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*We will provide industry-leading, reliable, knowledgeable service, in a friendly, courteous and timely manner, to benefit our clients and the communities we serve.*

**Linwood Clinic Hours: Mon-Fri 7am – 5pm Sat 7am – 12pm**      **Hwy 89 Clinic: Mon-Sat 7am-1 pm**

**NOTE: BOTH CLINICS ARE CLOSED SUNDAY**

Orders for Delivery: ***Please call BEFORE 9:30 am*** for same day local delivery Monday to Friday

24 Hour Emergency Vet Service call any clinic number **1-800-663-2941 519-698-2610 519-323-9002**

## **NOVEMBER 2016 NEWSLETTER**

### **Clinic News**

Zoetis Monthly Planners for 2017 should be in the clinic by mid November for pick up, or ask for one to go with your delivered orders, or herd health visit

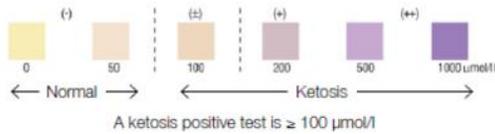
Please see our special insert for reminders and information from the clinic to help things run smoothly, especially through the winter months.

### **ProAction Update:**

Linwood Veterinary Services will be offering producer training for ProAction (Animal Care & Traceability) which will start in the New Year. The program comes into play in September of 2017. Producers with a full CQM validation for September 2017 will be the first producers to complete their ProAction validation. Stay tuned for more information and details about how to get trained.

### **Ketosis - Causes, Risk Factors, Detection & Treatment**

Ketosis is a common fresh cow disease that occurs when cows go into a negative energy balance, i.e. they are not getting enough energy for the amount they are milking. This most commonly occurs early in their lactation when they are heading toward their peak milk production. The cow's body responds to a negative energy balance by breaking down fat stores to help create more energy. This process produces bi-products (non-esterified fatty acids, NEFAs) that are sent to the liver to make ketones for use as an energy source until an adequate amount of energy is once again acquired from feed. For testing purposes we can detect both NEFAs and ketones to help positively diagnose ketosis in a cow.



Ketosis can occur from nutritional causes (overcrowding or competition for feed, feed lacking in energy, etc) or it can happen subsequent to other disease factors that cause the cow to eat less (pneumonia, metritis, mastitis, etc). Cows are more at risk if they are: early in lactation; off-feed; sick (pneumonia, mastitis, metritis, etc); over-conditioned; or, lame. Cows that are ketotic are at higher risk of fatty liver disease and displaced abomasums (DAs).

Cows can be ketotic without showing obvious signs of disease, this is called sub-clinical ketosis. Although these cows may appear healthy, they have been proven to have reduced milk production, reduced fertility and reduced immune function. Cows that become more severely ketotic show clinical signs. The first sign of clinical ketosis is reduced feed intake and reduced milk production. Less commonly, cows can show signs of licking/chewing, aggression and/or in coordination.

The goal of ketosis treatment is to restore energy intakes in the cow. This can be achieved by oral glycol therapy and in more severe cases IV dextrose can be used for one or more treatments as well. The use of vitamin therapy, such as Newcells or Vitamin B12, can be given at the same time in order to protect the liver while fat is being converted into energy and to help prevent fatty liver disease.

Ketosis can be costly in a herd due to the reduced milk production, reduced fertility, increased risk of DA and fatty liver. Early detection and treatment of both clinical and subclinical ketosis can be achieved using milk, urine or blood. Herd level monitoring may benefit your herd in order to determine the prevalence and identify the cause. Ketosis levels can be easily measured with Ketotest strips (milk) or Precision Xtra meter (blood). Talk to your vet today about troubleshooting ketosis problems or implementing a ketosis monitoring program for your farm.