

GREENHOUSE

THE ALUMNI MAGAZINE OF THE FACULTY OF AGRICULTURAL, LIFE & ENVIRONMENTAL SCIENCES

Spring 2013 • Issue Number 5



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ALES grad first to be awarded BSc north of 60

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EATING ORGANIC

What you don't know will surprise you

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CALL OF THE LAND

Alumnus recalls starting iconic radio show 60 years ago

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Building community

Innovative ag class helps students thrive



UNIVERSITY OF ALBERTA
FACULTY OF AGRICULTURAL,
LIFE & ENVIRONMENTAL SCIENCES



ALUMNI ROAD TRIP

Let's talk ALES Centennial

The Faculty of ALES will be turning 100 in 2015 and we wish to celebrate in a manner that befits this important milestone. In the fall, I will be travelling across the province to meet with you to discuss our plans for the celebration of the Centennial and to get your ideas and support for the establishment of legacy endowments that will provide ongoing support for students, research and outreach in the decades ahead.

The ALES Centennial is your party so please take the time to come and meet me and our centennial committee chair.

Dates and times will be posted on our centennial website at www.ales100.ualberta.ca.

It will be, as always, my very great pleasure to meet and chat with you.

JOHN KENNELLY
 DEAN



Dates and times will be posted at
www.ales100.ualberta.ca

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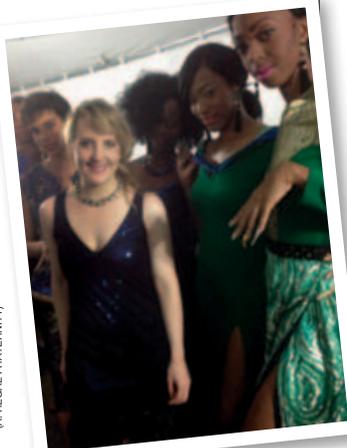
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Corinne Long, '09 BSc (Hecol) takes a bite out the Big Apple. See page 29

Your support for experiential learning opportunities has opened the door for hundreds of students to what are often life-changing experiences.

JOHN KENNELLY
DEAN
FACULTY OF ALES

The recent provincial budget poses a major financial challenge for our faculty, our university, indeed our province's entire post-secondary system. In recent years, we've had to manage annual spending cuts which cumulatively have totalled about 10 per cent of our budget. We have dealt with these cuts primarily through attrition. This year, the situation is quite different. At a university-level, we're facing a 10 per cent cut in funding on top of the cuts over the past several years. Individual faculties will be affected differently and, at the time of this printing, it is not known how deep the cut will be for ALES. I am committed, along with our senior management team, to mitigate the negative impact of the budget cuts on our excellent academic programs.

Clearly, in the situation in which we find ourselves, your generosity is more important than ever. Indeed, it is critical to the continued success of our faculty. Your support for students, through scholarships and awards, has meant a world of difference over the years for literally thousands of students. Your support for experiential learning opportunities has opened the door for hundreds of students to what are often life-changing experiences.

Without the foresight, imagination and generosity of our donors, we would not be in the enviable position of conducting relevant, long-term research at the Mattheis Ranch or the St. Albert Research Station. Our Breton Plots would not exist, our Livestock Gentec program wouldn't be as comprehensive and our Clothing and Textile collection wouldn't have the breadth and depth it enjoys.

Your support has helped us deliver on the promise we made almost 100 years ago; to conduct research that is relevant to farmers (and Albertans), to provide an excellent education to our students and to contribute to Alberta's economy.

If you haven't donated to our faculty yet, please consider it. If you have donated or are a regular donor, please accept my most sincere thanks.

John



GREENHOUSE

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 **UNIVERSITY OF ALBERTA**
FACULTY OF AGRICULTURAL,
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We're writing
a book about

you

and we need your help!

In celebration of the Faculty of ALES centennial in 2015, we're writing a book about YOU!

Send us your stories, your pictures, your anecdotes, anything you think will help us tell the story of the faculty's first 100 years. The more stories we get, the more pictures, the more remembrances, the more anecdotes, the better the book will be. So don't be bashful and put pen to paper (or fingers to keyboard) and tell us about your experience at the Faculty of ALES.

Send all materials to:

ales100@ualberta.ca

or

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HAPPENINGS

STUDENT EXPERIENCE

During Reading Week this past February, two groups of ALES students had the opportunity to experience different communities; one group went to India to experience first-hand and examine issues of food security, rural development and sustainability, while the other group immersed themselves in Edmonton's inner-city, seeing first-hand issues of poverty, homelessness and community development. Participants Chris Haseltine and Joshua Bateman report on their experiences.

There but for the grace of God, go I

By Chris Haseltine

I spent three days in Edmonton's inner city last February. I was part of a group of 10 ALES students and staff members learning about poverty, homelessness and community development through a program in partnership with Edmonton's Mustard Seed.

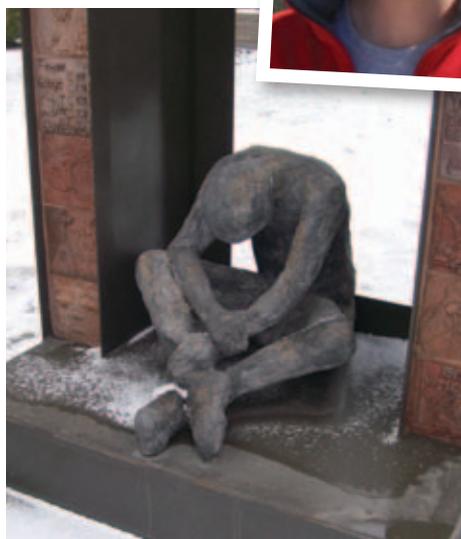
Before those three days, I thought most of the people I would talk to would have no homes or jobs, and they would all be fending for themselves. The reality was very different. There were individuals, couples, and families with children, many of whom had formed friendships with one another. Some of the community members were unemployed, but there were others who were underemployed, with a job and a place to live, but not enough money to eat and make ends meet.

One stereotype that we heard about is that some people choose or want to be homeless, but this is false; no one wants to be or chooses to be homeless. One of the community members told us the story of how he had lost his trucking business when another vehicle caused his semi to have a roll-over, and how he

had been unable to recover financially. Another story was told to us by Byron, our guide at The Mustard Seed. It was about a very successful man who earned a six-figure income, had a beautiful house, a wife and two daughters. He was away on business for the weekend when his wife and two daughters were killed by a drunk driver. The emotional burden was overwhelming and he entered a downward spiral in which he lost his job, his house and ended up living on the street for six years. I realized that many of the community members' hardships were the result of tragedies in their lives that were beyond anyone's control and that with the right combination of misfortune, any one of us could become homeless.

As part of our Day in the Life experience, we were "evicted" from our accommodations at 8 a.m. on the second day and spent the day on the streets with no money or food of our own. We divided into small groups and had a list of tasks to complete including finding out where to get addiction counselling, finding a public transit route to a hospital, and getting a lunch at The Hope Mission. This experience gave me a mere glimpse of what it must be like for people who live on the streets every day. Even just one day was difficult, both physically and emotionally, as we spent a lot of the time walking and we were exhausted by the end of the day.

This experience changed me because now, when I witness poverty or homelessness, I know that it is not a choice; it could happen to anyone. It has also been very humbling because I am much more thankful for my family and friends and also for the things that many of us take for granted, such as a roof over my head, money for groceries and having a job. I also realize how important it is to support organizations such as The Mustard Seed and The Hope Mission because without the services these organizations provide, many people would have nowhere to turn and no one to help them.



Street life: ALES students saw this statue, which commemorates those who have lost their lives on the streets, as part of their social issues walk in Edmonton's inner-city.



Vermicomposting: ALES students (Joshua Bateman is at far right) show off their cow dung-stained hands as they create a mixture in which the dung is mixed with water and other organic matter, including worms, to create a vermicomposting bed.

How India changed me

By Joshua Bateman

During Reading Week last February, I was one of 11 ALES students who went on a week-long trip to rural communities in southern India, near the cities of Bangalore and Mysore. This unique experience offered us the opportunity to interact with people that one would not normally be acquainted with during such a trip.

What struck me the most was the people's sense of community. It seemed to be so much more than just where they're living.

While driving on the highways passing small towns, or even while in small towns, there was a very strong sense of togetherness. Often people would be walking in big groups conversing. They sat outside their homes simply talking, not needing to be entertained by anything more than face-to-face conversation. The children would play together, not in forced organized sports, but on and of their own accord, heading down to an open field to play cricket.

In Canada, it is easy to hide from people whether you are a child or an adult. At home, you can isolate yourself

from the rest of the world or connect to people all over the world via the internet but real face-to-face conversation, devoid of any electronics, is rare. Even when visiting friends, it sometimes feels like I am competing for their attention with technology, and often I lose.

Without the technology and comforts of a middle class life, the people in India need to interact with each other on the most basic level, through conversation and play.

The trip also gave everyone involved the opportunity to talk about real life issues. I appreciated the warm, humid weather but it was not what sparked conversation unlike at home. Sometimes, a few of us would go on walks and we would talk about issues we were having and ask if someone had any advice.

We would talk about poverty, global economics and scarcity because we were in an environment that favoured such conversations. Our discussions were about real issues that are facing the world and every day lives of peo-

ple and we all had the chance to give our opinions without being blatantly judged.

We had time during the trip for reflection and this allowed me to reflect on what I wanted to do with my life. How I could potentially help others who did not get the Canadian middle-class experience that I have received?

Don't get me wrong, I do not believe that I should go into any situation and think that I have all of the solutions. I do, however, want to have a career that allows me to try to help those in need. With that said, I changed my major from Nutrition to Nutrition and Food Sciences with a Food Policy minor. I want to study the market and know the economics behind the decisions being made that have corrupted the global food system and find solutions.

I believe that with an understanding of food policy and nutrition, I can help create a food system that is sustainable, feeds the people who need the food rather than those who can pay the most and is respectful of the environment.

NEWS

Faculty signs on major international food for health initiative

The Faculty of ALES has partnered with New Zealand's University of Auckland to develop a major international food for health initiative.

"This is a commitment by the two institutions to build a world-class food for health research and outreach program," said John Kennelly, dean of the Faculty, who spearheaded the efforts in this endeavour. "We'll build the program primarily through grad student exchanges, professor exchanges and, of course, a top notch research program."

Kennelly said that food for health is a key strategy for Alberta, Canada and around the world to transform disease-based health care models into more sustainable prevention-based models. He added the partnership fits very well into the University of Alberta's vision of transforming the Alberta Institute for Human Nutrition into the Centre for Nutrition and Health. A key responsibility of the new director of the centre (a search is expected to begin soon) will be to build this initiative.

"We would like to see food for health built as a U of A area of excellence and this partnership is a key step in moving forward," said Kennelly.



Adopt-a-heritage-chicken program proves wildly popular

What began as a cost-recovery effort proved so popular, CBC's flagship newscast, *The National*, did a story about it.

The faculty's Poultry Research Centre is home to five heritage breeds that are the basis for today's commercial poultry lines. If an emerging disease came along and wiped out a commercial line, these birds, which are typical of the chickens you would have seen in any farm yard 50 to 100 years ago, are more likely to have genes for a stronger innate immune response and would be used to re-generate a commercial line.

The problem is there are 1,500 chickens and it costs about \$75,000 a year to maintain them. Budget cuts were making that more difficult to manage. The solution? Put the chickens up for adoption.

For \$75, people receive an adoption certificate, name their adopted chicken and get a dozen farm fresh eggs every other week. Last March, the centre decided to run a six-month pilot program, hoping 200 people would sign up. They got 700. And national media attention with a segment on *The National's* Only in Canada feature.

The pilot program ends this fall but another, larger program, will be launched in November.

Preserving history: *the Poultry Research Centre's Martin Zuidhof holds a Dark Brown Leghorn chicken, one of five heritage breeds the centre is preserving.*



PHOTOGRAPHY: RICHARD SIEMENS



PHOTOGRAPHY: SHIRLEY ROGGS

Fresh vegetables for a good cause: *Since its inception in 2009, the Green & Gold Garden has raised more than \$75,000 for a non-profit women's organization in Rwanda.*

Fresh-picked produce on South Campus

For the fifth year in a row, the Green & Gold Garden on South Campus will be offering fresh vegetables for purchase twice a week, beginning in July.

The two-acre volunteer-run garden grows more than 60 types of vegetables and herbs, and makes them available to the public every Tuesday evening from 7:00 p.m. to 8:30 p.m. and every Saturday from 11:00 a.m. to 1:00 p.m.

All proceeds go to Tubahumurize, a Rwandan non-profit woman's organization that provides counseling for victims of violence, vocational training and micro-credit loans.

UAlberta awards first BSc north of 60 in Canada

She doesn't consider herself a trailblazer. While Natasha Ayoub was the first to be awarded a BSc north of 60, she was particularly thrilled to be able to pursue her education without having to leave her home. "That was really important to me. It's great that Yukoners don't have to move away anymore to get an education." Ayoub is the first student to graduate with a BSc in Environmental and Conservation Sciences thanks to a partnership between ALES, the Faculty of Native Studies and Yukon College. The program integrates natural and social sciences as related to issues such as wildlife conservation, land use, energy and global climate change. Ayoub said one of the things she really appreciated about the program is there is an emphasis on Yukon-specific issues. Five students are expected to graduate next year and the program's future looks solid with an enrolment of 35.



A Better Scientist: *Natasha Ayoub says her degree, the first BSc awarded north of 60 in Canada, has made her a better scientist.*

PHOTOGRAPHY: SUPPLIED



PHOTOGRAPHY: ANDREA MCGREGOR

Saving the World: *ALES 2013 ENCS graduate Hayley Carlson sits beside her How-to-Save-World Wall of Knowledge. She says it helped her keep things in perspective.*

Seeing the forest for the trees

Hayley Carlson wants to save the world. So much so that the very first thing she saw every morning she woke up during the last two years of her undergraduate degree was her 'how-to-save-the-world wall of knowledge.'

"Problems are natural, biological, sociological, economic and political. All these disciplines tell you different things. I wanted a way to see the big picture," she says.

The wall was also a creative outlet for Carlson who says it helped her relax about 'smaller' issues and keep things in perspective. "It helped make (the degree) my own," she explains.

Carlson will join 266 other ALES students who will be graduating on June 12. Next year, she'll pursue a masters in public administration and afterwards, plans to work in government to acquire some experience and then perhaps for a non-governmental organization or in industry.

"It doesn't matter where I work," she says, "as long as I have the opportunity to search for comprehensive, realistic solutions to save the world!"

EVENTS



PHOTOGRAPHY: ADRIENNE TASTAD

Prairie stakeholders gather for update on Mattheis Ranch

By Andrea Ross

A spring snowstorm didn't deter the sizeable crowd of about 85 area ranchers, farmers, staff from land management agencies and other interested organizations that filed into the Duchess Community Hall last April to get an update on the research happening at the nearby 12,300-acre Mattheis Ranch, home of the U of A's Rangeland Research Institute (RRI).

Professors, graduate students and U of A Chancellor Ralph Young met with the public for the day-long session in which they discussed various projects, including carbon monitoring in rangeland soil, the role of native grasslands in providing habitat for wildlife, and investigations in how grazing systems, plant diversity and climate change may regulate forage availability. Collectively, these studies are intended to provide a better understanding of the importance of what ALES researcher and RRI director Edward Bork refers to as 'environmental goods and services.'

"We have an opportunity to use the ranch as a living laboratory," he explains. "We can directly test everything from small questions about how plants grow, all the way through to how the grazing behaviour of cattle on the landscape might impact biodiversity, car-

bon storage or cattle weight gain."

The RRI also has a unique opportunity to evaluate management practices over the long term, as climate changes and the cumulative effects of development on rangelands increases.

Bork says a significant source of income for cow-calf operations is oil and gas revenue from the industry's use of the land. Sooner or later, in 10, 20 or 30 years, that revenue will disappear.

"An alternative business model is needed to sustain these operations," says Bork. "We need to have policy mechanisms to reward producers for maintaining these grasslands because they provide important environmental goods and services. That's why a large part of what the Rangeland Research Institute will be trying to do is demonstrate the value of existing grasslands and rangelands."

He added that he hopes the results of the fundamental studies being conducted on the ranch – which was generously donated to the university three years ago by alumni Edwin and Ruth Mattheis – will help guide innovative policy to benefit landowners.

Bork says the community appreciated the update and similar meetings, including field tours, will be held in the years to come.

DISCOVERIES

ALES develops two new wheat varieties

Prairie farmers will have new wheat options in the coming years as two new varieties, successfully developed by the ALES' wheat breeding program, were recently approved by the federally regulated Prairie Grain Development Committee.

ALES researcher Dean Spaner and his research group developed BW947 and PT765, two high yielding Canada Western Red Spring (CWRS) wheat lines with good resistance to stripe rust, a serious, new disease affecting wheat crops in western Canada, especially Alberta. They are the first two lines developed in Alberta and approved for release since 1997.

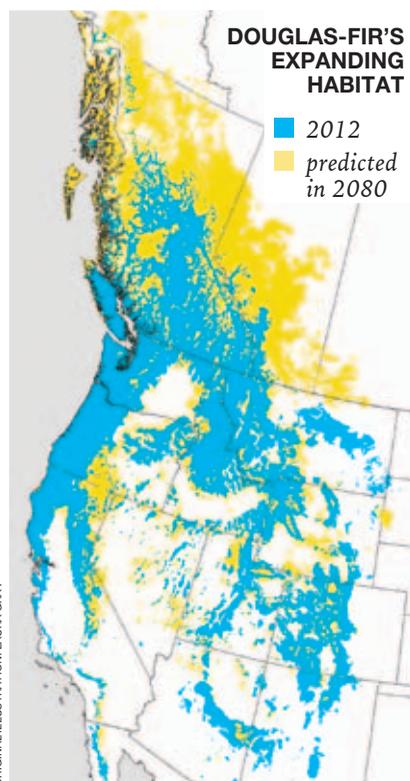
"We only have 99 days (in our growing season in Alberta). Early maturity means you can harvest faster, you have less downgrading of the crop, less frost damage and less pre-harvest sprouting," explained Spaner.

Canada has one of the most stringent regulatory systems in the world when it comes to releasing wheat varieties. It takes between eight and 12 years to develop a wheat cultivar.

The lines are in the process of being commercialized and will likely be made available to prairie farmers in two to three years.



The Faculty of ALES continues to attract its generous share of external research funding. In fact, the average funding of an ALES professor in 2011-12 was \$435,000, the highest total per capita of the major science faculties at the U of A. Here are some examples of the findings researchers and their students and staff obtain.



Helping forests gain ground on climate change

Post-doctoral fellow Laura Gray developed guidelines that are being used by the forestry industry and government foresters to get a jump on climate change when planting trees.

The guidelines, published in a study that appeared in *Climatic Change*, found that on average, populations already lag behind their best climate niche by 130 kilometres in latitude or 60 metres in elevation. The work enabled Gray to develop maps that provide projections of climatically suitable habitat for tree species based on climate predictions for the 2020s, 2050s and 2080s.

“The information helps forest managers have more confidence in their decisions on what and where to plant. It allows them to more accurately assess the climactic risk,” said Gray.

Her supervisor, ALES researcher Andreas Hamann, added the study’s findings help “inform and effect change in reforestation policy so that those efforts can be leveraged to improve resilience and productivity of Alberta’s forests under changing climate.”

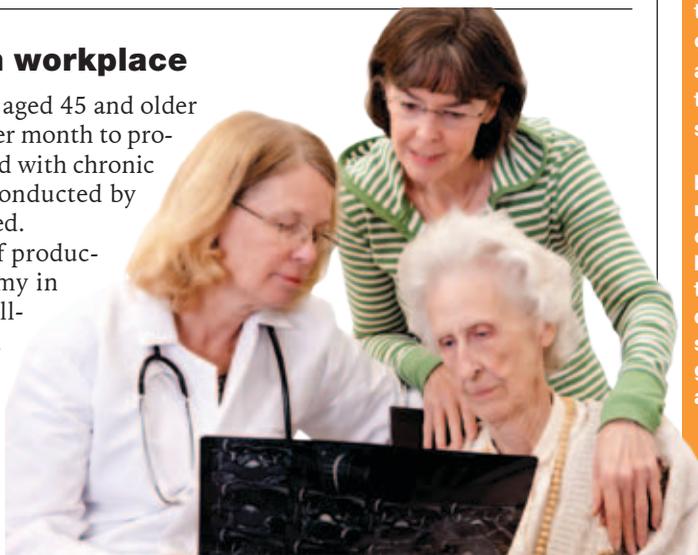
Currently, Alberta forestry companies and government agencies plant 80 million spruce, fir and pine seedlings to reforest more than 50,000 hectares of harvested land annually.

Family care taking toll on workplace

More than 520,000 Canadian workers aged 45 and older have missed at least one day of work per month to provide care for an elderly relative or friend with chronic health issues or disability, research conducted by ALES researcher Janet Fast has revealed.

“There’s been an enormous loss of productivity to employers and to the economy in general—the equivalent of 157,000 full-time employees annually,” said Fast, who shared the findings with employer groups around the country in a series of roundtables.

“Absenteeism and turnover are costly to employers. The main message we want employers to hear is that these are avoidable costs,” said Fast.



Income disparity needs to be considered in carbon footprint policies

ALES’ environmental sociologist Emily Huddart-Kennedy looked at the different sources of greenhouse gas emissions from consumers based on their income levels and found that policies aimed at reducing consumers’ carbon footprint need to take into account income disparity if they are to be effective and fair.

“We looked at it from (income) quintiles,” she said, and found that households with the highest incomes emit 17.9 tonnes per year while those with the lowest incomes emit 8.2 tonnes per year. However policies have generally been based using the average carbon footprint, 12.2 tonnes per household, resulting in a disproportionate financial burden on people who can least afford it and contributed the least to the problem, she said.

“The solution in Alberta would be to push renewables, create incentives to build smaller homes, create disincentives to build low-density, auto-dependant suburbs. Municipal governments can think about things like higher vehicle taxes for larger and multiple vehicles and programs to reduce air travel,” said Huddart-Kennedy.

SOLVING THE GRIZZLY BEAR QUESTION

ALES researchers investigate how to preserve a dwindling population as human activity expands in their habitat.

By Keith Gerein

Scott Nielsen has forgotten his bear spray. The little black canister is sitting at home, leaving Nielsen essentially defenceless during an early fall excursion into the Cardinal Divide area east of Jasper—a prime habitat for Alberta’s threatened population of grizzly bears. Still, the University of Alberta conservation biologist seems unconcerned as he hikes into an alpine meadow, his purposeful stride emanating the confidence of someone who knows his subject inside out.

Nielsen makes sure to create plenty of noise. “Heyyyyy bear,” he yells into the wind, a strategy to avoid any surprise encounters. As it turns out, the spray is

unnecessary. There are no bears anywhere in sight on this day, though there is certainly plenty of evidence bears are close by.

Nielsen points out enormous chunks of soil that have been recently disturbed at various places in the meadow, the result of grizzlies using their massive claws to dig for the roots of Alpine Sweetvetch, a mountain plant that serves as one of their only sources of food during the fall. “Someone was having some fun in here,” he says, turning over a giant clod of earth. “The bears have these four- to five-inch claws and a hump on their back, which makes them perfectly designed diggers. One of my hypotheses is that they act as a rototiller

for the soil, which helps to maintain the diversity of flowers here.”

THE GRIZZLY BEAR QUESTION

Thinking of bears as 700-pound gardening instruments may sound a bit odd, but that’s exactly the kind of message Nielsen is trying to promote as head of ALES’s effort to help solve what some call “the grizzly bear question.”

Essentially, the question revolves around finding a way to reverse the bears’ decline in a province where there is increasing demand for resource development and recreational opportunities – two things that put pressure on already strained bear habitat.

For Nielsen, a Wisconsin native who



PHOTOGRAPHY: EMILY COURT



has been studying grizzlies since arriving in Alberta 13 years ago, he knows there are no easy answers to the puzzle. For one thing, the lack of grizzly sightings during the trip into the Cardinal Divide is hardly an anomaly. The bears' low numbers and secretive nature makes them incredibly difficult to study. Nielsen and his team are instead mostly left to explore the things bears leave behind – bits of hair, clods of soil, DNA samples. Nielsen himself has undoubtedly drawn a strange stare or two when he leans down to examine bear excrement along trails.

In this sense, the mission is something like a detective story, with ALES's investigators deducing what they can

from physical evidence, using mathematical modelling to test hypotheses, and then offering some ideas to help get the grizzly bear population growing

**RESEARCH INVOLVES
FINDING OUT HOW
MANY BEARS
A PARTICULAR
LANDSCAPE CAN
SUSTAIN.**

again. But unlike a typical whodunit, this is a mystery with many moving parts—from forestry economics and environmental politics, to bear nutrition and landscape dynamics. ALES' researchers can't possibly tackle all of it, so instead they have chosen to focus on a handful of key aspects.

The central thrust of the research involves something known as carrying capacity, which is a measure of how many bears a particular landscape can sustain given the food resources. "If we understand how many bears should be there, and we know how many are there, we have a target for recovery," Nielsen says. "What we're asking is, what is regulating bear populations, and how can we



In the field: ALES researcher Scott Nielsen, above, and graduate students Sean Coogan and Sarah Rovang spend considerable time in the field, using different research strategies and techniques to provide a more precise population count and, more importantly, to find out how many bears the landscape can reasonably support. The findings would help inform what an appropriate target population should be in Alberta.

manage habitats that would enhance populations? That’s the focus of the research and it’s really what ALES is helping Alberta, and to some extent North America, understand better.”

POPULATION DECLINE

Grizzly numbers in Alberta are, well, grisly. The most recent estimates peg their population at somewhere around 700 individuals spread across the western edge of the province, and only half are believed to be of breeding age. Compared with places like salmon-rich coastal Alaska, which might have several hundred grizzlies in each 1,000-square-

kilometres of bear territory, Alberta’s population ranges between five and 18 bears in the same sized area.

While the trend of decline is concerning, of equal worry to researchers like Nielsen is where the bears are declining. It might seem strange to think of grizzlies as roaming the prairies, yet that is exactly what they used to do, thriving in open areas that featured plenty of buffalo, elk and longer growing seasons. But in recent decades, that range has been invaded by a rapid expansion of oil and gas development, forestry, roads, agriculture, recreation and other human activity. This unprecedented demand on

land produced two destructive effects for grizzlies: It increased interactions with humans, which resulted in more bear deaths, but it also pushed the remaining grizzlies into remote habitats in the mountains and forests. Such areas are typically less rich in bear foods as their previous territory. Fewer meals mean grizzlies face increased struggles to survive and reproduce.

“The famous quote out there is that endangered species often end up not so much in the habitats most favoured to it, but rather habitats least favoured by the agents of decline,” Nielsen says. “We think of grizzly bears as a mountain

PHOTOGRAPHY: NIELSEN—BERNIE GOSKI, SEAN COOGAN (SELF-PHOTO), SARAH ROVANG—EVAN VANDERWALK

species but in reality they are more generalists. Some of their best habitat was Edmonton and the prairies. The mountains are the last stronghold.”

Today, even those remaining pockets of bear territory are seeing increased incursions. In the Cardinal Divide area, for example, bears foraging in the alpine meadows can gaze down at a section of the Cheviot Mine no more than a few kilometers away. The controversial coal mine, which began operating in 2004 over the vehement objections of environmentalists, is one of the most recent cases of the ongoing pressure grizzlies face from profits and paycheques. Signs in the nearby village of Robb read: “We support jobs, not bears.”

Such signs also provide an indication of the pressure faced by the provincial government, which has appeared reluctant at times to intervene on the bears’ behalf. Although grizzlies were recommended for enhanced protection as early as 2002, a ban on hunting didn’t come until 2006, while the official declaration of grizzlies as a threatened species was delayed until 2010.

More recently, there are worries the government is now taking too long to set some kind of recovery target. Nielsen notes the province has come through with considerable research funding, including much to the ALES team, to study those very issues, feeding hopes that sound science will form the basis of whatever policy is eventually created.

But for those researching the grizzly question, coming up with that sound science is hardly a simple process. One of the biggest challenges has been figuring out how many bears there actually are. After all, without some kind of baseline, how can it be determined if conservation efforts are working to improve the bear population?

Traditionally, population calculations have been based on evidence collected through a hair snagging around a lure. This involves mixing a litre of rotten cow’s blood with canola oil and pouring it over a pile of brush in the wilderness. Barb wire is then stretched around the area, so that when bears

come to investigate the smell, they leave behind a sample of hair. That hair is sent to a DNA lab, which can identify how many distinct individuals have visited the site. If the process is repeated often enough and over a long enough period of time, it becomes possible to get an idea of the grizzlies’ population.

The problem, says graduate student Sarah Rovang, is that the whole thing is too labour intensive and expensive to continue long term. That’s why she’s been working on a modified system that would see lures left in permanent sites rather than being moved around. The challenge is making sure the right sites are chosen.

Researchers can also get useful data through GPS technology. At a remote field station near Kakwa, north of Grande Cache, bears are trapped, tranquilized and fitted with collars that send

“IF YOU UNDERSTAND A GRIZZLY BEAR THROUGH IT’S STOMACH, THEN YOU UNDERSTAND 80 - 90% OF WHAT A BEAR DOES.”

Scott Nielsen

back precise location information. Scientists can later retrace a bear’s footsteps to figure out why it went to certain areas and avoided others.

FOLLOW THE FOOD

Besides population estimates, the even more complicated piece of the puzzle is to determine how many bears Alberta’s wilderness can support. This is the “carrying capacity” concept that forms the core of Nielsen’s work. Several threads of study are currently underway in ALES on this topic, all of which revolve around what grizzlies are eating in Alberta and why. “If you understand a grizzly bear through its stomach, then you understand 80 to 90 percent of what a bear does,” Nielsen says.

The reason for this is pure survival. The magic number for female grizzlies

is believed to be about 22 per cent – the amount of body fat they must attain at the time they enter the den for hibernation. A lower level of bulk means a female probably won’t produce cubs during the winter, and any cubs that do emerge will be small in size and less likely to survive their first year. Since grizzly mothers in Alberta tend to give birth only once every three or four years, it’s essential that female bears are healthy, Nielsen says.

To meet their nutritional needs, grizzlies are similar to humans in that they prefer a mixed menu of foods, says Sean Coogan, who recently completed his master’s degree. Ungulates such as moose, deer and elk are often favourites in the spring, but the grizzly diet also features insects and a variety of plants including horsetails and dandelions, he says.

Coogan’s research, in part, was to analyze the nutritional value of bear foods. He and Nielsen believe that of all the things a grizzly consumes, the most essential to its health is fruit. Dwarf shrubs such as huckleberry, crow berry and bear berry, and a taller shrub known as buffalo berry, are chock full of carbohydrates and sugars that allow a bear to fatten up fast. As it happens, such fruit ripens toward the end of summer, coinciding with the time when a bear’s metabolism is at its highest, Nielsen says. And evidence indicates grizzlies can go through a lot of berries. In one study, a researcher found a single sample of bear scat contained 22,000 buffalo berry seeds.

“There is only one seed per buffalo berry, so that bear ate about 100,000 berries in a day,” Nielsen says. “That would allow them to put on a tremendous amount of mass.”

Coogan adds: “When there is a bad fruit year, it can be really hard on bears. If they have to find food elsewhere, that’s when you might see them get into trouble with more human-bear interactions.”

THE FORESTRY ANGLE

This focus on fruit has prompted the ALES team to ask how Alberta landscapes might be better managed to allow

more berries to flourish. As Nielsen says, there is a myth that bears tend to keep to the older, darker parts of the forest, and that any forestry activity in such areas is harmful. In fact, evidence shows grizzlies tend to be attracted to disturbed lands, such as the edge of older cutblocks where trees have been cleared by foresters. The reason is that such areas have open canopies, which allows sunlight to penetrate to the ground, which, in turn, allows fruiting shrubs to grow and produce fruit. As such, that means forestry activity can actually help grizzlies, provided it's done with some care, Nielsen says.

The major issue with forestry is that it requires the construction of roads to get trucks in and wood out. More roads provide easier access for poachers to reach remote habitats. It also leads, to a lesser extent, to more collisions between bears and vehicles. Old logging roads

**FORESTRY
ACTIVITY CAN
ACTUALLY HELP
GRIZZLIES,
PROVIDED IT'S
DONE WITH SOME
CARE.**

left behind are often used by people with recreational vehicles. "So there is a bit of tradeoff with forestry," Nielsen says. "But the way we think of it is, maybe you can have your cake and eat it, too. Maybe it can be a win-win for both forestry and bears."

How best to accomplish this remains the subject of study and negotiation, though Nielsen believes the key is for foresters to get in and out of a site as quickly as possible. Trees can be harvested in fairly large blocks, but instead of clear-cutting a site, he suggests retaining scattered patches of trees to emulate the kind of destruction a forest fire leaves. Then, when the sawing is done, foresters can do two important things to help bears: Decommission the

logging roads and look at enhancing bear foods by planting seedlings of fruiting shrubs and other vegetation in the cutblocks. The ALES team is also looking at the feasibility of using "seedballs" that could simply be tossed on the soil.

"Then you pull out and you may not go in there for another 30 or 40 years," Nielsen says.

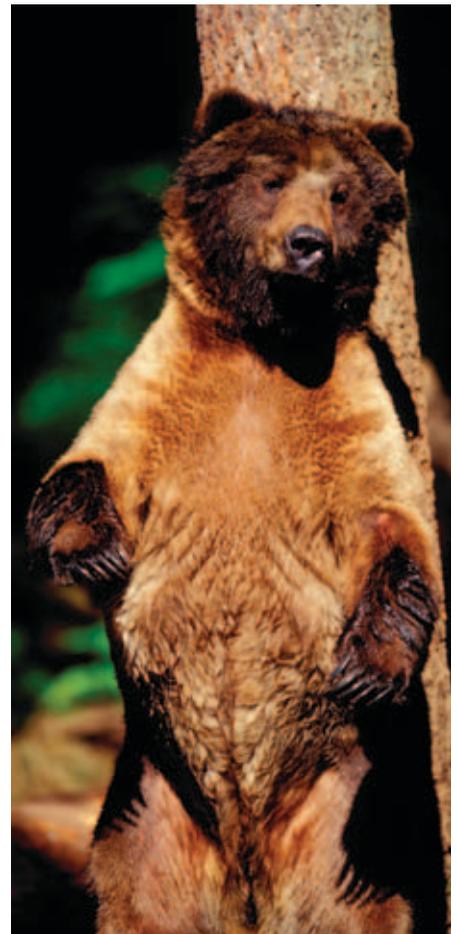
DETERMINING THE RIGHT NUMBER

It's at this point the team's research turns high tech. All the data gathered in the field about what grizzlies eat, where they go to find such food, and how those foods can be increased is brought into the computer lab, where landscape maps are created based on models developed from their field work. In basic terms, the team tries to capture how much food is available in each patch of wilderness, whether it is berries, dandelions or sweetvetch roots. All the patches are added up, and those potential meals are then converted into total calories, giving researchers an idea of how many grizzlies a particular region can sustain.

"Every little patch on the landscape is different. Down in a river valley or up in an alpine meadow, the sources of food are different," Nielsen says. "We have models that calculate these differences and ultimately kilocalories available to bears. We use this data to estimate a maximum number of bears in this ecosystem, which is carrying capacity."

With enough sophistication, the models can become automated to the point where scientists can see how different scenarios might play out. For example, the model could indicate how much more food would be produced – and therefore how many more bears could be supported – if forestry practices were changed. "It's a fundamental question for management," says Ph.D. student Claudia Lopez, who is specializing in models of bear mass. "If you are trying to recover a population, you cannot say let's just shoot for 1,000 bears because maybe the system can only sustain 800 bears."

Other ALES research includes a look at how climate change might impact grizzlies, the problems created by moving bears to different areas and the importance of a bear's first year of life. There is also an ongoing study in Swe-



den, which has similar traits to Alberta but is having more success with its grizzly population. All of it will be put together with work from other researchers to hopefully provide the province a comprehensive blueprint for making Alberta more hospitable to grizzlies.

As part of that process, Nielsen similarly hopes at least some of the research will have broader appeal with the public, including his own study on how grizzly digging behavior can be crucial to biodiversity. As the theory goes, if such work can help cast bears in a sympathetic and valuable light, Albertans will be more likely to pressure the government to save them.

"We're not saying you can't have industry. That isn't it going to fly because we need wood, we need oil and gas, we need coal," he says. "Those are valuable resources, but what we're saying instead is let's access them in a way that facilitates the persistence of our biodiversity in animals like grizzly bears. I'm the type who thinks that can work, but it takes smart planning." 🌱



ALES ALUMNI WEEKEND 2013

join us for

FRIDAY, SEPTEMBER 27

Devonian Botanic Garden Tour and Lunch

11 a.m. – 3 p.m.

Cost \$25/person (includes transportation from main campus)

Human Ecology Clothing and Textiles Collection Tour

1:30 p.m. and 3:00 p.m.

Complimentary

Pre-registration is required (maximum 8 per tour); tours depart every half hour

SATURDAY, SEPTEMBER 28

Faculty of ALES Alumni Breakfast

9 a.m. – 11 a.m., Sutton Place Hotel

Complimentary, space is limited

Please RSVP for all Alumni Weekend events at

www.alumni.ualberta.ca





Eating Organic

Healthier? Tastier? Better for the environment? Worth the extra money? What ALES research reveals may surprise you.

By Alexandria Eldridge

Dana Moewes wanders through the produce section of the Strathcona Save-On Foods, picking up cartons of raspberries and examining them before deciding to purchase an organic one. While they're more money than the conventional ones, sometimes it's worth the extra coin.

"I buy organic a few times a month, but not all my groceries are organic. I just pick and choose a few things to try," Moewes says, explaining that she usually gravitates towards specialty fruits that aren't in season or processed items like organic cereal and quinoa. "I'm just trying it out, seeing if it's really up to the hype."

Many people like Moewes are certainly trying out organic food, with specialty organic stores found in every major city, restaurants committing to only using organic ingredients, and large retailers like Save-On Foods and Superstore expanding their organic sections. The organic industry has moved from niche to nearly mainstream in only a decade.

But Moewes says she's never found a major difference in taste or in health benefits – and she's not the only one who thinks so. Claims of the environmental friendliness of the industry, health benefits from the products, and better taste are still just that – simply

claims. And if consumers like Moewes aren't coming away from their test-runs with organic food satisfied, the organic industry just may have reached its peak.

The organic market

Organic food is produced without pesticides, fertilizers, hormones, or antibiotics, and also prohibits genetically-modified organisms. For processed organic food such as granola bars and cereals, synthetic processing additives are also prohibited. Because these measures make the production process more

"We want organic because we think there's something wrong with conventional production."

Ellen Goddard

costly, organic food often costs higher than the conventional counterparts.

While the organic industry is identified as one of the fastest growing in the country, statistics show that the growth

is slowing down. According to the Canadian Organic Trade Association and Agriculture and Agri-Food Canada, total annual retail sales of certified organic food was \$1 billion in 2006, \$2 billion in 2008, and \$2.6 billion in 2010.

"It's possible that there is only a certain cohort of people within the society that is willing to pay that price," says the Faculty of Agricultural, Life, and Environmental Sciences' Ellen Goddard, a researcher who heads the Consumer and Market Demand Policy Research Network.

Health benefits

Yet, many consumers do choose to pay the extra cost for organic products and are doing so because they believe it is better for their health.

Beth McMahon is the Executive Director of the Canadian Organic Growers, a national association dedicated to leading communities towards organic values. In her experience, the most common reason people begin to buy organic is because they are looking for food free from chemical residues and inputs.

"We want organic because we think there's something wrong with conventional production," adds Goddard.

However, many people are of the opposite mindset. If they've been eating ▶



To eat organic or not to eat organic:
 Consumer Dana Moewes eats some organic products
 but is largely driven in her purchases by price.

the same fruit from the same grocery store for their entire life, and never get sick, they might not feel the need to make a change.

This effect is exacerbated by the fact that scientific studies do not strictly back claims that organic products are more nutritious. A 2012 meta-analysis out of Stanford analyzed 237 organic studies and found that overall, there was no nutritional difference between organic and conventional products.

“I think one of the things that the existence of the organic market ... has done may have been to make all agricultural producers a bit more cautious in terms of the methods they use on their farms, so it may very well have reduced the environmental footprint or reduced the residues in conventional production

so now the products seem less different,” Goddard explains.

However, McMahon says there were some flaws with the Stanford analysis, such as their inclusion of studies that were not done on humans. She also believes that health benefits are not something the organic industry promises – the only promise is that the products are free from chemical inputs.

“I don’t really think people are looking to organic because it gives them more vitamins and nutrients that way . . . I think that they’re thinking about those residues and that’s completely true,” she says.

Caring for the environment

The “free from” concept is linked to another major reason consumers choose

to buy organic products – concern for the environment.

“Other people strongly believe that because of [“free from”] practices and other requirements that producers have to fulfill, [organic production is] better for the environment,” says Sven Anders, an ALES economic researcher specializing in food marketing and the value-chain.

However, in order to meet the needs of an expanding organic consumer base, retailers are beginning to import more and more organic products from other countries. In 2009, only 38 per cent of organic products sold in Canada were actually produced or processed domestically.

As Anders explains, this creates a problem for the environmentally-conscious consumer. The amount of pollu-

PHOTOGRAPHY: ALEXANDRIA ELDRIDGE

tion involved in shipping a product, even if that product is organic, can “defeat that purpose” of caring for the environment.

Specialty organic products being imported to North America can present yet another problem beyond the environmental. In the case of quinoa, a grain grown in Bolivia and Peru that is the latest food fad in North America, the demand for it here has pushed up the prices so that what used to be a staple grain is now unaffordable for those that work to grow it.

And for the ethical consumer, who may be concerned about food supply in other parts of the world, the organic industry can present a serious conflict.

“That’s the interesting conundrum – you’ve got all these folks worrying about future food supply, but you start making all these heritage vegetables and you’re not going to have the production,” says Peter Boxall, an ALES environmental economist.

“One of the suggestions is we’re already out of land. There’s not much more land we can put into agricultural production, so we basically need to grow the amount of food you think you need given the land we have now [...] Organic is setting it back, it’s not moving it forward.”

A matter of taste

Yet many consumers may turn to organic food for much more selfish reasons – better taste.

There is a widespread perception among consumers that organic food will taste better and more flavourful. However, Wendy Wismer, an ALES researcher in the Department of Agricultural, Food & Nutritional Science, who specializes in sensory and consumer science, has done several studies on taste and organics and has found mixed results. A study that compared conventional and organic grape tomatoes, baby cut carrots, raisins, and dark chocolate of 178 consumers showed no preference either way.

“We found that for all of the products, there was no difference in preference. I think that’s largely because they are commercially-available products, so they’ve got to be liked a certain amount to be in the market place anyways. But much to our surprise, everyone didn’t choose the organic product all of the

time, or even significantly,” she says.

The interesting thing about their findings was that they collected demographic information, and even those people who purchased organic food regularly couldn’t taste the difference.

However, their study still clearly revealed that people had the idea that organic would taste better.

“We asked people, ‘which one did you think is organic and what was it about the sample that made you think it was organic?’ and it was always ‘it had better flavor, it had better taste,’” she

“We found for all of the products (in the study), there was no difference in (taste) preference.”

Wendy Wismer

explains. “There was this great belief that the organic one would taste better.”

“I think in part it’s a rejection of conventional food processing and production – a bit of a distrust in modern day agriculture and food processing, and this idea that if it’s organic it must be produced and handled in a much simpler way which will result in a better taste.”

“If you taste it, obviously if you

believe in it, you’ll say ‘that carrot is yummy’. But that’s very subjective,” Anders adds.

Organic: the way of the future?

Between conflicting claims of better health and confusion between organic and local products, switching to organic food can be a confusing choice for consumers. And then there’s the cost.

“As long as there’s a significant price premium, the products will appeal to people with lots of disposable income, probably more to highly-educated people than not, and the rest of the market is not going to adopt as long as there’s a significant price differential, so that may force the plateau,” Goddard says.

For Moewes, the price plays a big part in her decision not to buy organic food on a regular basis.

“I think it seems kind of ridiculous for it to be more money because it’s the same thing, just grown a little bit differently,” she says. “Everyone eats normal produce every day and you don’t hear of that many problems with it. I think it’s just an expensive way to buy your groceries.”

But bringing down the cost of organic food requires an increased supply, and importing destroys the environmental principles the industry was founded on. In the end, there’s no shortage of problems plaguing the organic industry, and no silver bullet in sight to solve them. ▲



Organic researchers: ALES researchers Peter Boxall, Ellen Goddard and Sven Anders have all conducted research on the market for organic products.



Building **COMM**



UNITY

How a poultry professor re-invented his class and got students to take ownership of their learning. For many, it's a life-changing experience.





It's show time: ALES professor Frank Robinson addresses the audience at the There's a Heifer in Your Tank show at Northlands's Expo Centre last April 4. Fifteen presentations that included songs and dances and videos, and even one comic book, were made by student groups in front of an audience of about 400.

Building community

To move students from being passive to active learners, Frank Robinson decided the first thing he needed to do was create a safe place



By Michel Proulx

Frank Robinson was having second thoughts. As a faculty member of the university's task force for the integration of teaching and research, the poultry researcher who had spent a lot of time thinking about teaching had agreed with its conclusion that students should not be doing research in entry-level courses. Reasons included the sheer number of students in those classes, the large gap in their skills sets and the amount of curriculum that had to be covered. "The more I thought about it, the more I thought that's kind of a cop-out," he says. "I thought we could do it. It's all in the question you ask."

That was in 2003. Robinson had been teaching Animal Science 200, a cornerstone course, for nine years in the traditional way. After his experience with

the task force, he decided his students would conduct some sort of inquiry-based work and communicate their findings. He divided the students in his class in small groups of three to five, gave them a question to answer, told them to have at least 10 scientific facts in their answer, and encouraged them to be creative. "We had the very first one and one group's question was, 'why don't sheep shrink when it rains?' (They used) humour with these two guys who were wearing these wool sweaters that had shrunk and so they were funny. After that, the cat was out of the bag. All of a sudden, it became OK to do something different."

Thus began Heifer in Your Tank, which evolved from students making a power point presentation in front of the class to a full, blown-out show with vid-

eos shown, and skits and songs performed in front of an audience of hundreds.

What became apparent to Robinson early on was that the process he was using to get the students to fulfill the requirement, was leading to building a true community, a place where the students felt safe and where they owned their learning. "The number one value for me is student engagement," he explains. "When you look at the hierarchy of needs of people, one of them is to belong and feel part of a group. We try and fulfill that objective. That is the one thing that I think students might say is the greatest advantage. They now feel connected where they can have open discussions, where they can debate things in a safe environment as opposed to just being a passive learner."

For Martin Zuidhof, who co-teaches



I hated my first year and a half at university and in all honesty, I skipped a lot. I was on the verge of giving up on a degree all together when I enrolled in AnSci200. That is where I like to say my real university life started. I didn't grow up on a farm but since AnSci200, I have joined a poultry club, visited farms, spoken with producers and now feel comfortable conversing with people in the agriculture industry.

By giving me the opportunity and support to achieve something great, the AnSci200 team motivated me to step out of my university slump and get involved. I now enjoy going to university every day because I am part of a community whose roots stem from AnSci200. I hope that one day too I can influence someone's life the way the AnSci200 team influenced mine because I don't know where I'd be without them.

Erinn Backer

the class with Robinson, the process by which the students conduct the research to answer the question and then come up with a creative way to communicate their findings, is everything. "I think when the students are creating knowledge as opposed to absorbing it and regurgitating it, that's when they really discover," he says. "When you give creative license to people, they thrive. It's such a different way to learn and it's fun and you get to know people. It's a completely different university experience because they get connected to other people."

That sense of connection and of belonging has made an extraordinary difference in the lives of many students. When Josh Perryman entered the class in fall 2012, a classmate casually mentioned to him that there was a 'huge presentation in front of hundreds of

people' as part of the class. Perryman was terrified. "I spent the next weeks coming to class hyperventilating and with heart palpitations at the thought of presenting," he says. But he stuck with it and as the semester went on, he got to know more students through the forced

"I think when the students are creating knowledge ... that's when they really discover. When you give creative license to people, they thrive."

Martin Zuidhof

interaction. "Before I knew what to do with myself, people were talking to me and sharing notes." He felt connected, part of a community and that, he says, changed everything. The shy, reserved student even joined a student club and is now a learning coach in the class, helping other students with whatever help they need.

At the most recent Heifer in Your Tank last April, in front of about 400 people at the Edmonton's Northlands Expo Centre, Perryman played a recurring role in a sketch that was interspersed throughout the evening, in between other presentations.

"The kid is amazing," says Robinson. "He started realizing his role in making those connections and taking ownership of his learning. That's what it's all about." 🏠

Better learning through fun

One group's experience of Heifer in Your Tank



By Elizabeth Ng

*When I'm in the barn,
Old technology hurts my yarn.
After my shot,
I'm wrapped in a net to protect what I've got (whaaat?)
This is how it goes,
28 days and I'm back to 'fro
Here comes the shear, sheeps don't be nervous
No knives, no pain, and I still get serviced*

White fluff is floating all over the stage as four students, dressed as sheep, groove to their rendition of "I'm Woolly and I Shed It." As the song enters its final chorus, two of the sheep pull off their fluffy vests with a flourish, prompting cheers from the audience.

It can only be Heifer in Your Tank, the end-of-term show put on by the students of the Animal Science 200 class taught by Frank Robinson and Martin Zuidhof in which small groups of students answer a quirky question about agriculture in the most entertaining way

they see fit.

Twenty-one year-old Lane Hudson didn't know what he was in for when he signed up for the course. "I just made a schedule that fit with courses I needed. When people saw I was taking Animal Science 200, they all said, 'Oh, you're going to love it.'"

Hudson and his friend and fellow classmate Andy Yaworski started talking about what they could do so when they heard the list of quirky questions for this project. "We started talking about funny stuff we'd seen on YouTube, like the Evolution of Dance – and we thought, well, we could do that. If he does that

with songs from different eras, we could do that with sheep shearing and the evolution of technology."

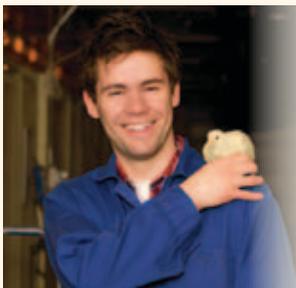
The Evolution of Dance was a viral video sensation, featuring a comedian who would dance his way through several decades' worth of music in six minutes. Lane and Andy saw a perfect fit. "We wanted to keep it fun and keep people interested in it, and we thought we could incorporate a few different songs and dances. But I don't have any kind of dance or musical background."

Enter 21 year-old Melissa Sirman. She has some high school theatre experience, but she didn't expect it to come in handy for an animal science course. "For me, it was a really good surprise. I like that sort of thing."

Melissa and three other students jumped on board after Lane and Andy pitched their presentation idea in front of the class.

"I didn't know anybody other than Andy to begin with, and I know sometimes it's hard working in groups, but I think in university everyone's there to do a good job," says Hudson. "I figured if we all had a good attitude, our group was going to do well. From the beginning, we wanted to know each other's strengths. Four of us picked to work on songs and one other decided to work on choreography, but everyone pitched in with everything."

"We probably spent hundreds of hours practicing," remembers Sirman. "Our group was really good. We couldn't let it take over our lives because we all had other courses, but we'd meet once a week, go over lyrics and practice the dances. We wanted to get the songs right down to the last syllable. Everyone was super good at getting things done and meeting deadlines."



Coming into AnSci200, I had no idea what I was getting myself into. Graduate studies were the furthest thing from my mind and now I'm in the second year of my grad studies and couldn't be more pleased. The teaching philosophy employed in AnSci200 allowed me to get engaged and interested in agriculture. After the HIYT project, I thought, 'Wow, this can be fun too!' The whole HIYT experience really is about developing youth to be engaged, passionate advocates for agriculture. As future leaders, we all need to contribute to a successful society. HIYT is doing its part by helping to provide the tools and resources required to feed the world.

Airell Deslauriers

As the trust among classmates grew, so did their shared bond.

“When we were doing research we came across this kind of sheep called the Dorper sheep,” says Sirman. “We didn’t know anything about it, but we thought the name sounded funny, so we started to call anyone who screwed up a dance move or lyric ‘A Dorper’. Or we’d say, ‘Don’t Dorpe it up.’”

The students had become good friends by the time it came for their first run-through in front of the class.

“It was different doing it in a classroom because we had only practiced in an open space. We thought, oh man, this desk and chair are bolted to the floor, there’s maybe five feet laterally that we can move in. But we got it set up and looked around and made the best of it. It was probably funnier that we were all tripping over each other,” says Hudson.

“It was difficult busting out sick 80s dance moves in a classroom for the final evaluation,” laughs Sirman. “But once we got onstage (at Heifer in Your Tank),

it was a lot different. There were microphones and a smoke machine, and the crowd was into it.”

Hudson thinks the group’s enthusiasm helped the audience—and their

“When it comes to writing a final exam, and you’ve seen a hilarious dance about sheep shearing, it’s easier to recall.”

Lane Hudson

professors—have a good time too. “We ended up with a grade of 100 per cent. It was really fun, and I think the teachers notice who’s having fun and who’s having a great experience.”

Sirman thinks she learned more because it engaged her. “Even my mom,

who came to watch, said she learned things. And I have a good general idea about lots of things from the other presentations, too.”

“This was a really hands-on,” agrees Hudson. “And when it comes to writing a final exam, and you’ve seen a hilarious dance about sheep shearing, it’s easier to recall what you’ve seen than when you’ve just read in a textbook. When you enjoy what you’re learning it’s just a positive experience.”

Hudson says for him, the benefits of Heifer in Your Tank go beyond the classroom. “Any experience students can get talking or presenting in front of people is good. Once you’ve performed in front of 400 people, and you have to present a lab report for 25 per cent of your grade, it’s no big deal.

“I’d definitely recommend it to anyone. Even if you can fit it in as a free elective. You’ll make tons of friends and I think some of them will be life long ones, and getting to know (instructors) Martin Zuidof and Frank Robinson was also great. You feel like you’re not just another face in the crowd anymore.

“It’s such a community-building thing.” ▲

Don’t Dorpe it up: Presentations at the April 4 *There’s a Heifer in Your Tank* show included, among others, a sheep shearing song and dance performed on stage and a music video about how cows produce milk. An appreciative audience of about 400 was on hand.



PEER REVIEW



Call of the Land:
Ev McCrimmon, '51
BSc (Ag) records a
radio show, flanked by
assistants Marilyn Sears
and Stuart Wilton.

CALLING OUT TO ALBERTA FARMERS

Alumnus started farm broadcast
that is celebrating its 60th year

By Michel Proulx

Everett McCrimmon '51 BSc (Ag) entered the office on the first day of his new job for the Department of Agriculture and his heart sank. "It was March 16 (1953) and we had to be on the air April 1 and we had nothing! There was a phone on the floor. I picked it up and it was connected. That was it!" he recalls.

It was an inauspicious beginning, to say the least, but McCrimmon had landed his dream job. He was supervisor of radio and information and his mandate was to produce a daily 10-minute radio program for farmers entitled *Call of the Land*.

McCrimmon was a mere two years out of university where he says, with a chuckle, that he graduated with a degree in agriculture but majored in

extra-curricular activities. Indeed, he was involved in the yearbook, a literary magazine, the mixed chorus, the agricultural student club and the radio society. He hosted an hour-long Sunday afternoon show on CKUA, which had a studio on campus, and provided the colour commentary for the Golden Bears' hockey and basketball games.

"Let me tell you, it was a basic set-up," explains McCrimmon about the Bears' broadcasts. "Jim Redmond provided the play-by-play and he and I had a little box that we connected to a telephone line, right in the bleachers. We had no way of hearing (the control room at the radio station) so we'd coordinate our watches and we'd say, 'at 10 seconds after the hour, start talking.'"

Every time, McCrimmon would go to

the phone line and ask the radio station if it could hear Redmond and himself. One night, the dreaded answer came. "No," said the voice on the other end. "I went back to check the wiring and meantime, Jim kept on talking. It was basic!" says McCrimmon, chuckling at the memory.

He enjoyed broadcasting so much that he had hoped to find a farm broadcasting job upon graduation but there weren't any, he says. He applied and was offered a position with the British Colonial Service, which would have meant a five-year commitment. But the offer came after he already accepted a job teaching horticulture and botany at the Vermillion School of Agriculture where, as fate would have it, the

... continued on page 30

PHOTO COURTESY OF ALBERTA AGRICULTURE AND RURAL DEVELOPMENT



AMANDA KING (A REGAL FRATERNITY)



PHOTOGRAPHY: BROOKS FOTOGRAFIE

HECOL ALUM MAKES IT IN NYC

By Elizabeth Ng

Midnight-blue velvets, shimmering greens and rich gold brocades brought the simmering allure of Asia to the Big Apple in Corinne Long's show during New York Fashion Week 2013.

The '09 BSc (HEcol) grad is on her way to establishing Corinne Monique, her own fashion line. Long was asked to show her Fall 2013 collection at Rogues Gallery Presents, which showcases new designers during New York Fashion Week. She was the only Canadian invited to take part and her designs closed the show.

"It was really exciting and really unexpected," says Long on the phone from Toronto, where she now lives. "After the show I had a lot of press attention, mostly from the States. Orders have come from small individual clients."

"It's a struggle to get my name out there. You have to really love it. You have to do what you have to do to keep paying bills while getting started in fashion design. I do waitressing, I do catering in order to keep working in fashion. You have to keep doing it and keep going at it."

Long's commitment is paying off. In May, she was invited to show her clothes at Tobago Fashion Week, an event attended by magazines such as *Vanity Fair* and *In Touch*. She's also talking to a major luxury retailer about carrying Corinne Monique and working on her Spring-Summer 2014 line. She's considering whether to show the clothes during Toronto Fashion Week or as part of a fashion art installation.

Long credits the Human Ecology program for giving her a broad spectrum approach to fashion, especially in textile science, design and history. After earning her degree, she spent a year in Paris, sharpening her haute couture techniques and design skills at the Paris American Academy.

"I've always wanted to have my own line, but I knew I had to take baby steps because there's so much to learn about the fashion business, like the production side of things. There's always so much more to know and always something to be learned."

"But if you had told me four years ago that I would be here, I wouldn't have thought that it was possible. I'd be trying but didn't think I'd get here so fast!" 🏠

If I can make it here:
Corinne Long, '09 BSc (HEcol), backstage during New York Fashion Week.



PHOTOGRAPHY: BRIAN BRANCH PRICE

PEER REVIEW

CALLING OUT TO ALBERTA FARMERS
continued from page 28

assistant deputy minister of the Department of Agriculture, Bob Putnam, came a couple of years later and asked McCrimmon if he was interested in hosting a radio broadcast to provide department information to farmers.

"I think he was desperate," says McCrimmon, with a smile. "He had bought air time starting April 1 and we were already at the end of February."

He says the rationale for creating the show came from the minister who had gotten feedback from farmers that they weren't getting enough information from the department. He vowed to rectify the situation.

So on March 16, McCrimmon walked into the empty office and got to work. Using a portable tape recorder, he worked with his assistant, Stuart Wilton, and together, they put together 10-minute broadcasts. They would record two shows at a time on audio tape and send them out by air mail express to five different stations across the province.

Originally, they taped the show at the CKUA station in downtown Edmonton but after three months, they had the necessary equipment to do the entire broadcast in their office, which was close to the legislature.

"We interviewed people at the university, the provincial government, at experimental farms and farmers in different areas," says McCrimmon, who traveled extensively across the province. "Typically, if we were going into an area, we'd get in touch with the district agriculturist and we'd say, 'who have you got in your district that would be interesting to interview?' Normally, they would come through for us."

The broadcasts aired Monday to Friday, during the noon hour, on the different radio stations across the province.

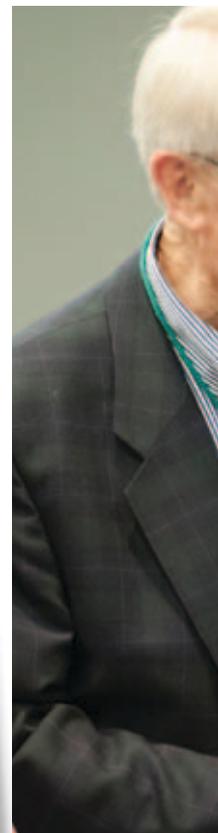
"We did a survey through the district agriculturalists and we had a significant audience," he says. "I don't remember the number but we were satisfied that it was a good audience."

McCrimmon did Call of the Land for two and a half years before moving on to a job in the legislature and eventually a career in public relations that took him to Saskatchewan and Toronto, where he now lives close to three of his four children. 🏡

BAR NONE

Alumni Dinner

November 17, 2012



ALL PHOTOGRAPHY: ERIC PHOTOGRAPHY



1 Cy McAndrews, '50 BSc (Ag)
2 Jake Ens, '55 BSc (Ag) and Animal Health student Tara Landsbergen, the recipient of the Jake and Marilyn Ens Bar None Entrance Leadership Scholarship
3 ALES friend Val Blanch

4 Ken and Bettie Ditzler Bar None Scholarship recipients Ian Stolle, Hannah Cook, Sofia Alani and Nathan Zilinski with Bettie's brother, Ken Davies, '56 BSc (Ag)
5 John Bocoock, '57 BSc (Ag) signs copies of his book, Preserving

the Future: The story behind the St. Albert Research Station
6 Animal Science student Talon Johnson, second from left, recipient of the Dr. Karl Iveson Bar None Undergraduate Leadership Scholarship
7 Dinner is served

8 Agriculture student Marika Wagner, recipient of the Cy and Joan McAndrews Bar None Award
9 ENCS student Brent Buechler, recipient of the Norman and Helen Giffen Bar None Undergraduate Leadership Award Winner



Trailblazer:
Wendy Sanford poses with the book culinary legend Madame Benoit dedicated to her for introducing her to the microwave oven.

INTRODUCING THE MICROWAVE OVEN

By Aaron Yeo

It was 1969 when Wendy Sanford, '56 BSc (HEc), started promoting what had been until then a little known product: the microwave oven.

Originally developed following World War II, the microwave was a by-product of radar. There was little interest in it until companies like Corning got involved. As Sanford was promoting Corning Cookware, which was ideal for microwave cooking, it was natural for the company to start promoting the appliance. It became Sanford's job to teach people how to use it, not fear it.

"I think when microwave ovens came in, people tended to be very resistant to change. It took us quite a while to get them to accept and learn how to use them," she explains. Even today, Sanford says people underestimate the role of the microwave oven. She continues to put hers to good use, sometimes even just for small steps in the recipe — "it doesn't have to do all the work."

Her influence reached far and wide as she introduced the microwave oven to Canadian culinary legend Madame Benoit, who later dedicated a cookbook to Sanford.

Sanford remembers here time at the

U of A with fondness.

"It just seemed to be like my backyard when I grew up," Sanford says, explaining that both her parents had ties with their alma mater. She was more than familiar with the campus by the time she was old enough to attend.

"It was our good fortune to be in a small faculty, so we got to know our classmates, and that was very important," she says. "It was a wonderful foundation and you could use your own ability to be creative and do any sort of job you wanted to."

And Sanford is definitely a prime example of that. She was Corning's manager of consumer relations and marketing services and their spokesperson, and after a successful and rewarding 33 years, she retired.

"Recycled," says the energetic Sanford with a smile.

She remains very involved in her community, especially as a volunteer with the Toronto Symphony Orchestra, helping coordinate programs with music students. "Music has always been an important part of my life," she explains, mentioning she was also in the U of A orchestra. 🌱

IN MEMORIAM

The Faculty of ALES notes with regret the passing of its following alumni:

Jean Miller Campbell (Palethorpe), '39 BSc (HEc), of London, ON, in June 2012

Alexander Macdonald Burka, '41 BSc (Ag), of Aurora, AB, in December 2012

Isabel Ann Wynne (Howson), '41 BSc (HEc), of Mile Ranch, BC, in August 2012

Helen Catherine Jacobson, '43, BSc (HEc), of Calgary, AB, in December 2012

Ida Gertrude Hair (Warke), '47 BSc (HEc), of Calgary, AB, in December 2012

Sonia Allore (Woytkiw), '49 BSc (HEc), '55 BEd, of Edmonton, AB, in June 2012

Rae Marie Brooks, '49 BSc (HEc), in March 2012

Forest Nephi Sherwood, '49 BSc (Ag), of Edmonton, AB, in December 2012

Charles Herbert Harvie, '50 BSc (Ag), of Calgary, AB, in April 2012

Albert Frederick Rayment, '50 BSc (Ag), of Leduc, AB, in February 2013

Leora McNeill (Frizell), '52 BSc (HEc) and Dip (Ed), of Kamloops, BC, in September 2012

Frank James Kisko, '53 BSc (Ag) and '69 BEd (VocEd), of Edmonton, AB, in January 2013

Eva Mary McCarthy (Jack), '54 BSc (HEc), of Camrose, AB, in July 2012

Joy Arlene Zeddell, '62 BSc (HEc), of Ann Arbor, MI, in May 2012

Thomas H. Ross, '72 BSc (Ag), of New Norway, AB, in October 2012

Allen H. Wilson, '73 BSc (Ag), of Gleichen, AB, in August 2012

Clarence David Jones, '74 BSc (Ag), of De Winton, AB, in October 2012

Robert Glen Cooper, '76 BSc (Forest), of White Rock, BC, in July 2012

Brian Douglas Mallett, '85 BSc (AgEng), of Revelstoke, BC, in May 2012

Michael David Manz, '92 BSc (Forest), of Edmonton, AB, in July 2012

Robert Patrick Annett, '93 BSc (HEc), of Edmonton, AB, in September 2012

RESEARCHER SHOWED HEALTHY BENEFITS OF CANOLA

By Elizabeth Ng

The fields of yellow canola flowers that bloom every summer across western Canada owe a lot to Dr. Bruce E. McDonald '58 BSc (Ag).



The renowned canola oil researcher and professor died at the age of 78 on April 27, 2012 in Winnipeg. It was an unexpected event – he was looking forward to seeing old U of A classmates at their bi-annual reunion this coming September.

McDonald grew up on his family's farm in Chailey, Alberta. He won a T. Eaton Agricultural Scholarship to the U of A, which paid for all his tuition, housing and books. After graduating, he earned a MSc in Nutrition in 1960 before pursuing a PhD at the University of Wisconsin, Madison, where he met his wife Judith.

He worked most of his career at the University of Manitoba, where he taught and conducted research in the Faculty of Human Ecology for 38 years, serving as dean from 1977 to 1985. He won numerous awards and had a



PHOTOGRAPHY: SUPPLIED BY MCDONALD FAMILY

Impact: Bruce McDonald '58 BSc (Ag) made significant contributions to our understanding of canola. He believed research should benefit society.

scholarship established in his name upon his retirement in 1998.

The bulk of his research was on the nutritional benefits of canola oil. His work showed that canola oil is beneficial in decreasing the incidence of heart disease. His scholarly writings changed the way canola oil was viewed, paving the way to make canola an important Canadian crop.

"Dad often talked of all he learnt at the University of Alberta and the foundations set there that launched him on his long and meaningful road in academics. He never forgot his Albertan roots and taught us that wherever we go in life, it is our roots that make us who we are," says his daughter Anne. 🏡

REMEMBERING SID LORE

By Ron McCullough '54 BSc (Ag)

Edmonton's large Riverbend Community Centre was crowded with people Saturday afternoon April 27, 2013, gathered to remember and pay respects to Sid Lore, '52 BSc (Ag).

Many family members, former Alberta agriculture public servants, agrologists and farm and city folk filled the large hall to capacity to reminisce, recant stories of Sid and his extended family, and visit with old friends and former associates.

The memorial was informal, as Sid would certainly have preferred. As the afternoon wore on, the depth and breadth of the affection for, and influence of Sid, was expressed in many ways.

Sid dealt with farmers and ranchers in every corner of Alberta, and was universally liked and respected by all. The success and influence of Alberta's Re-

cord of Performance program for beef cattle must surely credit Sid Lore as the implementer of the program inspired by Faculty of Agriculture dean, Roy Berg.

Sid's dedication to his family, to the way he carried out his professional duties and his genuine love for all things rural, became apparent to the many who sat down to view the free running power point pictures and listened to the many informative, often amusing anecdotes of his life.

Always amiable and possessing the special 'lore' of storytelling, Sid was nevertheless no shrinking violet to voice his opinion, even if it differed from that of the masses or his minister.

So Sid has now journeyed to that great ranch in the sky, but his memory will stay fresh in our memories for our lifetimes! 🏡



A love of all things rural:

Sid Lore is credited with the success of Alberta's Record of Performance program for beef cattle

PHOTOGRAPHY: BECKY LORE

Moving forward

By Lisa Kinasewich, '11 BSc (ENCS)



Taking care of the land: Lisa Kinasewich '11 BSc (ENCS) found her niche in the job market, working for an environmental consulting company.

While attending university, I had the mindset that I was just working towards graduation. I didn't put too much thought into the life I would create for myself outside of school. Towards my last semester, the realization that I would be closing this chapter of my life began to hit home.

I did not have a full course load in my final semester so I decided to try and find part-time work to gain more experience. With help from one of my professors, I was offered a temporary position at Navus Environmental Inc. based out of Edmonton. Navus is an environmental consulting firm that provides services to industries of all kinds. The work was directly related to my degree and I en-

joyed getting a taste of what a career in this field could look like.

After graduation, I was looking for full-time employment. I enjoyed working at Navus and my hard work paid off as they offered me a permanent position as an environmental technician. Due to commitments at home, I could not be away for long periods of time and field work was a requirement for the position. Navus was accommodating and offered me a new position as Reporting Coordinator for the company. I was now responsible for reporting templates, data management and report writing; however, I was still able to go into the field and enjoy nature as projects arose. One project in particular was a vegetation as-

essment in a fen, north of Fort McMurray. Access was limited and the only way to the sites was by helicopter. I spent 10 days in a beautiful part of Alberta, flying around in a helicopter and looking at rare plants that we do not get to see around Edmonton. It was an amazing experience.

The rest of the year consisted of furthering my knowledge in my field and continuing to grow as a young professional. I found a place that I love to work and am happy that I chose a degree that allows me to work in the environmental field. I still miss life as a university student but good things sometimes have to come to an end. It just means that we can create even better things moving forward. 🌱

SAVE DATE

Alumni Weekend September 27-28, 2013



Devonian Botanic Garden Tour and Lunch

Friday, September 27

11:00 a.m. to 3:00 p.m.

\$25/person (includes lunch and bus transportation)

Bus departs from Agriculture-Forestry Building at 11:00 a.m.



Human Ecology Clothing & Textiles Collection Tour

Friday, September 27

1:30 to 3:00 p.m.

(tours depart every half hour)
Human Ecology Building



Alumni Brunch

Saturday, September 28

9:00 a.m.

Sutton Place Hotel



Forestry Industry Lecture Series

Ken Raffa

Professor, Department of

Entomology

University of Wisconsin – Madison

November 7, 2013

3:00 p.m.

Myer Horowitz Theatre



Bentley Lecture in Sustainable Agriculture

Philip G. Pardey

Professor, Dept. of Applied Economics

Director, Center for International

Science and Technology Practice and

Policy, University of Minnesota

Nov. 21, 2013

Time and location to be determined



Bar None Alumni Dinner

November 16, 2013

5:30 p.m.

Shaw Conference Centre

GREENHOUSE

2-14 Agriculture/Forestry Centre
University of Alberta
Edmonton, AB T6G 2P5

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