

## **BVDV Risk Assessment**

The success or failure of a program aimed at prevention of BVD problems in a herd is dependent on a herd plan that has been formulated from a survey of existing risk factors in the herd. These risk factors are either associated with introduction of virus into the herd, or with spread of the virus within the herd. Each herd has its own set of risk factors that may contribute to the overall risk in this specific herd. Formulation of the herd plan is therefore strongly dependent on the existing risk level in the herd., and the goal that the producer aims to achieve. The risk assessment that is lined out in the accompanying table tries to identify the specific risks that are present in this herd. The herd plan will be based on the identified risks, and the ability of the producer to change these practices.



## BVD Risk Category Assessment Guide

BVD Risk Factors	Risk Level H,M,L	❖ Risk Information ❖ Informational Statement ➤ Intervention tactic	Risk factors on this farm (level of implementation)	Farm Feasibility Y,N
<b>1) Herd BVD Infection</b> ❖ Presence of PI animals  ❖ Infection in early gestation	H  H	❖ PI animals are a continuous reservoir of virus ➤ Identify and cull PI animals ➤ Cull offspring from PI animals  ❖ Exposure to acutely or persistently infected animals < 125 days of gestation may result in PI calves ➤ Protect by ensuring proper vaccination ➤ Prevent exposure to PI animals		
<b>2) Vaccination Practices</b> ❖ Vaccine Administration          ❖ Vaccination Protocol          ❖ Vaccine handling	H          H          H	❖ A properly designed vaccination program can provide good protection against acute BVD and some fetal protection against persistent infection ➤ Work with herd veterinarian to design a vaccination program which will reduce the farm's risk of BVD ➤ Administer vaccines according to label directions ➤ Review vaccination program annually with veterinarian AND people who implement the program ➤ Keep written records of vaccinations  ❖ The effectiveness of a vaccine is dependent on the means in which it is used ➤ Be sure to use a two dose protocol according to label directions when using killed vaccines for the first time and at 4-6 month intervals thereafter ➤ Design heifer vaccination program for protection during high risk periods: by 3-6 months of age and covering early pregnancy ➤ Design adult vaccination program for protection during high risk periods: early pregnancy and late gestation (to achieve high colostral antibody levels)  ❖ Vaccines are biological products which will deteriorate if improperly stored or handled ➤ Store vaccines at recommended temperatures ➤ Use vaccines before expiration date ➤ Discard unused vaccine if using MLV product		



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<b>3) Herd Replacement Practices</b> ❖ Outside additions  ❖ Calves born to outside additions ❖ Outside contact	H       H  H	❖ Animals brought in from other locations are potential sources of acute or persistent infection. These include purchased/leased cows, calves, heifers, imported ET recipients, bulls or uncertified semen. ➤ Test for BVD virus infection and vaccinate before arrival ➤ Segregate for observation & to prevent transmission of incubating disease ➤ Treat bulls and semen as potential carriers, manage accordingly  ❖ These calves are potential PI animals ➤ Test before colostrum or after 3 mo. of age  ❖ Animals which leave the farm and return can bring virus with them. These include show animals, exhibited animals, custom-raised heifers, or hospitalized cattle. ➤ Vaccinate show, fair and custom raised animals ➤ Minimize contact with animals from other farms ➤ Do not share medicines or equipment at fairs ➤ Segregate upon return		



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<b>4) Biosecurity</b> ❖ Inputs from off-farm	M	❖ The BVD virus is shed in blood, saliva, nasal secretions, milk and manure from persistently infected animals and to a lesser degree acutely infected animals. Livestock trucks, livestock treatment equipment, or boots/clothing/people are easily contaminated by these bodily fluids and can serve as carriers of the virus onto the farm or between groups on the farm ➤ Require clean trucks for animal transport ➤ Require clean boots, clothing and equipment for people or employees entering the premise		
<b>5) Within Herd Spreading</b> ❖ Sick animal management	H	❖ Sick animals may be infected and shed virus ➤ Sick animals must be isolated from healthy animals ➤ Move dead animals away from barn for pickup		
❖ Animal grouping	H	❖ Young animals (<4 months) are especially susceptible to viral infections ➤ Ensure that newborns get adequate, high quality colostrum ➤ Separate animals with respect to age and group management needs		
❖ Water troughs, feedbunks, feeding equipment	H	➤ Maintain appropriate animal density to reduce transmission. ❖ BVD virus may be transmitted through saliva, urine or feces ➤ Keep water troughs, feedbunks and feeding equipment as clean as possible ➤ Equipment such as nose leads, pill guns calf feeding equipment, tautoers, gouge dehorners, etc should be kept clean between use and disinfected as appropriate		
❖ Ventilation	M	❖ Airflow can carry virus from infected animals to uninfected animals ➤ Maintain proper amount of ventilation and avoid air flow from older animals to younger animals		