

Crop basics, grain drying techniques outlined

By JOYCE BUPP
YORK - Sulfur emissions were a prime target of environmentalists who spearheaded efforts to clean up air polluting industrial smokestacks. But while humans are undeniably happier with clean air, area corn fields may be suffering from the lack of sulfur fallout according to Joe McGahen, Penn State corn specialist who dealt with basic cropping practices during the York County corn clinic.

Just one of several trace minerals now being closely scrutinized by corn scientists, sulfur deficiency shared the spotlight with soil toxic reactions. At least three minerals appear to have toxic potential when soil acid becomes too strong. Iron, manganese and aluminum, contained in soils in minute amounts, normally pose no problem to corn plants when proper acidity levels are maintained.

The trend toward no-till and minimum tillage allows large quantities of crop trash to remain on surfaces, building up soil acidity as it decomposes. McGahen recommends the addition of a ton of lime every other year to maintain proper soil pH levels to prevent toxic reaction, especially in no-till acres.

Agriculture engineer Joe McGurdy, also of Penn State, briefed the 250 corn growers on energy savings grain drying techniques. He outlined his studies with several suggestions on saving fuel and money.

Select suitable hybrids, with varieties that give maximum yields while maintaining good field drying qualities.

Don't overdry. McGurdy figures that each per cent of overdrying robs one bushel

from every 85 dried. Hold corn at 15 per cent if storing until Spring, but lower to 14 per cent for year round storage. If the grain is trashy, lower yet another per cent.

Consider dryeration, a three-speed process. Dryeration utilizes a high speed drying unit, with corn then moved to a holding bin for cooling with night time temperatures, and then moved again to a cooler holding area with aeration. Total fuel savings may be up to 20 per cent.

Combination drying, a process which may save up to 32 per cent in fuel over drying straight down to storage moisture levels. Corn is heat dried from 28 per cent down to 20 per cent and air dried then to desired storage moisture.

Service dryer and controls regularly, with annual checkups. Humidistats must

be monitored closely, since they are often regulated by the sensitivity of a single human hair. McGurdy warned that lowering thermostats for fuel efficiency usually does just the opposite.

Drying batches should be kept shallow. If moisture is below 25 per cent, a four-foot depth is acceptable; if moisture is over 25 per cent, grain depth should not exceed two and a half feet. With a stirring device, a depth of six to nine feet is adequate and batch drying can be done at four to six foot depths.

Aerate to cool corn in below 40-degree F storage. Most corn goes into storage at about 70 degrees F, requiring up to 200 cooling hours for every ten degrees lowered. Storage temperatures can be monitored by checking vented air with a thermometer.

Storage areas should be checked regularly, preferably once weekly. "Sniffing" helps detect spoilage problems which often appear as top center spoilage, molding or crusting over.

McGurdy emphasized that utmost safety precautions should be taken when spoilage of any kind develops in stored grain. The mold and fungus spores present can be very toxic when breathed and a respirator is a must when working with affected grains.

Nor should bins ever be

entered or approached when an auger is operating within the storage area.

"Twenty seconds under a pile of flowing grain and


you're a statistic, because flowing grain is a quicksand that you can't escape without help," the ag engineer warned as a final safety reminder.

Questionnaires mailed

WASHINGTON, D.C. - Congressman Bob Walker recently announced the mailing of his 1979 constituent questionnaire. The nine question self-mailer will begin arriving in Lancaster, Lebanon and Chester Counties by mid-February.

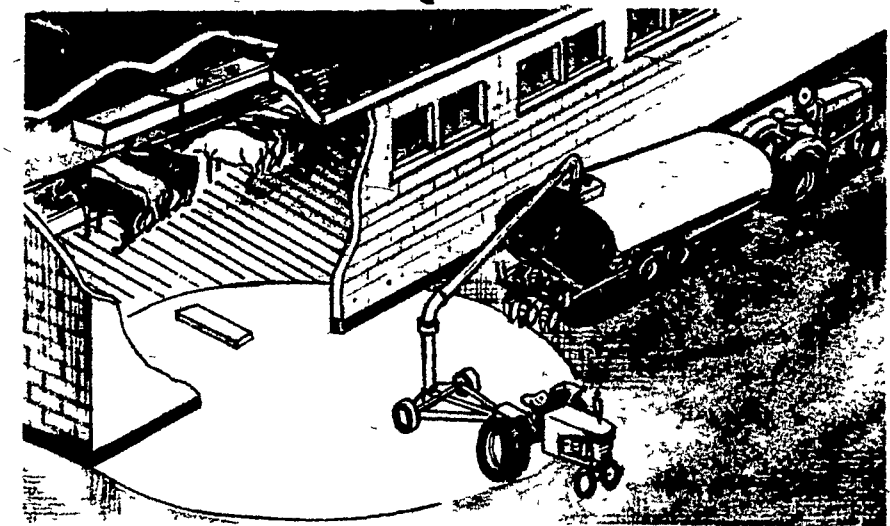
As he did with his first questionnaire, Walker said he is using a format designed to allow respondents to qualify their opinions rather than providing for only "completely agree" or "completely disagree" answers.

CUSTOM BUILT CALF LOO MADE TO ORDER



AARON S. GROFF & SON
 FARM & DAIRY STORE
 RD3, Ephrata, PA 17522 (Hinkletown)
 Phone (717) 354-4631
 Store Hours 7 A.M. to 9 P.M.
 Closed Tues., Wed. & Sat. at 5:30 P.M.

UNDERGROUND LIQUID MANURE SYSTEMS



- Eliminate manure stacks for cleaner and neater appearance
- Eliminates breeding places for flies and insects
- Eliminates odor with underground manure storage

Above ground systems also available ASCS APPROVED

MAR-ALLEN CONCRETE PRODUCTS INC.
 RD1, EPHRATA, PA 17522 PHONE: 717-733-9404

All Liquid Supplements Are Not Created Equal




Quality Ingredients Make A Quality Product

Mol-Mix is made with the finest-quality ingredients available. "Performance-oriented" ingredients like corn distillers solubles, condensed fermented corn extractives, phosphoric acid, and ammonium polyphosphate. The very ingredients that many other supplements lack!

You might not realize what these extra ingredients add to the performance of the supplement, so why not stop in and let us show you first-hand?

You see we're not talking about something that will only add to your supplement costs — we're talking about the bottom line

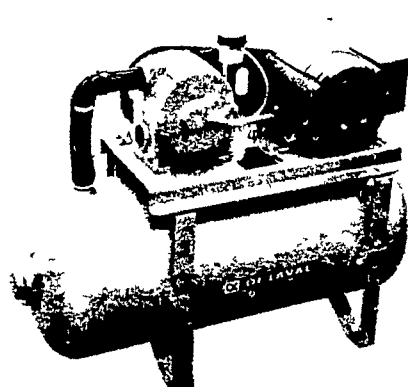
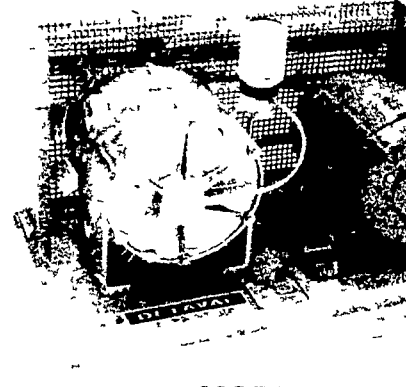
JOHN Z. MARTIN
 New Holland RD1 - Phone 717-354-5848
RED ROSE FEED & FARM SUPPLY
 Main Office:
 27 N. Church St. Quarryville - 786-7361
 Division of Carnation, Buck, PA - 284-4464
MCCRACKEN FEED MILL, INC.
 Manheim, PA 17545 - Phone 717-665-2186

THE LIQUID LEADER

Mol-Mix
 liquid supplements

DE LAVAL

VACUUM PUMPS
 CHOOSE THE RIGHT MODEL FOR YOUR DAIRY ...

MODEL NO. 76
 2 HP produces 24 CFM
 3 HP produces 34 CFM

MODEL NO. 78
 5 HP produces 52 CFM
 7½ HP & 10 HP motors can be used for more CFM

ASME vacuum standards rated = Cu. Ft./Min. at Milking Vacuum

NOW AVAILABLE: SOLID STATE TIMER-CONVERTERS
 70:30 - 60:40 - 50:50 RATIOS

VACUUM UNEVEN?
 New DeLaval Servo Controller
 Now In Stock — Call For Installation Today.

J.B. ZIMMERMAN & SONS
 SALES & SERVICE
 WEST OF BLUE BALL, PA on RT. 23
 PHONE: (717) 354-4955