

Communities Seek To Evict An Unruly Neighbor: Pigweed

PIGGOTT, ARK.

In 1993, the University of Arkansas Cooperative Extension Service, the City of Texarkana and Miller County residents formed a unified front against a foe that had become a public health nuisance: red imported fire ants.

The idea behind community abatement was simple: if everyone contributed a little, a city-wide effort could drive the ants from residential areas. By 1998, participating residents reported few or no fire ant problems.

Fast-forward to 2011 and community abatement has another pest in its sights. Clay County farmers are taking a community approach to combat herbicide-resistant pigweed. Unlike the Miller County program, growers are working without municipal support.

"They're all working together and trying to encourage each other to get on board," said Andy Vangilder, Clay County extension staff chair based in Piggott. "For years, we've had community integrated pest management programs for insects. This is a good example of a community IPM for pigweed."

Pigweed is a difficult foe for many reasons. It quickly developed a fierce resistance to glyphosate, the weed can produce millions of seeds per acre, and it grows easily and everywhere. It's tough, too – after reaching a certain maturity level, chemical control is impossible, prompting farmers to resort to an old weapon: hand-hoeing.

Weed scientists with the University of Arkansas Division of Agriculture are taking a zero-tolerance approach to controlling resistant pigweed. Farmers should start with a clean field; apply pre-plant and pre-emerge herbicides and manage soil seed banks. The goal is to stop seed formation before it starts.

This means that growers must not only keep their crop rows weed-free, but also marginal areas such as ditches and turnrows.

As more producers in the county see the results, "you hear other producers saying, 'I guess I'd better get on the ball,'" Vangilder said, adding, "It's nice to see all the real clean turnrows."

Mike Morgan, who farms cotton near Holly Island, said: "it's a community effort. Neighbors are working together," he said. "When you have one that doesn't, it's disheartening. You work and spend money and right next door to you, it's solid pigweed."

Pigweed is "unreal tough," Morgan said. "They'll grow in a gravel road. They'll grow in concrete if you let them."

Morgan said he's hoping that the intense effort being conducted by the county's growers will result in seeing the pigweeds get "thinner and thinner," he said. "I think there will always be a fight, but this can get easier and less costly."

Morgan said "when you see what happens when pigweed can get away, it's nothing to spend \$100 per acre to clean up when they're out of control."

This effort began back in 2009, when

Vangilder and Ken Smith, extension weed scientist for the University of Arkansas Division of Agriculture, gathered eight or nine local agribusiness people in a room to discuss the pigweed tidal wave they saw coming.

"We had these competitors in a meeting room and said, 'this is fixing to hit us and we want to be ahead of it'," Vangilder said. "They came out



Pigweed forms a roughly circular patch that crosses rows in this Clay County cotton field. The darker colored plants front left, are horseweed.

University of Arkansas Division of Agriculture photo by Andy Vangilder.

of that meeting saying, 'give us the information on what you recommend and when our growers come in, we'll be ready.'"

When other suppliers ran out of needed herbicides, "our guys still had them because we were ready for it," he said. "It helped us to get a head start on it."

That's the same year growers really took notice of the resistant pigweed.

"We started noticing the resistant pigweed in the turnrows and ditches" places where growers used glyphosate to control weeds and grasses," said Greg Engle. Now, producers have crews "chop ditches and turnrows and sides of the field and we even chopped up along the gravel road edges and on the other side of the ditches."

Engle said that Gramoxone, Ignite and a residual herbicide have proven effective in the marginal areas.

The intense effort is one of survival. Some fields are so bad producers won't be able to harvest much. In severe cases, farmers will just disk up the field – having invested hundreds of dollars an acre for zero return.

"You could lose your farm," Engle said.

Vangilder is shoulder-to-shoulder with the growers.

"The commitment the growers have is rewarding to see," Vangilder said. "They want to beat this weed and they know it's not going to happen in a year's time."

A fact sheet "Prevention and control of glyphosate-resistant pigweed in soybean and cotton," FSA2152, is available online at: www.uaex.edu/Other_Areas/publications/PDF/FSA-2152.pdf.

To learn more about Texarkana's successful community abatement program, visit www.ara-griculture.org/insects/fireants/abatement/texarkana.htm.

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