

Resistant Weeds Research Among Rice Field Day Topics

STUTT GART. ARK.

Weed control to prevent or manage herbicide resistance in rice and soybeans, which is a growing problem for Arkansas farmers, will be one of the topics at the annual Rice Research and Extension Center field day Aug. 12.

The University of Arkansas System Division of Agriculture center is nine miles east of Stuttgart on Hwy. 130.

Division of Agriculture weed scientists Bob Scott and Jason Norsworthy will lead a one-hour tour of research plots where herbicide treatments are being studied. The weed research tour will depart at 8 a.m. and 9:30 a.m.

Three other tours will focus on:

- rice varieties with departures at 8 a.m., 9 a.m. and 10 a.m.;
- rice and soybean fertility, diseases and insects with departures at 8 a.m., 8:30 a.m., 9 a.m. and 9:30 a.m.; and
- rice quality, tillage and the economics of irrigation at 8 a.m. and 9:30 a.m.

An indoor program and a complimentary catfish lunch will follow the tours. Speakers will include Milo Shult, the U of A System's vice president for agriculture, and Chris Deren, RREC director, who will report on the progress of construction of new office and research facilities.

Brief updates will be given by chairmen of the rice, soybean, wheat and corn/grain sorghum research and promotion boards, which are funded by farmer check-off payments, and Dave Gealy of the USDA-ARS Dale Bumpers National Rice Research Center.

On the weed tour, Norsworthy and Scott will

discuss tests of new herbicides, strategies to prevent herbicide resistance and practices for managing fields with resistant weed populations.

"Resistance is the number one issue we are facing in rice weed control," Norsworthy said.

The herbicide-resistant population of barnyardgrass, which is the most troublesome weed in rice fields, is growing rapidly, Norsworthy said, based on his screening of samples of weeds that survive herbicide treatments in farmers' fields.

"About 50 percent of the samples of barnyardgrass herbicide failures I have screened over the past three years have been propanil resistant," Norsworthy said.

Propanil is in one of five basic herbicide chemistries for rice that include various herbicide brand names. Herbicide resistance in Arkansas has been confirmed in four of the five chemistries, Norsworthy said.

"We are quickly running out of modes of action. We need new chemistries," said Norsworthy, who is an associate professor of crop, soil and environmental sciences based in Fayetteville. Scott is a professor of crop, soil and environmental sciences based at the extension field research center at Lonoke.

Keys to preventing herbicide resistance include use of different herbicide chemistries and proper application to ensure complete control in a field, Norsworthy said. One healthy barnyard grass plant can produce 100,000 seeds, so just a few plants in a field can create a large soil bank of resistant weed seed, he said.

A field day program is online at <http://riceresearchcenter.com> . Δ



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