

Practice: 315 - Herbaceous Weed Control

Scenario: #1 - Chemical application by any method

Scenario Description:

Land unit on which targeted herbaceous control would be beneficial in order to set back the plant community succession, improve the ecological condition, and improve forage conditions for domestic livestock or wildlife. The practice entails the eradication of vegetation by use of weed treatment using ground or aerial equipment to apply chemicals, in order to eliminate noxious weeds, promote forage productivity, and improve ecological condition.

Before Situation:

Area consist of excessive stands of herbaceous weeds degrading health and vigor of native herbaceous species promoting noxious and invasive species and degrading wildlife habitat.

After Situation:

Herbaceous weeds are removed to achieve the desirable plant community based on species composition, structure, density, and canopy cover or height. Ecological site condition is progressing in an upward trend, hydrology and plant health and vigor is returning to near normal levels, and improved wildlife habitat. Methods may be ground application (broadcast, spot, band, etc.) or aerial application

Scenario Feature Measure: Acres Treated

Scenario Unit: Acre

Scenario Typical Size: 100

Scenario Cost: \$2,556.08

Scenario Cost/Unit: \$25.56

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price (\$/unit)	Quantity	Cost
	1143				1	
Equipment/Installation						
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	Hour	\$31.63	1	\$31.63
Chemical, aerial application, fixed wing	947	Chemical application performed by fixed wing aircraft. Includes equipment, power unit and labor costs.	Acre	\$7.56	100	\$756.00
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	\$18.11	1	\$18.11
Materials						
Herbicide, Surfactant	1095	Surfactants reduce the surface tension of water to produce more uniform coverage and penetration of herbicides, and weed killers. Paraffin Based Petroleum Surfactant. Refer to WIN-PST for product names and active ingredients. Includes materials and shipping only.	Acre	\$1.32	100	\$132.00
Herbicide, 2,4-D + Dica	331	Broadleaf herbicide labeled for cropland and pasture. Refer to WIN-PST for product names and active ingredients. Materials and shipping.	Acre	\$14.72	100	\$1,472.00
Mobilization						
Mobilization, small equipment	1138	Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.	Each	\$146.34	1	\$146.34

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Scenario: #2 - Mechanical

Scenario Description:

This scenario is for the mechanical control/suppression of herbaceous vegetation in order to aid in the establishment of perennial vegetation. Methods include mowing, shredding, removal using hand tools, or other mechanical removal/suppression.

Before Situation:

Area consist of excessive stands of competitive vegetation which endanger the establishment of desirable forage species.

After Situation:

Competitive vegetation is removed/suppressed allowing for the establishment of the desirable forage species and also resulting in potential improvement in wildlife habitat.

Scenario Feature Measure: Acres treated

Scenario Unit: Acre

Scenario Typical Size: 20

Scenario Cost: \$432.06

Scenario Cost/Unit: \$21.60

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation						
Mower, Bush Hog	940	Equipment and power unit costs. Labor not included.	Hour	\$43.22	6.5	\$280.93
Labor						
Equipment Operators, Light	232	Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	Hour	\$20.15	7.5	\$151.13

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Scenario: #3 - Forestry- Broadcast Aerial

Scenario Description:

Treatment takes place in areas with grass or other herbaceous vegetation competing with newly planted trees or shrubs. A springtime herbicide application is applied through a broadcast helicopter application to the field of newly planted tree seedlings to control herbaceous vegetative competition. Treatment is needed to ensure the successful establishment of desirable tree species. Areas to be treated using aerial application are above average in size to allow for the helicopter to operate efficiently or ground sprayers can be used.

Before Situation:

Desirable trees are receiving competition for water, sunlight and nutrients from grasses and other weedy species. Typical sites have recently been planted with trees and they have an abundant cover of herbaceous vegetation. The resource concerns addressed include degraded plant condition- undesirable plant productivity and health, and inadequate structure and composition and degraded wildlife habitat.

After Situation:

Newly planted tree seedlings are released from competing vegetation. Herbaceous weed control is conducted soon after the tree seedlings have been planted to enhance their growth and survival. After treatment, the trees are visible and the undesirable vegetation has been reduced providing the trees a better chance of becoming established.

Scenario Feature Measure: Acres treated

Scenario Unit: Acre

Scenario Typical Size: 40

Scenario Cost: \$4,853.20

Scenario Cost/Unit: \$121.33

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation						
Chemical, ground application	948	Chemical application performed by ground equipment. Includes equipment, power unit and labor costs.	Acre	\$4.94	40	\$197.60
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	Hour	\$31.63	20	\$632.60
Labor						
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	\$37.95	20	\$759.00
Materials						
Herbicide, Surfactant	1095	Surfactants reduce the surface tension of water to produce more uniform coverage and penetration of herbicides, and weed killers. Paraffin Based Petroleum Surfactant. Refer to WIN-PST for product names and active ingredients. Includes materials and shipping only.	Acre	\$1.32	40	\$52.80
Herbicide, Sulfometuron-methyl	340	Used for the control of annual and perennial grasses and broad leaved weeds in non-crop land. Refer to WIN-PST for product names and active ingredients. Includes materials and shipping only.	Acre	\$38.78	40	\$1,551.20
Herbicide, Imazapyr	336	Pre and post-emergent, non-selective herbicide for control of undesirable vegetation in non-crop areas. Refer to WIN-PST for product names and active ingredients. Includes materials and shipping only.	Acre	\$41.50	40	\$1,660.00

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Scenario: #4 - Forestry - Band Spraying

Scenario Description:

Treatment takes place in areas with grass or other herbaceous vegetation competing with newly planted trees or shrubs. Treatment is needed to ensure the successful establishment of desirable tree species. A springtime herbicide application is applied in a 4 foot swath (33% coverage if 12 ft planting rows) over the rows of newly planted tree seedlings to control herbaceous vegetative competition. Cost is calculated for the entire acre, not the treated acre.

Before Situation:

Newly planted trees are receiving competition for water, sunlight and nutrients from grasses and other weedy species. The herbaceous weed competition is jeopardizing the survival of the trees. Resource concerns addressed are degraded plant condition - undesirable plant productivity and health, and inadequate structure and competition and degraded wildlife habitat.

After Situation:

Newly planted tree seedlings are released from competing herbaceous vegetation. The trees are visible and the undesirable vegetation has been reduced providing the trees a better chance of becoming established.

Scenario Feature Measure: Acres Treated

Scenario Unit: Acre

Scenario Typical Size: 20

Scenario Cost: \$1,213.50

Scenario Cost/Unit: \$60.68

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation						
Chemical, ground application	948	Chemical application performed by ground equipment. Includes equipment, power unit and labor costs.	Acre	\$4.94	20	\$98.80
All terrain vehicles, ATV	965	Includes equipment, power unit and labor costs.	Hour	\$26.07	8	\$208.56
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	\$18.11	8	\$144.88
Materials						
Herbicide, Imazapyr	336	Pre and post-emergent, non-selective herbicide for control of undesirable vegetation in non-crop areas. Refer to WIN-PST for product names and active ingredients. Includes materials and shipping only.	Acre	\$41.50	10	\$415.00
Herbicide, Sulfometuron & metsulfuron	344	A residual sulfonylurea herbicide that kills broadleaf weeds and some annual grasses. It is a systemic compound with foliar and soil activity. Refer to WIN-PST for product names and active ingredients. Includes materials and shipping only.	Acre	\$22.61	10	\$226.10
Mobilization						
Mobilization, very small equipment	1137	Equipment that is small enough to be transported by a pick-up truck with typical weights less than 3,500 pounds. Can be multiple pieces of equipment if all hauled simultaneously.	Each	\$60.08	2	\$120.16