

Project Title: Survey Monitoring of Environmental Factors from Bedded Swine Systems

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Current Status of Problem

A hoop structure can be an attractive alternative for some family farms raising livestock. It provides less expensive facilities, flexibility in future use of facilities, and provides an alternative management system that may be attractive to some producers. It is generally believed that hoop structures used for raising swine produce fewer air quality problems than comparable production facilities. However, this assumption has not been proven thus far. Limited air quality monitoring has been done on hoop structures. Types of bedding material, frequency of adding bedding, and amount of bedding may greatly effect the air quality generated from hoop buildings. A survey of several buildings will help determine the variability of air quality from different producers' facilities.

Project Objectives

- Select six different deep-bedded production sites which are unencumbered by other swine production units, manure piles and objects which would change the air flow around the site.
- Ask the selected producers to keep a production diary that includes swine placement and removal from the unit, the bedding type and amount added and any other pertinent management decisions.
- On a monthly basis, measure the ammonia concentration, hydrogen sulfide concentration and odor threshold detection level at the building, 100-feet and 500-feet down wind from the production system. Scentometry will replace olfactometry at the 500-ft distance.

Project Duration: September 2001-July 2002

Funding Agency: National Pork Board