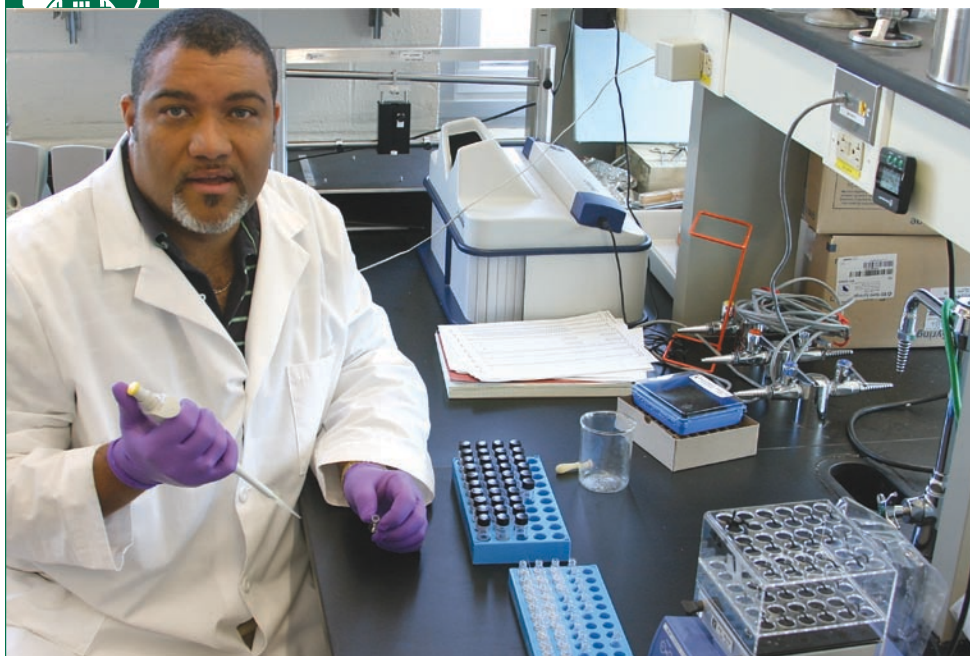




KEEPING *in* TOUCH

Volume 24, Number 1



Cheryl Dorschner

André-Denis Wright plans to lead UVM animal science in new directions and bring world-class research to its laboratories.

An ‘Agent of Change’ Arrives for UVM Animal Science

When André-Denis Wright moved his work, his belongings and his family across 14 time zones to take a new job Sept. 1 as associate professor and chair of animal science at the University of Vermont College of Agriculture and Life Sciences (CALs), he didn’t pack light. He brought his internationally known research, strong leadership skills, size XXL lab coats and passion for Canadian hockey — to name a few things.

Since then, he’s learned the ropes at UVM, began teaching graduate students, crafted job descriptions for two faculty vacancies and took the first steps toward setting up his research laboratory. “Keeping in Touch” captured a few moments of his time to ask questions that are on the lips of many people who know the importance of his new role.

KIT: News stories traveled world-wide this summer about reduc-

ing “cow burps” – the methane emissions from ruminating cattle that actually contribute to global warming. By changing cows’ diets to grass, alfalfa and flax and reducing their fat intake, they produce less gas and can thus reduce their “carbon hoof print.” Of all the ways to stop catastrophic climate change, why cows? Why now?

WRIGHT: While the American press discovered this correlation between livestock gas and “greenhouse gas” last summer, research on this topic was published in the well-known journals “Nature,” “The Economist” and “New Scientist” in 2004. These articles described my research on this topic, which began in 1998. Researchers have long tried to manipulate the density or activity of methane-producing microbes in order to improve the efficiency of ruminant production in an ecologically sustainable way. More

CALS by the Numbers

This fall, the College of Agriculture and Life Sciences (CALs) said hello to 208 incoming first-year, 57 transfer, 59 graduate and 7 PhD students, swelling enrollment to the largest number of students in the College’s history – 1,136 by all counts in late September.

Conversely, last May, at commencement, the College bid adieu to graduates carrying 272 bachelor’s, 39 master’s and 6 doctorate diplomas – for a total of 317.

A spike in the numbers is reflected by students’ strong interest in a relatively new major – public communication in the community development and applied economics department. CALs also enrolls students studying animal science, microbiology and molecular genetics, nutrition and food sciences, plant biology, plant and soil science and integrated programs in biochemistry, biological science, environmental sciences and environmental studies.

Graduate enrollment is also up, 15 percent over last year. And CALs and the University of Vermont are riding a demographic wave of not just more students but more diverse and academically talented students. ALANA affiliation (African, Latino(a), Asian and Native American) is UVM’s diversity measure. Other indicators of CALs’ good health are reflected below.

CALS Snapshot

- Total Fall Enrollment: 1,136
- Undergraduates: 1,070
- Vermont Undergrads: 410
- ALANA Students: 86
- First-Year Undergrads: 208
- Transfer Students: 57
- Graduate Students: 129
- Doctoral Students: 29
- Full-Time Faculty: 72
- Part-Time Faculty: 24
- Full-Time Staff: 64
- Part-Time Staff: 5
- Student Faculty Ratio: 21:1

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Cheryl Dorschner

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Message from the Dean

Progress Through Partnerships

CALS builds on its already successful model

Despite the economic recession, during which many state's agricultural colleges are struggling, the University of Vermont College of Agriculture and Life Sciences (CALs) remains strong and resilient. Our formula is simple: extraordinary faculty, nationally renowned research, talented staff and nimble scale of operation. Our 2009 undergraduate enrollment surged to a new record – 1,070 students (see story on page 1). Our grant dollars hold steady, even though federal grant money is tight. We expect an increase in research funding owing to the American Recovery and Reinvestment Act.

This economic stimulus package expanded the amount of research funding in a number of areas, and our faculty rose to the call with successful grant proposals, often partnering with faculty from other UVM colleges and schools and with corporate donors such as Green Mountain Coffee Roasters (see story on page 7).

Meanwhile, we continue progress on resolving the challenges of operating the Paul Miller Research Complex, known as UVM Farms. First we moved the research dairy herd off site as an interim step. We hired André-Denis Wright to lead CALs animal science, and he has begun to fill other department vacancies there (see story page 1). This fall we convened a steering committee of experienced stakeholders from Vermont farms, agriculture-related industry, state government and UVM. We meet regularly to map out a sustainable future for the College's dairy research program. I envision that the outcome will be a UVM Dairy Center of Excellence that turns these newly formed relationships into a vibrant network of expertise across the Northeast and the nation. It will employ a new

model of funding based upon leveraging and matching funds. And it will reaffirm our strong commitment to research that helps Vermonters.



Sally McCay

Tom Vogelmann

Already CALs has shown unprecedented success in other Vermont agricultural partnerships borne of UVM research: For example, Vermont Soy and Vermont Natural Coatings in Hardwick received national media attention this year; artisan cheesemakers are prospering in part due to our Vermont Institute for Artisan Cheese at the University of Vermont; and the production of the maple sap check valve is creating jobs and improving maple production (see back page story).

With partnerships such as these, I anticipate that new paradigms created by change will forge new strengths that showcase Vermont, build on CALs' research and education and create a collective strength that greatly surpasses what can be done at the College alone.

Especially during this economic downturn, as people and government sort through priorities, I stand firm in the belief that universities represent the future of this nation. At them we train America's educated workforce and electorate. Through scientific discovery in university labs, we help create new technologies vital to building America's future economic engine.

I welcome your comments in this conversation. Contact me: calsdean@uvm.edu

~ Tom Vogelmann

Agent of Change

- continued from page 1

recently, the focus on has has been on reducing the number of microbes to reduce greenhouse gas production from livestock. Techniques include using other microbes to outcompete, altering ruminants' diets and adding chemicals to feed.

KIT: Is this the kind of work you will bring to CALS and to Vermont farmers?

WRIGHT: Yes. Because of the growing concern over the use of chemicals on animals whose products become human food, my team at CSIRO (Commonwealth Scientific and Industrial Research Organisation), Australia's science agency and one of the world's largest and most diverse research agencies, has worked for a decade on a novel immunization approach to increase ruminants' efficiency in utilizing nutrients in their feed, and more recently to reduce methane emissions. I plan to continue research in this direction and add new projects that I will announce later.

KIT: In addition to building your research laboratory here in Terrill Hall, you have the opportunity to contribute significantly to the make-up of your department, its long-term future and, as a result, the future of Vermont agriculture. What are your priorities?

WRIGHT: They're simple really: refining and aligning the animal science department's new strategic direction with CALS and UVM's research vision, and with the national research priorities of the USDA, NSF and NIH in areas such as agricultural sustainability and aligning our research with human research.

KIT: That's an understatement. As those priorities play out, how do you picture UVM animal science in five to 10 years? Our setting is in high contrast to that of CSIRO, where you led 25 scientists and staff.

WRIGHT: UVM is very different from CSIRO – the campus is alive; the

energy generated by the students is stimulating and refreshing. Yet, despite the differences between research for government and academia, the message is the same: commitment to deliver great science and innovative solutions for industry, society and the environment. Here, I foresee an exciting and productive team with renewed energy, increased funding, increased publications, post-docs and PhD students. My vision is for large, cross-disciplinary projects that not only extend across CALS and UVM, but worldwide.

KIT: And what role will UVM Farms play in that vision?

WRIGHT: UVM Farms will continue to play an important role in teaching and with certain areas of research. It is too early to say more; plans will unfold gradually.

KIT: What do you feel you bring with you to the College and to its animal science studies?

WRIGHT: Energy, passion for science, great listening and communication skills, strategic thinking, an international outlook and an agent of change. For the past eight years, I have led multidisciplinary research teams and demonstrated excellence in research, teaching, leadership and mentoring students; I hope to provide visionary leadership to meet the needs of UVM's dynamic academic environment.

KIT: What were your first impressions of the College of Agriculture and Life Sciences?

WRIGHT: Great people, great leadership, great science and great opportunities for collaborative research that allow us to leverage our strengths in powerful ways.

KIT: What does your family look forward to in their new home in Vermont?

WRIGHT: Autumn display of colors and SNOW! My wife hasn't seen snow for nearly 20 years and my 3½-year-old daughter has no idea what to expect and wakes up every morning asking if it snowed overnight.

~ Cheryl Dorschner



Mark Starrett

Sweet cider and conversation, free apples and cheese, demos and displays were part of CALS Homecoming Harvest Festival on Oct. 3 on the campus lawn in front of the library – a new location for the annual event.

Memoriam: Everett Harris

Credited with single-handedly saving vocational agricultural programs across the country from elimination, rather, bringing them to 21st Century relevance, Everett Harris of Charlotte died March 3 at age 74.

Harris "developed trusting relationships with each of the vocational instructors and center directors across Vermont and provided support and guidance in helping them make major curricula changes," wrote Thomas Patterson, associate professor in UVM's College of Agriculture and Life Sciences (CALS), in recommending Everett Harris for the College's esteemed Sinclair Cup for career achievement, which Harris received in 2007. Harris and Patterson worked together in the community development and applied economics department (CDAE).

After graduating from UVM in 1957 with a degree in agricultural education, Harris was a dairy and tree farmer and taught vocational agriculture at Chelsea High School, Peoples Academy and Lamoille Area Vocational Center.

Harris left Vermont for nearly a decade, to earn his doctoral degree in vocational and technical education from the University of Illinois-Champaign-Urbana in 1973 and to teach in West Virginia. He returned to UVM in 1978 as a faculty member of its VOTEC (Vocational Education and Technology) program, then served CALS and other UVM academic units in countless capacities.

When he retired in 2000 as Extension associate professor of CDAE he was renowned for his expertise in occupational and Extension education and agricultural and natural resources education and continued to consult in the field.

He is survived by his wife, Kathleen McKinley Harris, daughters Susannah and Elizabeth and their families.

Everett Harris played a pivotal role in helping update the vocational agriculture and natural resources education programs' curriculum at state and national levels and some have called him "a native son of Vermont who has devoted his life to ensuring that agriculture is the cornerstone of this State."

Dog Owners Endow Pre-Vet Scholarship Fund

Doris and Julian Malkiel were well known in Stowe in the 1960s and 1970s, when they owned the Scandinavian Inn on Mountain Road and were active in the town's business organizations. Like many transplanted Vermonters, they came here to ski and stayed.

Prior to their two decades in Stowe, Julian worked at a Boston advertising agency and skied Stowe during vacations. Over the years, although they hailed from the Boston area, traveled worldwide and eventually settled in Florida, the Malkiels always returned to Vermont as their home.

On June 21, family and friends of Julian Malkiel assembled at Stowe's Riverbank Cemetery for his graveside service. Julian, most recently of Jupiter, Florida, died May 6 at age 82 following an illness.

During their lives, the Malkiels looked for ways to give back to the place where they had made their livelihood. Coincidentally, it was their veterinarian who made an important connection for them and for UVM's College of Agriculture and Life Sciences' (CALs) students.

Harold Brown '52, a University of Vermont alumnus who practiced for more than 30 years in Williston, cared for several generations of the Malkiels' standard poodles. It was the poodles that caused the Malkiels to realize that the small, mostly rural, state of Vermont had a shortage of veterinarians back then. It was Brown's connection to UVM that helped the Malkiels do something about that shortage.

The couple created a scholarship through CALs for talented Vermont students with financial need to study in UVM's pre-veterinary program – an opportunity that was meaningful both to the Malkiels and the College.

Doris, whom Julian married in 1957, died in 1997, a year before the couple finalized plans for the scholarship. In 1998 he established the Doris and Julian Malkiel Scholarship Fund in her memory.



uvmphoto

In September 2004 a group gathered for lunch to introduce Julian Malkiel, second from right, to three recipients of the Doris and Julian Malkiel Scholarship. From left: former chair of animal sciences Karen Plaut, Jessica Scillieri '05, Associate Dean Josie Davis, Katie Buss '05, John Piggot '05, Malkiel and former CALs Dean Rachel Johnson. More than 30 pre-vet students benefited from the Malkiel Scholarship in its 11-year history.

Continue the Cause

The need for veterinarians continues as the population of pets rises. To build on this work that helps students from Vermont to become veterinarians, contribute to Doris and Julian Malkiel Scholarship Fund by contacting UVM Development Officer Howard Lincoln at Howard.Lincoln@uvm.edu or call 802-656-2509.

Julian's subsequent donations to the Malkiel Scholarship Fund totals \$137,500 over the next 11 years – support for more than 30 of the College's top pre-vet students.

A distribution from the Doris R. Malkiel Trust and estate gifts from

the late Julian Malkiel – more than \$500,000 in gifts – permanently endowed the Doris and Julian Malkiel Scholarship Fund. This generosity echoed in the words of many people at Julian's memorial service. Condolences from several Malkiel Scholars were read.

Among them the words of John Piggot '05, "Mr. Malkiel was truly a kind-hearted man whose generosity toward me and other pre-veterinary students will never be forgotten. I am sorry that he did not live long enough to learn of my graduation from veterinary school this year, but I am heartened to know that his encouragement and support will continue on forever."

Keep in Touch Online: Up-to-Date News, More Often

We hear you! When we asked in our last issue, whether you want to get your news of the College of Agriculture and Life Sciences strictly online, many of you said "yes" and sent us your email addresses. Thank you. You'll hear from us.

For those family and friends of CALs who want to hold the news in hand, we will continue to offer that service, but once a year.

While we use Forest Stewardship Council certified paper – that is, which contains 100 percent post-consumer recycled fiber with chlorine-free processes, no paper at all is even more environmentally friendly, thus the switch to online.

So please, sign on for our more up-to-date online mailings of Keeping in Touch. Contact Robin Smith at calsdean@uvm.edu

Deep Roots: UVM Chooses a Native Plantsman to Grow this College

A Vermonter, UVM alum, farm owner, plantsman and bearer of a well-known campus name – institutional memory that harks back a generation older than his years. Tom Vogelmann brings personal characteristics important to his new role as dean of the College of Agriculture and Life Sciences (CALs) that embellish his 25-year career as an academic scholar, teacher and administrator.

UVM President Daniel Mark Fogel chose Vogelmann as dean in April. It's a role he tested as interim dean for 10 months prior, after Rachel Johnson closed her seven-year deanship in July 2008. Vogelmann is the 11th dean of the College.

The dean is the chief academic and administrative officer responsible for a \$8.2 million in annual budget, \$4 million in Agricultural Experiment Station Research programs and faculty research efforts that generate some \$7.8 million annually.

Vogelmann's administrative foundation also includes seven years as botany department chair at UVM and the University of Wyoming. His studies of leaf structure function, the effects of environment on plants – particularly on the fate of maple trees in Vermont – have been recognized internationally. Vogelmann was the 2009 recipient of the College's prestigious Joseph Carrigan Teaching Award. He has mentored some of UVM's most accomplished students.

He took the job just as international economies plummeted and university budgets everywhere faced unprecedented deficits. He inherited major facilities upgrades including construction of James Jeffords Hall plant science building and the beginning of UVM Farms reorganization.

Acknowledging the challenge of continuing CALs excellence in instruction, research and outreach during this economy and the reality that expensive energy will prompt a change in how society functions, he said, "it is a privilege to work with faculty and staff, the leadership within UVM and the State to help lay the foundation for moving the College into a future that will be very different than the world in which we are living today."

Johnson Moves Up to Associate Provost

Rachel Johnson, professor of nutrition in the CALs department of nutrition and food sciences, began her new role as associate provost on July 1, after serving for seven years as dean of the College.

Johnson came to the University of Vermont in 1991. In addition to being an accomplished administrator and teacher, she is a highly productive scholar, with more than 75 papers published in peer-reviewed journals.

A winner of the American Dietetic Association Foundation's 2001 Award for Excellence in Research, Johnson is an internationally recognized scholar in the area of pediatric nutrition. Her research on children's consumption of flavored milk has been widely published in academic journals and in the popular press. Johnson succeeds Jill Tarule in the role of associate provost.

"I am enjoying working with faculty, staff and students across the university. It's giving me a new perspective on the many exciting programs and initiatives that are happening at UVM," says Johnson, who led sessions in an Aug. 24-25 new-faculty orientation and is working on a professional development program for incoming chairs and assistant and associate deans, for example. This work builds on her leadership of the College.

"CALs is an efficiently run, well managed college with a long history of engaging in strategic planning for the future," she observes. "Although I knew it as dean, it's now being reinforced how well thought of CALs is across the university." Johnson will continue to conduct research, advise undergraduates majoring in nutrition, food sciences and dietetics and mentor graduate students.

~Cheryl Dorschner

Changing Faces, Changing Places: People and Promotions

As the University of Vermont community returned to campus in August, first-year students weren't the only new faces on campus.

In addition to Andre-Denis Wright, chair of animal science, (see front-page story), the College of Agriculture and Life Sciences (CALs) welcomed Sandra Everitt as director of the Consumer Assistance Program headquartered in Morrill Hall on campus. Everitt works for the Vermont Attorney General's Office in partnership with the CALs community development and applied economics department to handle Vermonters' consumer complaints. Everitt, an attorney, will also teach a course on consumer assistance and mentor students in consumer affairs.

CALs hired horse specialist Nicole Granger to train animals at the UVM Morgan Horse farm in Weybridge, and it filled two positions shared with University of Vermont Extension.

Amy Davidson, helps coordinate a federally funded nutrition program that teaches families with young children basic nutrition, resource management and food safety. Davidson is an alum of the nutrition and food sciences department where she now works. Pamela Smith helps Vermont farmers with crop insurance programs in conjunction with state and federal grant-funded research led by Bob Parsons. Five faculty positions remain open as the result of budget cuts or long-range planning.

In addition, Dean Tom Vogelmann promoted Sylvie Doublé to full professor of microbiology and molecular genetics, citing her research that informs cancer treatment on how DNA enzymes repair damage caused by radiation. Doublé's two-volume textbook "Macromolecular Crystallography Protocols..." has become an essential resource in the field.

Entomologist Margaret Skinner is well known for her research on fungi as

a natural method to control insect pests, her all-out efforts to thwart the spread of invasive pests such as the hemlock woolly adelgid and the Asian long-horned beetle and her community service as founder and president of the urban forest promotion nonprofit Branch Out Burlington. These recently earned her the rank of Extension research professor.

Ferdinando Villa exemplifies the next wave in research and teaching – his work crosses traditional academic boundaries, instead, encompassing ecology, computer software design and engineering. Thus he shares his promotion to research professor of plant biology with two other academic units.

Additional promotions: forest ecologist Brian Beckage is associate professor with tenure; expert in agricultural effluent treatment, Aleksandra Drizo is research associate professor; Cathy Paris, Todd Pritchard and Jay Ashman are now senior lecturers.

CALS Kudos



Katelyn Wuebolt



Vanessa Patten



Meg Ashman



Jay Ashman



Fred Taylor



Rose Laba

Animal Science

Katelyn Wuebolt received the 2009 UVM Mortar Board Sophomore Award for “outstanding service, scholarship and leadership” at Honors Day ceremonies, April 17 in UVM’s Benedict Auditorium. Also: **Vanessa Patten**, a senior received the College’s top award, The Alexander Kende Academic Merit Award. **Eila Susskind** received the Vermont Dairy Association’s annual Elmer Towne Award. **Coral Kent-Dennis** received the George H. Walker Award for dairy science. **William Kieber** received the Brian Hawley Scholarship Award. **Miranda Bartlett** received the Triona Wilder Marno-Ferree Memorial Award for equine studies. **Briana Clark** and **Benjamin Whitcomb** were presented Donald J. Balch Awards for their contributions to equine or companion animal activities. **Valerie Koenig** received the Animal Science Faculty Award. **Coral Kent-Dennis**, **Erin Osmanski**, **John Wright**, **Megan Haughey** and **Amy Keiser** earned Brett Klein Memorial Scholarships.

Joshua Bates, **Sarah Boutin**, **Coral Kent Dennis** and **Cody L’Esperance** are this year’s gold award winners at the North American Intercollegiate Dairy Challenge, March 30 in Syracuse, NY; UVM participates every year.

Biological Science

James Berry, **Stephen Fulling** and **Johanna Mayerhofer** – the top three students in this major, received scholastic achievement awards during this year’s Honor’s Day event.

Community Development and Applied Economics

Jay Ashman and **Meg Ashman** shared the 2009 Excellence in Community-Based Teaching award from Vermont Campus Compact presented April 1.

Kathleen Liang co-author of “Are We on the Same Page on Financial Issues?” received the 2009 Outstanding Research Award for entrepreneurship education from Allied Academy. A related article was published in the “Journal of Entrepreneurship Education.”

Joseph Hardie, **Tate Morris**, **Emily Falta**, **Jonathan Maddison**, **Rachel Brett** and **Zoe Kosmos** were honored April 17 as this year’s top graduating seniors in each major of this department. Other seniors also recognized were: **Benjamin Bezark**, **Conor Casey**, **Marlow Duffy**, **Jonathan Kyle**, **Samantha Lederfine-Paskal** and **Michael Skillicorn**. **Jordan Crasilneck** and **Michael Kirk** were named top teaching assistants this year – all at Honors Day.

Microbiology and Molecular Genetics

Katelyn McLaughin received the **Warren R. Steinbring** Outstanding Senior in Microbiology Award at CALS Honors Day, April 17. **Jacob McFadden ’09**, won the Lucille P. Markey Outstanding Senior in Molecular Genetics Award also at Honors Day.

Nutrition and Food Sciences

Linda Berlin was named director of UVM’s Center for Sustainable Agriculture.

Catherine Donnelly spoke March 26 at the Koshland Museum of the National Academy of Sciences in Washington DC. “Say Cheese,” was her lecture on the science and policy of cheese and food safety. The American Society for Microbiology interviewed her at the event for Microbeworld Video.

Kevin Stanton was chosen for the Nutrition and Food Sciences Faculty Award. **Jesse Curran** received the Agnes T. Powell Award in dietetics. **Brianne Keefe** was presented the Blair Williams Award. **Dana Notte** earned the Nutrition and Food Sciences Research Award. **Danielle Pothier** was named Outstanding Dietetics Student. **Danielle Bois** took home the Cornelia Wheeler Irish Memorial Scholarship Award. **Morgan Rivers** received the Bertha Terrill Award. Again, these are Honors Day awards.

Plant and Soil Science

Ernesto Mendez was honored statewide April 1 as a finalist “Engaged Scholar Award” category by the Office of Community-University Partnerships and Service-Learning (CUPS) for his community-based, participatory research especially in agro-forestry.

Meryl Olson, doctoral student of **Mendez**, received the \$10,000 Annie’s (the mac ‘n’ cheese company) Homegrown Sustainable Agriculture Scholarship to conduct dissertation research in El Salvador. She was one of eight students nationwide whose gifts total \$50,000.

Kate Turcotte took several highest awards at Honors Day: the Agronomy, Soils and Sustainable Agriculture Senior Recognition Award, American Society for Horticulture Science Outstanding Horticulture Student Award and the James Ludlow Endowed Scholarship. The latter she shared with **Christopher Simard**. He also received the American Society for Horticulture Science Collegiate Scholars Award, along with: **Benjamin Crockett**, **Jeremy Burchett**,

Lydia Petty and **Derek Eckhardt**. **Crockett** received the W.H. Darrow Horticulture Prize. **David Ferrell** was awarded the Seymour Horticultural Prize for original horticultural research. **Kaitlin Harris** received the top Plant and Soil Science Teaching Assistant Award.

Plant Biology

Mary Tierney became one of 28 American Society of Plant Biologist Fellows for 2009 in a ceremony July 18 in Honolulu, Hawaii.

Fred Taylor, the late professor emeritus of botany, became the 15th Vermont inducted into the American Maple Hall of Fame on May 16. His son Tim Taylor and wife Paula Fives-Taylor received commemorative plaques on his behalf.

Hillary Kessler won this year’s Lewis Ralph Jones Award. **Timothy Perez** received the faculty’s Superior Performance Award, as the department recognized its top graduating seniors.

College-Wide Kudos

Rose Laba, enrollment management professional in the dean’s office, received the College’s singular annual recognition of staff, presented to Laba in ceremonies April 17. The Outstanding Staff Award was instituted in 2004 by Dean **Rachel Johnson**. In presenting the award, Associate Dean **Josie Davis** noted that **Lab** served nearly a 1,000 students as College enrollment jumped more than 200 students, without adding staff.

Ian Worley, professor of plant biology and director of the environmental studies program and **Frederick Schmidt** associate professor of community development & applied economics and co-director of the Center for Rural Studies became retired professor emeriti in ceremonies at the College’s commencement May 17.

Fred “Chico” Lager ’75, of Williston, Vermont, who is a CALS advisory board member, accepted the UVM Alumni Association Distinguished Service Award June 6 during reunion weekend celebrations.

Kelly Kisiday ’04 of Boston, Massachusetts received the Young Alumni Award at the same event.

Marlow Duffy, **Mark Freedman**, **Jennifer Fricke**, **Christopher Graves**, **Katelyn McLaughlin**, **Erin Osmanski**, **Michael Skillicorn** and **Jessica Spiltoir** were recognized for outstanding research the past school year.

New Money for Research, New Status Among Peers

As the result of \$787 billion in federal stimulus package passed in February, UVM researchers brought in more grant money – a boon to scientists, the students who work with them and the communities that benefit from their findings.

This American Recovery and Reinvestment Act of 2009 is bringing unprecedented research funding to UVM – 23 projects totaling more than \$7 million as of Sept. 11, according to the university's office of sponsored programs.

For example, in July, associate professor and plant biologist in the College of Agriculture and Life Sciences (CALs), Jeanne Harris, began what will be three years of work on the relationship between a gene responsible for growing root tips and a hormone that sends growth signals to the roots, thanks to \$400,000 from the National Science Foundation, which is one of the recipients of this stimulus money.

However, most CALs research scientists dug in last year and applied for more research dollars from a wide variety of sources. Results are ongoing, but already their growing reputation, redoubled efforts and the government priority shift can be credited with some stellar results. Moreover, the kinds of grants demonstrate new relationships between CALs and the people served by its research. Here are some highlights:

In May, the USDA rated Lorraine Berkett's OrganicA research number

one in the nation among more than 130 organic program entries. Of course, she and her research team received \$946,675 and a three-year renewal on this multi-state, multi-disciplinary program that studies methods of converting conventional orchards to organic apple production. Her colleagues include: Bob Parsons, Heather Darby, Terry Bradshaw, Sarah Kinglsey-Richards, Erica Cummings and Morgan Cromwell.

Berkett earned \$123,694 for the Vermont IPM program – more than double past allocations. This integrated pest management project involves Ann Hazelrigg, Sid Bosworth, Margaret Skinner, Heather Darby and Berkett.

Deborah Neher is the lead on a \$248,027 USDA-Natural Resources Conservation Service grant with Lini Wollenberg and another \$166,546 USDA-CRSEES funding.

Ernesto Mendez, Sarah Lovell, Allan Strong, Austin Troy and Noah Perlut received a four-year grant from the USDA-CSREES National Initiative, \$380,000 for landscape context as a framework to quantify the “multifunctionality” of agricultural systems in the Northeast. Mendez also brought home a \$140,000 grant from Green Mountain Coffee Roasters for two graduate students' work analyzing the impacts of the company's funding projects in communities where it buys coffee. This grant is lauded both for its private-public



Cheryl Dorschner

Deborah Neher brought in two significant USDA grants this year and won CALs' 2009 Hubert W. Vogelmann Award for excellence in research and scholarship.

partnership aspect and its direct support of students.

Aleksandra Drizo and Kathleen Liang's \$200,000 grant for three years starting Oct. 1 has been called pioneering in its focus on the field evaluation of innovative steel slag technology for treatment of silage leachate. This new technology could benefit the farming community with affordable (minimal energy, land and maintenance requirements) and efficient solutions for agricultural wastewater treatment.

“This new record funding elevates our College and UVM into the top 10 percent in the nation among institutions vying for research dollars. Truly UVM is a premier small research institution and CALs is a key contributor to that accomplishment,” concluded Dean, Tom Vogelmann.

More Maple, More Jobs

- continued from back cover

report they are hiring workers despite the recession.

The check valve consists of a small ball that rolls back and forth in a chamber within the spout to block the flow of sap back into the tree. All tapped sugar maple trees pull sap back into their tap holes as they try to balance the negative pressure established both by natural process and by vacuum systems now pervasive in the industry. Bacteria in the backflow cause the tree's natural defenses to plug the hole, thus ending a sugar maker's season. By allowing the sap to flow, the spout will extend the sugar-making season by 1½ to 2½ weeks, according to tests conducted at Proctor and confirmed by Leader's field testing. Sugaring season is typically four weeks long.

“It's 80 percent scientific, 10 percent knowledge and 10 percent black magic,” Jim Johnson executive vice president of Progressive Plastics told “The Barre Montpelier Times Argus.”

The scientific part is the work of Tim Perkins, director of the Proctor Maple Research Center, inventor of the spout adapter.

“Tim Perkins' maple tap innovation is one of several examples of CALs' efforts to develop new environmentally friendly products that promote agricultural viability, create jobs for Vermonters, and help the local economy,” said Michael Vayda, Associate Dean of the College. “This is just the kind of outcome we had hoped for from the Ag. Innovations program: listening to our agricultural stakeholders, having our ingenious

faculty develop innovative products to address needs, and working with private sector companies in Vermont to produce and market the product.”

The tap could also mitigate the effect of global warming on the Vermont maple industry. Warming has shortened the Vermont maple season by 10 percent over the last 40 years, according to research conducted by Perkins.

“It's very gratifying to see federal dollars pay such clear dividends,” Sen. Leahy said. “We all look forward to the impact this ingenious new product is going to have on the state's sugar makers and on two important Vermont companies, as well as to the economic spillover effect it will create in our state as a whole.”

~ Cheryl Dorschner

More Maple, More Jobs, Thanks to UVM Invention

It's a simple plastic spout, no bigger than a piece of maple sugar candy. But it promises a huge impact on the maple industry and sweet dividends for Vermont.

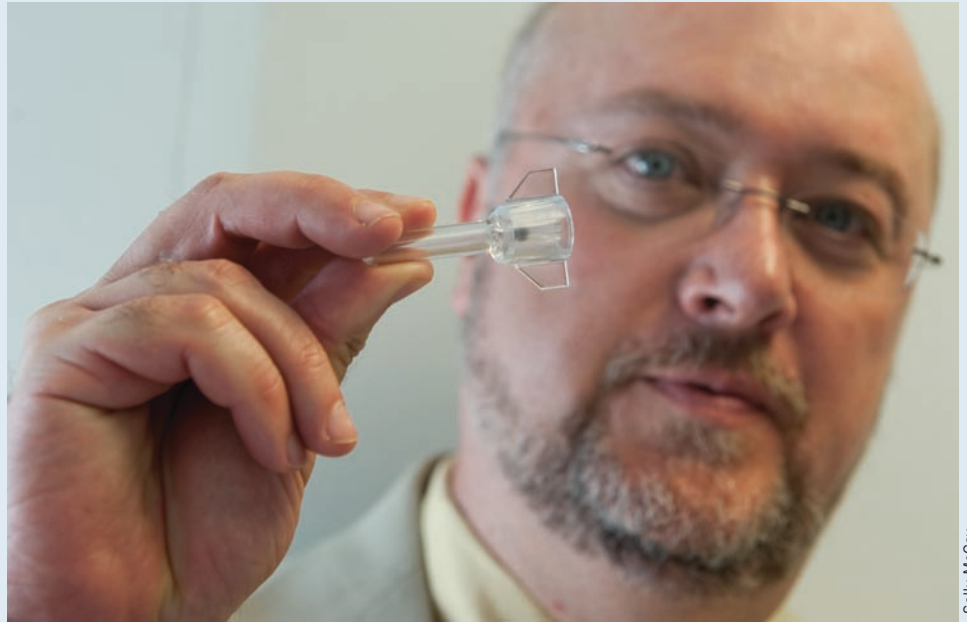
An innovative new maple tap spout developed by the University of Vermont Proctor Maple Research Center (PMRC) with funding secured by Sen. Patrick Leahy could boost maple syrup production and the number of jobs and economic development in Vermont.

The new spout can increase sap yields by 50 to 90 percent per tree, Sen. Leahy said during the spout's unveiling Aug. 17 at Progressive Plastics in Williamstown. Progressive Plastics manufactures this "check valve spout" for Leader Evaporating Company of Swanton, which licensed the technology from UVM and will market and sell it.

The senator also announced two more examples of his ongoing support of UVM research: \$188,000 to fund research to further increase sap yields and \$188,000 to develop a non-toxic wood adhesive.

"The funding he secured for the maple spout development will deliver a significant return on investment in our state, at a time when Vermont needs good economic news," said Daniel Mark Fogel, UVM president.

Leader Evaporator has received 1.5 million advance orders and projected sales of three million units; that would make the spout its number one selling product.



Sally McCay

Director of UVM's Proctor Maple Research Center, Tim Perkins holds his latest invention a maple tap check valve that may change the way sugarmakers do business.

Future sales could be significantly higher as the adapters need to be replaced annually.

"It's going to add as much to syrup and sap production as vacuum tubing did, said Leader Evaporator

President Gary Gaudette. "I'm confident that this is going to be the thing to use in the future." Gaudette estimates between 50 and 55 million taps in use in North America. Both Leader and Progressive Plastics

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