

Methane digesters won't solve the problem

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Cows poop. A lot. The typical full-grown beef cow produces about 75 pounds of manure a day, and a dairy cow produces 120 pounds.

Because many cattle ranchers and smaller to mid-sized dairy farmers in Oregon graze their cows for at least a portion of their lives, much of that manure is deposited on pastures or saved during the winter for fertilizer later in the year.

But at confined cattle feeding operations, the poop piles up. In these cases, methane digesters can be used to combust the waste,

turning it into biogas for electricity.

These anaerobic digesters are often touted as being the solution to the methane problem, but they leave a lot to be desired.

"We destroy about 60,000 tons of carbon (equivalent) a year through our methane digesters," said Marty Myers, who manages Threemile Canyon Farms.

Threemile houses 70,000 milk cows, replacement cows and calves. The waste of 25,000 of those animals goes through the digester, which is roughly 3 million pounds of poop per day.

Threemile is owned by North Dakotan Ronald Offutt, whose net worth is \$500 million. He is also the primary supplier of french fries to McDonald's and owns farms in the South, in the Midwest and on both coasts. Myers said the state gives Threemile Canyon Farms a tax credit of \$3.50 (dropped down from \$5) for each wet ton of manure run through the digester. But even with the tax credit, Myers said, it's a barely breakeven financial endeavor.

Ivan Maluski, director at Friends of Family Farmers, thinks the bulk of that tax credit should be going to smaller operations rather than Threemile.

"For operations of the scale of Threemile, frankly, it should be a cost of doing business," he said. "They don't need General Fund dollars when we're having a budget crisis in Oregon, for a tax credit for a manure digester."

Myers, whom Gov. Kate Brown drew criticism for appointing to the Oregon Board of Agriculture, said Threemile isn't saving any money by having a digester.

"Theoretically, it's a cost-saving asset, but it doesn't really work that way," Myers said. "It looks good on paper, but the reality is it's a very intense operation that has all kinds of burps and upsets that go along with it. It hasn't provided us a return."

He said his digester generates 30 percent of the electricity the dairy needs to operate. NW Natural's Smart Energy program purchases offsets from five of Oregon's eight digesters – with participating ratepayers funding the projects.

While in some instances, four or five dairies in close proximity will share a digester, the vast majority of the state's dairies do not combust their manure at all, nor do any of the state's beef feedlots.

"Part of the reason why there are not more methane digesters on feedlots and on dairies in Oregon, and in the U.S., compared to Europe, is we have a low cost on our power rates," said Jerome Rosa, executive director of Oregon Cattlemen's Association. "If our power rate was double, there would be more demand to go in and put in digesters, because then it would be economically feasible."

But even if they were more heavily utilized, methane digesters solve only a small part of the methane problem.

"For a digester to really function, you

need a constant supply of manure. My grass needs the constant supply of manure," said Jon Bansen, an organic milk producer near Monmouth. "I would have to put diapers on my cows when they go to pasture. I know it sounds all green to have a digester, but it's really not so green because your cows have to be on concrete all day long in order to have it."

But the main reason digesters won't solve the livestock methane problem is because 85 percent of the methane a cow emits comes out of its mouth, not its rear end, according to DEQ's Greenhouse Gas Reporting Program data.

"The cows, they chew their cud and they have more than one stomach so they have a process in their system that creates some belching, but not a lot of flatulence – it's mostly burping," Myers said, "and there's no way to capture that."

Nearly a decade ago, the Oregon Legislature passed a bill that created a task force to look at dairy emissions. It was composed of industry and farm representatives, public health professionals, policymakers and Oregon State University faculty. The task force "strongly" recommended the creation of an "Oregon Dairy Air Emissions Program," but no program was ever initiated.

Elisabeth Holmes, an environmental law attorney in Eugene, said Oregon needs to protect itself from attracting additional confined animal feeding operations.

She often represents clients suing these facilities in states that have been inundated with them.

"We have a couple that are coming in," she said. "In other parts of the United States, they tend to move around a lot because what happens is they come in and they pollute the water, they destroy the land, and then they close up shop and move somewhere else."

85%
of a cow's methane emissions are in burps

3 MILLION
metric tons of carbon equivalent emitted from cattle in Oregon each year

1,800
gallons of water to produce 1 pound of hamburger

What does it take to feed a cow?

March marked the first time Oregon was completely drought-free in six years. But scientists predict droughts like the state saw in 2015 will become more frequent with climate change.

That year, the state was so dry Gov. Kate Brown declared a state of emergency in two-thirds of Oregon's counties while many cities such as Lake Oswego, Bend and Keizer imposed water-use limits on their residents.

The following summer, Oregonian reporters Kelly House and Mark Graves revealed in an exposé titled "Draining Oregon" that the state was allowing farmers to

deplete underground water reservoirs by pumping water to grow cash crops in the desert.

And a lot of that water was being pumped

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GEORGE WUERTHNER,
ECOLOGIST

to grow Oregon's third-highest-valued agricultural commodity, alfalfa and other hay, to feed livestock.

Ecologist George Wuerthner, a longtime thorn in the side of the cattle industry, said this is an issue across the West. He pointed south to California.

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thirsty plant."

Oregon was doing the same thing during its last severe drought, with more than a million acres growing hay to feed livestock – and state agencies had no idea how much groundwater there was to spare.

A bill to fund groundwater studies died this legislative session with strong opposition from the Oregon Farm Bureau, farmers and ranchers who thought it would be burdensome. It would have required that water pumpers install a device that measures how much water they use and imposed a steep fine for exceeding water rights.

Both National Geographic and Water Footprint Network calculated that it takes about 1,800 gallons of water to make just one pound of ground beef when considering the water it takes to irrigate the animal's feed, what it drinks and what's used in meat processing.

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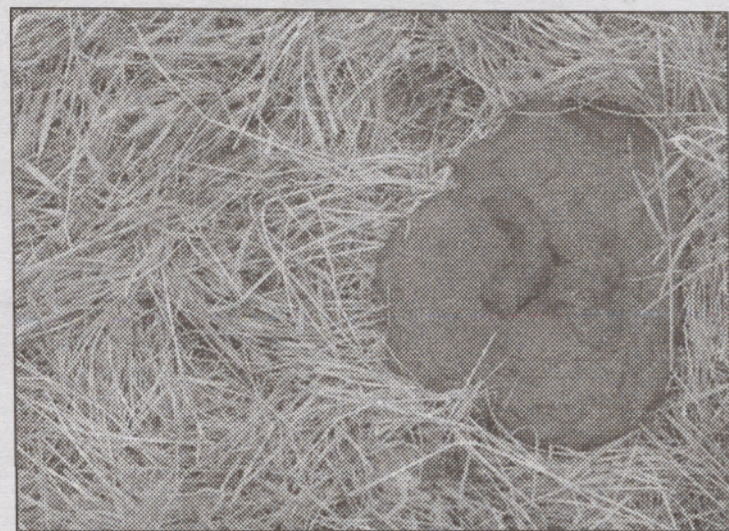


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