

Mind the Label



Herbicide resistance is the inherited ability of a weed to survive a rate of herbicide which would normally give effective control. With a better understanding of herbicide resistance, you can implement a series of practices to proactively manage weed populations and avoid its onset.

IMPLEMENT

DIVERSIFY

MANAGE

Herbicide performance is impacted by many factors including correct application timing; the use of full labeled rates; proper use of adjuvants and effective spray application. But what if you've done everything right, and weeds are still taking over your fields?

This lack of control might mean that you are facing a herbicide resistance issue.

Implement best practices to prevent weed resistance

You may think you are saving product and cutting costs by using low rates when applying herbicides, but reduced rates allow some weeds to survive, build up resistance and ultimately increase the population of resistant weeds. Cutting rates may eventually increase your management time and overall costs.

Help prolong the effectiveness of available herbicides and delay the onset of resistance in your fields by changing herbicide modes of action often and using full labeled rates. Even injured low-level resistant weeds still have the ability to reproduce, which can allow resistant weed populations to spread rapidly.



Weeds can be exposed to "low rates" due to:

- Spraying plants larger than those recommended on the label
- Inadequate coverage of weeds because of size, density and/or crop cover
- Inaccurate sprayer calibration, faulty or ineffective equipment, or mixing errors
- Intended use of low rates

[According to the Weed Science Society of America]

DEFINITION

Full Labeled Rate is a rate, or range of rates, set by herbicide manufacturers to consistently provide effective control of weed species across growth stages and site conditions.

- ▶ When applying herbicides to your fields, ensure good spray coverage of target weeds for complete control.

Full herbicide rates eliminate weed biotypes with a low level of natural resistance. Be sure to change herbicide modes of action often, always using full labeled rates, to:

Help prolong the effectiveness of available herbicides

Delay the onset of resistance in your fields

Eliminate weed biotypes with a low level of natural resistance

Wild Oat



Kochia



Japanese Brome



“Using full rates is important as some of the early stages of resistance will survive half rates of the chemicals. If you allow the plants treated with half rates to produce seeds, those seeds will carry some of the resistant traits. By keeping the rate of the chemical up to its fully labeled capacity we are putting the best foot forward to fight resistance.”

— Kirk Howatt
Weed Scientist, North Dakota State University

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