Using Generic Herbicides

A few tips to keep in mind

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WFREC, Jay
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
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%

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

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

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

<table>
<thead>
<tr>
<th>2001</th>
<th>2002</th>
<th>2003</th>
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<tbody>
<tr>
<td>Roundup UltraMAX</td>
<td>Roundup WeatherMAX</td>
<td>Roundup WeatherMAX</td>
</tr>
<tr>
<td>Touchdown w/ IQ</td>
<td>Roundup UltraMAX</td>
<td>Touchdown w/ IQ</td>
</tr>
<tr>
<td>Cornerstone</td>
<td>Touchdown w/ IQ</td>
<td>Clearout 41 Plus</td>
</tr>
<tr>
<td>GlyphoMAX</td>
<td>Clearout 41 Plus</td>
<td>Glyfos Xtra</td>
</tr>
<tr>
<td>Roundup Ultra</td>
<td>Glyfos Xtra</td>
<td></td>
</tr>
<tr>
<td>Glyphomax Plus</td>
<td>Roundup UltraDRY</td>
<td></td>
</tr>
</tbody>
</table>
Weed control over 3 years

- Touchdown w/IQ
- Roundup WeatherMax
- Roundup UltraMax
- Roundup UltraDry
- Glyfos Xtra
- Glyphomax Plu
- GlyphoMax
- Cornerstone
- Clearout 41 Plus

Weed control (%)
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

1.33 pt/a
84% ai

Stalwart Herbicide
Me-Too-Lachlor II Herbicide
Trizmet II Herbicide

Dual II Magnum®

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IFAS Extension
Weed Science
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.