

Pork Prose

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DEAD PIGS

Animal rights, manure odors, and lousy market prices have given pork producers their share of aggravation.

Now I'm about to suggest that another issue is waiting to erupt for every livestock producer.

Dead animals.

We generate a lot of them, and I suspect that sooner or later someone is going to figure that out. The first question will be, "What does the industry do with all of those carcasses?" Our answer, if we're honest, may not give us high marks.

How Many Dead Hogs Does Pennsylvania "Produce?"

I'm sure anyone knows for sure. But we can assume that from each litter of pigs, one will be born dead and another will die before weaning.

Before market, another half a pig will die. A rough estimate of these death losses would be about 40 pounds per litter. Sows will average about two litters per year, which makes the annual death losses about 80 pounds per sow. Multiply that times the 100,000 sows in Pennsylvania (as of December 1991) and we have a staggering pile of dead hogs.

How Are We Supposed To Dispose?

According to Pennsylvania Act 317, passed in 1945, we have three options: burn, bury, or render.

Producers "... owning any animal that has died shall not allow the carcass to lie about his premises." (We're hardly ever guilty

of that.) And, "... such carcasses shall be disposed of within 48 hours after death..."

This act provides no details on burning. However, the Department of Environmental Resources (DER) does have recommended criteria for emissions from "crematory incinerators."

If a producer chooses the burial route, the site must not be subject to overflow from ponds or streams, and must be at least "... 100 feet from any water course, well or spring, public highway, house or stable." In addition, the carcass must be covered with at least three inches of lime and two feet of soil.

Renderers must be licensed, and there are requirements listed for the how the renderer must operate.

How Do Producers Dispose Of Dead Pigs?

Here are my own observations, plus information from a highly unscientific survey that I conducted over the last few weeks.

Rendering. Most of the large operations choose this alternative. Environmentally, it's certainly a sound practice since the material is recycled and does not lead to ground water contamination or air pollution.

The cost for pickup of material continues to go up, however. Producers in the southeastern part of Pennsylvania pay from \$7 to \$12 per trip. Most large operations require twice-a-week pickup, which comes to an annual cost of \$728-\$1,248.

Biosecurity is a potential risk when sending dead animals to the renderer. You should assume that the rendering truck is loaded with any organism that's ever been

invented. Use the same precautions at the time of dead animal pickup or drop off that you would in an auction barn.

Incineration. The most popular incinerators in this state appear to be those manufactured by R&K Incinerator, Inc. (Decatur, Ind.), and Shenandoah (Harrisonburg, Va.).

The Shenandoah unit comes with an LP gas, fuel oil, or natural gas burner. It's a top-loading device that is best suited for small animals. Large market hogs and sows would have to be disassembled before loading. All material is held by grate which is mounted above the burner. The sides of the unit are protected from heat damage with a concrete-like liner.

The R&K unit is a round, horizontal steel tank with a fuel oil burner at one end and a stack at the other. The six models range from a 100-pound to 600-pound capacity. The R&K incinerator has no grate, and since animals are loaded from the side, it's relatively easy to accommodate large market hogs and sows. Prices range from about \$1,000-\$2,000. Since the flame is above the dead pigs, all smoke and gases rising from the material are quickly oxidized.

Pennsylvania's DER requires that livestock incinerators meet guidelines for emissions, temperature, visible air contamination (smoke), and retention time (time from air intake to exhaust). According to the unit's specifications, all of these criteria are met

except visible air contamination. The company literature does not provide any specifications for that criterion.

Although the R&K tank contains no heat-protecting liner, most producers get a useful life of five to seven years from these units. Some producers make minor welding repairs and are able to extend the life to 10 years or more.

The manufacturer recommends that the unit be run for two hours each day after material is added, for a total of 12-14 hours per week. However, most producers tend to burn only about six hours per week. The key is not to try to completely burn the material as soon as it's added. Intermittent burying will be just as effective, and it will also greatly extend the life of the tank.

If the largest unit (600-pound capacity, 2.75 gallons of fuel/hour) were used for 14 hours per week, it could easily handle a 300-sow farrow-to-finish operation. At \$1/gal, the annual fuel cost would be about \$2,000. Add to this a depreciation value of \$400, and the total cost of dead pig disposal amounts to \$2,400, which doesn't compare too favorably with the current costs of rendering.

Burial. Burial requires a little more work, but it's generally the most practical system for operations off the beaten path, and it's cheap.

The biggest concern I have with burial is way it's done. Many producers dig a trench, fill the trench

with dead pigs, and cover as they go. If they cover with lime (most people don't) and two feet of soil, this method is technically legal. But in time, enough rotting flesh could accumulate that ground water could easily be contaminated, especially in areas of limestone, sink holes, shale, or sand.

Manure Spreader. Not legal, and not in the best interest of biosecurity.

Buzzards. Some operations have established a symbiotic relationship with the local buzzard population. Dead hogs are hauled up on the hillside, and the buzzards do their thing, sometimes, I am told, within a matter of hours. This is another routine that is not listed in the 1945 law.


Alligators. Popular in Florida. Ernie Nunez maintains more than 7,000 gators to clean up the dead from 2,000 sows and 200 cows.

What About Composting?

It's working for the poultry industry, and I think it has promise for the hog industry. Dead animals, straw, and manure are mixed together and Mother Nature does the rest.

If the pile is kept aerobic (at least 30 percent free air space) at the right moisture level (40-60 percent) and the correct pH (5-12), the organic material will decompose under temperatures of about 150 degrees F. That's enough to kill harmful microorganisms.

(Turn to Page C3)



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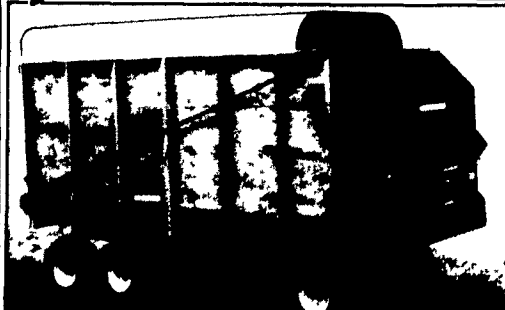
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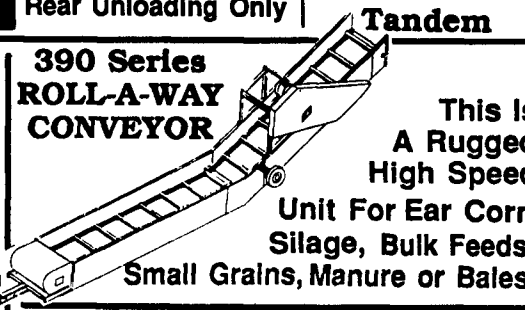


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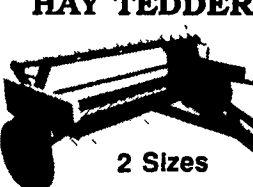
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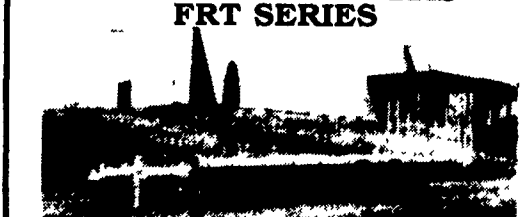
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