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Ag-Info

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Northeast Missouri Agriculture Newsletter serving Clark, Knox, Lewis, Marion, Monroe, Pike, Ralls, and Shelby Counties

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Calendar of Events

February 16	**Lewis/Marion Cattlemen Annual Scholarship Banquet**, Palmyra
February 18	**Private Pesticide Applicator Training**, Louisiana
February 19	**Fixed Time AI Meeting**, Novelty
February 20	**Fixed Time AI Meeting**, Hannibal
February 20	**Private Pesticide Applicator Training**, Shelbyville
February 20	**Fixed Time AI Meeting**, Bowling Green
February 25	**Private Pesticide Applicator Training**, Ewing
February 25	**4-H and FFA SMQA Training**, Palmyra
February 28	**Private Pesticide Applicator Training**, Bowling Green
March 3	**Swine Producers PQA Plus Training**, Paris
March 4	**Ralls County Cattlemen's Meeting**, Perry
March 6	**4-H and FFA SMQA Training**, Palmyra
March 6, 13, 20	**Pasture Management Short Course**, Monticello
March 11	**Swine Producers PQA Plus Training**, Palmyra
March 11	**Private Pesticide Applicator Training**, Paris
March 12	**4-H and FFA SMQA Training**, New London
March 13	**Monroe County Ag Night**, Paris
March 17	**Private Pesticide Applicator Training**, Kahoka
March 18	**4-H and FFA SMQA Training**, Paris
March 19	**Missouri's Fence Law**, Palmyra (via ITV)
March 26	**4-H and FFA SMQA Training**, Bowling Green
March 29	**Performance Tested Bull Sale**, Palmyra
April 2	**NEMO BICA Meeting**, Hannibal

University of Missouri,
Lincoln University,
U.S. Department of Agriculture
& Local Extension
Councils Cooperating

AGRONOMY NOTES

Alix Carpenter

2008 Herbicide Update

Corn

Halex GT is a new premix for use only in Roundup Ready corn. Halex GT contains mesotrione (Callisto), *S*-metolachlor (Dual Magnum), and the potassium salt of glyphosate (Touchdown). Halex GT can be applied postemergence at 3.6 to four pints per acre to corn up to 30-inches tall or with eight leaves. Addition of a non-ionic surfactant and ammonium sulfate is required with Halex GT.

Laudis (tembotrione) is a new HPPD-inhibiting ("bleaching") herbicide. It will be available for the first time in the 2008 growing season. Laudis can be applied postemergence in corn at three fluid ounces per acre up to the V8 stage.

Require Q (mp) is a new premix which contains rimsulfuron (Resolve), dicamba (Banvel, Clarity, etc.), and a safener. Require Q (mp) will be sold as a multi-pack in 2008 and can be applied at four ounces per acre on corn ranging from V2 or four-inches tall up to V7 or 20-inches tall.

Surestart is a new premix which contains acetochlor (Harness, Degree, etc.), flumetsulam (Python), and clopyralid (Stinger). Surestart can only be applied on Roundup Ready or Liberty Link corn from 30 days prior to planting up to 11-inch tall corn. Surestart may be applied at 1½ to two pints per acre.

Soybean

Authority Assist is a new premix expected to be registered in the spring of 2008. Authority Assist contains sulfentrazone (Spartan) and imazethapyr (Pursuit), and can be applied at four to 12 ounces per acre. The standard rate in Roundup Ready soybeans is likely to be six ounces per acre. Authority Assist will be labeled for preemergence applications in soybean.

Authority MTZ is a new premix which contains sulfentrazone (Spartan) and metribuzin (Sencor). Authority MTZ can be applied in the fall or spring up to three days after soybean planting at eight to 14 ounces per acre. The standard rate will likely be ten ounces per acre in a Roundup Ready soybean system, with higher rates recommended in conventional soybeans.

Enlite is a new premix which contains flumioxazin (Valor), chlorimuron (Classic), and thifensulfuron (Harmony). Missouri state registration for Enlite is pending. Enlite will be labeled for fall or spring applications up to three days after planting, but before soybean emergence at two to four ounces per acre. The standard rate for use in most Roundup Ready soybean systems is likely to be 2.8 ounces per acre.

Envive is a new premix which contains flumioxazin (Valor), chlorimuron (Classic), and thifensulfuron (Harmony) (same ingredients as in Enlite, although in different proportions). Missouri state registration for Envive is pending. Envive will be labeled for fall or spring applications up to three days after planting but before soybean emergence at 2½ to 5¼ ounces per acre. The standard rate for use in most Roundup Ready soybean systems will likely be 3.5 ounces per acre.

Prefix is a new premix which contains *S*-metolachlor (Dual II Magnum) and fomesafen (Reflex or Flexstar). Prefix will be labeled for use at two pints per acre which will deliver one pint per acre of *S*-metolachlor and one pint per acre of fomesafen. Prefix can be applied preemergence up to 15 days before planting.

Sonic and *Authority First* are identical which were available for the first time in the 2007 season. Both contain the active ingredients sulfentrazone (Spartan) and cloransulam (Firstrate) and are registered for fall or spring applications up to three days after soybean planting. Sonic and Authority First can be applied from three to eight ounces per acre, with the standard set-up rate in Roundup Ready soybeans being 3.2 ounces per acre. Higher rates are recommended for use in conventional soybean systems.

Valor XLT is a new premix which was available during the 2007 season. Valor XLT contains flumioxazin (Valor) and chlorimuron (Classic) and can be applied in the fall or spring up to three days after soybean planting at three to five ounces per acre. The standard rate recommended in most Roundup Ready soybean systems will likely be three ounces per acre.

Wheat

New formulations of Harmony GT XP and Harmony Extra XP will be sold as *Harmony Extra with TotalSol* and *Harmony SG w/TotalSol*. Both of the products are formulated differently and contain 50% active ingredients per pound of product, compared to 75% active ingredients in the older formulations; as a result, the newly named products will be applied at higher rates than their older counterparts.

Prowl H2O is now labeled for use in wheat for control of annual broadleaf and grass weeds, including henbit and mustard species. Prowl H2O can be applied in wheat from the first leaf up to the flag leaf stage at a

rate of 1½ to three pints per acre. Prowl H2O will not control emerged weeds but can be tank-mixed with other postemergence wheat herbicides.

Alfalfa

Prowl H2O is now labeled for use in alfalfa for the control of annual broadleaf and grass weeds, including crabgrass, lambsquarters, and pigweed. Prowl H2O can be applied in alfalfa from the second trifoliate up to the six-inch stage of growth. Prowl H2O may be applied on seedling stands, between cuttings, or as a fall or spring dormant stage treatment.

New Glyphosate Products

Roundup PowerMax is a new potassium salt of glyphosate, containing 4.5 pounds of glyphosate acid equivalent per gallon. Roundup PowerMax contains a new proprietary blend of adjuvants and will replace Roundup OriginalMax.

Duramax and *Durango DMA* are new, identical products which contain the DMA (dimethylamine) salt of glyphosate and contain four pounds of glyphosate acid equivalent per gallon, as well as a surfactant. Durango DMA replaces the Durango brand and will be priced as the no-service brand, while Duramax replaces Glyphomax XRT and will be priced as the full-service brand.

Pastures

Remedy Ultra and *Garlon 4 Ultra* are new products which replace Remedy and Garlon 4 in the pasture market. The active ingredient in all of these products is triclopyr; the new formulations contain methylated seed oil, rather than kerosene, as the carrier. The new formulations are low-odor when compared to the older formulations. Weed control in these formulations is said to be analogous to those levels achieved by the older formulations.

AG BUSINESS NOTES

Karisha Devlin

Landowner's Resources

I hope that all of you that read this article are aware that your local Extension Office is a great resource for you. However, I want to be certain you know how good of a resource we really are by telling you about several things here.

Income tax materials that we have include 1099 forms of all kinds and 1096 forms (the summary), Farmer's Tax Guides and income tax publications such as Your Federal Income Tax and Tax Guide for Small Businesses. Remember too that you can download all except the 1099 and 1096 forms on the web at www.irs.gov. Some of these are available at no cost while others have a small fee.

Farm lease materials that are available include written lease forms that meet the legal requirements, Guide 520 which discusses "Verbal Farm Rental Agreements Under Missouri Law", livestock-share arrangements and how to make them fair and recreational lease agreements. Some of these leases are available via the web as well (contact us for those sites).

Farm record keeping books are also available at your county office. We have a couple to choose from, the Blue Book which is simple and inexpensive and the Red Book which is very detailed and individual pages can be bought. We also can assist you in finding a computer system that meets your needs.

Educational programs of all kinds are held by Extension staff throughout our area. Programs for new farmers and landowners (Grow Your Farm), legal concerns (fence law, Estate Planning, farm leases, etc.), farm management (Risk Management and Annie's Project), and A. I. Schools to just name a few. You can also keep up with programs on the county's web page which is extension.missouri.edu/countyname and click on calendar or contact the office in your county.

Livestock Compensation Program

USDA's Farm Service Agency is administering a crop and livestock program for producers who suffered losses in 2005, 2006 and 2007 due to weather conditions. I am going to briefly discuss the Livestock Compensation Program (LCP). The Livestock Compensation Program is for producers who suffered grazing losses in those years. The payment calculation is based upon the lesser of a total livestock value gotten from the number of corn equivalents per day, as established by FSA, determined necessary to provide the energy requirements for the specific kind of livestock for 30 calendar days or the total value of pasture loss. Pasture loss is derived from acres grazed in the disaster year, carrying capacity of that acreage, number of days normally grazed, a daily forage value and a producer's certified grazing loss percentage for the disaster year. So, in most cases a producer will want to choose the year in which they had the most qualifying livestock. The livestock species include: beef, dairy, buffalo, beefalo, sheep, goats, deer, horses, swine, elk and poultry. The animals must have been owned on January 1 of the selected year and must have been carried into the grazing season which

begins May 1. In order to claim calves, they must have weighed 500 pounds as of January 1 of the selected year. Your local Farm Service Agency has a form for each of the programs that will need to be filled out if you are applying for compensation which are now available.

LIVESTOCK NOTES

Zac Erwin

Is your herd ready for breeding season?

Breeding season may seem like a long way away, but late gestation management has a substantial effect on how well cows will cycle and breed during the coming breeding season. Since most producers don't routinely weigh their cattle, the best management technique to evaluate your cow's nutritional status is based on their Body Condition Score (BCS).

Evaluation of BCS

Key areas for evaluation of BCS are the backbone, ribs, hips, pin bones, tailhead, and brisket. An ideal minimum BCS for mature cows at calving time would be a 5 in which the hook and pin bones are visible, minimal fat is in the tailhead, and the spine is not visible. A change in BCS equates to about 75-80 lbs. of live weight. So, if a cow weighs 1,100 lb. at BCS 4, this same cow would be expected to weigh 1,175 lb. at BCS 5 and 1,250 lb. at BCS 6. Keep in mind that these weight changes do not include the weight of the fetus or fetal fluids, which in total amount to about 125-155 lb. Consequently, if a cow is just maintaining her body weight in late gestation, she is actually losing BCS because the fetus is growing at a rate of at least 1 lb. per day.

BCS relation to reproduction

Cow BCS is closely related to reproductive efficiency. For a cow to maintain a 365-day calving interval, she must rebreed by 83 days after calving (282-day gestation + 83-day post calving interval = 365 days). The average length of the post calving interval for a cow that calves in BCS 3 and 4 is 80 days compared to 55 days for cows that calve in a BCS 5 and 6. Keep in mind that these intervals are averages.

Increasing BCS

So what does it take to raise the BCS of a cow in late gestation? To raise BCS, we are increasing the amount of fat deposited outside of the muscle tissues. Fat is deposited when an animal consumes more energy than they can use for regular maintenance functions of the body. If we look at the table below, we can see an 1,100 lb. cow needs 207 Mcal of energy above her daily maintenance requirements to raise her BCS from a 4 to a 5. This would typically be done using an energy dense feed such as dried distillers grains (DDG's), corn gluten, or soybean hulls. DDG's typically contain 1 Mcal of energy per lb. while gluten and hulls generally contain .88 Mcal of energy per lb.

So if we feed 3 lbs. of DDG's in an effort to raise BCS, we can expect a change of BCS from 4 to 5 in 69 days (207 Mcal / (3 lb. DDG's x 1 Mcal per lb.).

If we choose to feed 3 lbs of gluten or hulls to raise BCS, we can expect it to take approx. 78 days (207 Mcal / (3 lb. gluten or hulls x .88 Mcal per lb.).

By looking at the figures above you can see how important it becomes to start changing your management early. It is much easier to increase weight gain before the cow calves because the amount of energy required for just maintenance increases by 36% in early lactation when compared to late gestation.

Energy needed to move a cow to the next highest BCS for various cow weights

	Mcal energy for various cow wts.		
BCS	1,100 lb.	1,200 lb.	1,300 lb.
2	140	151	164
3	157	172	186
4	180	196	212
5	207	226	245
6	242	264	286
7	285	311	337

Source: *Nutrient Requirements for Beef Cattle*, 1996

LIVESTOCK NOTES

Al Kennett

New Beef AI Technology Seminars

Want to shorten the amount of time you spend on your Beef AI program?

Dr. Dave Patterson, UM Beef Specialist, has developed a protocol for the Fixed Time AI program where cows are synchronized and all bred AI at a given time. Results from demonstrations and recommendations to successfully use this program will be discussed at several meetings during the month of February.

Additional information on vaccination programs will be discussed by Dr. Dan Goehl, DVM, Canton, MO during

the February 19th evening and February 20th morning meeting. At Bowling Green, Dr. N. T. Cosby, Purina Mills, will discuss feeding programs for successful AI. All meetings include a dinner compliments of area agri-businesses.

February 19th, 6:30 pm - Greenley Research Center, Novelty, MO. Please RSVP by February 15th by calling Zac Erwin, UM Livestock Specialist at the Lewis County Extension Office at (573) 767-5273.

February 20th, 10:30 am - Quality Inn and Suites, Hannibal, MO. Please RSVP by February 18th by calling Al Kennett, UM Livestock Specialist at (573) 985-3911 or the Lewis County Extension Office.

February 20th, 6:00 pm - VFW Hall in Bowling Green, MO. Please RSVP by February 18th by calling Al Kennett or Feeders Grain in Bowling Green at (573) 324-5411.

Bull Sale

The annual Northeast Missouri Performance Tested Bull Sale will be Saturday, March 29, 1:00 p.m. at F & T Livestock Market. We will have 58 bulls this year which includes 39 Angus, 7 Simmental, 7 Polled Hereford, and 5 Charolais.

Of the 58 head 25 of them are full two year old bulls. It is very unusual for nearly half of the bulls in the sale to be that old. Another 23 are 18 months old. The remainder are yearlings.

To qualify for the sale, the bulls have to be in the upper 60 percentile of their breed for two out of 5 EPD traits. They include CE, BW, WW, YW, and Milk. The bulls have been in their breed association record program and yearling weights and measurements have been supervised by Extension Livestock Specialists. Catalogs will soon be available. Contact your Extension office for a copy

New Beef Resource

University of Missouri Extension also has a new resource for persons wishing to track down beef cattle information. It's called the "Missouri Beef Resource Guide." It's a website that contains information on feeds and nutrition, health, breeding, facilities, management and more. In short, it's the new MU Guide Sheet or bulletins that have served as an information piece for decades.

We'll still have some guides, but by accessing this site you'll save trees and the expense of mailing. To view the website, go to http://agebb.missouri.edu/beef/. Someone said, with that contact we won't need extension livestock specialists. I hope that's not the case, but it doesn't sound too bad for an "old" man!!!

Show-Me-Select Heifer Sales

Our SMS bred heifer sale was down a little in average price from last year but up in numbers. We sold 251 head for an average of $1284. AI bred heifers seemed to be a little more in demand as they average $1325 while the natural bred heifers sold for only $1253. So did the difference in price pay for the extra cost?

The semen would be around $15 per head and if you got 70% conception that would be $21 per AI bred heifer. Plus you have the labor involved and the cost of drugs if they were synchronized. So it may have cost $50 per head to get the $72 extra. But don't forget, bulls cost $1800 to $2200 per head and are only used on the average for 4-5 years. That is about $400 per year. Plus, the pasture, feed, and care are probably worth another $250 a year.

So you have $650 a year in that bull that you get 25-30 head bred to. That's about $25 per head. And that AI sire doesn't tear up anything during the year!!

Back to the heifer sale, the other sales in the state averaged as follows:

Joplin - $1429
Kingsville - $1473
Green City - $1365
Fruitland - $1290
Mtn. Grove - $1133

We do hope to have a spring SMS heifer sale at Palmyra. It will be Friday night, June 6, 7:00 p.m. at F & T Market. This will be for fall calving heifers.

Also, there has been a minor change in our fall SMS sales. Starting with our fall 2008 sale, it will be held on the second Saturday of December starting at 12:30 p.m. rather than on the second Friday night.

AI Schools

Each year I get a few requests about dates for AI schools in our area. If you are interested give me a call, as I have the dates of some upcoming AI schools this spring.

Finally

I dialed a number and got the following recording: "I am not available right now, but Thank you for caring enough to call. I am making some changes in my life. Please leave a message after the Beep. If I do not return your call, You are one of the changes."