Pork Production
A CROP NUTRIENT RESOURCE

# Speaking to your Audience

## KEY POINTS

- **Key Point Number 1**
  Hog manure presents a stewardship opportunity
- **Key Point Number 2**
  Talking points help hog producers communicate with crop growers
- **Key Point Number 3**
  Hog producers are partnering successfully with crop growers
- **Key Point Number 4**
  Manure gives crop producers more than commercial fertilizers

## OPPORTUNITY Point

*Hog producers have the tools in-hand to speak positively about the agronomic benefit of manure. Use the information in this series of manure management newsletters to talk to crop growers in your area that may be interested in improving the quality and fertility of their crop ground.*

In the last three newsletters, we've talked about the value contained in the manure produced by hogs, the importance of nutrient analysis and the investment crop growers make each year in purchasing commercial products to maintain the fertility levels of their ground.

Most crop farmers understand that there is an effective way to use hog manure on their cropping ground that is extremely beneficial. This newsletter is designed as a tool to further communicate the added value and benefit of the nutrients in hog manure.

Here are some important points to remember as you discuss and consider the opportunity in using, selling or buying the manure produced by hogs as a natural fertilizer product for crop production:

- Hog manure is an economical agronomic input.
- Crop producers can use hog manure to add organic matter and micronutrients above and beyond that available with commercial fertilizer application.
- Many hog producers are willing to negotiate a mutually beneficial arrangement with crop producers in their area to apply manure safely and effectively.
- The willingness to partner with crop growers on the responsible use of hog manure as an improvement of soil quality and fertility places the use of manure nutrients in a position of providing good stewardship to the land.

"My intention was to be able to prove to crop producers that there was value there."

*- Gary Ledger*

*Williamsburg farrow-to-finish producer in his fourth year of partnering with crop growers to apply enough hog manure to naturally fertilize 160 acres per year, practically eliminating the need for additional fertilizer.*



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# Calculating the Value

Here's a fertility value calculator designed to help hog producers discuss what their hog manure can provide as a nutrient.

**Estimated Nitrogen, Phosphorus and Potassium Input Value for Corn Crop**
**Based on 2000 gallons per acre manure application**

| | KEY INPUTS | | EXAMPLE FIGURES |
|---|---|---|---|
| #1 | Average Corn Yield | _____bushels/acre | 144 bushels/acre |
| #2 | Average Soybean Yield | _____bushels/acre | 45 bushels/acre |
| #3 | Nitrogen (N) Required for Corn* | _____lbs N/bushel | 1.22 lbs N/bushel |
| #4 | Total Manure N (from analysis**) | _____lbs N/1000 gallons** | 50 lbs N/1000 gallons** |
| #5 | Estimated Soybean Crop N credit = (1lb N / bushel yield ) | _____lbs N/acre | 45 lbs N/acre |
| #6 | Phosphorus (P) and Potassium (K) recommendation from soil test (per acre) | _____lbs $P_2O_5$ /acre<br>_____lbs $K_2O$/acre | 47 lbs $P_2O_5$ /acre<br>55 lbs $K_2O$/acre |
| #7 | Total Manure P and K (from analysis) | _____lbs P2O5 /1000 gallons<br>_____lbs K2O/ 1000 gallons | 17 lbs P2O5 /1000 gallons<br>12 lbs K2O/ 1000 gallons |

| | CALCULATION | | |
|---|---|---|---|
| | Lbs N required per acre ( #1 x #3) | _____lbs N | 176 lbs N/acre |
| | Total N supplied by 2000 gallons manure and previous soybean crop**** (#4 x 2) plus #5 | _____lbs N/acre | 145 lbs N/acre |
| | | Nitrogen Deficit[1] | 31 lbs |
| | Lbs P and K recommended per acre (#6) | _____lbs $P^2O^5$/acre<br>_____lbs $K^2O$/acre | 47 lbs $P^2O^5$/acre<br>55 lbs $K^2O$/acre |
| | Total Manure P and K supplied by 2000 gallons manure (#7 x 2) | _____lbs $P^2O^5$ per acre<br>_____lbs $K^2O$ per acre | 34 lbs $P^2O^5$ per acre<br>24 lbs $K^2O$ per acre |
| | | Phosphorus Deficit[1] | 13 lbs $P^2O^5$ |
| | | Potassium Deficit[1] | 31 lbs $K^2O$ |

[1] Additional nutrients can be supplied from manure with higher application rates

* Recommend periodic soil testing to confirm soil nitrogen

** Does not account for nitrogen availability or other factors affecting nitrogen uptake by plant

*** Make sure laboratory analysis is Total N / 1000 Gallons manure. Total N = Ammonium Nitrogen (NH4) + Organic Nitrogen

**** If land not in soybean rotation, do not include soybean nitrogen value in this total

*"Input data and and calculation process from Iowa NRCS, Managing Nutrients"*

**IN THE NEXT ISSUE**

» How partnering with area crop growers is working for one southeast Iowa hog producer.



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