



Strategies for Common Ragweed...

While many growers are usually in an effective 'herbicide desert' when the topic of conversation is how to kill tough-to-control broadleaf weeds in sugarbeet, the control of common ragweed (including glyphosate-resistant biotypes) is a unique exception.

Common ragweed is a summer annual broadleaf weed that excels in dry environments or in coarse-textured soils. This is mainly due to its fibrous root system which is very efficient at mining available water allowing the plant to flourish, especially in an open canopy environment. Common ragweed

seeds germinate and emerge in late spring and on into early summer, but quickly return to dormancy when soil temperatures approach 80° F (generally by late June and early July). This particular weed species would rather 'save itself' for another year instead of growing in warm soils.

There was a time when glyphosate provide good to excellent control of common ragweed. However, several counties within the Minn-Dak growing area have biotypes of common ragweed that are documented to be (at the very least) partially resistant to glyphosate. Research studies have shown that only 75 percent control is achieved when Roundup PowerMax applied to these biotypes at 28 to 32 fl oz/A and **75% ragweed control in sugarbeet fields is not good enough!!!**



This common ragweed was pulled from a commercial field after the second application of glyphosate. Take note that the resistant biotypes come in all shapes and sizes. Continuous scouting is critical to ensure that you are utilizing the correct herbicide rates and/or combinations to get effective control.



The good news is Minn-Dak sugarbeet producers have a very effective herbicide to tank-mix with glyphosate - Stinger. The key is to spray common ragweed when it is small. Apply Stinger at 2 fl oz + Roundup PowerMax at 28 fl oz/A when ragweed is 1-inch tall then walk the field in two weeks to determine if a repeat application is necessary to get complete control. The Stinger rate increases from 2 to 3-4 oz/A when ragweed is 2-4 inches tall. Apply PowerMax + Stinger at 28 + 3-4 fl oz/A or PowerMax + Stinger at 28 + 2 fl oz/A plus either ethofumesate at 4 fl oz/A, UpBeet at 0.5 oz/A or Betamix at 12 to 16 fl oz/A (this depends on sugarbeet leaf stage – consult with your Agriculturist). Regardless of the herbicide combination(s), common ragweed control will not be acceptable when the target weeds are greater than 4 inches tall.

Photo: NDSU



NDSU Weed Science **2014 Mayville Location**

PowerMax + Stinger (28 fl oz + 4 fl oz)

Followed By

PowerMax + Stinger (28 fl oz + 4 fl oz)

Followed By

PowerMax (22 fl oz)

Should I Be Worried About Injury From Stinger?



Photo: NDSU

To put it simply - Absolutely Not!!! The picture to the left was taken a few days after an application of Stinger was made to one of the common ragweed experiments at NDSU. It is not uncommon for Stinger to cause the beet leaves to 'curl upward' or 'cup' - especially at higher rates. While this may look a little tough and certainly give a grower cause for alarm, try to keep in mind that this is a temporary symptom that occurs as the beets process the herbicide. Multiple research studies independently conducted at both at NDSU/Univ of Minnesota and Michigan State have shown that this visual effect does not translate into a yield loss.

So Why Has Ragweed Become 'Common' in Recent Years?

- Common ragweed is resistant or at least partially resistant to several important herbicides including:
 - ALS inhibitors (Pursuit, Harmony, etc.)
 - EPSP synthase inhibitors (glyphosate)
- The increase in soybeans and edible beans in our crop rotations
- Common ragweed **seed is viable for 25 to 35 years in soil**
- Dinitroaniline, PPO and chloroacetamide family herbicides provide poor control
- The onset of no-tillage or reduced tillage agriculture

A special thanks to Dr. Tom Peters (NDSU & U of MN Extension Sugarbeet Agronomist and Weed Control Specialist) for his insight and contributions to this month's issue.