No one can dispute the comfort and joy that pets bring into our lives. Animal companions raise the spirits and lower blood pressure. They provide company, motivate us to get out and exercise, and even help us cope with stressful situations better than non-pet owners would. The unconditional loyalty of a pet is unmatched – just ask the millions of people who own them. In fact, over half of Canadian households include at least one pet.

Now imagine how important this relationship with a pet would be to someone who is homeless. Someone who doesn’t know where their next meal will come from, where they will lay their head tonight, or whom they can trust on the streets. To someone with so little stability or security, pet ownership takes on a whole new meaning, along with a unique set of challenges and rewards.

Interested in exploring this relationship, Dr. Jason Coe, assistant professor in the OVC’s Department of Population Medicine, along with Master’s student Dr. Michelle Lem (OVC 2001) have begun to develop a study to look into the barriers that exist for homeless youth with pets when accessing services, and gain a better understanding of the health and welfare of the animals involved in these relationships.
With the assistance of veterinary student Jen Robertson (OVC 2012), a literature search this past summer, looking at the roles animals play in the lives of the homeless and other populations at risk, found there is limited research specific to pet ownership among homeless individuals. Of the research that does exist, homeless individuals with pets have often described companionship, protection, happiness and caring for the animal to be the most important reasons for pet ownership. In fact, caring for an animal is so important that 58% of homeless pet owners have gone without food in order to feed their animals.¹ They may also go without shelter, as very few homeless shelters or youth hostels allow animals. This means that owners who are unwilling to abandon their pet have more difficulty accessing services that may help them transition to a more stable lifestyle for both themselves and their animals.¹

“The overarching goal of this work is to improve the welfare of the people and pets involved in these complex relationships” says Coe. As much of the literature and current understanding is the result of secondary findings to other research questions, Drs. Coe and Lem hope to provide a better understanding of the complex bond that exists between homeless youth and their animals by targeting research on this unique relationship.

“We would really like to identify the barriers that exist for youth with pets to accessing shelters, healthcare professionals, and social services, while gaining a better understanding of the health and welfare of the animals living in these special relationships.”

All photos for in this article were supplied by Pets of the Homeless: www.petsofhomeless.com

Best Wishes to Long-time CCSAW Member, Dr. Denna Benn

By Tina Widowski and Georgia Mason

On behalf of the Campbell Centre we would like to extend best wishes and many thanks to Dr. Denna Benn, who recently retired from her position of Director of Animal Care Services at U of G.

As a founding member of our Steering Committee, Denna has been an active member of CCSAW for close to 20 years. She has contributed countless hours to the Centre and played a very important advisory role in its planning and direction. In particular, Denna has emphasized the need to integrate the latest findings from animal welfare science into the animal care procedures used in all the University of Guelph’s animal facilities. She has fostered a culture in which the University’s facility managers and animal technicians are always seeking to improve the welfare of the animals in their care, by exchanging expertise and ideas with the welfare scientists at the Campbell Centre.

In addition to her work with the Campbell Centre, and of course her more-than-full-time job as Director of Animal Care, Denna has been a regular participant in undergraduate and graduate educational activities, giving guest lectures in a variety of courses and at student meetings. In so many ways, Dr. Benn has gone above and beyond in her commitment to improving the welfare of animals used in research and teaching here at Guelph – and she has done it all with flare, glamour and wonderful turns of phrase. We will miss her enormously (and anyone who does not must be ‘nuts in technicolour’!)

Third Annual Animal Welfare Research Symposium Drew a Full-House

Why is it that wild-caught animals develop stereotypic behaviour less often than captive-bred animals? Does providing environmental enrichment for turkeys reduce incidence of feather pecking? Can we design better enclosures for lions and tigers in zoos by studying their use microclimates within the space? What was the experience of elephants in the 19-century circus, and how does this provide insight into current debates over whether for-profit entertainment/education ventures can function as wild animal conservation organizations?

All these questions and more were explored in our third annual Animal Welfare Research Symposium on April 28th, 2010. The day was full, covering a myriad of questions related to improving the welfare of zoo, farm, and lab animals, as well as animals used for entertainment. We were also fortunate to have two guest speakers – Dr. Camie Heleski of Michigan State University gave “An update on horse welfare, contrasting the issues between developed countries and developing countries.” Dr. Knut Boe, Norwegian University of Life Sciences, gave a talk on “Loose housing of sows in the lactation period and piglet survival.”

Awards for best student talk and best student poster went to Kristi Bovey and Theresa Casey, respectively. For more information and to read the abstracts, please visit our website: www.uoguelph.ca/ccsaw
In March of 2009, Ontario’s animal protection laws became the strongest in Canada, as a result of Bill 50 being passed. Bill 50 amended the Ontario Society for the Prevention of Cruelty to Animals Act (The Provincial Animal Welfare Act), and is the most comprehensive amendment adopted since the provincial animal welfare legislation’s inception in 1919.

The new Provincial Animal Welfare Act establishes standards of care for all animals, introduces penalties for causing harm to any animal including jail terms of up to two years, fines of up to $60,000 and a potential lifetime ownership ban. It also creates a specific offence for causing harm to a law enforcement animal, such as a police horse or dog. The Act authorizes the Ontario SPCA to inspect places where animals are kept for entertainment, exhibition, boarding, sale or hire, including zoos, pet shops, circuses, or other premises.

The new Act sets out standards of care for all animals, but these standards do not apply to reasonable and generally accepted practices of agricultural animal care, management or husbandry. To assist Ontario SPCA agents in making decisions about what constitutes accepted practices, and to ensure that they have a standardized and comprehensive understanding of modern agriculture, the Campbell Centre developed a week-long Livestock and Poultry Welfare Training course for agents in training.

The course includes both in-class and practical field components, and includes standard production practices for beef, sheep, goats, swine, dairy and poultry (layer, breeder, turkeys, ducks and emu/rhea). It includes ‘critical care control points’ for each species, outlining the most important areas where welfare could be compromised.

Development of the course was overseen by a Steering Committee, including representatives from the Ontario Ministry of Agriculture, Food and Rural Affairs, the Ontario Veterinary Medical Association, The College of Veterinarians of Ontario, the Ontario Farm Animal Council, and the Campbell Centre. The first course offering was delivered in June 2009 by Campbell Centre Faculty and OMAFRA staff. It will be offered again in summer of 2010, and a new course is currently being developed for exotic species.

Funding for this course was provided by OMAFRA.

OSPCA Agents Trained at the Campbell Centre

We all rely on animals. Most of us depend on them for our food, our medicines, or our livelihoods. Nearly all of us count on animals for comfort and companionship.

For over 20 years, faculty and students at the Campbell Centre for the Study of Animal Welfare have been working to improve quality of life for the animals that we all use and care for.

You can help to improve the lives of animals by donating to the Campbell Centre, or by sponsoring our events. We rely on donor support to maintain opportunities for students and for our education and outreach programs.

Please help us to help the animals – please donate.

Animals make our lives better. Help us do the same for them.

Donate online!
www.uoguelph.ca/ccsaw/supportus
Mature boars are equipped with a handy set of tools – their tusks. In natural settings, these tusks are rather useful. Boars use them during fights over territory and hierarchy and for digging up food. But in commercial settings, tusks pose a significant danger to handlers and other pigs. As boar tusks are bacteria laden, a tusk injury has the potential to not only break skin but to cause a nasty infection. Tusks grow continually throughout a boars lifetime, so as a safety precaution they are typically trimmed once or twice per year while the animals are on the farm, usually as part of a breeding herd.

This study is the first to show that boar tusks contain nerves.

At shipping time, the Health of Animal Regulations require that boars be ‘de-tusked’ if they are to be transported with other animals. Since shipping of individuals is less practical than shipping groups, tusk trimming is common. Tusks are usually removed using hoof nippers or bolt cutters, and less frequently with orthopedic wire that is used as a ‘saw’ (the recommended method). The tusk is generally cut within millimetres of the gums. As with most routine management procedures performed on the farm, painkillers are not used. Likewise, sedation is rarely used unless the boar is highly aggressive or agitated.

The welfare concern surrounding the procedure is that removal of tusks may result in acute and long-term pain and/or increased sensitivity. However, until now, the structure of boar tusks has never been studied and there has been no reliable data available on whether boar tusks contain nerves that may allow boars to feel pain.

To look into this further, student Kristi Bovey conducted a study to investigate the structure of boar tusks and to determine if nerves are present in the pulp (soft tissue). Bovey worked with project advisor Dr. Tina Widowski of the Department of Animal and Poultry Science, Dr. Josepha DeLay of the Animal Health Lab, and Penny Lawlis, Humane Standards Officer for the Ontario Ministry of Agriculture, Food and Rural Affairs.

One hundred and two tusks were collected from a commercial slaughter plant and tusk length, pulp exposure and gum condition were assessed. Of the tusks examined, 51% showed pulp chamber exposure and 44% also showed moderate to severe gum inflammation. Analyses were performed on 7 intact tusks following decalcification and results showed that the pulp chamber, on average, extended to the level of the gum line. In 4 of the 7 tusks, the pulp chamber extended above the gum line. Sections of 5 tusks were examined for the presence of nerves using a specific laboratory procedure employed in the study of tusks of other species. All 5 tusks submitted for analysis contained nervous tissue and nerves were most numerous at the tusk base. In 2 of the 5 tusks, nerve fibers were present above the gum line. Further research should focus on differentiating between autonomic nerves (which control the blood vessels) and sensory nerves (which detect pain or pressure) within boar tusk pulp tissue.

This study is the first to show that boar tusks do in fact contain nerves. Tusk trimming can expose the pulp that contains these nerves and may also contribute to the development of gum inflammation. Therefore, tusk trimming should be avoided or reduced where possible.

Ideally boars should be transported individually so that tusks do not require trimming prior to shipping. If trimming must be done, the tusk should be cut leaving at least 2 cm of tusk above the gumline as this will avoid cutting into the pulp chamber. “This study is a prime example of research that answers a question that can immediately lead to improvements in animal welfare in practice” said Tina Widowski.

CCSAW thanks OMAFRA for project funding, and the Ontario Farm Animal Council for sponsoring a factsheet on the study, which is available on the CCSAW website: www.uoguelph.ca/ccsaw
Culling Turkeys Safely and Humanely

By Allison Guy

Before starting her Masters degree in the Animal Welfare Program at the University of Guelph, Marisa Erasmus spent two summers working on a commercial turkey farm. While on the farm, she noticed that there was a need to improve euthanasia methods for the small number of turkeys that could not be shipped for slaughter due to injury or disease.

“Euthanasia is a difficult decision, and difficult to perform, and it is important to identify methods that consider the well-being of both the operator and the animal.”
– Marisa Erasmus

Although there is no standard euthanasia method for cull turkeys, the currently recommended methods are cervical dislocation (breaking of neck) for young birds and blunt trauma for older birds. In some cases, the use of bovine Burdizzo castration forceps is recommended for mechanical cervical dislocation of larger birds. However neither method is aesthetically pleasing for the operator nor has there previously been much research examining euthanasia methods or their effectiveness.

In her research, Erasmus worked with University of Guelph poultry welfare experts, Dr. Tina Widowski and Dr. Ian Duncan, OVC veterinary pathologists, Dr. Pat Turner and Dr. Bruce Hunter and OMAFRA Humane Standards Officer, Penny Lawlis, to examine whether a non-penetrating captive bolt pistol called the Zephyr, is an effective alternative to euthanize turkeys. Erasmus also compared the Zephyr to both mechanical cervical dislocation with the Burdizzo instrument and blunt trauma in trials on farms.

She found that blunt trauma and the Zephyr method produce immediate insensibility by directly disrupting brain function, whereas mechanical cervical dislocation using the Burdizzo results in cervical crushing and anoxia, but does not produce immediate insensibility. Therefore, in terms of effectiveness for euthanasia, the Zephyr method is more effective than cervical dislocation with the Burdizzo instrument but is on par with blunt trauma.

However, The Zephyr method may be a superior method for euthanizing cull turkeys because it is lightweight and easy to use. The non-penetrating captive bolt pistol was modified from a pneumatic nail gun by attaching a blunt, convex nylon head. Unlike other euthanasia methods, that require considerable force and may be difficult for farm staff to perform, the Zephyr can be deployed simply by pulling the trigger. Operator training is necessary to ensure the method is effective and to ensure operator safety.

As mature turkeys are quite large and difficult to handle, Erasmus used a turkey jacket with the Zephyr to restrain the birds, reducing the number of stock people needed to perform the method. According to Erasmus, the Zephyr method may also be psychologically easier to perform than other physical methods.

“She euthanasia is a difficult decision, and difficult to perform, and it is important to identify methods that consider the well-being of both the operator and the animal.”

The adaptation of the Zephyr method to on-farm use is ongoing. One drawback to the method is that the Zephyr is powered by a portable air compressor, which is heavy and cannot be moved very far. Thus, birds need to be brought to the Zephyr pistol to be euthanized. Erasmus is exploring whether using a CO2 canister would be more portable and practical for on-farm use.

Although no one currently uses the Zephyr method on the farm, producers are very interested in improving welfare. The results from Erasmus’s research will be used to develop and provide recommendations for turkey euthanasia.

This article was originally published in Livestock Welfare Insights.
Research

Gambling, Greyhounds and the “Great Recession”

By Susan Nance

Since the 1920s, Americans seeking an inexpensive thrill have had the option of going to the dog track. The business peaked in the early 1990s with sixty-two tracks in eighteen states, nineteen in Florida alone. Attendance began waning thereafter due to competition from other forms of gaming and pressure from greyhound rescue groups that changed public’s perception of the breed from anonymous running machine to sympathetic family pet. The “Great Recession” in the US that began in 2008 has accelerated this process. Today the industry is in crisis and live dog racing occurs at just twenty-six venues in eight states, with up to half those predicted to end live racing in 2010 or 2011.

An early investigation of the changing perceptions of dog racing and the animal welfare issues at stake is underway by Susan Nance, a University of Guelph historian and associated faculty member of the Campbell Centre for the Study of Animal Welfare. In preparation for a broader research project documenting how particular modes of animal use rise and fall, she is examining the cultural, economic and animal welfare history of the greyhound.

“For decades people disagreed about greyhound racing. For some the dog track exposed a seedy and cruel element in American popular culture, but it was gambling that made the greyhound breed financially sustainable,” says Nance. “I am trying to discover when and why the bad health and short lives of the dogs in racing came to be perceived as an animal welfare issue of public concern, not just a private industry matter of keeping business costs down.”

While many individuals who breed, train or kennel racing greyhounds have loved the breed, industry-wide financial realities produced many systematic canine welfare problems that were not solved through regulation or urging from critics.

“Welfare concerns included tens of thousands of puppies and adult dogs inexpertly euthanized without a veterinarian present because they were too slow or unwilling to chase a mechanical lure; stereotypies and self-destructive chewing from confinement in dog crates, commonly for twenty-three hours per day; broken tails, toes, hocks and spines suffered through falls on the track; chronic diarrhea and rotten teeth from a diet consisting of 4-D grade meat; and for a significant minority mental and physical stress that made them timid or aggressive,” Nance explains.

The simple closing of tracks has reduced the number of dogs suffering these welfare issues, and if dog racing ceases entirely these problems will no longer plague the breed.

“Yet, the contraction of the industry presents a new canine welfare challenge. Nance says the same recession that is devastating the dog tracks has also reduced the number of people who can afford to adopt an ex-racer. “Many Americans are delighted to see racing end. But when a track shuts down its dog operation with, say, three hundred greyhounds living on site – what does one do with them?”

With their determined no-kill policy, track owners, kennel operators and greyhound rescue groups are working to find ex-racers appropriate adoptive homes, a problem animal shelters struggle with everyday. While the dogs coming out of the industry will live better lives, in the short term at least, the decline of racing may complicate an ongoing pet overpopulation problem exacerbated by the same tough economic times. ¶
Stress can make you sick. It’s been long known that long- or short-term stress can affect the immune system, making us more vulnerable to illness and a host of chronic diseases. The case is the same for farm animals – stressful environments or events increase susceptibility to disease and reduce animal welfare. Keeping stress levels low is a key to optimal health.

People have a myriad of options available to help combat stress. But for farm animals, it is up to scientists and farm managers to identify various sources of stress, be they environmental, social, or physiological, and attempt to reduce them. Taking it a step further, we may be able to selectively breed animals that are better able to cope with particular environments and events.

With the advent of intensive farming and the aim of producing food quickly and cheaply, the last four decades have seen breeders focus on maximizing production traits – i.e. greater and faster production of meat, milk and eggs. Lately, there has been a shift in focus, and entertaining the idea that animals can be selectively bred to better suit the environments in which we keep them, while maintaining current high production levels.

With this in mind, Dr. Niel Karrow, associate professor in the Department of Animal and Poultry Science, wondered if sheep might be good candidates for selective breeding toward this aim. There has been a progressive trend toward intensive farming of sheep – an animal that has traditionally been kept extensively on pasture, where stressors are quite different. Dr. Karrow suggests that if sheep show different coping styles to stress, it maybe possible to breed them to not only produce well, but also to better cope with the intensive production systems in which they are increasingly being housed.

To begin investigating this, masters by coursework student Melissa Marshman conducted a study, under the supervision of Dr. Karrow, to determine if differential stress responsiveness in ewes is associated with differences in behaviour. They identified sheep that had a high (HCR), medium (MCR) or low cortisol (LCR) response to a physiological stressor. They then tested behavioural responses of these sheep to a perceived predator – a wolf model.

Surprisingly, they found that there was a strong inverse correlation between the foot-stamping behavioral response to predator stress and the cortisol response to physiological stress, meaning that more foot-stamping was exhibited by the sheep that were low cortisol responders to physiological stress (LCR>MCR>HCR). Foot stamping is a form of defensive aggression, shown by bolder animals. There were also trends seen toward high cortisol responding sheep glancing and staring at the predator model more often and longer than the other groups, which is a vigilance behaviour.

These results suggests that the low cortisol responding sheep may be less fearful than the other two groups, which provides evidence for the existence of coping styles in sheep. “Reducing stress responsiveness to intensive conditions can improve and accelerate the process of domestication” says Marshman. “Increased production and reproduction, and reduced disease incidence and use of medications including antibiotics may also result from genetic selection for stress responsiveness in agricultural animals.”

Sheep have traditionally been kept on pasture, but this is changing with the progressive trend toward intensive farming.
The Transport Truck: A Pig’s-eye View

By Kimberly Sheppard and Tina Widowskit

Being transported is inevitably one of the most stressful events in a pig’s life. The combination of being handled and loaded onto the truck, being mixed with unfamiliar animals, and extreme seasonal temperatures that are sometimes experienced during the trip to the abattoir can have detrimental consequences for both the welfare of the animal and the quality of its meat. Worldwide, efforts are being made to identify strategies and set new guidelines for improving the welfare of livestock in transport.

There is considerable variation in transport conditions around the world, with extremes in weather, styles of truck, road conditions and trip durations differing across region. In Canada, death loss during transport is relatively low for pigs. One large study in Ontario (conducted by Charles Haley, Department of Population Medicine, 2005) showed that for every 10,000 pigs transported, around 17 pigs died during the process. But for each of those pigs that die, many more likely experience non-fatal stress. The challenge is identifying the specific aspects of transport that pigs are not handling well – and determining these takes some detective work. Even within Canada, transport conditions vary widely across region, with sweltering summers in the East and frigid winters in the West. A multitude of factors come into play including truck design, temperature and ventilation in various levels and compartments within the truck, trip duration and type of handling.

In order to tackle the issues important to the Canadian pork industry, a multidisciplinary project led by Harold Gonyou (Prairie Swine Centre) and Luigi Facuitano (AAFC, Quebec) was launched in 2007. Researchers from four provinces with a variety of expertise have been examining the effects of transport conditions on trailer temperatures, ventilation, pig behaviour, physiological measures of stress and meat quality. The team of scientists includes CCSAW faculty Tina Widowski of the Dept. of Animal and Poultry Science, Cate Dewey in the Dept. of Population Medicine, Renée Bergeron of the U of G’s Alfred College and Stephanie Torrey (AAFC). Team members recently presented their work in the CCSAW-sponsored meeting, “Swine Handling and Transport in Canada: A Report on Research and Policy.” This team has been using some innovative new technologies to get a pig’s-eye view of the transport process.

Trials were conducted during summer and winter in the West, with pigs shipped from Saskatoon to Brandon, Manitoba and in the East, with pigs shipped a short distance in Quebec comparing different styles of trucks. The researchers recorded real-time data from the time the pigs left their pens on the farm until they reached the resting area at the abattoir.

“‘We wanted to focus on the experience of the animal. We’re gathering as much info as possible to try to make that final ride more comfortable.’” – Tina Widowski

To gain a sense of physiological stress, pigs were fitted with leather belts that held heart-rate monitors, so that scientists could identify which parts of the journey were most difficult (e.g. climbing steep ramps onto upper levels of the truck), and how long it took for them to settle down after each transition of the journey.

Core-body temperatures were monitored minute-by-minute by having the pigs swallow a tiny stainless steel digital thermometer. Data loggers were also installed at multiple sites within each compartment and level of the truck, to continuously record ambient temperature and humidity. Blood samples were taken at the end of the trip, to measure blood parameters indicative of stress and muscle damage. Meat quality measurements were also taken.

To look at what pigs do and how they feel during transport, behaviour was monitored continually via live observations and video recordings. “‘We wanted to focus on the experience of the individual animal’ says Tina Widowski. “‘We’re gathering as much info as possible to try to find ways to make that final ride more comfortable.’”

These initial trials identified some critical factors affecting the pigs. It is well known that pigs are vulnerable to temperature stress during transport, but this study found that air temperature and humidity levels as well as the pigs’
core body temperatures can vary considerably in the different compartments within the same truck. In warm weather, body temperature can rise to dangerous levels when trucks are standing still, during stops or when trucks are being loaded and unloaded. When the truck is in motion, airflow increases and the pigs cool down, but the airflow and cooling is not uniform for different trucks or even within different areas of the same truck. In the winter, these differences in airflow can result in some extremely cold areas within a truck, and the pigs' heart rates, physiological measures and meat quality showed that pigs were working hard, by increasing their metabolism, to stay warm.

Researchers identified another important factor that significantly affected the pigs – ramps. On many styles of trucks pigs have to climb ramps in order to get to top or the bottom levels of the truck. Researchers compared a truck with ramps to a truck with a hydraulic lift, where pigs could walk straight on and then were lifted to the top level, elevator style. They also compared data from pigs on the same truck from compartments that required different amounts of climbing to get to. When pigs had to climb ramps they took longer to load, experienced more slips and falls, their heart rates stayed elevated for longer, their body temperatures were higher and the physical exertion of getting from the top or the very bottom of the truck showed up in poorer meat quality.

With the results from these initial trials the researchers are now focusing on solutions to the problems. They are conducting in-depth studies addressing airflow patterns, means of cooling pigs during hot weather and details of ramp design that make it easier for pigs to climb.

This swine transport study was funded by BC, Alberta, Manitoba and Ontario Pork Boards, Maple Leaf Foods, OMAFRA, NSERC and AAFC.

Working together

Researchers from across the country are collaborating on this multidisciplinary study to better understand the welfare of pigs during transport

Dr. Renee Bergeron – Universities of Guelph
Dr. Trever Crowe – University of Saskatchewan
Dr. Cate Dewey – University of Guelph
Dr. Luigi Faucitano – Agriculture and Agri-Food Canada
Dr. Harold Gonyou – Prairie Swine Centre
Dr. Nora Lewis – University of Manitoba
Dr. Stephanie Torrey – Agriculture and Agro-Food Canada
Dr. Tina Widowski – University of Guelph
Jorge Correa – Ph.D. student, University of Laval
Emily Tamminga, M.Sc. student, University of Guelph
Sebastien Goumon, Ph.D., University of Laval and Prairie Swine Centre

Students

Students Shine at 9th Annual Intercollegiate Animal Welfare Judging Competition at Michigan State University!

By Jean Burrows and Kimberly Sheppard

Anyone who has been schooled in animal science, has been to a fall fair, or has been involved in 4-H is familiar with the ‘animal judging contest’, in which animals are judged on conformation, muscling, etc. This traditional teaching tool has been taken one step further at Michigan State University, and has been adapted to teach students to assess the welfare of animals in production. The exercise fosters the skills students need to critically examine a situation, gather unbiased information, and use that information to make a subjective but educated assessment of welfare quality.

Each year, teams of University of Guelph students spend several months preparing for the competition by intensively learning subject material, performing practice assessments, and giving reasons for their opinions. This year, teams were jointly coached by Ian Duncan and Tina Widowski (OAC’s Department of Animal and Poultry Science) and Derek Haley (OVC’s Department of Population Medicine).

Undergraduate team, left to right, Jessica Zaffino, Kait Link, Erin Phillips and Ekta Rattan
At the competition, students were presented with scenarios for each species that compared and contrasted two ways of keeping and caring for the animals. “They assessed, for example, features such as group size, the size of pens, aspects of diet and feeding, how often the animals are being handled, the training and experience of the caretakers, mortality and morbidity rates, and the animals’ behaviour,” said Haley.

Students then determined which scenario best ensured quality of life for the animals, and prepared and made an oral presentation of reasons for their decision. The individual competitions involved meat goats, laboratory rats and farmed white-tailed deer; the team competition involved sheep.

The OVC team brought the trophy home once again, winning the overall Veterinary Student Award. Team members included OAC Animal Biology alumni Rebecca Egan and Kristen Reynolds and their team mates Robert Berger and Elyse Hauer. The first place individual award in this division went to Robert.

Each year there is strong competition in the Undergraduate Student division, and this year was no exception. Second place overall went to the team of Kait Link, Erin Phillips, Ekta Rattan and Jessica Zaffino, who are students in OAC’s Department of Animal and Poultry Science Animal Biology major.

For the second year in a row, the U of G Graduate Student team was the only one entered in this division. The team, Teresa Casey, Jenn Gailis, Krysta Morrissey and Puja Wahi won the overall Graduate Student Award, and Theresa won first place in the individual awards. Members of this team are all students in the Department of Animal and Poultry Science Graduate program.

“The success of our students at this competition very much reflects the strength of the program and the dedication of Campbell Centre faculty and students to excellence” said Andy Robinson, Chair of the Department of Animal and Poultry Science. Congratulations to all on another successful competition!

Graduate Theses Successfully Defended!

Marisa Erasmus, MSc.
Thesis title: “Examining physical methods for humane on-farm killing of turkeys”

Jennifer Brown, PhD.
Thesis title: “Effects of temperament and handling experience on the stress response and meat quality of pigs”

Angela Greter, MSc.

Graduate team, left to right, Krysta Morrissey, Teresa Casey, Jenn Gailis, Puja Wahi

DVM student team, left to right, Robert Berger, Rebecca Egan, Kristen Reynolds, Elyse Hauer
Study Animal Welfare from Afar **Distance Education at U of G**

Whether on-campus or far away, there is now greater opportunity for studying animal welfare at U of G. Through online studies, students can sign up for specific Distance Education courses from virtually anywhere in the world.

The newest addition to the online offerings is “Assessing Animal Welfare in Practice” (ANSC*6710DE). This graduate level course explores the underlying concepts and steps involved in developing animal care auditing/assessment schemes for industry and regulatory bodies. Lectures include an overview of assessment tools, and how the goals of the assessment (i.e. accreditation versus self-assessment) influence structure. The advantages and disadvantages of using engineering versus animal-based standards will also be addressed. Various forms of assessment schemes such as indices, scores and questionnaires will be compared. Students will explore the validity, repeatability, and feasibility of different measures in the field and will utilize knowledge of animal welfare assessment in the development of novel assessment schemes.

The online course “Principles of Farm Animal Care and Welfare” (ANSC*3210DE) continues to be offered. This award-winning undergraduate level course introduces the main theoretical concepts of bioethics as related to contemporary animal agriculture. Students are familiarized with the history of the animal welfare movement, including its effect on producers and consumers of animal products. The course emphasizes the techniques of assessment of animal well-being and review legal requirements and voluntarily accepted codes for sound animal care and safe animal handling.

Anyone who is not a U of G student can register for these courses by visiting www.open.uoguelph.ca and clicking on “search course offerings” (use keywords “animal welfare” in your search). U of G students can register through regular registration procedures using WebAdvisor.

### Upcoming Events

**Changing Cultures... Veterinary Medicine in Literature**

A two-day symposium on veterinary medicine and the literary arts. Co-sponsored by the Society for Veterinary Medicine and Literature. May 9th – 11th, 2010 at the Ontario Veterinary College. Please visit: [www.ovc.uoguelph.ca/conferences/vetlit](http://www.ovc.uoguelph.ca/conferences/vetlit)

**11th Annual OVC Animal Welfare Forum.**

This student-run day-long event will be held October 2nd, 2010, at the Lifetime Learning Centre, Ontario Veterinary College.

**Balance in Motion... Exploring the physical and emotional balance between horse and rider**

Featuring keynote speaker Dr. Gerd Heuschmann. Dr. Heuschmann has over 30 years of experience as a vet and rider in understanding the biomechanics of horses and riding and the relationship to training methods. He actively educates the public on the effects of training methods on the holistic health of the horse, including different training philosophies and the controversial Rollkür. October 20-24th, 2010, University of Guelph Kemptville Campus.

**5th International Workshop on the Assessment of Animal Welfare at Farm and Group Level (WAFL).**

This conference is of great interest to scientists and others working in animal behaviour, health and welfare, and in particular those concerned with the welfare of farm livestock, laboratory animals and other animals housed and managed in groups. August 8-11th, 2011, University of Guelph.

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To learn about how you can support the centre or to join our e-mail list, go to: [www.uoguelph.ca/ccsaw](http://www.uoguelph.ca/ccsaw)
or write to: **The Campbell Centre for the Study of Animal Welfare**
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