

## Winter backgrounding rations

I recently took some time to look at ration costs for backgrounding weaned calves. Feed prices are high, but so are cattle prices, so I was interested in comparing the two.

Standard grower rations used in the comparison are based on 500 pound steer calves that have not received an implant and are not fed ionophores (Bovatec or Rumensin). Certainly performance can be improved by using these products, but not everyone wants them included in animal performance expectations. The base scenario was feeding the calves from November through February. No adjustments were made for inclement weather or wet lot conditions. The target rate of gain was 2.0 pounds per day.



Selected feeds included hay, corn grain, several grain by-product feeds and a mineral supplement. The nine rations calculated included various combinations of these ingredients which meet animal requirements and are basically equal in the amounts of energy and protein they supply the animals.

In addition to calculating the rations, feed cost per head per day and feed cost per pound of gain were also calculated. These were interesting numbers to look at.

**Feed cost per head per day** - Using recently reported retail by-product feed prices and estimated prices of corn grain and hay, feed cost per head per day ranged from \$1.34 to \$1.59. This is a difference of \$0.25 per head per day or \$25 per head for a 100 day feeding period. For a producer with 30 head of weaned calves to feed, he could pocket an extra \$750 just by comparing rations using different feed ingredients.

**Feed cost per pound of gain** - Another useful calculation is feed cost per pound of gain. This ranged from \$0.66 to \$0.78 in my recent calculations. If the 30 calves in the above example gain 200 pounds, a total of 6,000 pounds of beef is produced. With a feed cost per pound of gain difference of \$0.12, this totals \$720 that could be saved by comparing rations; an amount similar to the savings based on feed cost per head per day.

Estimating the future value of calves can be difficult, but the current price structure looks to add about \$250 in value to calves by growing them from 500 to approximately 700 pounds. Feed costs are in the \$150 per head range, leaving about \$100 to pay other ownership expenses plus profit. Producers may want to take a look at backgrounding their spring calves even though feed costs are high.

Be sure to shop around for feed ingredients, as this can have a huge impact on the bottom line.

**Source:** *Gene Schmitz, Livestock Specialist*

## Keeping grain in condition

Management is required to keep grain in good condition once it is placed in storage. Because of differences in temperature between the grain in the bin and the outside air, air inside the bin migrates.

With cold outside air, the air inside the bin moves downward along the outside wall and then upward toward the center of the bin. The air that comes up through the center of the bin will carry some moisture as it contacts the cool grain in the center of the bin. Moisture will then condense and cause the grain in this area to go out of condition and crust over.

The crusting will keep air from flowing through the mass of grain and making it impossible to keep the grain in condition. To prevent this problem, grain should be cooled to about 40 degrees F in the fall and warmed to about 60 degrees F in the spring. This will minimize migration of air through the bin.

**Check grain weekly.** Use a grain probe and a thermometer to check the temperature by probing below the surface of the grain in several places. Record these temperatures to monitor changes. Moving air through the grain can help in determining grain condition. If a musty odor is detected, problems may exist not detected by inspecting the grain or checking the temperature. If problems do occur, fans may need to be run to dry the grain. In some cases, grain



may need to be removed from the bin.

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Covering the fan intake when it is not in use can prevent air from moving through it and minimize insect and rodent problems.

**Should air be pushed or pulled through the bin?** There is no right or wrong answer — it depends. If air is pushed through the grain, moisture is most likely to condense on the cold roof. This can cause some moisture problems with grain at the top of the bin. An advantage of pushing the air is if grain spoilage does occur, it will most likely be at the top of the bin and is easier to detect.

When air is pulled through the bin, the moist air coming off the grain can condense on floors and on grain near the floor. This can block ducts and plug the aeration system. If air is pulled air through the grain, one should wait until several feet of grain has been placed in the bin to avoid pulling fines into the duct.

**Leave the fan on long enough.** Anytime a drying or cooling front is started through the grain, make sure the fan runs long enough to move the front completely through the grain. When the temperature of the air coming through the

grain is equal to the outside air, drying or cooling is complete.

**Source:** Kent Shannon, *Natural Resource Engineering Specialist*

What are safe storage moistures?	
Grain	Maximum Safe Moisture Content (percent)
<b>Shelled Corn or Grain Sorghum</b>	
Sold by spring	15.5
Stored up to one year	14.0
Stored more than one year	13.0
<b>Soybeans</b>	
Sold by spring	14.0
Stored up to one year	12.0

## Update on SPCC compliance date extension for farms

In the September 2010 and August 2011 issues of Ag Connection, there were articles discussing the Spill Prevention, Control and Countermeasures (SPCC) rule pertaining to the storage of oil, gasoline, diesel and other oil-based products. This is an update to the previous articles regarding the compliance of the SPCC rule.

On October 13, 2011, the U.S. EPA amended the date by which farms must prepare or amend and implement their Spill Prevention, Control, and Countermeasure Plans, to May 10, 2013. The original compliance date was November 11, 2011. If EPA receives no adverse comment, no further action on this rule will take place and the rule will become effective 20 days from the date of publication in the Federal Register.

More information about the rule is available at:  
[http://www.epa.gov/emergencies/content/spcc/spcc\\_ag.htm](http://www.epa.gov/emergencies/content/spcc/spcc_ag.htm)

If you have any questions or for more information, contact Kent Shannon, MU Extension Natural Resource Engineering Specialist at e-mail: [shannond@missouri.edu](mailto:shannond@missouri.edu) or phone: 573-445-9792.

## Another new pest on the way(?)

Officially known as the *spotted wing drosophila* (SWD), it might be easier to call it the spotted wing fruit fly. These tiny flies are also known as vinegar flies. Many of us are familiar with fruit flies from school projects growing thousands in a small jar.

Past articles have referenced several new pests approaching Missouri. These included the soybean aphid, soybean rust, marmorated stink bugs, emerald ash borer, gypsy moth, Africanized bees and fire ants. Some of these pests like the soybean aphid and soybean rust have entered Missouri and have not caused big problems so far. Others like the Africanized bees and fire ants may not arrive any time soon



due to environmental barriers. It will be a wait and see thing with the SWD. The environment may not be a barrier since they are problem in British Columbia, Alberta, Ontario, and Quebec, Canada. They have also been found in California, Oregon, Washington, Florida, Hawaii, Michigan, North & South

Carolina, Louisiana and Utah.

The SWD is not the same insect from school science projects or found around over ripe bananas in our kitchens. School fruit flies are known as *Drosophila melanogaster* while the SWD is *Drosophila suzukii* the same genus, but a different species meaning they look the same unless magnified.

*Drosophila suzukii* has the ability to become a major pest of soft fruits like; grape, cherry, plum, strawberry, blueberry, raspberry, elderberry and blackberry. Unlike other fruit flies, the SWD can open ripening fruits and insert eggs. Not only can the developing maggots ruin fruits, but the egg laying opening can allow disease to enter causing the fruit to rot.

Spotted wing drosophila are 2 to 3 millimeters or 1/8 inch long with light brown bodies and red eyes. Only the male flies have black spots near the wing tips. Females have an egg-laying appendage, which looks like a cross between a can opener and a curved saw. One to three eggs are laid in each opening and female SWD may make more than one egg laying opening and can attack many fruits.

The small, white larvae feed in the fruits causing brown sunken spots that may ooze. They will feed inside of developing, ripe, damaged or dropped fruit. Sanitation or cleaning up dropped and damaged fruits may become an important task for home fruit growers.

Monitoring developing soft fruits is also very important to help avoid the main attack. The SWD will begin attacking fruit as soon as any ripening color begins to appear. States

and Provinces where SWD is found are doing research to find the best methods to protect fruits from this pest. Local growers should be able to benefit from their work on pesticides and management.

Source: *Jim Jarman, Agronomy Specialist*

## **Bottom line tidbits:** **ten business mgmt. items farmers** **should do prior to year-end**

1. Get the recordkeeping for your business up to date.
2. After getting your records current, make two lists to use with your year-to-date receipts and expenses report:
  - a. Income and expenses that will be received or paid prior to year-end.
  - b. Income and expenses that could be received or paid prior to year-end.
3. Analyze any non-recurring or unusually large anticipated receipts or expenditures for next year. For example, are you planning to carry over an unusually large quantity of grain or livestock? Or are you planning to incur any unusually large expenditures for conservation practices, fencing, lime, business expansion, etc.
4. Meet with your tax return preparer prior to the end of the year to make sure everyone is “on the same page” to avoid costly surprises and to insure sufficient time is available to evaluate alternative strategies.
5. Review Social Security management strategies for yourself and your spouse. Do both you and your spouse have sufficient quarters of earnings during the last ten years to qualify for disability benefits? For 2011 it takes \$1,120 to earn a quarter of Social Security coverage. This amount increases to \$1,130 for 2012.

The maximum earnings subject to Social Security tax for 2011 is \$106,800. This amount increases to \$110,100 for 2012.

6. The annual gift exclusion (\$13,000 per donee) continues to be an effective and efficient estate planning tool. Since this amount is calculated on the calendar year, be sure to complete all desired 2011 gift transfers prior to the end of the December.



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7. If you have made substantial expenditures for machinery and equipment or plan to, recall the Section 179 expensing is currently a maximum of \$500,000 for 2011. The maximum Section 179 deduction is scheduled to be a maximum of \$139,000 for 2012.
8. First year additional depreciation for 2011 is electable and is up to 100%. Additional first year depreciation is scheduled to decrease to 50% for 2012. Only new business assets with a recovery period of 20 years or less are eligible for the first year additional depreciation.
9. Review and make sure your income, risk, business, retirement, and estate management strategies and plans are all being addressed in a coordinated fashion to help ensure your identified goals and objectives will be accomplished.
10. Get started on items 1 through 9 today!!!

**Source:** *Parman R. Green, Ag Business Mgmt. Specialist*



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