

Iowa Farmer Today

Story of survival sparks changes on hog operation

By Stephanie Leonard

Jan 13, 2018



Jason and Roxanne Fevold share the story of a tractor date that likely saved his life.

Photo courtesy Stephanie Leonard

Roxanne Fevold's doctor told her that her husband's experience is used as a learning opportunity for their medical community because it is so rare.

"You don't hear about this happening," she explains. "If you do, it's because somebody died, not because somebody lived. And that is with me every single day."

I met Jason Fevold, Roxanne's husband, last year at the Iowa Pork Congress. He stopped by the booth where I was working, displaying farm safety information and gas monitors.

Were they aware of dangerous gases from pits or other confined spaces? Interested in personal gas monitors?

Jason, a tall, soft-spoken young man, answered yes.

He went on to explain he nearly died from exposure to deadly hydrogen sulfide gas.

Jason and Roxanne, of Webster City, were on a tractor date in late October 2010. Jason had been working long hours, pumping and spreading liquid manure from a swine nursery building's deep pit onto a nearby field at the farm where he worked.

To carve out a few hours for the recently married couple to spend together, Roxy brought supper out to the field and rode several rounds in the tractor. It was a beautiful fall evening. They made Halloween plans.

On one of the trips back to refill the tank, Jason went in the confinement building's office to use the restroom. "Be right back," he said, before he started the pump to fill the tank.

Some minutes later, Roxanne saw manure slurry splashing out of the top of the tank. Something was wrong.

Dead weight

"I took off at a dead sprint towards the building," she recalls.

When she looked in through the doorway into the office area, she saw only Jason's feet.

She went in. Her lungs burned and the smell was awful. She found Jason lying on the floor, unconscious, with foam at his mouth.

She managed to call 911 and not panic. Jason's older coworker, who was also applying manure with his own rig, was just returning for another tank load.

"You have to shut off the tank! We have to get Jason out!" Roxanne cried.

The two went in to retrieve him, but they couldn't pull him out through the doorway he had entered — it was next to the pit opening where the pump was immersed. Instead, they dragged him through the large building to an alternate exit.

"It was a 60- or 70-year-old guy and me, dragging 200 pounds of dead weight," she said.

They had Jason outside by the time fire and ambulance crews arrived from Webster City.

Jason's recollection of the incident is spotty. He remembers washing his hands inside and feeling something was really wrong. His head was spinning, there was a god-awful loud noise in his ears. That magnified pump noise was the last thing he remembered.

At the emergency room in Webster City, he was in and out of consciousness. Late that evening, he was taken to Mercy Hospital in Des Moines and placed in its cardiac intensive care unit for continuous monitoring of his blood gases and condition. His hospital stay over the next several days involved neurological testing of cognitive function and electrocardiograms.

Once home, Roxanne said, he was wiped out. But, in typical farmer fashion, he asked, "When can I go back to work?"

"I was so mad at him," she remembers, "because that was the last thing I wanted him to do."

Different outcome

The gravity of his incident doesn't escape Jason.

"It would have been a lot different if she hadn't been there," he reflects. Ordinarily, he and his coworker took turns filling loads. That would have meant at least a 10-minute lapse before he might have been found, had Roxy not been there.

"I always have that in the back of my mind. She was the saving grace that day," he said.

The incident and experience traumatized Roxy, too, and seeking help from her doctor was when she discovered how the local medical community learned from Jason's remarkable survival and recovery. Every memory of that day and the days that followed are crystal clear to her. Including the fact that she, too, had been at risk.

"It is with me every single day: that he could have died, he could not be here," she said. "It doesn't affect him as much because he doesn't remember as much. I remember everything."

Aside from losing his ability to taste for several months — which was later determined to be the result of trauma to his tongue and taste buds during his seizure while unconscious — Jason fully recovered.

Looking back, he explains some factors that contributed to the "perfect storm."

The previous day, they had lost a few pigs in one area of the building, even though ventilation was running and curtains were open; this was an indicator of insufficient ventilation. When he had entered the building that evening, manure levels in the pit were low enough that a pump nozzle was exposed above the manure surface, increasing the dispersion of pit gases into the air while the pump operated.

After this incident, the farm made changes to increase safety. They now pump only when the building is empty, so personnel never have to enter to check pig welfare. Doors are locked to prevent entry during pumping. Instead of running tanks, they use a drag line to apply manure to cropland. One person minds the pump and booster pump, both done from outside the building.

Last fall, they contracted out their pumping due to the late harvest.

So Jason didn't have to use the hydrogen sulfide monitor he picked up at the trade show. But it's available if he would need it. Because Roxy and their daughter, Lillian, need him to use it, too.

No warning

Hydrogen sulfide is a deadly gas with no warning properties at dangerous concentrations. It can reach unsafe levels within seconds when manure is agitated. There is no way to reliably predict safe conditions without using gas monitors. Learn more at <http://bit.ly/2CCmP9h> and <http://bit.ly/2lTqXGq>.

Stephanie Leonard is an industrial hygienist at the University of Iowa. Reach her at stephanie-leonard@uiowa.edu.

