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District Extension Agent, Crops & Soils/Horticulture

Hay Harvest Height

When estimating forage production (typically for grazing), we often use a figure for fertilized brome of somewhere between 300 and 350 pounds of dry matter per inch of height. If we apply that to hay production as well, it might be pretty tempting, particularly in a short hay year, to mow a little lower than we normally would. While it may end up yielding a little more in the short term (the quality of that forage could be argued, but that's another topic for another day...), it *could* end up costing you in the long term.

Most references would suggest a cutting height minimum of four inches. This allows for at least a little bit of ground cover while (hopefully...) leaving a small amount of green leaf area from which the plant can recover. When we remove a mass of top growth at one time like we do during a haying operation, we force the plant to recover using whatever green leaf area might be left in combination with energy in root systems. That combination does a pretty good job of allowing the plant to recover quickly, putting on new leaves and allowing the plant to continue to grow while replenishing root reserves as well. If we don't leave any green leaves, however, the plant has to rely wholly on root reserves for recovery, while leaving soils exposed and increasing the potential for moisture loss. *Can* it work? Sure. Is it optimum for the long-term health of the stand? Probably not.

If you haven't adjusted the cutting height of harvest equipment for some time, it might be a good idea to check it out. Modern equipment allows us to harvest almost as low as we want to harvest – but that doesn't mean we should. Make sure harvest height is appropriate to allow for rapid recovery while providing a little bit of cover to prevent moisture losses.

Tomato Diseases

If you broke down the challenges of growing tomatoes in to parts, our KSU *Tomato Leaf and Fruit Diseases and Disorders* publication (<https://bookstore.ksre.ksu.edu/pubs/l721.pdf>) does it pretty well. In it, plant/fruit issues are divided in to fungal, bacterial, and physiological, each with a different management scheme.

For example, fungal diseases – like the ones we'll begin seeing soon – are often treatable. Management via cultural practice changes and/or fungicide applications can help prevent or slow diseases – even if they likely won't cure them.

Bacterial issues, on the other hand, are likely caused by the plants selected or the soil in which they are planted. Things like crop rotation and starting with clean seed can help on the front end, but if bacterial issues arise, there's little in-season you can do to do much good.

Then there are the physiological issues: blossom end rot, leaf roll, and growth cracks. They are often associated with soil moisture issues in combination with things like fertilizer rates or cultivar selection.

Not sure what you have? Check out the link above (or request a copy from any District Office) to start troubleshooting. There's no need to apply a fungicide for a physiological or bacterial issue. Likewise, if a fungal pathogen is the issue, cultural or chemical controls should be implemented sooner than later.

Ross Mosteller
District Extension Agent, Livestock & Natural Resources

Calm Cattle Pay

218K... This might seem like a random number, but every cattleman starting a new group of heifers, likely has a similar number. She's the one heifer that is just a tic more nervous, first to jump up, holds her head a bit higher and makes poor choices when working the group in open pens or working facilities. Everyone has a different tolerance level for excitability in cattle, my threshold is low, to the point of almost too docile. But how do you measure temperament?

Research shows calmer cows have higher levels of milk production, which translates into more pounds of calf weaned. Meanwhile, calves with calmer temperaments exhibit a better response to vaccination at weaning, tend to exhibit better growth performance and body composition, are quieter and calmer in the feedlot during handling and have higher average daily gains than cattle with more excitable temperaments. Calmer cattle also save on wear and tear on facilities, equipment and personnel.

Research has also determined temperament to be a moderately heritable trait. Meaning, producers can have measurable impact on this trait through selection in subsequent generations. There are a few questions to be asked, accompanied by measured/observed data, if you truly do want to make herd temperament adjustments. As a manager ask yourself the following:

- Do I select breeding animals with good temperament, not just cull those with bad ones?
- Are records of cows culled for temperament tracked and daughters carefully watched?
- When selecting replacements do I make my first cut with more than needed and make a second cut with a more critical eye for structural issues and temperament?
- Could my program benefit from an objective scoring system that I could use internally for selection decisions? Then use this data to promote the docility within my program?

The Beef Improvement Federation provides the following scores and definitions for uniformly evaluating temperament and disposition in cattle. Recommended scoring times are at weaning and/or yearling age, but this can be done anytime animals are processed through a chute. Personally, I'm always making mental notes, in addition to written scores, looking for the 218K's of the world. Take a look at your herd's disposition and remember calmness pays!

Score 1 - Docile Gentle and easily handled. Stands and moves slowly during processing. Undisturbed, settled, somewhat dull. Does not pull on headgate in chute. Exits chute calmly.

Score 2 - Restless Quieter than average, but may be stubborn during processing. May try to back out of chute or pull back on headgate. Some flicking of tail. Exits chute promptly.

Score 3 - Nervous Typical temperament is manageable, but nervous and impatient. A moderate amount of struggling, movement and tail flicking. Repeated pushing and pulling on headgate. Exits chute briskly.

Score 4 - Flighty Jumpy and out of control, quivers and struggles violently. May bellow and froth at the mouth. Continuous tail flicking. Defecates and urinates during processing. Frantically runs fence line and may jump when penned individually. Exhibits long flight distance and exits chute wildly.

Score 5 - Aggressive Similar to Score 4, but with added aggressive behavior, fearfulness, extreme agitation, and continuous movement which may include jumping and bellowing while in chute. Exits chute frantically and may exhibit attack behavior when handled alone.

Score 6 - Very Aggressive Extremely aggressive temperament. Thrashes about or attacks wildly when confined in small, tight places. Pronounced attack behavior.

Teresa Hatfield
District Extension Agent, Family and Community Wellness

Are Dietary Supplements Helpful for Older Adults?

We see advertisements everywhere for dietary supplements. The colorful bottles line the shelves of the grocery store. It's confusing as to which supplement may offer the promise of good health. They may sound like a quick fix for health problems, but you should be aware that they may not be the quick fix you are hoping for. Regarding vitamin and mineral supplements, it is always best to consult your healthcare provider before buying a supplement.

Most people do manage to get the needed nutrition from their food. Research tells us that it is best to get the recommended amount of vitamins and minerals in this manner. If you suspect you lack a vitamin, consult with your healthcare provider. They can advise if you need a supplement and which type, and brand works best. Also, remember the recommended amounts of vitamins and minerals needed daily. If you are taking more than the recommended amount, you could have detrimental health consequences.

Choosing a variety of fruit and vegetables is the best choice. Whole fruits and vegetables contain the vitamins and minerals you need and phytochemicals that can help prevent disease. Fruits and vegetables also contain more fiber. Eat whole grain bread and cereal or whole grain crackers. Ensure that you get enough Vitamin D. Good sources include low-fat dairy, green vegetables, and calcium-fortified foods. Calcium and vitamin D may help protect against hypertension and some types of cancer.

If you need to take a vitamin or mineral supplement, follow these helpful tips. Take your supplement with food for better absorption. Store your supplements in a cool, dry location and watch the expiration dates. Taking your supplement with food will improve absorption and stomach distress. Take calcium and iron separated by several hours. When you shop for a multivitamin, look for no more than 100% thiamin, B12, iodine, riboflavin, folic acid, selenium, niacin, zinc, chromium, B6, and copper. Look for no more than 200% of vitamin D3, 25% of vitamin K, 250mg of vitamin C, 200 mg of B6, 200 mcg of selenium, 9 mg of zinc, and no more than 50% iron for men and post-menopausal women.

Try this delicious recipe to get your vitamins and minerals.

Tropical Green Smoothie (Tufts University)

Ingredients:

2 cups tropical frozen fruit (pineapple, mango, banana)

1 medium apple, cored and roughly chopped

2 cups milk or fortified soy milk

1 cup fresh spinach or kale

2 Tbsp ground flaxseed

1 tsp grated fresh ginger (optional)

Step:

1. Blend all ingredients until smooth, adding more milk if needed.
2. Divide into glasses.

Serving Size: 4 (8 oz) servings

Nutrition Per Serving: Using pineapple and nonfat milk): Calories: 135, Total Fat: 1 g; Saturated Fat: 0 g; Total Carbohydrate: 26 g; Total Sugars: 20 g; Dietary Fiber: 4 g; Protein: 6 g; Sodium: 73 mg; Potassium: 410 mg; Calcium: 169 mg; Vitamin D: 1 mcg; Iron: 2 mg

Resources; University of Missouri, USDA, CDC

Cindy Williams
District Extension Agent, Family & Community Wellness

Community Blessing Boxes and Food Safety

Many communities have Blessing Boxes, Parking Lot Pantries, or similar efforts to offer easy access to foods and other items for people in need, which helps improve food security. Such boxes also are convenient places for places for people to donate food and other items. However, because these pantries are normally outside and subject to extreme temperatures in various seasons of the year, not all foods are safe to donate. It is critical that foods available through “Blessing Boxes” are as safe and nutritious as possible to truly be a blessing to those using the boxes.

When donating items please follow CDC handwashing guidance and disinfect the box interior and handles frequently. Buy canned foods with pull rings when available for easy opening or include a small handheld can opener.

Suggested food items for the Blessing Boxes during most of the year include:

- Peanut butter, nuts, and alternatives
- Beans, canned, especially garbanzo, chili, and baked beans
- Rice, white or brown. Pasta (preferably in boxes)
- Cereals/instant oatmeal packets
- Crackers/granola bars
- Condiments (ketchup, mustard, salad dressing, mayo)
- Jelly, pancake syrup
- Baking and pancake mixes
- Microwave meals/to-go meals and shelf-stable meal kits
- Individuals serving size items
- Infant formula, dry infant cereals
- Package protein drinks
- Dried fruit.

It is a blessing to donate food to those in need. But it is not a blessing to donate unsafe food. If the blessing box is outside of a building, and outdoor temperatures are extremely cold or hot, many foods can be compromised which could reduce the quality and be unsafe. Keep these tips in mind when deciding the types and forms of food to donate.

For a list of foods safe to donate and other items to include, contact your local Meadowlark Extension District Office and ask, “Guidelines for Filling a Blessing Box.” Offices are located in Oskaloosa—785-863-2212; Seneca---785-336-2184 or Holton----785-364-4125 or contact me, Cindy Williams at the Oskaloosa Office and we would be happy to share or send the list to you. This list will include safe foods, other items to consider donating and a list of foods that should not be donated to a Blessing Box.