

ENVIRONMENT

Title: Comparative Analysis of Odor Evaluation and Aerosol Monitoring Techniques
NPB #03-151

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Date Received: February 21, 2005

Abstract

An experiment was conducted at the Institut de Recherch et de Development en Agroenvironnement (IRDA) in Québec, Canada to determine the relationship between odor as measured by a trained odor panel and key parameters as measured using equipment owned by IRDA and Michigan State University (MSUCEM). A part of the project was to compare the measurements of the two types of equipment. The experimental set-up was six different treatments with two replications with four finishing pigs in closely controlled environmental chambers. The treatments were different manure handling systems. While there was no one value which was useful in predicting the odor units per pig, a prediction equation was developed which accounts for 70% of the variation in odor from one treatment to another. Dust was not a significant predictor. The two measuring systems gave very consistent although slightly different results.

These research results were submitted in fulfillment of checkoff funded research projects. This report is published directly as submitted by the project's principal investigator. This report has not been peer reviewed

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