



Managing Weeds in Drought Conditions

Weeds may become more difficult to control with postemergence or foliage applied herbicides under drought conditions. Steps can be taken to help improve the performance of Roundup® brand agricultural herbicides under these conditions.

Weeds Under Drought Conditions:

- Can produce thicker leaf cuticles (waxy covering), resulting in less herbicide absorption into the plant.
- Can slow or cease growth, resulting in less translocation of herbicide in the plant.
- Can survive/tolerate due to the combination of less herbicide absorption and translocation of herbicide in plant tissues, resulting in poor weed control.

What can be done to maximize weed control with Roundup® brand agricultural herbicides during dry weather?

- ⇒ Delay applications if possible until moisture conditions improve.
- ⇒ Spray small weeds, which are generally easier to control.
- ⇒ Consider weed age as well as weed height:
 - Weeds under dry conditions will continue to develop new leaves, but may not grow as tall.
- ⇒ Use a higher labeled rate of Roundup agricultural herbicides:
 - Helps to offset the effects of a thicker cuticle as well as treating larger weeds.
 - In general, an additional 6 ounces of Roundup WeatherMAX® or Roundup PowerMAX® herbicide can help combat most of the issues that often cause reduced control under drought-stressed conditions.
- ⇒ Always use the full rate of ammonium sulfate (AMS) at 17 lbs. per 100 gallons:
 - Use of the full rate of AMS can help to ensure that glyphosate is not tied up by positively charged cations in the spray solution.
 - AMS helps to maximize Roundup agricultural herbicide availability for uptake by the target weeds.
- ⇒ Watch for tank mixes that could cause antagonism:
 - Tank mixing Roundup agricultural herbicides with some herbicides can cause antagonism and reduce the effectiveness of both herbicides.
- ⇒ Add 0.25% v/v non-ionic surfactant as allowed per label directions.

Roundup Technology® includes Monsanto's glyphosate-based herbicide technologies. **Individual results may vary**, and performance may vary from location to location and from year to year. This result may not be an indicator of results you may obtain as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible. **ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS.**

Tank mixtures: The applicable labeling for each product must be in the possession of the user at the time of application. Follow applicable use instructions, including application rates, precautions and restrictions of each product used in the tank mixture. Monsanto has not tested all tank mix product formulations for compatibility or performance other than specifically listed by brand name. Always predetermine the compatibility of tank mixtures by mixing small proportional quantities in advance. Roundup PowerMAX and Design®, Roundup Ready PLUS™, Roundup Technology®, Roundup WeatherMAX and Design®, Roundup®, Technology Development by Monsanto and Design®, and Transorb and Design® are trademarks of Monsanto Technology LLC. All other trademarks are the property of their respective owners. ©2011 Monsanto Company.05312011SMK



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