Weed Control Takes Time, Planning and Effort to Be a Success

What is the weed situation like in your pasture? If the fields I’ve been in are typical, then curly dock, pigweeds, ragweed, oxeye daisy, daisy fleabane, thistle and other weed species are flourishing.

Planning is the key to an effective herbicide program and the time to begin planning is now. Weed control has to be one of the most frustrating tasks producers undertake. However, choosing to simply do nothing only increases the weed density and population over time. With the multitude of chemicals on the market today and the many types of weeds currently growing in your fields, planning an effective herbicide program can be difficult.

Controlling weeds in a pasture is a two-step process. The first of which is to encourage a vigorous, thick stand of grass or grass legume mix. This would include maintaining optimum soil pH and fertility (soil testing on a regular basis) and grazing management. Maintaining a high quality pasture of properly selected forages that your cattle will eat is one of the best ways to control weeds.

The second step would be to control existing weeds. This can be accomplished through mowing, using herbicides, and selective grazing practices, as needed.

Whichever method you chose, the key to good control is to do it early. If you mow, do it before the weed blooms. Pastures may need to be mowed two or more times during the season. This may be an effective way of controlling annuals and some biennials but may be expensive and time consuming as compared to other options.

If you choose to use herbicides, then remember the keys to good control.

The first step in the planning process is to identify problem weeds. So, plan on taking a weed inventory. When you walk your fields, take notes on weeds present and the severity of infestation. Also, note weeds along the edge of the fields. Sit down with other farm workers and discuss weeds that may have been a problem earlier in the season or in the past few years. In the case of alfalfa, winter weeds may be very important.

The second step after the identification process would be to sit down and look at herbicide options. Guides that will be helpful in selecting the best herbicides for your situation are the “Weed and Brush Control Guide for Forages, Pastures and Non-Cropland in Missouri” and the “Weed Control Guide for Missouri Field Crops”. These are available for a nominal fee at County University Extension Centers.

Article continues on page 4


**Utilizing Value of Gain in Cattle Markets**

Calves are on the ground, crops are beginning to emerge and farming has hit the easy stretch right? Nope, a farmer’s work is never done. Summer is just upon us, then a little later weaning season will begin. As weaning approaches for many cow-calf producers, those that have the facilities and resources for retaining ownership may want to evaluate whether or not they can increase returns by adding weight to their calves.

Currently, harvested forage price and corn price are low compared to previous years and producers may consider retaining calves after weaning to capture more value. This is where farmers have to really begin watching the markets and looking at their records for this crop of calves to determine if holding them for a longer time will lead to a larger profit at the end of the day.

The first item of business that a farmer has to look at is the value of gain (VOG). VOG is the value per head of the animal at the end of the feeding period (sales value) less the value of the animal at the beginning of the period (purchase value) divided by the weight gain. VOG is not constant and is particularly sensitive to market seasonality consistent with the changing nearby feeder cattle futures market contract associated with a given ending weight. In other words, the market is always changing and so does the VOG.

The second item farmers have to look at is the cost of gain (COG). COG is the total amount of costs associated with the calf divided by the weight gained. This is one area that a lot of producers can’t accurately account for because of the lack of record keeping. To attain an accurate value for the cost of gain, producers have to have a well-rounded record keeping system. Nonetheless, COG will help producers determine how much money was used to gain a specific weight.

Why is VOG and COG important to cow calf producers? Because the value of gain needs to be greater than the cost of gain for the producer to make money.

In the Table 1, we look at steer prices from the week of May 27, 2016. Keep in mind that COG is an estimated value for this example as COG varies from farm to farm. Here the farmer can expect to make a profit from selling his calves at the target weight of 450 and 550 lbs. (because the difference in VOG and COG is positive). All other weight classes, the producer is expected to lose money. As we begin to examine Table 2, steer prices from June 6, 2003, we see that cattle prices are much cheaper and so is the estimated COG (again an estimated value). From here a producer can expect to make money from all weight classes except the 900 lbs form. From these two examples we can see what exactly the cattle market is telling producers to do with their calves, sell light (table 1) or retain ownership to capture value (table 2).

Cow-calf producers should take the time to calculate an expected value of gain and know their cost of gain as they evaluate retaining ownership this of calves. Doing so may bring clarity to the decision of whether to sell calves or retain them. If producers maintain good records, watch the markets, and utilize all aspects of information then they will be successful in their operations.

**Source:** Nathanial Cahill, Agricultural Business Specialist

---

**Table 1. Missouri Weekly Feeder Cattle Weighted Average ( week of May 27, 2016 )**

<table>
<thead>
<tr>
<th>Weights (lb)</th>
<th>Value @ Sale ($/cwt)</th>
<th>Weight Diff. (lb)</th>
<th>VOG ($/cwt)</th>
<th>COG ($/cwt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>364</td>
<td>193.52</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>457</td>
<td>177.15</td>
<td>$93</td>
<td>$0.75</td>
<td>$0.75</td>
</tr>
<tr>
<td>550</td>
<td>166.65</td>
<td>$93</td>
<td>$0.75</td>
<td>$0.75</td>
</tr>
<tr>
<td>640</td>
<td>155.25</td>
<td>$90</td>
<td>$0.75</td>
<td>$0.75</td>
</tr>
<tr>
<td>739</td>
<td>147.24</td>
<td>$90</td>
<td>$0.75</td>
<td>$0.75</td>
</tr>
<tr>
<td>842</td>
<td>136.70</td>
<td>$90</td>
<td>$0.75</td>
<td>$0.75</td>
</tr>
</tbody>
</table>

**Table 2. Missouri Weekly Feeder Cattle Weighted Average ( week of June 6, 2003 )**

<table>
<thead>
<tr>
<th>Weights (lb)</th>
<th>Value @ Sale ($/cwt)</th>
<th>Weight Diff. (lb)</th>
<th>VOG ($/cwt)</th>
<th>COG ($/cwt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>360</td>
<td>112.49</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>459</td>
<td>107.03</td>
<td>$97</td>
<td>$0.25</td>
<td>$0.30</td>
</tr>
<tr>
<td>556</td>
<td>99.91</td>
<td>$97</td>
<td>$0.25</td>
<td>$0.30</td>
</tr>
<tr>
<td>653</td>
<td>93.53</td>
<td>$97</td>
<td>$0.25</td>
<td>$0.30</td>
</tr>
<tr>
<td>750</td>
<td>86.69</td>
<td>$97</td>
<td>$0.25</td>
<td>$0.30</td>
</tr>
<tr>
<td>844</td>
<td>86.56</td>
<td>$97</td>
<td>$0.25</td>
<td>$0.30</td>
</tr>
<tr>
<td>933</td>
<td>82.55</td>
<td>$97</td>
<td>$0.25</td>
<td>$0.30</td>
</tr>
</tbody>
</table>
Internal and External Parasite Control in Cattle

Internal and external parasites are a problem to cattle which can reduce productivity and profitability of a cattle operation. Specifically, the internal parasites affect the gastrointestinal tract by damaging and irritating the stomach and intestinal lining or mucosa. This results in decreased digestion and absorption of nutrients in these areas as well as protein and blood loss. These results cause further production losses such as decreased feed intake, reduced weaning weight, poorer feed efficiency, reduced milk production and reduced reproductive performance. Therefore, this discussion will identify types and symptoms of internal and external parasites as well as ways to diagnose and treat the parasite problems.

Internal Parasites

One type of internal parasite that causes problems in cattle is worms. The most common worm that affects cattle is the brown stomach worm. This worm is transmitted between cattle through feces and the eating of contaminated grass. Symptoms associated with this worm are diarrhea, reduced appetite, anemia, bottle jaw and rapid weight loss. The barber’s pole worm is another worm that could be a problem for cattle in the stomach. This is a warm weather parasite that sucks blood which gives it the appearance of looking like a barber’s pole. Since this worm can cause a significant amount of blood loss a small number of these worms can lead to acute symptoms of severe anemia and death. Another warm season worm that causes blood loss is hook worms which affects the small intestine. Also some other worms that disrupt intestinal function are the whip, wire, and tape worms.

Coccidia is another harmful internal parasite to cattle. It is a protozoan that infects the interior cell lining of the lymphatic blood vessels in the distal small intestine, cecum, and proximal colon. This protozoan causes enteritis in these regions of the intestine resulting in bleeding which causes the animal to have bloody scours a symptom of coccidia. The disease coccidiosis, which results from coccidia, is enhanced by stresses of weaning such as food and water deprivation and shipping. Therefore, cattle producers need to pay close attention to cattle at weaning time for coccidiosis symptoms and maybe use anticoccidial drugs to prevent against coccidiosis. Also worm infestations can enhance the likelihood of coccidiosis so when you see symptoms of worm issue you should also check for coccidia.

External Parasites

One type of external parasite that causes problems to cattle is flies. Horse, deer and yellow flies bite cattle and transmit blood borne disease such as anaplasmosis which is a disease that can affect cattle operations. Pinkeye is another major issues with cattle operations and its extent and severity is increased with the presence of face flies. Another fly that shows up in the warmer months is horn flies and their presence is linked with lower gains and milk production. Heel fly larvae or grubs will migrate to the top of the cow and damage the hide. In rare occasions these grubs could migrate to the spinal cord causing paralysis and eventually death. Other types of external parasites are lice, mites, and ticks.

Lice feed on hair, skin and blood. Symptoms of lice is lameness, dermatitis, hair loss, allergic responses, and skin crusting or scabbing. Like lice, mites cause skin irritation and scabbing. Furthermore, heavy infestation of mites can lead to lesions. Also mites can enter the respiratory passages, ear canals, and internal organs and cause damage. Finally ticks like lice and mites will cause damage to cow hides. Furthermore, ticks feed on blood and transmit pathogens and disease through the blood.

Diagnosis and Treatment

When diagnosing and treating a parasite problem consult a veterinarian and develop a diagnosis and treatment plan prior to when internal and external parasites are a problem. To diagnose internal parasites, you can watch for symptoms but in most cases a fecal egg count is your best option. Unless you have the skills to conduct this process and microscope to look at the samples you need to consult a veterinarian and use their microscope and expertise to identify the internal parasite problem. Once the parasite is identified select the proper dewormer to treat the problem. Dewormer product and form of treatment should be changed every 2 to 3 years to cut down on resistance problems. External parasite diagnosis is through visual appraisal. If an internal and external parasite problem is identified the producer my want to use a combination treatment for internal and external parasites. If coccidia is determined then anticoccidial drugs such as corid, decox, bovatec, rumensin, and sulfa-nox could be used for treatment.

Insecticides are used to treat external parasites. The various types are injectable, fly tags, baits, boluses, dips, dust, pour-ons, spot-ons, sprays, rubs, and feed additive in mineral or feed supplements. When using these products, it is important to read the labels and apply the product correctly to get the desired response. Also with products that you have to reapply to the applicator like rubs, dusts and other products make sure the applicator has the correct amount of insecticide on it to get the desired response. Also with feed additives make sure that the animal is consuming the correct amount to get the desired response.

In the diagnosis, treatment and control of internal and external parasites work closely with your veterinarian to identify the best protocol for your cattle operations. For more information, contact your local MU Extension Center.

Source: Patrick Davis, Livestock Specialist
In most cases, two or more combined herbicide programs will give adequate weed control. This gives you, the producer, the opportunity to compare programs. Comparisons based on costs per acre, effectiveness on a specific weed, and label restrictions and/or precautions used.

If you choose to use herbicides, then remember the keys to good control.

1. Spray when the plants are small. Young plants are generally more susceptible to herbicides than larger (older) plants.

2. Weeds must be actively growing at the time the herbicide is applied. If the plants are drought stressed or if it is too hot or too cold, you may not get a good kill.

3. There is a right and wrong time of the year to spray different weeds, and that is an essential part of a control program.

Last, but not least, is to check on the availability of products. In the current economic climate, most agricultural supply companies are exercising a tight inventory control. They may not have a particular herbicide in stock. But given enough time, they can usually order it.

**Source:** Terry Halleran, Agronomy Specialist