In this edition...

Planning to Market Calves in the Fall  Page 2
Dairy Heifers and Horn Flies  Page 3
Livestock Water Consumption  Page 5
Skid Steer Brush Control Considerations  Page 6
Planning to Market Calves in the Fall

*Scott Clawson, OSU Area Ag Economics Specialist*

For many producers in Oklahoma, calving season is wrapped up, green grass is growing, and the hay baler is getting prepped for the field. It won’t be long until we will be watching the market’s every move as the new crop calves start hitting the sale barns in the fall. Consistent profit in the cow calf world has been a difficult to attain so taking a more strategic approach to calf marketing is something to consider.

Cow-calf producers in Oklahoma often follow a spring calving system. This works in coordination with the growing season as pasture green-up typically occurs shortly after calving. This in itself is a great benefit to producers as the cow reaches her peak nutrient requirement when high quality forage is available. Once summer passes, temperatures decline, and forage goes dormant there is an incentive to market calves. This production system leads to a large number of calves hitting the local livestock auctions in the October or November timeframe as shown on a national level in Figure 1. The idea of large numbers of freshly weaned calves, in a high stress environment, with warm days and cool nights is enough to keep many cattleman awake at night.

A collection of issues help explain why we typically see our lowest calf prices in the fall. The high number of calves hitting the scales, weather concerns, and limited forage pushes prices lower. As producers, we have an opportunity to avoid selling cattle this time of year and hopefully make a positive impact on the bottom line. The logical next step for these calves is a backgrounding program. Adding weight and improving value would both point to increasing revenues. We also see a seasonal price move from October to December, and we don’t have to look far to find numbers in support of this. USDA Ag Marketing Service data in Figure 2 shows the price change in the Oklahoma reported auctions from the first sale in October to the last sale in December starting in 2000 and running through 2017. The take home is that on average we see a positive price move from October to December. In that time period, calf prices increased 72% of the time. Additionally, most data that references the price premium from backgrounding cattle does not consider seasonality. More specifically it’s usually a point in time reference, meaning that it compares the backgrounded cattle to the non-backgrounded cattle sold on the same day. This leaves us with three positives for holding calves past weaning. These are added weight, added value from backgrounding, and the seasonal price move in the market.

The continued pressure on profits will push us all outside our comfort level to look for additional revenue, decreased cost, or both. This will also force us to evaluate the resources at our disposal. The data from the Oklahoma Quality Beef Network program indicates that there are a couple of challenges to backgrounding our own cattle. The two biggest hurdles are the costs and the labor associated. At the end of the day, we are at a high supply point in the cattle cycle and should not plan on a consistent price improvement in the near future. So to increase profits backgrounding calves and marketing outside of the seasonal low price point may be a good place to start.
Dairy Heifers and Horn Flies

Barry Whitworth, DVM, Area Food/Animal Quality and Health Specialist for Eastern OK
Justin Talley Ph.D., Extension Livestock Entomologist

For most dairy producers, mastitis is the most common and costly disease on their farm. According to one model, the direct cost to dairies is $128 per case in the first 30 days of lactation (Rollin et al., 2015). In addition to the direct cost, the producer suffers indirect costs such as loss of milk, premature culling, and replacement costs. Since mastitis is such a costly disease, most producer go to great lengths to prevent the disease. One area of prevention that might need attention on dairies is horn fly control. In dairy heifers, researchers have discovered that teat lesions caused by horn flies were associated with a high level of Staphylococcus aureus mastitis in the dairy (Ryman et al., 2013). Since dairy heifers represent the future of the milk production, producers should try to provide an environment that allows these animals to reach their full potential. Producers may want to evaluate their horn fly control program to make sure that it is protecting their heifers from this menacing pest.

The scientific name for horn flies is Haematobia irritans. As the name implies, the flies are very irritating to cattle. Physiological changes occur in cattle with horn fly infestations such as increase in heart rates, increase in respiration rates, increase in rectal temperatures, and increase in water consumption. If the flies are not controlled, the cattle waste energy licking their backs, twitching their flanks, switching their tails, and stomping their feet. Spending all this energy on combating this pest and less time eating results in weight loss and lower milk production. The economic loss to producers can be very high. The horn fly is a costly parasite to the cattle industry with estimates of $1 billion in lost production. In addition to lost production cost, producers spend an additional $60 million in horn fly control.

The life cycle of the horn fly is simple. Horn flies, which are about ½ the size of a house fly, spend most of their time on cattle. Horn flies are distinguishable from other flies because they congregate with their heads pointed down. They are usually seen in groups on the backs and shoulders of cattle. They migrate to the belly when it is hot. The flies may take up to 40 blood meals a day. The female fly must have a blood meal to reproduce. The only time the female leaves the cow is to lay eggs in a fresh manure pile. The eggs will hatch and the larvae will live on the material in the manure pile. In a few days the larvae move into the soil to pupate and emerge as adults. The life cycle from egg to adult takes 2 to 4 weeks. For a more detailed description of the horn fly life cycle go to http://livestockbugs@okstate.edu.

Most beef producers are aware that controlling horn flies results in improved weight gains in growing cattle. In addition to better performance in dairy heifers, controlling horn flies will result in decrease in mastitis cases. In one study in Louisiana, dairy heifers without fly control had a tenfold increase in S. aureus mastitis when compared to herds with fly control (Nickerson et al., 1995). This information should convince producers who lack a horn fly control program to reevaluate their situation. If producers are concerned about the economic cost of horn fly control, then they should begin when 100 flies are on the animal. This is referred to as the economic threshold. This article deals with heifers; however, past research has shown in dairy cows that have 100 or more flies production losses will occur (Garrett et al., 1956).
One of the most common methods of controlling horn flies is the use of insecticides. The insecticide comes in many forms such as organophosphates, pyrethroids, and macrocyclic lactones which can be applied in a spray, pour-on, dust bag, back rubber, or oiler. Insecticide impregnated ear tags are a commonly used method to control horn flies. Since the tags will protect for a limited amount of time, producers should not place the tags in the animal until flies become a problem. Ear tags should not be left in the animal year-round. It is important to remove the tags by fall to reduce resistance problems. Since resistance is a problem with fly tags, producers need to rotate classes of insecticides every year. For more information about rotating fly tags go to http://livestockbugs.okstate.edu/horn-flies/insecticide-ear-tags. When using any insecticide, dairy producers should read and follow label directions especially since not all products may be used in dairy cattle.

Other control methods of fly control are larvicides, non-insecticidal, and biological. Larvicides such as Insect Growth Regulators (IRG) are fed to cows in a feed or mineral supplement. The IGR passes through the animal and kills the immature horn fly. An example of a non-insecticidal control method is the use of an insect trap. They work when a cow walks through the trap and the fly is either electrocuted or attaches to a sticky strip. Another type of a trap that was specifically designed for dairies and horn flies is the CowVac which sucks the horn flies off the animals which is good for those dairies in a certified organic program (https://www.spalding-labs.com/products/fly_contol_products/cow_vac/default.spx). Traps can destroy large numbers of horn flies quickly. Biological methods of control use some type of predator insect such as dung beetles which eat the immature stages of the fly such as eggs. Producers should never forget how important sanitation is in controlling horn flies. Simply breaking up fecal piles will help because this allows the manure to dry out. Dry manure is not a favorable environment for development of the immature horn fly. The best horn fly control programs will take an integrated pest management (IPM) approach using a variety of control methods for long term success.

Dairy producers are concerned about the wellbeing of their cattle. Controlling horn flies in dairy animals is proven to increase milk yields and in heifers to reduce mastitis. This will not only improve the health of the animal, but also improves the economics of the dairy. If a producer would like a more detailed report on horn flies and mastitis in dairy heifers, go to http://extension.uga.edu/publications/detail.html?number=B1474_2.PDF.

References


Livestock Water Consumption
Earl H. Ward, OSU Area Livestock Specialist

It sure seems like we missed our spring weather this year and went straight from ice cold to hot and steamy. On Saturday, June 2nd, 2018, the Oklahoma Mesonet calculated the cattle comfort index well above 100°F (Figure 1). With temperatures and humidity producing this steamy mess, we all need all the water we can get our hands on. Be mindful of how much water your animals will consume during these times of heat stress.

To quote the Nutrient Requirements of Beef Cattle (NRC. 2000), “Water constitutes approximately 98 percent of all molecules in the body. Water is needed for regulation of body temperature as well as for growth, reproduction, and lactation; metabolism; excretion; hydrolysis of protein, fat, and carbohydrates; regulation of mineral homeostasis; lubrication of joints; nervous system cushioning; transporting sound; and eyesight.”

An animal’s water requirement can be influenced by daily gain, stage of production, activity, dry matter intake, type of diet, and of course the environmental conditions. This requirement has a direct effect on the size and type of water trough that best fits your needs. If the entire herd comes to drink at the same time then it is recommended to have a tank with the capacity to hold 25 percent of the herd’s daily requirement (Table 1) with the ability to refill within four hours. Another good rule of thumb is that you would want enough space for about ten percent to drink at one time, allowing each animal with approximately 24 inches. As an example, if we had a hundred 800 pound steers and it is 90°F outside, then that means each animal will need 15 gallons per day. The hundred calves would drink 1500 gallons per day, so we need a tank that has a capacity of at least 375 gallons, 20 feet of access, and the capability to refill within four hours.

For your animal’s health, production, and overall well-being, provide plenty of fresh, clean water. If you question your water quality, please contact your local OSU Extension Office and they can help you with testing your water samples.

<table>
<thead>
<tr>
<th>Table 1. Estimated Livestock Water Requirements</th>
<th>Estimated Gallons per Day</th>
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<tbody>
<tr>
<td>Cows, Dry and Bred</td>
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<td>Cows, Nursing</td>
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<td>Sheep and Goats</td>
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<td>Horses</td>
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With the recent increase in the popularity of skid steer attachments for brush removal, OSU has also seen an increase in the prevalence of questions related to chemically controlling re-sprouts that occur after the removal operation. While these pieces of equipment make the job easier, unfortunately, if used alone they also reduce the effectiveness of foliar herbicide applications on re-sprouting brush species in the near future.

While species such as Eastern redcedar can be fully controlled by cutting them below their green limbs, some species of trees will regrow from buds present on the crown or root. Examples of crown budding species are oak, hickory, elm and Osage orange, while commonly encountered root budding species are honey locust and persimmon. This indicates that while clipping these trees will temporarily remove them from the landscape, they will also re-sprout from existing rootstock and return in the very near future.

The shoots mirror the roots

In general agronomy terms, the shoots (aboveground plant portion) of an unmolested plant typically have similar mass to the roots. This basic of plant physiology allows for efficient uptake of foliar applied herbicides and subsequent translocation to the root system, achieving desired long-term control.

However, if we remove the top growth of a re-sprouting species, the ratio of leaf surface area in relation to root mass has been reduced drastically and sufficient root kill through a foliar application of herbicide is likely impossible. In addition, there is a disproportionately large root system now supplying the small “sprout” with all the elements needed for fast regrowth in the short term (Figure 1).

Over the next few years, although the re-sprout continues to grow extremely fast, the photosynthesis occurring in the leaves is insufficient to supply the energy needed by the large root mass and therefore a portion of the root system dies back to a sustainable level for the plant. It is at this point when foliar herbicide applications become an option on the table once more.

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For this reason, dealing with root or crown sprouting species necessitates these options in decreasing order of preference (combination of control level, time and economics):

1. Apply chemical to the freshly cut stump of re-sprouting tree species.
   a. Usually mixed with fuel oil, apply within 30 minutes of cutting.

2. Use an approved product/method to control trees prior to mechanical removal.
   a. This could include foliar sprays or basal treatments.

3. Apply a post-harvest soil active herbicide labeled for the offending species.
   a. Relies on root uptake and therefore rainfall, not reliable on clay soils.

4. Allow at least 3-4 years of regrowth before using a foliar spray application.
   a. Allows time for increased leaf area and decreased root mass.

5. Spray a broadcast treatment option for 2-3 years in a row on re-sprouts.
   a. While effective, this method is costly.

So, if you’re contemplating using a skid steer for mechanical tree removal, they are a great option. However, remember to consider the growth habit of the tree species at hand before firing up. Identify what species are present and if they are notorious for re-sprouting. Determine the proper and least cost herbicide treatment for consistent root control. Some tree saw/shear options come with an onboard herbicide reservoir and pump, allowing you to treat the cut stump from the cab.

For more information concerning this method consult: your local OSU Extension Educator, OSU Brush Control Manual E-1001, and the appropriate herbicide label.
Oklahoma Hay Market Report
Eastern Oklahoma
May 31, 2018

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***New crop hay***

via usda ams

Fertilizer Prices
NE District

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4 dealer average as of 6/4/18

Value of Gain Calculation

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