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The manure is so far beyond the fan

By Lois Henry, Californian Columnist

Yup, we have a lot of manure in Kern County. People like meat, cheese, milk and eggs. Which means we have a lot of living, breathing and, yes, pooping, animals. That's reality.

These days, though, rules regarding manure have taken a decidedly unrealistic bent.

Perhaps you're thinking, "Why not use it on our crops? Get rid of the manure, reduce synthetic fertilizers, everyone wins!"

Sigh. Oh, you poor naive souls.

Grimmway Farms tried exactly that and ran into a web of regulations that stopped even them in their tracks.

The ginormous local farming company uses about 100,000 tons a year of organic fertilizer. That's composted manure, for you city folks.

A number of years ago, they purchased a composting facility near Arvin that had been in operation many years. It was smelly and attracted flies and when the town grew too close, complaints rolled in and they had to shut it down.

They found a site near Interstate 5 and Copus Road a couple of years ago and hoped to collect manure from nearby dairies, help those farmers out, and have a close, steady supply for their own fields.

"That's where we ran into problems," said John Guerard, assistant general manager of Grimmway's farming operations.

The community of Mettler and a couple of farmers, who were about two miles from the proposed facility, complained about possible odors.

Then the San Joaquin Valley Air Pollution Control District raised concerns about the amount of VOCs generated by the composting operation.

VOCs are volatile organic compounds that react with heat and sunlight to create ozone. Ozone is the valley's Achilles' heel as we continue to exceed federal standards.

But here's a little background on VOCs. First, composting creates no more VOCs than if the manure just laid around and decayed naturally. Second, the kind of VOCs created by composting are far less reactive (meaning less dangerous) than other VOCs such as those in paint solvents and what comes out of tailpipes. Third, and most importantly, VOCs aren't the real bad guy in the valley's ozone. That distinction belongs to NOx, or nitrogen oxides, which are a product of fossil fuel combustion.

Even if we did away with all VOCs, we'd still have an ozone problem because of NOx.

But back to Grimmway.

They were facing a full-blown environmental impact report (EIR), likely to cost at least \$250,000, and maybe even having to build a warehouse with expensive air filtration to do their composting inside.

"It just didn't make economic sense," Guerard said. "This was not a product we would be selling, so it wouldn't have been generating income for us to offset those kinds of costs."

They walked away from the project. But had they proceeded, they would have faced a host of confounding air district rules.

Such as, the air district requires an evaluation of VOCs from any new composting operation.

"They don't take into account the fact that the manure is there anyway emitting VOCs," Guerard said. "As soon as you start composting it, it's considered a new source and almost always gets denied on that basis."

Dairies can compost their own manure for their own use, or apply it raw to their own land. But they have to have a manure management plan because too much manure means nitrates and you can't have that getting into the water supply, Guerard explained.

I spoke with Seyed Sadredin, executive director of the air district, about this conundrum and he agreed that composting comes under some stringent rules though he said we aren't nearly as tight as the South Coast Air Quality Management District.

The manure/biosolids rule adopted down south in the early 2000s, which disallows almost all open-air composting, is a key culprit behind all the sewage sludge pouring over the Grapevine onto Kern County's fields, he said.

In fact, without L.A.'s sludge to deal with, he theorized that Kern could have been self-sustaining, able to recycle as much manure/biosolids as we produced without triggering the VOC issue.

Another reason to thank our friends in the Southland.

Anyhoo, Grimmway is now trucking most of its 100,000 tons a year up from Chino. That means more NOx coming into the valley.

Sadredin acknowledged that's a problem.

He's been trying to get the EPA to allow the air district to concentrate on NOx and the more reactive VOCs rather than chasing after pollutants on a "mass" base even when they may not pose a risk to human health.

The best he could say of EPA's reaction is, "They haven't thrown us out of the room yet."

In the meantime, I wanted to know, what are farmers supposed to do with their manure?

Land apply it, he said. Manure can still be used to grow crops even if it's not composted.

Not exactly.

In order to use it on crops consumed by humans, farmers absolutely must compost the manure.

That means they have to shred it, put it in piles, turn it and water it so it heats to a high enough degree that pathogens (nasty stuff like salmonella and e.coli) are killed.

"It's the customers," Guerard said of who requires composting. Produce buyers want nothing to do with crops that have any chance of exposure to raw manure. That's all produce buyers, organic and otherwise.

"They make you sign a written statement that you don't use any raw manure."

So, with manure, it's pretty much compost or nothing.

OK, let's attempt a recap:

We have a lot of manure. Too much concentrated manure can cause nitrate overload so it needs to be disposed of. It can be used on crops for humans but only if composted.

Composting brings it under VOC air regs, even though it emits VOCs no matter what. Those regs make composting too expensive.

The VOCs from compost/manure aren't as reactive (dangerous) as other VOCs. And, either way, NOx is a far bigger concern to the valley than any VOCs.

Ergo, the VOC air regulations supposedly created to protect our health are actually increasing the chances of nitrate pollution in groundwater and bringing more NOx into the valley, both of which are far worse for public health.

If I had not just written that myself, I would not believe it.

More Manure Tales

An air district rule about manure and composting so concerned the City of Bakersfield that its green waste facility on east Mount Vernon Avenue stopped accepting manure about a year ago, said Kevin Barnes, director of Solid Waste Management.

The facility only took in about 3,000 tons a year, but the air district rule adopted in 2007 made it seem as though that was enough to trigger a host of expensive requirements, such as air filtration and tarping, that Barnes didn't feel the facility could afford.

For one local horse stable, that has meant either taking manure from its 200 to 300 horses to the dump or finding local farmers who could use it, according to a Dori Stachowicz who contacted me after she got a letter from the stables' owner about the problem.

She was appalled that either option was favorable to using the manure for good wholesome compost.

"Guess what? It's still out in the open breaking down and releasing whatever bad things the Air Board claims," Stachowicz wrote in an email to me. "What is the point?"

I spoke with Shamir Sheikh, director of planning for the San Joaquin Valley Air Pollution Control District, who said the issue is whether the manure is mixed into the overall green waste stream or is handled separately. He was certain a solution could be found.

Barnes is now pulling numbers for the air district to look over.

"It'd be great if that would allow us to start taking manure again," he said. "There's got to be a common sense solution."

Ya think?

Oh, and let this be a "squeaky wheel" lesson to you: Sheikh and Barnes only started talking after I called with Stachowicz's concerns.

So squeak away, and remember, it's YOUR government. Not the other way around.