



COLLEGE OF AGRICULTURE AND NATURAL RESOURCES  
*Department of Plant Science and Landscape Architecture*

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## **MARYLAND WEED REPORTER**

Most of you are aware that **Extension Bulletin 237, Pest Management Recommendations for Field Crops**, is not being printed this Fall/Winter. However, Amy, Arv, Galen, and myself are in the process of updating our individual sections. If you've never visited the on-line version of EB 237, make it a New Year's resolution! It can be accessed at <http://pubs.agnr.umd.edu>. This will bring you to the **MCE publications web site**. From there click on **Crops, Farm Animals and Nursery**. From there, click on **Pest Management and IPM** on the left. **EB 237** will be the second publication listed. Click on it. From here, you can go to any section you desire. If this is your first time, you'll notice at the top it has a button for, "**View Tutorial**." Take some time to view the tutorial in order to be familiar with the **Weed Control Section**. Parts of my section are **interactive**. This includes the corn, forages, pasture and soybean sections. You click on how you want to make an application, list up to five weeds, and it will list the herbicide programs you should consider from best to worst. Like I said, if you haven't tried it, give it a try. I think you'll enjoy the time and effort we put into it. Luckily, as I make my updates, they are included in the program. Have fun!

### **CORN**

While you'd think everything being planted is Roundup-Ready, such is not the case. Even where **Roundup-Ready corn** is planted, I strongly feel that some type of preemergence herbicide program is warranted up front, even if it is at a reduced rate. Companies are continuing to develop new products and make blends of older ones. Here's a quick look at what's new and what's coming in the herbicide market for corn.

**BASF** has introduced a new formulation of **dicamba**. Most of you are familiar with dicamba being sold under the trade names of **Banvel and Clarity**. These are the liquid formulations. Several years ago, they introduced a dry flowable formulation called **Distinct**. This is the same product being sold in the pasture market under the trade name **Overdrive**. This year they introduced another dry flowable product called **Status**. They claim it is a safened formulation of **Distinct**. However, I've tested this product under high temperatures and high

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humidity. What I found is that corn will lean just as if I used any other formulation of dicamba. It's my understanding that they will probably phase out the product Distinct. Use rates are 5 to 10 ounces per acre. Corn stages for application are 4" (V2) to 36" (V10) or 15 days before tassel emergence.

**Dow AgroSciences** is introducing a product called **SureStart**. It's a blend of acetochlor (Harness, Surpass, or TopNotch) plus clopyralid (Stinger) and flumetsulam (Python). U. S. registration occurred in 2007, but their full launch will be in 2008. Use rate is 1.5 to 2.0 pints per acre. Their goal is to get this product established for preemergence use in herbicide tolerant corn crops.

**Syngenta** will be introducing two new products in 2008. One is called **Halex GT**. Halex GT is a blend of Dual Magnum plus Touchdown HiTech and Callisto. Suggested use rate is 3.6 to 4.0 pints per acre. The 3.6 pint use rate will give you 1.0 pt/acre of Dual Magnum plus 24 oz/acre of Touchdown HiTech plus 3 oz/acre of Callisto. It will require a non-ionic surfactant plus ammonium sulfate. It's labeled from preemergence up to 30" corn. While it could be used preemergence in non-Roundup-Ready corn, their goal is for growers to utilize it postemergence overtop of Roundup-Ready corn. In our trials this year, it looked great. The addition of atrazine will strengthen its performance and is suggested where late-season morningglory is an issue. Keep in mind that the addition of atrazine will limit it's overtop application to 12" corn.

The other product that Syngenta is introducing is called **Sequence**. This is a blend of Touchdown Total plus Dual Magnum. It's labeled from 2.5 to 4.0 pints per acre for preemergence or postemergence use, on **both corn and soybeans**. At 2.5 pints per acre you get the equivalent of 22 oz/acre of Touchdown Total plus 1 pt/acre of Dual Magnum. In corn, it will be primarily targeted at the 2.5 pt/acre rate as a single application up to 30" corn. With the Touchdown Total in it, you'll be limited to Roundup-Ready corn and soybeans.

I mentioned in my last newsletter last year that there will eventually be three HPPD inhibitors in the market place. This includes **Callisto from Syngenta, Impact from AMVAC and Laudis from Bayer**. Laudis should be labeled for the 2008 season. All three are good postemergence herbicides for broadleaf weed control in corn. They vary in their control of annual grasses. Impact seems to have the best grass activity. It will even take out small crabgrass. Each has their own adjuvant system that is recommended by their respective companies. The addition of atrazine is highly suggested. Impact is also labeled for sweet corn.

## SOYBEANS

**Roundup-Ready soybeans** probably make up 90% of the market share of soybeans grown in Maryland. Because of the wide-spread use of Roundup and all of the other generic glyphosates, we are starting to see a number of weeds becoming resistant to this herbicide. World-wide, we have over 12 weeds that have developed resistance to glyphosate. Locally, **horseweed (also called marestalk)** is our number one weed showing resistance to glyphosate.

However, we've now located several locations on the Eastern Shore where glyphosate no longer controls **common lambsquarters**. If I were to crystal ball what would be the next weed in Maryland showing herbicide resistance to glyphosate, it would be **pigweed**. If you have any fields where you suspect glyphosate resistance, especially to common lambsquarters or pigweed, try to collect some seed. We can screen it in the greenhouse to see if it is truly resistant or not.

Luckily, we should have some help on the way in the near future where glyphosate resistant weeds exist. **Bayer** got the okay from EPA to develop **Liberty-Link soybeans** in the U. S. **Liberty herbicide** is an absolute "blow torch" on horseweed. It can also aid in the control of escaped common lambsquarters. At the moment, Bayer is working on a research and development relationship with Monsanto. We should expect commercialization by 2009. My guess would be that they will develop a stacked soybean, having resistance to both glyphosate and Liberty herbicides.

**Dow Agrosiences** and **FMC** are introducing a new herbicide package-mix containing FirstRate plus Authority. Dow will call their product **Sonic**. FMC will call their product **Authority First**. Suggested use rate is 3 ounces per acre when used preemergence in Roundup-Ready soybeans. In conventional soybeans, suggested use rate is 6.45 to 8.0 ounces per acre.

**FMC** will also be introducing a blend of Authority plus metribuzin (Sencor). It will be called **Authority MTZ**. Use rates run from 8.0 to 20 ounces per acre. The lower rates are suggested for preemergence use where Roundup-Ready soybeans will be planted.

**Valent** is introducing a new product called **Valor XLT**. It is a blend of chlorimuron (Classic) plus Valor. Rates run from 3.0 to 5.0 ounces per acre. It can be applied up to 3 days after planting, but before soybean emergence. It is not recommended that you utilize Valor XLT with products such as Dual, Lasso or Outlook. However, it can be used with other preemergence products such as Prowl or Command.

## SMALL GRAINS

We continue to see new products being developed for use in small grains. However, there will be some changes to existing products that many of us are familiar with. **DuPont** is changing the formulations of **Harmony GT** and **Harmony Extra**. They are going to what they call "Total Sol or Soluble" formulations. Harmony GT will now become **Harmony SG** and Harmony Extra will become **Harmony Extra SG**. The most striking change is in the formulation. Both product will go from a 75% material to a 50% material. What does this mean in terms of rates? For barley and wheat, use rates will be from 0.45 to 0.9 ounces per acre. **However, most applications will be at 0.75 oz/acre instead of the 0.5 oz/acre that we have been recommending.** The window of application remains the same from the 2-leaf stage but before the flag leaf is visible. For Spring oats, the rate will be 0.45 to 0.6 oz/acre from the 3-leaf stage but before jointing.

I've talked about Dual II Magnum and Axiom being potential preemergence products for use in wheat for **Italian ryegrass** control. **Axiom** just received their full federal label. It is labeled from spike stage of wheat up until the 3-leaf stage. Rates are as follows: for coarse soils it will be 4 to 6 oz/acre, while medium and fine soils will run 6 to 10 oz/acre. With these low rates, Italian ryegrass is listed on the label as being only suppressed.

I've also talked about the differences between **Osprey** and **Axial** in my last newsletter. However, **Syngenta** has introduced a new formulation of Axial that will be of interest to many growers. It's called **Axial XL**. When purchasing the old Axial, it came as a co-pack with Syngenta's suggested adjuvant called Adigor. Axial XL now contains the adjuvant as a pre-packaged mix. You use it like regular Axial. Use rate is 1 pint per acre.

Two other products are worth mentioning for use in wheat. **Finesse Grass and Broadleaf**, from **DuPont** is now available. It does not contain Finesse. It is a blend of Glean plus Everest. Weeds listed as controlled include brome grass, ryegrass, chickweed, wild garlic, henbit, mustards and suppression of Canada thistle. I had it out this past year, and it looked great in the control of Italian ryegrass. However, it did "ding" the wheat somewhat, whether I sprayed it early Fall, early Winter, or late Winter. Yet, yields were okay.

**BASF** also received a label for **Prowl H2O** for use in wheat and alfalfa. What will be exciting is when they get a label for Prowl H2O for use in grass pastures. It is in the works! The wheat label allows you to apply it from the 1<sup>st</sup> leaf stage until/or before the flag leaf is visible/or emerged. Keep in mind that Prowl is a preemergence herbicide. Emerged weeds will not be controlled. However, you could tank-mix it with Osprey or Axial to control emerged Italian ryegrass, allowing the Prowl to provide residual control down the road.

In alfalfa, **Prowl H2O** is labeled for established alfalfa as well as seedling alfalfa. For established alfalfa it is suggested that you apply 1.0 to 4.0 quarts per acre prior to weed emergence. Applications can be made in the Fall after the last mowing or cutting, during Winter dormancy, in the Spring, or between cuttings. Applications should be made prior to the alfalfa reaching 6" in re-growth. For seedling alfalfa, it is suggested that you apply 1.0 to 2.0 pints per acre prior to weed emergence. Applications can be made once alfalfa has reached the 2<sup>nd</sup> trifoliate stage of growth. Once again, applications should be made prior to the alfalfa reaching 6" in growth. One of the problems with this label is when you can harvest alfalfa. Unfortunately, the label states, "Do not apply Prowl H2O less than 50 days prior to alfalfa harvest for forage or hay." This pretty much eliminates applications after harvesting during the Spring and Summer.

That's it for now. Have a happy holiday season. See you during the Winter meetings.



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