

# Integrated Pest & Crop Management



## Missouri New Herbicide Update for 2008

By Kevin Bradley

### New Herbicides and Systems

#### Corn

**Halex GT** is a new premix from Syngenta for use only in Roundup Ready corn. Halex GT contains mesotrione (Callisto), S-metolachlor (Dual Magnum), and the potassium salt of glyphosate (Touchdown). Halex GT can be applied postemergence at 3.6 to 4 pints per acre to corn that is up to 30-inches tall or has eight leaves. The addition of a non-ionic surfactant and ammonium sulfate is required with applications of Halex GT. Atrazine can be applied with Halex GT and will likely increase the residual activity of the product in a one-pass weed control system.

**Laudis** (tembotrione) is a new herbicide from Bayer CropSciences that is a HPPD-inhibiting "bleacher" herbicide like Callisto and Impact. It will be available for the first time in the 2008 growing season. Laudis also contains a proprietary safener unlike Callisto or Impact. Laudis can be applied postemergence in corn at 3 fluid ounces per acre up to the V8 growth stage of corn. In the comparison trials we have conducted with Laudis, Impact, and Callisto, we have observed very similar levels of broadleaf weed control with all three products, but slightly higher levels of grass control from Impact compared to Laudis and Callisto. All products are enhanced and will likely perform similarly with the addition of atrazine.

**Require Q (mp)** is a new premix from DuPont that contains rimsulfuron (Resolve), dicamba (Banvel, Clarity, etc.), and a safener. Require Q will be sold as a multi-pack in 2008 and can be applied at 4 ounces per acre on corn that ranges from V2 or 4-inches tall up to V7 or 20-inches tall, whichever is more restrictive.

**Resolve Q (mp)** is a new premix from DuPont that contains rimsulfuron (Resolve), thifensulfuron (Harmony GT), and a safener. Resolve Q will be sold as a multi-pack in 2008 and can be applied at 1 ¼ ounces per acre on corn up to the V7 stage or 20-inches in height, whichever is more restrictive.

**SelectMax** is expected to receive a federal label in January of 2008 for the elimination of poor or frost-damaged Roundup Ready corn stands and replanting of corn back into these areas. This use was granted as a Section 18 label in many states in 2007, but not

in Missouri. The label, if approved would allow for application of SelectMax at 4 ounces per acre to damaged corn stands up to 4-inches tall, and then will allow either a 4- or 5-day replant interval between application and replanting. This is a use that could have been very helpful to many farmers with the spring-planting conditions experienced in 2007.

**Surestart** is a new premix from Dow AgroSciences that contains acetochlor (Harness, Degree, etc.), flumetsulam (Python), and clopyralid (Stinger). Surestart can only be applied on Roundup Ready or Liberty Link corn from 30 days prior to planting up to 11-inch tall corn. Surestart may be applied at 1 ½ to 2 pints per acre.

#### Soybean

**Authority Assist** is a new premix from FMC that is expected to be registered in the spring of 2008. Authority Assist contains sulfentrazone (Spartan) and imazethapyr (Pursuit) and can be applied at a rate of 4 to 12 ounces per acre. The standard "set-up" rate in Roundup Ready soybeans is likely to be 6 ounces per

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acre. Authority Assist will be labeled for preemergence applications in soybean and will likely expand the spectrum of grass weeds controlled as compared to the other Authority premix products.

**Authority MTZ** is a new premix from FMC that contain sulfentrazone (Spartan) and metribuzin (Sencor). Authority MTZ can be applied in the fall or spring up to three days after soybean planting at 8 to 14 ounces per acre. The generally recommended rate is likely to be 10 ounces per acre in a Roundup Ready soybean system, with higher rates recommended for use in conventional soybeans. Authority MTZ should provide good control of a wide spectrum of broadleaf weeds like waterhemp, marestail, nightshade, lambsquarters, and cocklebur, but is overall weak on grass weed species.

**Enlite** is a new premix from DuPont that contains flumioxazin (Valor), chlorimuron (Classic), and thifensulfuron (Harmony). A state registration for Enlite is currently pending in Missouri. Enlite will be labeled for fall or spring applications up to the 3 days after planting but before soybean emergence at 2 to 4 ounces per acre. The standard rate for use in most Roundup Ready soybean systems is likely to be 2.8 ounces per acre. Enlite should provide good control of a variety of broadleaf weeds like waterhemp, marestail, and nightshade, but is overall weak on grass weed species.

**Envive** is a new premix from DuPont that contains flumioxazin (Valor), chlorimuron (Classic), and thifensulfuron (Harmony). A state registration for Envive is currently pending in Missouri. Envive will be labeled for fall or spring applications up to the 3 days after planting but before soybean emergence at 2 ½ to 5 ¼ ounces per acre. The standard rate for use in most Roundup Ready soybean systems is likely to be 3.5 ounces per acre. Envive should provide good control of a variety of broadleaf weeds like waterhemp, marestail, and nightshade, but is overall weak on grass weed species.

**Prefix** is a new premix from Syngenta that contains S-metolachlor (Dual II Magnum) and fomesafen (Reflex or Flexstar). In 2007, this product was previously sold as a co-pack but is now available as a premix. Prefix will be labeled for use at 2 pints per acre with will deliver 1 pint per acre of Dual II Magnum and 1 pint per acre of Reflex. Prefix can be applied preemergence up to 15 days before planting. Prefix will control a variety of broadleaf weeds like waterhemp, lambsquarters, nightshades, etc. as well as some grasses like crabgrass and giant foxtail. However, this product will only provide suppression of larger-seeded broadleaf weeds like cocklebur and giant ragweed.

**Sonic** and **Authority First** are identical products from Dow AgroSciences and FMC, respectively, that were available for the first time in the 2007 growing season. They both contain the active ingredients sulfentrazone (Spartan) and cloransulam (Firstrate) and are registered for fall or spring applications up to three days after soybean planting. Sonic and Authority First can be applied from 3 to 8 ounces per acre, with the standard set-up rate in Roundup Ready soybeans being 3.22 ounces per acre. Higher rates are recommended for use in conventional soybean systems. In our research, these products have provided good control of a wide spectrum of broadleaf weeds including waterhemp, lambsquarters, marestail, nightshades, and others but are overall weak on grass weed species.

**Valor XLT** is a new premix from Valent that was available during the 2007 growing season. Valor XLT contains flumioxazin (Valor) and chlorimuron (Classic) and can be applied in the fall or spring up to three days after soybean planting at 3 to 5 ounces per acre. The standard rate recommended in most Roundup Ready soybean systems will be 3 ounces per acre. Valor XLT should provide good control of a variety of broadleaf weeds like waterhemp, marestail, and nightshade, but is overall weak on grass weed species.

### *Wheat*

There are new formulations of both Harmony GT XP and Harmony Extra XP available from DuPont. The new products will be sold as **Harmony Extra with TotalSol** and **Harmony SG w/TotalSol**. Both of the new products are formulated differently and contain 50 percent active ingredients per pound of product in comparison to the former products which contained 75 percent active ingredients per pound of product. This will require careful attention to the label and product name, as the newly named products will be applied at higher rates than Harmony Extra XP or Harmony GT XP.

**Prowl H2O** is now labeled for use in wheat for the control of certain winter annual broadleaf and grass weeds like henbit and mustard species. Prowl H2O can be applied in wheat from the first leaf up to the flag leaf stage at a rate of 1 ½ to 3 pints per acre. Prowl HO will not control of emerged weeds but can be tank-mixed with other postemergence wheat herbicides. In our research, Prowl H2O has also provided high levels of chickweed and Italian ryegrass suppression with winter application timings, but much lower control with timings made in the spring.

### *Alfalfa*

**Prowl H2O** is now labeled for use in alfalfa for the control of certain winter and summer annual broadleaf and grass weeds like crabgrass, lambsquarters, and pigweed. Prowl H2O can be applied in alfalfa from the second trifoliolate up to the 6-inch stage of growth. Prowl H2O can be applied on seedling stands, between cuttings, or as a fall or spring dormant stage treatment. Prowl HO will not control of emerged weeds but can be tank-mixed with other postemergence alfalfa herbicides to provide residual control of later-emerging species.

### *New Glyphosate Offerings*

**Roundup PowerMax** is a new potassium salt of glyphosate from Monsanto that contains 4.5 pounds of

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glyphosate acid per gallon. Roundup PowerMax contains a new proprietary blend of adjuvants and will replace Roundup OriginalMax.

**Duramax** and **Durango DMA** are two new glyphosate offerings from Dow AgroSciences. These are identical products that contain the dimethylamine (DMA) salt of glyphosate and contain 4 pounds of glyphosate acid per gallon as well as a surfactant. The standard rate for both products will be 24 ounces per acre. Durango DMA will replace

the Durango brand and will be priced as the no-service brand while Duramax replaces Glyphomax XRT and will be priced as the full-service brand.

### ***Grass Pastures and Hay***

**Remedy Ultra** and **Garlon 4 Ultra** are both new products from Dow AgroSciences that will be replacing the old products Remedy and Garlon 4 in the pasture market. All of these products have triclopyr as the single active ingredient. The difference in the new "Ultra" formulations is that these

will contain methylated seed oil rather than kerosene as the solvent or carrier. Additionally, the "Ultra" formulations are low-odor compared to the older formulations. We have not seen or heard of any significant differences in weed control as a result of this new formulation.

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