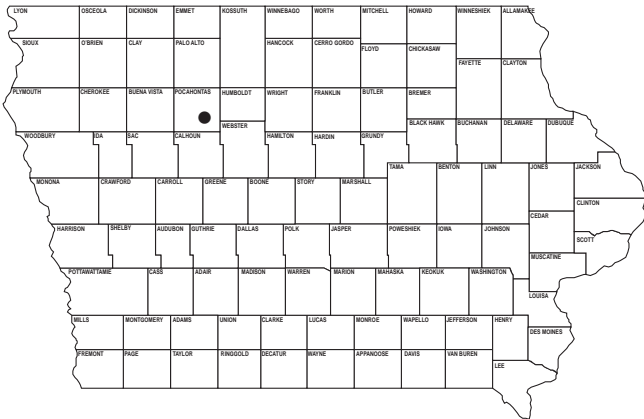


Feedlot Runoff Control

Demonstration Site: Swine Lot



Location

Pocahontas County

Operator

Robert Beneke
Rural Route 1, Box 12
Palmer, IA 60671
Phone: (712) 359-2229

Please call for a viewing appointment.

Robert Beneke operates a crop and livestock farm in north central Iowa. His farrow-to-finish facilities are located just north of Palmer on his father's farm along C-49.

Directions

Go south of Pocahontas on Highway 4 to Blacktop C-49, then east 5 miles to 1/2 mile past N-57. The farmstead is on the north side of the road.

Lot Description

Beneke finishes 480 head of hogs at a time in his open finishing lots. Each of 12 lots holds 40 head. The lots measure 10 feet by 48 feet, with 24 feet of roofed area and 24 feet of outside lot. The feeders are inside. The lots slope to the south at less than 2 percent.



Each of Robert Beneke's 12 lots hold 40 hogs. A concrete apron is adjacent to the lots' south edge.

Operator's Comments

"The finishing unit works great. I would like to have more waste capacity to give me more time to haul manure when I want."

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Runoff Control System

The waste system for this facility consists of solids settling on the concrete apron adjacent to the lots' south edge. The lots receive roof runoff from half the gable-roofed building, so total drainage area is 4,320 square feet. The settling area (the alley) is 1,440 square feet, or 33 percent of the lot area—well over the minimum requirement of 2.5 percent.

Concrete walls surround the lots and alley to keep outside water out and feedlot runoff in. A 3-inch lip separates the lots from the alley. Beneke can push manure against the wall at the east end of the alley for easy loading. The system's outlet is a 6-inch diameter hole in the end wall at floor elevation. The alley is flat enough that solids settle along its entire length.

Beneke scrapes and hauls solids once a week. When runoff leaves the facility it flows through a grassed area and onto flat cropped land.

Written by Jeffery Lorimor, ISU Extension waste management specialist.

File: Engineering 1-1



The publication of this document has been funded by the Cooperative Extension Service, Iowa State University, and by the Iowa Department of Natural Resources through a grant from the U.S. Environmental Protection Agency under the Federal Nonpoint Source Management Program (Section 319 of the Clean Water Act).

... and justice for all

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The settling area is 33 percent of the lot drainage area. Notice the lip from the lots to the alley. The alley needs frequent cleaning.



A hole at floor level in the end of the alley is the outlet for liquids.



When runoff leaves the lots, it flows through a grassed area before reaching adjacent cropland.