UNIVERSITY OF MISSOURI
MU Extension
EQUAL OPPORTUNITY/ADA INSTITUTION

AGRICULTURE BUSINESS
AGRONOMY
COMMUNITY DEVELOPMENT
HORTICULTURE
LIVESTOCK

AGNewsline

WEST CENTRAL MISSOURI
SPRING 2010

Meet our new ag business specialist

Whitney Wiegel has joined University of Missouri Extension as an agricultural business specialist for Lafayette, Johnson, Henry and Cass counties.

A Chillicothe native, Wiegel attended MU, completing a Bachelor of Science degree in agricultural education in 2007 and a Master of Science degree in agricultural economics in 2009. He was a USDA National Needs Fellow in Rural Community Sustainability.

Wiegel has also served as an agriculture specialist with Samaritan's Purse International Relief. He spent five months in Kosovo assisting in the development of an agricultural cooperative.

Feel free to contact Wiegel at the MU Extension Office in Lafayette County, 14 E. 19th St., Higginsville, Mo.; (660) 584-3658; wiegelw@missouri.edu.

a look ahead

May 1 - *Women in Boots & Blue Jeans: Ag Risk Management Conference*
MU Southwest Research Center
extension.missouri.edu/bootsconf/

June 17 - *Integrating Beef, Bobwhites and Biofuels,Ag Workshop and Field Day*, MU Bradford Research and Extension Center
(573) 884-7945

Monitor early-season nitrogen deficiencies

As corn develops, it is important to determine whether nitrogen deficiency symptoms are present.

Despite a fall 2008 anhydrous ammonia application of 180 lbs N per acre at the Graves-Chapple research farm near Rockport, early-season nitrogen deficiency symptoms were evident in spring 2009.

University of Missouri regional agronomist Wayne Flanary applied supplemental nitrogen (urea) at rates of 60, 120 and 180 lbs N per acre in mid-June. Corn that did not receive any nitrogen, other than the fall anhydrous application, yielded 169 bushels per acre. Only 75 percent of the crop's full yield potential was achieved when supplemental or rescue nitrogen was not applied. Corn yield increased to 197 bushels per acre with 60 lbs rescue N per acre, while corn that received 180 lbs rescue N per acre yielded 220 bushels per acre.

This research study illustrates the importance of:

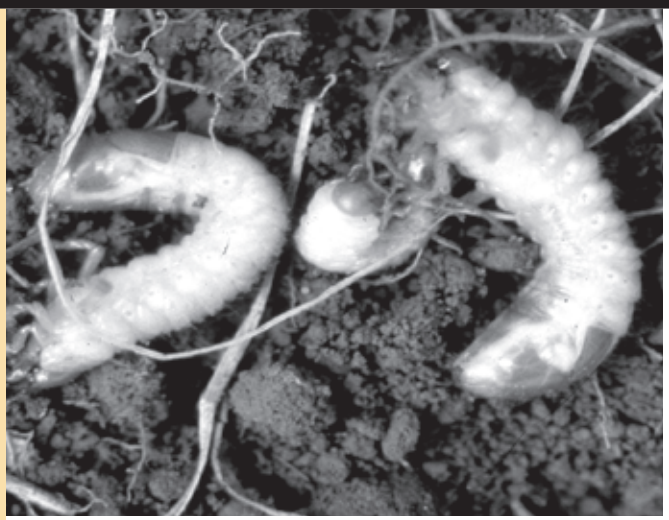
- Monitoring corn growth and development early-season and
- Applying additional nitrogen in-season, when necessary.

When wet weather results in the loss of nitrogen, rescue N applications have shown to be highly profitable. It is critical for corn to have adequate nitrogen during the V9 to V18 growth stages, or approximately when corn is hip-high to nearly tasseling.

During this period of maximum growth, nitrogen uptake is at its maximum and if corn is nitrogen-limited, yield will be affected. Ideally, nitrogen should be applied to corn closest to the time of maximum crop uptake.

Every corn producer is encouraged to develop a plan, before the season is underway, for making rescue N applications.

JULIE ABENDROTH
MU Extension
Agronomy Specialist
816.776.6961
abendrothj@missouri.edu



Choose your best defense against white grubs

May and June are the optimum months for combating white grubs in your lawn.

Damage caused by white grubs

White grubs are the larval or immature stage of mainly two species of soil inhabiting beetles - the Southern Marked Chafer and May or June beetles.

These beetles have a one- to three-year life cycle depending on the species. The adult beetles mate and lay their eggs from mid-June to mid-August depending on environmental factors.

The eggs hatch in two to three weeks. The small grubs begin feeding on fine roots and organic matter. Damage may progress from thinning to small patches of dead grass, even with adequate soil moisture.

Aside from turf damage, the grub's presence promotes bird scavenging, raccoon and skunk digging, and mole burrowing.

White grubs are the most widespread and destructive insect pests of turf grasses in Missouri. Homeowners have two main options for chemical control of white grubs in lawns: preventive and curative.

Preventive treatment is good for an area where damaging levels of grubs have been perennial. Preventive application is best applied in late May or June. Chemicals such as imidacloprid (Merit) or halofenozide (Mach 2) are recommended. These chemicals are safest for humans and other animals and are relatively non-toxic to earth worms, birds and honeybees.

These chemicals provide season-long control, lasting six to eight weeks in the soil. They are available in bags alone or together with fertilizer granules. Use of these insecticides without added fertilizer is preferred for cool season lawns. Fertilizing lawns in summer can promote diseases.

Curative treatment is good for an area where damaging levels of grubs have been noticed that particular year and the grubs are actively feeding, a signal that immediate control is necessary. Insecticides that have a short residual period (less than three weeks) are best used in a curative chemical-control program.

Proper timing of chemical applications is critical to control white grubs.

The successful use of these materials is dependent on the proper timing of the applications. These products must be applied shortly after the eggs hatch when the grubs are small and actively feeding. Insecticides that appear to be effective as curative treatments are carbaryl (Sevin) and trichlorfon (Dylox). Commercial applicators offer more choices. The key to good control is to water thoroughly after an even application.

To determine if your lawn needs a curative chemical treatment, first collect a sampling of the grub population. To do this, cut a 1-foot-square piece of sod in each of several areas of the lawn. Pull the turf samples back, and count the number of grubs present. Place the sod squares back on the soil. If you find an average of six to 10 grubs per square foot, chemical treatment is recommended. Read the chemical label and carefully follow directions.

LALA KUMAR
MU Extension
Horticulture Specialist
816.252.5051
kumarl@missouri.edu

What drives profit on the beef farm?

What is the difference between profit and profitability on a beef farm? Profit is simply the revenue, minus cash costs and depreciation. Profitability is revenue minus cash costs and depreciation plus a return for labor and management.

Profitability should be a priority for all beef farms. In an effort to improve profitability, beef producers need to focus on what drives the bottom line.

So much time is spent analyzing the mineral program, or what bull to use. Producers even debate the merits of the latest technology or fad featured in ag magazines.

The most profitable thing a beef producer can do is to focus on what is important to the future of the operation. Concentrate on what actually drives the profit of the farm.

So, what drives profit? First let's define income. Income is determined by calf sales, the price per pound received and, of course, cull income. You cannot greatly influence cull income so let's take a closer look at the calf.

Calf production is dependent on cow condition for breeding. Forage quality and quantity drive cow condition, so ultimately, forage quality and quantity also drive calf income.

Why spend so much time worrying about the correct weight for a calf? Why lose sleep about the mineral program or even where you sell animals?

A better use of time is to focus on your forage program and, more importantly, how to manage the forage grown on your farm. Producers need to learn how to decrease the number of acres required per cow. Can you afford to allow four or five acres for each cow? Most likely not.

By learning how to improve utilization of your pasture land, you can reduce the number of acres required for each cow. This will improve your bottom line and the overall profitability of the cow herd.

In taking an overall look at your beef operation, less time should be spent concentrating on factors that have little impact. The bottom line, which yields profitability, should be your focus. Profitability determines a return to labor and management. This adds to your quality of life and confirms why you are in the beef business.

WAYNE PREWITT
MU Extension
Agriculture Business
Specialist
417.448.2560
prewittw@missouri.edu

Factors contributing to feed costs

Feed is made up of pasture costs, hay costs and hard feeds. Forage quality and quantity drive feed costs.

Managing forage correctly allows for stockpiling, which reduces the amount of hay needed. Forage additionally determines the amount of feed that needs to be purchased.

Forage also drives veterinary expenses and other medical costs for the herd. Normal preventive and treatment costs are necessary. But what drives animal health?

The simple answer: forage quality and quantity. Herd health trouble occurs when animals are under stress.

Stress occurs when cows do not get the quality or quantity of forage needed to thrive. So forage can actually drive veterinary and medicine costs - along with cow herd health.

UNIVERSITY OF MISSOURI
Extension
Live. And Learn.

Improve herd reproduction efficiency by shortening the calving season

Shortening the calving season in a beef herd may be one of the most cost-effective decisions an operator can make to improve profits. Surveys show only about 36 percent of producers use a system with calving seasons restricted to 60 to 90 days.

Calves born in a defined time frame will have increased weaning weight averages compared to calves born in an expanded or year-round breeding season. By defining the breeding season to allow optimum time for calves to grow, the average weaning weight should improve.

To make this change, you do not want to exclude quality cows that have been consistently fertile but are outside the intended calving window. Excess culling of cows and a shrinking herd are also concerns. Splitting the herd into two calving seasons may be the best option. This allows most females to fall into one of the two breeding seasons. Time, labor and facilities must exist to allow appropriate maintenance of both herds.

To institute a single breeding season, decide when the last calf of the season should be born and the bull's last day with the herd. In the first year, bulls are removed at the pre-determined time and cows are pregnancy-checked 60 days later. Bulls are put back with the open cows 120 days later and left for six months. This system defines the end of the breeding season each year, but allows the beginning date to be managed. The second year the beginning date is six weeks later than the year before, and the third year is shortened another six weeks, restricting the breeding and calving season to 90 days. This system will eliminate cattle that fail to conceive early in the breeding season, but will result in overall increased herd reproductive efficiency.

AL DECKER
MU Extension
Livestock Specialist
660.679.4167
deckera@missouri.edu