

It's the Pits

A Perfect Storm: Major Swine Manure Management Issues

Has a *Perfect Storm* been brewing disaster in the hog industry? Yes, it has! Producers are experiencing a host of problems including foaming, toxic gases, solid buildup (pit capacity loss), the DDGS (Dried Distillers Grains with Solubles) surface carpet, flies, odor and gassed animals, all of which contribute to detrimental conditions for animals and humans alike. Producers are not alone in their frustration to find an answer—these issues have also befuddled top research scientists and professionals in the industry. Could it be, however, that they might not be looking in the right direction? Consider why and how the key variables have changed, and how it might affect a producer's ability to provide more robust hogs, as well as provide a safe environment for animals and humans. Let's take a look at a combination of factors that could be part of the root cause that has led to the Perfect Storm.

DDGS – Pigs are fed DDGS tainted with antibiotics.

Glyphosate/Increased Grain Toxins – Pigs are fed grain that contains residues from glyphosate application and are showing high toxin levels.

Antibiotics – Pigs are fed grain laced with antibiotics.

DDGS (tainted with antibiotics)

To prevent the growth of unwanted bacteria during the fermentation of bio-ethanol, antibiotics are regularly added. These antibiotic residues in the DDGS may prevent swine manure from improper biological digestion. Currently, studies are in the process to determine how the antibiotic residues in the DDGS are affecting the biological life of a manure system.

DDGS in the Feed

Consider the amount of DDGS that are being added to the feed. The level of DDGS in the feed rations tends to increase as corn prices go up. As producers increase the level of DDGS in the feed, how will that affect the manure system?

Glyphosate

Dr. Don Huber reports that glyphosate can carry through the system to manure holding facilities and that glyphosate residues can build-up in soils with continued usage. This is a concern because glyphosate can negatively impact the health of microbial populations and foster the buildup of soil and plant diseases, which includes grain toxins.

Note: visit <http://www.profitproag.com/articles.htm> and review two articles from Dr. Don Huber "What's New in Ag Chemical" and "Crop Nutrient Interactions." Read Jeffrey M. Smith's "Monsanto's Roundup Triggers Over 40 Plant Diseases and Endangers Human and Animal Health" to gain a more in-depth understanding of the impact of glyphosate on grain quality and manure digestion.

Manure bioaugmentation (digestion) is influenced by a number of factors:

- The type and quality of the food substrate being digested.
- The type and level of microbes present in the manure (aerobic vs non-aerobic).
- The manure environment, which includes the level of toxins and antimicrobial compounds.

Antibiotics

In taking a preventative approach to limit disease in the herd, many producers give their animals a low-level diet of antibiotics in their feed. This may cause a problem in the pit later since remnants pass through the animal into the manure and limit microbial activity. That's not to say that antibiotics shouldn't be used; just be aware that the type and level of antibiotic can impact manure bioaugmentation.

Summary

In summary, the factors discussed above have been brewing into the *Perfect Storm*. With such an explosion in the increased use of DDGS and glyphosate in the past decade, all of these factors are now hitting at once. This has led to a system that is totally out of balance, which, in biological terms, most often leads to disastrous results. The solution to solving the manure management dilemma is not to address the symptoms with a band-aid, but to address the root of the problem.

ProfitPro Approach

ProfitPro takes a probiotic and proactive approach to managing manure systems by going after the underlying causes and working cohesively with producers and custom manure applicators. ProfitPro is not just a "additive" company; it's a professional manure management company that utilizes industry professionals, researchers and laboratory associates. The foundation of the program is the Full-Circle Animal, Manure and Soil-Plant System™, which addresses the "big picture" rather than one aspect of a multifaceted problem. With leading-edge technology in manure management and a hands-on-service, the company strives to put producers at the top of their game.



Manure foaming issue (above pictures)

DDGS manure carpet (right picture)

