

## Owners Report On Odor Control Products

(Continued from previous page)

that's composed of plant enzymes. It's designed to eliminate manure odors and reduce ammonia, sulfide, amine and mercaptan odors as well, according to the company. It's applied to pits, tanks or lagoons at 1 gal. to 50,000 gal. Cost is about \$35 per gal.

"While both products were equally as effective in reducing odor at the cooperative, they may not be cost-effective for use in smaller operations," Johnson adds.

**Doug Richardson, Farmersburg, Ind.:** "We've used **Micro-Aid** religiously since the mid 1980's and wouldn't be without it in our feed," says Doug who operates a 500-sow farrow-to-finish operation. "We've used **Pit Boss** religiously in all our shallow pits since the early 1990's. It reduces the amount of solids and makes it into more of a slurry. I cannot categorically say it keeps nitrogen from being released, as the company claims.

"The combination of products makes a big difference in odor, I feel."

**Tom Pitstick, Fairborn, Ohio:** Tom has used **Micro-Aid** for 10 years at his 800-sow farrow-to-finish operation.

"It makes a significant difference in the amount of solids in the pits," he says. "They seem to break down faster, which can have an effect on odor."

**Sharon Bonert, Dyersville, Iowa:** Sharon and her husband Ron are pleased with results they've seen with a locally produced product they've used at their 200-sow farrow-to-finish operation for three years. **Eliminator Plus** (Farm Products Inc., P.O. Box 262, Dyersville, Iowa 52040; ph 319 875-2875), is a combination of enzymes designed to make the pit dormant by stopping bacterial decomposition of manure so gases aren't produced. It's used at 1 gal. to 10,000 gals. every time pits are pumped. It comes in 1 gal. plastic jugs and is priced at \$42.50 per gal.

"We use it twice a year in the deep pit underneath our 325-head nursery," Sharon says. "There's no gassy, ammonia smell in the building anymore and we haven't noticed any build-up of solids."

**Kris Hartke, Teutopolis, Ill.:** "I began using **Micro-Aid** feed additive three and a half years ago and liked the results so much

I'm still using it," says Kris who has a 300-sow farrow-to-finish operation. "It really helped improve air quality by reducing the ammonia odor in our 700-head nursery and somewhat in our farrowing facilities. What's more, we don't notice as much odor when we spread manure on fields as we used to."

**Dennis Lyons, Monroe, Iowa:** Dennis is purchasing director for Monarch Enterprises Inc., a central Iowa-based hog company that began using a new chemical additive from Monsanto last November in four 1,000-head finishing barns.

**Alliance** (Monsanto Enviro-Chem Systems, P.O. Box 14547, St. Louis, Mo. 63178; ph 800 645-5691 or 314 275-5700; fax 469-8800) is a liquid designed to suppress formulation of hydrogen sulfide and ammonia. It's up to 90 percent effective in reducing odor, according to an Iowa State University test. It's applied to pits four to eight times a

**"The product has a short half life and you can actually smell the difference in odor levels as you get near the end of the application cycle."**

day via special electronically timed spray nozzles which install in a facility's sprinkler system in about half a day. Total daily application rate for a typical 1,200-head finishing barn is 0.6 gal. It comes in 5-gal. containers as well as in bulk and costs 80 cents to \$1.00 per finished hog excluding cost of application equipment and installation, according to Monsanto.

"Even though the finishing barns we installed the systems in were new, we noticed a drastic reduction in odor right away," says Dennis. "In fact, the product has a short half life and you start to smell the difference in odor levels as you get near the end of the application cycle. We like it so much, we'll use it in six more 1,000-head finishing barns currently under construction."

## They're Trying To Find Out What Works

Researchers at several universities have major studies in progress to test and evaluate odor control products to find out which ones work.

Mike Williams is director of the newly dedicated Animal & Poultry Waste Management Center (APWMC) at North Carolina State University.

"To date, the APWMC has evaluated or is evaluating 17 different products under laboratory and commercial scale conditions," Williams says. "Each has been evaluated for its effect on odor concentration, odor irritation and odor quality. Five of the products we tested significantly improved odor parameters as determined by a trained odor panel. Few of the others have shown any significant effect on odor."

APWMC will soon publish reports detailing which products work and which don't. For a copy, contact: APWMC, Box 7608, Raleigh, N.C. 27695-7608 (ph 919 515-5387; fax 2625).

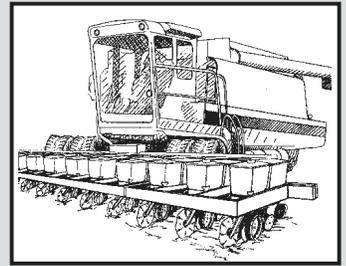
Research into the effectiveness of odor control products is also going on at other universities such as Iowa State, Duke, Oregon State, Purdue and Wageningen Agricultural University in The Netherlands.

## New Planter System Being Tested For Combines

Ohio farmer Mike Kaufman recently designed a new system for attaching a row crop planter to the front of a combine. He plans to field-test a 12-row unit next spring.

Kaufman, who grows corn and soybeans on 200 acres that he farms with his brother, looked into the idea while working on his MBA thesis at the University of Findlay in Findlay, Ohio. He consulted with several machinery companies and dealers and also got helpful ideas from farmers across Ohio. After receiving a patent on the concept he took his ideas to a senior design engineering class at Ohio State University.

"My design takes advantage of the size of today's new combines, which have more horsepower, greater capacity, more durable drive trains, and much improved visibility and comfort as compared to older machines," says Kaufman. "My goal is to come up with a simple system that uses stock parts and requires no modification of the combine so it can be quickly converted back to conventional use. The toolbar, with row units attached, will be secured to the combine in place of the head. Seed for the row units will be stored in the grain tank and



Row units attach to the combine in place of the head. Seed is stored in the grain tank and is delivered by air conveying system.

delivered to the individual planter seed units by an air conveying system."

Kaufman's next goal is to secure an agreement with a manufacturer for prototype development. Once a working prototype is assembled, he will take it to farm shows, fairs and field days and try to get farmers interested in it.

Contact: FARM SHOW Followup, Mike Kaufman, 13853 Rd. J., Ottawa, Ohio 45875 (ph 513 732-2181).

## Do You Remember These Combine-Mounted Planters?

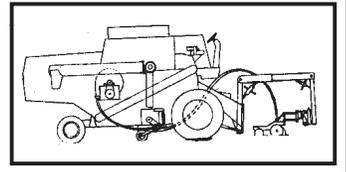
Over the past 20 years, FARM SHOW has featured a number of combine-mounted planters. We recently dug deep into the archives to retrieve the following examples:



Iowa farmer Dennis Carney mounted a 12-row Case-IH Cyclo air planter on front of his 1990 New Holland TR86 6-row combine (Vol. 15, No. 4). A 200-gal. spray tank tucked back under the combine cab carried herbicides.



Claas of America, Inc., and Purdue University engineers teamed up in 1992 to mount a Great Plains 15-ft. grain drill on front of a Claas 228 combine equipped with Caterpillar rubber tracks (Vol. 16, No. 4). Two carrier arms attached to the combine feederhouse ran up and over drill to the front side.



The grain tank on this combine served as a giant seed hopper, with a Wil-Rich air system carrying seed to row units up front (Vol. 6, No. 3). It was put together in 1982 by three agricultural engineering students at Iowa State University in Ames.



In 1983, Nebraska farmer Dale Harlan designed a header-mounted planter toolbar that allowed him to plant soybeans with his combine while he harvested wheat (Vol. 7, No. 4). Note the Cyclo air planter row units just behind the header on his Axial Flow.



In 1995, Iowa farmer Bill Augustine converted his 1979 Massey-Ferguson 760 combine into a self-propelled 8-row planter that also doubled as a 55-ft. sprayer (Vol. 19, No. 4). He built quick tach arms to fit the back side of his International 500 semi-mounted, 8-row air planter.