



Innovative Manure Management

Beyond-the-Barn INSIGHT

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Is Your Pit Foaming?

Iowa Ag Supplier Provides Proven, Practical Solution

When farmers call John Yoder about how to deal with a foaming manure pit, they want answers—now.

“They’re usually in emergency mode and can’t wait,” said Yoder, vice president of manure-handling equipment for Eldon C. Stutsman, Inc., Eastern Iowa’s largest retail and wholesale supplier of agricultural products that has served local farmers since 1934.

Plenty of products claim to manage foam, but not all deliver on their promises. “We really didn’t have a good solution until ProfitProAG came to us around 2017,” Yoder said.

The Stutsman team was interested in ProfitProAG’s **Manure Master FoamAway™**, a concentrated, dry blend is designed to knock down foam in swine manure storage facilities. “We’re always skeptical when someone pitches us a product we haven’t tried before,” Yoder said. “But around this time, a farmer with a foaming pit was calling us for help, and we needed to react quickly.”

Manure Master FoamAway solved the farmer’s foam problem. The Stutsman team has continued to recommend FoamAway to the pork producers they serve. “The product works, and it’s cost effective,” Yoder said.

Logan Lanz, 28, who farms near Oakville, Iowa, tried FoamAway after the Stutsman team recommended it to his uncle Monte Lanz, a fellow pork producer. “We had hogs that were almost ready for market, and I noticed

that we were losing pit space because of foam,” said Logan, who feeds hogs for Trioak Foods Inc. and also raises his own hogs. “After I used FoamAway, the foam in the south room in one of our finishing barns dropped about three to five inches.”

Foam’s risks are real

Foaming manure pits aren’t just a nuisance; they can be dangerous. Barn fires, severe injuries and even death have been reported in recent years on farms where foam and methane have accumulated in manure pits. A 2011 survey of Midwest pork producers indicated 25% were experiencing some foam in their manure pits, according to the online article “Use Caution When Dealing with Foaming Manure Pits” by Michigan State University Extension.



More from Every Acre, Animal & Gallon of Manure

Continued on the next page...

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“Foaming can cause explosions and barn fires if there’s an ignition source, like a spark from a welder,” said Chris Chodur, manure and livestock specialist with ProfitProAG. “It’s a serious issue that can cost you your life.”

What causes foam in the first place?

While university researchers and scientists at various Ag organizations have tried to determine what causes foam, results have been elusive. “Some studies looked at feed ingredients,” Chodur said. “While distillers dried grains in the feed appeared to be part of the issue, these studies didn’t provide all the answers.”

One thing is clear—foaming is a microbial process, Chodur noted. It occurs in specific conditions, including the warmer months of the year.

“During the summer months, microbial communities in the manure pit are more active and re-populate,” Chodur said. “That also means the majority of the organic matter in the manure is spent, because the microbes have eaten it. Typically, when the pit is 80% to 90% liquified, the majority of the organic matter has been spent.”

This leaves indigestible or slowly-digestible materials in the pit, including oils, fatty acids, lipids and soaps that tend to float on top of the liquid in the pit. In addition, manure pits tend to be highly liquefied in the summer. Additional water comes from misters that help cool the hogs and power washing the barns.

All this creates an environment where a specific group of microbes can flourish, namely methanogens that produce methane. “The bubbles in manure foam can encapsulate up to 70% methane,” Chodur said.

While this is ideal in a bio-digester designed to produce energy, it can be hazardous in a hog barn. When the foam in the manure pit is disturbed through regular management activities such as manure agitation and/or pumping and power washing, large amounts of methane may be released into the air space above the slats. This methane can ignite easily and may lead to barn explosions and flash fires.

Stay safe, have more storage space

Since foaming is a microbial process, it’s vital to bring the biology back into balance in the manure pit. Start by monitoring foam levels, Chodur said. “Use a gauge to check your manure levels below the foam. We’ve seen foam that can grow a couple feet a week

and climb up the sidewalls of the barn, almost to the curtains.”

Not only does this foam pose a safety risk, but it also creates other challenges. “It’s an animal well-being issue,” Chodur said. “You don’t want foam expanding above the floor slats and touching the pigs. This can affect swine performance, which impacts your bottom line.”

Foam also takes up valuable storage space in the pit. This space is at a premium during the summer



Methane Manure Foam

months before harvest, since it’s still too early to haul manure to the fields. “In the summer, you need all the space you can get in the pits,” said Lanz, who manages wean-to-finish swine barns in the Oakville river-bottom area and does his own swine manure application.

Fight the foam

That’s why Lanz likes what he’s seen with FoamAway, a dry, granular product that’s added directly to the pits. ProfitProAG recommends using 5 to 10 pounds of FoamAway per 100,000 gallons of manure. “The range depends on how much foam you need to mitigate,” Chodur said.

The first application goes outside in the pump-out areas. Chodur recommends using the half of the “dose” in the pump-outs, since there tends to be more aggressive foam in this area, due to fans and ventilation.

Then apply the rest of the recommended amount inside the barn. Sprinkle it in alleyways and sweep the product into the pit. FoamAway typically takes 10 to 14 days to work, Chodur said.

“We applied some FoamAway on June 30,” Lanz said. “By July 9, I texted my Uncle Monte and said, ‘Hey

this stuff isn't working. We need to get something else.' But we gave it more time, and it dropped the foam. You've just got to be patient."

Once you've successfully treated a manure pit, FoamAway will give you three to four months of residual effect to keep foam under control, Chodur noted.

FoamAway is a safe, cost-effective product that can pay big dividends when used properly. It costs roughly \$400 to treat a manure pit for a 1,200-head swine barn, Chodur added. "What would it cost you if you had a barn explosion, or a flash fire cost someone their life?"

Simple solutions make manure management easier

Based on the positive results the Stutsman team has seen with FoamAway, they also carry other manure management products from ProfitProAG, including **Manure Master Plus-PA**, which harnesses the power of microbes to enhance manure digestion and liquefaction, reduce odors, and reduce top crusting and bottom solids.

In addition, they carry **Manure Master Mechanical Defoamer**. Made of mix of natural plant-based oils and a surfactant, Manure Master Mechanical Defoamer works fast by breaking the surface tension between manure and air bubbles. Breaking the bubbles helps manure applicators get full tank-loads faster. This saves time, labor and fuel costs, making your business more profitable.

"We appreciate Chris at ProfitProAG, because he's responsive and understands proper manure management," Yoder said. "He helps us fine-tune the right solution for our customers."

Managing manure and foam properly takes know-how and the right products to keep the microbes in balance, Chodur said. "If you have a foam issue, it doesn't mean you're a bad producer. You just need to learn more about how to manage manure properly, and we're here to help."