

**Scenario Worksheet**

**Practice and Scenario Description:**

Information Type	Data
Region	New England
State	Connecticut
Discipline Group	Wildlife Wetland
Practice Code/Name	422 - Hedgerow Planting
Scenario ID	2
Scenario Name	Contour
Scenario Description	Typically installation of this scenario is within an annually cropped field. The hedge row is planted on the contour to provide a physical and visual aid to contour farming. This scenario is used to facilitate additional measures that address the resource concerns of; sheet and rill soil erosion and Water Quality Degradation, excess sediment in surface waters. Trees, shrubs, and grasses adapted for local climatic and edaphic conditions are typically planted at eight foot intervals (this will vary with species selection and density goals). Species selected should be at least three feet tall at maturity. There is tremendous overlap between this practice and conservation practice 380 Windbreak/Shelterbelt establishment. The main difference is that conservation practice 380 is exclusively woody plants where practice 422 provides for the use of herbaceous materials. If a fence is needed to facilitate establishment use practice 382, Fence.
Before Practice Situation	Contour farming practices are made difficult or less effective due to a lack of visual clues as to the location of the contours. Soil is lost to sheet and rill erosion. Sediments are deposited into surface waters.
After Practice Situation	Hedgerow planted on the contour presents a physical and visual guide for tillage and planting operations on the contour. Soil erosion from sheet and rill sources is reduced and the resultant deposition of sediment to surface waters is in turn reduced.
Scenario Feature Measure	Length of Hedgerow
Scenario Unit	Feet
Scenario Typical Size	800

**Cost Summary:**

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$118.96	\$0.15
Equipment/Installation	\$8.39	\$0.01
Labor	\$2,571.00	\$3.21
Mobilization	\$0.00	\$0.00
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$2,698.34	\$3.37

**Cost Details:**

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	1510	Tree, hardwood, seedling or transplant, bare root, 16-36"	Bare root hardwood trees 18-36" tall. Materials only.	Each	\$0.80	100	\$80.00
Materials	1907	Animal repellent, chemical	Chemical animal repellent to protect trees from animal damage. Materials only.	Gallon	\$36.14	0.25	\$9.04
Materials	1555	Tree shelter, mesh tree tube, 24"	24" tall vexar or other open weave tubular tree shelter to protect from animal damage. Materials only.	Each	\$0.28	100	\$28.00
Materials	82	Switchgrass, Blackwell (Panicum virgatum)	Native Grasses and shipping.	Pound	\$9.62	0.2	\$1.92
Equipment/Installation	960	Seeding Operation, No Till/Grass Drill	No Till drill or grass drill for seeding. Includes all costs for equipment, power unit, and labor.	Acre	\$19.08	0.25	\$4.77
Equipment/Installation	946	Tillage, Primary	Includes heavy disking (offset) or chisel plow, Equipment and power unit costs. Labor is included.	Acre	\$14.46	0.25	\$3.62
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	\$25.71	100	\$2,571.00

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<b>Information Type</b>	<b>Data</b>
Region	New England
State	Connecticut
Discipline Group	Wildlife Wetland
Practice Code/Name	422 - Hedgerow Planting
Scenario ID	7
Scenario Name	Hedgerow Existing Understory
Scenario Description	Typically installed in or at the edge of cropland or pasture where there is existing vegetation such as grasses or forbes. Trees and shrubs are planted directly into the grass/forb area. this scenario is used to address the Inadequate Habitat for Fish and Wildlife resource concern. Specifically, the establishment of dense vegetation in a linear design can be used to provide for several habitat elements depending on the needs identified in the habitat assessment. This scenario can provide: habitat connectivity, food, and cover for wildlife depending on design and plant species selection. The 422 standard for wildlife criteria calls for a minimum of two species of native plants. Typical installation is a 30 foot wide hedgerow with four line of trees or shrubs planted 10 feet apart. The species list in the component section of this scenario are strictly for deriving a cost. Plant species adapted to the local climatic and edaphic conditions that address the resource concern will be stated in the specification for the site. If a fence is needed to facilitate establishment use practice 382, Fence.
Before Practice Situation	Habitat patches lack connectivity. Cover is inadequate to allow wildlife to exploit cropland food resources. Wildlife food may be limited.
After Practice Situation	Inadequate habitat for fish and wildlife is addressed for needs identified in the resource assessment. Habitat patches are connected by dense hedgerow vegetation. Food resources in crop fields are made available by their proximity to hedgerow cover. Planting may include fruit and mast bearing species, improving food supply, depending on needs being addressed.
Scenario Feature Measure	
Scenario Unit	Foot
Scenario Typical Size	800

**Cost Summary:**

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$3,492.80	\$4.37
Equipment/Installation	\$0.00	\$0.00
Labor	\$411.36	\$0.51
Mobilization	\$0.00	\$0.00
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$3,904.16	\$4.88

**Cost Details:**

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	1535	Tree, conifer, seedling or transplant, potted, 1/2 gal.	Potted conifer tree, 1/2 gallon. Materials only.	Each	\$9.35	80	\$748.00
Materials	1530	Tree, hardwood, seedling or transplant, potted, 1/2 gal.	Potted hardwood tree, 1/2 gallon. Materials only.	Each	\$11.35	80	\$908.00
Materials	1525	Shrub, seedling or transplant, potted, 1/2 gal.	Potted shrub, 1/2 gal. Materials only.	Each	\$10.68	160	\$1,708.80
Materials	1562	Tree shelter, solid tube type, 4" x 18"	4" x 18" tree tube for protection from animal damage. Materials only.	Each	\$0.80	160	\$128.00
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	\$25.71	16	\$411.36

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Information Type	Data
Region	New England
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Discipline Group	Wildlife Wetland
Practice Code/Name	422 - Hedgerow Planting
Scenario ID	1
Scenario Name	Pollinator Habitat
Scenario Description	where pollinator habitat is an additional wildlife habitat concern this scenario addresses the resource concern of inadequate fish and wildlife habitat. It provides both physical habitat by providing areas that are not disturbed by annual tillage and provides pollen and nector throughout the growing season by establishing a diverse mixture of flowering plants. Typically a mixture of 5 or more species is planted to improve diversity so that pollen and nector are available as long as possible. Typical installation is in or at the edge of cropland or pasture. Typical installation involves tillage to prepare the site for planting. Flowering trees and shrubs adapted for local climatic and edaphic conditions are typically planted at eight foot intervals (this will vary with species selection and density goals). A native grass adapted to the local climatic and edaphic conditions will be drilled into the site at a rate that will achieve a minimum of 20 seeds per square foot. A locally adapted mixture of 3 pollen and nectar producing plants will be drilled into the site. The species list in the component section of this scenario are strictly for deriving a cost. Species adapted to local climatic and edaphic conditions will be listed in the specification for the site. There is tremendous overlap between this practice and conservation practice 380
Before Practice Situation	Pollen and nector sources are lacking or are only available for part of the growing season. Large cropland tracks lack undisturbed areas for ground nesting bees
After Practice Situation	Flowering plants supply pollen and nector throughout the growing season. Undisturbed areas provide nesting sites for bees and other native pollinators.
Scenario Feature Measure	Length of Hedgerow
Scenario Unit	Feet
Scenario Typical Size	800

**Cost Summary:**

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$1,192.45	\$1.49
Equipment/Installation	\$8.39	\$0.01
Labor	\$2,571.00	\$3.21
Mobilization	\$0.00	\$0.00
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$3,771.83	\$4.71

**Cost Details:**

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	1555	Tree shelter, mesh tree tube, 24"	24" tall vexar or other open weave tubular tree shelter to protect from animal damage. Materials only.	Each	\$0.28	100	\$28.00
Materials	1520	Tree, conifer, seedling, containerized, 15 cu. in.	Containerized conifer stock, 15 cubic inches (e.g. 2.0" x 6"). Materials only.	Each	\$0.88	100	\$88.00
Materials	151	Stiff Goldenrod (Solidago rigida)	Native Forbs and shipping.	Pound	\$143.45	1	\$143.45
Materials	132	Butterfly Milkweed (Asclepias tuberosa)	Native Forbs and shipping.	Pound	\$437.08	1	\$437.08
Materials	131	Swamp Milkweed (Asclepias incarnata)	Native Forbs and shipping.	Pound	\$235.45	1	\$235.45
Materials	76	Big Blue Stem (Andropogon gerardii)	Native Grasses and shipping.	Pound	\$11.81	1	\$11.81
Materials	152	Showy Goldenrod (Solidago speciosa)	Native Forbs and shipping.	Pound	\$239.62	1	\$239.62
Materials	1907	Animal repellent, chemical	Chemical animal repellent to protect trees from animal damage. Materials only.	Gallon	\$36.14	0.25	\$9.04
Equipment/Installation	946	Tillage, Primary	Includes heavy disking (offset) or chisel plow, Equipment and power unit costs. Labor is included.	Acre	\$14.46	0.25	\$3.62
Equipment/Installation	960	Seeding Operation, No Till/Grass Drill	No Till drill or grass drill for seeding. Includes all costs for equipment, power unit, and labor.	Acre	\$19.08	0.25	\$4.77
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	\$25.71	100	\$2,571.00

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**Practice and Scenario Description:**

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Region	New England
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Discipline Group	Wildlife Wetland
Practice Code/Name	422 - Hedgerow Planting
Scenario ID	6
Scenario Name	Wildlife Cool Season
Scenario Description	Typically installed in or at the edge of cropland or pasture this scenario is used to address the inadequate habitat for fish and wildlife resource concern. Specifically, the establishment of dense vegetation in a linear design can be used to provide for several habitat elements depending on the needs identified in the habitat assessment. This scenario can provide: habitat connectivity, food, and cover for wildlife depending on design and plant species selection. The 422 standard for wildlife criteria calls for a minimum of two species of native plants. Typical installation involves tillage to prepare the site for planting. 2 Trees and/or shrubs adapted for local climatic and edaphic conditions are typically plant at eight foot intervals (this will vary with species selection and density goals). A native cool season grass adapted to the local climatic and edaphic conditions will be drilled into the site at a rate that will achieve a minimum of 20 seeds per square foot. The species list in the component section of this scenario are strictly for deriving a cost. Plant species adapted to the local climatic and edaphic conditions that address the resource concern will be stated in the specification for the site. There is tremendous overlap between this practice and conservation practice 380 Windbreak/Shelterbelt
Before Practice Situation	Habitat patches lack connectivity. Cover is inadequate to allow wildlife to exploit cropland food resources. Berries and mast are limited.
After Practice Situation	Inadequate habitat for fish and wildlife is addressed for needs identified in the resource assessment. Habitat patches are connected by dense hedgerow vegetation. Food resources in crop fields are made available by their proximity to hedgerow cover. Planting may include fruit and mast bearing species, improving food supply, depending on needs being addressed.
Scenario Feature Measure	Length of Hedgerow
Scenario Unit	Feet
Scenario Typical Size	800

**Cost Summary:**

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$140.68	\$0.18
Equipment/Installation	\$8.39	\$0.01
Labor	\$2,571.00	\$3.21
Mobilization	\$0.00	\$0.00
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$2,720.06	\$3.40

**Cost Details:**

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	83	Wild Rye, Canada (Elymus canadensis)	Native Grasses and shipping.	Pound	\$9.32	2	\$18.64
Materials	1507	Shrub, seedling or transplant, bare root, 18"-36"	Bare root hardwood trees 18-36" tall. Materials only.	Each	\$0.85	100	\$85.00
Materials	1555	Tree shelter, mesh tree tube, 24"	24" tall vexar or other open weave tubular tree shelter to protect from animal damage. Materials only.	Each	\$0.28	100	\$28.00
Materials	1907	Animal repellent, chemical	Chemical animal repellent to protect trees from animal damage. Materials only.	Gallon	\$36.14	0.25	\$9.04
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	\$25.71	100	\$2,571.00
Equipment/Installation	946	Tillage, Primary	Includes heavy disking (offset) or chisel plow, Equipment and power unit costs. Labor is included.	Acre	\$14.46	0.25	\$3.62
Equipment/Installation	960	Seeding Operation, No Till/Grass Drill	No Till drill or grass drill for seeding. Includes all costs for equipment, power unit, and labor.	Acre	\$19.08	0.25	\$4.77

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Region	New England
State	Connecticut
Discipline Group	Wildlife Wetland
Practice Code/Name	422 - Hedgerow Planting
Scenario ID	4
Scenario Name	Wildlife, Warm Season Grass
Scenario Description	Typically installed in or at the edge of cropland or pasture this scenario is used to address the inadequate habitat for fish and wildlife resource concern. Specifically, the establishment of dense vegetation in a linear design can be used to provide for several habitat elements depending on the needs identified in the habitat assessment. This scenario can provide: habitat connectivity, food, and cover for wildlife depending on design and plant species selection. The 422 standard for wildlife criteria calls for a minimum of two species of native plants. Typical installation involves tillage to prepare the site for planting. 2 Trees and/or shrubs adapted for local climatic and edaphic conditions are typically plant at eight foot intervals (this will vary with species selection and density goals). A mix of 2 native warm season grasses adapted to the local climatic and edaphic conditions will be drilled into the site at a rate that will achieve a minimum of 20 seeds per square foot. The species list in the component section of this scenario are strictly for deriving a cost. Plant species adapted to the local climatic and edaphic conditions that address the resource concern will be stated in the specification for the site. There is tremendous overlap between this practice and conservation practice 380
Before Practice Situation	Habitat patches lack connectivity. Cover is inadequate to allow wildlife to exploit cropland food resources. Berries and mast are limited.
After Practice Situation	Inadequate habitat for fish and wildlife is addressed for needs identified in the resource assessment. Habitat patches are connected by dense hedgerow vegetation. Food resources in crop fields are made available by their proximity to hedgerow cover. Planting may include fruit and mast bearing species, improving food supply, depending on needs being addressed.
Scenario Feature Measure	Length of Hedgerow
Scenario Unit	Feet
Scenario Typical Size	800

**Cost Summary:**

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$125.74	\$0.16
Equipment/Installation	\$8.39	\$0.01
Labor	\$2,571.00	\$3.21
Mobilization	\$0.00	\$0.00
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$2,705.13	\$3.38

**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	0.5	\$4.81
Materials	76	Big Blue Stem (Andropogon gerardii)	Native Grasses and shipping.	Pound	\$11.81	0.33	\$3.90
Materials	1510	Tree, hardwood, seedling or transplant, bare root, 16-36"	Bare root hardwood trees 18-36" tall. Materials only.	Each	\$0.80	100	\$80.00
Materials	1555	Tree shelter, mesh tree tube, 24"	24" tall vexar or other open weave tubular tree shelter to protect from animal damage. Materials only.	Each	\$0.28	100	\$28.00
Materials	1907	Animal repellent, chemical	Chemical animal repellent to protect trees from animal damage. Materials only.	Gallon	\$36.14	0.25	\$9.04
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	\$25.71	100	\$2,571.00
Equipment/Installation	946	Tillage, Primary	Includes heavy disking (offset) or chisel plow, Equipment and power unit costs. Labor is included.	Acre	\$14.46	0.25	\$3.62
Equipment/Installation	960	Seeding Operation, No Till/Grass Drill	No Till drill or grass drill for seeding. Includes all costs for equipment, power unit, and labor.	Acre	\$19.08	0.25	\$4.77