



# The Ag Quarterly

*News for Southern Illinois Farm Families*

Spring 2009

## Spray Drift Reminders

*Dennis Epplin, crop systems educator*

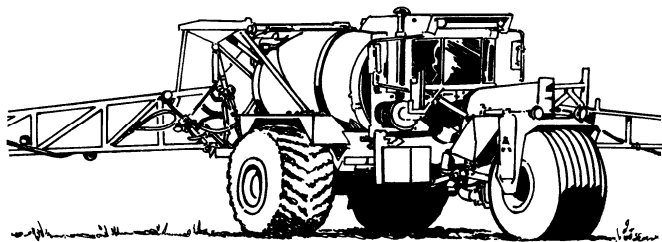
Yes, we have certainly talked and written about spray drift on many previous occasions, however, it remains an important topic. The new crop season is here, and all applicators need to be aware of the impact that herbicide drift can cause to off-target plants and crops.

Herbicide drift continues to be the most common complaint received by the Illinois Department of Agriculture. There were 115 formal complaints recorded by the Department last year. The Illinois Pesticide Misuse Case Summary for 2008 can be found in the January/February issue of the Illinois Pesticide Review, [http://web.extension.uiuc.edu/ipr/i5774\\_829.html](http://web.extension.uiuc.edu/ipr/i5774_829.html).

The growth of specialty crop farms—vegetables, grapes and other fruits—requires good pesticide application management. While these specialty crop growers are aware that corn and soybean fields will be sprayed at this time of the season, it is the responsibility of those making applications to ag crops to prevent off-target pesticide movement.

Before making a pesticide application, remember to check the current and forecasted weather conditions. Wind speed and direction are major considerations. Also, check your application equipment. Do you have the correct nozzle type, size, orientation, pressure, and boom height? Check your intended pesticide or tank mix. Have you obtained the correct product formulations for both efficacy and minimizing drift? Are you using the proper adjuvants and drift control additives, if needed? Bryan Young, SIU Carbondale, has an excellent publication on adjuvants: <http://www.herbicide-adjuvants.com/>.

We will probably never eliminate drift or have ideal spraying conditions, but everyone can continue to improve. A little extra caution is



appropriate when neighbors have sensitive plants or when high-value specialty crops are nearby.

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## Plan Ahead to Combat Weed Resistance

Robert Bellm, crop systems educator

The best time to start combating herbicide resistant weeds is before the crop seed ever goes into the ground. This is especially true for soybeans, where the number of effective alternative herbicides is more limited than what is available for use in corn.

The introduction of glyphosate resistant soybeans 15 years ago led to revolutionary changes in the ways weeds are controlled in that crop. Prior to that introduction, multiple herbicide chemistries and sites of action were applied to soybean, using both pre-emergence and post-emergence application timings.

Today, however, more than 80 percent of the total soybean acres are planted to glyphosate resistant varieties, with growers often relying on only that single post-emergence herbicide to control both broadleaf and grass weed species.

Illinois currently has two broadleaf weed species with documented resistance to glyphosate: horseweed (often called marestail) and waterhemp. Waterhemp is likely to become the more serious issue, since it germinates later in the growing season and is less apt to be controlled by tillage before planting. If waterhemp has developed a glyphosate resistant biotype in your field, and you rely solely on a glyphosate herbicide program, by the time you discover it your rescue alternatives are extremely limited. Even worse, you may find out that the weed has developed resistance to your rescue herbicide as well, leaving you with no control options at that point.

Advance planning, the use of certain soil-applied herbicides in addition to glyphosate, and proper post-emergence application timing can greatly reduce your risk of suffering major yield losses



caused by lack of weed control due to herbicide resistance. Soil-applied herbicides won't give season-long weed control, but they do allow the crop to become established without early weed competition.

Application of glyphosate before waterhemp reaches 6 inches in height should effectively control susceptible biotypes. Careful field scouting after the glyphosate application will tell you if resistant biotypes may be present, allowing time to apply a rescue application of a different herbicide site of action if needed.

The fact sheet, *Management of Glyphosate-Resistant Waterhemp in Soybean*, can be downloaded from the U of I Weed Science website at <http://weeds.cropsi.illinois.edu/>



## Ag Programs Scheduled at Ewing and SIU

The tentative **Ewing Field Day** schedule has been set for 2009. Field days will be **June 11** and **September 10**. Tours both days start at 9 A.M. This year marks the centennial observance for Ewing Field. University of Illinois received the deed from Ewing College on March 12, 1909.

If you have not yet picked up a copy of the 2008 Ewing Summary Report, copies are available at most county Extension offices and online, <http://web.extension.uiuc.edu/regions/ag/crops/EwingSummary2008.pdf>

The SIU Fifth Annual **Agriculture Industry Day** is set for April 17 from 9 A.M. to 3 P.M. Visit [www.coas.siu.edu](http://www.coas.siu.edu) for details.

## Heifer Sale Set for April 4

*Teresa Steckler, beef specialist*

The Illinois Heifer Development Program (IHDP) fall-calving bred heifer sale is set for Saturday, April 4, at 1 P.M. at United Producers in Salem.

Six IHDP consignors from central and southern Illinois are offering 28 high-quality, fall-calving replacement heifers. All heifers are guaranteed bred to calving ease bulls and have met strict health and reproductive requirements.

In addition, at least 30 bred cow and cow-calf pairs will be offered at the sale. All cows are less than 6 years of age, have met strict eligibility requirements, and have been inspected prior to acceptance into the sale.

For more details, contact Teresa Steckler, U of I Extension beef specialist, 618-242-9310, [tsteckle@illinois.edu](mailto:tsteckle@illinois.edu). The sale catalog and a copy of the IHDP requirements can be downloaded from the SI Agriculture website, <http://web.extension.uiuc.edu/regions/ag>, in the livestock section of the site.

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## Beef Workshop at Dixon Springs

The latest developments in cattle breeding and synchronization will be highlighted at the *Beef Cattle Reproductive Technologies Workshop* set for April 9 and 10 at the University of Illinois Dixon Springs Agricultural Center, near Glendale. The program starts at 8 A.M. on April 9 and runs through noon the following day.

The workshop is specifically designed for beef producers and college students who are studying livestock reproduction. Topics include synchronization of estrus in cattle; anatomy and reproductive diseases; embryo transfer and advances in bovine reproduction; and, semen handling and placement. Participants will get hands-on training in reproductive examinations and artificial insemination.

Registration is \$50 per person and includes lunch on April 9, refreshment breaks, lab supplies, and all program materials. University and community college students with a current ID may attend for \$25. Call 618-695-2441 for details and to register.

This workshop is sponsored by the U of I College of Agricultural, Consumer and Environmental Sciences, Department of Animal Sciences; U of I College of Veterinary Medicine; and Shawnee Community College. For the complete program, visit <http://web.extension.uiuc.edu/regions/ag>.

## No Internet Access?

*Dennis Epplin, crop systems educator*

Nearly every Extension article references a website to visit to obtain more information. This is all well and good, but...

The 2007 Ag Census indicates 57 percent of farmers have Internet access, up from 50 percent in 2002. Of those that have access, 58 percent have a high-speed connection, which increases efficiency in using the Internet.

If you do not have Internet access, please ask for alternate methods to receive the information.

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## Support Needed for New Barn at Ewing

The University of Illinois Ewing Demonstration Center is 100 years old this year. A new barn for storage of equipment and supplies is needed. The current one is close to 100 years old with a damaged foundation and roof.

The Ewing Field Advisory Committee and Franklin County U of I Extension have generated enough money to build a new barn. However, about \$6,000 is still needed for a concrete floor.

Donations are being accepted. Donor plaques will be displayed in the new building. For more details, call the U of I Extension office in Benton, 618-439-3178.

# Ethanol and Global Warming: What the Research Says

Mike Plumer, natural resources educator

The concern about carbon footprints has been escalating during the past six months. The concern is that ethanol production and farming practices are contributing to global warming. The problem is most of the agency information used to develop the global warming models is not current nor does it use the latest research.

University of Illinois, University of Nebraska, Ohio State University and others are just now releasing research results that will have a major impact on how the carbon footprint is determined. In agriculture, many things are included in the calculations: tillage practices (any tillage releases carbon),

number of trips over the field, the type and amount of fertilizer used, nitrogen rate and application timing (low rates, injected, side-dressed is best), efficiency of equipment, grain drying practices, yield of crops/acre, amount of fuel used per acre, use of cover crops, CRP acres, irrigation (less is best), and efficiency in fertilizer use.

Some of the research has shown farming is far more efficient than the agencies thought. In fact, Nebraska research showed that corn ethanol production had 48 percent lower greenhouse gas emissions than gasoline production. U of I data has shown that there is an energy gain in ethanol

production and that land use is unchanged, countering the argument that farmers are bringing new, environmentally sensitive land into production.

Our southern Illinois no-till study has also shown that more carbon is sequestered than what the model used. After changing from tillage to no-till, plots accumulated 39,724 pounds of carbon per acre over a 12-year period. Our continuous no-till accumulated 44,257 pounds of carbon per acre over the 12 years, from the 23<sup>rd</sup> to 35<sup>th</sup> year of continuous no-till. The use of cover crops has shown that even more carbon can be captured. Stay tuned . . .

## Helping You Put Knowledge to Work



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University of Illinois Extension provides equal opportunities in programs and employment.

If you need special dietary or disability accommodations to participate in any programs listed in this newsletter, please contact your local U of I Extension office.