This information is a professional communication for the Equine Industry. The OAHN group is a dedicated group of veterinarians from primary care practices, academia, government and laboratories, who meet regularly to discuss disease and health issues in Equine health. It is the intent of this program to monitor and protect the health of horses in Ontario.

WHAT IS OAHN? The Ontario Animal Health Network is a new program focusing on early disease detection in animals to identify trends in animal health issues and direct the appropriate action when necessary. To do this, the program has created expert veterinary networks for each species or commodity. The **Equine Expert Network** is comprised of eight veterinarians with four representing the Ontario Veterinary College, OMAFRA, and the Animal Health Laboratory at the University of Guelph and four representing private practice from different geographical regions and disciplines. Veterinarians who provide services to horse owners are surveyed quarterly about the diseases and issues seen in practice. Results from this survey, along with a summary of laboratory results, are discussed by the Network to **detect important trends and emerging horse health issues**. The overall goal of the network is to improve the health of the Ontario's equine herd. A summary of the Network discussion with key points is presented below. This is for information purposes only. Please consult your veterinarian for diagnosis and treatment options.

TOP DISEASES OR CONDITIONS FREQUENTLY IDENTIFIED BY RACEHORSE VETERINARIANS RESPONDING TO THE SURVEY (Q2 REPORT 2015)

- Upper Respiratory Tract Infections
- Inflammatory Airway Disease
- Equine Protozoal Myelitis
- Ringworm
- Pastern Dermatitis (scratches, mud fever)

Upper Respiratory Tract Infection (URTI) (Viral)
- Nasal discharge, cough and sometimes fever are common clinical signs.
- The most common infectious organisms involved are: influenza virus, rhinitis virus, equine herpesvirus 1 and 4.
- Rhinitis virus is becoming an increasingly significant cause of respiratory disease in Ontario for which there is no available vaccine.
- Diagnosis of URTI includes taking a swab from the nose and testing for the presence of viral DNA and/or by serum titre testing.
- Treatment involves managing the fever with anti-inflammatories, providing rest and, only rarely, administering appropriate antibiotics.
- Vaccination for influenza and equine herpesvirus 1, 4 can reduce the severity and length of illness.

Key Message: Biosecurity measures are key to preventing spread of disease throughout the barn.

Inflammatory Airway Disease
- Nasal discharge (white or clear), cough at the beginning of exercise or entering the barn, and/or poor performance are common signs.
- Often an upper respiratory viral infection precedes signs by 6-8 weeks but environmental dust, pollution and bacteria can play a role.
- Although these horses are often described as "sick" due to presence of nasal discharge, they usually do not require antibiotics.
- Diagnosis is made by performing a bronchoalveolar lavage ("lung wash") or sampling mucus in the windpipe and looking at the cell types.
- Treatment involves anti-inflammatory medication such as corticosteroids given by inhalation (nebulizer or mask), orally or in the muscle, bronchodilators if needed and management changes such as reducing dust levels in the barn, turn out after pollen counts are high (10 am), soaking the hay or feeding hay cubes and using a low dust bedding (wood pellets, quality shavings).

Key Message: Reducing dust and particulate matter in the air along with promoting respiratory health through vaccination is beneficial.

Equine Protozoal Myelitis (EPM)
- EPM is a neurological disease caused by a protozoal parasite called *Sarcocystis neurona* (and more rarely *Neospora hughesi*) affecting the spinal cord, brainstem and peripheral nerves.
- Racehorses < 5years have a higher incidence of disease and clusters of disease can occur on certain farms.
- Infection occurs through ingestion of protozoal eggs in opossum feces. Opossums become infected by eating other animals such as cats, raccoons and skunks. The odds of disease in horses increase when opossums, skunks and raccoons are seen on the property.
- Clinical signs of infection include hind end weakness, a drunken gait (ataxia), urinary incontinence, muscle loss in the hind end, difficulty swallowing, head tilt, and upper airway dysfunction such as dorsal displacement of the soft palate.
- Diagnosis is made by testing for specific antibodies to the parasite in the blood and the fluid that bathes the spinal cord (cerebrospinal fluid).
- Treatment includes administration of an antiprotozoal medication (pronazuril, toltrazuril , diclazuril or pyrimethamine/sulfadiazine).
- Stress, especially transport stress, can cause recrudescence of disease so racehorses are often treated to support the immune system.
- Prevention includes keeping feed in rodent proof containers and obtaining hay from known sources. Steaming hay may kill protozoal cysts.

Key Message: EPM can develop over time or quite suddenly but responds to antiprotozoal treatment that may need to be repeated if relapses occur.

Pastern Dermatitis (scratches, mud fever)
- Inflammation of the skin over the back of the pastern is caused by infectious agents (bacteria, fungi, parasites) and non-infectious agents (trauma, contact irritants, immune-mediated reactions, drug reactions, blood vessel inflammation, photosensitization).
- Stone dust, dirt and salt can cause small abrasions in the skin leading to bacterial infections.
- Veterinarians may diagnose this condition using skin scrapings, swabs for bacterial/fungal culture and/or skin biopsies.
- Treatment depends on the inciting cause but may involve applying antibiotic, antifungal and/or anti-inflammatory ointments, changing the bedding type, adjusting feed and turnout times, and/or keeping the area clean and dry.

Key Message: Pasterns should be kept clean and dried well after bathing. Bedding may need to be changed to a different type if allergens are suspected.

For the General Equine (non-racehorse) owner report for Q2 please go to http://oahn.ca/networks/equine/