

D's Notes 05/24/21

WHAT BEEF PRODUCERS SHOULD BE THINKING ABOUT IN JUNE...

Tips by Dale Blasi, Extension Beef Specialist

June is a month to let Mother Nature take her course. **Assuming timely precipitation**, native grasses are usually at peak production; therefore, little supplementation is needed, except for some minerals.

Cow-Herd Nutrition

- Provide plenty of clean, fresh water.
- Provide free-choice minerals to correct any mineral deficiencies or imbalances.
- Monitor grazing conditions and rotate pastures if possible and practical.
- Consider creep-feeding if it's cost-effective.

Herd Health

- Monitor and treat pinkeye cases.
- Provide fly control. Consider all options; price and efficiency will dictate the best options to use.
- Monitor and treat for foot rot.
- To reduce heat stress, avoid handling and transporting cattle during the hottest times of the day.

Forage and Pasture Management

- Check and maintain summer water supplies.
- Place mineral feeders strategically to enhance grazing distribution.
- Check water gaps after possible washouts.
- Harvest hay in a timely manner; think quality and quantity.

Reproductive Management

- If using AI, do not expect all females to conceive. A common practice is to breed once or twice with AI, then turn out cleanup bulls for the balance of a 65-day breeding season. A 42-day AI season with estrus synchronization at the front end gives most females three chances to conceive by AI.
- Watch bulls for libido, mounting and breeding function.
- Record breeding dates to determine calving dates.
- By imposing reproductive pressure (45-day breeding season) on yearling heifers, no late-calving 2-year-olds will result. This will increase lifetime productivity and profits.

Genetic Management

- Monitor herd performance. Then identify candidates to cull because of poor performance.

General Management

- Check equipment (sprayers, dust bags, oilers, haying equipment, etc.), and repair or replace as needed. Have spare parts on hand because downtime can make a big difference in hay quality.

HORT REMINDERS

Break up crust on soil of vegetable garden after heavy rain to allow roots to breathe.

No need to spray for cedar-apple rust after Memorial Day

Don't work soil too wet. Squeeze a handful of soil and push your finger into the soil. It will crumble if it is dry enough to work.

Take care of weeds when they are small as they are easier to control and will not compete with your vegetables or flowers. Consider using a scuffle hoe as they are quick to use and are less likely to bring weed seeds to the surface.

Mound soil around potato plants to make sure tubers aren't exposed. Sunlight hitting tubers will cause them to turn green.

Check fruit trees for fruit. Multiple frost events this spring may have eliminated fruit on apricots, peaches and plums. Apples and pears may have been thinned but should bear a good crop through much of the state. If no fruit, sprays may not be needed except for the leaf disease on apples such as cedar-apple rust, apple scab and powdery mildew.

'Staggering' Sweet Corn Planting

Sweet corn is one of those crops that is only "good" for a few days. If you want longer periods of production, consider staggering the planting. In other words, plant a small block, wait a period of time, and then plant the next block. Though it is tempting to follow a calendar schedule, such as planting a small block every week, it is better to use crop development as a trigger. If you plant on a calendar schedule, you may have noticed that later plantings often catch up with earlier ones. Instead, plant the next block of sweet corn when the previous one is one-half to one inch tall. (Ward Upham)

How to Make Tomato Cages

Tomato cages sold for home gardeners are often too wimpy for Kansas conditions. Fortunately, you can make your own cages from concrete reinforcing mesh (wire). This material is normally 5' high with the "mesh" forming 6" squares. The shortest rolls are usually 50' long, but some lumber yards will cut off just the amount you need. Cages can be made in different sizes but I like a 2 foot diameter cage so I can space my tomatoes at 2 feet and then use a T-post to in between each pair to stabilize them in the wind. Figure 6.5 feet of mesh to complete one cage that is 2 feet in diameter. You will need to cut the mesh in order to make the cages. Small bolt cutters work well for this. Be careful when cutting as the mesh comes in rolls that will spring back into a cylinder as the last cut is made.

Count off 13 squares but cut each horizontal wire at the end of the 13 square. This will leave a series of 12 complete squares horizontally with prongs left on the 13th square. Use these prongs to make a cylinder by bending the prongs over the vertical wire on the first square. Tomatoes with large, rangy vines need all five feet of the mesh, but those with shorter, semi-determinate vines can get by with a shorter cage.

Also, cut off the bottom horizontal wire to leave prongs that can be pushed into the ground to help with stability. As mentioned above, a T-post will likely need to be driven near the cage. Tying the cage to the T-post can help prevent the cage from toppling in windy conditions.

These cages will last for years, but do take up a great deal of storage space when not in use. If you don't have room for storage, there are heavy-duty tomato cages that

will either fold flat or disassemble to make storage easier such as Texas Tomato Cages, Titan Tomato Cages and various others. Regardless, they may need to be staked if your garden is in a windy location. (Ward Upham)

Rabbits in the Garden

Rabbits in gardens are a perennial problem because of the wide variety of plants they can feed on. This time of year, they gravitate to young vegetables and flowers. But there are some vegetables that are rarely bothered including potatoes, tomatoes, corn, squash, cucumbers, and some peppers. The question is how do you protect other, more susceptible plants? Fencing provides a quick and effective control method. The fence does not need to be tall; 2 feet is sufficient for cottontails. But the mesh must be sufficiently fine (1 inch or less) so young rabbits will not be able to go through it. Support for the fence can be supplied by a number of products, but electric fence posts work well. Often fencing is not an acceptable choice because it affects the attractiveness of the garden.

Another type of barrier is a floating row cover. Though most often used to promote early growth by keeping plants warmer than normal, it can also help protect young plants from insects and wildlife.

Other ways to control rabbits including repellents, trapping and shooting. Repellents are often suggested for control but often do not last long and require frequent reapplication. Also, many are poisonous and cannot be used on plants or plant parts destined for human consumption. Live traps can be used to collect and move the rabbits to a rural area several miles from where they were trapped. A number of baits can be used to entice the rabbit to enter the trap including a tightly rolled cabbage leaf held together with a toothpick. However, rabbits often avoid baits if other attractive food is available.

Another possibility is to use a motion-activated sprinkler. These are attached to a garden hose and release a short burst of water when motion is detected. Contech, Orbit and Havahart are suppliers and each is advertised as protecting up to at least 1,000 square feet. Shooting is another possibility when it is safe and legal to do so. (Ward Upham)

Thinning Excess Fruit

Late freezes this year have limited fruit bearing. I have lost crops on peaches and apricots and some other parts of the state have lost pears. An overabundance of fruit on a tree may seem like a good thing, but too many fruit can cause problems that should be alleviated by removing the excess (thinning). For example, a heavy fruit crop can interfere with fruit bud development this summer. This can result in a small to no crop next year. This problem most often appears with apples. Thus, thinning helps ensure that good crops are produced each year.

The second benefit of thinning is to promote larger fruit on this year's crop. Fruit trees are limited in how many fruit they can mature. Too many fruit and fruit size and quality goes down.

A third problem often caused by too many fruit is limb damage. Sometimes the weight of a maturing fruit crop can literally break branches. Thinning will help limit weight and preserve branches.

So how much thinning should we do? Thinning recommendations vary with the type of tree.

Apples and pears: 6 to 8 inches apart. Apples tend to produce fruit in clusters of five. We usually remove all the fruit in a cluster but one. Leave the largest, nicest fruit in the cluster. However, there are times you must remove perfect apples.

Peaches: 6 to 8 inches apart. Peaches tend to cluster together. As long as the average is about 7 inches apart, you will be fine.

Plums and prunes: 4 to 5 inches apart;

Apricots: 2 to 4 inches between fruit.

These are averages and so you may have several fruit clustered closer than this distance. As long as the average on the branch is close to the recommended spacing, the fruit should size well.

Thinning can be done by snapping them off by hand or by cutting them off. If snapping them off by hand, support the fruit stem with your thumb and forefinger and use your other fingers to snap them off. This can be done with one hand with a little practice.

Cherries are not thinned and can produce a full fruit load. (Ward Upham)

Too Wet to Mow the Lawn

What do you do when the lawn can't be cut because of constant rain? The best thing to do is to set your mower as high as possible and bring it down in steps. It is always best never to take more than one third of the grass blade off at one time. If more is taken, the plant reacts by using stored energy reserves to quickly send up new growth. This reduces the amount of energy available for the plant to deal with stress or damage done by insects or disease. However, sometimes it is just not possible to keep the "one-third rule." In such cases, cut as high as possible even though it may mean you are cutting off more than one third of the blade. Bring the height down gradually by cutting more often and at progressively lower heights until you reach the target height. (Ward Upham)

Time to Fertilize Warm-Season Grasses

June is the time to fertilize warm-season lawn grasses such as bermudagrass, buffalograss, and zoysiagrass. These species all thrive in warmer summer weather, so this is the time they respond best to fertilization. The most important nutrient is nitrogen (N), and these three species need it in varying amounts.

Bermudagrass requires the most nitrogen. High-quality bermuda stands need about 4 lbs. nitrogen per 1,000 sq. ft. during the season (low maintenance areas can get by on 2 lbs.). Apply this as four separate applications, about 4 weeks apart, of 1 lb. N per 1,000 sq. ft. starting in early May. It is already too late for the May application, but the June application is just around the corner. The nitrogen can come from either a quick- or slow-release source. So any lawn fertilizer will work. Plan the last application for no later than August 15. This helps ensure the bermudagrass is not overstimulated, making it susceptible to winter-kill.

Zoysiagrass grows more slowly than bermudagrass and is prone to develop thatch. Consequently, it does not need as much nitrogen. In fact, too much is worse than too little.

One and one-half to 2 pounds N per 1,000 sq. ft. during the season is sufficient. Split the total in two and apply once in early June and again around mid-July. Slow-release nitrogen is preferable but quick-release is acceptable. Slow-release nitrogen is sometimes listed as "slowly available" or "water insoluble."

Buffalograss requires the least nitrogen of all lawn species commonly grown in Kansas. It will survive and persist with no supplemental nitrogen, but giving it one lb. N per 1,000 sq. ft. will improve color and density. This application should be made in early June. For a little darker color, fertilize it as described for zoysiagrass in the previous paragraph, but do not apply more than a total of 2 lb. N per 1,000 sq. ft. in one season. As with zoysia, slow-release nitrogen is preferable, but fast-release is also OK. As for all turfgrasses, phosphorus and potassium are best applied according to soil test results because many soils already have adequate amounts of these nutrients for turfgrass growth. If you need to apply phosphorus or potassium, it is best to core aerate beforehand to ensure the nutrients reach the roots. (Ward Upham)

Helping Roundup (Glyphosate) Products Work Better

Though glyphosate products (Roundup, Killzall, Pronto Weed & Grass Killer) are non-selective and will kill most plants the spray contacts, these herbicides are not taken up by the roots of nearby desirable plants. This is because the active ingredient is neutralized when it contacts the soil due to being tightly bound to soil particles. Unfortunately, this binding effect can also take place in hard water that is high in magnesium and calcium, which reduces its effectiveness. To avoid this, mix ammonium sulfate with your spray water before adding the glyphosate product. The ammonium sulfate ions tie up the calcium and magnesium ions so that the glyphosate remains at full strength. Also some of the glyphosate will form a compound with the ammonium that weeds will more readily absorb, thus increasing effectiveness.

Note that this binding effect takes place in hard to very hard water (above 7 grains or above 120 ppm). Adding ammonium sulfate to softer water will not help. So if you have your water tested and find you have hard water, how much ammonium sulfate should you add? As a general rule, add 8.5 pounds per 100 gallons. This would equal about 1.4 ounces per gallon or four tablespoons per gallon. (Ward Upham)

Cabbage Worms

This is the time of year we normally start seeing damage from cabbage worms. The imported cabbage worm is usually the first cabbage worm species to appear and is a fuzzy, elongated green worm. Larvae come from eggs laid by the white butterfly often seen flitting around the plants.

Early control is essential to reduce injury. BT (*Bacillus thuringiensis*) and spinosad (Monterey Garden Insect Spray, Captain Jack's Dead Bug Brew) are effective organic products that are labeled for this pest. BT can be found in Dipel, Thuricide and other similar materials. Direct sunlight deactivates BT quickly so it is helpful to spray late in the day or on a cloudy day.

Conventional insecticides such as carbaryl (Sevin dust), malathion and methoxychlor are also effective but will kill natural enemies of these pests. Be sure to hit the underside of leaves where insects feed. Note that hitting the underside of leaves is easier when using a dust applied with a duster than when using a liquid spray. (Ward Upham)

Be on the Lookout for Peach Leaf Curl and Plum Pocket

Peach leaf curl is a fungus disease that causes developing peach leaves to become puckered and distorted and show a reddish-green hue. A similar disease called plum pocket may develop on American and sand hill plums. Plum pocket results in formation of distorted, light green, bladder-shaped fruit. Asian and European plums are not susceptible to the local strain of plum pocket. Unfortunately, it is too late to control any of these diseases with fungicides this year.

Trees that are severely infected with peach leaf curl are likely to lose many leaves. If trees are healthy, new leaves will grow. Indicators of a healthy tree are large, deep green leaves and last year's growth being at least 18 to 24 inches long. If these tree vigor indicators are not present, especially if there was only 12 inches or less of growth last year, then a fertilizer application would be helpful if one has not been applied.

The fertilizer should be spread on the soil under the branch area. Apply 1 and 1/3 to 2 cups of a 13-13-13 fertilizer under the branch area. If a soil test indicates that only nitrogen is needed, use 1/3 to 1½ cups of nitrate of soda (16-0-0) instead of the 13-13-13. You may also substitute a high nitrogen fertilizer such as a 27-3-4, 30-5-4 or something similar for the 13-13-13, but use only half the amount used for nitrate of soda. The sooner fertilizer is applied, the more immediate benefit it will have in promoting new leaf growth.

Both peach leaf curl and plum pocket can be controlled with a single fungicide application applied this fall after leaf drop or early next spring before bud swell. An effective fungicide is chlorothalonil (Bravo, Daconil, Fertilome Broad-Spectrum Fungicide, Ortho Garden Disease Control and others). Be sure to cover the entire tree including the bark and trunk. (Ward Upham)

Moving Houseplants Outside for the Summer

It is often helpful to set many houseplants outside for the summer so they can recover from the low light levels endured during the winter months. As soon as night temperatures stay consistently above 55 degrees F, houseplants can be moved to their summer home. Choose a spot that has dappled shade, is protected from the wind and is close to water. A porch or a spot that receives shade from trees or buildings will work well. Putting houseplants in full sun will cause the leaves to photooxidize or sunburn because the leaves have become adapted to low light levels inside the house. Where possible, sink the pots into the ground to help moderate root temperatures and reduce watering frequency.

If you have a number of plants, dig a trench 6 to 8 inches deep (or deeper if you have larger pots) and long enough to accommodate all of your plants without crowding. Place peat moss under and around the pots. Peat moss holds water, helps keep the pots

cool and reduces evaporation from clay pots. About every two weeks, rotate the pots a quarter turn to break off any roots that have penetrated the peat moss surrounding the pot and to equalize the light received on all sides of the pot. Water as needed. If the potting soil is dry a half-inch deep in the pot, it is time to water. (Ward Upham)

Walnut Wilt

Tomato, potato, blackberry, apple, lilac, asparagus, chrysanthemum, peony, and other herbaceous and woody plants can be afflicted with a disorder known as walnut wilt. Other plants, such as black raspberry, corn, bean, carrot, dandelion, and zinnia are resistant. This malady is associated with root uptake of a chemical called juglone that is produced by several species of trees in the walnut family, including black walnut, Persian walnut, butternut, and pecan with black walnut producing juglone in the highest amounts. Juglone is formed in the leaves, fruit hulls, inner bark, and roots of the walnut and is leached or released into the soil. This chemical has fungicidal and insecticidal properties. It also is quite toxic to many plant species and induces wilting and stunting. The ability of plants to produce and release chemicals that are toxic to other plants is called allelopathy. The severity of the juglone toxicity partly depends on the proximity of the plants to a walnut tree.

Generally, tomatoes growing next to a walnut tree abruptly wilt and die in early to mid-summer. Those plants growing a short distance away may not be killed but become flaccid and stunted. The woody stem tissue of affected plants turns brown. The symptoms of walnut wilt closely resemble those of *Fusarium* and *Verticillium* wilt, but the disorder may be distinguished from the other wilts by the constant association of walnut trees with the wilting symptoms.

Juglone may be leached from leaves and nuts into the soil during rain or released from roots. The chemical is highly reactive and quickly inactivated in the soil. The major uptake of the toxin occurs when tomato roots make contact with the roots of the walnut.

Tomatoes or other susceptible plants should not be grown near black walnut or other trees that produce juglone. The removal of walnut trees may not have an immediate effect because the toxin can persist in the inner bark of roots for several years. Do not plant tomatoes for at least two years after removing walnuts. (Ward Upham)

Colorado Potato Beetle

Overwintering females usually emerge in late April and lay a cluster of bright, yellow eggs on recently emerged potato plants. Larvae mature in about 3 weeks and pupate in the soil. After another 10 days, adult beetles emerge, mate and lay more eggs.

Both larvae and adults of this insect feed on potato (as well as tomato, eggplant, and pepper), causing extensive loss of foliage and reducing yields. Control strategies are varied and include:

Hand picking: Useful for small gardens where plants can be checked a couple of times a week. Dropping beetles and larvae in a container of soapy water will lead to their demise.

Floating row cover: This material can be placed over the planting and act as a physical barrier to the insects. Be sure to seal the edges. It is sometimes suggested to leave the floating row cover in place during the growing season because potatoes do not need to be pollinated to produce tubers. Often, this is not practical because it interferes with weed control.

Insecticides: A number of products are registered including spinosad (Captain Jack's Dead Bug Brew, Bonide Colorado Potato Beetle Beater Concentrate, Monterey Garden Insect Spray) and permethrin (Eight Vegetable, Fruit & Flower Concentrate, Hi Yield Garden and Farm Insect Control). (Ward Upham)

Three Steps to Choosing Potting Media for Outdoor Use

I have had several questions this spring on potting soils and how to choose the best potting media. Dr. Cheryl Boyer, our Nursery Crop and Marketing Specialist, has done extensive studies on potting soils and has written the following to help homeowners make a good choice. We will present her material in three parts or steps with one step each week.

Step 1: What are You Using it For?

Step 2: Understanding Major, Minor, and Specialty Components

Step 3: Mixing and Managing

There are a lot of choices in the potting media aisle of your local garden center. If you don't know what you're looking for, it can be a confusing experience to read the label. Fortunately, there are three easy steps/considerations for screening the available choices down to one that works for your needs.

Step 1: What are You Using it For?

It does make a difference whether you are planning to use media in a container or as a soil amendment in a raised vegetable bed or landscaping bed. Some materials are designed to hold water well while others are designed to drain well. What do you need for each of those situations?

Growing plants in containers: Generally, you want to use a peat-based soil-less substrate for this application. Do not use field soil. These products are engineered for success in season-long growth of annual plants in containers of reasonable size for consumer use (very large containers are a different discussion). Peat-based mixes almost always have a "starter charge" of fertilizer mixed in to get your plants growing, but you'll need to supplement with fertilizer as the season progresses. Old potting media has likely lost its starter charge and may, in fact, become hydrophobic (repels water) over time. You'll need to spend some time rewetting and mixing old potting media for a new season if you intend to re-use it.

Amending a landscape bed or raised bed: Products containing peat should not be the primary component but are acceptable in small quantities. Field soil mixed with compost and perhaps a coarse pine bark-size material is best in this situation. The objective is to enrich your existing soil with natural material that will break down over time and in the meantime provide nutrients and aeration for roots to grow well. Make sure to apply the material and mix/till it into a broad area and not just a single planting hole or

your new plants may experience the "soup bowl effect" and succumb to rapid decline. Check with your local landscape contractor to get a large volume of soil delivered, perhaps even mixed with compost from a local municipal composting facility. (Cheryl Boyer) Steps 2 and 3 will be coming later.