

Practice: 328 - Conservation Crop Rotation

Scenario: #1 - Improve rotation diversity

Scenario Description: This scenario involves acquiring the technical knowledge and skills necessary to incorporate a new crop that provides greater natural resource conservation benefits into a farm's crop rotation. The typical farm where this rotation change occurs is 100 acres used to produce row-crops. No foregone income is included. Cost represents typical situations for conventional (non-organic) producers.

Before Situation: The rotation consists primarily of moderate to low residue producing row crops. Fields range from nearly flat to C and D slopes. Erosion, soil quality, and pest management are the primary natural resource conservation concerns.

After Situation: A new crop is incorporated into the current rotation. The new rotation provides additional high residue that will reduce sheet and rill erosion, reduce soil erosion from wind, maintain or improve soil organic matter, manage the balance of plant nutrient, improve water use efficiency, and improve management of weeds, insects, and diseases.

Scenario Feature Measure: Area planted

Scenario Unit: Acre

Scenario Typical Size: 100

Total Scenario Cost: \$1,591.33

Scenario Cost/Unit: \$15.91

Cost Details

Component Name	Id	Description	Unit	Cost	Qty	Total
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Labor

Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	\$39.78	40	\$1,591.33
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Practice: 328 - Conservation Crop Rotation

Scenario: #4 - Continuous Live Roots

Scenario Description: This scenario involves the acquisition of technical knowledge and skills necessary to effectively implement an advance conservation crop rotation that uses more diverse crops grown in rotation and prompt planting following each harvest to provide continuous living roots throughout a 30 acre field. The typical baseline rotation in this region consists of continuous, conventional, non-irrigated full season soybeans followed by winter fallow. The new rotation implemented through this scenario is a 2-year system beginning in 1st year with planting barley immediately following the soybean harvest, a summer barley harvest followed immediately by planting double-crop soybeans. In the second year of the new rotation, wheat is planted, harvested then immediately followed by double-crop sorghum. The typical costs associated with this scenario include short-term costs incurred in making the transition, including management, acquisition of knowledge, custom hiring planting and/or harvest prior to making capital investment in new equipment. Foregone income is not considered in this scenario because it can be assumed that the new rotation's productivity is likely to be equal to or more profitable in the long run, once the costs of the transition are overcome.

Before Situation: The typical baseline rotation consists of continuous, conventional, non-irrigated soybeans followed by winter fallow. Fields range from nearly flat to C and D slopes. Erosion, soil quality, and pest management are the primary concerns.

After Situation: The baseline rotation is replaced with a new rotation involving a continuous cycle of annual crops and no fallow periods. The rotation established adds higher residue crop(s) to the rotation that reduce erosion, improve soil quality, and break pest cycles.

Scenario Feature Measure: Area planted

Scenario Unit: Acre

Scenario Typical Size: 30

Total Scenario Cost: \$1,989.17

Scenario Cost/Unit: \$66.31

Cost Details

Component Name	Id	Description	Unit	Cost	Qty	Total
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Labor

Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	\$39.78	50	\$1,989.17
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