

BVD Control: Where to begin?

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Bovine viral diarrhea (BVD) may be one of the most controllable cattle diseases, affecting all stages of beef and dairy production. The major target for control is eliminating persistently infected (PI) cattle from the population by incorporating well designed preventive strategies.



PI calves are born following exposure to the BVD virus during gestation, either via acute infections of the dam or through exposure from dams who are PI themselves. It is likely that about 9 of 10 PI calves are the result of acute infections of the dam during gestation. This means PI calves often transmit the virus to the next gestating calf crop within infected herds. It also means that calves should be a focus group for testing when herd-based approaches are needed.

Eliminating PI animals can be done using effective, economical preventive strategies. BVD control must be implemented in cow-calf operations to be effective for the industry. Identifying PI cattle at backgrounder and feedlot operations does little to sustain prevention for individual enterprises or the cattle industry as a whole, even though there may be gains in these operations.

BVD control strategies are highly preventive in focus and target risk reduction. Economic and production advantages from BVD control include pregnancy rates and pregnancy loss, calf sickness and death loss, reduced sickness in feedlots due to immune suppression and other costs.

BVD Control Plan

A good BVD control plan has components that include keeping it out of the herd, targeted use of vaccines to prevent birth of PI calves, herd test approaches where indicated (including biocontainment), and monitoring BVD PI absence or presence in the herd. Doing this ensures sustainable, economically beneficial and successful BVD control in your herd. This is much different than conventional approaches for controlling most animal diseases the industry deals with on a regular basis. Operations that plan to market PI tested animals usually have increased priority for herd test approaches.

Designing and implementing a plan will help avoid mistakes and loopholes, increase cost effectiveness and confirm goals are achieved. BVD control goals should be compatible with the operation's goals. Eliminating PI animals and preventing BVD virus entry with full documentation may be very logical for some while keeping BVD out and using vaccines to reduce risk may be more appropriate for others. Consulting with a knowledgeable veterinarian will assure best decisions are made.

BVD Biosecurity

All herds benefit from plans to reduce risk for BVD. Usually the most important step for BVD control is keeping it out of the herd. Around 10% of beef herds contain PI BVD animals. This means that most herds are at risk for exposure by bringing PI BVD cattle into the herd.

It's simply a numbers game until a PI animal is introduced if animals brought into a resident herd are not tested for negative PI BVD status. This includes offspring of pregnant animals. New herd introductions that are pregnant should be kept separate from the resident herd until after calving, with the calves PI tested prior to commingling.

Eliminating effective contacts is another key to keeping BVD out. Examples include quarantine periods for animals coming home from shows or places where animal to animal contact is present, rest

periods between use if equipment is shared, and reducing fence-line contact where possible, especially during high risk periods for PI development.

Reducing exposure risk with sound biosecurity combined with vaccine use will produce a strong preventive strategy for BVD control.

Vaccines

Targeted vaccine use results in significant levels of protection but does not eliminate birth of all PI calves when exposure is present. Immunity or protection is very dependent on an animal's response to vaccination, which is a limiting factor for successful immunization. It is necessary to eliminate all PI calves in herds for control plans to succeed. Reducing exposure risk with sound biosecurity combined with vaccine use will produce a strong preventive strategy for BVD control. Vaccines also are used to prevent acute infections when exposure occurs in susceptible cattle. This includes all classes of animals.

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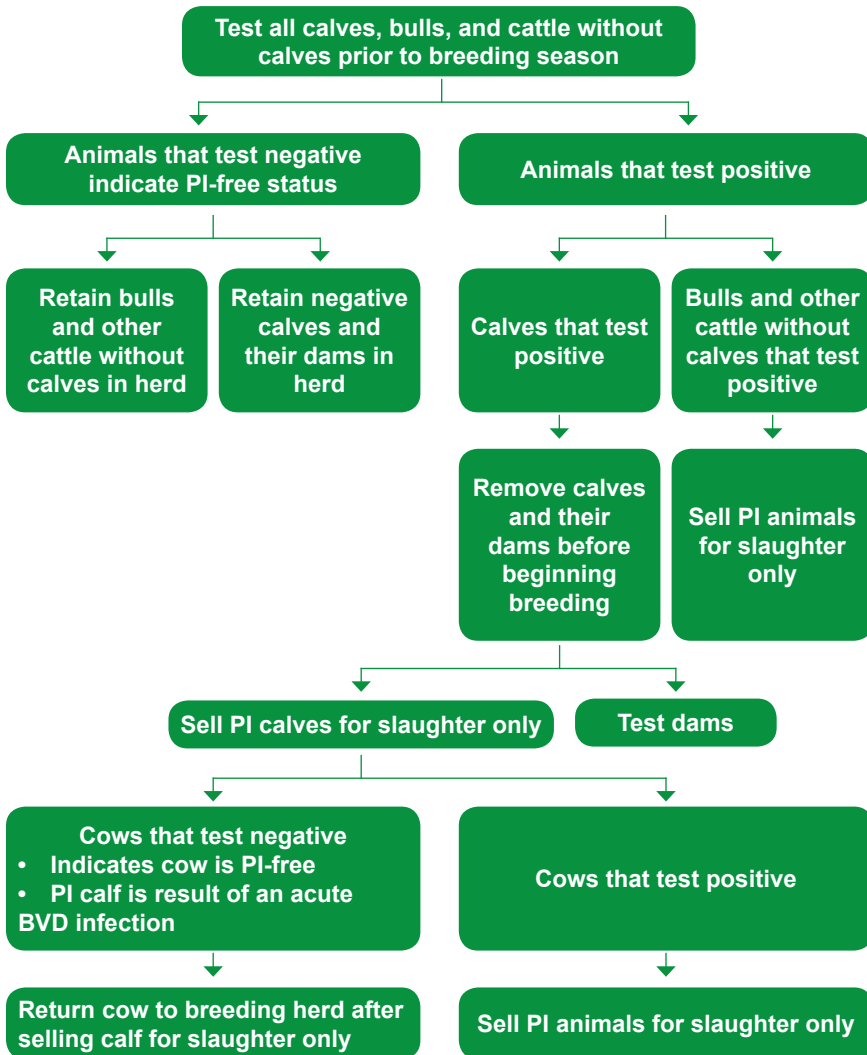
Herd Testing Approaches

Herd test approaches include PI testing of all calves prebreeding, bulls, replacement heifers, and any other cattle not nursing calves. Detection and control can be shown through BVD biocontainment, participating in a state-sponsored voluntary BVD control program,

marketing PI-tested animals and herds that confirm PI absence.

Herd monitoring is an indicator for success of BVD control plans and aid in determining if other interventions, such as herd tests, are needed. Design and use of this component of control should be part of all BVD control plans.

Fig. 1 - Flow chart for testing a beef herd prior to breeding to identify and remove BVD PI carrier cattle



New BVD Testing Requirement at National Western Stock Show

If you plan on showing or selling cattle at the National Western Stock Show in Denver in January, be prepared to show proof that your cattle have tested negative for BVD PI. It's a new requirement this year and applies to all beef, bison, yak or camelids (llamas, alpacas, etc.), says Bill Angell, Livestock Show Manager.

Livestock without a health certificate showing a negative test for BVD PI will not be allowed on the grounds. As the show attracts livestock from all over the nation and the disease is spread through shedding, this preventative step seeks to protect the health of all livestock and prevent the unintentional spread of the disease.

The show runs Jan. 12-27. Go to www.nationalwestern.com/nwss/home/index.asp for schedule information.

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