

I WILL SCOUT MY FIELDS.

I will walk my rows, and I will stand my ground. I will take action against herbicide-resistant weeds.

I will scout my fields and field borders, ditches and waterways. I will scout them early and often.

I'll be here when weeds emerge. And I'll be back after I spray.

I will track down escapees and late emergers. I will take action before weeds take over.

Now is the time to take action against herbicide-resistant weeds. Visit [www.TakeActionOnWeeds.com](http://www.TakeActionOnWeeds.com) to learn how you can prevent herbicide-resistant weeds from spreading.



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# The Big Three Ohio's Major Threats



## HORSEWEED



**Name:** *Conyza canadensis*  
**AKA:** Marestalk, Canada Fleabane  
**Growth:** Emerges from late March through June and from late summer through late fall

### THREATS:

- Up to 200,000 seeds per weed
- Approximately 80 percent of seeds will germinate right off the plant
- Windblown seeds disperse easily across great distances

### WEAKNESSES:

- Doesn't tolerate soil disturbance, such as deep tillage
- Doesn't tolerate shading from crop canopy

## GIANT RAGWEED



**Name:** *Ambrosia trifida*  
**AKA:** Horseweed  
**Growth:** Emerges from up to 5 inches deep in soil

### THREATS:

- Very competitive with Midwest crops
- Herbicide-resistance traits can transfer by pollen

### WEAKNESSES:

- Seed does not persist if lying on soil surface (long-term no-till)

## PALMER AMARANTH



**Name:** *Amaranthus palmeri*  
**AKA:** Palmer Pigweed  
**Growth:** Up to 2.5 inches per day; rapid growth in all stages makes control with postemergence herbicides exceedingly difficult

### THREATS:

- Extremely competitive
- High reproductive capacity; up to 1,000,000 seeds per plant
- Herbicide-resistance traits can transfer by pollen
- Extended germination period

### WEAKNESSES:

- Does not emerge from deep soil depths
- Relatively short-lived in the soil seed bank (four to five years)

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## The Big Three: Ohio's Major Threats



### 1. What should Ohio farmers be doing to manage herbicide-resistant weeds?

There is not one thing that will solve the issue. Farmers need a diverse approach that not only takes into account the type of herbicide resistance but also the weed's biology. The herbicide programs we're using to control Palmer, giant ragweed or marestail have to be relatively aggressive.



Mark Loux, Ph.D. | extension weed specialist, Ohio State University

### 2. When should farmers scout?

Ideally, you're doing an assessment before each time you apply a herbicide so you can modify your herbicide program if you need to. After your postemergence application, you're doing some kind of scouting in time to make a second application, if needed. After the second application, you can almost skip to a harvest scouting when you're riding a combine. The exception is we're trying to prevent Palmer amaranth issues in the Midwest still. With Palmer amaranth, you need to scout in early to mid August when you still have time to pull those plants out before they start producing seeds.



Pictured is herbicide-resistant Palmer amaranth. Herbicide-resistance can be spread by harvest equipment, so it's important to clean equipment between each field.

### 3. Is it too late for farmers to get started on a prevention plan?

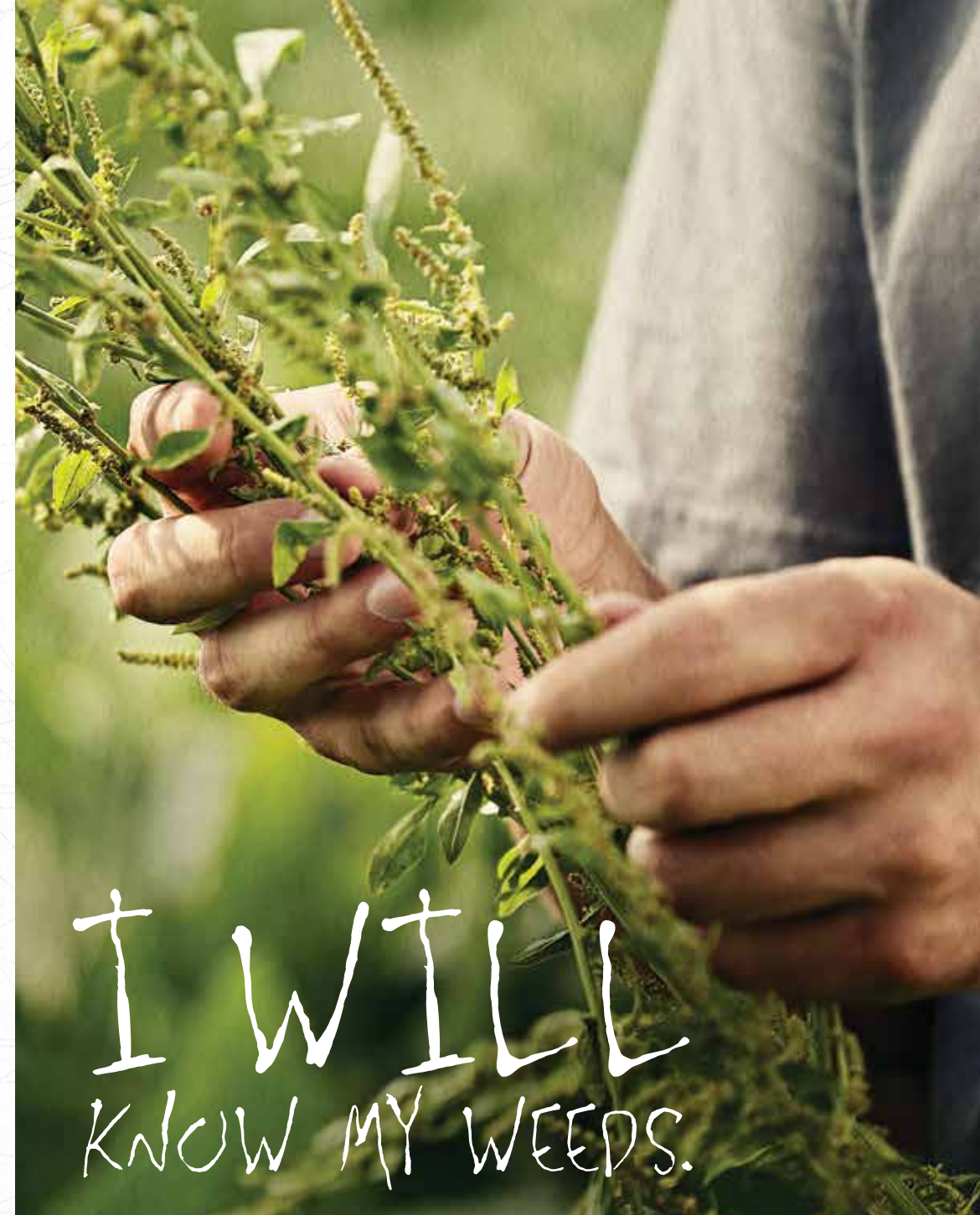
The short answer is, 'no, it's not too late.' We still have people who are adapting. The emergence of marestail drove everyone to adapt their program. If you don't have resistance issues, and you're using the simplistic approach and looking around saying, 'I better start doing something else because everyone else has resistant weeds besides me,' then it's not too late. Even in the spring, it's not too late.

For more information and links to additional resources, visit [www.TakeActionOnWeeds.com](http://www.TakeActionOnWeeds.com).

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I will take action against herbicide-resistant weeds.

I will know my weeds. When they grow, when they pollinate, and I will stop them before they go to seed.

I will know their strengths, and I will exploit their weaknesses.

Troublesome weeds won't go down without a fight. Neither will I. Because it's worth the trouble.

Now is the time to take action against herbicide-resistant weeds. Visit [www.TakeActionOnWeeds.com](http://www.TakeActionOnWeeds.com) to learn about the most troublesome weeds.



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