	1	Each	$116.67	$116.67
Forgone Incom	FI, Corn Dryland	5	Acre	$392.59	$1,962.95
Forgone Incom	FI, Soybeans Dryland	5	Acre	$385.53	$1,927.65

Total Cost: $9,273.48

Payment types:

PayType	Unit Payment	PayType	Unit Payment
EQIP	$598.25	EQIP-HU	$776.25
WHIP	$598.25	WHIP-HU	$776.25
EQIP-CCPI	$598.25	EQIP-HUCCPI	$776.25
EQIP-MRBI	$695.51	EQIP-HUMRBI	$834.61
WHIP-MRBI	$695.51	WHIP-HUMRBI	$834.61