

## ENVIRONMENT

**Title:** Water Consumption and Conservation Techniques Currently Available for Swine Production - NPB # 09-128

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### Scientific Abstract

Conserving water in swine production is not only environmentally responsible and important for sustainable agriculture; it can result in a considerable reduction in manure slurry handling costs. Cost avoidance logic in manure slurry handling and land application can be used to help determine the cost of excess water and ultimately water conservation. Swine finishing in the United States uses 62.2% of an estimated 41.3 billion gallons of water annually for all of swine production while gestation/farrowing and nurseries use the remaining 33.4% and 4.4%, respectively. Within swine production, animal drinking consumption is approximately 80% of total water usage. For these reasons, the most total reduction in water use can be realized through water conservation technologies and practices applied to finishing swine drinking systems; however, these technologies and practices are easily applicable to gestation/farrowing and nurseries as well. In a recent study conducted by Iowa State University, the most effective water conservation technologies and practices were found to be water auditing, facility maintenance, and pig drinker selection and management.

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