

AG *Newsline*

AG-BUSINESS, AGRONOMY, HORTICULTURE,
LIVESTOCK AND COMMUNITY DEVELOPMENT
FOR WEST-CENTRAL MISSOURI

JULY, AUGUST, SEPTEMBER
2007

BEFORE PLANTING,

Check Wheat Seed Quality

The wheat crop this year has been through a lot with the Easter freeze, heavy rains and disease. If producers are planning to save wheat to plant, it is important to check the germination of their wheat seed.

The first step is to clean the wheat seed. It is important that wheat seed be cleaned to remove small and damaged seed and to eliminate weed seeds. Removing small and damaged seed will not only aid in crop establishment, it will also provide a more uniform wheat seedling stand. Removing small and damaged seed will also increase the thousand-kernel weight (TKW), which serves as a measure of seed quality. Wheat seed with TKW values greater than 30 grams tend to have increased fall tiller number and seedling vigor.

The next step is to perform a germination test. Germination tests can either be completed at home or by sending a sample to the State Seed Control Laboratory. A home test can be performed by counting out 100 seeds and placing them in a damp paper towel. Place the paper towel into

a plastic bag to conserve moisture and store in a warm location out of direct sunlight. After five days, count the number of germinated seeds that have both an intact root and shoot. This will give the grower an estimate of % germination. It is important to choose random seeds throughout the entire seed lot and conduct at least five 100 seed counts. Unless the producer is in a big hurry, he should wait a few weeks for the moisture levels in the bin to stabilize and then perform a germination test.

Newly harvested wheat seed is highly dormant and requires a period of vernalization to break natural dormancy. Missouri Seed Improvement's current procedure for germinating new crop wheat is 5 days of pre-chill at 5 degrees C followed by 5 days in the germinator at 20 degrees C. Even with a 5 day pre-chill, there can still be a high level of dormant seed for the first 3-4 weeks after harvest.

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New Tax Provisions

(Two Enacted and One on the Governor's Desk)

The recently enacted "US Troop Appropriations" bill contains numerous other provisions impacting a wide array of individuals and businesses. The bill contains two tax-related provisions of particular interest and value for farmers and other small businesses.

The first provision, also the one that will impact the greatest number of businesses, increases the 2007 Section 179 deduction from \$112,000 to \$125,000. Additionally, the maximum annual investment in qualifying property is also increased from \$450,000 to \$500,000. There is a continuing dollar for dollar phase-out for investments in qualifying assets over the \$500,000 amount. The Section 179 provision is of significant tax planning value to small businesses. Really large businesses frequently will make annual investments in qualifying property greater than \$625,000 thus eliminating the Section 179 deduction available on their tax return.

The second provision is more for show than dough – for most taxpayers. This provision allows a husband and wife, both materially participating in a sole proprietorship business, to each report one-half of the income and expenses

on separate Schedule Fs or Schedule Cs. Prior to this legislation, a husband and wife operating a sole proprietorship together – had to report the income and expense on either the husband's or the wife's business schedule, but not both. Previously the only way they could split the income was to file a partnership tax return. So this provision does provide some tax simplification.

However, couples will want to give considerable thought to the self-employment tax costs and the probable Social Security retirement benefits before electing to split the reporting of business income and expenses.

The last tax provision to mention is one that is getting substantial debate around the State of Missouri. This bill, passed by the Missouri House and Senate, is now sitting on

the governor's desk – the Qualified Beef Tax Credit. This bill, if signed by the governor, provides a Missouri tax credit to beef producers, if they retain their calves and sell them at a weight greater than 450 pounds. The credit would be equal to 10 cents per pound for weights of qualified animals above 450 pounds. Qualifying beef animals are defined as an animal born in this state after August 28, 2008 that was raised and backgrounded or finished in this state – that weighs more than 450 pounds, excluding any beef animal more than thirty months of age.

If the total claimed beef tax credits from all qualified producer/applicants exceeds \$10 million in any year, the \$10 million will be prorated among the qualified producer/applicants.



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DETERMINING

Wheat Seed Quality

(CONTINUED)

The State Seed Control Laboratory does free germination testing, June 1 through August 31 and November 1 through January 15. Their test requires one pound of seed.

Samples sent at other times will have a minimum charge of \$13.50. Sample forms, with the address where samples are to be mailed, are available at Extension Centers or at <http://www.mda.mo.gov/pdf/seedsvcsamples.pdf>. If germination is below 85%, it is important to increase the seeding rate to compensate; however, I would caution growers from seeding any wheat with a germination test below 80%.

The next step is to assess whether to apply a seed treatment. A number of fungicides are labeled for use as seed treatment fungicides on winter wheat. These seed treatment fungicides protect germinating seed and young seedlings from seedborne and soilborne pathogens. Seed treatment fungicides will not improve germination of seed that has been injured by environmental factors and will not resurrect dead seed. A correct assessment of the cause of poor seed quality or poor germination rates is the first step in

deciding if a seed treatment fungicide is necessary.

Several fields this year had loose smut. It is easily recognized by the characteristic dusty black appearance of diseased heads. As a rule, glumes and grain are completely transformed to black powder, which shatters off, leaving a bare spike at harvest. Loose smut fungus grows down in the flower and establishes itself inside the developing kernel. When infected wheat seed is sown, the fungus grows into the young shoots and develops with the plant, replacing the spikelets with black spores, which can infect flowers of healthy plants. If infected seed is saved, incidence of the disease may increase over the years. Foundation and certified seed should be relatively free of loose smut. Carboxin (Vitavax) seed treatment should be applied on all wheat used for seed.

Some fields may have had Fusarium head blight (scab) and/or

black point. Black point or kernel smudge may be caused by a number of different fungi including species of *Alternaria*, *Fusarium* and *Helminthosporium*. Affected kernels appear black-pointed. The embryo end of the seed is discolored with a darkened pericarp and may be shriveled. Kernels from heads with *Fusarium* head blight (scab) may be shriveled or shrunken and lightweight. Some kernels may have a pink to red discoloration. Others may be bleached or white in color. The fungi, which cause black point and scab of wheat seed, may survive in or on the seed, affecting germination and contributing to seedling blight problems if seed is planted. Planting good quality, disease-free seed is an effective means of preventing problems from these seedborne pathogens. If seed with black point or scab must be used for planting, a seed treatment fungicide should be considered. For more information, see guide sheet G4319, which is available at your local MU Extension Center or via the Extension website: www.extension.missouri.edu



By Pat Miller, University of Missouri Extension Agronomy Specialist
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PRIORITIES FOR THE Cow-Calf Producer

Dr. Tom Fields of Colorado State University conducted and summarized a recent survey of cow-calf producers and industry specialists.

The survey sought to:

- 1) Identify and rank management priorities in the cow-calf business;
- 2) Provide producers with a “roadmap” to help them better organize and prioritize various aspects of their operations according to economic importance;
- 3) Encourage producers to evaluate and deploy their time, money, and other resources on the most important operational priorities.

Fifteen major cow-calf management categories were identified and ranked. None of the 15 categories should be considered unimportant. Each has its place in a well managed beef cow operation. However, some aspects of the business are more economically important than others, and thus, deserve greater managerial time and energy. Therefore, the top ten will be the primary focus of discussion.

Priority #1: Herd Nutrition

Herd nutrition was identified as the number one management priority cow-calf operators must focus on to keep their operation profitable and sustainable. Regardless of herd size or geographic location, managing cowherd nutrition is crucial. Areas of concern are overall cowherd nutrition, cowherd nutrition from calving to weaning, cowherd nutrition during the third trimester of gestation, and replacement heifer nutrition. Less emphasis was placed on cow nutrition during mid-gestation and bull nutrition. The increase in feed costs has had a tremendous impact on profitability.

Priority #2: Pasture and Range

The beef industry relies on the production and utilization of forages and requires an extensive amount of land. Long-term success in the cow-calf business depends on effective range and pasture management. Stocking rate and the timing and duration of grazing were considered the most crucial, with less importance on plant species and monitoring cattle performance.

Pasture management is a topic that receives high emphasis in the development and delivery of educational programs.

Priority #3: Herd Health

Herd health ranked very high, with everyone agreeing on the importance in maintaining a profitable operation. Emphasis was placed on disease prevention (health maintenance) in cows, bulls, replacement heifers and calves (pre and post-weaning). Health management was not viewed as a place to cut corners or costs. It was one of the most important aspects of a cow-calf operation.

Priority #4: Financial

Financial management is an important “critical control point” for cow-calf producers. Managers need financial data (records) to measure the success of different activities and the profitability for the whole operation. Cost accounting was viewed as the most important, with estate planning ranking the lowest. However, as the average age of the producer increases, the need for estate planning becomes more important.



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PRIORITIES FOR THE

Cow-Calf Producer

(CONTINUED)



Priority #5: Marketing. With production costs increasing faster than normal the last several years, more producers are focusing on marketing and adding value to their calf crop.

The highest marketing priority for producers involves selling the annual calf crop, which accounts for more than 80% of the revenue. Selecting the right marketing channel (auction, video, direct sales, retained ownership, etc.) is also an important part of the marketing program. Marketing cull cows and replacement heifers should receive emphasis in a marketing plan. Less value was placed on participation in an alliance or beef supply chain, providing post-weaning data to feedlots, and using futures and/or options ranked the lowest.

Priority #6: Production Mgmt

Production management affects the volume of output generated by the cow-calf enterprise (example: pounds weaned per cow exposed). In the past, the cow-calf segment has been criticized for over-emphasizing production. Upon further evaluation of production, focus was placed on breeding and calving

management (reproduction), weaning management and replacement heifer selection, and culling decision and herd bull management. The greatest priority is the management of the breeding season and calving season in order to achieve a desirable calf crop percentage.

Priority #7: Genetics

Genetics play a vital role in the commercial cow-calf system. Producers that retain ownership of their calf crop through the feedyard said genetics were a higher priority compared to those that sold their calves at weaning. A greater emphasis was placed on bull genetics compared to cow and replacement females. Cow-calf producers favored crossbred cows and the production of crossbred calves. Raising one's own replacement was not viewed as a strong priority overall. One of the reasons that heifer development programs have been successful.

Priority #8: Labor

Labor management ranked in the middle of the 15 priorities. This was highly dependent on herd size, where larger herds (> than 550 cows) placed greater emphasis on hired labor and smaller and medium herds viewed family labor as more important. Another concern is the shortage of labor.

Priority #9: Information

Information and data are important for decision making. Finding the right information, applying and leveraging that information to support higher priority items is the primary purpose. Overall, cattle performance records are necessary to make management decisions. Records should include reproductive information, herd inventories, herd health, weaning data, etc. Obtaining external information was important. Meaning that Extension, commodity groups, veterinarians, and your service companies can provide you valuable information for your operation.



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Stockpiling Tall Fescue for

Winter Grazing

It's the middle of July. Temperatures are fast approaching 100 degrees. There are a million things to be taken care of on the farm. So what should be near the top of any cattle producer's list? Getting ready for winter grazing.

It may seem strange to think about winter grazing in the middle of the summer, but right now is the time to be putting together a winter grazing plan. For most Missourians, that means stockpiling fescue for winter grazing.

The basic concept of stockpiling (also known as deferred grazing) is to remove grazing animals from a specified pasture, harvest the hay in mid to late summer, and allow the new growth to accumulate until after the growing season has ended. There are a number of benefits to winter grazing on stockpiled pastures. These include:

1. Quality Feed – Stockpiled pastures typically provide high quality feed with a nutrient content that exceeds that of hay.

2. Less Expense – It is much less expensive to graze cattle than it is to haul them hay.

3. Less Hay – Fall and winter grazing reduces the amount of hay needed to make it through the winter, which can be especially useful in years when there is a shortage of quality hay.

4. Better Growth Next Spring – With the heat and lack of rain commonly seen during Missouri summers, it is nearly impossible for the grass to keep up with grazing animals. This results in overgrazing which can kill the roots of some plants. Stockpiling allows the plants to establish a stronger root system going into the winter dormant period which results in earlier, more productive growth the following spring.

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Cow-Calf Priorities

Cont.

Priority #10: Harvested Forages

Harvested forages finish the top ten list of priorities. Producers are focusing on finding other ways to satisfy the nutritional needs of their cowherd with stockpiling forages, changing calving seasons, weaning earlier, or other decisions. The top concerns are keeping costs down, management of the mineral program, and supplemental feeds.

Dr. Tom Fields summarized the research as follows: "Producers and technical specialists (who support the cow-calf producers) are confronted with mountains of information on individual aspects of the cow-calf business, which is often presented as stand alone facts and principles. This information needs to be integrated and applied according to economic priorities within the cow-calf enterprise. Prioritizing management activities and aligning the industry's information resources with these priorities is an important step toward improving producer profitability." This study depicts the areas that can dramatically impact the profitability and sustainability of a cow-calf operation. Each producer will need to decide where emphasis needs to be placed to have that greatest impact in their operation. This survey and research product was sponsored by the American Angus Association.



By *Travis Harper*, University of Missouri Extension Agronomy Specialist
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Carbon Credits

Now, Money Does Grow on Trees!

Missouri's diverse forests provide significant economic opportunities in the wood products and tourism industries and for hunters and fishermen. Now, forest landowners can earn a new source of income from their forest landscape: payments for carbon stored by growing trees.



Forest landowners can gain access to the carbon market by enrolling in a new service provided by Dogwood Carbon Solutions, an enterprise that links Missouri forest and grassland owners with the emerging market for carbon storage (or carbon sequestration). Payments are made possible by Dogwood Carbon's relationship with the Chicago Climate Exchange (CCX).

Founded in 2003, the CCX is attempting to provide a market-based mechanism for reducing greenhouse gas emissions. Large-scale greenhouse gas producers (energy companies, paper mills, factories, etc) voluntarily participate in the CCX as carbon credit buyers. These companies look to landowners, farmers and other carbon sequestering projects as carbon credit sellers to offset greenhouse gas emissions. Carbon credits are traded between buyers and sellers on the Chicago-based CCX much like soybeans and pork bellies are traded on the Mercantile Exchange.

"Missouri's forestlands are one of the most valuable carbon storage buys on the market," says Dogwood Carbon's Jake Davis. "On a per acre basis, Missouri forest owners are in a solid position to earn a significant amount of income from the carbon credit trading system."

At this time, eligible timber stands include trees that have been planted since 1990 or reforested areas through natural regeneration. Forest landowners are paid through a formula based on species and age of their timber stand multiplied times the price of carbon on the CCX.

- Missouri hardwoods currently average \$18 per acre, per year.
- Pines and softwoods younger than ten years old are currently worth \$9 per acre, and pines planted since 1990 but older

than ten years are worth \$30 per acre.

- Participants will be paid once per year and the price will move slightly up and down, dependent upon the price of carbon.
- Dogwood Carbon deducts their brokerage fee (10% of the annual contract amount to cover trading costs) from the annual payment.

In the next four to six months, uneven-aged management, timber stand improvement and other sustainable forest practices are all expected to become eligible for certification.

For more information on carbon sequestration and credits, see: <http://www.snr.missouri.edu/forestry/extension/carbon.php>

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Websites of interest include: dogwoodcarbon.com and chicagoclimatex.com

Farmer's Markets become Community Anchors

Ever wonder why some farmers' markets are well-known by consumers, while others with quality goods do not see the crowds? A farmers' market, like a number of small businesses, may often be unknown because of a lack of history, marketing efforts, hidden location, poor hours, and a lack of consumer choice.

Why are farmers' markets such as the City Market in Kansas City or Soulard Farmers' Market in St. Louis so well known and so few others are? They have cemented themselves within their communities for over 100 years. Soulard, once one of many large farmers' markets in St. Louis, opened in 1779 and City Market became a hub for Kansas City commerce and western folklore in 1857.

Both markets relied not only on fresh fruits and vegetables to draw in the customers, but they also became prime locations for a variety of community events, meetings and entertainment, as well as a prime location for businesses to set up permanent locations. While they have experienced their ups and downs, crowds have continued to return because they have developed a history, not only in their community, but for their customer base.

Marketing can also be a challenge to overcome for farmers' markets. With limited funds, most markets are volunteer-ran or non-profit or-

ganizations and often rely on small marketing budgets pooled together by vendors. This often means focusing efforts on newspaper advertisements and a heavy reliance on word-of-mouth marketing.

Without a good deal of advertising and marketing efforts, even the best farmers' markets may remain hidden from consumers in an area of town that is not heavily traveled, is away from residential housing, or empties as the work-week ends. Other factors determining the success of a market include the availability of adequate parking, safe areas to cross streets, adequate lighting (if a night market), and hours of operation.

When adding all of these potential issues together, a market can suffer from the chicken-egg syndrome; i.e. not being able to attract consumers because of a lack of consumer choice between product and vendor and thus not being able to



attract additional consumers or vendors to fill those voids.

So, how can a market overcome these potential hazards of a lack of history, poor location or hours, or a lack of vendors/consumers? First, take an honest assessment of your market. Ask customers and vendors what they like and dislike about the market. Look at your location, set up and vendors with critical eyes and offer constructive criticism. Develop a marketing plan that targets potential consumers, takes advantage of free advertising, and look for partnerships and opportunities that can get the word out about your market.

Lastly, remember that for every bad experience a consumer has, they tell an average of ten people. So, look for ways to give each visitor to your farmers' market a positive experience to remember and pass along, and hopefully your market can become an anchor within your community.



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Stockpiling Tall Fescue

For Winter Grazing

While almost any perennial forage can be stockpiled, the grass of choice is tall fescue. Fescue is more resistant to low temperatures and will maintain more active growth than orchardgrass, brome grass, or timothy.

In response to shortening day length and cooler temperatures, tall fescue begins to accumulate a high level of soluble carbohydrates in both leaves and stems. With up to 20 percent of the dry weight of the plant as free sugars, the nutritive quality of fall-grown fescue is quite high. Research suggests that fescue can have protein levels as high as 12 percent, to as late as February.

For a successful stockpiling endeavor, there are a number of steps to follow. The first is to select an ideal field. Mixed pastures typically hold up to the weather longer than monocultures. This is not the case with fescue. Choosing the field or fields that have the highest percentage of fescue is very important. Another important step to remember is allowing the pasture an adequate amount of time for late season growth. To determine when to begin the stockpiling period, es-

timate the last day of active growth in the fall and count back 75-90 days. In central Missouri, the end of the growing system ranges from early to mid-November so the beginning of the stockpiling period should be around early to mid-August. At the beginning of the stockpiling period, hay should be cut or grazing animals removed.

Tall fescue is very responsive to nitrogen fertilization. This application, of 40-80 pounds of nitrogen per acre, should be made at the beginning of the stockpiling season. If there is adequate moisture, fescue will be more responsive to rates near the higher end of the scale. If legumes make up more than 30% of the pasture to be used for stockpiling, it may not be cost-effective to apply nitrogen at this point. If numerous pastures are going to be


used for winter grazing, those containing higher percentages of legumes should be grazed first. Fields may benefit from phosphorus and potassium applications at this time as well. If soil levels are unknown, a soil test should be taken.

Once the growing season has ended, then it is time to turn the animals loose on the stockpiled pastures. Depending on weather and the condition of the pasture, it is possible for one acre of stockpiled fescue to meet the needs of one cow for as many as 50 days. To achieve this goal, it is necessary to reduce the amount of forage that is wasted. This can be accomplished by strip-grazing stockpiled pastures. Strip-grazing pastures will result in greater utilization of stockpiled forage.



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Calendar of *Local Events*

FOR STATEWIDE EVENTS, CHECK THE WEB AT:
ACCESS.OUTREACH.MISSOURI.EDU/UOECALENDAR

July 23-25	Greenhouse Management Short Course, on the University of Missouri-Columbia campus. Contact David Trinklein at 573.882.9631 or via e-mail: trinkleind@missouri.edu for registration information or other questions.
August 3	Growing Growers: Starting a New Farm (5:00-7:30 PM) at Spring Creek Farm in Baldwin City, KS.
September 9	Growing Growers: Pests, Diseases, and Weeds (10:00-4:00 PM) at East Wind Gardens in Independence, MO.
October 1	Growing Growers: Small-scale Integrated Vegetable Farming: Horses and Poultry (4:00-6:00 PM) at Red Barn Farm in Weston, MO.
October 20	Growing Growers: Business Management for Small Farms (10:00-4:00 PM) in Kearney, MO (location to be determined).