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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.

Clinic Hours: Mon-Fri 7am – 5pm Sat 7am – 12pm

Hwy 89 Clinic: Mon-Sat 7am-1 pm

NOTE: CLINICS ARE CLOSED SUNDAY

Orders for Delivery: **call by 9:30am at the latest** for same day local delivery Monday to Friday
24 Hour Emergency Vet Service

JUNE 2013 NEWSLETTER- JUNE IS DAIRY MONTH

Clinic News: Canada Day Holiday: Please note for your pharmacy needs that there will be no delivery on Monday July 1. The clinics will be open in the morning and emergency vet services will be available. Please bring milk samples in for residue testing as early as possible.

Note: Just a reminder as the warm weather is here; for mastitis culturing please keep samples cold until picked up or delivery to clinic.

Linwood Veterinary Services Welcomes Dr. Amanda Topp

Dr. Amanda Topp grew up on a dairy farm outside of Embro, Ontario. Her experiences with cattle growing up lead her to the University of Guelph where she completed her Bachelor of Science in Agriculture in 2009 followed by her Doctorate of Veterinary Medicine in 2013. She looks forward to being part of the Linwood Vet team. In her spare time, Amanda enjoys gardening, playing soccer and helping out on the family farm.

Is Heat Stress Affecting Your Bottom Line?

Heat stress is an important consideration for all livestock producers, both in terms of economics of lost production and animal welfare. Hot summer temperature coupled with high humidity can lead to loss of growth, loss of milk production and if temperatures are too great, death. Thus all producers should manage barn temperatures to the best of their ability. Most of the research has been done on cattle, but can easily be transferred to other livestock species such as small ruminants and horses.

What Causes Heat Stress?

Cows need to maintain their body temperature at 38.8C +/- 0.5C, which means they are easily affected by outside environmental factors like high temperatures, high humidity and poor ventilation. When outside temperatures rise above 25C, cattle must implement two compensation measures to maintain their body temperatures and stay cool.

1. Increasing evaporative cooling through panting and sweating.
2. Limiting internal heat production by reducing their activity level. This leads to decreased feed intake, lower milk production and decreased fertility.

There are many negative effects of heat stress, which become greater in magnitude as humidity and temperature increase, as illustrated in the table below.

Temperature Humidity Index (Level of Heat Stress Relative to Temperature & Humidity)

Temp.	Relative Humidity %								
	20	30	40	50	60	70	80	90	100
22C	66	66	67	68	69	69	70	71	72
24C	68	69	70	70	71	72	73	74	75
26C	70	71	72	73	74	75	77	78	79
28C	72	73	74	76	77	78	80	81	82
30C	74	75	77	78	80	81	83	84	86
32C	76	77	79	81	83	84	86	88	90
34C	78	80	82	84	85	87	89	91	93
36C	80	82	84	86	88	90	93	95	97
38C	82	84	86	89	91	93	96	98	100
40C	84	86	89	91	94	96	99	101	104

No Heat Stress

Moderate Heat Stress

Severe Heat Stress

Dead Cattle

In Ontario, we frequently have humidity levels in the 80-90% range, combined with hot summer weather results in many days where cows will be under moderate to severe heat stress unless preventative steps are taken. Signs of heat stress include increased respiration rates, panting, sweating, and lethargy.

The Financial Implications of Heat Stress:

Heat stress causes:

- A decrease in milk production (~ 2kg/cow/day of heat stress)
 - o A high producing cow can lose more
- A decrease in pregnancy rates (10-20% decrease)
- A decrease in feed intake
- A decrease in lying time

All this can add up to significant financial losses.

How Can You Prevent Heat Stress This Summer?

1. Shade (trees, shade clothes, etc.)
2. Air movement via high capacity fans
3. Misters/Sprinklers

The best cooling option is the use of misters with adequate air movement. Many producers have installed systems using misters or sprinklers over feed alleys resulting in substantial increases in milk production and pregnancy rates, with many producers saying the systems paid for themselves in a summer. A great option to prevent heat stress in tie stall barns is a tunnel ventilation system.

Feel free to discuss heat stress prevention options suitable for your operation with your herd veterinarian.

FARM FIRE SAFETY

Between 2007 and 2011, barn fires across Ontario accounted for more than \$175 million in property loss. The Ontario Fire Marshal (OFM) would like to send a reminder of the farm fire safety tips and resources it has developed in recent years.

The "Reducing the Risk of Fire on Your Farm" booklet includes strategies to reduce the impact of fires on farms. It is available **by calling 519-846-0941 for a hard copy of publication 837 (free)** or online search Service Ontario Publications, then search for 837.