



**Scours is a leading cause of morbidity and mortality in calves' first month of life.<sup>1</sup>**

## **13 beef herd management tips to help prevent calf scours**

### **BEFORE CALVING SEASON**

1. **Start clean.** Make sure the calving area is clean and dry at the start of the calving season.<sup>2</sup> Ideally, this area should be one where you **DID NOT** overwinter your livestock.
2. **Keep it clean.** Regular cleaning of the calving area is mandatory.<sup>2</sup>
3. **Avoid overcrowding** through the calving season to control pathogen buildup.<sup>2</sup> Healthy adult cattle can shed many of the common infectious organisms that cause calf scours, such as *E. coli*, rotavirus, coronavirus, and *Cryptosporidium parvum*.<sup>2,3</sup>
4. **Ensure enough clean dry space is available** to handle an above average number of calvings and sick calves.
5. **Ensure pregnant cows have adequate nutrition** (energy, protein and trace minerals), especially in the last trimester, to support fetal growth.<sup>2,3</sup>
6. **Monitor cows' body condition score.** Cows in the last trimester of pregnancy should have a body condition score of at least 5 and heifers should be at least 6 on the standard scale of 1 to 10.<sup>4</sup>
7. **Vaccinate cows** against pathogens associated with calf scours during the last three months of pregnancy, to fortify colostrum.<sup>2</sup> Please follow label recommendations for **BOVILIS® Guardian®**.

### **DURING CALVING SEASON**

8. **Calve the heifers** earlier than the main cow herd in clean fields.<sup>3</sup>
9. **Make sure calves start nursing** as soon as possible to get adequate colostrum.
10. **Pay particular attention to calves born at risk** (i.e., twins, hard pulls etc.), who tend to be slower to stand and nurse, and are at greater risk for calf scours.<sup>2</sup>
11. **Limit contamination.** Do not bring in cattle from other herds during calving season,<sup>3</sup> clean equipment between calves, and wear only clean outerwear (i.e., boots and coveralls).
12. **Use strict sanitation** and treat sick calves only after handling the healthy ones.<sup>3</sup>
13. **Separate calves** into groups of similar age to reduce the risk of transmission.<sup>2</sup>
14. **Reduce the risk of scours** by adopting the Sandhills Calving System, where space and weather allow. Rotating pastures as the calving season progresses decreases the pathogen load to which calves are exposed.<sup>5</sup>



Give calves a fighting chance  
right from the start

## Help fortify colostrum with **BOVILIS® Guardian®**

### Calves' first line of defense against scours

Help ensure the colostrum your calves receive contains a high concentration of antigen-specific antibodies by vaccinating pregnant cows with **BOVILIS® Guardian®**.

- **Broad-spectrum coverage** against the most prevalent and relevant scours-causing bacteria and viruses.
  - Includes a cell-free extract of K99 pili of *Escherichia coli*, a unique combination of two inactivated coronavirus subtypes, two G-types of inactivated rotaviruses and a bacterin-toxoid from *Clostridium perfringens* types C and D.
- **Shown effective against:**
  - Neonatal calf diarrhea caused by **bovine group A serotype G6 rotaviruses**.
  - Neonatal calf diarrhea caused by enterotoxigenic ***E. coli* pilus type K99**.
  - Enteritis caused by ***C. perfringens* type C** and enterotoxemia caused by ***C. perfringens* type D**.
  - Neonatal calf diarrhea caused by **bovine coronavirus**.
- **Vaccination protocol timed for optimal colostrum fortification.**<sup>†</sup>

The **ONLY** subcutaneous scours vaccine for use in pregnant cows and heifers to help reduce neonatal diarrhea in calves that features:

- Subunit technology using pili instead of whole *E. coli* cells or cell walls (which could be a potential source of endotoxin), to generate a **strong, targeted immune response against *E. coli* pilus type K99, with a lower rate of injection site reactions.**
- Coverage against **two subtypes of coronavirus.**
- Includes ***C. perfringens* type D** in addition to ***C. perfringens* type C.**



To find out more about **BOVILIS® Guardian®**, or for technical support, please contact your Merck Animal Health representative at **MAHCattle.com**

<sup>†</sup>To be injected in healthy pregnant cattle 3 months prior to calving. Repeat in 3-6 weeks following initial vaccination. For subsequent calvings, revaccinate 5-7 weeks before calving. Always read and follow the label instructions to ensure this product is suitable for the animal to be vaccinated.

1. Smith DR. Field disease diagnostic investigation of neonatal calf diarrhea. *Vet Clin North Am Food Anim Pract.* (2012) 28(3):465-481 ) doi: 10.1016/j.cvfa.2012.07.010
2. Dewell G, and Cooper VL. Control of calf diarrhea (scours) in Midwest beef cattle farms. Iowa State University Extension and Outreach, PMR1019, February 2016
3. Maas J. Feeding cows to prevent scours in calves. *UCD Vet Views*, December 2002, UC Davis Veterinary Medicine Extension. Available at [https://ucanr.edu/sites/ucce\\_lr/files/151761.pdf](https://ucanr.edu/sites/ucce_lr/files/151761.pdf) (Accessed July 2020).
4. Beef Cattle Research Council (BCRC). *Body Condition*. Available at [http://www.beefresearch.ca/research/body-condition-scoring.cfm?utm\\_source=bodyconditionscoring.ca&utm\\_medium=redirect&utm\\_campaign=Body%20Condition%20Scoring](http://www.beefresearch.ca/research/body-condition-scoring.cfm?utm_source=bodyconditionscoring.ca&utm_medium=redirect&utm_campaign=Body%20Condition%20Scoring) (Accessed September 2020).
5. Smith, David R.; Grotelueschen, Dale; Knott, Tim; and Ensley, Steve, "Managing To Alleviate Calf Scours: The Sandhills Calving System" (2003). Range Beef Cow Symposium. 70.