

# Health & Husbandry

## Develop a herd health management plan.

by Brad White, Kansas State University Beef Cattle Institute



A new year initiates the urge to create a plan for the upcoming season. While this is a great

goal, it is also easy to procrastinate while doing more urgent or easily achievable tasks. In fact, I was able to clean off my

entire desk while procrastinating the planning of this article.

Generating an annual herd health plan does not have to be daunting. Starting with last year's schedule will help initiate the process.

An event-driven herd health program allows you to determine timing and expectations based on the production calendar.

Creating separate schedules for the mature cow herd and replacement heifers is a good idea. Fig. 1 provides an example health calendar based on production events that can be modified to your herd requirements.

This is also a great time to visit with your veterinarian to discuss any potential

changes to preventative health measures to address issues specific to your operation.

### Mature-cow calendar

Preventative health in the mature (multiparous) cow herd focuses on cows annually producing a healthy calf for weaning. Achieving this goal

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**Fig. 1: Example event-driven production-year health calendar for cow-calf herds raising replacement heifers**

#### Prebreeding:

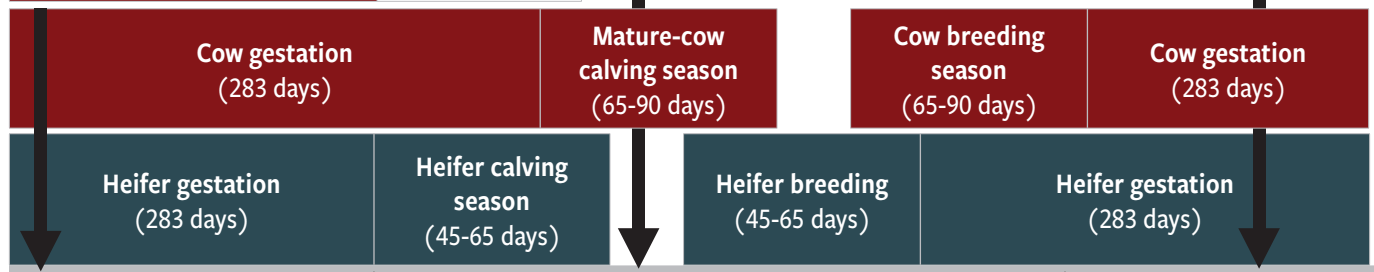
<b>Yearling replacement heifers:</b>	<ul style="list-style-type: none"> <li>• Conduct reproductive soundness exam</li> <li>• Check weights</li> <li>• Implement vaccination strategy</li> </ul>
<b>Mature cows:</b>	<ul style="list-style-type: none"> <li>• Monitor dystocia risk/failure to calve</li> <li>• Potentially administer vaccinations/parasite control</li> </ul>
<b>Bulls:</b>	<ul style="list-style-type: none"> <li>• Conduct breeding soundness exam, including body condition score (BCS)</li> </ul>

#### Weaning:

<b>Newly weaned heifer calves:</b>	<ul style="list-style-type: none"> <li>• Select potential herd replacements</li> <li>• Implement vaccination strategy</li> </ul>
<b>Primiparous cows (first-calf heifers):</b>	<ul style="list-style-type: none"> <li>• Determine pregnancy status and estimate fetal age</li> <li>• Collect BCS</li> <li>• Potentially administer vaccinations and parasite control</li> </ul>

#### Gestation:

<b>Pregnant replacement heifers:</b>	<ul style="list-style-type: none"> <li>• Weigh</li> <li>• Collect BCS</li> </ul>
<b>Pregnant mature cows:</b>	<ul style="list-style-type: none"> <li>• Collect BCS</li> </ul>



Timeline (weeks)

#### Calving:

<b>Replacement heifers (24 months):</b>	<ul style="list-style-type: none"> <li>• Monitor dystocia and failure to calve</li> </ul>
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#### Gestation:

<b>Replacement heifers (16 months):</b>	<ul style="list-style-type: none"> <li>• Determine pregnancy status and fetal age</li> <li>• Administer vaccinations and parasite control</li> </ul>
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includes proper body condition for the production stage, a productive breeding season, and preventing reproductive losses during gestation.

For spring-calving herds, the year often starts with cows in mid-gestation. This is a great time to assess body condition score (BCS) and nutritional status of the herd. Determining BCS three to four months prior to calving allows time to adjust nutrition for the herd prior to calving and get cows in good condition prior to breeding.

As calving season progresses, monitor cows for dystocia (difficult calving), reassess BCS, and potentially vaccinate the herd to protect against reproductive diseases. Many of our vaccines for cows are targeted to prevent pathogens that cause pregnancy loss.

Some herds vaccinate prebreeding, while others vaccinate at pregnancy determination (mid-gestation). Either timing can be acceptable, depending on which diseases are of biggest concern and the production flow of your operation. Consult your veterinarian for the best timing and specific vaccines for your herd.

Calving season is also a great time to perform a breeding soundness examination (sometimes referred to as a BSE) on bulls and evaluate BCS. Assessing bull status early allows time to find replacements, if needed, or change the ration to ensure the bull is ready to perform at the start of the breeding season.

Monitor cows and their new calves through breeding and early gestation for potential health problems. Often, this is a low-maintenance period.

As cows enter mid-gestation, consider performing pregnancy determinations at a stage where fetal age can be determined relatively accurately. For most herds this would occur when the maximal gestational age is around 120 days and, with an 80-day breeding season, the shortest pregnancy would be around 40 days.

The benefit of pregnancy detection at this stage is the ability to evaluate not only if cows are pregnant, but if the herd is going to calve in a relatively tight window, with most cows calving early. Managing the herd to have the majority of calves born in the first 21 days of the calving season is an important tool to promote higher weaning weights.

Pregnancy determination is also a good



An event-based herd health calendar allows you to plan and allocate resources at specific times during the year.

time to perform annual vaccinations and parasite control, depending on what was done prebreeding. Assessment of BCS allows planning of the ration through gestation and to calving.

Mid-gestation is a period with one of the lowest cow nutritional requirements. If the herd needs to gain weight, this is a nutritionally efficient time to provide more feed.

## Replacement heifer calendar

Replacement heifers follow a slightly different annual calendar. Ideally, they should begin calving prior to the mature cow herd to allow a longer postpartum recovery period. Calving heifers 30 days prior to mature cows gives heifers a greater chance to conceive at the start of the mature cow herd's breeding season after their first calf.

Another reason to have a separate calendar for replacement heifers: They are not just small cows. They require additional management through the year.

Heifer management starts at weaning, when the heifers are selected as potential replacements. Most heifers need to reach 60%-65% of their expected mature body weight by breeding. Planning a ration to achieve this goal is much easier when starting at weaning.

Around weaning is also a great time to initiate the vaccination program. At this stage we are performing immunizations to prevent disease and to build base immunity for the heifer. Often vaccines need to be given multiple times during this period. Be sure to follow label directions.

Performing prebreeding examinations on the heifers will help identify potential problems and assist in planning the breeding season. This is also the time to consider

implementing an estrous synchronization program and updating reproductive vaccines.

Performing pregnancy detection at a stage when fetal age can be accurately determined is important in replacement heifers, especially if an artificial insemination (AI) program was used during breeding. Identifying gestational age allows evaluation of the preparation for breeding and the breeding program. It also provides a more accurate prediction of calving time, which helps manage labor for next year. While heifers are going through the chute for pregnancy detection, it is a good time to update vaccinations and consider parasite control.

Mid-gestation is an important time to monitor heifers for BCS, as replacement heifers that are thin at calving have an even longer postpartum interval, delaying their subsequent breeding. The postpartum interval is one of the main reasons second-calf cows are difficult to get bred.

The nutritional plan should be formulated to promote the first calving at a BCS greater than 5 (fleshy) and at 80% of mature weight.

While most cow dystocias are due to malpositions, most heifer dystocias are related to a mismatch in fetal-dam size. This means intensive monitoring and rapid intervention are key to reducing issues with dystocia in the heifer herd.

A successful replacement heifer program is one in which the first-calf heifer rebreeds in time to have her second calf early in the mature-cow calving season.

## Conclusions

There is no single herd-health calendar that fits all operations. However, most cow-calf operations have similar activities throughout the production cycle. Creating an event-based health program for your herd allows you to plan and allocate resources at specific times during the calendar year.

Heifers and mature cows have different needs, and the calendars should be adjusted accordingly. **ABB**

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Editor's note: Author Brad White is on faculty at Kansas State University College of Veterinary Medicine and serves as director of the Beef Cattle Institute (BCI). To learn more on this and other beef herd health topics, tune in to the weekly Beef Cattle Institute *Cattle Chat* and *Bovine Science with BCI* podcasts available on iTunes, GooglePlay or directly from [www.ksubci.org](http://www.ksubci.org).