

Drainage Workshop To Be Held Feb. 16-18 In Chillicothe

COLUMBIA, MO.

With soaring land prices, subsurface drainage might be a good option for farmers who want to raise yields while also decreasing the effects of sediment and nutrients on nearby streams and lakes.

A University of Missouri Extension workshop, Feb. 16-18 in Chillicothe, will provide a crash course for farmers and contractors on designing and installing subsurface agricultural drainage systems.

Because of high land prices, more farmers are looking at improving their existing land as an alternative to finding more land to cash rent or buy, said Kelly Nelson, an MU Extension research agronomist. "This workshop provides a hands-on opportunity to go through the process of surveying, working with the soil type they have to estimate optimal drain tile spacing and sizing of pipes."

While subirrigation and/or drainage systems can cost \$500-\$1,200 per acre, when properly installed they can boost corn and soybean yields by 20 to 40 percent, according to Nelson.

"Yield monitors on the combines have shown us how much of an impact poor drainage has on our crop performance," he said. "I've been inundated with calls this fall about subsurface drainage, and we've seen contractors as busy as can be."

A new system can mean planting and harvesting earlier. The systems also decrease soil compaction and increase fertilizer efficiency, especially in wet years.

"With integrated water-management systems you have built in slides that work to reduce nitrate loss in the winter and then lower the water level as we move into spring to plant, and once the crop is established can conserve water," Nelson said. "When it comes to crop production, environmental stewardship and water conservation, a lot of our farmers are looking at these systems and we just want to make sure they are designed right when they are making that investment."

MU researchers have been collecting subirri-

gation data on one research plot since 2001, looking at tile spacing, yields and soil porosity. With the help of the Environmental Protection Agency and the Missouri Department of Natural Resources, water-monitoring equipment was installed at the MU Drainage and Subirrigation (MUDS) site at the Greenley Research Center in Novelty, Mo. "Water quality can really improve," Nelson said. "Other states show up to 75 percent reductions of nitrate loading of surface water streams through managed drainage."

This year will be the fourth year since 2006 that this workshop has been offered. Speakers include farmers, contractors, and scientists and engineers from MU, Iowa State University and the USDA Natural Resources Conservation Service.

By the end of the workshop, contractors and farmers will be able to return home and put their knowledge to use, Nelson said. "There are a lot of right ways to design a correct system but there are also wrong ways. Often it is just about finding the most cost-effective way for each farmer."

The Greenley Research Center is part of the Missouri Agricultural Experiment Station. It develops projects to evaluate efficient, profitable crop production in northern Missouri while emphasizing soil conservation, water quality and energy efficiency.

This workshop is cosponsored by MU Extension, the USDA Natural Resources Conservation Service, the Missouri Department of Natural Resources through funding from Section 319 of the Clean Water Act, and the Missouri chapter of the Land Improvement Contractors of America.

Those interested can enroll in the workshop for \$30 before the Feb. 9 deadline. There is no on-site registration and capacity is limited to the first 50 people.

For more information on MU subirrigation research, go to www.aes.missouri.edu/greenley/research/muds.stm. To sign up for the workshop, call 573-634-3001 or see www.mlica.org. Δ



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