Make Pre-Breeding Vaccines a Priority

Dr. Jeremy Powell

Spring breeding season is fast approaching, and a healthy cow is essential for reproductive success. The earlier a cow can become pregnant during the breeding season, the earlier she will calve the following year, and an earlier calving date usually corresponds with a more valuable calf at weaning. Vaccinating the whole herd this time of year will not only protect the cows against reproductive diseases prior to the breeding season but will also provide protection to the spring-born calves against potential disease risks. Selecting the correct vaccines is a critical element in developing a herd health program.

Although herd health needs may vary among operations, there are a few standard vaccines that will protect against reproductive loss and poor efficiency in a cow herd that should be included for most herds. For cows and bulls, vaccinate with:

- 4- or 5-way viral vaccine (IBR, BVD, PI-3, BRSV)
- Leptospirosis
- Vibriosis
- 7-way clostridial (Blackleg)

Another focus for the vaccination program should be to limit overall calf illness. Some operations should give consideration to the case history of diseases in the herd. If your herd has encountered problems with pinkeye, calf scours or respiratory pneumonia in the past, there are vaccines for these problems that will help limit future outbreaks. However, the standard annual vaccines recommended for calves should include:

- 4- or 5-way viral vaccine (IBR, BVD, PI-3, BRSV)
- 7-way clostridial (Blackleg)

If you plan to vaccinate replacement heifers, then consider:

- Brucellosis (Bang’s) vaccine between 4 and 12 months of age
- 4- or 5-way viral vaccine (IBR, BVD, PI-3, BRSV)
- Leptospirosis
- Vibriosis
- 7-way clostridial (Blackleg)

Your vaccination program should be viewed as an important part of an effective health management plan that would also include proper nutrition, parasite control and a simple biosecurity plan for your operation. The objective is to maintain a high level of herd immunity to minimize disease outbreak and improve profitability for the operation. Since vaccine needs vary from herd to herd, consider visiting with your herd veterinarian to get input regarding vaccine selection for your operation.

One concern that some producers may question: Is the cost of implementing a vaccine program justified? You should consider that avoiding a potential health disaster in your cattle operation easily validates the cost. Keep in mind the motto: “An ounce of prevention is worth a pound of cure.” In other words, the expense of a disease outbreak will far exceed the cost of disease prevention.
As the Temperature Rises, So Do Water Requirements

DR. JEREMY POWELL

Water is the most important nutrient for general animal well-being. If water intake drops below required levels, then decreased feed conversion, stressed cattle and dehydration will result. Keep in mind that, as the approaching summer temperatures continue to rise, your cattle’s daily water intake will also continue to rise.

Water requirements for cattle can vary widely due to factors such as environmental temperature, humidity, precipitation, body weight, breed, feed intake, pregnancy status, milk production and water content of feedstuffs. Table 1 contains some estimates of daily water intake for a number of cattle categories.

It is for estimation purposes only, and each estimated intake has a wide variation under normal circumstances.

As cattle eat, much of the necessary water requirement may be supplied by the grass or feed they consume. For example, beef cattle on green grass in cool weather will not require much water to drink because the grass may be up to 90 percent water by weight. Also, dairy cattle that consume wet feeds, such as corn silage, haylage or green chop, will require less water to drink each day.

Some water sources may contain contaminants such as blue-green algae, nitrates and heavy metals that could be harmful to cattle. Water contaminated with dead animals, feces or other noxious materials may be a potential source of toxins or disease contaminants that could threaten the health of cattle.

Lastly, a cow’s water intake can also be affected by the physical characteristics of the water itself. Factors such as salinity (salt concentrations), temperature and hardness (concentration of calcium and magnesium) will influence preference and intake levels. Your county Extension agent can assist you with a test for water analysis if some of these issues may be a concern on your farm.

Table 1. Estimated Daily Water Intake for Cattle* (gallons/day per animal)

<table>
<thead>
<tr>
<th>Body Weight (lb)</th>
<th>Ambient Temperature</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>40° F</td>
<td>60° F</td>
</tr>
<tr>
<td>Beef calves</td>
<td>4.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Stocker calves</td>
<td>6.3</td>
<td>7.9</td>
</tr>
<tr>
<td>Feedlot steers</td>
<td>8.7</td>
<td>10.8</td>
</tr>
<tr>
<td>Pregnant beef cows</td>
<td>6.0</td>
<td>7.4</td>
</tr>
<tr>
<td>Nursing beef cows</td>
<td>11.4</td>
<td>14.5</td>
</tr>
<tr>
<td>Lactating dairy cows</td>
<td>1, lb milk/day</td>
<td></td>
</tr>
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<td>Lactating dairy cows</td>
<td>1, lb milk/day</td>
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</tbody>
</table>

*Source: NRC, 1996.

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