



Expo scenes

No matter what style you use, chugging a quart of milk is not as easy as it may seem. Gary Baxter, right, the Expo's show chairman isn't crying over spilled milk.



In the Guernsey competition, Cindy Barto, Pennsylvania Furnace, Centre County, was the champion fitter.



Martha Gregory, Lititz, was the champion Ayrshire fitter at Saturday's Expo.



The black is easy, the white is the hard part. Mom's chlorine bleach doesn't only get clothes bright.

Fungus may turn straw into alcohol fuel

LANCASTER — A fungus found growing on cow dung may help turn straw and corn stalks into alcohol fuel for cars and feed for cattle, says a U.S. Department of Agriculture scientist.

Donald T. Wicklow, a microbiologist with the USDA's Science and Education Administration in Peoria, Ill., said the fungus makes straw more digestible by breaking down the lignin, a natural cement plastered around cellulose fibers in plant stems.

When the lignin cement covering is removed, the cellulose inside is exposed and becomes available for digestion. Then, the enzymes in fermenters or in ruminant stomachs can change the cellulose to glucose sugar.

Scientists call the fungus "Cyathus stercoreus." Because of its cupshaped visible part, it also is known as "fairy goblet" or "bird's nest."

At the USDA northern regional research center, the fungus digested 45 percent of the lignin in wheat straw and exposed 21 percent of the cellulose. Wicklow, Robert W. Detroy and Brent A. Jesse grow the fungus on

pressure-cooked straw for 62 days.

While few living things can digest lignin, Wicklow points out that almost all cells, including those in cattle and in yeast colonies, use glucose for energy. Some yeasts that grow on glucose produce ethyl alcohol.

One of USDA's goals at its Northern Agricultural Energy Center at Peoria is to produce fuel alcohol from cellulose in plant stems.

A fungus with the ability to digest lignin, particularly lignin in grasses, is the kind of natural digester that Wicklow, a fungal ecologist, expected to find in ruminant dung on grasslands. He searched for a fungus that specialized in using materials left over when cattle, insects and microorganisms digest grass.

In a cow pasture at Hickory Corners, Michigan, Wicklow found the fungus he was looking for. Although the fungus had never before been tested for ability to digest lignin, it was well known to naturalists, Wicklow said.

The "goblet" or "nest" is less than two-tenths of an inch wide.

Maryland State Grange Youth Night held

MARYLAND — Grangers from across the state gathered recently at the Wacohu Grange Hall in Washington County for the annual State Youth Night.

Rodman Myers, State Grange Master, announced the State Grange session will be held on October 16, 17 and 18th at the Sheraton Inn, Frederick.

Lester Stern, co-chairman of the newly funded Deaf Scholarship Fund explained the program and asked each Grange to contribute money towards this program. Maurice Wiles, State Overseer and Membership Chairman, reported June 30 is the deadline for Maryland Grange to have another net gain membership year. The annual State Grange picnic will be held on July 27th at the Carroll County Farm Museum.

Ethel Brauer, State Jr. Grange Leader, announced Junior Grange Camp will be held the first weekend in October at Camp Airy in Thurmont. Grange youth from across the state will be serving as camp counselors.

Nancy Wolfe, State Grange Lecturer, announced Fun In The Sun weekend will be held on June 27-29 at the Wolfe Farm in St. Mary's County.

Following the business meeting, Faye Zimmerman, State Grange Princess, presented a skit entitled, "The Perfect Granger" with State Prince David Wiles and past state princes, Allen Stiles, Larry Wolfe, and Jim Roderuck.

State Grange Master Rodman Myers and State Youth Director Janet Wiles

presented the State Youth Representative Awards to Brian Wiles of Glade Valley Grange and Andrea Myers of Thurmont Grange. The applications of these two young people will be going to the National competition. The National Youth Representative Award Winners attend travel paid assignments to camps, conferences or conventions.

Theresa Duvall of Glade Valley Grange entertained with a demonstration of "America the Beautiful" in conjunction with the National Grange Deaf Awareness project.

And an entertaining skit called "Pushbutton Radio Skit" was performed by Dave Harmon, Brian Wiles, Cheryl Myers, Mary Lee Dorn, and Andrea Myers.



Maryland State Grange Youth Officers from left seated are: Donna Mills, Carroll Manor; Faye Zimmerman, Glade Valley. Standing, second row from left: Faye Reese, Liganore; Kathy Grimm, Wacohu; Helen Eyer, Liganore; Patty Myers, Thurmont; Lynn Vantz, Hancock. Back from left: Larry Wolfe, Brandywine; Roger Troxell, Thurmont; Warren Gray, Beltsville; Bradley Grimm, Wacohu; Allen Stiles, Medford; and David Wiles, Glade Valley.