

NEWS BRIEFS

EVENTS

NOTABLES

SEARCH

PRINT THIS ISSUE

PRINT PAST ISSUES

FEEDBACK

UVM HOMEPAGE

Senior Thesis Sprouts Gardening Book



Beret Halverson '02 (right) wrote a thesis that a local gardening maven used to create a book celebrating community gardeners. She's shown here with gardener and musician Jenni Johnson. (Photo: Jim Flint)

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[FULL STORY ►](#)

CURRENT NEWS BRIEFS AND EVENTS

[Limited Availability for Paper Version of Vermont Quarterly](#)
[Miller Appointed as Education and Social Services Dean](#)
[Extension to Co-Host Conference on Rural Development](#)
[Undergraduates to Present at McNair Scholars Program](#)
[Women in Sustainable Ag Conference Slated for October](#)

Growing New

Markets Like many family farm owners, Joanne James is constantly looking for new ways to diversify not only what she sells, but also where she sells it. One such opportunity came about in 2000 when she and other residents joined forces with the university to open the Alburg Farmer's Market.

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THE WEEK IN VIEW

July 30, 6 p.m. Music + Film: "The Black Sea Quintet" perform and Mel Brooks' "Young Frankenstein" will be shown. Redstone Campus, Pine Grove. Information: 656-4455 or [Lane Series](#)

Aug. 2, 9 a.m. Workshop: "Soils, Natural Communities, and their Management Implications on the Greater Jericho Research Forest" with NRC Conservation Specialist Thom Villars and UVM ecologist Elizabeth Thompson. Jericho Research Forest. Registration requested. Information: jmohr@uvm.edu.

Aug. 10, 6:30 p.m. Clinical Neuroscience Research Unit Summer Lecture Series presents: "Days are Nights/ Nights are Days: The Paradox of Sleep and Aging," with Cliff Singer, psychiatry. Sheraton Conference Center. Information: 847-9488 or 866-276-9488 or

Aug. 17, 6:30 p.m. Clinical Neuroscience Research Unit Summer Lecture Series: "Caring When a Cure is Not Possible: Psychiatric Treatment at the End of Life," with Terry Rabinowitz, psychiatry. Sheraton Conference Center. Information: 847-9488 or (866) 276-9488 or [lecture series](#)

NEWS BRIEFS

EVENTS

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By Cheryl Dorschner

Article published Jul 26, 2005


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Text Size: [Sm](#) | [Md](#) | [Lg](#)



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Beret Halverson's interest in plants took root early, when she began helping out in her grandmother's Montana garden during childhood summer vacations. So when it came time for the 2002 environmental studies graduate and ethnobotany specialist to find a thesis topic, it was natural to mesh her interests in culture and horticulture for an ambitious look at community gardeners.

The student surveyed 100 Burlington-area gardeners in 2001 about their methods,

preferences and the relationship between their cultural backgrounds and horticultural practices. After the survey, she interviewed 20 of her subjects face-to-face, tape-recording their stories. Those stories caught the ear of Jim Flint, executive director of the nonprofit group Friends of Burlington Gardens.

"Even in their raw state, the tapes and transcripts revealed some very interesting dialogue," observes Flint. "Since the interviews were done in the winter and early spring, it was a bit like peeling an onion for Beret to work through the layers of the interviewees' experiences and draw out the fine details of their gardening and cultural history."

Impressed with the thesis — and Halverson — Flint began collaborating with her to create *Patchwork: Stories of Gardens and Community*, a book with vignettes of 10 Burlington gardeners published earlier this year. Halverson provided the research and interviews, Flint did the photography, editing and design. The book was released this spring, and its photography is on exhibit at the Fletcher Free Library through July 31. The show will move to Barnes & Noble in South Burlington for the month of August.

Cultivating culture

Halverson's project might have been grounded in journalism, but its meaning extends into scholarship.

"Beret's research on community gardeners in Burlington is an important contribution toward understanding the wealth of cultural knowledge, social values and horticultural customs that bring together Burlington's diverse community of gardeners," says Jeanne Shea, associate professor of anthropology and one of Halverson's advisors on the project.

Halverson met Flint in 2001 just as he launched the nonprofit community gardens group and she had returned from taking courses at the University of Hawaii in Honolulu. As part of an assignment, she had interviewed several community gardeners in Hawaii.

"I was amazed at the diverse stories that were shared. This got me interested

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in the oral histories of gardeners. It also got me thinking about how culture is transmitted in gardening practices. Eventually it led to the development of this project in Burlington,” she recalls.

Halverson drew on Flint’s community connection as she pursued the survey and interview phases of her thesis research. Inspired by Newberry-award-winning author Paul Fleischman’s book *Seedfolks*, a short novel about an urban neighborhood’s transformation through gardening, Flint wanted a local portrait of gardening’s diversity and reach. So he culled Halverson’s interviewees to represent a mix of Burlington area gardens, gardeners and motivations.

Among histories included in the book are three gardeners with ties to UVM. Clem Holden ‘45, who gardens with his wife, Sylvia ‘51, is profiled — the book explains how the couple often puts up more than 200 jars and freezer bags of garden vegetables each year. English Professor Huck Gutman’s tomatoes have been winning blue ribbons at the local fair since 1973 when he rented a plot behind the admissions building.

Since her graduation three years ago, Halverson has traveled extensively, spending time in Thailand, Laos, Vietnam, Bali, New Zealand and South India, but her interest in local gardening has only deepened with all that travel. “Community gardens are part of people’s lives,” she says. “If they didn’t exist an important part of our connection to the land, our food and each other would be lost.”

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NEWS BRIEFS

EVENTS

NOTABLES

SEARCH

PRINT THIS ISSUE

PRINT PAST ISSUES

FEEDBACK

UVM HOMEPAGE

Growing New Markets

By Jon Reidel

Article published Jul 26, 2005



Shoppers browse the stalls and fresh flowers of the Champlain Islands Farmers' Market in South Hero. (Photo: Chris Gordon)

Like many family farm owners, Joanne James is constantly looking for ways to diversify not only what she sells, but also where she sells it. Operating out of the small Champlain Islands town of Alburg in the northwest corner of the state, she sells her cheese, meat and vegetables on her Web site [Lakes End Cheeses](#), at a retail outlet and at area stores.

Another sales opportunity opened for James in 2000, after

town officials met with faculty and staff from Community Development and Applied Economics to discuss ways of improving the local economy, talks that led to the creation of the Alburg Farmer's Market. Over the next five years, the tiny start-up market grew to become a thriving Champlain Islands Farmer's Market with about 25 vendors at two locations in Alburg and South Hero, which was added in the summer of 2005.

"There was a real need for something like this here," says James, past president and current treasurer of the market. "You're getting retail prices rather than wholesale, which is about 50 percent more without the middleman. I'm not sure we would have survived early on as a fledgling market without the support of UVM."

The impact on the Alburg economy is hard to measure, but it has been a boost for some local farmers and artisans who can make \$200 on a Saturday from the roughly 100 people who stop between 9 a.m. to noon. Vendors sell vegetables, flowers, meats, cheese, eggs, arts and crafts, baked goods and handmade products such as handbags.

Early indications from South Hero are that the spin-off will grow into a major farmer's market. A record 292 people stopped at the new location on July 20 (the market's regular business hours are 4-7 p.m. every Wednesday until the season ends Oct. 5.)

"They've almost tripled the number of vendors between the two markets," says Dan Baker, lecturer of CDAE. "They support each other, but they are two different markets. South Hero appears to be very strong and was prime for this kind of thing. Alburg is a lower-income area and the growth has been slower, but the victory is that it has maintained a steady market and showed the depths of its community support."

Students pitch in

Some of the original seed money to start the market came from a Vermont Integrated Research and Extension Competitive Awards grant applied for by Jane Kolodinsky, professor and chair of CDAE. The Alburg Revitalization Committee donated money it received from the Vermont Sustainable Jobs Fund and partnered with the American Legion, which donated space to host

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the market under a new three-season structure with a roofed area.

Baker, a former planner with the Northwest Regional Planning Commission, says CDAE strongly encourages smaller communities to forge as many partnerships as possible and utilize all local resources when trying to spur economic development. The university helped facilitate some of these partnerships, but prefers to act in more of a support role. Faculty, staff and students offer help with marketing, advertising, planning writing bylaws and conducting surveys to find ways to improve the market.

Student interns Robyn Lane and Megan Taylor help set up for vendors each week, count receipts, collect data and administer programs like the Vermont Farm to Family program that allows families enrolled in WIC to redeem coupons for fresh vegetables and fruit at farmers markets. "I'm from Minneapolis so I hadn't really been exposed to rural farm communities and how they work," Taylor says. "This experience has really given me a chance to see the challenges these communities face and how they work together to overcome them."

Lane, who used to sell products as a vendor at another farmer's market, says the experience has opened her eyes to all that goes into setting up a market each week and keeping it running. "We do a lot of planning, but you never know what's going to come up. In a real-life setting with a lot of people involved things come up that you don't always anticipate. We've had to learn how to make things work by dealing whatever comes up each week. I've really enjoyed it," she says.

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NEWS BRIEFS

EVENTS

NOTABLES

SEARCH

PRINT THIS ISSUE

PRINT PAST ISSUES

FEEDBACK

UVM HOMEPAGE

Making It Happen

Richard Barrett Scholarships put undergraduate engineers in the thick of summer research

By Kevin Foley

Article published Jul 27, 2005



Richard Barrett Scholarship recipients Alaina Dickason (left) and Tracy Owen are spending a summer pursuing independent engineering research. (Photo: Kevin Foley)

Undergraduate summer engineering research is about being on a first-name basis with professors, struggling a little before having questions answered for you and — most of all — constantly adapting to make do with what you have. In that, the preparation reflects the profession.

Which is exactly what the Barrett Foundation intended when the family nonprofit, led by 1966 UVM graduate Richard Barrett, a successful entrepreneur

whose career was boosted by early internship experiences, decided to provide summer research scholarships for four top students in the College of Engineering and Mathematics.

To win their \$8,000 grants, students canvassed faculty and the literature for ideas, researched and wrote proposals, and survived a competitive process that months later plopped them down for a summer of working shoulder-to-shoulder in a cavernous Votey lab. The situation, just three months to design and build experiments, gather data, draw conclusions and make an impression, inspired anxiety for both students and advisers, but the pilot program is already off the ground.

"I was frightened of keeping four undergraduates all summer long," confesses Donna Rizzo, assistant professor of civil and environmental engineering and a Barrett program adviser. "But they've been terrific, quite independent. We're getting as much work out of them as graduate students."

Switching gears

Rising junior Alaina Dickason has wanted to be an engineer, she says, since sixth grade, when she barely "knew what the word meant." She completed a transportation engineering internship after her first year of college and eagerly pursued a Richard Barrett Scholarship to occupy her second collegiate summer.

Her original proposal was to look at the accuracy of light detection and ranging data, a new high-resolution laser mapping technique, for driver research. But the data she required wasn't going to be available when she needed it so, she says, "I had to switch gears."

She met with Rizzo and the two quickly settled on a new project involving the unromantic but essential issue of leaf wetness.

"It's an area that people have spent millions of dollars and years and years to understand," Dickason says, pointing out that leaf wetness relates directly to



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crop disease, and understanding and predicting it has direct implications for pesticide use and crop years. "It's amazing to start with it after your sophomore year in college."

The effort involves wetting down leaves, digitally photographing them at increments as they dry, and digitally filtering and processing the imagery to quantify wetness. Dickason is feeding that data into artificial neural network software in an attempt to relate, and eventually predict, leaf wetness via microclimate data, things like temperature, humidity and rainfall. The work uses a theoretical model from a Cornell University scientist that Dickason hopes that her work will help validate or improve.

Dickason's summer efforts have already led to one co-authorship credit on a recently submitted journal article, and she's hoping that her leaf work will eventually lead to another publication. (Program organizers are optimistic that all four undergraduates will eventually get publications out of their summer experience.)

From soil to skin

Like Dickason, Brendan Kennedy is also watching his summer play out a little differently than he originally intended. The junior's original research focus is on using underground video imagery to predict the moisture content of soil. "Everything you do with soil, you take soil moisture into account," he says.

As that project gets off the ground, he's also collaborating with College of Medicine researchers, including Helene Langevin, research associate professor of neurology, on some of their projects. It turns out that a piece of software originally designed to take soil information and model groundwater flows is directly applicable to Langevin's ongoing efforts to map connective tissue for her work on acupuncture.

"The environmental modeling software is perfect for taking huge quantities of ultrasound data and building a 3-d model of connective tissue," he says.

Senior Tracy Owen's research has taken a more linear path than Kennedy's so far, but that doesn't mean that it's been easy.

After spending last summer in the field surveying streams and rivers with Cully Hession, associate professor of civil and environmental engineering and Barrett advisor, Owen decided that she wanted to take that experience inside, recreating one of the streams she looked at in the field on the department's six-meter water flume.

Owen spent weeks scaling the survey data from forested and unforested stretches of the actual stream so that she could build a scale model that would allow her to conduct experiments and take measurements on how the surrounding land affects the water's turbulence and velocity and how that, in turn, affects the width of the stream.

"Transitions between land types surrounding a stream changes flow, and that changes the shape of the stream," she says. "Any kind of forest or stream restoration project is going to involve slow transition between the states, and it's important to know what goes on during that transition time if you're looking at restoration projects."

Owen has enjoyed the hands-on aspects of the research, and her relative autonomy as a Barrett Scholar. "Last summer I was helping out, but this summer it's my own thing," she says.

Her primary advisers, Hession and doctoral student Maeve McBride, are happy to offer advice and help solve problems (though she says "they make me struggle before I can just ask for help") but she's responsible for the success or failure of her own work.

"You run into problems, and you have to think of a solution quickly in that engineering spirit of solving issues with the materials you have," she says.

Dickason sums up her internship experience so far with a similar point: "I know things that need to get done, and I have to figure out how to make them

happen on my own. That's not the way a physics lab works. It's a little bit unnerving to not know exactly what's going on, but it's more exhilarating when you do figure things out."

The fourth Richard Barrett Scholar, Jennifer Gagnon, has already completed the experimental phase of her research and is into the analysis. She is using artificial neural networks to relate the physical characteristics of streams to their biological conditions. Her interests and techniques partially overlap with Dickason and Owen. Those kinds of commonalities, says program co-advisor Professor Donna Rizzo, enrich the summer program. "The four really support each other," she says. "They see themselves as a team, and they all help each other to get the work done."

For more background on the Barrett Foundation and the scholarships, see [UVM Undergrads Earn First Environmental Engineering Scholarships](#).

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NEWS BRIEFS

EVENTS

NOTABLES

SEARCH

PRINT THIS ISSUE

PRINT PAST ISSUES

FEEDBACK

UVM HOMEPAGE

Miller Appointed as Education and Social Services Dean

By Jeff Wakefield

Article published Jul 21, 2005

Fayneese Miller, former director of the Center for the Study of Race and Ethnicity in America, and currently an American Council on Education Fellow in the President's Office at Brown University, has been appointed by President Daniel Mark Fogel as dean of the College of Education and Social Services at the University of Vermont. The university announced Miller's appointment on July 1.

Miller obtained her bachelor's degree in psychology from Hampton University and went on to master's and doctoral degrees from Texas Christian University in social psychology. After post-doctoral work at Yale, she has held faculty positions at the University of North Florida, the University of Cape Town and Brown University.

Miller's scholarship has focused on issues of race, ethnicity and discrimination in adolescents and their impact on education, adolescent behavior and academic achievement. She is the author of many books, monographs, book chapters and articles on these topics and is a prominent member of several national commissions and committees devoted to them. Examples include the Mellon Foundation Planning Effort on Minority High Achievement, the National Academy of Science Committee on Title 1 and the National Truancy Advisory Committee. She has been active in many governor's and state boards in Rhode Island on topics such as drug court planning, race relations and juvenile hearings. In addition to her administrative experience leading the Center for the Study of Race and Ethnicity, Miller has also served as coordinator and chair of Ethnic Studies at Brown University.

"Fayneese Miller has an academic reputation, a track record of administrative achievement and a national reputation that mark her as having great potential for academic and national leadership," said John Bramley, UVM provost. "She stood out in an extremely strong candidate pool, and I am very excited about her joining the academic leadership team at UVM. She has not only studied some of the most critical issues facing youth today but has a determination to apply the knowledge she gained to benefit individuals, communities and organizations. She is interested in how her work and leadership makes a difference, and that matters to us in CESS and at UVM."

"I am excited about the opportunity to join the academic leadership team at UVM and welcome the opportunity to work collaboratively with my colleagues in the College of Education and Social Services and throughout the university," Miller said. "I am honored by the confidence the search committee and the academic leaders at UVM have shown by selecting me as the dean of the college. I look forward with eager anticipation to the challenges that await me."

UVM president Daniel Mark Fogel said that the search committee had brought forward to him and Provost Bramley a stellar group of finalists for a deanship that he termed "extraordinarily important" both for UVM and for Vermont.

"With the only master's-level program in social work in Vermont, and with education programs that have helped to prepare more than a third of the school teachers and administrators in the state for their work educating the rising generations of Vermonters, the College of Education and Social Services is a keystone of the future for UVM and for the statewide community. We are all extremely pleased that we have attracted to the deanship of the college an academic leader with the scholarly credentials and national stature that Fayneese Miller brings to this critical position."

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NEWS BRIEFS

EVENTS

NOTABLES

SEARCH

PRINT THIS ISSUE

PRINT PAST ISSUES

FEEDBACK

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Recent Grad Awarded Top Postdoctoral Education Fellowship

By Cheryl Dorschner

Article published Jul 27, 2005

Tammy Ouellette, a 2005 graduate of the doctoral program in Educational Leadership and Policy Studies at the University of Vermont was awarded one of 12 annual postdoctoral fellowships nationwide by the American Educational Research Association and the U.S. Department of Education's Institute of Education Sciences.

Ouellette and her host institution could receive \$242,000 over three years for the renewable fellowship. Ouellette, who lives in Annapolis, Md., will research the policies, practices and resources disadvantaged districts and schools might use to attract and keep qualified teachers in their classrooms. Her mentor will be Jennifer King Rice, associate at the University of Maryland's College of Education.

"I was incredibly surprised and pleased to be awarded this fellowship — one of the premier post-doctoral research opportunities in the field of education policy research," says Ouellette. "To be selected for this highly competitive fellowship is truly a testament to the quality of UVM's doctoral program and the training and mentorship I received there."

"Here in the College of Education, Tammy had rich opportunities to collaborate on federally funded research projects associated with educational finance, including Act 60. Her dissertation research extended the knowledge-base of strategies that principals can use to enhance student performance," says Susan Hasazi, director of UVM's doctoral program in education.

Ouellette is a native of Whitehall, Mich.

The AERA, founded in 1916 to promote the practical applications of education research, boasts 22,000 members. It operates two fellowship programs to promote research opportunities of graduate and postdoctoral candidates.



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NEWS BRIEFS

EVENTS

NOTABLES

SEARCH

PRINT THIS ISSUE

PRINT PAST ISSUES

FEEDBACK

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UVM Hosts Adult Stem Cell Conference

By Jennifer Nachbur

Article published Jul 27, 2005

A two-day meeting brought nearly 100 scientists to UVM July 26-27 for a "Adult Stem Cells, Lung Biology and Lung Disease" workshop. The event took place in the recently completed medical education pavilion adjacent to Given Medical Building.

Co-chaired by Daniel Weiss, M.D., Ph.D., assistant professor of medicine, and hosted by the College of Medicine and the Vermont Lung Center, the invitation-only conference was co-sponsored by the National Heart, Lung and Blood Institute and the Cystic Fibrosis Foundation

The two-day meeting featured research presentations and discussion among the world's top scientists on the potential therapeutic benefits of adult stem cells in treating various forms of lung disease.

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NEWS BRIEFS

EVENTS

NOTABLES

SEARCH

PRINT THIS ISSUE

PRINT PAST ISSUES

FEEDBACK

UVM HOMEPAGE

UVM Course Offers Intense Introduction to 3-D Microscopy

By Kevin Foley

Article published Jul 27, 2005

Michael Radermacher and Teresa Ruiz, both of the Department of Molecular Biology and Biophysics, are trying to conversationally explain the promise of three-dimensional electron microscopy for structural biology.

"Think of Legos," Ruiz says, more amused than frustrated by challenges of translating science into terms a layperson can understand. "Other structural methods of microscopy — like X-ray crystallography — can see a molecule at the atomic level, individual Lego pieces. But they don't have enough field of view to capture the structure of large enzymes or other macromolecules, the Lego houses. The structures are too large."

Since macromolecules carry out many key cellular functions and the specific three-dimensional structures they fold into often relate directly to their functions, biologists and others are quite interested in precisely identifying those structures. This, along with improved equipment and techniques, has caused the relatively new field of three-dimensional electron microscopy to start growing at an increasing rate.

To help fuel that growth, Radermacher and Ruiz have organized the "UVM Practical Course on Three-Dimensional Cryo-Electron Microscopy of Single Particles," which will attract 13 international researchers (including a representative from a recent Nobelists' lab) to Burlington in August for a week of 10-hour days of lectures and hands-on practice. The intensity of the course — six hours a day of practical effort — make it unlike any other program in the world. Participants will learn the painstaking methods required to take two-dimensional electron microscope data and reconstruct the imagery into three-dimensional models illustrating the structure of particles.

Radermacher and Ruiz put on a pilot version of the course in 2003, receiving a strongly positive response from participants and guest speakers. It was a shoestring affair, however, requiring lots of volunteer hours from the duo, their colleagues and departmental support staff, and even requiring professors to dip into their pockets to buy pizza. This year, in addition to support from FEI, TVIPS and Fisher Scientific, new funding from the Agouron Foundation will help support the course, which the professors plan to put on biannually.

Radermacher, who has honed his methods for 3-D electron microscopy since the field's infancy in the late 1970's, says the considerable effort involved in mounting such an extensive practical course is worth it to evangelize the field, make scientific connections, share innovative techniques and generally "put UVM on the map for this technique."

Information: [UVM Practical Course](#)

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NEWS BRIEFS

EVENTS

NOTABLES

SEARCH

PRINT THIS ISSUE

PRINT PAST ISSUES

FEEDBACK

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Limited Availability for Paper Version of Vermont Quarterly

By Tom Weaver

Article published Jul 21, 2005

Individual copies of the summer 2005 issue of *Vermont Quarterly* will not be distributed via campus mail to all faculty and staff due to a limited printing run.

Copies are available from University Communications by request. Please contact Theresa Miller (theresa.miller@uvm.edu or 656-1100) to request one. The issue can also be viewed online at [Vermont Quarterly](#).

The summer issue includes a feature on [UVM's partnership with New York City's Christopher Columbus High School](#); a [profile of Professor Huck Gutman](#), winner of the 2005 Kidder Alumni Teaching Award winner; an [essay by alumnus Brendan Wheeler '99 on his experience with civilian service in Iraq](#); and [Must Do UVM](#), a light-hearted look at "30 things every student needs to do before graduating."

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[Senior Thesis Sprouts Gardening Book](#)

Beret Halverson's interest in plants took root early, when she began helping out in her grandmother's Montana garden during childhood summer vacations. So when it came time for the 2002 environmental studies graduate and ethnobotany specialist to find a thesis topic, it was natural to mesh her interests in culture and horticulture for an ambitious look at community gardeners.

[Growing New Markets](#)

Like many family farm owners, Joanne James is constantly looking for new ways to diversify not only what she sells, but also where she sells it. One such opportunity came about in 2000 when she and other residents joined forces with the university to open the Alburg Farmer's Market.

[Making It Happen](#)

Undergraduate summer engineering research is about being on a first-name basis with professors, struggling a little before having questions answered for you and — most of all — constantly adapting to make do with what you have. In that, the preparation reflects the profession.