Iowa Odor Control Demonstration Project: Pit Additives

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TECHNOLOGY DESCRIPTION

Pit additives have been used for years to reduce odor emissions from livestock operations. Forty-one cooperators are demonstrating pit additives as part of the Iowa Odor Control Demonstration Project.

A number of different pit additives are available to producers. They include microbes, microbial enhancers, microbial inhibitors, enzymes, deodorants and perfumes, pH adjusters, aeration chemicals, and others. Management requirements can vary widely from one product to another. Some products must be applied several times a day, while others need to be applied only once or twice a year. Iowa State University researchers tested several pit additives in the laboratory and found that many did suppress odor production. The products approved for the Odor Control Demonstration Project were primarily those tested by ISU.

EFFECTIVENESS

Before-and-after odor evaluations were performed on several pits treated with additives. Panels of 3-to-7 individuals and scentometers evaluated the pit additives.
Pit additive costs include the materials and any equipment needed to apply them. Based on requests for reimbursement for the odor control demonstration project, pit additives range in cost from 30 cents to more than $1 per pig marketed (60 cents to more than $3 per head capacity).