## D2-Lancaster Farming, Saturday, September 5, 1992 Moisture Content Crucial In Silage

HUNTINGDON (Huntingdon Co.) — A few weeks before harvesting corn that will be used for silage, growers should start monitoring its moisture content, recommends a Penn State corn management specialist.

"Moisture content at harvest time is one of the most important factors influencing corn silage quality," said Dr. Greg Roth, assistant professor of corn management in Penn State's College of Agricultural Sciences.

When corn silage is too dry, it creates excessive air space in silos and encourages mold to grow. When it's too wet, it leaches nutrients, sours, and becomes unpalatable for livestock.

"As harvest time nears, corn plants begin losing moisture by about one-half of one percent each day," said Roth. "By checking the moisture content every few days, you can estimate the ideal time to harvest."

Growers can check moisture content by chopping up a sample corn plant and drying it in a forage moisture tester or microwave oven. Information about obtaining and using a forage moisture tester is available at Penn State Cooperative Extension offices.

When using a microwave oven to check moisture, weigh a portion of the chopped plant, then place it in the microwave with a glass of water. Heat the corn at the high setting for two-minute intervals until the corn feels completely dry. "By weighing the dried sample, you can tell how much of it was water," said Roth.

The difference between the two weights can be converted into a percentage. "Recommended percentages vary depending on the type of storage," said Roth. "For upright silos, 63 to 68 percent is recommended. For horizontal silos, 65 to 70 percent is recommended, and 55 to 60 percent is recommended for limited-oxygen silos."

Moisture content also can be estimated by examining corn kernels. Kernels have a milk line, a separation between the hardened starch at the crown and the milky portion near the base. As corn matures, more of the kernel hardens, and the milk line descends toward the base.

"For bunker or upright silos, corn should be harvested when the milk line is about one-third of the way from the crown to the base,"

said Roth. "When the milk line is midway, the plant's moisture content is ideal for storage in air-tight silos."

When the milk line reaches the kernel's base, a black layer forms there, and the digestibility of the stover is reduced. "Corn at this stage should be harvested without delay," said Roth. "It still can be ensiled, but the risk of abnormal fermentation is increased."

Weather can affect the rate of corn's moisture loss. "After an extremely dry growing season, moisture content may be 5 to 10 percent lower at any given stage of maturity, and corn may be ready for harvest a lot sooner," said Roth. "Excessive rainfall may slow down moisture loss and delay harvesting."

Corn was late developing this year due to the cold spring. Because of this, farmers in some areas may need to delay harvest or harvest after frost. "Frosted corn tends to have too much moisture," said Roth. "If this is the case, allow the corn to dry out as much as possible before harvesting.

In all cases, use the condition of the crop, not the calendar, as your guide."

ELIZABETHTOWN (Lancaster Co.) --- White Oak Mills, a regional supplier of swine, beef, and dairy feeds, is pleased to announce the promotion of Rich Gibble to manager of information systems for the newly created data processing department.

**Gibble Becomes** 

**Information Systems Manager** 

Designing and maintaining computer software, Gibble has been a vital part of the company's success for the past seven years.

"We advanced from a fairly small PC system to a faster, more efficient IBM system with more capacity," said Gibble.

Using an AS 400 model (E-10), he has developed more than 900 programs, including software for accounts receivable, accounts payable, general ledger, invoicing, and inventory.

A 1984 graduate of Manheim Central High School, Gibble completed an advanced level programming class at Harrisburg Area Community College (HACC). Not satisfied with the college atmosphere, he decided to pursue his computer interest at home. Using a variety of textbooks from college bookstores and mail orders, Gibble became a self-taught computer expert.

"I think it's easier to learn on your own," he said. "If you learn it as you need it, then you'll retain it."

As White Oak continues to expand, the data processing depart-



**Rich Gibble** 

ment will play a key role in the progress of the company.

In his new position, Gibble will work with the computer system to develop the most efficient methods of manipulating data. Responsible for all computers within the company, he will also solve any software problems encountered.

"Every day there's a new problem/new experience," said Gibble, a resident of Elizabethtown. "I like the challenge that White Oak offers.'

## **Project Sets Surface Water Tour**

Commission is conducting a research project to monitor ground the flow of nutrients into the water and surface water on the basin's streams and rivers. Paul Clugston farm near Halifax.

to reduce the nonpoint source pollutants from the farm. One of the beginning with a luncheon at John Graham, (717) 238-0425.

HARRISBURG (Dauphin Co.) project's goals is to determine if a noon. Cost of the luncheon is - The Susquehanna River Basin constructed wetland is an effective and economical means of limiting

A field tour of the monitoring A wetland has been constructed facility is being offered by the Commission on September 22,

\$5.50. Short discussions of the project and preliminary results of the monitoring study will be provided immediately after the luncheon to be followed by a field tour of the monitoring site.

For more information, contact





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