



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 to learn how you can prevent herbicide-resistant weeds from spreading.



Brought to you by the soy checkoff.

The Big Three North Carolina's Major Threats



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)

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

COMMON RAGWEED



Name: *Ambrosia artemisiifolia*
Growth: Emerges from up to 5 inches deep in soil

THREATS:

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

WEAKNESSES:

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

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1. What do North Carolina soybean farmers need to know about herbicide resistance?

"There are some herbicides that farmers shouldn't use because of the diverse soil types we have in North Carolina. Some of our soils are sandy, and then some can be mucky. They can change within 100 yards from one to another, and if farmers don't know how to manage that right, there's a greater chance of killing the soybeans. Farmers have to be very careful where they put their herbicides and how they manage them in order to be effective."



Wesley Everman, Ph.D. |
extension weed specialist,
North Carolina State University

2. What practices do you recommend farmers implement on their fields?

"I recommend that soybean farmers overlap herbicides, specifically residual herbicides, so that their soybeans are continuously protected. The one-drop herbicide technique doesn't work anymore. They need to be vigilant about getting out in their fields and covering their crops."



3. Why should farmers care about managing herbicide resistance?

"Even though it looks like more money upfront, when you put the pencil to paper on adding residual herbicides at planting, it only takes hand-weeding a few hundred-acre fields to realize the real savings that are there. If they don't go out and hand-pull those weeds, that seed bank just continues to grow."

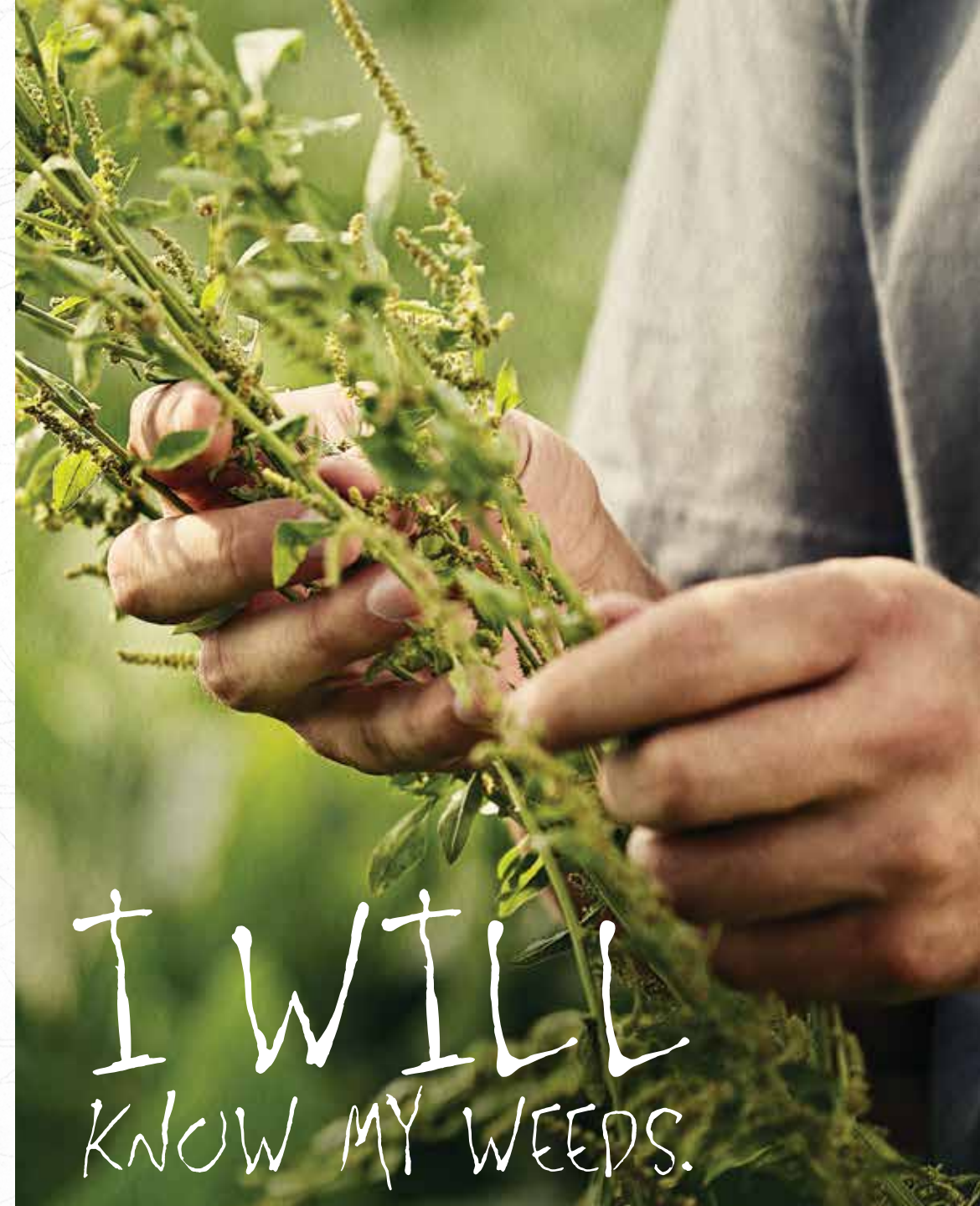
Pictured is Palmer amaranth growing in a soybean field. A female Palmer amaranth is an extremely competitive weed and can produce up to 1,000,000 seeds per plant.

For more information and links to additional resources, visit www.TakeActionOnWeeds.com.

Technical editing for this insert was led by Wesley Everman, Ph.D., North Carolina State University, in partnership with other universities in the soybean-growing regions of the United States.

Developed with funding from the soy checkoff.

Take Action is supported by BASF; Bayer; DuPont; Dow; Monsanto; Syngenta; and corn, cotton, sorghum, soy and wheat organizations. The United Soybean Board neither recommends nor discourages the implementation of any advice contained herein, and is not liable for the use or misuse of the information provided. ©2014 United Soybean Board.



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 to learn about the most troublesome weeds.



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