

**Practice:** 550 - Range Planting

**Scenario:** #1 - Native - Aerial Application Only

**Scenario Description:** Establishment of a mixture of PREDOMINANTLY NATIVE adapted perennial species on a rangeland unit to improve forage condition, improve wildlife habitat and/or reduce erosion. Seed mix of Predominantly Native species is chosen based on range conditions and availability of seed. Planting by aerial broadcasting.

**Before Situation:** Rangeland with existing stand of perennial or annual grasses OR monoculture OR no grasses present where natural reseeding or vegetation enhancement by grazing management alone is unlikely. Resource concerns may include: undesirable plant productivity and health, inadequate feed and forage for livestock, soil erosion and soil quality.

**After Situation:** Establishment of PREDOMINANTLY NATIVE adapted perennial vegetation such as grasses, forbs, legumes, shrubs, and trees to improve forage quality and quantity and reduce soil erosion on rangeland, native or naturalized pasture, grazed forest or other suitable location.

**Scenario Feature Measure:** Acres of Range Planting

**Scenario Unit:** Acre

**Scenario Typical Size:** 80

**Total Scenario Cost:** \$13,403.76

**Scenario Cost/Unit:** \$167.55

**Cost Details**

Component Name	Id	Description	Unit	Cost	Qty	Total
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**Labor**

General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$24.26	8	\$194.12
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**Equipment Installation**

Seeding Operation, Aerial	958	Broadcast seed via aerial operation. May require post tillage operation to incorporate seed. Includes equipment, power unit and labor costs.	Acre	\$9.63	80	\$770.48
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**Mobilization**

Mobilization, medium equipment	1139	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$247.16	1	\$247.16
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**Foregone Income**

FI, Grazing AUMs	2079	Grazing is the Primary Land Use	Animal Unit Month	\$13.08	16	\$209.26
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**Materials**

One Species, Native Forb, Low Cost	2329	Native forb. Includes material and shipping only.	Acre	\$186.18	10	\$1,861.79
Three Species Mix, Cool Season, Native Perennial Grass	2316	Cool season, native grass mix. Includes material and shipping only.	Acre	\$144.58	70	\$10,120.94

**Practice:** 550 - Range Planting

**Scenario:** #2 - Native -Heavy

**Scenario Description:** Establishment of a mixture of PREDOMINANTLY NATIVE adapted perennial species on a rangeland unit to improve forage condition, improve wildlife habitat and/or reduce erosion. Seed mix of Predominantly Native species is chosen based on range conditions and availability of seed. Planting by preparing a seedbed with MODERATE TO HEAVY TILLAGE (ex: ripping & heavy disk) and seeding with a no-till drill, range drill, or broadcasting.

**Before Situation:** Rangeland with existing stand of perennial or annual grasses OR monoculture OR no grasses present where natural reseeding or vegetation enhancement by grazing management alone is unlikely. Existing conditions often require complete suppression or eradication of existing vegetation to ensure success of planting. Resource concerns may include: undesirable plant productivity and health, inadequate feed and forage for livestock, soil erosion and soil quality.

**After Situation:** Establishment of PREDOMINANTLY NATIVE adapted perennial vegetation such as grasses, forbs, legumes, shrubs, and trees to improve forage quality and quantity and reduce soil erosion on rangeland, native or naturalized pasture, grazed forest or other suitable location.

**Scenario Feature Measure:** Acres of Range Planting

**Scenario Unit:** Acre

**Scenario Typical Size:** 80

**Total Scenario Cost:** \$16,428.58

**Scenario Cost/Unit:** \$205.36

**Cost Details**

Component Name	Id	Description	Unit	Cost	Qty	Total
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**Labor**

General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$24.26	8	\$194.12
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**Equipment Installation**

Seeding Operation, No Till/Grass Drill	960	No Till drill or grass drill for seeding. Includes equipment, power unit and labor costs.	Acre	\$20.63	80	\$1,650.69
Tillage, Light	945	Includes light disking (tandem) or field cultivator. Includes equipment, power unit and labor costs.	Acre	\$10.77	80	\$861.24
Tillage, Primary	946	Includes heavy disking (offset) or chisel plow. Includes equipment, power unit and labor costs.	Acre	\$16.04	80	\$1,283.38

**Mobilization**

Mobilization, medium equipment	1139	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$247.16	1	\$247.16
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**Foregone Income**

FI, Grazing AUMs	2079	Grazing is the Primary Land Use	Animal Unit Month	\$13.08	16	\$209.26
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**Materials**

One Species, Native Forb, Low Cost	2329	Native forb. Includes material and shipping only.	Acre	\$186.18	10	\$1,861.79
Three Species Mix, Cool Season, Native Perennial Grass	2316	Cool season, native grass mix. Includes material and shipping only.	Acre	\$144.58	70	\$10,120.94

**Practice:** 550 - Range Planting

**Scenario:** #3 - Native -Wildlife or Pollinator

**Scenario Description:** Establishment of a mixture of PREDOMINANTLY NATIVE adapted perennial species on a rangeland unit to improve wildlife habitat, benefit pollinators & beneficial insects, improve forage condition, and/or reduce erosion. Seed mix of PREDOMINANTLY NATIVE SPECIES IS CHOSEN TO SPECIFICALLY BENEFIT WILDLIFE (ex: big game spp, Sage grouse, Lesser Prairie Chicken, others) or POLLINATORS (ex: inclusion of 5-10 forb species) based on range conditions and availability of seed. FOR POLLINATOR HABITAT: Consideration is given to selecting plants that bloom sequentially throughout the growing season where feasible. Planting by preparing a seedbed with MODERATE TO HEAVY TILLAGE (ex: ripping & heavy disk) and seeding with a no-till drill, range drill, or broadcasting.

**Before Situation:** Rangeland with existing stand of perennial or annual grasses OR monoculture OR no grasses present where natural reseeding or vegetation enhancement by grazing management alone is unlikely. Existing conditions often require complete removal, suppression, or eradication of existing vegetation to ensure success of planting. Pollinator plantings should Resource concerns may include: inadequate habitat for wildlife (ex: big game spp, Sage grouse, Lesser Prairie Chicken, others) undesirable plant productivity and health, inadequate feed and forage for livestock, soil erosion and soil quality.

**After Situation:** Establishment of PREDOMINANTLY NATIVE adapted perennial vegetation such as grasses, forbs, legumes, shrubs, and trees with an emphasis on species beneficial to wildlife or Pollinators on rangeland, native or naturalized pasture, grazed forest or other suitable location. For Pollinator habitat: Plants that bloom sequentially throughout the growing season are established, where feasible.

**Scenario Feature Measure:** Acres of Range Planting

**Scenario Unit:** Acre

**Scenario Typical Size:** 50

**Total Scenario Cost:** \$12,465.14

**Scenario Cost/Unit:** \$249.30

**Cost Details**

Component Name	Id	Description	Unit	Cost	Qty	Total
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**Labor**

General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$24.26	8	\$194.12
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**Equipment Installation**

Seeding Operation, No Till/Grass Drill	960	No Till drill or grass drill for seeding. Includes equipment, power unit and labor costs.	Acre	\$20.63	50	\$1,031.68
Tillage, Light	945	Includes light disking (tandem) or field cultivator. Includes equipment, power unit and labor costs.	Acre	\$10.77	50	\$538.27
Tillage, Primary	946	Includes heavy disking (offset) or chisel plow. Includes equipment, power unit and labor costs.	Acre	\$16.04	50	\$802.11

**Mobilization**

Mobilization, medium equipment	1139	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$247.16	1	\$247.16
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**Materials**

Three Species Mix, Native Forb	2333	Native forb mix. Includes material and shipping only.	Acre	\$586.90	10	\$5,869.05
Two Species Mix, Warm Season, Native Perennial Grass	2325	Native, warm season perennial grass. Includes material and shipping only.	Acre	\$94.57	40	\$3,782.75

**Practice:** 550 - Range Planting

**Scenario:** #4 - Non-Native - Aerial Application Only

**Scenario Description:** Establishment of a mixture of PREDOMINANTLY NON-NATIVE adapted perennial species on a rangeland unit to improve forage condition, improve wildlife habitat and/or reduce erosion. Seed mix of Predominantly Non-Native species is chosen based on range conditions and availability of seed. Planting by aerial broadcasting.

**Before Situation:** Rangeland with existing stand of perennial or annual grasses OR monoculture OR no grasses present where natural reseeding or vegetation enhancement by grazing management alone is unlikely. Resource concerns may include: undesirable plant productivity and health, inadequate feed and forage for livestock, soil erosion and soil quality.

**After Situation:** Establishment of PREDOMINANTLY NON-NATIVE adapted perennial vegetation such as grasses, forbs, legumes, shrubs, and trees to improve forage quality and quantity and reduce soil erosion on rangeland, native or naturalized pasture, grazed forest or other suitable location.

**Scenario Feature Measure:** Acres of Range Planting

**Scenario Unit:** Acre

**Scenario Typical Size:** 80

**Total Scenario Cost:** \$5,286.68

**Scenario Cost/Unit:** \$66.08

**Cost Details**

Component Name	Id	Description	Unit	Cost	Qty	Total
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**Labor**

General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$24.26	8	\$194.12
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**Equipment Installation**

Seeding Operation, Aerial	958	Broadcast seed via aerial operation. May require post tillage operation to incorporate seed. Includes equipment, power unit and labor costs.	Acre	\$9.63	80	\$770.48
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**Mobilization**

Mobilization, medium equipment	1139	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$247.16	1	\$247.16
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**Foregone Income**

FI, Grazing AUMs	2079	Grazing is the Primary Land Use	Animal Unit Month	\$13.08	16	\$209.26
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**Materials**

One Species, Native Forb, Low Cost	2329	Native forb. Includes material and shipping only.	Acre	\$186.18	1	\$186.18
Three Species Mix, Cool Season, Introduced Perennial Grass	2315	Cool season, introduced grass mix. Includes material and shipping only.	Acre	\$46.58	79	\$3,679.48

**Practice:** 550 - Range Planting

**Scenario:** #5 - Non-Native - heavy prep

**Scenario Description:** Establishment of a mixture of PREDOMINANTLY NON-NATIVE adapted perennial species on a rangeland unit to improve forage condition, improve wildlife habitat and/or reduce erosion. Seed mix of Predominantly Native species is chosen based on range conditions and availability of seed. Planting by preparing a seedbed with MODERATE TO HEAVY TILLAGE (ex: ripping & heavy disk) and seeding with a no-till drill, range drill, or broadcasting.

**Before Situation:** Rangeland with existing stand of perennial or annual grasses OR monoculture OR no grasses present where natural reseeding or vegetation enhancement by grazing management alone is unlikely. Existing conditions often require complete suppression or eradication of existing vegetation to ensure success of planting. Resource concerns may include: undesirable plant productivity and health, inadequate feed and forage for livestock, soil erosion and soil quality.

**After Situation:** Establishment of PREDOMINANTLY NON-NATIVE adapted perennial vegetation such as grasses, forbs, legumes, shrubs, and trees to improve forage quality and quantity and reduce soil erosion on rangeland, native or naturalized pasture, grazed forest or other suitable location.

**Scenario Feature Measure:** Acres of Range Planting

**Scenario Unit:** Acre

**Scenario Typical Size:** 80

**Total Scenario Cost:** \$9,288.73

**Scenario Cost/Unit:** \$116.11

**Cost Details**

Component Name	Id	Description	Unit	Cost	Qty	Total
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**Labor**

General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$24.26	8	\$194.12
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**Equipment Installation**

Seeding Operation, No Till/Grass Drill	960	No Till drill or grass drill for seeding. Includes equipment, power unit and labor costs.	Acre	\$20.63	80	\$1,650.69
Tillage, Light	945	Includes light disking (tandem) or field cultivator. Includes equipment, power unit and labor costs.	Acre	\$10.77	80	\$861.24
Tillage, Primary	946	Includes heavy disking (offset) or chisel plow. Includes equipment, power unit and labor costs.	Acre	\$16.04	80	\$1,283.38

**Mobilization**

Mobilization, medium equipment	1139	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$247.16	1	\$247.16
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**Foregone Income**

FI, Grazing AUMs	2079	Grazing is the Primary Land Use	Animal Unit Month	\$13.08	16	\$209.26
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**Materials**

One Species, Native Forb, Low Cost	2329	Native forb. Includes material and shipping only.	Acre	\$186.18	8	\$1,489.44
Three Species Mix, Cool Season, Introduced Perennial Grass	2315	Cool season, introduced grass mix. Includes material and shipping only.	Acre	\$46.58	72	\$3,353.45

**Practice:** 550 - Range Planting

**Scenario:** #6 - Pollinator - small acreage

**Scenario Description:** Establishment of a mixture of PREDOMINANTLY NATIVE adapted perennial species on a rangeland unit to benefit pollinators, beneficial insects, and may provide food and cover resources for other wildlife species. Seed mix of Predominantly Native species is chosen TO SPECIFICALLY BENEFIT POLLINATORS (ex: inclusion of 5-10 forb species) based on range conditions and availability of seed. Consideration is given to selecting plants that bloom sequentially throughout the growing season where feasible. Planting by preparing a seedbed with MODERATE TO HEAVY TILLAGE (ex: ripping & heavy disk) and seeding with a no-till drill, range drill, or broadcasting.

**Before Situation:** Rangeland with existing stand of perennial or annual grasses OR monoculture OR no grasses present where natural reseeding or vegetation enhancement by grazing management alone is unlikely. Existing conditions often require complete removal, suppression, or eradication of existing vegetation to ensure success of planting. Resource concerns may include: inadequate Pollinator habitat, undesirable plant productivity and health, inadequate feed and forage for livestock, soil erosion and soil quality.

**After Situation:** Establishment of PREDOMINANTLY NATIVE adapted perennial vegetation such as grasses, forbs, legumes, shrubs, and trees with an emphasis on species beneficial to Pollinators & beneficial insects on rangeland, native or naturalized pasture, grazed forest or other suitable location. Plants that bloom sequentially throughout the growing season are established, where feasible.

**Scenario Feature Measure:** Acres of Range Planting

**Scenario Unit:** Acre

**Scenario Typical Size:** 5

**Total Scenario Cost:** \$2,385.89

**Scenario Cost/Unit:** \$477.18

**Cost Details**

Component Name	Id	Description	Unit	Cost	Qty	Total
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**Labor**

General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$24.26	3	\$72.79
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**Equipment Installation**

Seeding Operation, No Till/Grass Drill	960	No Till drill or grass drill for seeding. Includes equipment, power unit and labor costs.	Acre	\$20.63	5	\$103.17
Tillage, Light	945	Includes light disking (tandem) or field cultivator. Includes equipment, power unit and labor costs.	Acre	\$10.77	5	\$53.83
Tillage, Primary	946	Includes heavy disking (offset) or chisel plow. Includes equipment, power unit and labor costs.	Acre	\$16.04	5	\$80.21

**Mobilization**

Mobilization, medium equipment	1139	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$247.16	1	\$247.16
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**Materials**

Three Species Mix, Cool Season, Native Perennial Grass	2316	Cool season, native grass mix. Includes material and shipping only.	Acre	\$144.58	2.5	\$361.46
Three Species Mix, Native Forb	2333	Native forb mix. Includes material and shipping only.	Acre	\$586.90	2.5	\$1,467.26

**Practice:** 550 - Range Planting

**Scenario:** #62 - Native -Standard prep

**Scenario Description:** Establishment of a mixture of PREDOMINANTLY NATIVE adapted perennial species on a rangeland unit to improve forage condition, improve wildlife habitat and/or reduce erosion. Seed mix of Predominantly Native species is chosen based on range conditions and availability of seed. Planting by preparing a seedbed with a LIGHT TO MODERATE TILLAGE and seeding with a no-till drill, range drill, or broadcasting.

**Before Situation:** Rangeland with existing stand of perennial or annual grasses OR monoculture OR no grasses present where natural reseeding or vegetation enhancement by grazing management alone is unlikely. Resource concerns may include: undesirable plant productivity and health, inadequate feed and forage for livestock, soil erosion and soil quality.

**After Situation:** Establishment of PREDOMINANTLY NATIVE adapted perennial vegetation such as grasses, forbs, legumes, shrubs, and trees to improve forage quality and quantity and reduce soil erosion on rangeland, native or naturalized pasture, grazed forest or other suitable location.

**Scenario Feature Measure:** Acres of Range Planting

**Scenario Unit:** Acre

**Scenario Typical Size:** 80

**Total Scenario Cost:** \$15,145.20

**Scenario Cost/Unit:** \$189.32

**Cost Details**

Component Name	Id	Description	Unit	Cost	Qty	Total
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**Labor**

General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$24.26	8	\$194.12
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**Equipment Installation**

Seeding Operation, No Till/Grass Drill	960	No Till drill or grass drill for seeding. Includes equipment, power unit and labor costs.	Acre	\$20.63	80	\$1,650.69
Tillage, Light	945	Includes light disking (tandem) or field cultivator. Includes equipment, power unit and labor costs.	Acre	\$10.77	80	\$861.24

**Mobilization**

Mobilization, medium equipment	1139	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$247.16	1	\$247.16
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**Foregone Income**

FI, Grazing AUMs	2079	Grazing is the Primary Land Use	Animal Unit Month	\$13.08	16	\$209.26
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**Materials**

One Species, Native Forb, Low Cost	2329	Native forb. Includes material and shipping only.	Acre	\$186.18	10	\$1,861.79
Three Species Mix, Cool Season, Native Perennial Grass	2316	Cool season, native grass mix. Includes material and shipping only.	Acre	\$144.58	70	\$10,120.94

**Practice:** 550 - Range Planting

**Scenario:** #63 - Non-Native - Standard prep

**Scenario Description:** Establishment of a mixture of PREDOMINANTLY NON-NATIVE adapted perennial species on a rangeland unit to improve forage condition, improve wildlife habitat and/or reduce erosion. Seed mix of Predominantly Non-Native species is chosen based on range conditions and availability of seed. Planting by preparing a seedbed with a LIGHT TO MODERATE tillage and seeding with a no-till drill, range drill, or broadcasting.

**Before Situation:** Rangeland with existing stand of perennial or annual grasses OR monoculture OR no grasses present where natural reseeding or vegetation enhancement by grazing management alone is unlikely. Resource concerns may include: undesirable plant productivity and health, inadequate feed and forage for livestock, soil erosion and soil quality.

**After Situation:** Establishment of PREDOMINANTLY NON-NATIVE adapted perennial vegetation such as grasses, forbs, legumes, shrubs, and trees to improve forage quality and quantity and reduce soil erosion on rangeland, native or naturalized pasture, grazed forest or other suitable location.

**Scenario Feature Measure:** Acres of Range Planting

**Scenario Unit:** Acre

**Scenario Typical Size:** 80

**Total Scenario Cost:** \$8,005.35

**Scenario Cost/Unit:** \$100.07

**Cost Details**

Component Name	Id	Description	Unit	Cost	Qty	Total
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**Labor**

General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$24.26	8	\$194.12
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**Equipment Installation**

Seeding Operation, No Till/Grass Drill	960	No Till drill or grass drill for seeding. Includes equipment, power unit and labor costs.	Acre	\$20.63	80	\$1,650.69
Tillage, Light	945	Includes light disking (tandem) or field cultivator. Includes equipment, power unit and labor costs.	Acre	\$10.77	80	\$861.24

**Mobilization**

Mobilization, medium equipment	1139	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$247.16	1	\$247.16
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**Foregone Income**

FI, Grazing AUMs	2079	Grazing is the Primary Land Use	Animal Unit Month	\$13.08	16	\$209.26
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**Materials**

One Species, Native Forb, Low Cost	2329	Native forb. Includes material and shipping only.	Acre	\$186.18	8	\$1,489.44
Three Species Mix, Cool Season, Introduced Perennial Grass	2315	Cool season, introduced grass mix. Includes material and shipping only.	Acre	\$46.58	72	\$3,353.45