

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Southern Plains
State	Oklahoma
Discipline Group	Agricultural Engineering
Practice Code/Name	600 - Terrace
Scenario ID	1
Scenario Name	Broadbased, Parallel, Level
Scenario Description	An earthen embankment with channel constructed across the field slope as part of a system to shorten slope lengths, and reduce sheet, rill, and gully erosion in a cropped field. The typical installation is a broadbased, parallel, and level terrace storing runoff with a length of 2,500 feet and side slopes of 8:1 or greater in a field with slopes from 2% to 8% constructed in loam soils or similar in regards to workability. Costs include all equipment and forces necessary to excavate, shape, and compact terrace. This practice addresses Concentrated Flow Erosion and Excessive Sediment in surface waters.
Before Practice Situation	Long slope lengths contribute to excessive sedimentation and soil erosion in cropped fields as a result of gully, rill, and sheet erosion. The excessive erosion may lead to deterioration of receiving waters due to excessive sedimentation and nutrient transport.
After Practice Situation	A system of broadbased, parallel, and level terraces with approximately 8:1 front and back slopes, 1.7 feet height, and 2,500 feet in length is installed with spacing designed to intercept flow of water and shorten slope length to reduce erosion to acceptable levels. Work is done with dozer, scraper, or road grader. The installed terrace is typically farmed. Associated practices are Critical Area Planting (342), Grassed Waterway (412), and Underground Outlet (620).
Scenario Feature Measure	Length of Terrace
Scenario Unit	Linear Foot
Scenario Typical Size	2500

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$1,696.20	\$0.68
Labor	\$615.44	\$0.25
Mobilization	\$127.32	\$0.05
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$2,438.96	\$0.98

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	927	Dozer, 140 HP	Track mounted Dozer with horsepower range of 125 to 160. Equipment and power unit costs. Labor not included.	Hours	\$84.81	20	\$1,696.20
Labor	234	Supervisor or Manager	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hours	\$36.06	4	\$144.24
Labor	233	Equipment Operators, Heavy	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hours	\$23.56	20	\$471.20
Mobilization	1139	Mobilization, medium equipment	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$127.32	1	\$127.32

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Southern Plains
State	Oklahoma
Discipline Group	Agricultural Engineering
Practice Code/Name	600 - Terrace
Scenario ID	2
Scenario Name	Broadbased, Parallel, Graded
Scenario Description	An earthen embankment with channel constructed across the field slope as part of a system to shorten slope lengths and reduce sheet, rill, and gully erosion in a cropped field. The typical installation is a broadbased, parallel, and graded terrace having 8:1 slopes measuring 2,500 feet in a field with slopes from 2% to 8% constructed in loam soils or similar in regards to workability. A stable outlet is provided in the form of a Grassed Waterway or Underground Outlet. Costs include all equipment and forces necessary to excavate, shape, and compact terrace. This practice addresses Concentrated Flow Erosion and Excessive Sediment in surface waters.
Before Practice Situation	Long slope lengths contribute to excessive sedimentation and soil erosion in cropped fields as a result of gully, rill, and sheet erosion. The excessive erosion may lead to deterioration of receiving waters due to excessive sedimentation and nutrient transport.
After Practice Situation	A system of broadbased, parallel, and graded terraces with approximately 8:1 front and back slopes, 1.7 feet height, and 2,500 feet in length is installed with spacing designed to intercept flow of water and shorten slope length to reduce erosion to acceptable levels. Work is done with dozer, scraper, or road grader. The installed terrace is typically farmed. Associated practices are Critical Area Planting (342), Grassed Waterway (412), and Underground Outlet (620).
Scenario Feature Measure	Length of Terrace
Scenario Unit	Linear Foot
Scenario Typical Size	2500

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$2,374.68	\$0.95
Labor	\$803.92	\$0.32
Mobilization	\$127.32	\$0.05
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$3,305.92	\$1.32

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	927	Dozer, 140 HP	Track mounted Dozer with horsepower range of 125 to 160. Equipment and power unit costs. Labor not included.	Hours	\$84.81	28	\$2,374.68
Labor	234	Supervisor or Manager	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hours	\$36.06	4	\$144.24
Labor	233	Equipment Operators, Heavy	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hours	\$23.56	28	\$659.68
Mobilization	1139	Mobilization, medium equipment	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$127.32	1	\$127.32

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Southern Plains
State	Oklahoma
Discipline Group	Agricultural Engineering
Practice Code/Name	600 - Terrace
Scenario ID	3
Scenario Name	Broadbased, contour, graded
Scenario Description	An earthen embankment with channel constructed across the field slope as part of a system to shorten slope lengths and reduce sheet, rill, and gully erosion in a cropped field. The typical installation is a broadbased, contour, and graded terrace having 8:1 slopes measuring 2,500 feet in a field with slopes from 2% to 8% constructed in loam soils or similar in regards to workability. A stable outlet is provided in the form of a Grassed Waterway or Underground Outlet. Costs include all equipment and forces necessary to excavate, shape, and compact terrace. This practice addresses Concentrated Flow Erosion and Excessive Sediment in surface waters.
Before Practice Situation	Long slope lengths contribute to excessive sedimentation and soil erosion in cropped fields as a result of gully, rill, and sheet erosion. The excessive erosion may lead to deterioration of receiving waters due to excessive sedimentation and nutrient transport.
After Practice Situation	A system of broadbased, contour, and graded terraces with approximately 8:1 front and back slopes, 1.7 feet height, and 2,500 feet in length is installed with spacing designed to intercept flow of water and shorten slope length to reduce erosion to acceptable levels. Work is done with dozer, scraper, or road grader. The installed terrace is typically farmed. Associated practices are Critical Area Planting (342), Grassed Waterway (412), and Underground Outlet (620).
Scenario Feature Measure	Length of Terrace
Scenario Unit	Linear Foot
Scenario Typical Size	2500

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$2,035.44	\$0.81
Labor	\$709.68	\$0.28
Mobilization	\$127.32	\$0.05
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$2,872.44	\$1.15

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	927	Dozer, 140 HP	Track mounted Dozer with horsepower range of 125 to 160. Equipment and power unit costs. Labor not included.	Hours	\$84.81	24	\$2,035.44
Labor	234	Supervisor or Manager	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hours	\$36.06	4	\$144.24
Labor	233	Equipment Operators, Heavy	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hours	\$23.56	24	\$565.44
Mobilization	1139	Mobilization, medium equipment	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$127.32	1	\$127.32

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Southern Plains
State	Oklahoma
Discipline Group	Agricultural Engineering
Practice Code/Name	600 - Terrace
Scenario ID	4
Scenario Name	Standard, contour
Scenario Description	An earthen embankment with channel constructed across the field slope as part of a system to shorten slope lengths and reduce sheet, rill, and gully erosion in a cropped field. The typical installation is a standard terrace on a contour having 5:1 upstream and 5:1 downstream slopes measuring 2,500 feet in a field with slopes from 2% to 8% constructed in loam soils or similar in regards to workability. A stable outlet is provided in the form of a Grassed Waterway or Underground Outlet. Costs include all equipment and forces necessary to excavate, shape, and compact terrace. This practice addresses Concentrated Flow Erosion and Excessive Sediment in surface waters.
Before Practice Situation	Long slope lengths contribute to excessive sedimentation and soil erosion in cropped fields as a result of gully, rill, and sheet erosion. The excessive erosion may lead to deterioration of receiving waters due to excessive sedimentation and nutrient transport.
After Practice Situation	A system of standard, contour terraces measuring 2,500 feet in length, 1.3 height, and 5:1 front and back slopes is installed with spacing designed to intercept flow of water and shorten slope length to reduce erosion to acceptable levels. Work is done with dozer, scraper, or road grader. The installed terrace is typically farmed. Associated practices are Critical Area Planting (342), Grassed Waterway (412), and Underground Outlet (620).
Scenario Feature Measure	Length of Terrace
Scenario Unit	Linear Foot
Scenario Typical Size	2500

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$1,017.72	\$0.41
Labor	\$354.84	\$0.14
Mobilization	\$127.32	\$0.05
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$1,499.88	\$0.60

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	927	Dozer, 140 HP	Track mounted Dozer with horsepower range of 125 to 160. Equipment and power unit costs. Labor not included.	Hours	\$84.81	12	\$1,017.72
Labor	234	Supervisor or Manager	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hours	\$36.06	2	\$72.12
Labor	233	Equipment Operators, Heavy	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hours	\$23.56	12	\$282.72
Mobilization	1139	Mobilization, medium equipment	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$127.32	1	\$127.32

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Practice and Scenario Description:

Information Type	Data
Region	Southern Plains
State	Oklahoma
Discipline Group	Agricultural Engineering
Practice Code/Name	600 - Terrace
Scenario ID	5
Scenario Name	Basin and/or RUSLE spaced
Scenario Description	An earthen embankment with channel constructed across the field slope as part of a system to shorten slope lengths and reduce sheet, rill, and gully erosion in a cropped field. Field normally from 100 to 400 acres, row crop rotation, with flat to moderate slopes with sheet & rill and concentrated flow erosion. Terrace spacing is based on Basin and/or RUSLE spacing. Costs include all equipment and forces necessary to excavate, shape, and compact terrace. This practice addresses Concentrated Flow Erosion and Excessive Sediment in surface waters. Typical scenario is a 1000 cy basin terrace.
Before Practice Situation	Long slope lengths contribute to excessive sedimentation and soil erosion in cropped fields as a result of gully, rill, and sheet erosion. The excessive erosion may lead to deterioration of receiving waters due to excessive sedimentation and nutrient transport.
After Practice Situation	An earth embankment, a channel, or a combination ridge and channel constructed across the slope. Basin terrace is constructed to shorten slope lengths and reduce erosion and sedimentation. Associated practices are Critical Area Planting (342), Grassed Waterway (412), and Underground Outlet (620).
Scenario Feature Measure	Cubic Yard
Scenario Unit	Cubic Yard
Scenario Typical Size	1000

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$1,180.00	\$1.18
Labor	\$216.36	\$0.22
Mobilization	\$127.32	\$0.13
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$1,523.68	\$1.52

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	1222	Excavation, common earth, large equipment, 50 ft	Bulk excavation of common earth including sand and gravel with dozer >100 HP with average push distance of 50 feet. Includes equipment and labor.	Cubic Yard	\$1.18	1000	\$1,180.00
Labor	234	Supervisor or Manager	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hours	\$36.06	6	\$216.36
Mobilization	1139	Mobilization, medium equipment	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$127.32	1	\$127.32

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Southern Plains
State	Oklahoma
Discipline Group	Agricultural Engineering
Practice Code/Name	600 - Terrace
Scenario ID	6
Scenario Name	Broadbased Rehabilitation
Scenario Description	A system of existing inadequate terraces reconstructed on the same alignment after the existing terrace system exceeds the terrace design life. A terrace is an earthen embankment with channel constructed across the field slope as part of a system to shorten slope lengths and reduce sheet, rill, and gully erosion in a cropped field. A typical installation consists of rebuilding 5,000 feet of existing broadbased terraces. A typical broadbased terrace has 5:1 upstream and 5:1 downstream side slopes in a field with slopes from 2% to 8% constructed in loam soils or similar in regards to workability. Channel and berm are farmed. A stable outlet is typically provided in the form of a Grassed Waterway or Underground Outlet. The costs include all equipment and forces necessary to excavate, shape, and compact the existing terrace system to meet current design criteria. Existing terraces shall not be removed prior to rebuilding. This practice addresses Concentrated Flow Erosion and Excessive Sediment in surface waters.
Before Practice Situation	An existing terrace system meets the current spacing limits and current channel grade criteria, however, the terraces have numerous breaches, the height of the berm above the channel is less than 0.7 feet, or the channel cross sectional area is less than 50% of the design. As a result of these deficiencies, gully, rill, and/or sheet erosion are contributing to excessive sedimentation and soil erosion in a cropped field. The excessive erosion may lead to deterioration of receiving waters due to excessive sedimentation and nutrient transport.
After Practice Situation	The system of existing inadequate terraces are rehabilitated to current design criteria. The rehabilitated system of broadbased terraces measuring 5,000 feet in length, 2.5 height, and 5:1 front and back slopes is installed with spacing designed to intercept flow of water and shorten slope length to reduce erosion to acceptable levels. Work is done with dozer, scraper, or road grader. The installed terrace is typically farmed. Associated practices are Critical Area Planting (342), Grassed Waterway (412), and Underground Outlet (620).
Scenario Feature Measure	Length of Rehabilitated Terraces
Scenario Unit	Linear Foot
Scenario Typical Size	5000

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$2,120.25	\$0.42
Labor	\$589.00	\$0.12
Mobilization	\$127.32	\$0.03
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$2,836.57	\$0.57

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	927	Dozer, 140 HP	Track mounted Dozer with horsepower range of 125 to 160. Equipment and power unit costs. Labor not included.	Hours	\$84.81	25	\$2,120.25
Labor	233	Equipment Operators, Heavy	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hours	\$23.56	25	\$589.00
Mobilization	1139	Mobilization, medium equipment	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$127.32	1	\$127.32

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Southern Plains
State	Oklahoma
Discipline Group	Agronomy
Practice Code/Name	601 - Vegetative Barriers
Scenario ID	1
Scenario Name	Vegetative Barrier: 3-5 ft wide
Scenario Description	Permanent strips of stiff, dense vegetation established along the general contour of slopes or across concentrated flow areas.
Before Practice Situation	Significant erosion is occurring resulting in substantial transport of sediment across the slope or concentrated flow areas. A large amount of sediment is subsequently delivered to the edge of the field and/or waterways.
After Practice Situation	A strip or strips of stiff, dense vegetation three to five feet wide is/are established along the general contour of the slope or across concentrated flow areas that effectively settles a significant amount or sediment above the leading edge of the vegetative barrier. Barrier may also help to connect green areas to provide shelter for wildlife.
Scenario Feature Measure	Linear feet of practice installed
Scenario Unit	Linear Foot
Scenario Typical Size	1000

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$5.29	\$0.01
Equipment/Installation	\$2.64	\$0.00
Labor	\$0.00	\$0.00
Mobilization	\$39.66	\$0.04
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$8.65	\$0.01
Total	\$56.23	\$0.06

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	82	Switchgrass, Blackwell (Panicum virgatum)	Native Grasses and shipping.	Pound	\$9.62	0.55	\$5.29
Equipment/Installation	960	Seeding Operation, No Till/Grass Drill	No Till drill or grass drill for seeding. Includes equipment, power unit and labor costs.	Acre	\$19.08	0.0918	\$1.75
Equipment/Installation	945	Tillage, Light	Includes light disking (tandem) or field cultivator. Includes equipment, power unit and labor costs.	Acre	\$9.63	0.0918	\$0.88
Mobilization	1143	Mobilization, Light Equipment Operator	Mobilization of light equipment operators: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	Hour	\$19.83	2	\$39.66
Foregone Income	1963	FI, Wheat Dryland	Dryland Wheat is Primary Crop	Acre	\$94.18	0.0918	\$8.65

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Southern Plains
State	Oklahoma
Discipline Group	Agronomy
Practice Code/Name	601 - Vegetative Barriers
Scenario ID	2
Scenario Name	Vegetative Barrier: >5 ft wide
Scenario Description	Permanent strips of stiff, dense vegetation established along the general contour of slopes or across concentrated flow areas.
Before Practice Situation	Significant erosion is occurring resulting in substantial transport of sediment across the slope or concentrated flow areas. A large amount of sediment is subsequently delivered to the edge of the field and/or waterways.
After Practice Situation	A strip or strips of stiff, dense vegetation greater than five feet wide is/are established along the general contour of the slope or across concentrated flow areas that effectively settles a significant amount or sediment above the leading edge of the vegetative barrier. Barrier may also help to connect green areas to provide shelter for wildlife. A strip of land 5-10 feet wide is taken out of crop production.
Scenario Feature Measure	Linear feet of practice installed
Scenario Unit	Linear Foot
Scenario Typical Size	1000

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$8.83	\$0.01
Equipment/Installation	\$5.27	\$0.01
Labor	\$0.00	\$0.00
Mobilization	\$39.66	\$0.04
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$17.30	\$0.02
Total	\$71.07	\$0.07

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	82	Switchgrass, Blackwell (Panicum virgatum)	Native Grasses and shipping.	Pound	\$9.62	0.9183	\$8.83
Equipment/Installation	960	Seeding Operation, No Till/Grass Drill	No Till drill or grass drill for seeding. Includes equipment, power unit and labor costs.	Acre	\$19.08	0.1837	\$3.50
Equipment/Installation	945	Tillage, Light	Includes light disking (tandem) or field cultivator. Includes equipment, power unit and labor costs.	Acre	\$9.63	0.1837	\$1.77
Mobilization	1143	Mobilization, Light Equipment Operator	Mobilization of light equipment operators: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	Hour	\$19.83	2	\$39.66
Foregone Income	1963	Fl, Wheat Dryland	Dryland Wheat is Primary Crop	Acre	\$94.18	0.1837	\$17.30

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Southern Plains
State	Oklahoma
Discipline Group	Agronomy
Practice Code/Name	603 - Herbaceous Wind Barriers
Scenario ID	1
Scenario Name	Annual Species
Scenario Description	This scenario describes the implementation of herbaceous barriers to reduce wind velocities and wind-borne particulate matter. In this scenario barriers are composed of annual vegetation, living or dead. Plant materials shall be selected for local adaptation and climatic conditions and are resistant to lodging and are non-spreading in their habit. Barriers will be designed as close to perpendicular to prevailing winds as practical. Barrier direction, spacing, and composition needed to achieve the desired purpose shall be designed using the currently approved wind erosion technology.
Before Practice Situation	Typically cropland has excessive soil disturbance and unsheltered distance that results in excessive wind erosion that affect soil resources. Seedling development and wildlife habitat are negatively affected by wind-borne sediment and sediment-borne contaminants travelling offsite.
After Practice Situation	Implementation of herbaceous wind barriers will modify the flow and velocity of air dependant upon barrier height, porosity, spacing and wind speed. Orientation is generally placed across an entire field perpendicular to applicable prevailing wind direction. Implementation will reduce soil loss; protect growing plants from damage by wind blown soil particles, provide food and cover for wildlife. Payment is for the design and implementation of annual barriers and required reestablishment.
Scenario Feature Measure	linear feet of barrier planted
Scenario Unit	Linear Foot
Scenario Typical Size	1320

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$16.50	\$0.01
Equipment/Installation	\$84.78	\$0.06
Labor	\$53.64	\$0.04
Mobilization	\$0.00	\$0.00
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$25.43	\$0.02
Total	\$180.35	\$0.14

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	198	Rye, Cereal (Secale cereale L.)	Small Grains, Cover Crops and shipping.	Pound	\$0.75	22	\$16.50
Equipment/Installation	939	Truck, Pickup	Equipment and power unit costs. Labor not included.	Hour	\$21.90	3	\$65.70
Equipment/Installation	960	Seeding Operation, No Till/Grass Drill	No Till drill or grass drill for seeding. Includes equipment, power unit and labor costs.	Acre	\$19.08	1	\$19.08
Labor	231	General Labor	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	\$17.88	3	\$53.64
Foregone Income	1963	Fl, Wheat Dryland	Dryland Wheat is Primary Crop	Acre	\$94.18	0.27	\$25.43

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Southern Plains
State	Oklahoma
Discipline Group	Agronomy
Practice Code/Name	603 - Herbaceous Wind Barriers
Scenario ID	2
Scenario Name	Perennial species
Scenario Description	This scenario describes the implementation of herbaceous barriers to reduce wind velocities and wind-borne particulate matter. In this scenario barriers are composed of perennial living vegetation. Plant materials shall be selected for local adaptation and climatic conditions and are resistant to lodging and are non-spreading in their habit. Barriers will be designed as close to perpendicular to prevailing winds as practical. Barrier direction, spacing, and composition needed to achieve the desired purpose shall be designed using the currently approved wind erosion technology.
Before Practice Situation	Typically cropland has excessive soil disturbance and unsheltered distance that results in excessive wind erosion that affect soil resources. Seedling development and wildlife habitat are negatively affected by wind-borne sediment and sediment-borne contaminants travelling offsite.
After Practice Situation	Implementation of perennial herbaceous wind barriers will modify the flow and velocity of air dependant upon barrier height, porosity, spacing and wind speed. Orientation is generally placed across an entire field perpendicular to applicable prevailing wind direction. Implementation will reduce soil loss; protect growing plants from damage by wind blown soil particles, provide food and cover for wildlife. Payment is for the design and implementation of perennial barriers and required reestablishment.
Scenario Feature Measure	linear feet of barrier planted
Scenario Unit	Linear Foot
Scenario Typical Size	1320

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$23.62	\$0.02
Equipment/Installation	\$84.78	\$0.06
Labor	\$53.64	\$0.04
Mobilization	\$0.00	\$0.00
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$25.43	\$0.02
Total	\$187.47	\$0.14

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	76	Big Blue Stem (Andropogon gerardii)	Native Grasses and shipping.	Pound	\$11.81	2	\$23.62
Equipment/Installation	939	Truck, Pickup	Equipment and power unit costs. Labor not included.	Hour	\$21.90	3	\$65.70
Equipment/Installation	960	Seeding Operation, No Till/Grass Drill	No Till drill or grass drill for seeding. Includes equipment, power unit and labor costs.	Acre	\$19.08	1	\$19.08
Labor	231	General Labor	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	\$17.88	3	\$53.64
Foregone Income	1963	FI, Wheat Dryland	Dryland Wheat is Primary Crop	Acre	\$94.18	0.27	\$25.43

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Southern Plains
State	Oklahoma
Discipline Group	Agronomy
Practice Code/Name	603 - Herbaceous Wind Barriers
Scenario ID	3
Scenario Name	Snow Deposition
Scenario Description	This scenario describes the implementation of herbaceous barriers that are designed specifically to improve available soil moisture for crops/forages by reducing wind velocities and distributing snow more evenly across an entire field. The planned herbaceous barrier(s) will meet the current 603 standard. Payment for implementation is to defray the costs of design and layout of the barriers, site preparation, planting, application of fertilizers and amendments, and seeding. Current wind erosion technologies will be used in the design of barriers to meet the intended purposes.
Before Practice Situation	Typically cropland or hayland are managed so that they are unprotected during fall/winter causing damage by wind erosion and allowing snow to drift or blow across or off the field. Management on cropland commonly includes soil disturbance resulting in wind erosion that degrades soil quality, causes offsite deposition of soil and snow and adversely affects plant productivity and wildlife habitat.
After Practice Situation	Herbaceous wind barriers will be designed so that wind velocities are reduced enhancing snow deposition onto crop or forage fields that improve plant available soil moisture. The minimum height of these barriers must be at least 1.5 feet during periods of expected snow fall and must achieve a porosity of 60-75 percent while being established in a manner that reduces wind erosion to acceptable levels. Plant materials must be adapted to local soil and climate conditions, including stiff, erect, non-spreading growth habit and resistance to lodging. The use of plant species that enhance plant species diversity will also enhance wildlife habitat. Spacing shall not exceed 12 times the height of the barrier. Mechanical or chemical seedbeds will be prepared to provide a firm weed-free seedbed. Seeding will be completed using an appropriate drill. If annual vegetation is used, re-establishment will be completed so that barriers are in place prior to expected snow fall events.
Scenario Feature Measure	linear feet of barrier planted
Scenario Unit	Linear Foot
Scenario Typical Size	1320

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$40.60	\$0.03
Equipment/Installation	\$84.78	\$0.06
Labor	\$53.64	\$0.04
Mobilization	\$0.00	\$0.00
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$179.02	\$0.14

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	1294	Tall Wheatgrass (Thinopyrum ponticum)	Introduced Perennial Grasses and shipping.	Pound	\$4.06	10	\$40.60
Equipment/Installation	939	Truck, Pickup	Equipment and power unit costs. Labor not included.	Hour	\$21.90	3	\$65.70
Equipment/Installation	960	Seeding Operation, No Till/Grass Drill	No Till drill or grass drill for seeding. Includes equipment, power unit and labor costs.	Acre	\$19.08	1	\$19.08
Labor	231	General Labor	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	\$17.88	3	\$53.64
Foregone Income	1276	Foregone income, place holder	This is a place holder component for foregone income. The existence of this component indicates that the practice is eligible for foregone income payment. The component will be replaced when the actual FI components become available.	Acre	\$0.00	1	\$0.00