

# INTRODUCTION

## SECTION I – COST DATA

The initial phase of evaluating the effectiveness of conservation measures is the collection, analysis, and use of current information on costs and prices. The prices are appropriate to use in estimating the beneficial and/or adverse effects of installing conservation practices. To be effective in working with individuals, field personnel must have knowledge of these costs and prices.

Section I – Cost Data, contains general economic reference data and has been prepared to aid Natural Resources Conservation Service personnel in providing economic information to farmers, ranchers, and others who make land use and land treatment decisions. The economic data will be used to evaluate alternative Conservation Management Systems (CMS).

The general economic reference data contained herein contains current information on costs for items such as seed, fertilizers, farm or ranch supplies, farm machinery, tractors, and other materials that may be used in crop or livestock production. Other factors that make up a farming or ranching operation are also included such as labor, construction, and operation and maintenance of Resource Management Systems (RMS).

Information should be used only for evaluating the consequences of alternative CMS. The information is not intended to be an analysis of a crop or livestock enterprise or of the total farm business. If a land user desires farm management assistance, he/she should be referred to the Extension Service or other farm management assistance. For the purpose of making RMS evaluations, the production costs, costs of conservation practice(s), and prices to be used are the most recent published data. Other costs and prices may be used if they are reasonable or to illustrate the effect of price changes. Other costs and prices are contained in the current issue of North Dakota Agricultural Statistics, located in eFOTG Section I - Reference Subjects - Economics, Ag Statistics subfolder, in the pdf document "List of Economics and Ag Stats References." Other costs and prices cannot be used if cost-shared programs are involved.

## **COST-SHARING DEFINITION**

Methods and policy on cost-sharing, development of average cost data, and procedures for establishing cost-share rates are discussed in Part 512 of the Contracting Manual and the General Manual (GM), Title 120, Part 404, Subpart D, 404.30, 404.31, and 404.32.

Average Cost (AC) – Average costs are used. Average costs are developed for each practice or component of a practice identified for financial assistance. **Costs shown in Section I, Cost Data are average costs, unless otherwise identified by abbreviation following the cost values.**

Flat Rate (FR) – Flat Rate method is used to encourage adoption of conservation practices where it is difficult to establish actual cost.

The following cost-share methods have been utilized in prior year contracts but **will not** be used in 2010 contracts:

Actual Cost Not to Exceed Average Cost (AA) – The Actual Cost Not to Exceed Average Cost method applies to situations involving volume discounts, unusually large jobs subject to competitive bids, materials, or services subject to volatile price fluctuations, and installation of used materials as allowed under GM, Title 120, Part 404, Subpart F 404.58.

Actual Cost Not to Exceed a Specified Maximum Cost (AM) – The AM method applies to insufficient or unreliable average cost data, difficulty or impracticality in measuring quantities, or the need for a definite limit on a particular practice. All practices and identifiable components cost-shared according to specified maximum cost must be supported by acceptable itemized receipts, invoices, or cost statements. The established specified maximum for all prior year cost-share designations of AM will be the current average cost, unless a specified maximum has been made a part of the cost table.

# SECTION I – COST DATA

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## TABLE A - EARTHMOVING AND RELATED COSTS

### EARTH EXCAVATION

	<u>Per Cubic Yard</u>
Excavation	\$2.10
Excavation for Small Conservation Structures <u>1/</u>	5.70
Hauling Materials (offsite borrow) <u>2/</u>	\$0.14 per CYD/0.25mi.

### IRRIGATION LAND LEVELING 3/

\$800.00/acre

### SITE CLEARING OR OBSTRUCTION REMOVAL

Site clearing or Structure Removal	\$1,080.00/acre
Fence removal	
Feedlot Fence	3.78 /ft
Feedlot Fence for wind protection	5.95 /ft
Other fence	0.54/ft
Fence removal, salvage, and re-installation	
Feedlot Fence	4.86 /ft
Feedlot Fence for wind protection	7.56 /ft
Other fence	0.70 /ft

### EARTHFILL

	<u>Per Cubic Yard</u>
Hand Compaction <u>4/</u>	\$5.67
Class C Compaction (specified method) <u>5/</u>	2.40
Class A Compaction (specified density) <u>5/</u>	2.85
Class A Compaction – Clay Liners (specified density)	4.25
	<u>Per Square Yard</u>
Top Soil (salvage and re-spreading)	\$0.51
	<u>Per Structure</u>
Wetland Restoration - Ditch Plug	\$340.00
Water for Earthfill Moisture Control	\$14.75/1000 gallons

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- 1/ Use for structural excavation for small conservation structures. Example - near a building or structure for hookup.
- 2/ Borrow materials transported in from off-site sources.
- 3/ Must average a minimum of .10 foot cut or fill per acre
- 4/ Use for compaction of fill around small structures or when specified for structure installation.
- 5/ May also be used for compaction of granular bedding or drain fill materials.

## TABLE A - EARTHMOVING AND RELATED COSTS (CONTINUED)

### TRENCHING FOR PIPELINES

	per lineal foot of trench
Pipelines	
Shallow plow <u>1/</u>	\$0.43
Trenching or deep plow (frost protected plowing) <u>2/</u>	1.82
Trenching or deep plow and backhoe <u>2/ 3/</u>	2.39
Backhoe <u>4/</u>	2.95
Boring (roadways and stream crossings)	22.70/ft
Excavation for Spring Boxes and Spring Collection Systems	11.35/cu.yd.

### CRITICAL AREA TREATMENT

Grading, shaping, and filling - (limited to extent needed for seedbed or use of area for intended purpose).

		<u>Per Acre</u>
Heavy	For areas requiring moving substantial quantities of earth some distance. (This work is generally done by earthmoving contractors using scrapers or other larger earthmoving equipment).	\$910.00
Light	For areas prepared by normal farm tillage equipment. (While this work is generally done with farm tillage equipment, road patrols and/or small bulldozers may be used).	\$455.00

Note: Cost for seeding areas once they are shaped is covered under Table D – Vegetative Establishment and Related Costs.

1/ Shallow plow is not frost protected.

2/ Trenching rates are the same for shallow and frost protected. Deep plow is frost protected.

3/ Trenching or deep plow with backhoe is utilized when a backhoe is mobilized due to rock or other conditions that would require some backhoe work to be completed.

4/ Backhoe rate is used when the majority of the pipeline is completed with a backhoe.

## TABLE B - PIPE AND RELATED COSTS

### SMALL DIAMETER PIPE - 1 INCH OR LESS

PVC PIPE	\$0.49 per ft
HDPE PIPE	\$0.73 per ft

### SMALL DIAMETER PIPE – 1 1/4 TO 2 INCHES

PVC PIPE	\$0.55 per ft
HDPE PIPE	\$1.25 per ft

### SMALL DIAMETER PIPE – OVER 2 INCHES

PVC PIPE	\$1.04 per ft
HDPE PIPE	\$3.40 per ft

### LARGE DIAMETER PIPE <sup>1/</sup> <sup>2/</sup> <sup>3/</sup>

Pipe Diameter	Head 50 ft 22 psi	RATED PRESSURE				
		SDR-81 50 psi	SDR-51 80 psi	SDR-41 100 psi	SDR-32.5 125 psi	SDR-26 160 psi
6"	1.15	1.50	2.10	2.40	2.80	4.25
8"	1.50	2.10	2.28	2.71	4.80	6.70
10"	2.20	3.10	3.41	4.25	7.30	10.40
12"	2.60	4.25	4.84	6.13	10.40	14.60
15"	4.20	5.75	6.80	8.46	16.65	20.95
18"		12.50	16.70	20.00	25.15	32.00
21"		18.05	24.00	28.40	36.40	
24"		20.85	30.35	37.20	46.20	

- 1/ Any type pipe that meets the required specifications for the applicable practice may be used. This table is based on the lowest per lineal foot cost of materials that meet specifications. See Table A for trenching costs.
- 2/ The cost of each Tee, Y, or elbow is equal to the cost of 35 feet of equivalent pipe in the table. The costs of other accessories are included in the costs shown.
- 3/ Perforated pipe price same as solid pipe through 6 inch diameter. Add 1.50 per foot for 8, 10, 12 inch perforated pipe.

**TABLE B - PIPE AND RELATED COSTS (CONTINUED)**

CORRUGATED PLASTIC PIPE

	3 inch	4 inch	5 inch	6 inch	8 inch	10 inch	12 inch	15 inch	18 inch	24 inch
<b>DUAL-WALL PIPE</b> <sup>1/</sup>	---	1.10	---	2.50	4.00	5.75	7.50	9.00	14.25	21.75
Split Coupler	---	1.75	---	2.50	3.50	5.00	7.00	12.50	18.75	31.25
Soil-Tight Split Coupler	---	---	---	---	---	21.75	23.50	25.25	36.50	54.00
Gasketed Sleeve Coupler	---	---	---	---	---	---	35.25	51.50	70.00	215.75
Cross	---	42.00	---	63.00	94.00	126.00	160.00	188.25	282.75	451.75
Elbow, 22½ degrees	---	9.00	---	13.00	23.00	30.25	36.75	52.00	69.25	134.00
45 degrees	---	11.00	---	17.75	25.25	32.75	41.25	55.25	85.50	152.00
90 degrees (2 part)	---	13.75	---	19.50	30.75	43.75	51.00	67.50	109.75	187.00
90 degrees (3 part)	---	23.75	---	28.50	48.50	59.75	123.00	142.50	198.50	251.00
Tee	---	23.50	---	31.25	47.50	72.00	81.00	120.00	180.00	276.00
Wye	---	67.50	---	110.00	182.75	205.75	232.50	269.25	404.00	623.00
Reducer X 4 inch	---	---	---	43.00	57.25	65.50	70.00	98.50	116.75	185.50
X 6 inch	---	---	---	---	55.50	71.50	77.25	102.00	126.00	189.25
X 8 inch	---	---	---	---	---	79.00	84.75	110.00	131.00	201.00
X 10 inch	---	---	---	---	---	---	108.00	128.00	156.75	215.25
X 12 inch	---	---	---	---	---	---	---	116.00	170.75	220.50
X 15 inch	---	---	---	---	---	---	---	---	173.50	228.00
X 18 inch	---	---	---	---	---	---	---	---	---	241.00
<b>TUBING/CULVERTS</b> <sup>1/</sup>	0.45	0.50	0.75	1.00	2.00	3.75	4.75	7.00	11.00	17.75
With Polyester Fabric (sock)	0.60	0.75	1.00	1.50	2.25	4.00	5.50	8.75	12.00	18.75
Split Coupler	---	1.75	3.25	3.00	4.50	6.00	8.00	13.75	18.50	29.75
Wye, 45 degree	4.00	5.25	7.25	9.75	32.00	---	---	---	---	---
Reducer X 3 & 4 inch	---	3.00	4.25	5.00	5.75	8.00	---	---	---	---
X 5 & 6 inch	---	---	---	3.00	5.75	---	---	---	---	---
X 8 & 10 inch	---	---	---	---	9.50	13.00	---	---	---	---
X 12 inch	---	---	---	---	---	---	---	15.75	---	---
End Plug	2.00	2.00	2.25	2.50	3.50	6.75	14.00	13.00	30.00	85.00
Blind or Reducing Tee (Elbow, Use Blind Tee)	4.00	4.00	6.00	7.25	11.25	18.00	31.00	90.00	160.00	293.00
<b>MISCELLANEOUS</b>										
Plastic Anti-Seep Collar (4x4)	---	156.50	---	155.75	161.75	174.00	178.00	188.75	194.00	215.75
Beehive Inlet	---	---	21.50	24.00	26.25	33.50	27.50	52.50	46.75	116.50
End Section	---	---	---	---	73.00	80.00	93.25	116.50	153.00	225.75
Rodent Guard	---	16.00	---	18.00	22.50	29.00	37.25	55.25	94.50	122.00
Hickenbottom Intake:										
1" or 5/16" holes	---	---	16.25	20.75	31.50	48.00	136.00	---	---	---
1" X 4" slots	---	---	22.75	30.25	42.00	61.50	156.50	---	---	---
Special blind tee	---	---	16.25	18.75	39.75	46.00	136.00	---	---	---
Restrictor	---	---	4.50	6.50	10.50	---	---	---	---	---

<sup>1/</sup> Cost per foot.

## TABLE B - PIPE AND RELATED COSTS (CONTINUED)

### CORRUGATED METAL PIPE

<b>PIPE: 1/</b>			
Steel, Standard Galvanized (SG) - also includes concrete and fiberglass			1.47
SG Steel, Close Riveted/Caulked Seams (CR/CS)			1.95
Steel, Polymeric Coated (PC)			2.10
PC Steel, CR/CS			2.50
Standard Aluminum			1.80
Aluminum, CR/CS			2.15
<b>CONNECTING BAND: 2/</b>			
	7½" wide	12" wide	24" wide
Steel, Standard Galvanized (SG)	1.50	2.00	3.75
Steel, Polymeric Coated (PC)	2.00	2.75	5.50
Aluminum	1.50	2.25	4.25
Watertight SG Steel, incl. 4 rods/lugs	---	---	7.25
Watertight PC Steel, incl. 4 rods/lugs	---	---	9.75
<b>ANTI-SEEP DIAPHRAGM: 3/</b>			
SG Steel, 2 piece, with watertight coupling, rods/lugs			33.25
PC Steel, 2 piece, with watertight coupling, rods/lugs			46.25
<b>SPLITTER TYPE ANTI-VORTEX WALL: 3/</b>			
SG Steel, size based on riser diameter (not barrel)			8.50
<b>HOODED INLET BAFFLE PLATE: 3/</b>			
SG Steel, double angle iron			15.50
<b>END SECTION: 3/</b>			
SG Steel, 12 inch through 24 inch diameter			8.50
SG Steel, 30 inch through 36 inch diameter			13.25
SG Steel, 42 inch through 54 inch diameter			25.00
SG Steel, 60 inch diameter and larger			33.00
<b>SCREEN OR END CAP: 3/</b>			
SG Steel			8.25
<b>FLAP GATE: 3/</b>			
SG Steel			20.00
<b>CONICAL TRASH RACK: 3/</b>			
SG Steel, based on riser diameter, 36 inch and less			39.75
SG Steel, based on riser diameter, 42 inch and over			66.25
<b>WEIR BOX TRASH RACK: 3/</b>			
SG Steel, for hooded inlets			13.25
<b>FABRICATED TRASH RACK: 3/</b>			
SG Steel, based on riser diameter			20.00
<b>ANTI-VORTEX VANE: 3/</b>			
SG Steel, for hooded inlets			3.50
<b>FABRICATION (LABOR ONLY): 4/</b>			
Tees, Wyes, and Riser Stubs			13.25
Elbows			10.00
Skewed or Beveled Ends			6.00

1/ Pipe costs are listed per diameter inch, per lineal foot, 16-gauge thickness.

Use above costs X 1.20 for 14 gauge, 1.50 for 12 gauge, and 1.90 for 10 gauge.

Examples: 20 ft., 24 in. dia. steel, CR/CS, 16 ga. = (1.95) X (24 in. dia.) X (20 ft.) = 936.00

20 ft., 24 in. dia. steel, CR/CS, 14 ga. = (1.95 X 1.20) X (24 in. dia.) X (20 ft.) = 1123.20

2/ Connecting band costs are listed for the band width listed, per diameter inch, 16 gauge thickness.

Use above costs X 1.20 for 14 gauge, and 1.70 for 12 gauge.

Examples: 12 in. wide steel band, PC, 16 ga., 24 in. dia. = (2.75) X (24 in. dia.) = 66.00

24 in. steel watertight band, SG, 12 ga., 48 in. dia. = (7.25 X 1.70) X (48 in. dia.) = 591.60

3/ Costs are per diameter inch of pipe, any gauge (no added factors for gauge).

4/ Cost per diameter inch. For riser/stub assemblies, use stub diameter. Fabrication does NOT include any material costs.

## TABLE B - PIPE AND RELATED COSTS (CONTINUED)

### IRRIGATION SYSTEM REORGANIZATION

Retrofit pumping plant (well) 1/	\$136.50/hp
Retrofit pumping plant (surface) 1/	84.00/hp
New drop nozzle and regulator assembly	68.25/assembly
New center Pivot Control Panel	\$2210.00
New end gun boost pump assembly	\$2750.00
Gated Pipe 10"	\$5.00/ft
Gated Pipe 12"	5.80/ft
New surface water pumping plant 1/	\$221.00/hp
New center pivot (per linear foot)	\$68.00

### ANTI-SEEP COLLAR, BUTYL RUBBER/NEOPRENE WITH WOOD FRAME

Cost per square foot	\$3.25
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### VALVES, GATES, AND PIPE APPURTENANCES

Flow Meter	110.00 per diameter inch
Gate Valves or Combination Gate/Check	56.00 per diameter inch
Hand Opening Slide Gate	10.00 per diameter inch
Wheel Opening Slide Gate	49.00 per diameter inch
Reverse Flow Check Valve	39.00 per diameter inch
Air Relief Valve	44.00 per diameter inch
Pressure Relief Valve	66.00 per diameter inch
Grade Transition Section	56.00 per diameter inch
Alfalfa Valves 8" to 12" installed	22.00 per diameter inch
Surge Valves 6" to 12" installed	248.00 per diameter inch
Butterfly Valves	39.00 per diameter inch
In Line Pressurized Filter	221.00 per diameter inch
Electric Control/Pressure Comp. Valve	193.00 per diameter inch

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1/ Use electric nameplate horsepower rating.

## TABLE C - CONSTRUCTION MATERIALS, WELLS, AND STORAGE FACILITIES

### CONCRETE

Formed steel reinforced concrete (4000psi)	\$567.00/cu.yd.
Formed steel reinforced concrete (M strength)	454.00/cu.yd.
Steel reinforced concrete flatwork	314.00/cu.yd.
Non-reinforced concrete or cement bedding/grouting	173.00/cu.yd.

### LUMBER AND STRUCTURAL STEEL

Cedar, Redwood, preservation-treated lumber, or synthetic composites	\$4.05/bd.ft.
Wood piling or construction poles per diameter inch of butt thickness	1.10/ln.ft.
Structural steel including fabrication	4.59/lb.

### RIPRAP

Riprap in place including bedding	\$65.00cu.yd.
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### GEOTEXTILE FABRIC

Woven or non-woven fabric in place	\$2.80/sq.yd
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### GRAVEL OR SCORIA

Gravel, sand, or scoria (pit run)	\$17.25/cu.yd.
Gravel (washed and graded)	28.00/cu.yd.

### RESERVOIR / POND SEALING

Bentonite or soda ash	\$284.00/ton
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### WELLS

Drilling and casing less than 4 inches Artesian <u>1/</u>	\$28.60/ft.
Drilling and casing 4 inches and over Artesian <u>1/</u>	31.85/ft.
Drilling and casing less than 4 inches <u>1/</u>	24.32/ft.
Drilling and casing 4 inches and over <u>1/</u>	26.68/ft.
Drilling in consolidated material not requiring casing	11.35/ft.
Bored or dug and cased 12 inches or larger <u>1/</u>	78.00/ft
Well screen, stainless steel or brass installed <u>2/</u>	90.75/ft.
Well screen, plastic or galvanized steel installed <u>2/</u>	28.00/ft.
Rural Water System Hookups (signup fees not eligible)	\$853.00
Water Pump – installed	\$3013.00/HP
Pitless Well Units-steel (frost free) installed	\$168.00 per diameter inch
Vault	\$1134.00 ea.
Pressure Tank	\$7.00/gal.
Irrigation pump - VFD	\$100.00/HP

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- 1/ Costs as shown are installed costs including but not limited to such things as cement, cement basket, lead packing, gravel, and other permanently installed items necessary for drilling and casing the well.
- 2/ Costs as shown are installed costs and include drilling. Costs are for manufactured screens.

## TABLE C - CONSTRUCTION MATERIALS, WELLS, AND STORAGE FACILITIES (CONTINUED)

### DECOMMISSIONING ABANDONED WELLS 1/

Well diameter less than 4 inches	5.50/ln.ft.
Well diameter - 4 inches	3.00/ln.ft.
Well diameter - 5 inches	5.10/ln.ft.
Well diameter - 6 to 29 inches	10.00/ln.ft.
Well diameter – 30 inches and larger	27.50/ln.ft.

### LIVESTOCK WATER FACILITIES

Storage tank – New – Complete Installation 2/	\$1.13/gal.
Storage tank, Frost Free – New – Complete Installation 2/	3.40/gal.
Nose Pump	\$541.00/each
Water fountain	378.00/each

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1/ Costs as shown are installed costs and includes but not limited to such things as sanitizing chemicals, bentonite, cement, sand, and other permanently installed items necessary for sanitizing and sealing the abandoned well.

2/ Complete installation includes necessary components, accessories, labor, etc. to cover the entire installation costs of the tank. Does not include concrete or gravel apron.

## TABLE D - VEGETATIVE ESTABLISHMENT AND RELATED COSTS

### SEEDBED PREPARATION

	Per Acre
Chemical seedbed preparation, without tillage: Chemical and Application (Cost-share is limited to the following per acre cost, regardless of the number of applications)	\$17.70
Mechanical seedbed preparation (Includes 1 or more packing operations)	\$ 10.00

### SEEDING OPERATIONS

	Per Acre
Grass/Grain drill	\$12.00
Temporary Cover (includes seedbed prep, seeding and seed)	\$20.00

### CRITICAL AREA PREPARATION

	Per. Sq. Yd.
Mulch Blankets	\$1.66
Anchored mulch w/netting	\$1.10
Anchored mulch w/treader	\$0.16
Hydroseeder, seeding and mulch	\$0.21
Sod in-place	\$1.10
Turf reinforcing materials	\$3.90

### WEED OR PEST CONTROL

	Per Acre
Mechanical weed control	\$8.00
Chemical weed or pest control: Chemical and Application for weed or pest control	\$17.70

## TABLE E - SEED COSTS

GRASS SEED	Price per pound PLS
Alfalfa	\$2.10
Alfalfa Creeper Varieties	\$2.50
Alkali sacaton	\$28.00
Alsike Clover	\$1.25
Altai Wildrye	\$7.50
American vetch	\$55.00
Basin Wildrye	\$7.00
Big Bluestem	\$6.50
Birdsfoot trefoil	\$4.35
Black-Eyed Susan	\$16.00
Blanket Flower	\$19.75
Blue Flax	\$16.95
Blue Grama	\$10.00
Buffalograss	\$11.75
Canada milkvetch	\$8.00
Canada Wildrye	\$4.75
Cicer milkvetch	\$4.50
Creeping foxtail - Garrison	\$6.50
Crested wheatgrass	\$2.25
Crested wheatgrass Improved Varieties	\$2.50
Four-wing saltbush	\$17.50
Gardner saltbush	\$20.00
Green needlegrass	\$4.00
Hairy vetch	\$2.50
Hard Fescue	\$2.75
Indiangrass	\$8.00
Intermediate wheatgrass	\$1.30
Intermediate wheatgrass Improved Varieties	\$1.50
Leadplant	\$120.00
Little Bluestem	\$12.00
Maximilian sunflower	\$35.00
Meadow Bromegrass	\$2.25
NewHy hybrid wheatgrass	\$7.25
Prairie Coneflower (yellow)	\$25.00
Prairie cordgrass	\$60.00
Prairie sandreed	\$9.50
Pubescent Wheatgrass	\$2.00
Pubescent Wheatgrass Improved Varieties	\$2.10
Purple Coneflower (Narrowleaf)	\$18.50
Purple prairie clover	\$20.00
Red Clover	\$2.50
Reed canarygrass	\$2.10
Russian Wildrye	\$5.00
Sainfoin	\$2.20
Sand Bluestem	\$15.95

Sideoats Grama	\$9.00
Slender Wheatgrass	\$1.50
Shell-leaf Penstomen	\$196.75
Smooth Bromegrass	\$1.35
Stiff Sunflower	\$200.00
Streambank Wheatgrass	\$5.50
Sweet clover	\$1.10
Switchgrass	\$3.00
Tall Wheatgrass	\$2.00
Thickspike Wheatgrass	\$5.50
Timothy	\$1.25
Western Wheatgrass	\$4.00
Western Wheatgrass Improved Varieties	\$3.25
White prairieclover	\$18.00
Winterfat	\$22.00
Beardless Wildrye	\$8.50
Siberian wheatgrass	\$4.00
Dahurian Wildrye	\$1.50
White Clover	\$2.25
Strawberry Clover	\$7.50

VEGETATIVE PLUGS

Individual Vegetative Plug (Planted)

1.00/ea

## TABLE F - AVERAGE COSTS FOR ESTABLISHING OR REESTABLISHING TREES OR SHRUBS

### SITE PREPARATION

	Per Acre
Chemical site preparation, without tillage Chemical and Application	\$17.70
Mechanical site preparation	\$10.00
Heavy site preparation (dozed, sheared, clipped, etc.)	\$114.50

### PLANTING COSTS (includes planting and materials)

Machine Planting (bare root or containerized – also includes sod scalped)	21.00 per 100-ft. row
Hand Planted (bare root or container)	1.20 per tree
Hand Planted (Unrooted Cuttings)	0.40 per tree

### PLANT MAINTENANCE / MANAGEMENT

Competition Control	
Mechanical (4 to 6-foot band with in-the-row equipment, 1 cultivation)	\$2.40 per 100-ft. row
Chemical (3- to 4-foot band with in-the-row)	8.00 per 100-ft. row
Synthetic Weed Barrier (6 feet wide)	48.50 per 100-ft. row
Synthetic Weed Barrier Squares (4' x 4' minimum)	2.80 per square
Grass seeding between rows (sideoats grama and blue grama)	45.00 per acre
Supplemental Water System	2.10 per emitter
(This pertains to a drip irrigation system and the price includes emitter, pipe, and other appurtenances but does not include pipeline from water source to tree planting.)	
Tree shelter:	
2 foot	\$3.40 per shelter
3 foot	\$4.30 per shelter
4 foot	\$5.00 per shelter
5 foot	\$7.00 per shelter
Tree Pruning	\$1248.00 per acre

### RENOVATION

Removal of entire tree and/or shrub row	\$118.56 per 100-ft. row
Bury trees and/or shrubs	\$60.00 per 100-ft. row
Thinning of trees and/or shrubs	7.50 per 100-ft. row
Removal of invasive specie's <sup>1/</sup>	\$202.50 per acre

<sup>1/</sup> Upon approval from the State Resource Conservationist this component may be used for removal of Siberian Elm, Russian Olive, Eastern Red Cedar, Rocky Mountain Juniper, and Buckthorn. Other species may be approved on a case by case basis.

## TABLE G - GRASSLAND PRACTICES

### BRUSH CONTROL

Per Acre

Chemical and Application for control of competitive shrubs on non-cropland

\$17.70

Mechanical Brush Control

\$10.80

### FENCE CONSTRUCTION

New materials for all purposes

Per LF

Barbed or smooth wire

\$1.07

Chain link fence (minimum height 6')

14.05

Feedlot Fence

8.20

Feedlot Fence for wind protection

12.85

Power (Electric) fence (multiple wires)

0.67

Power (Electric) fence (1 wire)

0.51

Woven wire

1.46

Silt Fence (includes installation and removal)

2.60

Each

Power (Electric) Fence Energizers

\$400.00

Solar Panel and Energizer (Electric) Fence

\$495.00

See Table A for Obstruction Removal (fence)