Practice: 376 - Field Operations Emissions Reduction

Scenario: #4 - 1 Crop Per Year

Scenario Description: Utilize equipment that allows a reductiobn the tillage passes through the field and/or utilizing precision GPS guidance to avoid overlap of tillage passes across the field per crop rotation. Utilize this practice only when residue and STIR values cannot be achieved when using the associated Residue and Tillage Management Practices: 329-NoTill or 345-Mulch Tillage to achieve the air quality resource concern. The resource concern addressed is improved air quality by reducing combustion and particulate matter emissions primaily from tillage. The payment is based on tillage equipment or GPS technology to achieve reduce tillage passess.

Before Situation: Tillage operations are performed individually; each operation requiring a tractor or other power implement to pull the tillage implement resulting in multiple passes across the field. Each pass creates soil particulate emissions contributing to the area's reduced air quality.

After Situation: A 376 Field Operations Emissions Reduction plan is developed showing a reduced number of field passess across the field (benchmark system compared to the planned system). As a result of applying this practice soil particulates in the air is reduced and the area's air quality is improved.

Scenario Feature Measure: Acres Treated

Scenario Unit: Acre

Scenario Typical Size: 40

Total Scenario Cost: $654.59

Scenario Cost/Unit: $16.36

Cost Details

Component Name	Id	Description	Unit	Cost	Qty	Total
Equipment Installation						
Tillage, Primary	946	Includes heavy disking (offset) or chisel plow. Includes equipment, power unit and labor costs.	Acre	$16.36	40	$654.59

Practice: 376 - Field Operations Emissions Reduction

Scenario: #5 - 2 Crops Per Year

Scenario Description: Utilize equipment that allows a reductiobn the tillage passes through the field and/or utilizing precision GPS guidance to avoid overlap of tillage passes across the field per crop rotation. Utilize this practice only when residue and STIR values cannot be achieved when using the associated Residue and Tillage Management Practices: 329-NoTill or 345-Mulch Tillage to achieve the air quality resource concern. The resource concern addressed is improved air quality by reducing combustion and particulate matter emissions primaily from tillage. The payment is based on tillage equipment or GPS technology to achieve reduce tillage passess.

Before Situation: Tillage operations are performed individually; each operation requiring a tractor or other power implement to pull the tillage implement resulting in multiple passes across the field. Each pass creates soil particulate emissions contributing to the area's reduced air quality.

After Situation: A 376 Field Operations Emissions Reduction plan is developed showing a reduced number of field passess across the field (benchmark system compared to the planned system). As a result of applying this practice soil particulates in the air is reduced and the area's air quality is improved.

Scenario Feature Measure: Acres Treated

Scenario Unit: Acre

Scenario Typical Size: 40

Total Scenario Cost: $1,309.18

Scenario Cost/Unit: $32.73

Cost Details

Component Name	Id	Description	Unit	Cost	Qty	Total
Equipment Installation						
Tillage, Primary	946	Includes heavy disking (offset) or chisel plow. Includes equipment, power unit and labor costs.	Acre	$16.36	80	$1,309.18

Practice: 376 - Field Operations Emissions Reduction

Scenario: #6 - Clean Harvest Technology

Scenario Description: Utilize harvest equipment that is peer reviewed and documented to reduce PM10 by 30% or greater. Technology may also have beneficial impacts to reducing PM2.5 and NOx emissions. Qualified technologies will be approved by the State Air Quality Specialist or equivalent. Typical technologies can include sweepers, harvesters, or other equipment designed to reduce the output of dust, particulates, or other emissions affecting air quality. Equipment could be self-propelled or powered by another unit. Resource Concern addressed is to improve air quality by reducing combustion and particulate matter emissions.

Before Situation: Harvest operations are performed individually; each operation requiring a combustion system and other implement used to harvest crops.

After Situation: The use of clean harvest technology may reduce the total number of passes, reduce the amount of emissions, or meet or prevent a state or local emission regulation. These reductions can come from fossil fuel combustion or particulate matter emissions.

Scenario Feature Measure: Acres Treated

Scenario Unit: Acre

Scenario Typical Size: 40

Total Scenario Cost: $654.59

Scenario Cost/Unit: $16.36

Cost Details

Component Name	Id	Description	Unit	Cost	Qty	Total
Equipment Installation						
Tillage, Primary	946	Includes heavy disking (offset) or chisel plow. Includes equipment, power unit and labor costs.	Acre	$16.36	40	$654.59