

## University of Missouri Extension and You

The mission of University of Missouri Extension is to: ***Improve Missourians' lives by addressing their highest priorities through the application of research-based knowledge and resources.***

Your local University of Missouri Extension (MU Extension) office is a one-stop source for practical information on almost everything!

University of Missouri Extension has its roots in the federal acts that enabled the university to deliver the practical benefits of education and scientific research to the people to improve their economic prospects and quality of life.

The **Morrill Act of 1862** established the University of Missouri as a land-grant university. The act gave grants of land to states with the provision that proceeds from the sale of those lands be used to establish public colleges or universities to educate citizens in agriculture, home economics, mechanical arts and other practical professions. The **Morrill Act of 1890**, which established Lincoln University, provided additional funds to ensure that the land grants were open to all citizens without regard to race.

The **Smith-Lever Act of 1914** established the Cooperative Agricultural Extension Service, a partnership among federal, state and county governments allowing universities to extend their programs to all people — **not just students.**

MU Extension offers more than Agriculture and 4-H programming. Extension also offer programming in **Business and Workforce Development, Community Development, and Human Environmental Sciences.** In fact, all of these programs areas **are** available to **you.**

The role of MU Extension specialists is to use unbiased science-based knowledge to engage people in understanding change, solving problems and making informed decisions.

*Source: Joni Ross Harper, Agronomy Specialist*

What to know more about us or  
just need a guide sheet?

Go to MU Extension website  
<http://extension.missouri.edu>

## Seed Purchases

Do you like to see how the various hybrids and varieties perform before you purchase seed for the next growing season? One unbiased source of information on hybrid and variety performance is the University of Missouri Variety testing program. Even they have been affected by the weather. As of Nov. 23, 2009, they had reported on 16 of 20 locations on their corn trials and all 20 of their soybean locations. The results are available at <http://varietytesting.missouri.edu>.

There is a lot of new material available. Syngenta will have more than half of its 2010 seed portfolio in brand new hybrids and soybean varieties. Monsanto, Dow Agrosciences/Mycogen and Pioneer all have big “class of 2010 lists” to add to previous numbers.



At the top of the lists of new products are SmartStax corn hybrids from Monsanto, Dow Agrosciences and their partner brands. These hybrids feature an 8-way stack of insect and herbicide traits, with the most notable being a doubling up of the biotechnology companies two corn borer and two rootworm insecticide traits. One advantage of the doubling of these traits is that the EPA has agreed to reduce the non Bt-seed refuge that must be planted with SmartStax seed. The refuge requirement has been reduced from 20 percent to 5 percent in the Corn Belt.

Monsanto expects to have enough SmartStax seed to cover more than 4 million acres. Monsanto also expects to have enough Roundup Ready 2Yield soybeans for 8 to 10 million acres in 2010. Dow Agrosciences will have 12 SmartStax hybrids from 86- to 115-day relative maturity, marketed under the Mycogen brand. Pfister Hybrids have nine SmartStax hybrids in its 2010 catalog, and other related brands have from five to seven hybrids.

Syngenta is expecting U.S. approval of its Viptera insecticide trait in time for 2010. The new trait offers protection against six secondary insects: corn earworm, fall armyworm, western bean cutworm, black cutworm and the sugarcane borer. This trait has been approved in Brazil. It is expected that the Viptera trait will be stacked with Agrisure CB/LL/RW triple-stack traits for a broad spectrum of insect control. These hybrids will still require the standard 20 percent refuge. Syngenta is also waiting on regulatory approval on its high amylase corn hybrids, which will be the first seed genetically engineered to produce more ethanol.

Pioneer is awaiting approval on its Optimum AcreMax 1 seed, which is a premix of Bt and nonBt seed. This premix, which has been referred to as “refuge in a bag”, could allow a smaller, potentially 5 percent Bt refuge for rootworm protection.

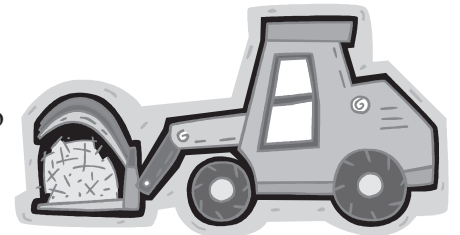
*Source: Wayne Crook, Agronomy Specialist*

## FRONT-END LOADER SAFETY - TRANSPORTING HAY

Many people use front-end loaders to move and stack large round bales. Always use great caution when hauling large round bales or any heavy load on a front-end loader so that you can avoid side overturns and being crushed from a bale rolling down upon the tractor.

### *Front-end Loader Safety Checklist:*

- Never walk or work under a raised loader.
- Raise and lower loader arms slowly and steadily.
- Allow for the extra length of the loader when making turns.
- Be careful when handling loose or shift able loads.
- Never move or swing a load if people are in the work area.
- Stay away from the outer edge when working along high banks and slopes.
- Watch for overhead wires and obstacles when you raise the loader.
- Carry the load low to the ground and watch for obstructions on the ground, especially on slopes.
- Always use the recommended amount of counterweight to ensure good stability. Add recommended wheel ballast or rear weight.
- Operate the loader from the operator’s seat only.
- Move the wheels to the widest recommended settings to increase stability.
- Do not lift or carry anyone on the loader, bucket or attachments.
- Lower the loader when parking or servicing.
- Make sure detached loaders are on stands that are on a firm, level surface and all safety devices are engaged.
- Prior to use, visually check for hydraulic leaks and broken, missing or malfunctioning parts, and then make necessary repairs.
- Be certain anyone operating the loader is aware of safe operating practices.



*Source: Kent Shannon, Natural Resource Engineer Specialist*

## Weed Management Options for 2010

Here are some of the new and modified herbicide options for 2010 production.

The update for DuPont products included:

Steadfast Q for post weed control in corn,  
Accent Q for post weed control in corn,  
Require Q for pre and post weed control in corn  
Prequel for pre or preplant weed control in corn.

U.S Approvals of the Optimum GAT trait in corn are anticipated by the end of the year. Pioneer is planning for controlled releases of Optimum GAT corn in 2010 and 2011. Optimum GAT soybeans are planned to be introduced in the US in 2011. All new herbicides are expected to be available for sale with the trait. These would include instigate, Trigate, Traverse and Freestyle.



CallistoXtra is a combination of Callisto and AAtrex. It is expected to be registered for field corn, seed corn, silage corn, sweet corn and yellow popcorn by 1<sup>st</sup> quarter of 2010.

FlexstarGT includes Flexstar and touchdown total. It is registered for use on glyphosate-tolerant (GT) soybeans and GT cotton.

Prefix has a new use pattern. It was labeled in 2009 for post emergence application at 2 to 2 1/3 pints/A from cracking up to V3. Crop injury in the form of leaf crinkling and bronzing can occur. It is recommended to tank mix with glyphosate for weeds that are present at application. This should provide extended residual control of weeds that may emerge later in the season such as water hemp.

Pulsar contains Clarity and Starane. It is registered for wheat and can be tank mixed with Harmony Extra.

Kixor is different in that BASF has registered the technology and it consists of different herbicides. Kixor is targeted toward large seeded broadleaf weeds and provides a management tool for glyphosate resistant weeds. The basic chemical in all combinations is Sharpen and is intended to be a replacement for 2,4-D. There are four products in this herbicide family. Treevix is designed for citrus, pome fruits and tree nuts. Integrity is designed for corn, both field and silage. Optill is designed for soybeans and pulses. Sharpen is in all of the other products and can be used

on cereals, corn, cotton, fallow, grain sorghum, pulses, soybean and for sunflower as a desiccant

Source: Wayne Crook, Agronomy Specialist

## An accurate U. S. Census Benefits YOUR Community

If you sent your son or daughter to school, drove to work, shopped at a large box store and went to bed with the security of knowing that if a tornado were on its way, your family would be warned by a very loud siren; you benefitted from Census data in at least four different ways and probably more.



Census data is used in part to fund school districts, build and plan roads; corporations use it to determine where to locate new franchises, and disaster prevention and relief funding is distributed based on the data as well. The Decennial Census is a once-per-decade snap shot of our country that lets Congress, state legislators and numerous other organizations know what our country looks like – where we live and who we are.

Census questionnaires won't be arriving at your door until March 2010, but now is the time to start talking to your family, friends, neighbors and co-workers about why the Census is important. Let them know that **this year's form is only 10 questions**, making it **one of the shortest forms in U.S. Census history**. Also, let them know that the information they submit on their Census form is protected by Title 13 and cannot be shared with law enforcement or any other government agency.

Look for the U.S. Census at upcoming community events or visit [www.2010census.gov](http://www.2010census.gov) to learn how you can help. It is up to each of us to ensure a complete and accurate count in 2010.



### Fun Missouri Tidbit

Honey was once so valuable that Missouri and Iowa entered into a seven day Honey War?

\*Missouri ranks 27th in the U.S. in honey production, with 644,000 pounds of honey produced in 2007.

~ Missouri Department of Agriculture

## Precision Agriculture Online Course January 12 to March 4

University of Missouri Extension is offering an eight-week online course on managing farm machinery using precision agriculture, Jan. 12 through March 4.

The focus of this course will be the use of Global Positioning System (GPS) technology to control machinery and store information, he said. "Planters, combines, and fertilizer- and spray-application equipment are now commonly equipped with Global Positioning Systems."



The class will be available in three delivery formats: Interactive Television, Internet or a combination of both. Participants can view the course's 12 ITV sessions at the Mexico Telecenter, 2900 Doreli Lane. Others may opt to use the Internet for some or all of these sessions. The ITV sessions meet 9:30 -11:30 a.m. on Tuesdays and Thursdays from Jan. 12 to Feb. 23.

The last four sessions will take the form of one all-day hands-on lab Feb. 25 at the Delta Research Center in Portageville, and March 4 in Columbia. This lab will cover setup, diagnosis and maximizing the use of GPS technology.

The \$300 course fee covers online access, handout material and participation in the hands-on lab, which includes lunch. Registration deadline is Jan. 5. A registration form and program information are available at: <http://extension.missouri.edu/boone/precisionag>. For more information, contact the source for this article, Kent Shannon at 573-445-9792.

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