

When it Comes to Manure Resources Management is Key

KEY POINTS

- » **KEY POINT NUMBER 1**
Both pork producers and crop producers are responsible for regulating the environmental inputs and outputs of their operations.
- » **KEY POINT NUMBER 2**
Swine manure is a manageable product containing critical crop production nutrients, organic materials and micronutrients.
- » **KEY POINT NUMBER 3**
Crop producers are paying to import nutrients to their fields on an annual basis
- » **KEY POINT NUMBER 4**
Pork producers have a ready supply of renewable nutrients each year.
- » **KEY POINT NUMBER 5**
Use of swine manure by crop producers does not have to be complicated. Proper agitation, sampling, analyzing and application guarantee superior crop results.
- » **KEY POINT NUMBER 6**
Lack of a reliable system of delivery and application can dampen enthusiasm about using a renewable nutrient resource, manure, on cropping acres.

In a time when both livestock producers and crop growers face ever-increasing environmental regulatory pressures, both groups must carefully manage the inputs and outputs of their operations.

Iowa's pork producers are experts at developing systems that work and at growing the products that meet the specifications of buyers. Today's leaner hog is an excellent example. A hog raised 20 years ago could not compare to the consistent, high-lean hogs coming out of finishers now.

But hogs produce more than just meat products. They also produce manure, a substance rich in exactly the kinds of nutrients purchased by crop producers across the state. Many pork producers use the manure on their own fields, a few provide custom application for other farmers and still others simply worry about getting rid of the stuff.

When the idea for this newsletter series came up, we began researching the resources available. The amount of information was overwhelming. So much so, in fact, that we decided someone needed to boil it down and present it in such a way that Iowa's pork producers could use it proactively.

In the upcoming issues, we'll:

- » Examine management practices that could help reduce the amount of material that goes into your containment system without ever passing through a hog (see "10 Management Tips" on page 2);
- » Outline the benefits of manure as a crop nutrient resource;
- » Provide information on how to perform the nutrient analysis crop growers need to calcu-

late their nitrogen and phosphorus credits; and
» Present tools for you to use in communicating the value of your manure resources to crop producers.

By thoroughly understanding the value of all the products of your operation, Iowa pork producers can take a leadership role in developing a system of managing manure products in such a way that matches the output analysis with the input needs of crop producers.

Part of the reason Iowa became one of the greatest livestock production states is because we have the land resources to deal with the byproducts of production and because, years ago, farmers understood that manure was as good as gold when it came to fertilizing crops. With today's issues of emissions, runoff, application methods, site planning and certification requirements, we must make an effort to partner with crop producers to build the systems necessary to use our valuable manure resources.

As pork producers, we can provide consistent manure nutrients for crops, and crop growers provide affordable grain for our feed. It's a system that makes the most of Iowa's resources while respecting the land where we all live.

OPPORTUNITY

Point



Turn "manure negatives" into "plant food positives" by learning about the value of your manure product and developing a system that makes it easier for area crop growers to use it as a fertility resource.

Manure Production in Iowa

Usually when you have production of a valuable resource, it's a good thing. It's no different with manure as long as you have an environmentally sustainable system to put the manure to good use as a crop resource. If you are producing more manure than you can use, that's when it can become a waste. However, with the abundant crop production in Iowa manure should always be utilized as a crop resource.

Below are some figures that outline just how much N, P and K our hogs produce in a year's time. We've shown both covered pit production and uncovered lagoon production. Remember, though, that these numbers are generalizations and production on your operation will need to be analyzed.

9 Ways to reduce manure production

Adequate maintenance and management is essential in reducing overall manure production, specifically adjusting waterers and feeders.

Wasting feed and water into your pits without it having ever passed through a hog causes inefficiency. You lose the benefit of your initial investment in the feed and contribute to the amount of waste going into manure storage.

Check out your operation to see if any of these management ideas might help:

1. Control wastage by calibrating feeders and checking waterers frequently.
2. Match feed consumption levels to the stage of production.
3. Assure good feed presentation with proper alignment and placement of feeding equipment.
4. Use pelleted feed or make sure feed grind size is appropriate for the size of the animal. It can make a big difference in reaching optimum consumption and digestion levels.
5. Take advantage of approved feed additives, such as enzymes, like phytase, that increase nutrient absorption and reduce feed wastage.
6. Avoid excessive feed consumption.
7. Utilize rations properly formulated for protein and amino acid level for stage of animal production.
8. Do not overcrowd animals. Proper animal density practices help assure adequate feed consumption and efficiencies.
9. Clean pens and pits on a regular schedule to assure animal well-being and good feed utilization.

Estimated covered liquid pit manure characteristics (lbs. per year).

Livestock Stages	Manure	P r o d u c t i o n				Units
		Total N	NH ₃ -N	P ₂ O ₅	K ₂ O	
Farrowing	11,500	21	11	17	15	per pig space
Nursery	1,000	3	2	2	3	per pig space
Grow-Finish (deep pit)	3,500	21	14	18	13	per pig space
Grow-Finish (wet/dry feeder)	2,500	22	15	16	12	per pig space
Breeding-Gestation	7,000	21	10	21	20	per pig space
Farrow-Finish	37,500	126	72	108	103	per production sow
	2,000	7	4	6	6	per pig sold per year
Farrow-Feeder	10,000	25	13	22	23	per production sow

Estimated annual manure and nutrients from outside storage effluent (lbs. per year).

Livestock Stages	Manure	Total N	NH ₃ -N	P ₂ O ₅	K ₂ O	Units
Grow-Finish	8,000	4	4	2	3	lbs per pig space
Farrow-Finish	64,000	36	32	23	29	lbs per production sow
Breeding-Gestation	11,500	5	4	4	5	lbs per pig space
Farrowing	16,500	8	7	6	8	lbs per sow

Source: MWPS MidWest Plan Service, Publication 18, Page 14, 2000
Use only for planning purposes. These values should not be used in place of a regular manure analysis.

I N T H E N E X T I S S U E

- » OPPORTUNITY FROM SWINE MANURE
- » THE AGRONOMY OF MANURE
- » PROVIDING CONSISTENT, COST EFFECTIVE INPUTS