Farmers Tell Of Experiences With Deadly Silo Gas, Molds

(Continued from Page A24)

"I had a hard time getting a big breath of air," he said. "I was taking small, short breaths. I was coughing a lot."

Ken said that he didn't think that the silo gas could have done this. He didn't realize how many days had passed since the silo was filled.

Regardless, Ken said that he was happy to be fully recovered, and there has been no permanent lung damage. But he worries to this day that long-term lung problems are still a possibility later in life.

Years have passed since the accident. A short while ago, Ken took the safety course this spring at Penn State University offered by Dr. Tim Pierson, entitled "Ag Safety and Health."

As part of the course requirements, Ken said he worked on a project that involved the design and construction of signs for silo safety.

It was then that he thought, I'm not going to make it.

But the memory of the experience haunts him.

"It's scary," said Ken. "I didn't know the gas was there. Everytime I go there now, I wonder, will it be there or not? You just don't know."

Ted Ferris

Dr. Ted Ferris, a professor of animal science at Michigan State University, remembers a hot day 14 years ago.

A team of three, including Ferris, were busy preparing to level off a silo after filling. They waited three weeks until they leveled it.

Those three weeks were enough to create problems with the haylage.

Since by then the haylage was moldy, the team of three began forking the moldy material into a manure spreader while leveling the silo. While doing so, they noticed a cloud of dust which engulfed them. For a half hour, they leveled the haylage.

They began work at 1 p.m. and finished about a half hour later. According to Ferris, by 4 p.m., one person had entered the hospital and by 6 p.m., Ferris and the other person were feeling sick.

For all of them, the symptoms were the same — a flu-like feeling. The one person was treated and released from the hospital.

For Ferris, even now, the glands in his neck react slightly whenever he runs into mold on straw or even when he enters a damp basement with mildew. "Whether it's a physiological or just psychological reaction to the experience, I don't know," said Ferris.

Over time, the buildup of toxic dust from molds can create a condition known as farmer's lung.

But Ferris believes they all learned their lesson and know how important it is to ventilate the area completely before working in it and to level the silage off as soon as possible.

Dr. Michael M. Schutz

Dr. Michael Schutz, a research geneticist with the National Association of Animal Breeders, Beltsville, remembers an experience his father, Nick, and Michael's uncle, Nick Ruhland, had while unloading silage about 25 years ago.

At the Schutz dairy farm in Eden Valley, Minn. in December, Nick Schutz and Nick Ruhland were emptying silage. At the time, they thought little of it, spending a short time in the early afternoon loading spoiled corn silage (filled 10 weeks earlier) from a vertical silo onto a spreader.

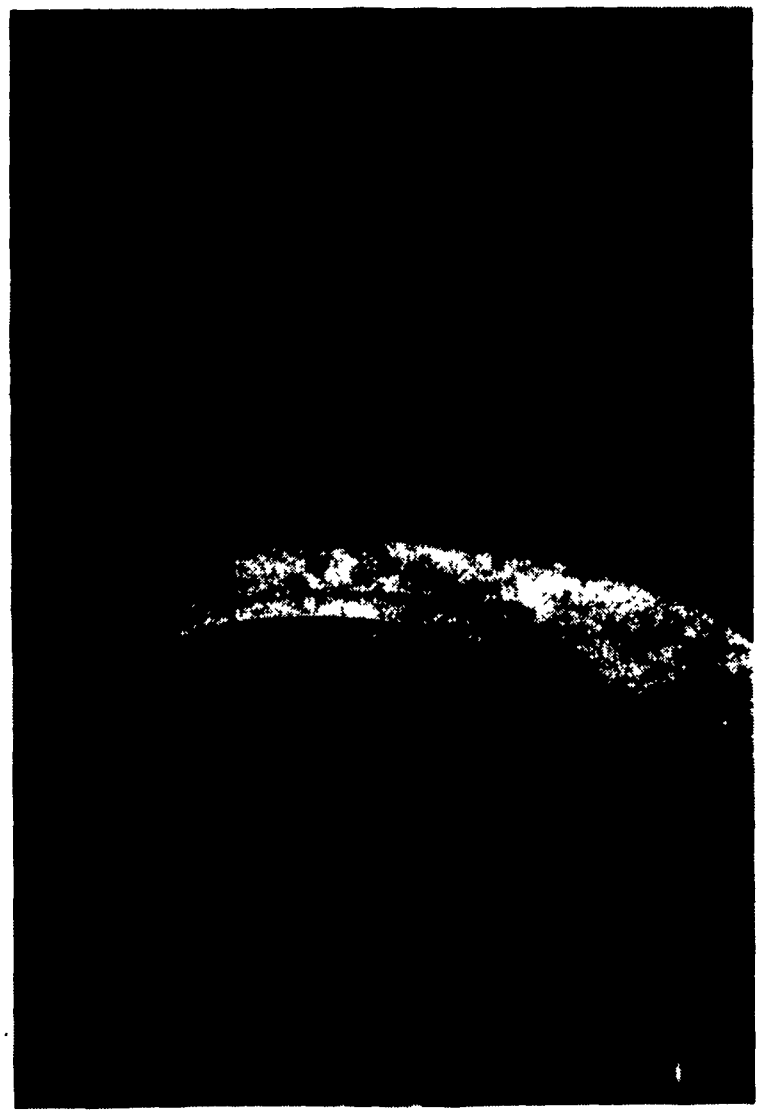
Around midnight, 12 hours later, Nick Schutz began feeling weak, and experienced chills and nausea. He believed he had some kind of flu, shrugged it off, and went to bed, going to the doctor's the next day. The doctor suspected the symptoms were the result of exposure to toxins in mold spores within the spoiled corn silage.

The symptoms were similar for Nick Ruhland, but not as severe, according to Michael.

Fortunately, there have been no long-term effects from the exposure for Schutz or Ruhland.

What they learned was that a good dust filter mask is essential working under those conditions, even though the mold spores weren't as potentially deadly as silo gas.

As a result of the experience, the Schutz farm invested in a silage unloader as a way to avoid exposure to any forms of dust from the silo, according to Michael.



Rodney Martin tried to climb up this access chute to the silo and open a series of access doors to get rid of the silo gas. His plan was to throw open the door and quickly climb to a higher level above the gases.

Dr. Robert G. Gillio, a specialist in lung diseases at Lancaster General Hospital, treated Rodney Martin.

He said what Rodney went through happens less often now than 5-10 years ago. "Perhaps farmers are becoming more educated about silo gas exposure," said Gillio.

Gillio said he treats cases such as the Martins "a couple of times a year" as a result of farmers waiting to level silage and becoming exposed to the deadly gas.

Specialists who treat exposure said the reaction depends on the concentration of gas, variables such as the type of silage and environmental conditions, and length of exposure. In Rodney and Jere Martin's case, exposure was minimal but potentially life-threatening. Two other types of exposure, according to Gillio, include when a patient collapses because of severe exposure, and a huge exposure, known to kill instantly.

Gillio recalled a family in Minnesota about five years ago, where a father went into a silo and collapsed. He was rescued by his son, but when they pulled the father out of the silo, they placed him on the ground, where gas had collected in sufficient quantities to kill him. The son recovered. If only the family had moved the father far enough away from the silo and potential gases, he may have survived.

Gillio said Martin had enough exposure to cause temporary damage to lungs. If the Martins hadn't received treatment within 24 hours, they could have developed a lung condition that could have lead to death.

'Perhaps farmers are becoming more educated about silo gas exposure.'

Gillio said the Martins were placed on steroids to stop the inflammation caused by the chemical exposure to the lungs.

Gillio said the Martins should recover and continue to lead a normal life. "The outlook for them to lead a normal lifespan is very, very good," he said.

While the other exposures didn't involve silo gas, exposure could still become life-threatening.

Editor's note: Part 2 of the series examines some of the methods farmers can use to ensure safety around silos during filling and unloading and ways farmers can prevent silo gas and mold exposure.

Rodney was backlogged with work to do in the dairy barn, and didn't have time to return to this newly-filled 20-foot by 70-foot haylage silo to level it off.

Tioga County Sets Pasture Walk

WELLSBORO (Tioga Co.) — Are you thinking about starting an intensive pasture system or just getting more production from the one you have?

The best way to get started is to walk someone else's. In a Pasture walk, you can look at their pasture, see their fences, their water system, listen to what they would change, and pick their brain. This is the type of system that is used in New Zealand.

The Tioga Pasture Group welcomes you to come to a pasture walk. The June pasture walk is June 30 near Wellsboro, Tioga County.

Please meet at the Tioga County Courthouse rear parking lot at 12:30 p.m. The group will then travel about two miles west of Wellsboro on Route 660 W. The pasture is on the left.

This walk is of a stocker cattle pasture system on rented pasture ground and with semipermanent fence. Come see solar fencers, aluminum, tipper tie wire, and a 12-volt water system.

Future grazing days will demonstrate temporary fence, other pasture forages, pasture feeding, etc.

Please call the Tioga County Extension Office at (717) 724-9120 for more information or if you would like to host a Tioga pasture walk.

Scientist To Speak

ANNAPOLIS, Md. — Maryland Secretary of Agriculture Lewis R. Riley has announced that Dr. Jack Casper, head of the Maryland Department of Agriculture's Frederick Animal Health Laboratory, will be presenting a paper on emergency disaster planning for animals at the Maryland Veterinary Medical Association meetings in Ocean City, Md., June 26-30. Dr. Casper is an expert in developing emergency plans for production animals, pets and horses.

Casper's paper, which will be delivered June 27 at 8:30 a.m. at Ocean City's Sheraton Hotel, will discuss the plan for protection of animals during natural or technological disasters in Maryland and the role the veterinary technician would be expected to play.

"I hope to demonstrate the importance of emergency planning as well as some of the problems and decisions managers will have to face during a crisis," Casper said.

In addition to the Animal Health Laboratory in Frederick, the Maryland Department of Agriculture operates animal health facilities in College Park, Salisbury, Centreville, and Oakland. These laboratories provide diagnostic services and assist veterinarians and farmers in maintaining the highest standards of animal health.