’The perfect weed’: An old botanical nemesis refuses to be rounded up

By Tom Charlier (Contact), Memphis Commercial Appeal
Sunday, August 9, 2009

HUGHES, Ark. -- At the seasoned age of 54, Willie Cutler figured he'd never be doing this again swinging a hoe to cut weeds in a field of waist-high cotton.

But one recent morning, as the sun crept above the treetops and mosquitoes and dragonflies hovered in the sticky air, there he was, with a dozen or so other laborers, chopping cotton just as he'd last done some 40 years ago.

"You've got to do something to get some money," said Cutler, a Hughes native who also drives trucks and farm equipment.

Chopping cotton, a chore and tradition recalling the days of the preindustrial South, is making a comeback this year for reasons that have nothing to do with nostalgia and everything to do with limits of technology.

Curtis Burgess, 16, works with a chopping crew in fields outside Hughes, Ark., using hoes to ric pigweed before 8 a.m. and before the sun becomes unbearable. The stubborn pigweed has been resistant to Roundup herbicide and must be attacked by hand and hoe.

All across the Mid-South, hundreds of thousands of acres of cotton and soybean fields have been infested with a rapacious, fast-growing weed that's become resistant to the main herbicide on which farmers have relied for more than a decade.

Palmer pigweed, often called "careless weed" by field hands, often is surviving and even thriving despite treatments with the chemical glyphosate -- most commonly sold under the trade name Roundup.

In Arkansas alone, the weed has invaded some 750,000 acres of crops, including half the 250,000 acres of cotton. In Tennessee, nearly 500,000 acres have some degree of infestation, with the counties bordering the Mississippi River hardest hit.

The infestation is cutting farmers’ cotton yields by up to one-third and in some cases doubling or tripling their weed-control costs.

Reminiscent of the premechanized, preherbicide days when cotton was a labor-intensive opera- growers have resorted to hiring chopping crews. They're made up of laborers who generally are about $7.50 an hour to manually cut the weeds.

"We haven't chopped cotton in a long time, so it's kind of a first," said Lee Wiener, who farms in Crittenden and Mississippi counties.

Beyond the novelty of requiring manual labor, the resistance problem will force growers to make wrenching and costly changes if they want to stay in business in the coming years, agriculture experts say.

Glyphosate is the most widely used herbicide in the U.S., with some 100 million pounds annual applied to crops and lawns.

It's so prevalent that cotton, soybeans and other plants have been genetically engineered to withstand it, allowing farmers to spray the chemical quickly and easily to kill weeds without worrying about harming crops.
"I think this threatens our way of farming more than anything I've seen in the 30-plus years I've worked in agriculture," said Ken Smith, weed scientist with the University of Arkansas' division of agriculture.

In fact, some officials draw parallels between the pigweed resistance problem and the effects of boll weevil infestation of cotton fields in the early 20th century.

What makes the weed such a formidable threat is its rapid growth rate -- more than an inch per week -- and the proliferation that results from a single plant producing 50,000-100,000 seeds.

Rising up to 10 feet tall, with stalks as thick as baseball bats, the plant also can wreck any mechanical cotton-pickers sent into heavily infested fields. Since it outcompetes cotton for water and other resources, infestation easily can cut yields by 300 pounds per acre.

"If you wanted to draw up the perfect weed, this is it," said Larry Steckel, extension weed specialist with the University of Tennessee Extension Service.

Officials with Monsanto Co., maker of Roundup, acknowledge the resistance problem. They say it resulted from over-reliance on that one product since it became the herbicide of choice in the 1980s. The resistance has intensified as weed strains that survive the spraying reproduce.

"As you continue to use just that one single herbicide, you wind up selecting weeds that are more tolerant. And as you do that year after year, you increase those populations until you have resistance problem we've got," said Rick Cole, a Monsanto technology development manager specializing in weed resistance.

Monsanto has been advising farmers to add other chemicals, especially pre-emergents and "residual" herbicides, which form a chemical barrier in the soil, to their weed-fighting regimens.

Monsanto also has begun a test program that pays farmers up to $12 an acre to treat crops with other chemicals, including those made by competitors, Cole said.

Steckel and many growers say if Roundup was overused it was because the chemical was so easy to apply and so widely effective.

"Roundup was a victim of its own success," Steckel said. "It was the perfect herbicide -- it controlled weeds regardless of timing, with no crop injury."

Steckel said he and other experts were "blindsided" by how quickly the resistance problem began this year.

"It got a pretty good foothold last year in some fields, and this year it blew up into many fields," Steckel said.

The changes wrought by the resistance problem can be seen in places such as Looney's Implement Co. in Hughes, which sells tractors, combines and pickers that can cost $300,000 or more.

This year one of the hottest items in the store has been the $25 garden hoe.

"We sell them as quick as we can get them," said clerk Don Arnold.
The tools are being used by the growing ranks of choppers. Some growers have hired as many 40 to 60 of the laborers. But even during a recession in which jobs have been scarce, it hasn't been easy finding enough workers, they say.

"We're paying comfortably above the minimum wage, and still we have problems getting people," said Larry McClendon, a Marianna, Ark., farmer.

He and others say the best workers often are the older residents who chopped cotton in their youth.

"You can tell the old hands -- they can go out there and work eight to 10 hours and never miss a beat," McClendon said.

Chopping cotton in a field outside Hughes, 40-year-old Arthur Powell said the work is good experience for younger people. His 14-year-old son, Freddrick, however, disagreed.

"No, it ain't," he said, his clothes soaked with sweat.

The crew of which the Powells are a part works from 6 a.m. to 2 p.m. to avoid the day's worst heat. But by 8:30 a.m., the sun already is beating down with a vengeance, forcing an occasional water break.

"We do what we can," Arthur Powell said.

As they turn to manual labor for this year's crop, farmers are wondering whether new herbicide strategies will work in the coming years.

Some, however, are fatalistic about the prospects of chemicals ever controlling weeds for any extended period of time.

"Mother Nature's going to win," said Wiener, the grower who farms in Crittenden and Mississippi counties. "There's going to be another (weed) down the road."

-- Tom Charlier: 529-2572

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Posted by **Turquoise** on August 9, 2009 at 4:52 a.m.

"We're paying comfortably above the minimum wage, and still we have problems getting people to come. Larry McClendon, a Marianna, Ark., farmer."

"They're made up of laborers who generally are paid about $7.50 an hour to manually cut the weeds."

The federal minimum wage became $7.25 per hour effective July 24, 2009. That "comfortably above the minimum wage"...adds up to a whopping $2 a day/$10 a week.

Wow...things never change do they?

Posted by **nickadams** on August 9, 2009 at 6:51 a.m.

in response to **Turquoise**

There is a reason someone is paid minimum wage- they are unskilled labor. Minimum wage is law so stop acting like farmers are committing a crime by paying it. It's a free market economy. Workers want and deserve more, they are free to go out and find it

Posted by **vwbug** on August 9, 2009 at 7:49 a.m.

in response to **nickadams**

Well said!

Posted by **usesomesence** on August 9, 2009 at 8:38 a.m.

in response to **Turquoise**

we are paying $8.50 per hour, come on up and get you some of it. You would not last 2 hours..

Posted by **seesha** on August 9, 2009 at 8:55 a.m.

in response to **Turquoise**

It is probably you and your friends that complain prices are too high....... What an idiot. Go take a class on economics!
Post by Lucky on August 9, 2009 at 9:02 a.m.
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in response to nickadams

Well put Nick. If more folks would just figure that out maybe we wouldn't be on the verge of losing our free market economy in favor of marxism.

Post by tonyjack on August 9, 2009 at 9:18 a.m.
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$7.50, $8.50 per hour...I remember when all you got for picking cotton was $3.00 per hundred I back in the early '60's. But, it was either that or nothing. The reason why employers can't get workers because able bodied people can just sit on the couch, get food stamps, subsidized housing, and listen to Obama talk about spreading the wealth around. All this started with LBJ and his "war on poverty" and the country has been in debt ever since.

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