HERBICIDE RESISTANCE IS NO LONGER JUST A REGIONAL ISSUE. IT’S A NATIONAL THREAT.

Though herbicide resistance has been an issue in parts of North America for many years, it’s growing in severity. Farmers have become accustomed to a very efficient and simple weed management strategy – using a herbicide-resistant trait with the associated herbicide – but managing existing herbicide-resistant weeds or working to prevent the development of new ones requires farmers to consider more complex weed-management strategies. The occurrence of resistance on a farm can increase rapidly and proper identification and confirmation of resistance is imperative to timely mitigation.
What does resistance look like?

Three indicators of possible herbicide resistance:

1. A herbicide’s failure to control a weed species normally susceptible to the herbicide at the dose applied, especially if control is achieved on adjacent weeds.

2. A spreading patch of non-controlled plants of a particular weed species.

3. Surviving plants mixed with controlled individuals of the same or different species.
What causes herbicide failure?

9 out of 10 herbicide failures are due to factors other than resistance.

- **Herbicide-application factors:** inappropriate dose or timing, faulty spraying, herbicide antagonism among tank-mix partners, pH of spray solution, improper calibration, improper boom height, poor coverage
- **Climate conditions:** rainfall patterns, temperature, enhanced microbial degradation, too dry, too wet
- **Time of Day:** influences spray coverage
- **Shading:** one plant shading another from herbicide application
- **Weed factors:** size of weeds, subsequent germination, very high infestation level, weeds under stress
- **Soil conditions:** soil moisture, seedbed quality, absorption

Field Identification and Control of Suspected Herbicide-Resistant Weeds

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How does herbicide resistance occur?

**PAST**
Weeds effectively controlled

**PRESENT**
Repeated use of the same herbicide without the use of other herbicides or other methods of weed control

**FUTURE**
Failed weed control

What should be done now if herbicide resistance is suggested?

- Scout soon after the initial treatment, and re-treat, if necessary, using a herbicide with a different site of action or a different weed-management practice.

- Contact your dealer, applicator, extension agent or others for guidance.

- If weeds are too large, the second application may not be effective. Consider cultivation and hand weeding. Consider destroying the infested area if resistance is extremely isolated.

- Follow-up during and after harvest. Rotate herbicides and crop next season.