

IMPROVING SWINE MANAGEMENT & WELFARE

Pork production systems continue to evolve as they are shaped by rapidly changing technology, production constraints, and societal concerns. Protecting animal welfare is a top priority; however, identifying and implementing sound management practices and technology can be challenging. Producers are working hard to make sure swine are managed in ways that protect economic viability, agricultural sustainability, and animal welfare.

Land-grant universities are working together to evaluate the efficiency of various management strategies and examine the effects of these strategies on swine welfare. This multistate project's research and Extension provide unbiased knowledge to pork producers, owners, workers, regulatory agencies, and veterinarians to help protect animal wellbeing, improve productivity, and maintain a steady supply of high quality pork products.

COORDINATING & IMPROVING SWINE WELFARE RESEARCH & EXTENSION

This group regularly discusses key issues and research priorities, coordinates research activities, and reviews findings from individual institutions. With swine specialists from universities across the U.S. interacting, this group is able to show consistent results and give pork producers confidence in the research and recommendations. *See next page for research highlights.*

Extension is an important component of this project. Workshops on swine facility ventilation and manure management practices have reached hundreds of producers, veterinarians, technical service providers, Extension educators, and USDA personnel, influencing management of over 60 million pigs each year.

Many project members are involved in the SowBridge® and PorkBridge® educational programs. SowBridge® provides sow farm owners, managers, and barn workers with information on the best approaches to breeding, lactation, and herd management. PorkBridge® provides grow-finish producers with information about issues influencing pig health and welfare, space allocation and use, economic and efficiency measures, and environmental management priorities. The programs have grown to include 10 collaborating institutions and producers from those states. SowBridge® programs have reached 1,077 on-farm employees and managers representing approximately 19% of the U.S. swine breeding herd. A recent survey estimates the value of these programs at about \$114,000,000 per year.



RESEARCH HELPS MANAGE SWINE EFFICIENTLY & PROTECT ANIMAL WELFARE

Research showed decreasing nursery temperatures by 15 °F overnight can reduce fossil fuel costs without harming pig performance or welfare. If 20 million pigs are managed this way, the industry could save \$34 million per year and reduce carbon dioxide emissions by 140 million kilograms.



Scientists have shown that nutrient-dense feeds made from byproducts of bakeries, biofuels production, milk products, pet foods, etc. can reduce costs without harming pig performance or welfare. This also alleviates the need to dispose of byproducts in landfills.



Survey results showed that human attitudes and beliefs about pigs and stockmanship influence their behavior toward pigs. Research suggests that training programs for workers in swine finishing enterprises can lower fear response, reduce stress level, and improve productivity among pigs.



Researchers are helping swine producers understand how to appropriately and efficiently use the co-products of ethanol production as feed ingredients while making sure the resulting pork products are acceptable to consumers.



Scientists have examined space requirements for pigs based on animal health, welfare, and productivity, helping swine finishing facilities accommodate larger pigs.



Researchers have identified feeding strategies that improve nursing sow feed intake, body condition, and recovery between pregnancies.



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