

More Winter Feeding Considerations – Hay Testing

Weather has played havoc with all field work, and hay harvest is no exception. When producers are finally able to get into fields and begin hay harvest, the quality will certainly be low due to the stage of maturity of the forage when it is harvested. Other fields have had hay rained on before baling which further reduces nutrient content. Some hay has been baled wetter than normal to try to beat threatening weather conditions. All of these factors indicate that nutrient content of the hay will be low and analysis of the hay crop this year may be more critical than ever.



The only way to determine nutritional quality of hay is by testing. Color, smell, freedom from mold, etc. are important considerations, but none of these things indicate how much energy, protein or minerals the hay contains. You need to know this information in order to develop a cost effective supplementation strategy for your livestock.

Hay should be sampled using a core sampler. This gives a cross-section of the different hay layers in the bale. Try to sample 10 to 15 bales per lot of hay to get a good representative sample. Hay that contains different forages or hay that was harvested several weeks apart should be sampled separately. Most Extension offices in Central Missouri have hay probes that can be borrowed for sample collection.



Inappropriate supplementation continues to be an unnecessary expense for many livestock producers. Our traditional supplemental feed ingredients are a direct expense of livestock feeding. Therefore it is critical that producers know what nutrients they will need to supplement in their livestock diets. Supplying the wrong nutrient or the wrong amount of a nutrient is expensive. Hay testing is the only way to determine what additional nutrients need to be added to diets in order to get the desired performance from your animals.

This year, consider getting a hay sample fairly soon after baling. That way you can estimate what nutrients you will need to supplement and begin watching the prices of various supplemental feeds to try to lock in cheaper prices during the summer. Typically, the by-product feeds are cheaper in the summer. Keeping an eye on those prices and being ready to respond to a strong buy signal will be extremely important this year.

Source: *Gene Schmitz, Livestock Specialist*

What Tomato is the Tastiest?

Two MU Activities to Take Aim at the Question

Just as beauty is in the eye of the beholder so is taste on the tongue of the consumer. This seems to be especially true when it comes to tomatoes. There are a number of different compounds that contribute to tomato flavor, but the sugar:acid ratio is perhaps the most influential factor. Low sugar with high acid results in tart tomatoes, whereas high sugar and low acid leads to bland tasting tomatoes. While environmental factors play a large role in the sugar:acid ratio of tomatoes there are genetic differences as well.

A taste test is being planned for tomatoes produced in high tunnels at the University of Missouri's Bradford Research and Extension Center. This will be conducted on five varieties that are popular with commercial growers including at least one prized by home gardeners. All are red, medium to large fruit types, the mainstream tomato type that dominates in retail sales and gardens. Since flavor is related to maturity an unbiased taste test must use tomatoes of the same age. Fruits of five different varieties will be tagged at the pink-blush or "breaker" stage of maturity and allowed to fully ripen on the vine. A taste panel will be assembled and asked to rank the tomatoes on a scale of 1-10 with ten being best. Results will be compared with those obtained on the same varieties at the Bradford Research and Extension Center's annual Tomato Festival.

This carefully controlled taste test contrasts with the method at Bradford's Tomato Festival, which will be held on September 9th from 4 to 7 PM. This is its 6th year and it is open to the public and free. Each year the farm grows over 50 different kinds of tomatoes that include popular garden types and the old varieties that our grandparents grew (heirlooms). There is a wide range of colors, shapes and sizes. Ripe tomatoes are picked the day before, washed, and set out in single layers in a room air conditioned to about 65° F. Shortly before the event they are sliced and placed into covered plastic tubs. The tasting is conducted outdoors under a tent and the slices of tomatoes are placed in small paper cups with toothpicks. Anyone can choose any variety to try and then rate it from 1-5; 5 being best tasting. The varieties are identified by name, and with about 50 to try, many people do not try then all. And might they vote higher for their



favorite? Attendance at this event has been around 400, so one is jostling with others to get a sample. Clearly this is not carefully controlled! But what it does have in its favor is 'numbers' (lots of tasters), which is very helpful when it comes to statistics.

The sweetest tomatoes have done the best in recent years. For 2009 cherry-sized tomatoes took the top three spots in a field of 62 contenders- Super Sweet 100, a hybrid red fruit, scored the highest, followed by a yellow Super Suncherry Hybrid and Sugary Hybrid, a red cherry fruit. For 2008 an orange cherry tomato, Sun Sugar Hybrid, took top honors, for a second year in a row. Similar to 2009, the top four spots were cherry tomatoes. Cherry tomatoes have the potential to be sweeter because there's a relationship between tomato production in pounds and sweetness. Since tomato plants have relatively the same ability to manufacture sugar, plants bearing small fruit put that same amount of sugar into fewer pounds of fruit, making the smaller fruits sweeter. Maybe one shouldn't be too surprised the general public has a 'sweet tooth'. Looking further down the list can be quite interesting to compare some of the mainstream and heirloom favorites like Better Boy, Brandywine, Pink Girl, Celebrity, and Big Boy.

To see last year's complete tomato variety ranking, visit Bradford's event posting on their web site and select Tomato Festival- <http://aes.missouri.edu/bradford/events/>.

Source: James Quinn, Horticulture Specialist and Dave Trinklein, Associate Professor MU Plant Sciences

Taxation Tidbit

Tax Gap – New Form 1099 Provision

The IRS has long complained about the "gap" – the spread between the income people really make and the income reported for tax purposes. To that issue, Congress passed legislation in this year's Health Care Reform bill that is designed to narrow this gap.

The new legislation significantly increases the number of Form 1099s businesses will be required to provide vendors and the IRS.



Currently, businesses that pay someone over \$600 for cash rent, contracted service, etc. during the year are required to file 1099s for non-corporate entities. The new legislation requires the providing of 1099s for



rents, services, and property – that would include seed, fertilizer, chemicals, fuel, feed, parts, supplies, etc. etc. Additionally, the corporate entity exemption will be eliminated. So you'll not only need to give a 1099 to a local seed dealer for the seed you purchase – if you buy a computer from Dell – you'll be required to provide Dell and the IRS a 1099.

Talk about an avalanche of paper and/or electronic information reporting – this could be a tsunami!

Implementation is currently set to begin with purchases made beginning January 1, 2012. However, legislative representatives can still take action to modify the provision before it has to be implemented.

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

Animal Composting or Natural Rendering

The disappearance of local rendering plants has left many livestock producers with a problem. They are unsure of a reasonable, safe and legal way to dispose of dead animals.

Anonymous surveys conducted in other states reveal widespread practices of improper disposal. Animal carcasses were often left to decay above ground or buried in shallow graves or pits. Even shallow burial poses risks to surface and groundwater and endanger the health of domestic livestock, wildlife and pets.

Spreading of farm sick pen wastes and fetal membranes on the land have similar negative environmental implications and pose risks for herd biosecurity.

Butchers and small slaughter houses have similar issues. Local rendering plants were an easy and efficient way to properly dispose of offal and other of these business' animal wastes. Small processing businesses are important to small farm livestock operations. They provide a critical service by

processing farm-raised animals.

Many small butchers also process other species, including, deer, goats, sheep, hogs and even exotic animals. These residuals must also be disposed of and are often not accepted through typical rendering services.

Blood is not generally collected from smaller operations even if there are rendering services. Much of it is either poured on the ground or buried. These practices can cause the same agriculture biosecurity problems mentioned above.

Animal composting or natural rendering is a viable solution to these problems. With small businesses, natural rendering could easily make the difference for success instead of closing their doors.

Composting animal losses is not new. Chickens, pigs, calves and other small animals especially at larger operations are usually composted. Information on small animal composting and composting structures is available at:

MU Guidesheet WQ351, "Composting Dead Swine" found at <http://extension.missouri.edu/explore/envqual/wq0351.htm> and <http://agebb.missouri.edu/dairy/manure/CompostingLargeAnimalMortalities-3-09.pdf>

Missouri approved animal mortality handling regulations can be found in MU Guidesheet WQ216 "Dead Animal Disposal Laws in Missouri" at <http://extension.missouri.edu/explore/envqual/wq0216.htm>

Cornell and Oklahoma State University have guides on composting or rendering large animals:

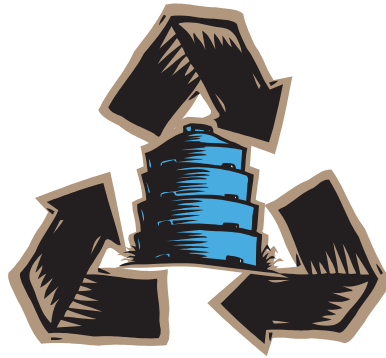
<http://compost.css.cornell.edu/naturalrenderingFS.pdf> and <http://www.poultrywaste.okstate.edu/files/BAE1749%20On-Farm%20Mortality.pdf>

Source: *Jim Jarman, Agronomy Specialist*

Don't apply herbicides to control crabgrass this late in the year

Homeowners dismayed by unsightly stands of crabgrass in their lawns should forgo any chemical applications to control the pest this time of year, said a University of Missouri turfgrass researcher. Most people are concerned because

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this time of year crabgrass is seeding and putting out multiple shoots. When it gets tall and bunches out so that homeowners think it is a serious problem and they need to do something about it.



Crabgrass is a summer annual grass that will frost off in the fall; for this time of year, there are no good products that are going to give complete control. There is no point in spending the money in trying to control it.

However, some broadleaf perennials such as plantain or dandelion can be a more serious problem for those who want to overseed. You can apply broadleaf herbicides at this point but, there may be a three- to four-week reseeding interval, which means you can't reseed until the end of September. Late September is still a good time to reseed, but anyone using a broadleaf herbicide should get started mid-August.

April is the recommended time to use pre-emergents for crabgrass and broadleaf weeds. Crabgrass usually appears in late April or early May, when soil temperatures consistently reach 55 degrees F.

Several pre-emergents containing dithiopyr (Dimension) or prodiamine (Barricade) are available for spring crabgrass control. Such products will prevent spring reseeding until they dissipate, but will not interfere with fall reseeding.

For more information, see MU Extension guide IPM1009, "Turfgrass and Weeds," available at <http://extension.missouri.edu/explorepdf/agguides/pests/ipm1009.pdf>

Source: *Brad Fresenburg*, MU Extension turf scientist

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