

Practice: 512 - Forage and Biomass Planting
Scenario # 1 Interseeding Legumes and/or forbs

Missouri

Scenario Description:

Interseed legumes and/or forbs into an existing grass stand for the purpose of increasing plant diversity, soil quality and fertility, and plant health and enhancing the quality of forage. Scenario is appropriate for conventional production. Payment includes seed, seeding and fertility for interseeding establishment.

Before Practice Situation:

Existing grass stand that needs additional species diversity.

After Practice Situation:

A more diverse grass stand provides improved forage quality and availability, and improved soil condition. Payment scenario is based on red and ladino clover interseeded into a 20 acre cool season grass stand. Inputs are based on medium to low existing fertility.

Scenario Feature Measure:

Acres of Forage and Biomass Planting

Scenario Typical Size:	20	Acre	Tot Unit Cost	\$156.75
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Phosphorus, P2O5	700	Pound	\$0.66	\$462.00
Materials	Lime, ENM	40	Ton	\$23.98	\$959.20
Materials	Potassium, K2O	2000	Pound	\$0.52	\$1,040.00
Materials	Ladino Clover (Trifolium repens)	5	Pound	\$3.74	\$18.70
Materials	Red Clover (Trifolium pratense)	80	Pound	\$2.60	\$208.00
Equip./Install.	Seeding Operation, No Till/Grass Drill	20	Acre	\$14.99	\$299.80
Equip./Install.	Fertilizer, ground application, dry bulk	20	Acre	\$7.36	\$147.20

Total Cost: \$3,134.90

Payment types:

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$117.56	EQIP-HU	\$141.07
EQIP-CCPI	\$117.56	EQIP-HUCCPI	\$141.07
EQIP-MRBI	\$117.56	EQIP-HUMRBI	\$141.07

Practice: 512 - Forage and Biomass Planting

Scenario # 2 Interseed Legumes and/or forbs Organic

Missouri

Scenario Description:

Interseed legumes and/or forbs into an existing grass stand for the purpose of increasing plant diversity, soil quality and fertility, and plant health and enhancing the quality of forage. Scenario is appropriate for organic production. Payment includes seed, seeding and fertility for interseeding establishment.

Before Practice Situation:

Existing grass stand that needs additional species diversity.

After Practice Situation:

A more diverse grass stand provides improved forage quality and availability, and improved soil condition.

Payment scenario is based on red and ladino clover interseeded into a 20 acre cool season grass stand. Inputs are based on medium to low existing fertility.

Scenario Feature Measure:

Acres of Forage and Biomass Planting

Scenario Typical Size:	20	Acre	Tot Unit Cost	\$190.39
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Lime, ENM	40	Ton	\$23.98	\$959.20
Materials	Compost	30	Ton	\$46.24	\$1,387.20
Materials	Certified Organic, Ladino Clover (Trifolium	5	Pound	\$3.58	\$17.90
Materials	Certified Organic, Red Clover (Trifolium	80	Pound	\$8.46	\$676.80
Equip./Install.	Manure, compost, application	4	Hour	\$116.73	\$466.92
Equip./Install.	Seeding Operation, No Till/Grass Drill	20	Acre	\$14.99	\$299.80

Total Cost: \$3,807.82

Payment types:

PayType	Unit Payment	PayType	Unit Payment
EQIP-NOI	\$142.79	EQIP-HUNOI	\$171.35

Practice: 512 - Forage and Biomass Planting

Scenario # 3 Introduced Grass Establishment or Renovation

Missouri

Scenario Description:

Establishing a new stand or renovating a poor stand to introduced grass, or grass with legumes and/or forbs to improve or maintain livestock/wildlife nutrition and health, extend the length of the grazing season, and provide soil cover to reduce erosion. Scenario is appropriate for conventional production. Payment includes site preparation, seed, seeding fertilizer, lime, and foregone income for loss of production during establishment/renovation

Before Practice Situation:

Existing grass stand does not meet the forage demands, particularly during during periods of low forage production. Resource concerns may include undesirable plant productivity and health, inadequate feed and forage for livestock, soil erosion, and soil quality.

After Practice Situation:

Establish introduced grass and legume mix stand to improve livestock nutrition through improved forage quality and availability, and improved soil condition. Payment scenario is based on converting an existing poor condition sod to introduced grass/legume/forb mix using mechanical or chemical activities.

Scenario Feature Measure:

Acres of Forage and Biomass Planting

Scenario Typical Size:	20	Acre	Tot Unit Cost	\$222.64
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Timothy (Phleum pratense)	40	Pound	\$2.46	\$98.40
Materials	Herbicide, Glyphosate	20	Acre	\$11.04	\$220.80
Materials	Orchard Grass (Dactylis glomerata)	80	Pound	\$2.04	\$163.20
Materials	Phosphorus, P2O5	860	Pound	\$0.66	\$567.60
Materials	Lime, ENM	40	Ton	\$23.98	\$959.20
Materials	Potassium, K2O	1660	Pound	\$0.52	\$863.20
Materials	Ladino Clover (Trifolium repens)	5	Pound	\$3.74	\$18.70
Materials	Red Clover (Trifolium pratense)	80	Pound	\$2.60	\$208.00
Equip./Install.	Seeding Operation, No Till/Grass Drill	20	Acre	\$14.99	\$299.80
Equip./Install.	Chemical, ground application	20	Acre	\$4.57	\$91.40
Equip./Install.	Fertilizer, ground application, dry bulk	20	Acre	\$7.36	\$147.20
Forgone Income	FI, Hay, General Grass	20	Ton	\$40.76	\$815.20

Total Cost: \$4,452.70

Payment types:

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$166.98	EQIP-HU	\$200.37
EQIP-CCPI	\$166.98	EQIP-HUCCPI	\$200.37
EQIP-MRBI	\$166.98	EQIP-HUMRBI	\$200.37

Practice: 512 - Forage and Biomass Planting

Scenario # 4 Introduced Grass Establishment or Renovation Organic

Missouri

Scenario Description:

Establishing a new stand or renovating a poor stand to introduced grass, or grass with legumes and/or forbs to improve or maintain livestock/wildlife nutrition and health, extend the length of the grazing season, and provide soil cover to reduce erosion. Scenario is appropriate for organic production. Payment includes site preparation, seed, seeding fertilizer, lime, and foregone income for loss of production during establishment/renovation

Before Practice Situation:

Existing grass stand does not meet the forage demands, particularly during during periods of low forage production. Resource concerns may include undesirable plant productivity and health, inadequate feed and forage for livestock, soil erosion, and soil quality.

After Practice Situation:

Establish introduced grass and legume mix stand to improve livestock nutrition through improved forage quality and availability, and improved soil condition. Payment scenario is based on converting an existing poor condition sod to introduced grass/legume/forb mix using mechanical or chemical activities.

Scenario Feature Measure:

Acres of Forage and Biomass Planting

Scenario Typical Size:	20	Acre	Tot Unit Cost	\$283.97
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Certified Organic, Orchard Grass (Dactylis	80	Pound	\$5.02	\$401.60
Materials	Certified Organic, Timothy (Phleum pratense)	40	Pound	\$3.00	\$120.00
Materials	Compost	30	Ton	\$46.24	\$1,387.20
Materials	Lime, ENM	40	Ton	\$23.98	\$959.20
Materials	Certified Organic, Red Clover (Trifolium	80	Pound	\$8.46	\$676.80
Materials	Certified Organic, Ladino Clover (Trifolium	5	Pound	\$3.58	\$17.90
Equip./Install.	Seeding Operation, No Till/Grass Drill	20	Acre	\$14.99	\$299.80
Equip./Install.	Mechanical weed control, Vegetation	20	Acre	\$20.78	\$415.60
Equip./Install.	Manure, compost, application	4	Hour	\$116.73	\$466.92
Forgone Income	Fl, Hay, General Grass, Organic	20	Ton	\$46.72	\$934.40

Total Cost: \$5,679.42

Payment types:

PayType	Unit Payment	PayType	Unit Payment
EQIP-NOI	\$212.98	EQIP-HUNOI	\$255.57

Practice: 512 - Forage and Biomass Planting

Scenario # 5 Native Grass Establishment or Renovation

Missouri

Scenario Description:

Establishing a new stand or renovating a poor stand to native grass, or grass with legumes and/orforbs to improve or maintain livestock/wildlife nutrition and health, extend the length of the grazing season, and provide soil cover to reduce erosion. Scenario is appropriate for conventional production on sites where fertilizer is needed for establishment. Payment includes site preparation, seed, seeding, fertilizer, lime and foregone income for loss of production during establishment/renovation

Before Practice Situation:

Existing grass stand does not meet the forage demands, particularly during during periods of low forage production. Resource concerns may include undesirable plant productivity and health, inadequate feed and forage for livestock, soil erosion, and soil quality.

After Practice Situation:

Establish native grass and legume and/or forbs mix stand to improve livestock nutrition through improved forage quality and availability, and improved soil condition. Payment scenario is based on converting an existing poor condition sod to native grass/legume/forb mix using mechanical or chemical activities.

Scenario Feature Measure:

Acres of Forage and Biomass Planting

Scenario Typical Size:	20	Acre	Tot Unit Cost	\$408.06
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Wild Rye, Virginia (<i>Elymus virginicus</i>)	40	Pound	\$9.81	\$392.40
Materials	Herbicide, Glyphosate	20	Acre	\$11.04	\$220.80
Materials	Herbicide, Imazapic	20	Acre	\$11.45	\$229.00
Materials	Phosphorus, P2O5	860	Pound	\$0.66	\$567.60
Materials	Lime, ENM	80	Ton	\$23.98	\$1,918.40
Materials	Indian Grass, Tomahawk (<i>Sorghastrum nutans</i>)	20	Pound	\$12.63	\$252.60
Materials	Little Blue Stem (<i>Schizachyrium scoparium</i>)	80	Pound	\$15.43	\$1,234.40
Materials	Side Oats Grama (<i>Bouteloua curtipendula</i>)	20	Pound	\$14.86	\$297.20
Materials	Potassium, K2O	1660	Pound	\$0.52	\$863.20
Materials	Purple Coneflower (<i>Echinacea purpurea</i>)	5	Pound	\$32.78	\$163.90
Equip./Install.	Seeding Operation, No Till/Grass Drill	20	Acre	\$14.99	\$299.80
Equip./Install.	Chemical, ground application	20	Acre	\$4.57	\$91.40
Forgone Income	FI, Hay, General Grass	40	Ton	\$40.76	\$1,630.40

Total Cost: \$8,161.10

Payment types:

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$306.04	EQIP-HU	\$367.25
EQIP-CCPI	\$306.04	EQIP-HUCCPI	\$367.25
EQIP-MRBI	\$306.04	EQIP-HUMRBI	\$367.25

Practice: 512 - Forage and Biomass Planting

Scenario # 6 Native Grass Establishment or Renovation Organic

Missouri

Scenario Description:

Establishing a new stand or renovating a poor stand to native grass, or grass with legumes and/orforbs to improve or maintain livestock/wildlife nutrition and health, extend the length of the grazing season, and provide soil cover to reduce erosion. Scenario is appropriate for organic production on sites where fertilizer is needed for establishment. Payment includes site preparation, seed, seeding, fertilizer, lime and foregone income for loss of production during establishment/renovation

Before Practice Situation:

Existing grass stand does not meet the forage demands, particularly during during periods of low forage production. Resource concerns may include undesirable plant productivity and health, inadequate feed and forage for livestock, soil erosion, and soil quality.

After Practice Situation:

Establish native grass and legume and/or forbs mix stand to improve livestock nutrition through improved forage quality and availability, and improved soil condition. Payment scenario is based on converting an existing poor condition sod to native grass/legume/forb mix using mechanical or chemical activities.

Scenario Feature Measure:

Acres of Forage and Biomass Planting

Scenario Typical Size:	20	Acre	Tot Unit Cost	\$434.86
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Wild Rye, Virginia (<i>Elymus virginicus</i>)	40	Pound	\$9.81	\$392.40
Materials	Compost	30	Ton	\$46.24	\$1,387.20
Materials	Lime, ENM	80	Ton	\$23.98	\$1,918.40
Materials	Indian Grass, Tomahawk (<i>Sorghastrum nutans</i>)	20	Pound	\$12.63	\$252.60
Materials	Little Blue Stem (<i>Schizachyrium scoparium</i>)	80	Pound	\$15.43	\$1,234.40
Materials	Side Oats Grama (<i>Bouteloua curtipendula</i>)	20	Pound	\$14.86	\$297.20
Materials	Purple Coneflower (<i>Echinacea purpurea</i>)	5	Pound	\$32.78	\$163.90
Equip./Install.	Seeding Operation, No Till/Grass Drill	20	Acre	\$14.99	\$299.80
Equip./Install.	Mechanical weed control, Vegetation	20	Acre	\$20.78	\$415.60
Equip./Install.	Manure, compost, application	4	Hour	\$116.73	\$466.92
Forgone Income	Fl, Hay, General Grass, Organic	40	Ton	\$46.72	\$1,868.80

Total Cost: \$8,697.22

Payment types:

PayType	Unit Payment	PayType	Unit Payment
EQIP-NOI	\$326.15	EQIP-HUNOI	\$391.37

Practice: 512 - Forage and Biomass Planting
Scenario # 7 Endophyte Infected Fescue Renovation

Missouri

Scenario Description:

Renovation of an existing stand of endophyte infected fescue to non-endophyte grasses (stand may be renovated to either an introduced or native stand) using the spray - smother - spray technique (spray existing grass before heading in early spring, plant a smother crop, spray smother crop in the fall, plant new grass stand into the stubble). Payment includes chemical operations, smother crop establishment and termination, and seeding of new renovated grass stand, including fertilizer and lime needed for a successful establishment.

Before Practice Situation:

Existing grass stand is primarily endophyte infected fescue resulting in decreased animal health and productivity.

After Practice Situation:

Endophyte infected grass stand is renovated to a non-endophyte introduced grass/legume stand using the spray-smother-spray technique.

Scenario Feature Measure:

Acres of Forage and Biomass Planting

Scenario Typical Size:	20	Acre	Tot Unit Cost	\$281.14
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Timothy (Phleum pratense)	40	Pound	\$2.46	\$98.40
Materials	Pearl Millet (Pennisetum glaucum)	300	Pound	\$1.86	\$558.00
Materials	Herbicide, Glyphosate	40	Acre	\$11.04	\$441.60
Materials	Orchard Grass (Dactylis glomerata)	80	Pound	\$2.04	\$163.20
Materials	Phosphorus, P2O5	860	Pound	\$0.66	\$567.60
Materials	Lime, ENM	40	Ton	\$23.98	\$959.20
Materials	Potassium, K2O	1660	Pound	\$0.52	\$863.20
Materials	Ladino Clover (Trifolium repens)	5	Pound	\$3.74	\$18.70
Materials	Red Clover (Trifolium pratense)	80	Pound	\$2.60	\$208.00
Equip./Install.	Seeding Operation, No Till/Grass Drill	40	Acre	\$14.99	\$599.60
Equip./Install.	Chemical, ground application	40	Acre	\$4.57	\$182.80
Equip./Install.	Fertilizer, ground application, dry bulk	20	Acre	\$7.36	\$147.20
Forgone Income/Fl, Hay, General Grass		20	Ton	\$40.76	\$815.20

Total Cost: \$5,622.70

Payment types:

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$210.85	EQIP-HU	\$253.02
EQIP-CCPI	\$210.85	EQIP-HUCCPI	\$253.02
EQIP-MRBI	\$210.85	EQIP-HUMRBI	\$253.02