

# Biosecurity Within Your Herd

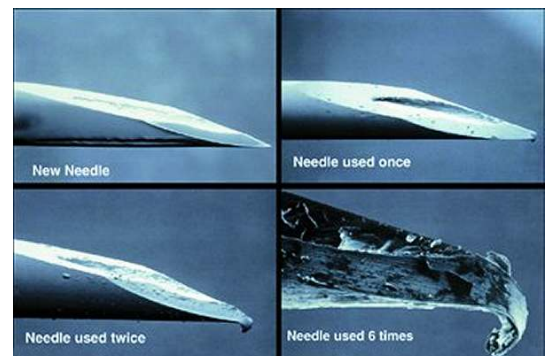
Farm biosecurity isn't just exclusive to preventing disease transmission from farm -to-farm. It is also important to assess modes of transmission from cow-to-cow within your herd to ensure disease rates are as low as possible. There are many transmissible diseases which limit production, milk quality, reproduction, calf survivability, etc. Determining your herd's level of risk, personal goals, and current program's loopholes is important in establishing best management practices for your farm. Your herd health veterinarian would be happy to discuss how this topic pertains to your specific operation, and how you can target your highest risk areas. Here are just a few areas to consider:

## 1.) Medications

**Storage:** Drugs need to be kept according to label directions. Some require refrigeration, while others should be protected from light. Some medications need to be reconstituted and are only good for a certain period of time after mixing. Improper storage conditions can render an expensive medication useless.

No medication should be stored with a needle sticking out the top - this will allow bacteria into the bottle and contaminate it. Used needles piercing a bottle will do the same. Injecting animals with a contaminated medication can cause abscesses and even fatal diseases such as blackleg.

**Use:** Always use a clean needle for every animal. This prevents the spread of blood borne diseases, and also reduces bacterial contamination of the next animal, reducing the risk of injection site abscesses. Bolus guns should be washed between animals as well. Depending on the medication type and amount, a different size and gauge of needle may be appropriate. Ensure animals are also injected in an appropriate location for the route of administration. As well, remember it is a CQM requirement that the expiry date has been checked as valid prior to giving a medication!



## 2.) Milking practices



**Cleanliness:** Cleanliness of udders prior to calving as well as prior to milking (i.e. on **entry** to the parlor) have been strongly linked to risk of development of intramammary infections. Milking preparation is still very important, but remember that a good pre-milking prep only reduces bacteria numbers, and does not eliminate them! Starting off from a low total bacteria on parlor entry ensures actual numbers on the teat when the milker goes on is as low as possible. Also consider where and how your teat dips are stored - is there any possibility of contamination? Non-return diaphragm cups are also essential to limiting spread of bacteria cow-to-cow, as are milking gloves which are washed or changed throughout milking.

**Knowing is half the battle:** Do you know what bugs you have on farm, which cows are infected and which ones are chronic? Without a solid handle on this, it is very difficult to control your herd's bulk tank SCC, as well as prevent new infections. Culturing, as well as routine stripping or CMTs to detect abnormal milk, are an invaluable way to monitor your herd's udder health. Your herd health veterinarian would be happy to discuss your current mastitis prevention practices and determine how you can routinely achieve a low bulk tank SCC and low new infection rate.

### 3.) Feeding equipment

**Calves:** When it comes to calf health, cleanliness actually ranks ahead of godliness. Clean calves are healthy calves! Do you know how clean your colostrum is at the time of feeding? Do you know the quality of your cow's colostrum, and how effectively it is being transferred to your baby calves?

Determining total bacterial counts on as-fed colostrum is a great way to measure harvesting hygiene. Things such as cleanliness of teats, equipment, and time to feeding or freezing (speed of cooling) all contribute to the total bacterial count in colostrum. High bacterial loads can directly infect the calf, and also impact the ability of the calf to absorb the colostrum's antibodies. Quality of colostrum can be measured using a refractometer. Knowing quality helps determine which colostrum to use, or possibly which calves to supplement with a replacer. Finally, assessing calves for total protein (a simple blood test) can determine how effective your colostrum management program is at conferring high levels of antibodies to your baby calves.

After colostrum feeding, it is still important to ensure all instruments (bottle, pails for milk, starter or water) are as clean as possible. Most calf-health pathogens are prevalent in all environments - it is the load the calf receives, as well as the immune status of the calf, which determines if illness occurs. Reducing bacterial loads in feed and water, as well as keeping the housing clean, both play a huge role in disease prevention.

**Cows:** Is there any potential for cross contamination of manure in any feeding equipment? Wash tractor and skid steer buckets out before feeding if they were used to clean pens, as well, tires should be sprayed off to avoid tracking manure into feed alleys. This is especially important when feeding young stock - diseases such as Johnes can be spread by a very small amount of fecal matter. Keeping young calves relatively isolated from adults can help reduce the spread of many diseases.

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## CQM Update

The next in-class training session will be held in late February. If you are due for CQM validation in 2014 and have not attended an in-class training session, or would like a refresher, please call the clinic to advise the office staff. In-class training should occur 4-8 months prior to when your farm is due for CQM validation.

