

Integrated Pest & Crop Management

Missouri New Herbicide/Label Update for 2009

By Kevin Bradley

I. Corn

Balance Flexx is a new herbicide from Bayer CropSciences that contains the same active ingredient as Balance Pro (isoxaflutole) but this new product contains a safener (cyprosulfamide) that allows it to be applied up to the V2 stage of growth in corn. Balance Flexx is a 2 lb/gallon formulation unlike the 4 lb/gallon Balance Pro formulation and can be applied from 3 to 6 fluid ounces per acre, depending on the soil type and application timing. In our initial research with this product, we have observed good control of a variety of common annual grass and broadleaf weeds like giant foxtail, common ragweed, and waterhemp, especially when tank-mixed with atrazine at either the preemergence or early postemergence timing.

All **Bicep** branded herbicides from Syngenta will now be able to be applied postemergence to corn up to 12 inches in height. The previous postemergence corn height restriction on all Bicep branded herbicides was 5 inches.

Cadet (fluthiacet-methyl) is a new product from FMC that is labeled for postemergence use in corn. Cadet is a PPO-inhibiting herbicide that was once also sold by Syngenta as Action. Cadet can be applied at 0.4 to 0.9 fluid ounces per acre to corn that is in the V2 stage of growth up to 48-inches in height or prior to tasseling, whichever comes first. A non-ionic surfactant or crop oil concentrate should be added to all Cadet applications.

Syngenta is expected to receive an updated label in 2009 that will allow postemergence applications of **Callisto** following preemergence applications of Lumax or Lexar. If Lumax or Lexar are applied at foundation rates, no changes in the soybean replant interval will be necessary. However, if full rates of Lumax or Lexar are applied preemergence and followed by a postemergence application of Callisto, the soybean replant interval will be extended to 18 months.

Corvus is a new prepackaged herbicide mixture from Bayer CropSciences that contains the Balance Flexx product described previously plus thien carbazon, a new ALS-inhibiting herbicide. Corvus is designed to be a one-pass preemergence herbicide that can be

applied from burndown up to the V2 growth stage in corn. Corvus can be applied at rates ranging from 3 2/3 to 5 2/3 fluid ounces per acre depending on soil type. Corvus should provide good control of a variety of annual grass and broadleaf weeds like giant foxtail, common ragweed, lambsquarters, nightshade, and waterhemp. Tank-mixing this product with atrazine will increase control of tougher weeds like cocklebur, giant ragweed, and morningglory.

Ignite 280 SL is a new formulation of glufosinate that will be registered for use on corn designated as LibertyLink. Ignite contains the same active ingredient as in Liberty but Ignite contains 2.34 lbs glufosinate/gallon unlike Liberty which contains 1.67 lbs/gallon. Ignite may be applied to LibertyLink corn hybrids from emergence through the V5 corn growth stage at 22 fluid ounces per acre. No more than two applications and 44 fluid ounces of Ignite can be applied per growing season. Ignite can be tank-mixed with a variety of other corn herbicides such as atrazine, Callisto, Distinct, Impact, Laudis, etc. In our research, we have no differences

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between Ignite and Liberty in either weed control or crop safety.

Impact herbicide from AMVAC received a supplemental label for postemergence applications at 1 fluid ounce per acre in situations where weeds have grown beyond the size indicated on the label for the ½ or ¾ fluid ounce rate. In Missouri, we fall into a geography that will allow soybean planting the following season following the 1 fluid ounce Impact rate.

Valor SX is expected to receive a label for preplant applications 14 to 30 days prior to corn planting. This will be the first time that Valor will be able to be used in corn. In the past, Valor has only been registered for use in soybean. Valor SX will only be labeled in minimum or no-till corn at rates from 1 to 3 ounces per acre. Valor should be tank-mixed with glyphosate and/or 2,4-D or other burndown products when used in this manner. Valor provides some burndown and residual control of a variety of broadleaf weed species.

II. Soybean

Cadet (fluthiacet-methyl) is a new product from FMC that is labeled for postemergence use in soybean. Cadet is a PPO-inhibiting herbicide that was once also sold by Syngenta as Action. Cadet can be applied at 0.4 to 0.9 fluid ounces per acre to soybean that is in the V1 stage of growth to full flowering. A non-ionic surfactant or crop oil concentrate should be added to all Cadet applications.

In addition to preemergence use, **Dual II Magnum** will now be labeled for postemergence application in soybean up through the third trifoliolate growth stage. This treatment will only provide control of unemerged weeds and is designed to provide residual control of later-emerging weeds when applied in combination with a postemergence application of glyphosate.

Flexstar GT is a new prepackaged mixture from Syngenta that contains fomesafen (Flexstar) and glyphosate. Flexstar GT is expected to receive a label for use in soybeans by the 2009 growing season. Flexstar GT will be formulated as a 3.29 SL and contains 2.63 pounds of glyphosate acid and 0.66 pounds of fomesafen per gallon of product. Flexstar GT will be labeled at rates ranging from 3 to 3.75 pints per acre in Missouri. At the 3 pint per acre rate, Flexstar GT will deliver 1 pound of glyphosate acid per acre and ¼ lb fomesafen. This product is intended to provide postemergence control of glyphosate-resistant weeds in soybean like waterhemp.

Limited supplies of **LibertyLink Soybeans** will be available for the first time during the 2009 growing season. LibertyLink soybeans are a new herbicide-resistant crop designed to withstand applications of **Ignite 280 SL**. Ignite 280 SL is a new formulation of glufosinate that will be

registered for use on soybeans designated as LibertyLink. Glufosinate is the same active ingredient as in Liberty. Ignite 280 SL contains 2.34 lbs glufosinate/gallon unlike Liberty which contains 1.67 lbs/gallon so use rates for Ignite will be different from those growers have become accustomed to with Liberty. The standard use rate of Ignite will be 22 fluid ounces per acre on LibertyLink soybean. No more than two applications and 44 fluid ounces of Ignite can be applied on LibertyLink soybeans in a single growing season. Applications of Ignite can be made from emergence up to but not including the bloom growth stage of soybean. Ignite is much more of a contact herbicide than glyphosate so application timing will be critical to the success of the LibertyLink soybean program. A preemergence herbicide followed by at least one in-crop application of Ignite has provided good weed control and excellent yields in our research over the past several seasons.

Prefix now has a postemergence label for use in soybeans. Prefix may be applied at 2 to 2 1/3 pints per acre from cracking up to the third trifoliolate stage in soybean. Prefix will provide very little control of emerged weeds but will provide residual control of a variety of weeds that may emerge throughout the season like waterhemp. In Roundup Ready soybean, Prefix can be tank-mixed with a glyphosate product to control weeds that are present at the time of the application. Crop oil concentrate should not be added as a spray adjuvant as this will increase the likelihood of crop injury.

Spartan Advance is a new prepackaged herbicide mix from FMC that contains sulfentrazone plus glyphosate. Spartan Advance is primarily targeted for the sunflower market but also has a label for use in soybeans. It can be applied from 32 to 85 fluid ounces per acre, depending on the soil type, as a preplant or preemergence treatment in soybean. It may also be applied at reduced or "foundation" rates of 23 to 36 fluid ounces per acre in Roundup Ready soybeans where a postemergence application of glyphosate is planned. The sulfentrazone in this premix provides good control of a variety of broadleaf weeds, most notably waterhemp and lambsquarters.

III. Grain Sorghum

Degree Xtra is now labeled for use in grain sorghum as a preplant, preemergence, or postemergence application before the crop exceeds 11-inches in height. Degree Xtra can be applied at 2 to 3.7 quarts per acre, depending on soil type.

Dual II Magnum is expected to be labeled for postemergence use in grain sorghum by the 2009 growing season. Dual II Magnum can be applied postemergence up to 75 days prior to harvest.

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It is expected that Syngenta will receive a full federal label for preplant or preemergence applications of **Lumax** and **Lexar** on grain sorghum in 2009. Kansas and Nebraska have had a supplemental label for this use pattern in the past, which will now be expanded to include all other states included on the Lumax and Lexar labels. Applications of either herbicide can be made from 14 days before planting up through planting but prior to sorghum emergence. The maximum rate of Lumax that can be applied will be 2.5 quarts per acre while the maximum rate of Lexar will be 3 quarts per acre. In our evaluations of this new use pattern in 2008 field research, we did not observe any significant injury to grain sorghum as a result of a preplant Lumax or Lexar application. However, the closer these applications are made to planting, the greater the risk of grain sorghum injury with these herbicides.

IV. Burndown/Fallow

Distinct has received a label for preplant applications prior to planting cotton or soybeans. Distinct can be applied at 2 to 4 ounces per acre to control broadleaf weeds prior to planting. Following an application of Distinct, a waiting interval of 30 days and a minimum accumulation of 1-inch of rainfall is required before cotton or soybeans may be planted.

Ignite 280SL is a new formulation of glufosinate from Bayer CropSciences that will be labeled for use as a burndown treatment prior to planting or prior to emergence of any conventional or transgenic variety of corn or soybean. Ignite

contains glufosinate, the same active ingredient as in Liberty, but is a 2.34 lb/gallon formulation rather than the 1.67 lb/gallon Liberty formulation. In burndown applications, Ignite must be applied at a minimum of 29 fluid ounces per acre but can be applied at rates up to 36 fluid ounces per acre if necessary. In LibertyLink corn or soybeans, if Ignite has been applied as a burndown treatment, no additional applications of Ignite may be made in-crop during the growing season.

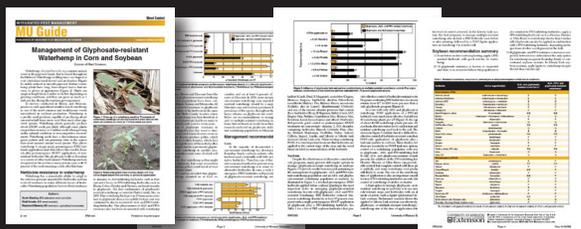
V. Grass Pastures and Hay

Chaparral is a new herbicide from Dow AgroSciences that will have a limited launch in Missouri in 2009. Chaparral is a prepackaged mix of Milestone (aminopyralid) plus metsulfuron (Cimarron, Ally, Escort, others). Chaparral will be a 61.95% extruded granule product that contains 85% aminopyralid and 15% metsulfuron. The maximum rate of Chaparral will be 3.3 ounces of product per acre but it is unlikely that this rate will be suitable for most applications in Missouri as this rate provides the equivalent of 7 fluid ounces of Milestone per acre and 0.5 ounces of Cimarron per acre. This rate of Cimarron can cause significant injury to fescue, especially when applied in the spring. For general weed control, Chaparral will be labeled at 2 to 2.5 ounces per acre.

Kevin Bradley
(573) 882-4039

NEW!

Management of Glyphosate-resistant Waterhemp in Corn and Soybean (IPM 1030)



This publication is a short, color guide sheet that contains information helpful to farmers, retailers, and crop consultants who are having problems with glyphosate-resistant waterhemp in either corn or soybean. The information and recommendations within this publication are based on three years of field research conducted on glyphosate- and multiple-resistant waterhemp populations within Missouri.

More information about IPM 1030 as well as a free PDF version of the publication available online at: <http://extension.missouri.edu/explorepdf/agguides/pests/ipm1030.pdf>.

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