# Bacterial Pneumonia Vaccine Protection

what’s new at Oxford Bovine?

The clinic is preparing to launch a new clinic website www.oxfordbovine.com. It is still currently under construction but will be ready soon. The website will feature profiles on all the staff and updates on clinic news.

Our veterinary technicians Kady and Courtney have developed a great calf health management program. They are busy on farm doing calf management including disease outbreak workups, reviewing cleaning/sanitation protocols, and calf testing. Please ask your herd health veterinarian if you would benefit from their services.

Novodry and Special Formula intramammary treatment is on back order indefinitely. Please ask your herd health veterinary for advice on alternatives.

There are a couple of new products you will see at the clinic. We are now carrying **First Defense Tri-shield** which covers for E.coli, Rotavirus and Coronavirus. We are also carrying **Vetovax,** a Klebsiella SRP mastitis vaccine.

Oxford Bovine Veterinary Professional Corporation

**Cow Tails**

In the past few years we have seen an increased rate of bacterial pneumonia in calves, replacement heifers, and mature dairy cattle. Historically bacterial pneumonia was primarily an issue in feedlot cattle and young stock.

The three main pathogens causing bacterial pneumonia are **Mannhemia haemolytica**, **Pasteurella multocida** and **Histophilus somni.** These bacteria rapidly replicate in the upper respiratory tract after a viral infection, during stress, with immune suppression, and can be opportunistic in already damaged lung.

The clinical signs of bacterial pneumonia are often more severe than viral pneumonia and include: high fever, increased respiratory rate and effort, abnormal nasal discharge, and a cough. Prognosis is poor if treatment is not early enough. It is hard to achieve healing in progressed disease with antibiotics and the cow often ends up culled due to low production and BCS.

Prevention is key along with early detection of disease to reduce the economic impact and health risk to the cow. Along with a good viral vaccine program (ex: Bovishield Gold or Cattle Master) bacterial vaccine coverage can be added for minimal increased cost. Vaccines such as **BoviShield One Shot** and **Vista Once** contain both bacterial and viral coverage and can be easily substituted into your current vaccine program.

Ask your herd health veterinarian about your herd’s risk and adding bacterial protection to your vaccine protocol. This is just in time for the fall weather changes!

# Calf barn sanitation

Most farms see an increase in the number of calvings during the summer months. This often leads to an increased workload for already overworked calf facilities. With increased volume of calves moving through the facilities it is important to pay special attention to disinfectant procedures. This applies to calving pen cleanliness, calf pens/hutches and calf feeding equipment.

As dairy producers a lot can be learned by looking at cleaning protocols in other industries, whether that be food processing plants or pig and poultry barns. While the pathogens will differ, the overall principles remain the same. Often the perception is that we are trying to clean surfaces of manure and visible filth. While this is the first step, it does not go far enough. The true enemy are invisible biofilms. Biofilms contain millions of bacteria, viruses and parasites and are very good at sticking onto surfaces. Biofilms are not removed by high pressure washing. But rather are removed by using appropriate detergents and disinfectants. If your disinfectant protocol is not targeted at removing biofilms you are likely not going far enough.

Prior to creating a new protocol it may be worthwhile to assess how well a current protocol is performing. A useful tool to detect biofilms on calf pen surfaces and calf feeding equipment is a tool called a luminometer. A luminometer detects the level of pathogen on a surface and can assess your current protocol’s performance. If this is something you think you would benefit from feel free to contact anyone at the clinic.

An example protocol is listed below. While this may not be appropriate for all facilities, it does highlight the different steps.

Calf Pen Disinfectant Protocol:

* Remove visible manure and bedding from calf penning. It is important to have all manure cleaned away prior to disinfectant.
* Apply an alkaline foaming detergent (pH 11-12) paying special attention to cover every square inch of calf penning. Allow this to sit on all surfaces for 10-15 minutes.
* Rinse off foam.
* Apply an acidic foaming detergent (pH 2-3) paying special attention to cover every square inch of calf penning. Allow this to sit on all surfaces for 10-15 minutes.
* Rinse off foam.
* Allow to dry.
* Apply a disinfectant (ie. Chlorine dioxide) to all calf pen areas.
* Leave to dry.

We are always willing to help you develop protocols and assess their performance.

what have we been up to?

Unfortunately, attending continuing education events has been difficult due to COVID-19 but Dr. Steve Elgersma has attended a web conference on calf pneumonia. Also, our two technicians Kady and Courtney attended a three part webinar on calf health. The webinar focused on calf nutrition, immunity and natural remedies.

Please ask us about what we are learning!