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Paris, MO
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Star City, IN
 574-727-7804

May 2011
 Pittsburg, OH
 937-692-5181

Logan Ag warehouses in Griggsville, Star City and Paris have last minute soybean seed available. Contact us today for top yielding Lewis and Mycogen varieties.

LOGAN AG NEWS

Do It Right With Glyphosate

Reduced glyphosate prices in 2011 enable growers to obtain outstanding weed control for less cost per acre. As the time approaches for post-emerge applications in Roundup Ready corn and soybeans, make certain you check weed height and species and apply the correct rate. The table below provides a capsule of the rates to be applied for various weed species and respective heights.

ROUNDUP BRANDS	DURANGO DMA	ABUNDIT EXTRA	ANNUAL WEEDS	MARESTAIL	WATER-HEMP	MORNING-GLORY
22 oz	24 oz	32 oz	1-8"	1-5"	1-6"	1-3"
27 oz	30 oz	40 oz	9-12"	--	7-10"	--
32 oz	35 oz	48 oz	13-18"	6-12"	11-18"	4-6"
44 oz	48 oz	64 oz	>18"	>12"	>18"	--

Roundup is a registered trademark of Monsanto. Durango DMA is a registered trademark of Dow AgroSciences. Abundit Extra is a registered trademark of DuPont.

Marestail, waterhemp and morningglory are especially tough weeds to control. Many growers add other chemistry to glypho-

sate applications to control these weeds including Cadet, First-Rate and Resource in soybeans or Status and Hornet in corn. Logan Ag crop specialists are ready to assist you with your weed control recommendations. Ask for Wayne, Jeff, Troy, Jerry or Ed in Griggsville, Dean in Paris, Steve in Star City or Jack in Pittsburg.

Cadet is a registered trademark of FMC Corporation. Resource is a registered trademark of Valent USA. Status is a registered trademark of BASF Corporation. Hornet and FirstRate are registered trademarks of Dow AgroSciences.

More Than Just An "Additive"

Crop protection specialists often advise the use of an "additive" when applying post-emergence herbicides. While they may say "additive", they usually refer to an "adjuvant". Adjuvant is the term used to define all the products used to facilitate the application of crop protection chemicals. Adjuvants are grouped into five categories: **Non-ionic surfactants, crop oil concentrates, methylated seed oils, drift control/deposition agents, ammonium fertilizers,** and **water conditioning agents.** This myriad of products helps maintain compatibility of herbicides in the spray tank, overcome antagonism of herbicides, provide coverage of the target weed, penetrate weed barriers such as waxy cuticle and/or leaf hair, and transport herbicide to the point of activity (where the chemical actually works to kill the weed).

Non-ionic surfactants (NIS) reduce the surface tension of the spray solution. Sometimes called "penetrants" or "stickers", NIS help increase the coverage area and adhesion to the leaf surface of the spray droplet, and aid in herbicide penetration of the leaf cuticle. In addition, surfactants influence the activity of the herbicide at several sites

to essentially help *activate* the herbicide. Products with higher surfactant loads are considered better (90% > 80% > 50%). Some ammonium fertilizer is usually required with NIS. **Premier 90** is the NIS usually recommended by Logan Ag. Crop oil concentrates (COC) are petroleum based products that serve to stick and spread the herbicide solution on the leaf surface, and extend the drying time of the herbicide/water solution. While the stick/spread qualities of COC are similar to non-ionic surfactants, crop oil is more effective than NIS under low humidity and high temperature conditions, or when weeds are at the upper end of the herbicide label. There are a number of good crop oils on the market containing 80-83% oil and 20-17% surfactant/emulsifier. New high surfactant oil concentrates (HSOC) are now available and work similarly to COC. Examples include **Diplomat** which is used at ½ conventional rates and **Trophy Gold** which is used at ¼ conventional rates. Methylated seed oils (MSO) are refined from seed oil crops such as soybeans, and are considered to be the most active adjuvant. This characteristic enables them to work best on large or drought stressed weeds. MSO has much less phytotoxicity damage (leaf speckling or burn) than crop oil concentrate, and is required with some herbicides. Ammonium fertilizer is almost always used with MSO. High quality **Soy-Stik** and **Sundance II** MSO products are available at Logan Ag. Drift control/deposition agents work to decrease off-site particle movement associated with small spray droplets from flat fan nozzles commonly used to apply post-emergence herbicides. This adjuvant family class helps create more uniform sized spray droplets that are less prone to drift. These uniformly sized spray droplets increase the

amount of spray solution deposited on the target weed and *increase the effectiveness of the applied herbicide*. Logan Ag recommends products such as **Gardian, Gardian Plus, Dri-Gard** and **Array** for drift control and deposition, and include them in every spray solution containing glyphosate or dicamba for increased performance. Ammonium fertilizers are required by most post-emerge herbicides for improved weed control. Sprayable ammonium sulfate (AMS) is the most common form of ammonium fertilizer on the market. This product class enhances the uptake of the applied herbicide in the plant, and aids in translocation to the “kill” site in the weed. Some agronomists believe the addition of ammonium fertilizers can achieve as much as 30% better weed control in post-emerge applications due to a reduction in water pH Logan Ag recommends **AMS, N-Tense**, and combination products such as **Gardian Plus, Dri-Gard** and **Array** where fertilizers are necessary.

Call Logan Ag for specific recommendations to help achieve maximum post-emergence weed control. Premier 90, Trophy Gold, Soy-Stik, Gardian, Gardian Plus, Dri-Gard and N-Tense are trademarks of Van Diest Supply Company. Diplomat, Sundance II and Array are trademarks of Midtech R&D.

2011 Profit Tips

Bettors always seek a “tip” to improve their chances of winning. Follow these tips from the crop specialists at Logan Ag to improve yields and profits in both corn and soybeans.

CORN – potential yield increase 17-32 bushels per acre.
1. Apply **Sable** slow release nitrogen at 1 gallon/acre with glyphosate or other post-

emergence herbicide at the V4-V6 growth stage. Sable provides a small amount of supplemental nitrogen to the plant when it needs it most.
1a. For a little extra punch, add 3 LB **Harvest More Urea Mate** with Sable. This unique mix of NPK and micronutrients provides nearly any nutrient not included in the regular fertility program.
1b. For maximum yield, add ½ pint **Bio-Forge** and 1 quart **X-Tra Power** to the Sable application at V4-V6 to enhance kernel count and stimulate root growth and stalk diameter.
2. At tassel (VT), apply your choice of fungicide plus insecticide to eliminate disease and insects while improving overall plant health. Add 1 gallon **Sable** to provide sufficient nitrogen to improve kernel fill after pollination.
BEANS – potential yield increase 6-15 bushels per acre.
1. When it’s time to apply glyphosate, add 3 LB **Harvest More Urea Mate** to supplement the regular fertility program.
1a. For greater yield potential, substitute ½ pint **Bio-Forge** and 1 quart **X-Tra Power**. The combination helps transport sugar from leaves to developing pods and seeds, as well as provides tolerance to late season stresses that may impact development of the plant.
2. At R3 growth stage (beginning pod development), apply your choice of fungicide/insecticide and 1 gallon **Sable** to promote overall plant health and eliminate damage from insects. Sable provides supplemental nitrogen to aid pod fill and seed development.
2a. For greatest yield impact, add **Bio-Forge** and **Sugar Mover** to the fungicide/insecticide/Sable mixture to facilitate transfer of sugars from vegetative growth into storage tissues such as seeds. Sable is a trademark of Midtech R&D, Inc. Bio-Forge, X-Tra Power and Harvest More Urea Mate are trademarks of StollerUSA.

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CRP Acres To Beans

Several growers plan soybeans for acres exiting CRP in 2011. Several issues need to be addressed before planting.

- ⊗ *Completely kill existing vegetation either with herbicides or tillage. Spring burndown treatments with glyphosate require at least 2.5x normal rates (2-1/2 quart equivalent) plus 2,4-D ester and recommended adjuvants. Do not include any residual herbicide in the burndown program. Moldboard plowing is the only effective tillage pass to eliminate existing vegetation.*
- ⊗ *Plant only Roundup Ready variety soybeans in the event that another glyphosate treatment is required to control cool-season grasses such as brome and orchard.*
- ⊗ *Apply P-K fertilizer. While a soil test is certainly recommended, apply at least 200 LB DAP + 300 LB potash on CRP acres. Remember, these fields have had no nutrients applied for many years. Don't worry about limestone application this spring – it takes up to 6 months for lime to react in the soil. Be certain to include CRP acres on your soil testing program after harvest.*
- ⊗ *Increase seeding rate by at least 10-15% over normal rates. For drilled beans, plant 185,000-200,000 seeds per acre. In 30" rows, plant 165,000-175,000 seeds per acre. Seed treatment is advised.*
- ⊗ *INOCULATE, INOCULATE, INOCULATE! With no legume for years, beans need inoculation. Try Nitra-Stik S hopper box treatment.*

Addressing these issues on CRP acres will help produce a profitable crop in the first year of production. Your Logan Ag crop specialist can assist you with recommendations for corn in CRP acres as well. Call our warehouse locations for more information.

Watch Corn For Cutworms

Cutworm moths have been captured in several locations already this year. Much corn is planted without the benefit of any preventative insecticide for cutworms. Several universities have lowered the economic threshold for controlling cutworm from 3% down to 1-2% cutting.



Black Cutworm

Several insecticides provide excellent, inexpensive control of cutworms. Prevent or stop damage with early treatment.



Black Cutworm Damage 2-leaf Corn

Protecting as few as 1000 plants may provide an extra \$39/acre profit in 2011! Scout fields regularly after emergence, and call Logan Ag ASAP if you find evidence of feeding damage.

Begin Scouting Alfalfa Fields

Alfalfa weevil activity is upon us. Weevil larvae hatch from eggs when a cumulative total of 300 degree days has been reached since January 1. As of April 17, 2011 at the U of I Orr

Center in Perry, IL, a total of 293 degree days had accumulated. Major leaf feeding occurs after accumulation of 439 degree days. Degree days for alfalfa weevil are calculated using 48°F as the base temperature.

Rescue treatments to control alfalfa weevil should be applied when 25-50% of leaf tips are skeletonized and three or more larvae are present per stem. Larvae are a yellowish-green color with a white stripe down their back. The easiest means of scouting is to cut several plant stems, shake vigorously over a white sheet of paper, and count larvae present.

Many insecticides are labeled for treatment of alfalfa weevils. If you are one who chooses to allow insect damage until harvest thinking that the chopper will kill the larvae, consider the importance of alfalfa in your feeding or cash hay operation and make sound insect control decisions based on economics.

Know The Trait You Planted

Today's corn hybrid traits allow growers to control weeds and grasses effectively post-emerge. It's important to know what traits you plant and the location of different hybrids as you plan your post-spraying schedule. ***Glyphosate mistakenly applied to non-GMO corn may cause yield damage.*** LOL!

Glyphosate may be applied on corn hybrids with the following traits: **SmartStax, YieldGard VT Triple, and Roundup Ready 2. Ignite** may be applied on corn hybrids with these traits: **SmartStax, Herculex Xtra, Herculex 1, and Liberty Link.** Ignite and Liberty Link are trademarks of Bayer CropScience. YieldGard VT Triple, Roundup Ready 2 and SmartStax are trademarks of Monsanto. Herculex Xtra and Herculex 1 are trademarks of Dow AgroSciences.