

PORK SAFETY

Title: An Economic Analysis of Integrated Rodent Control in Swine Production Facilities, **NPB# 99-235**

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Abstract

We conducted a comprehensive economic analysis of rodent control in swine production facilities. An interdisciplinary working group was assembled to identify all necessary input variables and values associated with rodent damage and control. We incorporated data from production models, scientific literature, product literature, and personal experience into an interactive STELLA systems model. The model generates cost-benefit analyses and predicts outcomes of various levels of house mouse control for site-specific swine confinement facilities. We developed a website on rodent control (<http://itg3.unl.edu/rodent>) (username-rodent, password-tnedor) to promote use of the model, increase producer awareness of the costs associated with rodent damage, and provide information on integrated strategies for managing rodents. Although the model is relatively robust and comprehensive, we noted important gaps in research-based information, particularly associated with the economic impacts of rodents on diseases, food safety, quality assurance, and human dimensions. We will continue to improve the model and website as new information becomes available.

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