

# Equine Guelph

## Update

Spring 2013



## Equine Guelph Declares 2013 the Year of Colic Prevention!

Equine Guelph is combating the number one killer of horses (other than old age!) with a new eWorkshop on colic prevention, March 11 to 24.

This affordable online short course is designed to help horse owners understand colic and take preventative measures by following good stable management practices. At a cost of only \$75 plus HST, this eWorkshop could translate into thousands of dollars of savings by helping horse owners avoid the nightmare of colic.

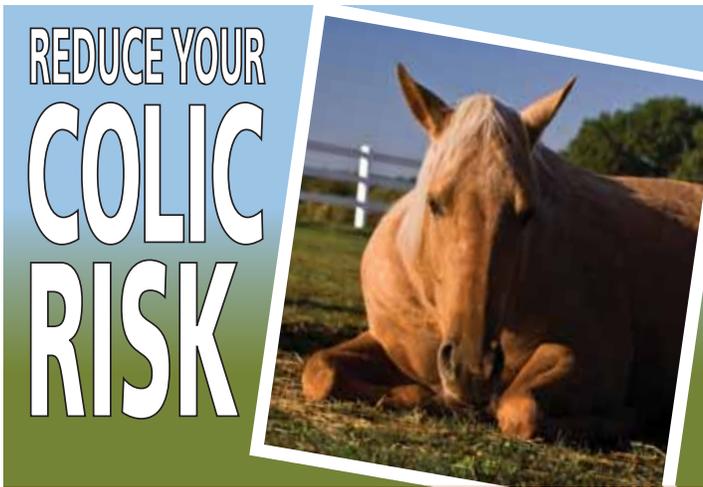
Equine Guelph's Colic Prevention eWorkshop will cover topics that will help horse care givers reduce colic in horses by identifying risk factors, understanding different types of colic, detecting early signs and symptoms, assessing their management plans and developing preventative strategies.

Upon completion of the Colic Prevention eWorkshop, participants are eligible to receive a certificate from Equine Guelph. This two-week online course also qualifies for Equine Canada coaches updating credits.

As part of the Colic Prevention Program, Equine Guelph is also launching its latest FREE online health care tool, the "Colic Risk Rater," which will assess and

calculate colic risk and provide useful feedback on management practices.

Every month in 2013, Equine Guelph will be providing a practical colic prevention tip in Equine Guelph's E-News, which will be capped off with the release of a Colic Prevention Tips poster in December.



In addition to a New Colic Prevention eWorkshop Equine Guelph introduces a helpful horse owner tool, the "Colic Risk Rater".

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### Equine Guelph celebrates 10 years of supporting Equine Welfare through Educational Programs and Research



Photo: Dave Landry

Since its inception in 2003, Equine Guelph has been dedicated to the health and well-being of horses. Thanks to your tremendous support and the commitment and input from equine industry groups over the years – six online globally acclaimed educational programs have expanded to 22, including the latest Equine Welfare Certificate.

As you read through this exciting 10th volume of our newsletter, we encourage you to learn more about how Equine Guelph is helping the horse industry and how you can contribute to future programs.

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UNIVERSITY  
of GUELPH

CHANGING LIVES  
IMPROVING LIFE

# Investigating Gut Function to Prevent Disease

OVC researcher, Dr. Scott Weese continues to delve into the identification and categorization of the microflora residing in the horses gut using the relatively recent technology of ‘next generation sequencing.’ Dr. Weese and many other researchers are very interested in understanding what are considered ‘normal and abnormal’ intestinal microflora. Weese explains, “This will be the key to unlocking the mysteries of the intestinal tract - one of the most dense, dynamic and complex bacterial populations of any environment on the planet.”

Intestinal tract microflora plays a critical role in health and disease. Microflora helps prevent disease caused by numerous potentially harmful bacteria that are regularly ingested and plays

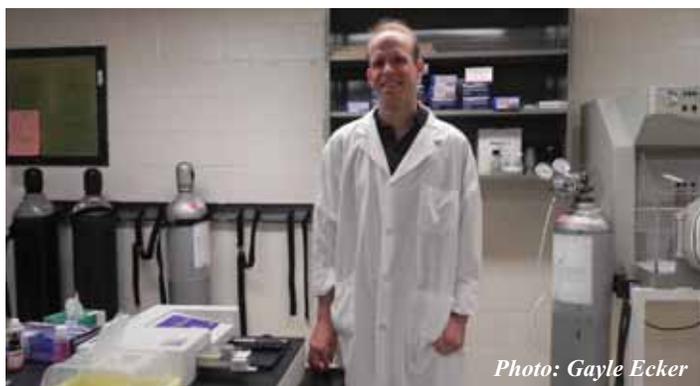


Photo: Gayle Ecker

Dr. Scott Weese is investigating ‘who’ is living in the horse’s gut to find ways to improve health.

a critical role in digestion. Increasingly, effects on other areas such as immune function, inflammation and weight gain are being identified. Disruption of the intestinal microflora most notably occurs with colitis (severe diarrhea), but may also result in some types of colic, laminitis, obesity, inflammatory bowel disease, metabolic diseases and allergic disorders. **Understanding how gut flora interact could prove useful in prevention of common conditions such as gas colic.** No wonder researchers are so interested in ‘who is living in your horse’s house’.

Ongoing studies are using ‘next generation sequencing’ to assess previously unculturable bacteria. Researchers are studying the differences in microflora between horses in order to determine what ‘normal’ looks like. ‘Next generation’ technology allows for the sorting of huge components of DNA (between 70 - 100,000 in one fecal sample). Weese explains, "We are trying to sort out what goes on, what bugs are present, how they interact, how they change and how we can potentially change them for use in future prevention methods." Links between gut function and a healthy immune system are also being studied at the OVC by researchers:

Dr. Luis Arroyo (*C. difficile*), Dr. Henri Staempfli (Colitis) and Dr. Mario Costa (working with Dr. Weese on Microbiology of the equine intestinal flora).



Get the free mobile app at <http://gettag.mobi>

Story By – Jackie Bellamy

Scan here to view Report on Research Video - Dr. Scott Weese or go to: [www.youtube.com/watch?v=vgPAO5ElqWA&list=PL9ACE18F9180735B1&index=8](http://www.youtube.com/watch?v=vgPAO5ElqWA&list=PL9ACE18F9180735B1&index=8)

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## Year of Colic Prevention!

Equine Guelph would like to thank everyone who participated last fall in Equine Guelph’s Canada-wide colic survey. "Understanding the horse owners' experiences with colic has assisted Equine Guelph in developing a Colic Prevention Program tailored to the industry’s needs," says Gayle Ecker, director of Equine Guelph.

In addition to funding from Alltech and Standardbred Canada, investment in this project has been provided by Agriculture and Agri-Food Canada through the Canadian Agricultural Adaptation Program (CAAP). In Ontario, this program is delivered by the Agricultural Adaptation Council. Partners include: Central Ontario Standardbred Association, Horsemen’s Benevolent and Protective Society of Ontario, Ontario Association of Equine Practitioners, Ontario Equestrian Federation, Ontario Harness Horse Association and the Ontario Veterinary College.

For more information about how to reduce the risk of Colic using Equine Guelph's Colic Prevention Program, visit [EquineGuelph.ca/eworkshops/colic.php](http://EquineGuelph.ca/eworkshops/colic.php)

Story By – Jackie Bellamy

## Colic Research Announced

Exciting new research using capsule endoscopy (CE) is being conducted by OVC researcher, Dr. Jeff Thomason and graduate student, Diane Gibbard. In capsule endoscopy, a small capsule with a built-in camera is ‘swallowed’ and takes images as it travels through the gut. CE would allow veterinarians to see inside the horse’s digestive tract and could aid in the diagnosis of gastrointestinal diseases in chronic cases of colic.

Gibbard, who is also the project manager of Equine Guelph’s Colic Prevention program says, “As a horse owner, I am all too aware of the impact of colic. My horse, Twink, has been enduring colic episodes for the last three years.” Gibbard is hopeful that combining colic research with educating horse owners on colic prevention will reduce the number of horses that battle colic.

### Top 3 Colic Risk Factors

- 1) High grain, low forage diets
- 2) Sudden changes in diet/routine
- 3) Limited turnout/stall confinement

New ‘Colic Risk Rater’ coming soon at [ww.EquineGuelph.ca](http://ww.EquineGuelph.ca)

## Two Stage Weaning Research - Preliminary Results are Positive!

“When and how to wean is a decision that requires a great deal of thought,” says researcher Dr. Katrina Merkies (Kemptville, APS). The traditional method of weaning by suddenly removing a foal physically from the mare can prove stressful to both, and resultant frantic behavior can lead to injuries.

With a solid background in reproduction and a desire to improve welfare in horses, Merkies and her team spent the fall of 2011 collecting data on a two-stage weaning process which may reduce more than just stress. Previous studies (Waters et al. 2002) have observed a link between artificial weaning techniques and the development of abnormal behaviours (8 – 12 months later) such as wood-chewing. Merkies believes the gradual two-stage weaning system will prove less stressful than abrupt methods.

In phase one of the project, the two-stage mares wore udder covers which disallows suckling and starts the gradual weaning process before physical separation. The

control group mares wore shams which matched the same harnessing equipment as the two-stage mares but still allowed foals access to the udder for suckling.

### Top Two Helpful Weaning Tips:

- 1) Be thoughtful as to timing for weaning.
- 2) Gradual weaning methods are less stressful than abrupt ones.

In the second phase of the project, all the mares were physically separated into a paddock within auditory range but out of visual sight of the foals. Mares and foals in the two-stage group (using udder covers) showed positive preliminary results with observations of less locomotion and less vocalization. An earlier behavioural study (2009) conducted by Merkies and

Dr. Derek Haley (who acts as an advisor in this current study) recorded 9.6 times less aggression and 18% more eating observed in two-stage foals.

The next step in Merkies research will be analyzing the physiological data, gathered using GPS tracking systems and Triaxial accelerometers (HOBOS). These instruments measured the actual distances travelled (how far and how fast) and whether the horses were standing or lying down. Heart rate and cortisol levels will also be examined from data they collected using heart rate monitors and from fecal samples.

“Part of the excitement of this project has been in the doing,” explains Merkies as she gives credit to her staff for being reactive, flexible and creative. An initial challenge emerged when a foal turned off its GPS unit. One of the interns sourced hard cases from a dentist to resolve the issue. Merkies continues, “What sounds easy in the office can prove interesting in the field.” Foals will be foals and a close watch was needed to keep them from eating each other’s colour coded tags which determined who was who! Other challenges came from particularly persistent foals who worked away at moving the udder covers to gain access to be able to nurse. A new design which has been used in two-stage cattle weaning is in the works. The new barrier involves the foal using a halter with flap fitted over noseband with soft rubber spikes, allowing access to grass but not the udder.

When the next phase of the project is complete, Merkies predicts heart rates will be lower for the two-stage group than control, and that the two-stage horses will exhibit: less locomotion, more lying down behaviour and lower fecal cortisol – all indicating a reduction in distress. Funding for this research project is provided by Ontario Ministry of Agriculture, Food and Rural Affairs.



Photo: Severine Parois

Two-stage weaning may improve welfare in horses by reducing stress.

Story By – Jackie Bellamy



Your horse changes with the seasons — stay current on seasonal issues and health alerts with Health *Flash*.

## Sign up for your **FREE Health *Flash***

Equine Guelph is pleased to announce the introduction of Health *Flash* – a program of four seasonal health reminders to help busy horse owners keep on top of changes affecting their horses during the year. The program will also provide special alerts in case of disease outbreaks and comes complete with interactive games to test your seasonal savvy.

"Health *Flash* will be a valuable tool to any horse owner as it provides very concise information to help keep on top of seasonal issues. Health *Flash* has the potential to have a positive economic impact on the industry as a whole as 'healthy horses' translate into a 'healthy industry'," says

University of Guelph researcher, Dr. Kim McGurrin.

In addition to funding from Vétuquinol Canada and Merck Canada, investment in this project has been provided by Agriculture and Agri-Food Canada through the Canadian Agricultural Adaptation Program (CAAP). In Ontario, this program is delivered by the Agricultural Adaptation Council. Other partners include the Canadian Animal Health Institute and the Ontario Veterinary College.

Sign up at [www.EquineGuelph.ca](http://www.EquineGuelph.ca) to receive Health *Flash*.

## EquiMania! – Another Record Year

Equine Guelph's interactive youth education attraction wrapped up 2012 at the Royal Agricultural Winter Fair this past November with a record number of volunteers. "The popularity of EquiMania! just continues to grow," says school teacher and repeat volunteer, Marg Murray. "It has the perfect recipe for learning using engaging activities to deliver important safety messages."

Thanks to generous continued support from Kubota Canada, Ontario Equestrian Federation, SSG Gloves, System Fencing and Workplace Safety and Prevention Services, Equine Guelph is looking forward to another busy year of touring. The next stop for EquiMania! will be at the All Equine Show, March 15 - 17, at Western Fairgrounds in London, Ontario.



Photo: Sharon Grose

Volunteer Marg Murray delivers safety tips and prizes to participants of the EquiMania! Explorer activity.

### Equine Guelph's New Equine Welfare Course — What Students Are Saying:

*"The Equine Welfare course was structured with the right balance between readings, assignments and expertly facilitated discussions amongst classmates with incredible and diverse backgrounds. This format enabled me to gain a tremendous appreciation for the many drivers of the equine welfare issues that manifest in today's society. Like so many of my classmates, this course has been instrumental in motivating me to help improve the welfare of our treasured equine companions."*

Sandra Waters, MEM / Evanston, IL.

To sign up for next offering of Equine Welfare starting May 13, 2013, go to: [www.equinewelfarecertificate.ca](http://www.equinewelfarecertificate.ca) or contact the Centre for Open Learning and Educational Support at 519 767-5000.

## You're invited to celebrate 10 years of equine welfare!

Equine Guelph is celebrating its 10th anniversary in 2013, and we invite you to help us continue to grow by making a special gift this year to our welfare education programs.

"For ten years our reputation has been built based on equine welfare priorities and we continue to expand our offerings to help horse owners and caregivers provide the very best care for our beloved horses. We could not have achieved this milestone without your support," says Gayle Ecker, director, Equine Guelph. All donations are eligible for a tax receipt, and every amount makes a difference. Please consider joining our celebration by making a special gift in honour of our 10th anniversary.

**Phone:** 519-824-4120 ext 54431

**Online:** [www.equineguelph.ca](http://www.equineguelph.ca) (online gifts receive an immediate e-receipt)

**Mail:** Equine Guelph, c/o Alumni House, University of Guelph, ON, N1G 2W1  
(cheques payable to University of Guelph/Equine Guelph)



## Horse Behaviour & Safety Program is Launched

Equine Guelph is pleased to announce a second offering of its Horse Behaviour and Safety *e*Workshop, April 1 – 14, 2013. This two-week, online course is designed for horse people who would like to learn more about the best practices for handling horses safely.

"The popularity of Equine Guelph's new Horse Behaviour and Safety *e*Workshop was established quickly as the first offering sold out within two hours of announcement," exclaims Equine Guelph's director, Gayle Ecker. "We are pleased that horse people are interested in educating themselves about 'why' horses behave the way they do and how that translates into becoming better handlers."

Ten sections will be covered: the horse in the wild – a herd and flight animal, the modern day horse, how horses see, how horses hear, horse herd behaviour – how horses interact with each other, horse handling/approaching a horse, rider/helmet safety, trailer loading safety basics, safety around the barn and paddocks and fire safety.

Upon completion of this course, participants are eligible to receive a certificate from Equine Guelph. This *e*Workshop also qualifies for Equine Canada coaches updating credits. Coaches should also stay tuned as a "train the trainer" kit is also under development and scheduled for release late this spring.

Funding for this program has been generously provided by Canadian Agricultural Safety Association through the Growing Forward Program and partners: Equine Hippique Canada, Kubota Canada, SSG Riding Gloves, Saddle Up SAFELY, System Fencing, UK Ag Equine University of Kentucky, UK Healthcare, Workplace Safety & Prevention Services AND all equestrian federations across Canada.

To register for the next offering of Equine Guelph's new Horse Behaviour and Safety *e*Workshop (\$75 plus HST) or to learn more about the "train the trainer" kits, please contact Susan Raymond at [slraymon@uoguelph.ca](mailto:slraymon@uoguelph.ca) or go to: [http://www.equineguelph.ca/eworkshops/behaviour\\_safety.php](http://www.equineguelph.ca/eworkshops/behaviour_safety.php)



Equine Guelph offers the opportunity to learn safe horsemanship through understanding behaviour.

## UPDATE ON EQUINE GUELPH'S WORK



2012 EquiMania! Photo contest winner: Ava Sytsma

### EVENTS Mark your calendar!

**March 11 - 24**  
Colic eWorkshop

**March 15 - 17**  
EquiMania! at All Equine Show

**March 28 - 31**  
EquiMania! at Can-Am Equine  
All Breeds Emporium

**April 1 - 14**  
Behaviour and Safety  
eWorkshop

**April 6**

Equine Guelph Presents, "Report on Research"

**April 20 & 21**

Equine Anatomy Wet labs

**May 13 - August 4**

Equine Guelph's Online Courses  
(Summer Offerings)

**Anyone wishing to excerpt Equine Guelph should contact:**

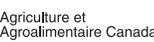
Jackie Bellamy, ext 54205  
horses@uoguelph.ca

## Because Your Horses' Welfare is a Top Priority

Equine Guelph offers **FREE** Healthcare Tools

### Best Practices to help with your prevention plans.

Stay up to date and review your current healthcare regime with our FREE interactive checklists, videos, calculators, quiz's and games:

	Tool	Description	Investment provided by
✓	<b>Horse Health Check</b>	17 ways to assess general health in under two minutes.	EQUINE GUELPH  helping horses for life
✓	<b>Vaccination Equi-Planner</b>	Learn how geography, age, intended use and travel schedule affect your vaccination plans.	 <b>MERCK</b> Animal Health
✓	<b>Biosecurity Risk Calculator</b>	Infectious disease control involves more than just an annual vet visit. Learn what steps your barn can take with this customized questionnaire.	<b>Vétoquinol</b> <i>a Sign of Passion</i>
✓	<b>Journey Through The Joints</b>	Look inside an inflamed joint and learn the causes and early warning signs for equine arthritis.	
✓	<b>Lameness Lab</b>	Video series will sharpen your eye for early detection.	
✓	<b>Colic Risk Rater</b>	Complete a customized questionnaire on performance pressures, pasture, feed, turn out time. Tips for reducing the risks of a run in with colic and best management practices will be suggested based on your answers.	 <b>AAC</b> agricultural adaptation council  <b>TANDARBRED</b> CANADA  Agriculture and Agri-Food Canada  Agriculture et Agroalimentaire Canada

Equine Guelph makes healthcare easy with its FREE online tools.

Go to [www.EquineGuelph.ca](http://www.EquineGuelph.ca) and check out our interactive, educational tools created for horse owners.



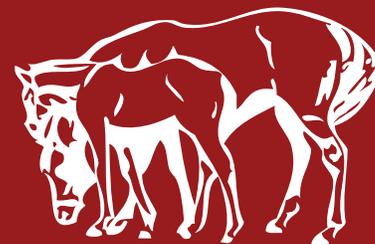
educating  
horsepeople



funding industry  
research



promoting health  
& performance



**EQUINE GUELPH**  
helping horses for life™

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