

Using Generic Herbicides

A few tips to keep in mind

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Southeast HR Listening session



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Burke County Cooperative Extension Office

715 West 6th Street, Waynesboro, GA 30830

Southeast HR Listening session

Our goals/outcomes from these sessions include:

- Identification of effective strategies for HRM to avoid additional state and federal (EPA and other agency) regulations on herbicide use and other weed management practices.
- An understanding, from those making weed management decisions in the field, of the barriers and long-term rewards to practicing herbicide resistance management (HRM).
- Establishment of additional incentives needed for HRM so they can be recommended to agencies and industry as well as state and federal policy makers.
- Identification of new innovative approaches for HRM that can be incorporated into best management practice plans.
- Creation of networks among stakeholders to foster better understanding of the differences in perspectives, barriers and possible solutions for managing herbicide resistance. Ultimately, we hope to stimulate your interest in being part of the solution.

HERBICIDE UPDATE



Valor EZ



FOR CONTROL AND/OR SUPPRESSION OF CERTAIN WEEDS IN COTTON, DRY BEANS, FIELD CORN, FIELD PEAS, FLAX, LENTILS, SOYBEAN, SUGARCANE, SUNFLOWER AND SAFFLOWER, SWEET POTATO, WHEAT, FALLOW LAND AND TO MAINTAIN BARE GROUND ON NON-CROP AREAS OF FARMS.

ACTIVE INGREDIENT:

Flumioxazin*	44.0%
OTHER INGREDIENTS:	56.0%
TOTAL:	100.0%



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Active Ingredient	By Wt
Flumioxazin*	51%
Other Ingredients	49%
Total	100%



FOR WEED CONTROL IN SOYBEANS

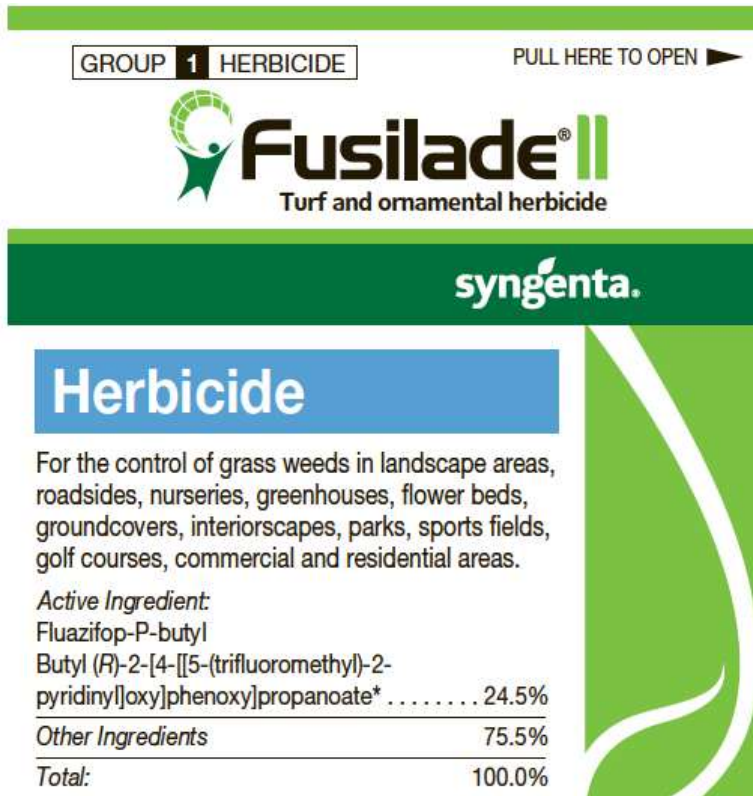
Active Ingredient	By Wt.
¹ Flumioxazin	30.0%
² Chlorimuron ethyl	10.3%
Other Ingredients	59.7%
Total	100.0%



Valor EZ

- Crops the same as Valor SX except for peanut
- Tank mixing order
 1. Water soluble bags
 2. Dry formulations (Valor SX)
 3. Flowables (Valor EZ)
 4. ECs
 5. Solutions
- It is important that Valor EZ goes in the tank before Roundup or Gramoxone
- It is not recommended to leave Valor EZ in the tank overnight.
- If this happens vigorous agitation is needed for resuspension.
- Clean out is the same for EZ and SX.

Changes to Fusilade II



- It can now be applied to residential turfgrass.
- Useful tool to control grassy weeds and suppress bermudagrass in:
 - Zoysiagrass
 - Fine and tall fescues

Generic Herbicides

- Off-patent technology
- Active ingredient is frequently manufactured by a single or few companies
- Generic herbicide companies are commonly formulators
- Rates tend to be the same between generic and traditional brands
- Differences are more frequent in formulation

Generic Suppliers

- Manufacturers
 - Generate their own registration data
 - Synthesize or buy active ingredient
 - Formulating
- Third-party suppliers
 - Rely on registration data from manufacturers
 - Formulating
 - Packing
- Parallel importers
 - Buy packed formulated herbicides and sell them under a different name

Generic Herbicides

- Many studies have confirmed multiple times that in most cases generic herbicides perform as well as the original brand.
- Failures in weed control are more associated with inadequate environmental conditions at the time of application and issues with tank-mixes.

Comparison of Glyphosate Herbicides in Nebraska

Brady F. Kappler, Extension Educator, **Stevan Z. Knezevic**, Associate Professor, **Robert F. Klein**, Professor, **Drew J. Lyon**, Professor, **Alex R. Martin**, Professor, **Fred W. Roeth**, Professor, and **Gail A. Wicks**, Department of Agronomy University of Nebraska, Lincoln 68583-0915

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Kappler, B. F., Knezevic, S. Z., Klein, R. F., Lyon, D. J., Martin, A. R., Roeth, F. W., and Wicks, G. A. 2005. Comparison of glyphosate herbicides in nebraska. Online. Crop Management doi:10.1094/CM-2005-0719-01-RS.

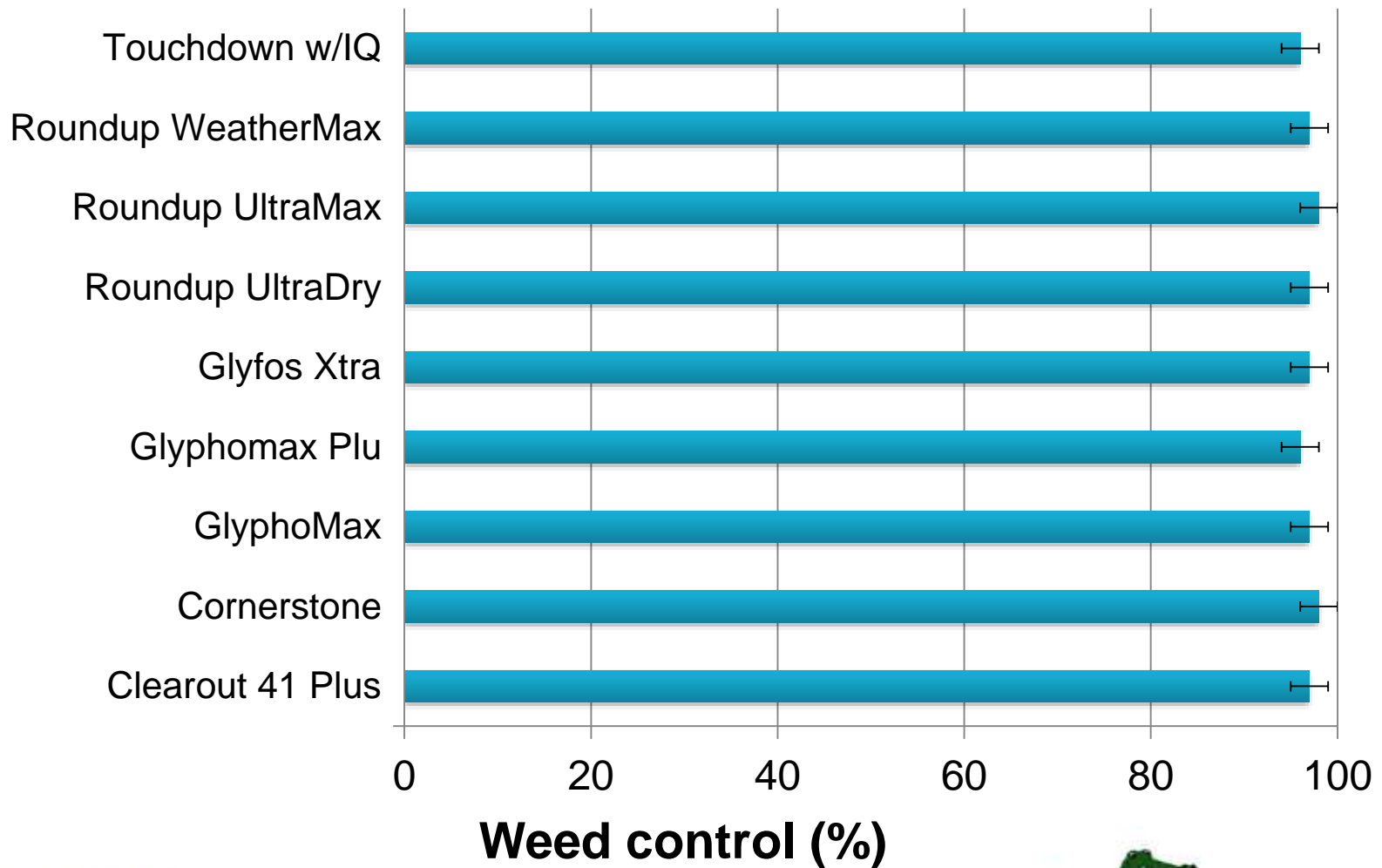


Table 3. List of glyphosate herbicide formulations used at each of the five sites during the 2001, 2002, and 2003 year.

2001	2002	2003
Roundup UltraMAX	Roundup WeatherMAX	Roundup WeatherMAX
Touchdown w/ IQ	Roundup UltraMAX	Touchdown w/ IQ
Cornerstone	Touchdown w/ IQ	Clearout 41 Plus
GlyphoMAX	Clearout 41 Plus	Glyfos Xtra
Roundup Ultra	Glyfos Xtra	
Glyphomax Plus	Roundup UltraDRY	



Weed control over 3 years





Why do herbicides fail?

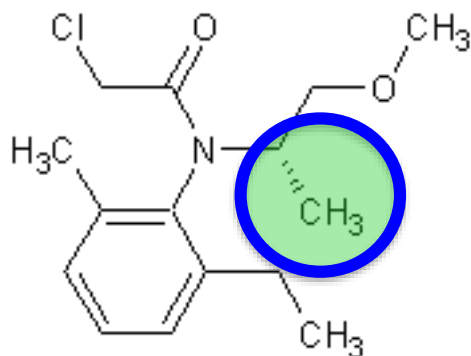
- All herbicides show performance variability
 - A failure one year does not reflect herbicide quality.
- Dry conditions
 - Stressed weeds (poor absorption and translocation)
 - Low soil moisture for PRE herbicide activity
- Application timing (weeds too big!)
- Tank-mix incompatibility

What to keep in mind when buying and using generic herbicides

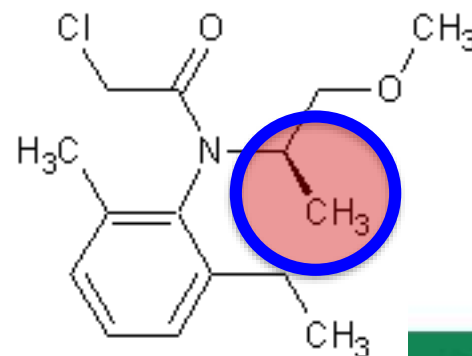
- Confirm active ingredient and concentration
 - Some times differences in molecular structure of active ingredient
 - Variation in active ingredient concentration and label rates

What to keep in mind when buying and using generic herbicides

Metolachlor
isomers

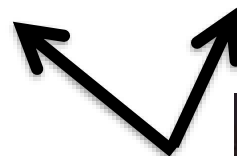


(S)-isomer



(R)-isomer

 **Dual II Magnum[®]**



Stalwart[®]
Herbicide

Me-Too-Lachlor II
Herbicide

Trizmet[™] II
Herbicide

1.33 pt/a
84% ai



What to keep in mind when buying and using generic herbicides

- Supply chain and stock turnover
 - Old product tends to lose physical and chemical integrity potentially reducing efficacy
 - Pay special attention to product characteristics when opening container for the first time
- Interactions with surfactants vary
 - Not all surfactant companies use the same inert ingredients

What to keep in mind when buying and using generic herbicides

- Tank-mix compatibility is not necessarily the same as branded herbicides
 - Inert ingredients play a major role in tank-mix compatibility
 - Just conduct a compatibility test before use
- When trying a generic herbicide for the first time compare side-by-side with branded herbicide

What to keep in mind when buying and using generic herbicides

- Generic herbicides are a good option to balance your weed control budget.
- Identify those generic herbicides with which you feel comfortable and learn how to use them in your herbicide program.