



Herald Journal

Purdue spotlight to shine on Fleck farm

White County farm to be featured at Purdue field day.

REYNOLDS - Several years ago White County farmer Dirk Fleck decided to try something a little different in the way his two side-by-side fields drained into a nearby ditch.

Both fields have similar drain tile configurations, but he wanted to try controlling the amount of water and nutrients that flowed out of one field while leaving the other field the same.

"I've got two fields that set side-by-side, and both are tiled about the same, but one has controlled drainage while the other does not," said Fleck.

"We went into one and put in a drainage control system that allows us to restrict the flow out of the tile and into the ditch." That was at least three crops ago, and next month Fleck's controlled experiment will be featured during a Purdue University Field Day.

The purpose of the experiment, Fleck said, is to see if during non-production months whether he can hold moisture in the fields longer, and at the same time hold nutrients from fertilizers, in particular nitrates, from flowing into the ditch and subsequently into streams and rivers.

For productive summer months, once he has the crops in and growing, he is hoping to restrict the outlet to hold water in reserve for drier months during the season.

"We have to run it (experiment) for several years to see if there is a benefit," Fleck said.

"Purdue comes out and gathers all the data, and we just treat both fields the same as far as crops, amount of fertilizer, etc."

Purdue University Cooperative Extension Service soil and water engineering specialist Jane Frankenberger, the concept of drainage water management is relatively new and could reduce negative water quality effects of drainage like nutrient runoff Fleck is trying to control.

Controlling drainage can also be good for crop yields Frankenberger said.

"If you've ever seen a tile line running in June and wished that you had a way to save some of that water for July and August, then this field day is for you," said Frankenberger. "Good drainage is vital to crop production, and much of Indiana's best cropland depends on tile drainage for high yields."

The free field day, is scheduled for Sept. 2 from 2 p.m. to 4:30 p.m. and is designed to demonstrate the impact of drainage water management systems on crop yields, water quality and soil quality. Frankenberger encourages farmers, farm advisers and contractors to come learn more about the technique, in which a water control structure like Fleck's is used to manage the drainage outlet.

She explained further that the water table must rise above the outlet depth for drainage to occur. By limiting drainage during the summer and after harvest, the device may help crops use more of the water and limit delivery of nitrate to ditches and streams.

It may be lowered in early spring and in the fall to allow drainage before field operations such as planting or harvest.

At the Fleck farm visitors will learn how to raise and lower boards, measure water levels, use a satellite communication system and plan the location of an outlet.

Also during the day Leonard Binstock, executive director of Agricultural Drainage Management Coalition, will explain the motivation and rationale behind implementing the technology.

Eileen Kladvko, Purdue soil physicist, will discuss how the technology affects earthworm populations and soil quality, as well as the amount of water and nitrates flowing from the tile.

Purdue Extension agricultural economist Jess Lowenberg-DeBoer will discuss the effect drainage water management has on yields, presenting data collected with GPS-enabled yield monitors over a span of three years.

Costs associated with implementing and maintaining the practice will also be presented by Binstock. Mike Cox, Natural Resources Conservation Service state conservation engineer, will discuss cost sharing and other assistance available from the NRCS.

The field day will also include a short discussion about finding a qualified contractor to design, construct and install it.

The Dirk Fleck Farm is located in Reynolds at 1268 N. 100 W.

For more information, contact Greg Bossaer at 219-984-5115, gbossaer@purdue.edu, or Frankenberger at 765-494-1194, frankenb@purdue.edu.

Purdue Extension and the Agricultural Drainage Water Management Coalition sponsor the Drainage Water Management

Field Day.

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