

Practice: 464 - Irrigation Land Leveling

Scenario: #2 - Land Leveling 125 to 205 cy per ac

Scenario Description:

This scenario will level a typical 80 acres of irrigated crop land surface to enhance uniform flow of surface water to improve irrigation efficiency using dirt pans/carry-all/pan-scraper equipment. The typical volume of earth moved is 190 cubic yards per acre.

Resource Concern: Excess/Insufficient - Inefficient Use of Irrigation Water

Associated Conservation Practices: 433 - Irrigation System, Surface and Subsurface; 607 - Surface Drain, Field Ditch; 388 - Irrigation Field Ditch; 449 - Irrigation Water Management; or 587 - Structure for Water Control.

Before Situation:

Irregular field surface reduces uniformity of surface application and thus irrigation efficiency by localized ponding and/or excess runoff/runon.

After Situation:

Cropland will be reshaped to provide uniform distribution of irrigation water in order to promote irrigation efficiencies.

Scenario Feature Measure: Acres of Land Levelled

Scenario Unit: Acre

Scenario Typical Size: 80

Scenario Cost: \$25,925.03

Scenario Cost/Unit: \$324.06

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation						
Tractor, agricultural, 260 HP	1204	Agricultural tractor with horsepower range of 240 to 290. Equipment and power unit costs. Labor not included.	Hour	\$102.13	152	\$15,523.76
Scraper, pull, 15 CY	1207	Pull type earthmoving scraper with 15 CY capacity. Does not include pulling equipment or labor. Add Tractor or Dozer, 260 HP typically required for single scraper.	Hour	\$19.51	304	\$5,931.04
Labor						
Equipment Operators, Heavy	233	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hour	\$26.55	152	\$4,035.60
Mobilization						
Mobilization, large equipment	1140	Equipment >150HP or typical weights greater than 30,000 pounds or loads requiring over width or over length permits.	Each	\$434.63	1	\$434.63

Practice: 464 - Irrigation Land Leveling

Scenario: #3 - Land Leveling over 205 cy per ac

Scenario Description:

This scenario will level a typical 80 acres of irrigated crop land surface to enhance uniform flow of surface water to improve irrigation efficiency using dirt pans/carry-all/pan-scraper equipment. The typical volume of earth moved is 260 cubic yards per acre.

Resource Concern: Excess/Insufficient - Inefficient Use of Irrigation Water

Associated Conservation Practices: 433 - Irrigation System, Surface and Subsurface; 607 - Surface Drain, Field Ditch; 388 - Irrigation Field Ditch; 449 - Irrigation Water Management; or 587 - Structure for Water Control.

Before Situation:

Irregular field surface reduces uniformity of surface application and thus irrigation efficiency by localized ponding and/or excess runoff/runon.

After Situation:

Cropland will be reshaped to provide uniform distribution of irrigation water in order to promote irrigation efficiencies.

Scenario Feature Measure: Acres of Land Levelled

Scenario Unit: Acre

Scenario Typical Size: 80

Scenario Cost: \$35,316.23

Scenario Cost/Unit: \$441.45

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation						
Tractor, agricultural, 260 HP	1204	Agricultural tractor with horsepower range of 240 to 290. Equipment and power unit costs. Labor not included.	Hour	\$102.13	208	\$21,243.04
Scraper, pull, 15 CY	1207	Pull type earthmoving scraper with 15 CY capacity. Does not include pulling equipment or labor. Add Tractor or Dozer, 260 HP typically required for single scraper.	Hour	\$19.51	416	\$8,116.16
Labor						
Equipment Operators, Heavy	233	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hour	\$26.55	208	\$5,522.40
Mobilization						
Mobilization, large equipment	1140	Equipment >150HP or typical weights greater than 30,000 pounds or loads requiring over width or over length permits.	Each	\$434.63	1	\$434.63