



**LINWOOD**  
VETERINARY SERVICES

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## **August Newsletter**

### **EQUINE NEWS**

We are pleased to welcome Dr. Jenn Brown to the Linwood Vet Services Equine team. Jenn is a P.E.I. graduate and has concentrated on Equine medicine and disease prevention. Her love of horses and excellent people skills make her a wonderful addition to our practice.

We also want to congratulate Dr. Roxane Pardiac since she has achieved certification as an Animal Chiropractor.

Equine Chiropractic services make an excellent addition to a complete Equine care package. Identification and treatment of misalignment or painful musculoskeletal conditions not caused by primary lameness will enhance your horses comfort and performance. Roxane is very thorough and results driven.

Dr. Christina Mohos has expanded the reproductive component of our equine services this year. Horses as a species are the most challenging to achieve successful conception and pregnancy maintenance. Christina has had considerable success in the 2008 breeding season.

Pierry McLean and Emily Whitehead are our two Registered Veterinary Technicians (RVT's) who assist Jenn, Roxane and Christina. They are very proficient in X-ray technology, lab work and horse handling.

We thank-you for your business and are committed to providing a comprehensive, results driven Equine service now and in the future.

### **SWINE**

August and September are the two most important months to put in place management programs to control for seasonal infertility. High temperatures in August and decreasing light levels in September combine to reduce many farms reproductive performance.

#### **Recommendations**

1. Use cooling systems to minimize heat stress.
2. Ensure good feed intake and nutritional requirements (If you have gone to a lower cost sow feeding program to reduce input cost re-evaluate this decision in August and September).
3. Increase your gilt pool to enhance the opportunities to meet breeding targets.
4. Use PG 600 in 1<sup>st</sup> parity sows at weaning.

PG 600 is a hormone combination of PMSG and HCG. It is an excellent tool to help manage gilt pools more effectively and increase the % return to estrus post weaning on 1<sup>st</sup> parity sows. With the high cost of feed using PG 600 to decrease non-productive sow days makes more sense than ever.

## **DAIRY**

The ideal ambient temperature for a dairy cow is between 41 and 77° F. At temperatures above 77° F, cows have to use energy to cool themselves through heat loss via surface skin and the respiratory tract. As ambient temperature increases, it becomes more difficult for a cow to cool herself adequately. High producing cows are the animals most sensitive to heat stress because of their high feed intake. Dry matter intake starts to drop (8-12%) and milk production losses of 20-30%, which may exceed 10-25 lb./day, occur when temperatures exceed 90° F. It has been found that milk yield peaked at 9 lb. more milk per day by cooled than non-cooled cows. Since each 1 lb. peak daily yield equals 225-240 lb. per lactation, 9 lb. is equivalent to more than 2,000 lb per lactation. Dry cows whose last 3 months of gestation occurred during hot weather had calves with smaller birth weights and more metabolic problems after calving. Also, they produced 12% less milk in the next lactation. Conception rate was lower due to less activity during estrus, reduced follicular activity, and early embryonic death.

Heat stress can result in sick cows which require prolonged care. It is associated with difficult births, heat exhaustion, fatty liver in fresh cows, and mastitis, as well as adverse reactions to vaccinations leading to abortions and death. Heat stressed cattle eat less frequently and feed during cooler times of the day, but they eat more at each feeding. Reduced feed intake, followed by slug feeding when the temperature cools down, can cause acidosis which is considered a major cause of laminitis.

Moderate stress can occur with temperatures ranging from 80° F and 100% RH to 90° F and 50% RH, causing rapid shallow breathing, profuse sweating, and reduction in milk yield that can exceed 10%. Severe heat stress, which occurs with temperatures exceeding 90° F and 100% RH to 100° F and 60% RH, causes open mouth panting, elevated body temperature, and a 25% decrease in milk yield.

Cows need to increase water intake during times of heat stress to dissipate heat through the lungs (respiration) and by sweating. Water consumption will increase by as much as 50%. If water supplies are not adequate or heat stress becomes severe, cows divert water normally used in milk synthesis to the metabolic processes of heat dissipation. Water intake will rise by 5-6 gal on summer days due to temperature effects alone. Beede (1992) showed that cows consumed about 3 lb. water/lb. dry matter intake (DMI) with temperatures between 0-41° F but reached 7 lb./lb. DMI at high temperatures with high producing cows capable of consuming 50 gal. water/day. In order to encourage water consumption:

1. Provide access to water right after milking (large intakes of water shortly before milking may elevate freezing point of milk),
2. Ensure enough waterer space by:
3. Having a water supply of at least 3-5 gal/minute (cows can consume 6 gal./hr.),
4. Maintaining a minimum of 3 in. water depth

## 5. Keep water tanks and bowls clean

Ration modification can help minimize the drop in milk production that hot weather causes. Decreasing the forage to concentrate ratio (feeding more concentrate) can result in more digestible rations that may be consumed in greater amounts. However, many herds already feed the maximum amount of concentrate and more would cause problems with acid rumsens and cows going off feed. Feed high quality forage but don't go below 18-19% ADF (acid detergent fiber). The addition of sodium bicarbonate, yeast or niacin have also been helpful in summer rations.

Supplemental fat can be added to rations to increase energy intake. Overfeeding protein during hot weather should be avoided because it takes energy to excrete excess nitrogen. Rations usually should be 18% protein or less on a dry basis. Only the highest producing cows will need the 18% protein ration. Also, rations having greater than 65% of the total protein as rumen degradable protein should be avoided because the excess nitrogen produced would have to be excreted by the kidney. It is best to feed a ration balanced for ruminal and post ruminal digestion.

Hot weather increases the need for certain minerals. This is due to increased sweating and urination resulting in more minerals being excreted. Potassium should be increased to at least 1.5% of dry matter, sodium to .45%, and magnesium to .35%. Magnesium may be increased already if fats are being fed. Complete minerals designed to contain the higher levels of potassium and sodium should be fed only to lactating cows since udder edema is more prevalent in dry cows receiving extra salt or potassium.

## **EQUINE**

### **Equine Protozoal Myeloencephalitis – aka EPM**

EPM is a condition that is becoming more and more recognized in our region. There is speculation that this noticed increase in cases maybe due to our changing climate as well as to the increased distance that people are travelling with their horses. It is considered to be the most prominent disease that presents with multifocal (affecting many areas) asymmetrical (different on either side of the animal) neurological disease.

It is most often recognized in Standardbreds and Thoroughbreds that are between 1-6 years of age. There hasn't been an indication, as of yet, that EPM can affect foals. The majority of cases are found in the midwestern, northeastern and southern USA, as well as southeastern Canada. Cases are also often found in other areas with the horses having travelled to areas where EPM is known to commonly occur. The disease is caused by a parasite that travels in the central nervous system (spinal cord and brain).

There are many clinical signs that can be associated with EPM, which makes a presumptive diagnosis more difficult. The disease is known to be progressive and it can often mimic other neurological diseases. A gait abnormality is often the first indication that there is an issue. The horse may become uncoordinated and 1 to 4 limbs may be affected. Often there are areas of muscle atrophy so the horse begins to look unevenly muscled. If the signs go unnoticed or treatment is not initiated, then the animal may progress to

being recumbent in 14 days to 6 months. The progression of the disease is also very variable which makes it hard to provide an owner with an accurate prognosis.

The treatment for EPM needs to be started as soon as possible. Often the animal will be treated with a combination of antifolate drugs, non-steroidal anti-inflammatories and stall rest. Unfortunately, if the horse is non-responsive to treatment then euthanasia often needs to be performed. The overall prognosis for the condition is guarded to poor.

### ***SMALL RUMINATE***

#### Prevention of Mastitis in Dairy Sheep and Goats

Mastitis is a common and costly disease. Any measures taken in prevention will minimize its economic impact on your flock or herd. The following is a list of tips to help you prevent its occurrence.

- Pre milking preparation should include milk stripping, udder cleaning and drying.
- Keep milking equipment properly cleaned and maintained. Have it regularly checked by a qualified technician.
- Wear gloves during milking and use separate paper towels or cloths to dry the udder of each animal
- Be observant. Watch for signs of mastitis such as abnormal milk colour or consistency, swollen or hot glands or any non specific signs of illness such as dullness, lack of appetite or fever. Milk animals with mastitis after the rest of the flock or herd.
- Make sure milking unit is correctly applied to the udder.
- Use a post milking teat dip.
- Reduce contamination of the milking and housing environments. Feed animals after milking.
- Infuse each gland with a full tube of a dry cow treatment at dry off.

If mastitis is a problem in your operation contact us for assistance with diagnosis and treatment