

Port Perry Vet Services

October 2018

What's New at the Clinic?

The vets have been taking turns enjoying some time off this summer after a busy spring! As summer wraps up we would like to thank all of you for allowing us to bring this year's veterinary externship students to your farms. We really appreciate the learning opportunities you have provided these soon-to-be veterinarians with! Starting in September we will resume our usual hours: Monday to Friday 8am-6pm and Saturday 8am-1pm. As always, a vet is available for after-hours emergencies when we are closed.

Arianna is heading to the University of Ottawa this fall and will no longer be working with us, congrats and best wishes Ari! With Ari away at school, we recently welcomed two new part-time front office staff to the team, Megan and Hillary. Megan is a high school student who has volunteered with us in the past. She enjoys horseback riding in her free time and is working towards becoming a veterinarian one day. Hillary is a high school student who loves taking care of the animals on her family's farm, riding and competing in the eventing discipline, and participating in a variety of sports.

Since the Equine Dental Month was such a hit last year, we will be doing it again in February 2019 with Dr. Erin Branigan doing most of the floats. We will also honour the same discount offered during our Equine Dental Month - no mobile fee - for the month of November 2018 with Dr. Allison Doherty, as she is expecting and will be off in February.

For any dairy producers who have an upcoming ProAction program validation, and need some assistance preparing, we are happy to help. Please feel free to contact the office by calling 905-982-1243 or via email at portperryvet@bellnet.ca.

Pinkeye in Ruminants

Pink eye (Infectious Bovine Keratoconjunctivitis (IBK)) is being seen on many farms this year. It is a painful condition for cattle, sheep and goats, and represents an economic hardship that impacts production. Pink eye begins as a white cloudiness of the eye and as the disease progresses, the animal begins to lose vision and will begin tearing due to the irritation of the cornea (outermost part of the eye). In advanced cases of infection, ulcerations of the cornea may develop which can lead to rupture of the cornea and leakage of the aqueous humour (fluid in the first compartment of the eye) if left untreated.

The condition can be caused by a number of bacteria with the most common being *Moraxella bovis*. *Moraxella bovoculi* and *Mycoplasma bovoculi* and some viruses can also cause it. It is picked up by flies around the face of an infected cow and spread quickly to others in the herd, so environmental conditions that give rise to high populations of flies can create a greater opportunity for sharing of infection between animals. Also, anything that can cause physical trauma to the eye (i.e. dry conditions and increased dust in the air, constant exposure to sunlight and wind, long grass and hay stems) can cause abrasions that can create an opportunity for infection. Feeding systems that produce direct eye-to-eye contact between animals, or cause for animals to rub their eyes on communal contact surfaces can allow transmission of infection.

Treatment of *Moraxella* is usually done with one shot of long acting oxytetracycline. Some more stubborn cases may require 2 shots. There is some resistance to the drug by the bacteria, so it doesn't always work and also if the cause is not *Moraxella* but *Mycoplasma* then it also won't work. In some cases we can swab the eye to culture it and see what is causing the issues on your farm.

We also recommend you use a product to reduce the amount of flies on the animals and try to keep the environment as free of manure as possible to reduce the number of flies on the farm. Other treatment options involve eye patches with antibiotics on them, having antibiotics injected into the tissue around the eye and other means of reducing the population of flies on farm (ex. oilers, pasturing the animals, etc...) If you have one that ruptures, surgery to remove the eye is indicated as this is a very painful condition. If you are having issues with pink eye, please give us a call at the office to discuss some treatment options.

What's New with Cases?

- In Ontario there have been a number of horses that have tested positive for Eastern Equine Encephalomyelitis (EEE), a mosquito-borne neurologic disease that can affect horses (and a handful of other animals, as well as humans). EEE is often fatal for horses that contract it, but there is a vaccination available to aid in prevention of this disease. For more info on EEE, there is an article about it that can be found in the October 2014 newsletter found on our website.
- We have seen a handful of Potomac Horse Fever (PHF) cases this summer. PHF is a disease caused by ingestion of insects carrying the bacteria *Neorickettsia risticii* that can cause a range of clinical signs including fever, colic, lethargy, diarrhea and laminitis. Death can occur in some cases from complications of endotoxemia. Early and aggressive treatment improves the horse's prognosis for recovery.
- Have you seen your horse(s) salivating excessively lately? It seems there have been tons of cases of "Slobbers" this summer in horses. "Slobbers" or slaframine toxicity is the excessive salivation caused by the ingestion of a fungus that grows on clover. Generally this condition isn't harmful to the horse, but since there are other conditions that are more concerning that can cause profuse salivation, you should speak with your veterinarian if you have questions or concerns.
- There have been a number of down cows lately, but the causes (low calcium, low phosphorus, injury, etc...) and stages of lactation affected do not seem to show any trends that we can pinpoint.
- It has been a bad year for pinkeye in small and large ruminants. Check out the article this month for more information on it!

Botulism in Horses

In recent years when the weather has not been cooperative during the summer, we have seen a shift from feeding dried hay to feeding wrapped hay to horses. Feeding haylage (hay that has a high moisture content and has been stored in plastic wrap to reduce the presence of oxygen) does carry the risk of causing horses to contract botulism. *Clostridium botulinum* is a spore-forming anaerobic bacteria (meaning it grows in the absence of oxygen) and is primarily found in the soil and in decaying animal carcasses. There are three main ways horses can contract botulism:

- 1) Ingestion of the preformed toxin with food (ie. eating haylage contaminated with botulism). This type most commonly affects adults.
- 2) Ingestion of *C. botulinum* spores which subsequently germinate and form the toxin. This type more commonly

affects foals.

3) Contamination of wounds with *C. botulinum* spores from the environment with subsequent growth of the bacteria and development of toxins.

The toxins produced by botulism prevent the release of Acetylcholine from nerve cells which in turn affects the muscle's ability to contract. The resulting clinical signs can include: weakness, muscle trembling, difficulty eating or swallowing, feed or water dropping out of the mouth, difficulty walking, inability to raise the head, loss of tail or eyelid tone, dilated pupils, and diminished pupillary light reflexes. Severe cases can become recumbent, or develop aspiration pneumonia or respiratory failure resulting in death.

Diagnosis is based primarily on clinical signs. A history of access to haylage or feed/hay contaminated with animal carcasses also helps to confirm the diagnosis. A grain test can be performed in which a certain amount of grain is offered and the time taken to consume it is recorded. Horses with botulism cannot consume the grain within the specified time limit and tend to leave saliva in the bucket. Other conditions to rule out that can mimic some of the clinical signs of botulism include: colic, choke, and neurologic diseases such as Eastern or Western Equine Encephalomyelitis, West Nile Virus, and the neurologic form of Equine Herpes Virus, etc...

Horses treated for botulism earlier in the course of disease tend to respond more favourably to treatment than those left untreated for several days. The mainstay of treatment is botulism antitoxin which binds the toxins in the horse's circulation. If the horse cannot eat or drink they may require IV fluids and feeding through a stomach tube. Severely affected horses need hospitalization with extensive nursing care and often need to be kept in a sling if recumbent.

The best preventative measure, especially for horses fed haylage, is to vaccinate them against botulism. The vaccine available protects against *Clostridium botulinum* type B. For a horse that hasn't been vaccinated previously, 3 doses are given 1 month apart. After that, an annual booster is all that is required. Foals as young as 2 weeks of age can also be vaccinated. In addition to vaccination, some husbandry practices to reduce your horse's risk of contracting botulism include: avoiding feeding hay or feed contaminated by decaying animal carcasses, avoiding storing round bales on the ground or directly feeding round bales off of the ground. Fortunately, we don't see many cases caused this way but when round bales are stored/fed on the ground, particularly if it is wet or muddy, *Clostridium botulinum* spores from the environment can contaminate the hay and can be ingested by horses.