

Practice: 317 - Composting Facility

Scenario # 1 Composter, with concrete under bins (wood or concrete) only

Scenario Description:

Louisiana

The composting facility, with concrete under bins only, is installed to address water quality concerns and disease vectors resulting from improper waste disposal by providing a dedicated facility for storage and treatment, and by creating a compost product that can be used in multiple ways including land application for enrichment of crop ground. All animal mortality composting shall be done using Practice Standard 316 - Animal Mortality Facility.

Potential Associated Practices: Pond Sealing or Lining, Bentonite Sealant (521C), Pond Sealing or Lining, Compacted Clay Treatment (521D), Pond Sealing or Lining, Flexible Membrane (521A), Pond Sealing or Lining, Soil Dispersant (521B), Fence (382), Critical Area Planting (342), Nutrient Management (590), Access Road (560), Structure for water control (587), Diversion (362), Pipeline (516), Subsurface Drain (606), Heavy Use Area Protection (561), Roofs and Covers (367), Roof Runoff Structure (558), Waste Storage Facility (313), Waste Recycling (633), Waste Transfer (634), Underground Outlet (620) and Vegetative Treatment Area (635).

Before Practice Situation:

Manure and other agricultural by-products are not being utilized or controlled in an environmentally safe manner. The wastes are either accumulating at the source, or other location, or are being transported but not properly utilized or disposed of. This situation poses an environmental threat of excessive nutrients, organics, and pathogens being transported into surface and groundwaters, in addition to the use of excessive amounts of fertilizers.

After Practice Situation:

Manure, litter and other agricultural by-products are being controlled, by the collection at the source, and stored properly, at an environmentally suitable location, until such time that they are disposed of or utilized in a proper manner, typically in accordance with a nutrient management plan. The typical composter is designed to handle organic material from a 4 house poultry operation containing 20,000 4 lbs birds in each house. The typical composter is 40' x 56' with 5' high bins, 4-primary bins and 1 secondary bin with Storage Area. Strip top 1' of soil and roll compact same back into sub-floor. The bins are constructed on a 5" concrete slab used to store and stabilize manure, litter and other agricultural by-products from a four house complex on any farm.

Scenario Feature Measure:

Square Foot Floor Area

Scenario Typical Size:	2240	Square Foot	Unit Cost	\$5.00
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Lumber, planks, posts and timbers, treated	936	Board Foot	\$1.16	\$1,085.76
Materials	Dimension Lumber, Treated	1720	Board Foot	\$0.73	\$1,255.60
Materials	Aggregate, Gravel, Graded	10	Cubic yard	\$24.23	\$242.30
Equip./Install.	Excavation, common earth, large equipment, 150 ft	83	Cubic Yard	\$3.00	\$249.00
Equip./Install.	Concrete, CIP, formed reinforced	10	Cubic yard	\$333.36	\$3,333.60
Equip./Install.	Concrete, CIP, slab on grade, reinforced	10	Cubic yard	\$209.92	\$2,099.20
Equip./Install.	Earthfill, Roller Compacted	83	Cubic yard	\$3.32	\$275.56
Labor	General Labor	90	Hour	\$18.57	\$1,671.30
Mobilization	Mobilization, large equipment	4	Each	\$249.71	\$998.84
				Total Cost:	\$11,211.16

Practice: 317 - Composting Facility

Scenario # 2 Composter, whole concrete floor, wood or concrete bins

Scenario Description:

Louisiana

The composting facility, with complete concrete floor, equipment lane and under bins, is installed to address water quality concerns and disease vectors resulting from improper waste disposal by providing a dedicated facility for storage and treatment, and by creating a compost product that can be used in multiple ways including land application for enrichment of crop ground. This scenario is applicable when geological, soil or climate conditions prohibit the use of only partial concrete surfaces (bins only). All animal mortality composting shall be done using Practice Standard 316 - Animal Mortality Facility. Potential Associated Practices: Pond Sealing or Lining, Bentonite Sealant (521C), Pond Sealing or Lining, Compacted Clay Treatment (521D), Pond Sealing or Lining, Flexible Membrane (521A), Pond Sealing or Lining, Soil Dispersant (521B), Fence (382), Critical Area Planting (342), Nutrient Management (590), Access Road (560), Structure for water control (587), Diversion (362), Pipeline (516), Subsurface Drain (606), Heavy Use Area Protection (561), Roofs and Covers (367), Roof Runoff Structure (558), Waste Storage Facility (313), Waste Recycling (633), Waste Transfer (634), Underground Outlet (620) and Vegetative Treatment Area (635).

Before Practice Situation:

Manure and other agricultural by-products are not being utilized or controlled in an environmentally safe manner. The wastes are either accumulating at the source, or other location, or are being transported but not properly utilized or disposed of. This situation poses an environmental threat of excessive nutrients, organics, and pathogens being transported into surface and groundwaters, in addition to the use of excessive amounts of fertilizers.

After Practice Situation:

Manure and other agricultural by-products are being controlled, by the collection at the source, and stored properly, at an environmentally suitable location, until such time that they are disposed of or utilized in a proper manner, typically in accordance with a nutrient management plan. The typical composter is designed to handle organic material from a 4 house poultry operation containing 20,000 4 lbs birds in each house. The typical bin is 40' x 56' with 5' high bins, 4-primary bins and 1 secondary bin with Storage Area. Strip top 1' of soil and roll compact same back into sub-floor. The entire structure is constructed on a 5" concrete slab used to store and stabilize organic material from a four house complex on any farm.

Scenario Feature Measure:

Square Foot Floor Area

Scenario Typical Size:	2240	Square Foot	Unit Cost	\$8.35
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Lumber, planks, posts and timbers, treated	936	Board Foot	\$1.16	\$1,085.76
Materials	Dimension Lumber, Treated	1720	Board Foot	\$0.73	\$1,255.60
Materials	Aggregate, Gravel, Graded	42	Cubic yard	\$24.23	\$1,017.66
Equip./Install.	Excavation, common earth, large equipment, 150 ft	83	Cubic Yard	\$3.00	\$249.00
Equip./Install.	Concrete, CIP, formed reinforced	10	Cubic yard	\$333.36	\$3,333.60
Equip./Install.	Concrete, CIP, slab on grade, reinforced	42	Cubic yard	\$209.92	\$8,816.64
Equip./Install.	Earthfill, Roller Compacted	83	Cubic yard	\$3.32	\$275.56
Labor	General Labor	90	Hour	\$18.57	\$1,671.30
Mobilization	Mobilization, large equipment	4	Each	\$249.71	\$998.84
				Total Cost:	\$18,703.96