Practice: 328 - Conservation Crop Rotation

Scenario: #1 - Standard Rotation

Scenario Description: In this region this practice may be part of a conservation management system to: 1) Reduce sheet, rill and wind erosion, 2) Maintain or increase soil health and organic matter content, 3) Reduce water quality degradation due to excess nutrients, 4) Improve soil moisture efficiency, 5) Reduce the concentration of salts and other chemicals from saline seeps, 6) Reduce plant pest pressures, 7) Provide feed and forage for domestic livestock, and 8) Provide food and cover habitat for wildlife, including pollinator forage, and nesting. This practice payment is provided to acquire the technical knowledge and skills necessary to effectively implement a conservation crop rotation on a typical 100 ac cropland farm. No foregone income. Cost represents typical situations for conventional (non-organic) producers.

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

After Situation: A rotation is establish that provides additional high residue and/or perennial crops that reduce erosion, improve soil quality, and break pest cycles.

Scenario Feature Measure: Area planted

Scenario Unit: Acre

Scenario Typical Size: 100

Total Scenario Cost: $1,593.92

Scenario Cost/Unit: $15.94

Cost Details

Component Name	Id	Description	Unit	Cost	Qty	Total
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	$39.85	40	$1,593.92

Practice: 328 - Conservation Crop Rotation

Scenario: #2 - Irrigated to Dryland Rotation

Scenario Description: In this region this practice may be part of a conservation management system to primarily convert from an irrigated cropping system to dryland farming. In addition to improving water use efficiency the rotation may to: 1) Reduce sheet, rill and wind erosion, 2) Maintain or increase soil health and organic matter content, 3) Reduce water quality degradation due to excess nutrients, 4) Improve soil moisture efficiency, 5) Reduce the concentration of salts and other chemicals from saline seeps, 6) Reduce plant pest pressures, 7) Provide feed and forage for domestic livestock, and 8) Provide food and cover habitat for wildlife, including pollinator forage, and nesting. This practice payment is provided to acquire the technical knowledge and skills necessary to effectively implement a conservation crop rotation on a typical 200 cropland farm. There is foregone income involved with this conversion from irrigated to dryland farming due to lower yields and net return. Cost represents typical situations for conventional (non-organic) producers converting from irrigated cropping to dryland farming.

Before Situation: This rotation consisted of growing row crop grains that received a significant (more than half) of the required water via irrigation. The water demands are impacting the area's water availability. Erosion, soil condition, and future water availability are the major concerns.

After Situation: The dryland rotation, using the same crops or a rotation that grows crops over different periods, will be part of a management system capable of utilizing available rainfall and soil moisture more efficiently and controling wind and water erosion. Corn yields will be expected to be reduced from 150 to 80 bu/acre.

Scenario Feature Measure: Area planted

Scenario Unit: Acre

Scenario Typical Size: 200

Total Scenario Cost: $20,080.95

Scenario Cost/Unit: $100.40

Cost Details

Component Name	Id	Description	Unit	Cost	Qty	Total
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	$39.85	30	$1,195.44
Foregone Income						
FI, Corn Irrigated	1960	Irrigated Corn is Primary Crop	Acre	$522.93	33	$17,256.75
FI, Cotton Dryland	1967	Dryland Cotton is Primary Crop	Acre	$156.16	-34	($5,309.28)
FI, Cotton Irrigated	1968	Irrigated Cotton is Primary Crop	Acre	$262.18	34	$8,914.11
FI, Sorghum Dryland	1971	Dryland Sorghum is Primary Crop	Acre	$109.67	-33	($3,619.03)
FI, Soybeans Dryland	1961	Dryland Soybeans is Primary Crop	Acre	$211.75	-33	($6,987.59)
FI, Soybeans Irrigated	1962	Irrigated Soybeans is Primary Crop	Acre	$261.53	33	$8,630.54

Practice: 328 - Conservation Crop Rotation

Scenario: #3 - Organic Rotation

Scenario Description: Scenario Description: In this region this practice may be part of a conservation management system to: 1) Reduce sheet, rill and wind erosion, 2) Maintain or increase soil health and organic matter content, 3) Reduce water quality degradation due to excess nutrients, 4) Improve soil moisture efficiency, 5) Reduce the concentration of salts and other chemicals from saline seeps, 6) Reduce plant pest pressures, 7) Provide feed and forage for domestic livestock, and 8) Provide food and cover habitat for wildlife, including pollinator forage, and nesting. This practice payment is provided to acquire the technical knowledge and skills necessary to effectively implement a conservation crop rotation on a typical 100 cropland farm. No foregone income. Cost represents typical situations for organic producers.

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

After Situation: The rotation established transitions the rotation from a conventional system to an organic system. The rotation is planned that compliments erosion control, nutrient cycling, soil organic matter, and pest management via crop rotation.

Scenario Feature Measure: Area planted

Scenario Unit: Acre

Scenario Typical Size: 100

Total Scenario Cost: $1,593.92

Scenario Cost/Unit: $15.94

Cost Details

Component Name	Id	Description	Unit	Cost	Qty	Total
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	$39.85	40	$1,593.92

Practice: 328 - Conservation Crop Rotation

Scenario: #4 - Specialty Crops

Scenario Description: In this region a rotation of specialty crops (fruits and vegetable) are produced as part of a conservation management system to: 1) Reduce sheet, rill plant pest pressures,2) Maintain or increase soil health and organic matter content, 3) Reduce water quality degradation due to excess nutrients, 4) Improve soil moisture efficiency, 5) Reduce the concentration of salts and other chemicals from saline seeps, 6) Reduce plant pest pressures, 7) Provide feed and forage for domestic livestock, and 8) Provide food and cover habitat for wildlife, including pollinator forage, and nesting. This practice payment is provided to acquire the technical knowledge and skills necessary to effectively implement a conservation crop rotation on a typical 50 acre specialty crop farm. No foregone income. Cost represents typical situations for conventional (non-organic) producers.

Before Situation: This rotation consisted of growing specialty crops. Fields range from nearly flat to B and C slopes. Erosion, soil quality, and pest management are the primary concerns.

After Situation: The rotation established adds higher residue crop(s) to the rotation that reduce erosion, improve soil quality, and break pest cycles. 1) Reduce sheet, rill plant pest pressures,2) Maintain or increase soil health and organic matter content, 3) Reduce water quality degradation due to excess nutrients, 4) Improve soil moisture efficiency, 5) Reduce the concentration of salts and other chemicals from saline seeps, 6) Reduce plant pest pressures, 7) Provide feed and forage for domestic livestock, and 8) Provide food and cover habitat for wildlife, including pollinator forage, and nesting.

Scenario Feature Measure: Area planted

Scenario Unit: Acre

Scenario Typical Size: 50

Total Scenario Cost: $1,992.40

Scenario Cost/Unit: $39.85

Cost Details

Component Name	Id	Description	Unit	Cost	Qty	Total
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	$39.85	50	$1,992.40

Practice: 328 - Conservation Crop Rotation

Scenario: #5 - Organic Specialty Crops

Scenario Description: In this region a rotation of specialty crops (fruits and vegetable) are produced as part of a conservation management system to: In this region a rotation of specialty crops (fruits and vegetable) are produced as part of a conservation management system to: 1) Reduce sheet, rill and wind erosion, 2) Maintain or increase soil health and organic matter content, 3) Reduce water quality degradation due to excess nutrients, 4) Improve soil moisture efficiency, 5) Reduce the concentration of salts and other chemicals from saline seeps, 6) Reduce plant pest pressures, 7) Provide feed and forage for domestic livestock, and 8) Provide food and cover habitat for wildlife, including pollinator forage, and nesting. This practice payment is provided to acquire the technical knowledge and skills necessary to effectively implement a conservation crop rotation on a typical 4 acre specialty crop farm. No foregone income. Cost represents typical situations for organic producers.

Before Situation: This rotation consisted of growing specialty crops. Fields range from nearly flat to B and C slopes. Erosion, soil quality, and pest management are the primary concerns.

After Situation: The rotation established adds higher residue crop(s) to the rotation that reduce erosion, improve soil quality, and break pest cycles. And 2) Maintain or increase soil health and organic matter content, 3) Reduce water quality degradation due to excess nutrients, 4) Improve soil moisture efficiency, 5) Reduce the concentration of salts and other chemicals from saline seeps, 6) Reduce plant pest pressures, 7) Provide feed and forage for domestic livestock, and 8) Provide food and cover habitat for wildlife, including pollinator forage, and nesting.

Scenario Feature Measure: Area planted

Scenario Unit: Acre

Scenario Typical Size: 4

Total Scenario Cost: $3,187.84

Scenario Cost/Unit: $796.96

Cost Details

Component Name	Id	Description	Unit	Cost	Qty	Total
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	$39.85	80	$3,187.84