

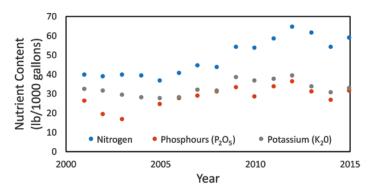
Sulfur content in manure has increased over the past ten years from three pounds per 1,000 gallons to nine pounds. It is common knowledge that animal manure can be a valuable fertilizer and soil amendment, but just how valuable is it really?

The production decisions farmers make can greatly influence manure characteristics and the nutrient value it offers a farm. Over the past 15 years, numerous innovations have been made to the way livestock is raised, including improvements to manure storage and watering systems, as well as dietary modifications. These changes have impacted manure's nutrient characteristics and most of these changes have led to more valuable manures.

This has led to:

- less water wastage
- higher nutrient concentration
- more valuable manures

The typical nutrient content of deep pit swine manure from finishing farms over the last 15 years is provided in Figure 1.



## Figure 1. Average nutrient content of deep pit swine manure from finishing operations over the last 15 years.

Based on these concentrations and the yearly November prices for urea, DAP and potash, the fertilizer value of manure per 1,000 gallons was calculated. The results are shown as

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Figure 2. Until 2006 manure values were lower, averaging below \$20 per 1,000 gallons, but starting in 2007, the average values have risen to an excess of \$30 per 1,000 gallons due to nutrient concentration increases and higher fertilizer prices.

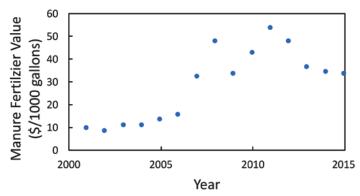


Figure 2. Manure fertilizer value.

An average finishing pig will produce approximately one gallon of manure per day. This correlates to \$11.43 of extra value per finishing space from the manure fertilizer value. Typical application expenses are about \$0.02, meaning that even after accounting for application expenses the average farm will be Figure 3. Manure applications getting a value of a little more than take advantage of nutrient value. \$4 per finishing space per year.



Prepared by Daniel Andersen, assistant professor and extension agriculture engineering specialist with Iowa State University. Photo credit for swine barn: Darcy Maulsby/Thinkstock.com.

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