

# New Program Aids In Well Water Access, Management

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GUTHRIESVILLE (Chester Co.) — While much of Chester County escaped the severe drought last year which drove some farmers out of business in Pennsylvania, water concerns still rage — will we have enough this year? And will it be fit to drink?

"One thing I think you should all do is get your water tested," said Walter Wurster, Chester County agent, to about 92 farmers and industry representatives on Monday at the Chester County Crops Day.

Wurster spoke about the effects that well placement and management of nutrients and pesticides may have on water available to farmers.

He introduced a new computer program, soon to be released from Penn State, which will outline water quality measurements and help farmers in well location, construction, and maintenance.

## Well water

Farmers should first have their well water tested. "I don't care who you are or how fresh you think your water is, get it tested," said Wurster. "Find out whether you have any problems."

Wurster also emphasized the importance of water conservation on the farm. According to the county agent, if all the water in the

world would be available in a one-gallon container, the fresh water available to use would occupy less than 1/8 cup.

Through water conservation, a farm family of four could save up to 44 gallons of water a day. Proper water-saving techniques include a low-flow toilet, a low-flow shower head, turning off water when brushing teeth, a front-load dishwasher, and other methods.

Farmers should consider water use before problems occur. "The only times you think about these things is when something goes wrong with the pump, you know, and all of a sudden you don't have enough water to water the cows or you don't have enough water to shower or your wife's screaming at you and you're ready to cook dinner and there's no water in the house," he said. "You should think about this, because that water is not getting any more plentiful out there."

## Wells polluted

Also, people don't realize how readily wells can be polluted, and sometimes avoid thinking about their own water management techniques. "Some people think, as long as I'm on the other side of the creek, I'm not going to have a problem with any pollution."

But through nitrogen runoff and leaching and pesticide contamination, wells can be readily affected.



Conservation Farmer of the Year recognition went to the Hoopes J. Yarnall Farm, represented by Jean and Hoopes Yarnall, Russellville, left, at the Chester County Crops Day. Bob Francis, third from left and Dan Gregg, of the Chester Conservation District, presented the award and a sign for Yarnall Farm.

Farmers can do a great deal to control runoff by conservation farming, by using terraces, and "by using a little common sense when we spray," he said.

Proper well location is important, and the new program will aid farmers in how to properly place the well, taking into consideration the location of the homestead,

creeks, exercise yards, manure storage areas, septic system location, and other factors.

Also, if a well is located on a hill, where runoff could pose a problem, the use of diversion terraces can help avoid well contamination (surface water is a prime factor in contamination of existing wells).

"I think we all have to be conscious of water conservation," said Wurster. "We also have to be conscious of how we treat the land around our watershed. Whatever happens, you're probably going to be the first one affected by anything you do wrong on our farm. It's going to be *your* groundwater or *your* well that's going to be affected."



Walter Wurster, Chester County agent, spoke about the availability of the world's fresh water and how farmers should learn to manage their well water effectively on Monday at the Chester County Crops Day.



Bill Beam, left, receives the 5-Acre Corn Club Award for three-year average from Walter Wurster, Chester County agent, at the Chester County Crops Day.

## Winter Brings Teat Sores

STATE COLLEGE (Centre Co.) — Sores or lesions on the udders and teats of dairy cattle may be more prevalent during cold weather, said an expert in Penn State's College of Agricultural Sciences.

"Dairy producers may notice more sores in winter," said Carol Burns, research assistant in veterinary science. "If you see a sore, try to determine the cause. Some ailments that cause this symptom can be serious."

Chapped skin is probably the most common teat and udder irritation during winter. "This often is caused by teat dips and washing teats in cold weather combined with friction from the milking machine and rough bedding materials," Burns said.

"Cracked, chapped skin easily can lead to colonization of Staph aureus bacteria, increasing the incidence of Staph mastitis. The rough skin also can be invaded by viral organisms that cause other problems."

To help prevent chapped teats, Burns said to wait a few minutes for the teat dip to dry before sending cows outside.

Another cause of teat sores is pseudocowpox, a common pox virus in cattle. "Pseudocowpox causes localized swelling and creates a pustule that ruptures within two days," Burns said. "An elevated scab then develops. This scab falls off after 7 to 10 days, leaving a horseshoe-shaped ring of smaller scabs."

Pseudocowpox infections take five to six weeks to heal. "The rate of spread through herds is slow," Burns said. "Only a few cattle have sores at any one time. But because cattle develop little immunity to pseudocowpox, a cow can have teat sores several times during the winter."

Sanitation and disinfection are

the best means to prevent the spread of pseudocowpox throughout your herd and possibly to yourself. Your veterinarian can recommend proper treatment, which may include removing scabs.

"This should be done to ensure that the scabs won't be lost in the beddings, which would contaminate the environment," Burns said. "Topical ointment also may be part of the treatment."

Care should be taken when milking or treating cattle with pseudocowpox. "This virus can be transmitted to the milker's hands, forming sores known as milkers' nodules," she said. "If your herd has pseudocowpox, it's wise to wear rubber gloves while milking."

Warts also can become more prevalent during winter. "Several different viruses cause warts, each with its own specific characteristic," Burns said.

"Warts are especially common in younger cattle, generally causing little harm and healing spontaneously. But when warts grow on the teats of lactating cows, they often interfere with milking."

Warts can be crushed, pinched off or surgically removed by your veterinarian. "Commercial vaccines may be helpful in stopping new warts, but these vaccines do little to help the existing warts to degenerate," Burns said.

Dairy farmers also should watch for signs of bovine herpes mammillitis (BHM), a viral disease that causes severe ulcers on the teats and udder.

"When BHM is first introduced into a herd, these areas often will swell and one or two large blisters will form," Burns said. "Sometimes the blisters disappear quickly and go unnoticed."

Sloughing of the teat skin may be the first sign that producers notice.

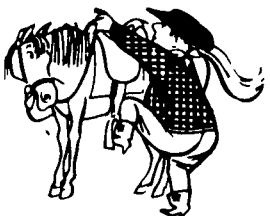
Milking machines are believed to aid the transmission of the BHM virus, which can remain in a herd for 6 to 15 weeks.

"The severity of the ulcers decreases as the disease progresses through the herd," Burns said. "But infected animals usually resist being milked and may have to be culled. BHM can cause high economic losses."

Your veterinarian can recommend an antiseptic, such as iodophors or chlorhexidine, to apply just prior to milking. Sores should be swabbed with an astringent after milking.

"Sanitation and disinfection are the best means to prevent the spread of viruses that cause teat sores," Burns said. "This applies to the teat ends, the milking machines and the milker's hands and clothes."

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