

College of Agricultural Sciences and Natural Resources

# Experiences range from geese to fires

## Summer leisure time is not in the vocabulary of many

College of Agricultural Sciences and Natural Resources students. Instead they work summer internships and participate in study travel trips to gain career experience.

Doing so can pave the path toward full-time jobs.

Trevor Schmidt believes his summer internships with USDA-Wildlife Services will help achieve his goal of becoming a game warden.

Schmidt, a May 2007 CASNR graduate in fisheries and wildlife, twice interned at Arrowwood National Wildlife Refuge in North Dakota, helping landowners control crop damage from Canada geese.

"It was a wonderful experience," Schmidt said, adding the internships "gave me a big step up" in making contacts toward his goal.

In addition, during his senior year Schmidt worked for Wildlife Services in Lincoln, helping study avian influenza in waterfowl and shore birds. He also became a police officer to gain experience in law enforcement, which he says will help him get closer to his goal of becoming a game warden.

Kelsi Niederklein, a 2004 CASNR fisheries and wildlife graduate from Fairbury, worked in the rainwater basin south of Clay Center during summer 2003 on an Undergraduate Creative Activities and Research Experiences (UCARE) research activity.

Niederklein assisted another student with graduate research on the abundance of predators and nest success in wetland areas. She said the project helped her get to where she is at today — a wildlife biologist who works under a partnership involving the Nebraska Game and Parks Commission, Pheasants Forever and the Natural Resources Conservation Service. Her responsibilities include helping private landowners enhance their properties for wildlife habitat.

"I was able to put that research on my resume," Niederklein said. "Not a lot of undergraduates had research (experience) and anything like that helps."

Jill Brown, CASNR career specialist and herself a 2003 CASNR graduate, said students seem eager to pursue outside learning opportunities during the summer.

"Internships are a wonderful way for students to gain real-world experience, network with

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Trevor Schmidt used non-lethal management options such as a propane cannon to help landowners control crop damage from Canada geese.

Kelsi Niederklein worked in the rainwater basin south of Clay Center on a UNL research activity.

Adam Rupe spent three summers fighting fires with the Bureau of Land Management in Rock Springs, Wyo.

Trung Nguyen participated in a study tour to Mexico to study agriculture in a different climate.

Scott Harter tracked mountain lions using global positioning systems during a 2007 research project in Canada.



Trevor Schmidt

Trevor Schmidt



Kelsi Niederklein

Tim Hermansen



Adam Rupe

Mark Frickel



Trung Nguyen

Courtesy photo



Scott Harter

Courtesy photo



## The Dean Says:

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Involved.

That's the word that comes quickly to my mind in reading the stories in this issue of *Class Acts*.

"Committed" follows almost immediately, and "wonderful" isn't far behind.

Plus, I'd have to say, the word "wow" often escapes my lips as I read, hear and consider all that our bright, talented, enthusiastic students do.

While I admit to certifiable prejudice on this topic, I can't help but say again what I've said so often before: We have such an exceptional group of students, faculty and staff in the College of Agricultural Sciences and Natural Resources at the University of Nebraska–Lincoln.

What a privilege it is to work with these people!

Our students are so wonderfully involved in so many activities and programs that provide them additional knowledge, experience and opportunities to expand their talents, confidence and leadership abilities while in college.

To say nothing of the terrific memories they're making — for themselves and for others.

(Actually, it's worth saying a lot about such memories. Gaining and keeping them also is pretty wonderful.)

The way our students go about gaining all they can from all they're involved in, the ideas and insights and experiences they gain, the dedication they show, illustrates the fine commitment they bring to all they do.

There is a great deal of involvement and commitment on the other side of their coin, too, that contributes to their growth. Professors committed to excellence in teaching, to imparting all they can to best prepare students for the careers and lives they'll pursue.

I'm happy to say faculty and staff dedicated to helping students travel a road that

will lead them to success in their chosen fields, and in their chosen lives, is a hallmark of our college.

Our students gain from the commitment of companies and individuals — some of whom are former CASNR grads — who help foster student learning through scholarships, through campus visits and hosting student workplace visits, and through internships.



Steve Waller

Sometimes internships turn into jobs after graduation, as companies decide they really like the skills and enthusiasm a student brings the company, and students decide this indeed is the work they want to do upon graduation.

Other opportunities that enrich our students' lives abound on this campus. It makes my day each time I see students grasping those opportunities and wringing all they can from them — athletic opportunities, student groups, membership on judging teams, travel and study abroad — the list is long and full and wonderful.

Each contributes to the expansion of student knowledge and experience, and adds its own piece of valuable education for life.

Steve Waller  
Dean, College of Agricultural Sciences and Natural Resources

# Senior melds military with academics

Ryan Koopmans of Omaha is leading a busier life than most college students.

But then, he's a staff sergeant in the U.S. Army Reserve. And a veterinary science senior in the College of Agricultural Sciences and Natural Resources. And a very active community volunteer and soccer coach. All the while he maintains nearly a perfect academic record.

Koopmans is a seven-year member of the Army Reserve, having joined right out of high school.

"I really enjoy it. I take a lot of pride in it," he said.

Koopmans spent nearly a year in Kuwait during Operation Enduring Freedom in 2004 and 2005, issuing ammunition to U.S. military personnel. He currently is a squad leader and administers physical training tests for the 295th Ordnance Co. in Lincoln. He has received two Army Achievement Medals.

Other than serving in Kuwait, Koopmans finds little difficulty melding military service with academics. He serves one weekend a month and two weeks a year working for the Army Reserve. He enjoys it so much he recently re-enlisted and will serve another six years.

"The military has really pushed me along as far as school and life," he said. "It's given me opportunities I would not have otherwise."

A career in the military is a possibility, but Koopmans currently is focused on



Ryan Koopmans, a veterinary science senior from Omaha, maintains a nearly perfect academic record while serving as a sergeant in the U.S. Army Reserve and being active in the community.

starting this fall in the new Professional Program in Veterinary Medicine offered by Iowa State University and the University of Nebraska-Lincoln.

"I really enjoyed science and I like working with animals," he said.

Koopmans volunteers at the Millard Veterinary Clinic, has served as event manager for the American Cancer Society Relay for Life and has been a team member for the Leukemia and Lymphoma Society's Team in Training. He also is assistant boys soccer coach for the Arsenal Soccer Club in Omaha.

At UNL, Koopmans received the 2008 Undergraduate Achievement Award from the Nebraska Alumni Association. He has a 3.844 GPA, is on the dean's list, and is a Pamela K. Breci and Holling Memorial Scholar.

—Lori McGinnis

## geese to fires

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employers and catapult themselves into the job market," Brown said.

Scott Harter, a fisheries and wildlife senior from Elm Creek, participated in a University of Alberta program last summer that had him following mountain lions wearing GPS collars. Harter and other participants in the research project used GPS and telemetry to track the animals' predatory habits.

"It gave me a better appreciation for field work and a better understanding of how difficult it is to get good data," he said.

Adam Rupe, a fisheries and wildlife senior from Valentine, spent the past three summers fighting wildfires with the U.S. Department of Interior's Bureau of Land Management. Last summer in Rock Springs, Wyo., Rupe found himself fighting numerous forest fires. He had only one day off in July.

"We definitely stayed real busy," he said.

Rupe said the experience helped him understand how federal agencies work, as well as develop leadership and management skills.

Trung Nguyen participated in a Department of Plant Pathology study tour to Mexico last summer to study agriculture in a different climate.

The plant protection sciences junior from Lincoln said the trip helped him realize how research can help improve global agricultural production.

"There are limitless possibilities in the future to improve all aspects of agriculture," Nguyen said. "This trip was a once in a lifetime thing for most of us because we might not have a chance to do something like this again once we get done with college."

—Lori McGinnis

## Calendar of Events

### College of Agricultural Sciences and Natural Resources

#### May

9 Salute to Graduates

10 Senior Send-off; Commencement

#### June

5, 10, 14,

16, 20, 24 New Student Enrollment

#### July

8, 9, 11 New Student Enrollment

Check out CASNR's Web site at [www.casnr.unl.edu](http://www.casnr.unl.edu)

# UNL tractor test lab reputation opens

Growing up on a Clarkson farm, Grant Janousek built plastic interlocking brick tractors and dreamed of working for Deere & Co.

Last summer the agricultural engineering senior interned for Deere. Like others in the College of Agricultural Sciences and Natural Resources, he credits experience working in the Nebraska Tractor Test Laboratory with helping him do so.

In his internship Janousek did component testing to reduce diesel engine exhaust emissions. He conducted meetings and made presentations, relying less on his supervisors than did the other interns. Janousek credits that to the tractor test lab and working one-on-one with CASNR faculty.

“You can’t say agricultural engineering anywhere in the country without running into the Nebraska tractor test lab,” said lab director Roger Hoy, a former Deere staff engineer. “The university has the prestige of having this lab.”

Hoy added students who work in the lab “get the benefit of a more complete education. They’re more prepared to hit the ground running.”

Experience in UNL’s tractor test lab, a part of the Department of Biological Systems Engineering, also led to internships for Adam Flaugh, Tim Mattson, Mark Tieszen and Jason Podany.

Flaugh, a mechanized systems management senior, last summer was a harvest support intern for Case New Holland. He did troubleshooting for 30 combines harvesting wheat from Texas to within 10 miles of Canada.

While the Madison native had worked for area farmers, he did not grow up on a farm.

“You were expected to have a thorough understanding of electrical, mechanical and hydraulic systems,” Flaugh said. “So much of that came from the tractor test lab.”

This summer Flaugh has an internship with Caterpillar in Peoria, Ill. He’ll diagnose problems to improve product design.



CASNR students Tim Mattson, left, and Grant Janousek help test new tractors with the test car that is part of the Nebraska Tractor Test Laboratory, the official tractor testing station for the United States.



Roger Hoy, director of the Nebraska Tractor Test Laboratory, and Mark Tieszen work at the control room of the test car.



He plans to earn his master’s degree in agricultural engineering.

After Mattson contacted Case for a possible internship, the mechanized systems management senior from Chapman had an interview offer within a week.

Mattson spent about four weeks in Maryland, North Dakota and South Dakota testing new technologies on current equipment harvesting wheat and field peas.

“Get as involved as you can in the lab and learn as much as you can,” Mattson

advises prospective student employees. “It offers great contacts for the major farm companies.”

A tour of the tractor test lab while visiting his sister swayed Tieszen’s decision to attend UNL. The mechanical engineering senior from Canistota, S.D., field tested prototypes of planters and hay balers during last summer’s AGCO internship. After graduation Tieszen will begin work at Deere in Waterloo, Iowa, where he will design tractor transmissions and axles.

# doors wide



Nebraska Tractor Test Laboratory, and CASNR student control booth to analyze the data collected in the testing of

Brett Hampton



Experience at the Nebraska Tractor Test Laboratory, which tests about 25 tractors annually, is a big plus for students and graduates seeking internships and jobs.

Brett Hampton

Podany is a 2005 agricultural engineering graduate and currently a hydraulic development engineer for Caterpillar in Peoria, Ill. He is building on experience acquired as an intern: develop hydraulic systems to enhance a machine's efficiency, productivity and control.

"The tractor test lab gave me the hands-on experience and knowledge in a guided atmosphere to understand the engineering behind the machines," said

## Extra hands pay off at deer check station

Last fall Tim Nieveen gave up the first morning of deer rifle season to do checks for other hunters in southeast Nebraska.

The avid hunter and fisheries and wildlife junior from Adams didn't mind. He and Renee Bowers, waterfowl hunter and water sciences sophomore from Arnold, lent a hand to Matt Steffl. Steffl is a wildlife biologist for the Nebraska Game and Parks Commission; at a Beatrice check station the students helped him process hunter paperwork and checked deer teeth to determine their ages, which helps wildlife officials track biological information about the current harvest.

Bowers and Nieveen, members of the College of Agricultural Sciences and Natural Resources' Wildlife Club, volunteered to help check deer on Nov. 11.

Opening day was busy, with 150 deer checked. Since Steffl had extra help, he was able to observe closely for any unusual situations. When things "didn't seem right" with one group of hunters, Steffl said he detailed notes and turned them over to a conservation officer.

The next day the officer interviewed the hunting party members. He discovered multiple violations involving hunting without a permit, borrowing permits, lending permits and overbagging. The party members were charged with the offenses and fined a total of \$3,895, Steffl said. In addition, Game and Parks seized meat from four of the party's five deer.

"Game laws are set up for the betterment of the sport and proper management of wildlife," Bowers said.

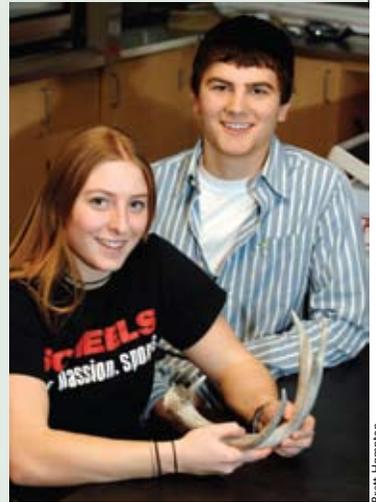
Steffl said the students' volunteering helped them make contacts in their fields.

"Competition for natural resources jobs is tough, and you never know when something like this will provide the student with the right contacts to secure a future job or the Nebraska Game and Parks Commission with an idea of the perfect person for an open position," Steffl said.

Both Nieveen and Bowers said they also enjoyed visiting with the hunters.

"Every guy came in had a great story about how he got his deer," Nieveen said. "Whether it was true or not I don't know, but it was fun to hear."

— Cheryl Alberts



Help from Renee Bowers and Tim Nieveen, members of CASNR's Wildlife Club, allowed officials to discover several hunting violations during last fall's opening day of deer rifle season.

Brett Hampton

Podany, who received his job offer as an intern and also is a Clarkson native.

The Organization for Economic Cooperation and Development cites UNL's tractor test lab as the official tractor testing station for the United States. Tests include measuring drawbar horsepower, power takeoff capability and the amount of weight that hydraulics can bear. The lab tests about 25 tractors annually with many tests overseen

by the eight to 10 student employees.

"Not everything goes according to the textbooks," said Hoy, adding that industry hiring right now is good after the 1980s agricultural economy slump. "Students learn how to pick up tools, use them properly, conduct tests and write reports. It's the perfect counterpoint to classroom education."

— Cheryl Alberts

## A brief glimpse



Mitch Paine and Jane Goodall

**A** lecture by famed primatologist Jane Goodall lit a community service spark in natural resource and environmental economics sophomore Mitch Paine.

Paine attended Goodall's lecture in Lincoln a few years ago and managed to snag a 20-minute private conversation with her. Goodall talked about her Roots and Shoots program, an international organization encouraging young people to get involved in the community. Paine formed a local group and got involved in group leadership activities.

Last year, Paine spoke on behalf of Roots and Shoots at the United Nations for the International Day of Peace in New York. He described to the audience of 600 to 700 young people from around the world how they can help the world's ecosystem.

He described his College of Agricultural Sciences and Natural Resources research on the Salt Creek tiger beetle, fast becoming extinct because its saline wetlands habitat near Lincoln is becoming encroached upon. Paine has even discussed the tiger beetle issue with Goodall, who plans to address it in an upcoming book, he said.

Paine said his extracurricular activities and his CASNR education are providing invaluable experience for his future career, which may include political office.

*"I have been provided experiences that I'm going to take into my career no matter what. Everything I learn in college and from being involved is giving me something I can gain and take with me the rest of my life."*

—Lori McGinnis

## Students demonstrate generosity

**W**hen Beatrice High School lost hundreds of poinsettia plants in December due to vandalism, members of the University of Nebraska–Lincoln College of Agricultural Sciences and Natural Resources' Horticulture Club volunteered to help.

The CASNR club donated about 200 poinsettia plants that it had for its own sale, said club president Amy Lathrop, a horticulture junior from Lincoln.

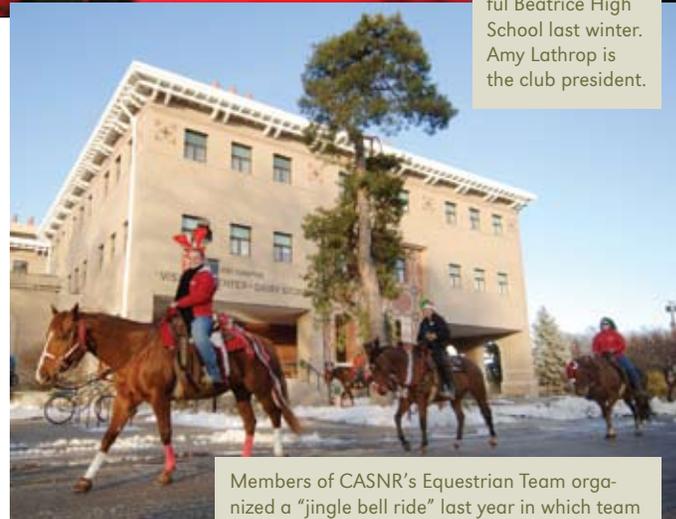
That is one example of how CASNR students step up to serve the community, Dean Steve Waller said.

"We not only provide our students the education that they will need to be successful in their chosen discipline, but we prepare them to be engaged citizens of their community," Waller said.

The Beatrice students were selling the plants to raise money for their science club.



The CASNR Horticulture Club donated about 200 poinsettia plants to a grateful Beatrice High School last winter. Amy Lathrop is the club president.



Members of CASNR's Equestrian Team organized a "jingle bell ride" last year in which team members spread holiday cheer while collecting toys for area children.

"I thought it was a great idea," Lathrop said. "They were really grateful."

CASNR's Equestrian Team has won several championships, but also wanted to conquer some wins outside the ring, said Alicia Wittwer, team captain and a junior in the College of Business Administration. Wittwer organized a "jingle bell ride" in which team members rode horses decked out in holiday fare and pulled trailers around the East Campus Loop in December. They collected toys to give to Cedars Youth Services.

## A brief glimpse



Issar Yazhbin

**A** biological systems engineering senior from Yavne, Israel, has done so well at track and field that he set a University of Nebraska–Lincoln record in the hammer throw.

Issar Yazhbin tossed the weighted ball attached to a 3-foot wire 207.7 feet at the NCAA Midwest Regional meet in May 2007.

The sport, as well as a full athletic scholarship, the facilities, the athletic tradition and the academics convinced Yazhbin that UNL was a “much better choice” than any other school, he said.

Yazhbin also has been named an Academic All-American, achieving a 4.0 GPA.

Academic All-Americans are selected based on academics, athletics and community service. Yazhbin said athletes are given numerous opportunities to participate in community service. He said he enjoyed going into Lincoln elementary schools in December and presenting gifts to under-privileged children.

While his athletic eligibility is over, Yazhbin now helps out at team meets. After he graduates from the College of Agricultural Sciences and Natural Resources in May, he may return to Israel and work, or he may go to graduate school to study engineering or business, taking his track and field memories with him.

*“Track has been a huge part of my life for the last 10 years. It’s been very difficult to stop and it still is. Going to college has enabled me to learn a lot about life and expand my horizons. I’ve grown tremendously.”*

— Lori McGinnis

## Professor dedication A+ for students

**S**tudents in James Partridge’s classes can keep their hats on. But only if they recite an ode, limerick or sonnet about their hats.

That’s one of the plant pathology professor’s ways to encourage student creativity and learning.

With the philosophy “teach students, not classes,” Partridge knows every student in his classes — from the future agronomist to the future medical doctor — has something to contribute.

The College of Agricultural Sciences and Natural Resources professor of nearly 40 years has received many awards over time, most recently the 2007 University of Nebraska–Lincoln Distinguished Teaching Award.

Through teaching subjects including plant pathology, bioterrorism and naturalist writers, as well as Honors Program courses, Partridge strives to help every student in his classes make a better grade than his or her overall GPA.

At the beginning of every semester Partridge gives each student 100 blue cards the students can use to submit questions and comments, which then are addressed in class.

“If you ask for student input then you have to show that input is valued,” Partridge said.

Partridge encourages students to not only write but also to better their writing. Handwritten notes in their composition notebooks used in the daily quiz for one class improved course grades 2½ percent, he said. He also has students edit each



Professor James Partridge shows students their input is valued, and provides techniques to help them learn better.

others’ written homework assignments before they turn them in.

Academically struggling students learn how to read a book, take notes and plan time management realistically in a course Partridge designed for them.

As assistant director for the UNL Honors Program and class instructor as well, at semester’s end he has students tell him what they have learned and do self-evaluations.

Partridge said he spends about six hours preparing for each hour in class, and does not use the same set of notes twice.

Partridge also keeps detailed track of his students’ work. Fall semester he said he sorted and organized a stack of students’ questions/comments blue cards that was 9 inches tall, and read 5,166 pages of student writing.

Steve Waller, CASNR dean, described Partridge as a “true servant leader who has provided unselfish service and loyalty to his students ... one student at a time.”

— Cheryl Alberts

Chelsea Leatherwood, an animal science equine studies senior from Lincoln, said the team felt it was a worthwhile way to serve while letting the public know more about the team.

“It was a good way to do some community service for kids who weren’t going to have many opportunities over the holi-

days,” Leatherwood said.

“Community engagement through service learning allows our students to enjoy the satisfaction and the responsibility of giving back,” Waller said. “It helps them appreciate how fortunate they are to be able to pursue a college degree.”

— Lori McGinnis

Scott Bruhn

Brett Hampton

# 'Organized creativity' leads to cake successes

The amaretto peach hazelnut all-natural cake Tessa Porter was to develop for a company traditionally steeped in fruitcake called for creativity and organization.

"They said 'make this cake,'" said Porter, a food science and technology sophomore from Albion. Last summer Porter interned at Beatrice Bakery, which now has product and sales nationwide in gourmet and natural foods stores.

The University of Nebraska–Lincoln Food Processing Center, where Porter works, provided the means to experiment with the all-natural cake prototypes. She did so 40 to 50 times. When the formula was lab-perfected, Beatrice Bakery made and sold the new cake at its own plant.

"I like it. It's different than you would ever imagine," Porter said. And yes, she did sample every version.

Each step and variance of the process and ingredient variation in product development requires careful documentation. Porter's binder of cake formulas is 8 inches thick; one particular cake had 253 variations.

"You can't just be creative — you have to be creative in an organized way," said Laurie Keeler, FPC senior manager for technology transfer. "We have to constantly balance good taste, appearance, cost and food safety while at the same time try to accomplish goals of the project."

The FPC is unusual in that it's one location with six pilot plants: dry foods, dairy products, fruits and vegetables, tortillas, packaging and grain milling, Keeler added.

Rick Curlett, CEO for Beatrice Bakery, said Porter was "enormously helpful."

"Tessa was primarily the one who helped Beatrice Bakery move to more contemporary products from their heavy seasonal fruitcake lineup of products," Curlett said. Not bad for entering her second year in college.

The FPC is helpful for product development, testing, federal guideline updates, nutritional feedback and financial analysis, he said, adding, "We consider them partners."

Porter also looked to the lab when she was an American Association of Candy Technologists scholarship finalist. With less than one week to develop and submit the five-minute DVD of her working in a lab, Porter decided upon taffy making. It is a craft that now fascinates prospective College of Agricultural Sciences and Natural Resources students when they visit; ice-cream flavored taffy also is a potential new FPC product.

Porter's 2008 summer internship will be with The Hershey Company's core chocolate department in Hershey, Pa. She plans to concentrate on confectionary product development after graduating in December 2009.

While Porter said cooking is fun and she hosts an occasional dinner party, more commonly her own dining fare is soup and cereal.



Meduri World Delights

Sophomore Tessa Porter works at the UNL Food Processing Center and last summer developed an all-natural amaretto peach hazelnut cake prototype for Beatrice Bakery.

"After work I want to go home and open a can," Porter said.

— Cheryl Alberts

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