## Worker Health

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"The good news is that (health problems are) preventable. We know . . . what kinds of levels, in terms of dust and ammonia inside the buildings, are acceptable. I think there are management and engineering methods to control those in the environment."

Donham said that OSHA, because of the 10-employee minimum, has left agriculture "pretty much alone." But as the industry continues to become largely integrated, "there's going to be more employees, so it's going to be more of a concern."

#### Dealing With Odors

People's previous experience with odors often dictates their response in surprising ways.

And dealing with odor nuisance complaints will depend on the individual(s) who file complaints against operations, according to Wendy Powers, graduate research assistant in the Department of Dairy and Poultry Sciences at the University of Florida in Gainesville.

Powers spoke during the odor abatement segment of the conference on Monday afternoon.

Powers spoke about how national situations — such as the spill of thousands of gallons of swine effluent into a local river in North Carolina — will dictate people's response. She has heard of complaints by suburbia "before the animals have even arrived on site."

In one recent study, 44 residents of a confinement house were asked about their experiences. They were a diverse group of people, different in age, gender, race, and education.

The findings: the people who live near a confinement operation "report significantly more tension." more depression, more anger, less vigor, more fatigue, and more confusion than the control subjects," she said.

Only trouble is, "we're not able to determine what's actually causing the people to say that these are the characteristics they're feeling." Personalities differ. And people react different ways to different odors, often with surprising

Of the entire survey, 47 percent of the respondents indicated there was an odor problem. The remaining — more than half of the respondents — indicated that there was no problem, even under the same circumstances.

The results showed that the people who lived in the area for an extended period of time were less offended by the odors.

And some indicated that the "nicer-looking farms had less odor," said Powers.

Studies were recently undertaken at Drexel University in Philadelphia to quantify the power of suggestion when it came to odors. Students at Drexel, in the study, were asked to perform simple mathematical tasks in a room that was intermittently scented — at times with a malodor, one with no odor, and one that was pleasantly scented. They were asked to report about odors and how they thought they did on the test scores.

When the scores were actually tallied, there was "no difference between the malodor or the control or the pleasantly scented room," said Powers.

In one case, those who conducted the test told the students that malodors would be placed in the room, when none actually were used. Regardless, the students perceived that a malodor was used and indicated that it negatively affected how they did on the tasks.

Powers noted that children under the age of 5 years old "like all classes of odors. This may be because they're more sensitive at that age and they may be able to detect something pleasantly offen-

sive, or maybe because of the social pressures imposed on them after the age of 5. (They may have been) taught not to enjoy a certain

### Production Tour

The conference included a production tour conducted on Wednesday to farms in the region that are learning to handle and market poultry waste.

On one farm, an extensive poultry waste composting operation has been put in place to dry the manure and prepare it for further processing and marketing.

The challenges, however, of learning to market a poultry litter product continue to mount.

Marketing the product is "something I'm just inexperienced at," said layer manager Paul Wolgemuth on his 210,000-bird operation near Rheems. "It's always a challenge to find a market."

Wolgemuth told the 80 producers and agri-industry representatives at the tour that, six years ago, the family made a decision to expand the poultry operation from 70,000 layers to its present size. However, the township required that, because the farm was situated on only 170 acres of cropland, a plan to dispose of the manure was

Wolgemuth said they invested in a Salmet poultry system using battery-type cages with manure belts and a windrow composting system. The manure is removed from the houses twice a week and taken into the composting facility, which picks the layer manure up on a conveyor belt and drops it down onto piles arranged in windrows.

The manure goes in at 55-60 percent moisture out of the layer house and is turned twice a week. Temperature of the piles range between 140-150 degrees.

In December 1991, Wolgemuth was able to secure a five-year contract with an organic fertilizer company, which purchased the manure at \$25 a ton. Wolgemuth thought he was sitting on a gold mine, he said — until the orders started to dry up by the summer of the next year.

The last time he was able to sell the material to the company was the spring of 1995. The "unlimited potential" of the product started to wear thin, which forced him to rethink ways to dispose of the manure and to explore new marketing possibilities.

Since then Wolgemuth has sold to several companies, but the demand is very seasonal. Wolgemuth said he recently signed a contract to take a large amount of his

Annual output of manure is about 1,200-1,400 tons per year at about 25 tons per week. Those 25 tons keeping coming every week, he said, "whether we have a mark-

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A panel at the conference focused on dealing with local and state environmental challenges on Monday. From left, Charlie Daniel, Cal-Maine Foods, a commercial egg operation in Bethune, S.C.; Wes Jamison, Department of Poultry Science, University of Arkansas; Julian Brake, Department of Animal and Poultry Sciences, Virginia Tech; and James Arends, S and J Farms Animal Health, Willow Springs, N.C.

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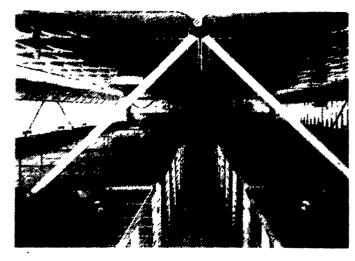
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