

Ag Progress Tour Shows Reconstructed Wetlands

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ROCKSPRING (Centre Co.)**—

Understanding the moisture conditions of the soil and how the land was managed in the past can help landowners reconstruct damaged wetland areas.

And with time, effort, and careful management, landowners can go a long way to refurbishing the natural plant and wildlife intrinsic to the area, according to Robert Glennon, plant materials specialist for USDA/Soil Conservation Service on Tuesday afternoon at Ag Progress Days.

Glennon spoke to a group of about 25 people during the general conservation tour, which included stops at several sites vital to feeding and maintaining reconstructed wetlands.

Glennon told the tour members that wetlands, in order to promote enhanced water quality, should have a water depth of no more than 12-18 inches. The reason? Because most plants, in order to perform oxygen transformation from the air to the soil, grow no more than two feet.

The process, said Glennon, is similar to a backyard septic tank that uses bacteria to tie up or break down pollutants. Aerobic bacteria in the soil needs oxygen from the plants, and some parts of the wetlands require anaerobic bacteria to do the same job—clean the water.

It's a two-tiered system that works effectively to clean the water and enhance water quality, which is part of what wetland areas accomplish.

The reconstructed wetlands were in place three years ago through the cooperative efforts of the Pennsylvania Land Improvement Construction Association (which donated equipment time), the SCS, and Penn State.

Different species of wetland plants were installed, including cattails and seven varieties of sedges. Also, woody plants were also incorporated in the project. Many of the sedge varieties were investigated for survivability.

Also, new projects as part of the conservation tour included a sedimentation control project installed at the demonstration site in the spring of this year. A special

artificial storm test sedimentation holding site, which provides 7,000 cubic feet (5,000 cubic feet of water and 2,000 of sedimentation), was installed to investigate ways to control runoff and improve water quality from storm water.

A pond with several acre feet of water supplies the test site. Storm events can be simulated from this pond, according to project coordinator Dr. Albert Jarrett, professor of ag engineering at Penn State.

One thing the investigators discovered was that water that was ponded went a long way toward improving water quality "tremendously," said Jarrett.

The storm simulator uses a spring-fed pond to drop water at the maximum rate of 1 cubic foot per second or 450 gallons per minute, what is considered the "two-year" storm, based on a 1 acre site at 8 percent slope. They can place 1,000 pounds of soil in the flow to simulate sedimentation runoff, and measure the sedimentation through a "sedigraph."

This year, so far, the simulator has been used in 20 demonstrations, said Jarrett.



Dr. Albert Jarrett, professor of ag engineering at Penn State, shows Ag Progress Days visitors a special sedimentation and runoff simulator project installed at the site in the spring this year. Here he holds a perforated riser, of which several are under test at the site.



Different species of wetland plants were installed, including cattails and seven varieties of sedges, at the reconstructed wetlands site at Rockspring. Also, woody plants were also incorporated in the project. Many of the sedge varieties were investigated for survivability.

Southeast Pa. Dairy Pasture Walks Continue

CREAMERY (Montgomery Co.)—On July 29, approximately 60 attended the Southeast Pasture Walk at Forrest Stricker farm in Robesonia.

Southeast Pennsylvania pasture walks will continue through the end of November. If you are currently grazing, considering grazing, or just curious about grazing, then this series of Pasture Walks is for you.

Not only will you get to see farms using pasture systems, but you will also be able to ask questions and network with other interested farmers. The following four

farms have agreed to host pasture walks starting at 9:30 a.m.

• On August 26, Curtis and Brenda Dietrich of Lehigh County are hosting the walk and working on their second year of intensive grazing. Thirty-five cows and 20 calves and yearlings have 35 acres available for grazing. In addition to grazing, the cows are barn fed corn silage, high moisture ear corn, 38 percent supplement, and rolled-cooked soybeans. The Dietrichs maintain high milk production and milk five times in two days.

• On September 30, Lee and Gail Reinford of Montgomery County, also on their second year of intensive grazing are hosting the pasture walk. Seventy cows have 35 acres available to graze. Crops grazed include orchardgrass and clovers, bluegrass and ryegrass clover mixtures, and alfalfa. The herds ration includes TMR forage supplementation (normal pasture growth supplies 2/3 of forage) and water is available in several locations.

• On October 28, Will Comley of Berks County will host the October walk. Comley is on his second year of grazing with 125 milking cows and 100 replacements. A total of 60 acres of permanent pasture is available with an addition 80 acres of converted cropland added this year. Single-strand high tensile fencing divides daily paddocks and alleyways. Water is supplied by black plastic pipe in alleyways to portable water tank. The herd ration includes TMR forage supplementation

(Turn to Page A31)



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