

Practice: 633 - Waste Recycling

Scenario: #1 - Export Ag Waste By-products Recycled for Use Off Farm

Scenario Description: Agricultural by-products on the farm are in excess of the ability of the farm and limited crop landbase to utilize. These waste materials are accumulating in such a manner that the water, soil and/or air quality have resource concerns. The application of a waste management plan will recycle these by-products such that the quality of the natural resources will be improved and the environment protected. The agricultural by-products are tested and exported off the farm operation for external uses. Records are kept detailing disposition of the waste, including date, amount, and receiver of the waste. Results of the agricultural by-product laboratory analysis is also provided to the receiver. Associated practices: 313-Waste Storage Facility, 317-Composting Facility, 590-Nutrient Management

Before Situation: Agricultural by-products are produced or accumulated on the farm in amounts that cannot be utilized by the farm without causing resource concerns such as degradation of water quality, soil health and/or air quality.

After Situation: Twice a year the excess agricultural by-products that have been collected at the farm are sampled and laboratory tested to determine the characteristics of the waste material that is recycled. The results of this analysis will determine the basis of its use. The agricultural by-products are then handled according to the waste management system plan. The intended off-farm use of the recycled agricultural waste by-products will refer to the laboratory analysis. Records shall be kept of the analysis, dates and quantities of recycled waste exported.

Scenario Feature Measure: Farm

Scenario Unit: Each

Scenario Typical Size: 1

Total Scenario Cost: \$482.46

Scenario Cost/Unit: \$482.46

Cost Details

Component Name	Id	Description	Unit	Cost	Qty	Total
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Labor

Specialist Labor	235	Labor requiring a specialized skill set: Includes Agronomists, Foresters, Biologists, etc. to provide additional technical information during the planning and implementation of the practice. Does not include NRCS or TSP services.	Hour	\$102.74	2	\$205.48
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	\$45.66	4	\$182.64

Materials

Test, Manure Analysis	306	Moisture, Total N, P, K. Includes materials and shipping only.	Each	\$47.16	2	\$94.33
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Scenario: #2 - Utilization of Non-Ag Waste By-products

Scenario Description: A farm with soil quality resource concerns utilizes non-agricultural, by-product composted material to improve soil quality. The farm is located near a facility that processes and/or produces non-agricultural waste such as food processing waste or municipal green waste recycling center. The product is land applied within 7 days of receipt and spread less than 6 inches thick. The material is mixed into the top layer of soil using tillage operations that are in addition to normal tillage operations used for seedbed preparation. This is necessary to allow the organic carbon to be assimilated into the top layer of soil and prevent off-site movement. Records are kept to document the methods and utilization of the non-agricultural products for agricultural purposes. Material is tested once before application. Associated practices: 313-Waste Storage Facility, 317-Composting Facility, 590-Nutrient Management

Before Situation: A farm with degraded soil quality and low organic matter is located near a municipal green waste recycling or food processing center. The waste material from the facility is not being utilized and is disposed of. The farm has the ability to receive additional material from off-site as per a nutrient management plan.

After Situation: Incorporation of non-agricultural, organic waste as per a nutrient management plan improves soil organic matter and overall soil quality. Non-agricultural waste is delivered to the farm and incorporated and tilled into the soil within 7 days of receipt. The farm is able to improve soil quality, while the waste material is recycled and utilized in an environmentally friendly manner. Records are kept to document the methods and utilization of the non-agricultural products for agricultural purposes. Material is tested once before application. A typical unit is 10-20 tons an acre of municipally collected waste (such as leaf mulch).

Scenario Feature Measure: Acre of application

Scenario Unit: Acre

Scenario Typical Size: 2

Total Scenario Cost: \$320.96

Scenario Cost/Unit: \$160.48

Cost Details

Component Name	Id	Description	Unit	Cost	Qty	Total
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Labor

Specialist Labor	235	Labor requiring a specialized skill set: Includes Agronomists, Foresters, Biologists, etc. to provide additional technical information during the planning and implementation of the practice. Does not include NRCS or TSP services.	Hour	\$102.74	1	\$102.74
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	\$45.66	2	\$91.32

Materials

Test, Compost Analysis	307	Moisture, Total N, P, K. Includes materials and shipping only.	Each	\$47.08	2	\$94.17
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Equipment Installation

Tillage, Primary	946	Includes heavy disking (offset) or chisel plow. Includes equipment, power unit and labor costs.	Acre	\$16.36	2	\$32.73
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