Pennycress could become a viable biodiesel feedstock

By JOSH FLINT

A H, the alternative biofuels crop field day. One of the few places where one can find farm trucks parked among Priuses.

Such was the case at Western Illinois University’s pennycress field day in early May. Unlike other alternative crops, it looks like pennycress could have a real chance of catching on in Illinois, at least in the southern parts of the state.

To date, pennycress has been a winter annual weed that must be burned down prior to spring planting. WIU’s Winthrop Phippen says the plant’s timing gives it an advantage over other alternative biofuels in that it can be double cropped with soybeans, much like winter wheat. Thus, it does not displace a conventional crop, which cannot be said for miscanthus or switchgrass.

The crop is typically harvested near the end of May and beginning of June. Pennycress seeds are crushed for their oil, which can easily be converted into biodiesel or renewable jet fuel. For more on the crop’s production methods and end-use possibilities, check out Page 34.

BIG FINDING: WIU professor Winthrop Phippen is in charge of the pennycress breeding and evaluation program. One significant finding thus far: Pennycress does not harm yield or grain quality for the subsequent soybean crop. In fact, Phippen saw a 3-bushel advantage in soybeans following pennycress.

UNIQUE PROGRAM: A mixed group of about 30 turned out for Western Illinois University’s pennycress field day. WIU’s Winthrop Phippen says this is the only pennycress breeding program in the United States.

CONCERNED CITIZEN: Dan Genty, a retired police officer from Dahinda, inspects a pennycress plant. As a citizen concerned about U.S. fuel security, Genty says pennycress could represent a big step forward in biodiesel production.

HARVEST TIMING: Timing the harvest of pennycress is crucial. Too late and it will shatter. Without a good way to dry the tiny seeds, too early can also pose problems.

WEED TO CROP: George Kegode (left) is an alternative crop systems specialist with Northwest Missouri State University. Trained as a weed scientist, he’s excited about the prospect of changing pennycress from weed to crop status. Here, he discusses Western Illinois University’s trials with Winthrop Phippen, who oversees the pennycress breeding trials in Macomb.