

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	New England
State	Connecticut
Discipline Group	Agricultural Engineering
Practice Code/Name	466 - Land Smoothing
Scenario ID	2
Scenario Name	Cranberry Bog Leveling
Scenario Description	Leveling of the base of cranberry bogs during bog renovation to reduce water needs during flooding and improve equipment operation and efficiency
Before Practice Situation	Uneven old bogs require excessive water for flooding.
After Practice Situation	Irregularities in the land surface are removed using a laser level and dozer. Multiple small bog cells are accessed for treatment.
Scenario Feature Measure	Acres of land treated
Scenario Unit	Acre
Scenario Typical Size	5

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$1,437.66	\$287.53
Labor	\$837.34	\$167.47
Mobilization	\$350.29	\$70.06
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$2,625.29	\$525.06

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.	Hour	\$102.69	14	\$1,437.66
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	14	\$359.94
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.	Hour	\$34.10	14	\$477.40
Mobilization	1137	Mobilization, very small equipment	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	\$75.96	1	\$75.96
Mobilization	1139	Mobilization, medium equipment	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$274.33	1	\$274.33

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Information Type	Data
Region	New England
State	Connecticut
Discipline Group	Agricultural Engineering
Practice Code/Name	466 - Land Smoothing
Scenario ID	1
Scenario Name	Minor Shaping
Scenario Description	Removing irregularities on the land surface of cropland by use of heavy equipment.
Before Practice Situation	Field damaged by flooding, past agricultural practices, or other topographic issues causing drainage or field workability issues. Typically less than 100 cy/acre material moved.
After Practice Situation	Land level, backhoe, bulldozer or other heavy equipment used to correct irregularities and address drainage or workability issues.
Scenario Feature Measure	Acres of land treated
Scenario Unit	Acre
Scenario Typical Size	40

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$2,941.00	\$73.53
Labor	\$852.50	\$21.31
Mobilization	\$67.56	\$1.69
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$3,861.06	\$96.53

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.	Hour	\$102.69	25	\$2,567.25
Equipment/Installation	1206	Scraper, pull, 7 CY	Pull type earthmoving scraper with 7 CY capacity. Does not include pulling equipment or labor. Add Tractor or Dozer, 160 HP typically required for single scraper.	Hour	\$14.95	25	\$373.75
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.	Hour	\$34.10	25	\$852.50
Mobilization	1144	Mobilization, Heavy Equipment Operator	Mobilization of heavy equipment operators: Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hour	\$33.78	2	\$67.56