UConn’s Master Gardener Program celebrates its 40th anniversary
Hello friends and fellow alumni of the College of Agriculture, Health and Natural Resources. Our faculty, staff, and students had some great accomplishments in the past year and our alumni support remained terrific.

Undergraduate enrollments remained steady, with a total of 2,412 students (1,953 BS/BA, 61 AAS, and 358 MS/Ph.D/DPT students) pursuing majors in the College. However, enrollments in the Ratcliffe Hicks School of Agriculture (AAS) increased dramatically for the fall 2018 semester.

Our faculty members produced significant scholarship, including three textbooks authored, one scholarly book edited, one manual, 14 book chapters, 252 refereed journal articles, and 241 published conference proceedings. In addition, our faculty received grant awards totaling approximately $26 million.

Through the Cooperative Extension System and other outreach activities, the College’s faculty and staff touched all of the state’s 169 towns and cities through programming and maintained productive relationships with our various stakeholder groups. Extension programs involved 7,458 volunteers who provided 149,299 hours of service with an estimated value of $3.6 million. The Master Gardener program is celebrating its fortieth anniversary this year. The College’s Soil Testing Laboratory analyzed 12,636 samples for Connecticut stakeholders, and the Connecticut Veterinary Medical Diagnostic Laboratory performed 1,331 necropsies and 83,829 other diagnostic tests, including a large number of tick tests, for disease-causing agents affecting humans and animals.

Highlights related to facilities during the past year included initiating the construction of a new agriculture biosafety level 2 facility for animal disease and food safety research, installation of a voluntary robotic milking system at the Kellogg Dairy Center, and the grand opening of the Mission Heat Laboratory at the Korey Stringer Institute.

Our donors were especially generous and we realized 189 percent of our fundraising goal by securing $4,253,724 through development efforts, and we increased our donor count over FY17 by 300 donors. Through nineteen programs and events, the College engaged approximately 1,000 alumni and friends, 286 of whom were first-time attendees.

That sums it up, and the only thing that would make it better would be to see you back in Storrs for a visit!

Cheers,

Cameron Faustman
Interim Dean
Citrus tree has deep roots in UConn history

Pathways is published annually by the College of Agriculture, Health and Natural Resources for alumni and friends of the College. Due to the costs of printing and mailing the magazine, Pathways is now found at cahnr.uconn.edu/Pathways. To read more news and information about the teaching, research, and extension outreach programs and activities of the University of Connecticut’s College of Agriculture, Health and Natural Resources, visit our blog at naturally.uconn.edu.

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Highlights of research
Dear alumni and friends,

I am pleased to write to you on behalf of UConn Agriculture, Health and Natural Resources Alumni (UCAHNRA). As president, I have the privilege of working with a dedicated volunteer board that supports the alumni, students, faculty, and staff of the College. Through signature programs, new initiatives, and alumni events, we seek to advance the College of Agriculture, Health and Natural Resources in a variety of ways.

This fall has been busy, with a series of events for our alumni, friends, and supporters. October featured UConn’s Homecoming Weekend. During Homecoming Weekend, Dean Faustman led a tour of Horsebarn Hill and a few of our alumni participated in the Huskies Forever 5K. The physical therapy program’s class of 1997 also hosted a reunion. Approximately twenty-five alumni, spouses, families, and significant others attended the event. It was a wonderful opportunity for alumni to share their remembrances, reconnect with classmates, and tour the new physical therapy facility. Alumni were excited to see that the physical therapy program has such incredible resources at their fingertips and great opportunity for research within the University.

November was filled with networking and career readiness events. Annually we host our buffet dinner for career representatives at the CAHNR Career Night. Career Night is a wonderful opportunity for current UConn students to network with career representatives from numerous fields of study. This event hosts more than 100 alumni/career representatives and almost 300 students.

This year we have begun working with a few of the student organizations on campus to connect them with alumni members in our network and are continually working to make these mentor/protégé connections. We are currently working with Sigma Alpha and Alpha Gamma Rho and are looking to expand to other organizations in the future. On November 5, some members of the UCAHNRA Board as well as other CAHNR alumni spoke as part of an alumni panel sponsored by Sigma Alpha and attended by both Sigma Alpha and Alpha Gamma Rho. The alumni spoke to current students about how their time and experiences at UConn and within the College of Agriculture, Health and Natural Resources have helped pave the path to where they are in their careers today.

We are proud to continue to award scholarships to students each year through the UCAHNRA Endowed Scholarship Fund. We are happy to support students as they work to achieve their goals. This year three students received UCAHNRA scholarships. These students were recognized at the CAHNR scholarship event on November 14, and I had the pleasure of meeting with them and their families that evening.

As this calendar year comes to an end, we look forward to the new year and the exciting projects and activities planned for the College and our alumni, friends, and students. You will read about some of them in the pages of this issue of Pathways. We hope to see you at some of our future events and invite you to join us in supporting the College. Please feel free to contact us to share your suggestions about how we can better reach alumni and better connect current students to our alumni.

If you would like to follow us on a regular basis you can find us on Instagram @ucahnra, Facebook at UConn
Agriculture, Health and Natural Resources Alumni, or our website, ucahnra.uconn.edu. Please do not hesitate to email me with questions, comments, or ideas for events that can bring more alumni together!

Sincerely,

Audra Leach
Audra.Leach@gmail.com

UCAHNRA President
2007 CAHNR
2007 CLAS
2009 NEAG

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The mission of the UConn Agriculture, Health and Natural Resources Alumni (UCAHNRA) Board is to create a lifelong and worldwide community of alumni through meaningful engagement in order to increase awareness, pride, participation, volunteer involvement, and philanthropic commitment to the College and the University.

It shall be the purpose of UCAHNRA to support the continued education of current students through the UCAHNRA Endowed Scholarship Fund; to encourage alumni to participate actively in the UConn community, attend events, volunteer, promote ways for alumni to stay connected, and contribute to the greatness of our University; and to foster the interests of UConn/CAHNR as a world standard of academic excellence by highlighting the achievements of alumni, students, faculty, and staff.
Intrajeet Chaubey, who has enjoyed a distinguished career in teaching, research, and administration, has been named the new dean of UConn’s College of Agriculture, Health and Natural Resources. He will also serve as director of the Connecticut Cooperative Extension System and the Storrs Agricultural Experiment Station.

Chaubey comes to UConn from Purdue University, where he held a number of positions over the past twelve years, including associate dean and director of international programs of the College of Agriculture since 2016. From 2013 to 2017, he was the head of and a professor in the Department of Earth, Atmospheric, and Planetary Sciences, and professor in the Department of Agricultural and Biological Engineering. He joined Purdue in 2007 as an associate professor.

“It is an honor for me to lead the College of Agriculture, Health and Natural Resources at UConn,” said Chaubey. “At the core of the land grant mission of UConn, CAHNR provides a rich environment of discovery, learning, and extension outreach that are vital to agricultural production, natural resource sustainability, the health of communities, and economic development.

“We are fortunate to have nationally and internationally recognized faculty and staff in CAHNR who are devoted to working on problems that improve the everyday quality of life for citizens of Connecticut and beyond,” he added.

In his most recent role at Purdue, Chaubey was responsible for leading international activities in the College of Agriculture to implement programs that encompass food, agriculture, and natural resources systems. He worked closely with faculty, national and international agencies, and private foundations in obtaining funding and facilitating international development and capacity-building projects.

“We are very happy to welcome Dean Chaubey to UConn,” said Craig Kennedy, provost and executive vice president for academic affairs of UConn. “His accomplishments both as an administrator and a scholar will be a great benefit to CAHNR and the University.”

Chaubey is an internationally recognized researcher in the field of ecohydrology and nonpoint source pollution. His research over the years has focused on the lack of clean water in many parts of the world. Simulation models and tools that he has developed help guide policy and decision makers, watershed managers, conservation specialists, and farmers.

He has published more than 475 research articles, including 140 peer-reviewed journal articles and 190 technical papers at conferences, and has served as the principal investigator or co-investigator on 55 research projects with grant support totaling more than $40 million.

Chaubey was named a fellow by the American Society of Agricultural and Biological Engineers in 2017.

Prior to his tenure at Purdue, Chaubey was a faculty member at the University of Arkansas from 2000 to 2006 and a research scientist at the University of Alabama from 1998 to 2000.

He earned his doctoral degree in biosystems engineering from Oklahoma State University and a master’s degree from the University of Arkansas. His undergraduate degree is from the University of Allahabad in India.

by Mike Enright, UConn Today
Citrus tree has deep roots in UConn history

In the corner of a hallway in a campus greenhouse sits an orange tree that dates back to the beginnings of UConn. The tree belonged to Theodore Sedgwick Gold (1818-1906), an early advocate for agricultural education in Connecticut. In 1881, he also helped establish Storrs Agricultural School, the first incarnation of what that would eventually become UConn. Gold was one of the original members of the institution’s board of trustees and was responsible for shaping its organization and curriculum. Members of the Department of Plant Science and Landscape Architecture (PSLA) hope to share this piece of UConn history, and Gold’s legacy, by propagating additional orange trees, possibly making them available for sale in the future.

“Most of the department knows about the tree, but I don’t know how many other people do,” says Nick Pettit, plant growth facilities manager. Pettit has cared for the tree during his twenty-seven years with the University. “I make a point of mentioning the tree to anybody who’s with me when we walk by it. There’s a tree that’s as old as the University.”

The tree is a Citrus aurantium and while it bears very bitter fruit, the flowers are extremely fragrant. It currently rests in a large container on a pallet. The tree looks damaged, despite Pettit’s constant tending. The bark on the trunk crumbles easily at the touch and many of the leaves have blemishes and spots.

“It’s seen better days but a lot of this is cosmetic,” says Pettit. “The bark is very old so it comes off easily, but you can see there’s healthy bark underneath. It also gets all the common greenhouse pests: scales, aphids, whitefly, you name it. It’s problematic and does need care, but we spray it and it’s honestly doing pretty well after all these years.”

Orange trees have an average lifespan of fifty years but can live for over a century, like Gold’s tree, if the conditions are right and it receives proper care.
Though Gold’s background and contributions to the founding of UConn are known, the origins and history of his orange tree are not clear, including its exact age. Pettit notes that the written account and oral record diverge in a number of ways and chalks up some differences to grandiose storytelling.

“One story I heard is that it was on the porch and would be moved in and out of the house. It’s a marmalade orange tree, so the fruit is really sour. They would take the pulp out of the fruit, add a ton of sugar to make it palatable, and spread it on their toast in the morning. Having fresh marmalade off the tree as a kind of novelty. It’s a fun story and maybe there’s some truth there, but I put more faith in the researched story,” says Pettit.

Pettit refers to PSLA Associate Professor Emeritus Walter Harper’s information regarding the tree. The tree started from seed and was tended by Gold. It may have resided in the greenhouse attached to Gulley Hall. The tree was formally donated to the University by Gold’s family in 1955 and it remained in the Floriculture Building for several decades.

“It stayed there for over fifty years until the Floriculture Building was renovated. The lobby had a glass entryway then, and it did quite well with all the sun. When the lobby was renovated, we moved it to the hallway into the ABL [Agricultural Biotechnology Laboratory] greenhouse,” says Pettit.

“In ABL it’s kind of living in a greenhouse environment. For the first few years, I moved it outside in the summer. It definitely loved being out in the sun. It’s gotten a too big now to be moving it around constantly without accidentally breaking branches off.”

Orange trees are not low-maintenance plants, says Pettit, and they require constant attention. Maintaining its well-being is especially important in order to propagate the tree. Pettit can create new trees using the seeds produced by the fruit and the original tree’s buds by grafting onto the new tree’s rootstock.

“I’ve grown one tree using a seed and grafting from the Gold plant. It’s producing a lot of fruit and we collect all the seeds. You start the seeds in soil and wait for them to grow. Then you take the bud in an axil of the leaf of the original tree and graft it onto the new tree. If it was a true seedling, it wouldn’t flower for years, so this is a quicker process. It’s the roots of its own seedling so they are very compatible,” says Pettit.

This process is known as budding. Orange trees grown from seed bear fruit after about decade. Budding lets the tree mature faster, allowing it to produce fruit after only a few years.

“I can grow lots of seedlings and graft them. It
wouldn’t take long to make a couple hundred of these trees. We’re just not sure if there’s interest or demand for something like this.”

Richard McAvoy, professor and department head, has expressed interest in using tissue culture or micropropagation techniques to produce more trees and using them as a fundraiser.

“We’d want to make them available when they are in flower since they are irresistibly fragrant at that stage,” McAvoy says.

Propagating the tree would create a new physical reminder of Gold and his contributions to Connecticut’s agricultural history and UConn’s formative years.

A dormitory used to bear Gold’s name. Gold Hall was built in 1890, but burned in 1914.

Gold was passionate about farming and education all his life. The Gold family worked on Cream Hill Farm in West Cornwall and were notable not only for their practices and products, but for the Cream Hill Agricultural School, which Gold started with his father, Samuel, in 1845. The boys’ school operated until Samuel’s death in 1869, focusing primarily on teaching agriculture and science.

Gold created a Connecticut Farmers’ Club in 1842 and was its first secretary. He also helped form the Connecticut Agricultural Society in 1852. Gold served as secretary of the Connecticut Board of Agriculture from its founding in 1866 until 1901 and wrote the Handbook of Connecticut Agriculture.

From 1866 to 1875, Gold served as secretary of the orphanage that occupied the land that Augustus and Charles Storrs would donate to the state to start the Storrs Agricultural School. Walter Stemmons, in his early history of the Connecticut Agricultural College (Storrs Agricultural School was renamed in 1893 to the Storrs Agricultural College, then renamed again in 1899), noted that the newly established agricultural school was quite similar to the Golds’ school at Cream Hill.

For Pettit, the orange tree is a reminder of Gold’s commitment to agricultural education and plant science that helped build UConn into what it is today. Says Pettit, “This tree outlasted at least one building it was in and we’ll have to see if it outlasts the next one. I say that my career will be a success if I can retire and this tree is still alive. I suppose since I’ve been saving the seeds from its fruit and made another tree, it’s kind of guaranteed now.”

by Jason M. Sheldon
Master Gardener Program looks ahead as it celebrates milestone
The seeds of the Master Gardener Program were sown during the early 1970s in the Pacific Northwest when agricultural extension faculty at Washington State University began receiving an increasing number of plant-related inquiries from homeowners. The educators had primarily been delivering programming on crop production and commercial horticulture, but as local communities flourished, it led to a surge of interest in urban gardening. The idea of creating a cadre of trained volunteers who could work in communities to meet the overwhelming demand for information and assistance with backyard gardening led to the first class of Master Gardeners.

UConn Extension’s Master Gardener Program sprouted from these roots in 1978. The program instructs participants in science-based horticulture practices and garden management, after which students apply their knowledge by engaging in community education, including lectures, educational displays, demonstrations, and plant clinics, as well as various outreach projects throughout Connecticut. UConn Master Gardeners are celebrating forty years of transforming academic research into practical gardening skills and techniques that everyone can use.

In observance of their anniversary, UConn Master Gardeners hosted a series of fundraising events across the state. The program also introduced a new format for its certification course that offers greater flexibility for those interested in becoming horticulture specialists.

“We marked the occasion in a few ways, but we really used the moment to look ahead to the next forty years,” says Sarah Bailey, state coordinator and Hartford County coordinator for the Master Gardener Program. “We love what we do and want to continue helping people of all ages learn and discover the joys of gardening and the natural world.”

While volunteers form the backbone of the Master Gardener Program, UConn Extension, grants, class registration fees, the Connecticut Master Gardener Association, and private donors provide financial support. These resources employ Master Gardener coordinators in the state’s eight county UConn Extension centers and the Bartlett Arboretum in Stamford. In these offices, Master Gardener coordinators supervise interns and volunteers who answer questions from residents about horticulture practices, plant identification, and diagnosis of disease or pest problems. Coordinators are also responsible for designating signature outreach projects and organizing educational programming in each county.

For the program’s fortieth anniversary, Bailey says Master Gardener coordinators held special fundraisers in their areas. In New London County, volunteers hosted a garden party over the summer at Widdershins Labyrinth in Lyme. The Fairfield County Master Gardeners had a craft fair and open house outside their Bethel office on Saturday, October 6.

“Our event in Bethel was an anniversary celebration combined with free public information exhibitions, open demonstrations and an arts and crafts fair,” says Fairfield County Master Gardener Coordinator Sandra Wilson. “Many of the vendors at the fair were Master Gardeners. In addition to their gardening skills, they knit, hand dye, and spin wool, make handmade wooden bowls, and create flower arrangements, to name just a few of their wonderful talents. We had tours to discuss gardening best practices, invasive plant and insect identification, and pollinator information, in addition to demonstrations on backyard composting and presenting our new rain barrel and irrigation system.”

Wilson continues, “We’ve grown and thrived over the past forty years and continue to be an important resource and asset to the public.”

Coordinators worked with their teams to create anniversary events that they felt would connect best with gardening enthusiasts in their regions.

Teams also created program-wide fundraising partnerships, collaborating with Colorblends, a third generation American flower bulb wholesaler located in Bridgeport. For a limited time, the proceeds from the sales of nearly all of their products went directly to support the UConn Master Gardener Program.

UConn Master Gardeners are selling commemorative...
hats featuring the Master Gardener logo. These baseball caps can be purchased online and picked up in the county offices.

“One of our future goals is to formalize these types of fundraising events to help support our program. They also provide additional visibility to Master Gardeners as a whole and a chance for more people to learn about the impacts these volunteers are making in their local area,” says Bailey.

Master Gardener’s outreach efforts are unique to each county and help meet local needs, often providing food to soup kitchens, food banks, and residents living in food deserts. UConn Master Gardeners predominately work in community and school gardens and on farms and wildlife management areas, teaching crop selection and management practices to children and adults. In Pomfret, Windham County Master Gardeners care for People’s Harvest, a 15,000-square-foot community garden that produces vegetables for area soup kitchens. People’s Harvest is popular with youth groups in the region, who learn about sustainable agricultural methods and food security from the volunteers. At Camp Harkness in Waterford, Master Gardener interns and volunteers practice horticulture therapy with adults with disabilities. Master Gardeners frequently attend farmers’ markets, fairs, and other local events, eager to share their knowledge with the public.

The Master Gardener certification process requires the completion of a sixteen-week course and a sixty-hour training and community outreach internship. There are usually between 175 and 200 new Master Gardeners certified each year.

“Most people taking the course were recently retired or had been in positions long enough to be able to take the time off to commit to a weekday class for sixteen weeks. We realized we were missing out on incorporating other folks that worked full-time and wanted to participate, especially younger people,” says Bailey.

In January 2019, a new hybrid class format and an evening course aim to increase accessibility and offer flexibility for those interested in becoming Master Gardeners. Previously, certification courses required a daylong commitment but the new configuration blends online learning with traditional classroom instruction. Students complete three to four hours of online work in preparation for a half-day classroom session. Classes run from 9:00 a.m. to 1:00 p.m. The evening session will be offered in 2019 in Farmington only from 5:30 p.m. to 9:30 p.m. Bailey says if the new class time is popular then she will rotate the evening offering through the other extension centers.

Once the course is successfully completed, students begin their internships. Students spend thirty hours completing supervised training with extension personnel conducting research and interacting with the public. The remaining time is spent participating in community outreach projects.

Along with the certification process, the program offers Garden Master classes, which allow further educational training. These classes are also open to the public, providing instruction on gardening and a variety of related topics.

“The Master Gardener Program was founded to meet public need and encouraged individuals to participate. We’re continuing those traditions by growing as our audience changes,” says Bailey.

For more information about the UConn Extension Master Gardener Program, please visit mastergardener.uconn.edu.

by Jason M. Sheldon
At the College’s annual awards and honors event, held March 28, 2018, the UCAHNRA awards were presented.

**UCAHNRA Excellence in Teaching Award**

**Gerald Berkowitz**  
*Department of Plant Science and Landscape Architecture*

Dr. Gerald Berkowitz is an outstanding teacher who consistently ranks at the top in Student Evaluation of Teaching (SET) scores and has been recognized by the Provost as among the “select group of university faculty” who rate among the best in teaching. Dr. Berkowitz teaches two courses in the Department of Plant Science and Landscape Architecture and regularly serves as a guest lecturer in courses taught by other instructors.

Dr. Berkowitz’s popularity as an innovative instructor stems from his passion for science, his deep scientific knowledge, his strong belief in the value of education, and the unique methods he employs to engage his students. He focuses on experiential learning and is constantly working to develop new techniques and methods to create learning experiences that are not easily forgotten. Dr. Berkowitz brings an excitement about the course material into the classroom and students describe his teaching “passionate, upbeat, positive, amazing, and awesome.” Dr. Berkowitz’s previous students comment that he made a positive and effective impact on their educational experience.

Dr. Berkowitz developed a summer program, Camp DNA, which trains high school teachers in the techniques to introduce molecular genetic technologies to their students. Dr. Berkowitz recently received a new three-year, $600,000 NSF award and will offer Camp DNA training once again.

Dr. Berkowitz’s engagement with student learning goes beyond formal course offerings. During the spring 2018 semester, he mentored ten undergraduate students in independent study lab-research projects. For the 2017-2018 academic year, seventeen undergraduates will have completed independent research study projects under his guidance. He routinely serves as faculty advisor on student internship projects (averaging more than eight per year since academic year 2014-2015). In addition, he is involved with a number of UConn minority student organizations, including the Louis Stokes Alliance for Minority Participation, the Peer African-American Sustaining Success program, and the Zeta Phi Beta Sorority African-American Scholarship and Service Society.

Additionally, Dr. Berkowitz represents the department in the University Honors Program, and he serves as advisor of the EcoGarden Club and the PLANTalks Club. Dr. Berkowitz is an outstanding teacher, scholar, colleague, and mentor with the ability to develop young students into accomplished plant scientists and educators.

**UCAHNRA Outstanding Staff Award**

**Nancy Wilhelm**  
*Department of Extension*

Nancy Wilhelm has been the 4-H Program Coordinator for the UConn 4-H Office for the past twenty-five years. She provides exceptional support and initiative as she coordinates the activities of 21,000 youth and over 1,500 volunteers in 154 towns and cities in Connecticut. Her capacity to manage the day-to-day complexities of a program this size is tremendous. Ms. Wilhelm has always been keen to learn new things, and she seeks avenues to advance her knowledge to make her more effective at her job as she regularly interacts with faculty, staff, community partners, and program participants.

Ms. Wilhelm is responsible for the management of the 4-H online enrollment system, a system that tracks 21,000 youth enrolled in the UConn 4-H program. This allows her to generate 4-H Youth Development federal enrollment reports, which are submitted each year to
CAHNR faculty recognized

Dr. Judy Brown and Dr. Linda Pescatello were recognized with 2018 University of Connecticut Alumni Relations Faculty Excellence Awards.

Dr. Brown ’07 Ph.D. (Genetics) ’03 MS (Genetics) ’98 MS (Allied Health) was recognized with the Faculty Excellence in Undergraduate Teaching Award. Dr. Brown is an associate professor in residence in the UConn Department of Allied Health Sciences, serves as director of the UConn Chromosome Core, and she developed and serves as director for the innovative Health Care Genetics Professional Science Master’s Degree Program, which is co-sponsored by the Institute for Systems Genomics.

Dr. Pescatello ’86 Ph.D. (Kinesiology) ’81 MS (Kinesiology) ’77 BS (Biological Sciences) received the Faculty Excellence in Graduate Teaching Award. Dr. Pescatello is a professor in the Department of Kinesiology. She holds joint appointments in the Departments of Physiology and Neurobiology, Nutritional Sciences, and Allied Health Sciences.

In addition to their teaching responsibilities, Dr. Brown and Dr. Pescatello were recognized at a ceremony on October 25.
Salman H. Al-Zayani ’13 Certificate (Health Promotion and Health Education) was awarded the Venus International Medical Award for Excellence in Community Medicine 2018. The award, given by the Venus International Foundation in Chennai, India, recognized Dr. Al-Zayani’s efforts in community medicine and public health. Dr. Al-Zayani’s expertise spans clinical, academic, and scientific research in public health, community medicine, health policy, and population studies.

Michael Cohen ’09 Ph.D. (Agricultural Economics) was appointed senior vice president and chief data science and analytics officer at Marketing Evolution. Marketing Evolution is a provider of marketing measurement and optimization solutions. Prior to joining Marketing Evolution, Dr. Cohen was at Oath: Data Products and on the faculty at New York University’s Stern School of Business.

Emily Forauer ’18 BS (Pathobiology) was named the first David Theno Food Safety Fellow by Stop Foodborne Illness during the annual conference of the International Association for Food Protection. The fellowship honors Theno’s work by promoting food safety education and by helping students pursuing careers in food safety. Ms. Forauer will be working with Stop Foodborne Illness in Chicago.

Marie George ’81 BS (Physical Therapy) was elected vice president of the Southwestern Vermont Medical Center’s medical staff. Dr. George is an infectious disease specialist at Southwestern Vermont Medical Center. She also currently serves on the Dartmouth-Hitchcock Putnam Board of Governors.

Thomas Morganti ’76 BS (Pre-Veterinary Medicine) has published his second novel, D.O. Sykes, which deals with bipolar disorder. Dr. Morganti is a veterinarian living and working in Avon, CT.

Mohan Nair Manoj Kumar ’04 MS (Animal Science) ’06 Ph.D. (Animal Science) was named to the senior leadership team at LexaGene Holding Inc. as senior staff scientist. LexaGene Holdings Inc. is a biotechnology company that develops instrumentation for pathogen detection. Prior to joining LexaGene Holdings Inc., Dr. Manoj Nair served at a diagnostic startup, as a staff scientist at Beckman Coulter Molecular Diagnostics, and as senior scientist at Roche Molecular Systems.

David Unger ’95 (Natural Resources) now serves as the senior vice president responsible for developing renewable natural gas (RNG) business projects at Foristar, LLC. Prior to joining Foristar, Mr. Unger served as director of renewable energy at Waste Management, where he was responsible for the marketing and development of all beneficial use landfill gas projects.
How many calories does a professional football lineman need each day? What should he eat to keep his 300-pound muscular frame in good condition? Jordan Mazur is the one who determines these nutritional choices for San Francisco 49ers players. According to nutritional sciences alumnus Mazur, a lineman needs about 4,000 to 5,000 calories of high-quality food per day, eaten at specific times throughout the day. Here is more of what he said in an interview.

Tell us some of your fond memories of UConn. I loved going to UConn basketball and football games. The year 2011, when the UConn men’s basketball team won the national championship, was an especially good year to be a fan.

I had fun spending time with close friends from the crew team and other places. Some of my UConn friends became “friends for life” who stayed in touch with me.

Please describe your current job. As the nutrition coordinator for the San Francisco 49ers football team, I wear many hats and oversee all aspects of nutrition for the players and staff.

For example, I work with the executive chef in planning specific and customized meal plans. I choose the menus and source the food. I want to get high-quality food that is organic, if possible. The fresh protein and produce comes from within a 100-mile radius of us.

What was your major in the College? When did you graduate? With what degree? I got a BS in nutritional sciences in 2012. I did the didactic program.

What class was most useful to you? Sport nutrition, an elective with Professor Nancy Rodriguez, opened my eyes to a field that appealed to me. I always knew I wanted to be in nutrition as a profession, but I realized that this was the career for me once I took the class.
In addition, I make sure that the fueling zones (food is fuel) in the weight, locker, and meeting rooms are well-stocked with snacks that help with carbohydrate recovery and performance measures.

I straddle the fence with my job by working with the strength and conditioning staff. We do performance tracking and monitoring and pay special attention to body composition, muscle mass, and body fat.

A third aspect of what I do is related to sports medicine. I help with suggesting the best nutritional plan for injuries and pre- and post-surgery in order to enhance the healing process. I want to stay on top of the player’s fluid intake in order to prevent dehydration. The doctors, trainers, and I monitor blood and nutrition biomarkers, as well.

I also coordinate with the logistics team for travel to away games. On the road, I try to mimic what we do nutritionally at home. Therefore, I work on the menus for what is served on the planes and in the hotels. On the trip, I take with me the special foods and drinks that the players need for post-game recovery.

Are you doing what you imagined you would be doing at this point in your life? I have always set goals for myself. My long-term goal was to work in the NFL. It is hard to believe that I made it by the age of 28!

Once I became a registered dietitian, things moved very quickly, and the hard work and networking paid off. I am now resetting my goals and am excited to see what is next.

Do you have any advice for current students that will help them in the future? 1) Set both short- and long-term goals for yourself. Having something to strive for helps you work harder.

2) Network and learn from others. Converse with people who have more experience and different experiences than you do. Be humble and admit that you don’t know everything. Build relationships. It will help you get a job.

3) Strive to be an expert in your field. Be the best.

Follow new opportunities. Continue to grow.

Is there anything else you would like us to know about you? I try to get the word about good nutrition out in speaking engagements with the 49ers and by being a contributor to blogs and magazines, such as Men’s Health, Reader’s Digest, and Men’s Journal. In addition, I am an advisor to several nutrition companies.

I like to be involved with volunteering and community service. For example, I am in Big Brothers Big Sisters of America. Also, I am working on a nutrition educational school program for lower income youth from suburban and inner-city schools. It is important to give back and make a difference that impacts communities.

by Patsy Evans

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by Patsy Evans

Are you doing what you imagined you would be doing at this point in your life? I have always set goals for myself. My long-term goal was to work in the NFL. It is hard to believe that I made it by the age of 28!

Once I became a registered dietitian, things moved very quickly, and the hard work and networking paid off. I am now resetting my goals and am excited to see what is next.

Do you have any advice for current students that will help them in the future? 1) Set both short- and long-term goals for yourself. Having something to strive for helps you work harder.

2) Network and learn from others. Converse with people who have more experience and different experiences than you do. Be humble and admit that you don’t know everything. Build relationships. It will help you get a job.

3) Strive to be an expert in your field. Be the best.

Follow new opportunities. Continue to grow.

Is there anything else you would like us to know about you? I try to get the word about good nutrition out in speaking engagements with the 49ers and by being a contributor to blogs and magazines, such as Men’s Health, Reader’s Digest, and Men’s Journal. In addition, I am an advisor to several nutrition companies.

I like to be involved with volunteering and community service. For example, I am in Big Brothers Big Sisters of America. Also, I am working on a nutrition educational school program for lower income youth from suburban and inner-city schools. It is important to give back and make a difference that impacts communities.

by Patsy Evans
Meet graduate student Luke Belval

As a Ph.D. student studying exercise science, Luke Belval serves as the director of military and occupational safety and director of research at the Korey Stringer Institute. He has worked as an athletic trainer for UConn Club Sports as well as for local high schools and colleges. His dream job would be to find a position within a military setting to better prepare our soldiers for heat and hydration issues. Here’s what he said in an interview.

Where did you study as an undergraduate? What was your major? I did my undergraduate degree in athletic training and master’s degree in exercise science at the University of Connecticut.

Why did you decide to go to graduate school? I decided to go to graduate school because I had a desire to support the clinical decisions made in sports medicine with research so that athletes, laborers, and warfighters can safely perform their best.

Working in clinical practice as an athletic trainer requires us to make a lot of decisions on a daily basis. I believe building out a repertoire of evidence can only improve our practices to better understand our decisions as clinicians.

Who is your advisor? What is your field of research? My advisor is Professor Douglas Casa. My field of research is exercise science with a particular focus on thermoregulation and hydration. It’s all about finding that right blend of safety and performance to make sure people can perform their best while staying healthy.

Name one aspect of your work that you like. I really enjoy the dynamic nature of my work. Every day presents a new problem to solve. In addition to working with the military and athletic organizations, we also have an active lab here that I help run. I go from policy-based public health research one day to working directly with athletes and working on aspects of intense physiological projects another. It’s all ways of looking at similar problems to come up with these strong multifaceted solutions, and that’s what I really like. It keeps it interesting at all times.

In your opinion, what is your greatest accomplishment so far? I led a group here that published a consensus statement to help improve care for exertional heat stroke by EMS (emergency medical services). We are working to reevaluate the paradigm used to treat civilian exertional heat illnesses in the United States. For the longest time, the EMS paradigm has been to get the patient to the hospital as quickly as possible. In the case of exertional heat stroke when cooling is available on site, it can create problems down the line if you stop the cooling to take them to a hospital. As athletic trainers, we’ve known for a long time that the best practice is to cool the person as soon as possible, but unfortunately this can create conflicts with EMS when they arrive and want to pull the person out of whatever cooling we are providing. This project was a large effort between myself and Professor Casa to bring together experts in emergency and sports medicine to explore the steps going forward in how we treat exertional heat stroke and change the way we work together and hopefully improve patient outcomes.

When do you expect to get your degree? What then? I expect to get my degree in May of 2019. From there I am looking into positions as a researcher that support athletes or warfighters but in an applied sense that allows me to continue to bring things from the bench side to the field.

Is there anything else you would like us to know about you? I’m an avid mountain biker. I work on a mountain bike patrol in Massachusetts providing first aid during mountain biking.

by Kim Colavito Markesich
UConn 4-H Volunteer Spotlight
Robert Beaudoin

Volunteers are a critical component of the UConn 4-H program. Dr. Robert Beaudoin is one such volunteer, and he is part of the 4-H mentoring program in New Haven and Fairfield counties. The goals of the mentoring program are to increase the interpersonal skills of selected youth and to strengthen their family bonds through a twelve-month mentoring program. Realizing it takes a village to improve the lives of youth and their families, the Connecticut 4-H Mentoring Project partners with local agencies to fulfill project goals.

Dr. Beaudoin started volunteering with the Connecticut 4-H Mentoring Project conducted at the Waterbury Youth Services, Inc., in 2011. He is the CEO of Beaudoin Karate Academy in Waterbury and has provided the support of his school and trainers at no cost to the participants of the programs conducted at Waterbury Youth Services, Inc.

Under Dr. Beaudoin’s guidance, the program has grown into a major part of the 4-H mentoring project, with about forty-five youth participating in workshops that meet twice a week throughout the year. Four of his staff volunteer their time as trainers and mentors for the 4-H members, enabling youth to participate in local and regional contests, earn their belts, and demonstrate their skills at agency functions as well as the 4-H Fair.

In 2014, Dr. Beaudoin was recognized with the UConn 4-H Meritorious Service Award at the College of Agriculture, Health and Natural Resources Awards and Honors event. We appreciate his continued service to the UConn 4-H program and youth in Waterbury.

by Edith Valiquette and Margaret Grillo
Volunteer with UConn 4-H

If you enjoy working with children, have a willingness to share your time and talents with young people in the community, and appreciate having fun, learning new skills, and making a difference, then being a 4-H volunteer is for you. UConn 4-H is the statewide youth development program of UConn Extension.

4-H volunteers play a significant role in helping youth reach their potential. As a volunteer, you will help youth in your group learn leadership, citizenship, and life skills through projects and activities. If you have a hobby or interest you would like to share with young people such as photography, leadership, animals, plants, fishing, drama, community service, computers and technology, woodworking, fashion design, arts and crafts, rocketry, or more, consider becoming a 4-H volunteer.

“4-H has been a part of my life since I was seven years old,” says Owen Day, an eighteen-year-old 4-H member from Middlesex County. “I take away so many fond memories of interactions with my peers and leaders, and with animals and fairs and service events. With all the guidance from leaders and friends, I have learned so much about life. It has been a very valuable growing and learning experience that I’m sure will help guide me as I mature.”

Training for volunteers is conducted at local, state, and regional levels. New 4-H volunteers receive a general orientation. Meetings are held throughout the state several times each year to help new leaders. The statewide Connecticut 4-H volunteer conference is held every other year, and leaders can also participate in the regional 4-H volunteer forum.

Just as we recognize the efforts of youth, the UConn 4-H program recognizes and acknowledges its volunteers for their efforts at the local, state, and national level.

As a UConn 4-H volunteer you will gain:

- Leadership skills
- Recognition within the community
- Opportunities to engage in state, regional, and national experiences

As a volunteer you are priceless.

- You strengthen and improve the quality of our UConn 4-H program
- You provide your unique perspective
- More youth can be reached
- You have immediate access to the community
- You provide greater visibility for the program in the community

Sign up to learn more about volunteering with UConn 4-H in your county at s.uconn.edu/volunteer4h.

There are many other volunteer opportunities available with UConn Extension, including our Master Gardener Program, People Empowering People (UConn PEP), Expanded Food and Nutrition Education Program (EFNEP), and through our work with living shorelines and coastal resiliency, to name a few. If you are interested in volunteering with a different Extension program, please email extension@uconn.edu.

UConn Extension is on a collaborative journey. We co-create knowledge with farmers, families, communities, and businesses. We educate. We convene groups to help solve problems. Join us.
The Department of Allied Health Sciences (AHS) is home to distinguished faculty working in numerous fields of study and providing research opportunities for more than 800 undergraduate and graduate students.

“This is a department with diverse programs and faculty with strengths in advising, teaching, and research,” says Justin Nash, professor and department head. Upon joining the department in January 2017, his immediate goal was to capitalize on the success of the established programs while growing the graduate programs.

He says, “We have recently launched a Ph.D. program in health promotion sciences (HPS). The first class is in its second year, and it has attracted students from as far away as Uganda.”

The Master of Science in HPS allows students to develop individualized plans of study toward health-related careers in fields such as community health, while the Ph.D. program prepares students for careers in health-related research. Additionally, many of the MS students are graduates of professional programs seeking advanced credentials in health promotion.

The Occupational Safety and Health Online Post-Baccalaureate Certificate program covers a broad spectrum of health and safety issues in the workplace, with courses designed and taught by occupational safety and health professionals.

The department also offers a Master of Science in Health Care Genetics, appropriate for students with undergraduate degrees in the life or clinical sciences.

Undergraduate programs include several paths:

• The allied health sciences major prepares students for work in healthcare administration, public health, or occupational and environmental health and safety. The major also provides an excellent foundation for application to professional degree programs in medicine, dental medicine, physical therapy, or physician assistant education.

• The Dietetics Coordinated Program offers two options. One combines didactic course work and supervised practice hours for aspiring dietitians; the other is a post-baccalaureate coordinated program for graduates who have the prerequisites and wish to complete didactic coursework as well as an internship.

• Diagnostic Genetic Sciences (DGS) prepares students to become highly qualified laboratory professions for the field of genetic testing, including cytogenetics and molecular diagnostics.

• Medical Laboratory Sciences (MLS) graduates are clinical laboratory professionals in fields such as hematology, immunology, microbiology, chemistry, transfusion services, urinalysis, and molecular diagnostics. An advanced MLS certificate program is available for individuals with a bachelor’s degree in biology, chemistry, or molecular and cell biology who wish to sit for the certification exam in the MLS field.

“The demand for these healthcare professionals is
strong, particularly in clinical settings,” says Nash.

As with the teaching programs, the department’s research programs cover a wide variety of health-related topics from genetics to behavioral sciences and public policy. “We have excellent research faculty who are very successful in being independently funded investigators,” Nash points out.

A few of the current research programs highlight the diversity of the department.

Recent newcomer to the department Sherry Pagoto, professor and director of the UConn Center for mHealth and Social Media, based in UConn InCHIP (Institute for Collaboration on Health, Intervention and Policy), is also a licensed clinical psychologist. Her research focuses on leveraging technology in the development and delivery of behavioral interventions targeting diet, physical activity, and cancer prevention behaviors. Pagoto is president of the Society of Behavioral Medicine and co-chair of the Indoor Tan-Free Skin Smart Campus Initiative.

“Sherry is a very successful researcher and brings a team with her,” says Nash. “Recruiting her to UConn was an example of collaborative effort between the College, department, InCHIP, and University offices, to attract a national leader conducting innovative research.”

Associate Professor Jennifer Harris studies the amount, content, and impact of food industry marketing to children and their families. Based in UConn’s Rudd Center for Food Policy and Obesity, Harris is garnering national attention for work related to policies to reduce unhealthy food marketing to children, including marketing aimed at communities of color. Her recent research has been used to support implementation of soda taxes and healthier fast food kids’ meals in the United States and national policies to restrict marketing of unhealthy food to children in Canada, Chile, Mexico, and the United Kingdom.

Associate Research Professor Laijun Lai is conducting cutting edge research, using gene engineering approaches to treat cancer and stem cell technology to model and treat autoimmune and genetic diseases.

Professor Valerie Duffy and her team have two complementary research interests. The first is understanding how chemosensory variation influences our ability to follow a healthy diet for the prevention of chronic disease and obesity. The second is collaborating with community agencies across the state to promote healthy diets and healthy weights of children and their families, particularly those at economic disadvantage.

Research and public outreach are intertwined in the programs of AHS. A service provided by the department is Hawley Armory Fitness and Wellness, which offers cardio, strength, spin, yoga, and other classes along with the use of a fitness center to the UConn and larger Storrs communities.

An area that Nash is committed to is building communities for students within the department. Examples of these communities include honors students and those from diverse and underrepresented experiences. His goal is to bring students together for peer support, faculty advising, and career development opportunities.

The department includes an in-house academic advising center, under the direction of Susan Gregoire, that works closely with the College’s advising center.

“Our faculty and department continually strive to stay current in educating and training our students so that they will be able to make important contributions in improving health and healthcare,” Nash says.
Many factors contribute to weight gain and loss. There are behavioral and environmental aspects, such as what types of food and how much people choose to eat or the amount of physical exercise they get.

Genetics may also be involved, based on past investigations by Department of Allied Health Sciences (AHS) Associate Professor Jeanne McCaffery and other researchers. Genetic variants may influence individual dietary preferences, the ability to lose weight, and, possibly, susceptibility to obesity-related health problems.

The genetics of eating behavior and the genetics of weight loss are central to several of McCaffery’s research projects in her fifteen years of continuous National Institutes of Health (NIH) funding. Ultimately, her work may be useful in treating obesity, which is a known risk factor in type 2 diabetes and cardiovascular disease.

Her current three-year, $275,000 grant comes from the National Institutes of Health and the National Institute of Diabetes and Digestive and Kidney Diseases. The project is called “Salivary Amylase Gene (AMY1) as a Predictor of Weight and Diet in Look AHEAD and DPP.”

Salivary amylase breaks down starches, such as bread, potato, and rice, as part of the digestive process. According to McCaffery, the gene that codes salivary amylase, AMY1, is located within a type of genetic variation called a copy number variant. This results in people having between two and eighteen copies of the AMY1 gene in their genome. The number of copies of AMY1 relates to the amount of the amylase enzyme present in saliva. McCaffery and her colleagues want...
to know if variations of AMY1 are related to starch preference, body weight and diabetes risk in 7,000 individuals of diverse ancestry.

Because of AMY1’s role in breaking down starch, McCaffery said she is interested in knowing if individuals with an AMY1 variant might prefer starchy food or perhaps would benefit from a low-starch diet as part of weight loss. As AMY1 contributes to the breakdown of starch ultimately to glucose, she is also interested in how the variant relates to diabetes risk.

Test subjects are current participants in two large NIH clinical trials to which the AMY1 genotyping has been added for the purposes of this grant. The Look AHEAD (Action For Health in Diabetes) trial has sixteen sites in the United States, and the Diabetes Prevention Program (DPP) has twenty-seven US trial sites.

As a licensed clinical psychologist, McCaffery is interested in the field of cardiovascular behavioral medicine, or how a person’s actions and reactions predict heart disease. Over the course of her career, McCaffery has conducted research on diet and obesity, cigarette smoking, and stress. This research uniquely examines the role of these behaviors in the context of genetic risk for obesity, diabetes, and heart disease. McCaffery finds that behaviors can improve or worsen genetic risk.

“UConn’s excellent behavioral programs and strong genetics programs put me in a good home for this research,” McCaffery said. In addition to being on the AHS faculty, she serves as an investigator for both the Institute for Collaboration on Health, Intervention, and Policy and the Institute for Systems Genomics. McCaffery, who came to UConn in 2016, said she enjoys being in a department with such a broad perspective on health promotion and is looking forward to building on her research projects in Connecticut.

Her AHS department head, Professor Justin Nash, said, “We are excited to have Dr. McCaffery in the Department of Allied Health Sciences. With her research, she brings uniqueness in the interplay between genetics and unhealthy behavior that contributes to cardiovascular disorders. She also created two instructional offerings in research that have been well received by students. One is a research methods course for honors students, and the other is small group instruction for students who are involved in her research.”

The honors course includes the topics of designing a study, analyzing data, and considering ethics. It prepares students for a senior thesis based on research. McCaffery said, “It is a privilege to work with such talented students.”

McCaffery also supervises eight undergraduate students exploring links between the amylase enzyme, stress, and eating with some students writing review papers and three others leading a pilot project to test the concept using mobile phone technology. One of the students is developing the protocol to send texts to participants throughout the day to ask about their stress levels and eating behavior and collect saliva samples as part of an honors thesis in allied health sciences.

McCaffery also has a graduate student. She is Lauren Corso, a first-year Ph.D. student in the health promotion program within AHS.

Corso is interested in a new field called metabolomics, which McCaffery describes as an important concept for the future of health promotion. UConn recently opened a new proteomics and metabolomics facility, and Corso will be training at the new center to study the role of metabolomics in weight and cardiovascular risk.

McCaffery is excited about potential UConn research advances that lay foundations for the treatment of obesity and diabetes. And, if her research confirms it, one of the key pieces is genetics, especially variation in the salivary amylase gene.

This research was supported by a NIH/NIDDK grant, #R21DK109225 in collaboration with colleagues at Wake Forest University, University of Maryland, College Park, George Washington University and UConn.

By Patsy Evans
Q: What is the result of combining the scientific knowledge of a well-known plant breeder and an award-winning dairy microbiologist with cooperation from nutritional sciences and allied health sciences?

A: It all adds up to a tasty UConn-made yogurt that holds promise for its nutritional value because it is flavored with healthful berries from a plant called Aronia, also known as black chokeberry.

The plant scientist is Professor Mark Brand, who conducts research at the Plant Science Research Farm and supplies the berries. He has developed several Aronia cultivars, including Proven Winners® Low Scape Mound® and Low Scape Hedger®, as native alternatives to invasive shrubs such as barberry. The microbiologist and dairy scientist is Assistant Professor Dennis D’Amico, who devised a Department of Animal Science Creamery yogurt making system that uses the berries.

The Department of Nutritional Sciences’ faculty members Professor Ji-Young Lee and Associate Professor Ock Chun studied the nutritional benefits of the berries. Taste tests were done by Department of Allied Health Sciences Professor Valerie Duffy, Brand, and others.

“The finding an outlet for another department’s product (Aronia berries) was an important part of this work,” D’Amico said. Brand, who is growing about 700 commercial Aronia plants per acre at the plant science farm, said, “I see this as a good collaboration, and I’m happy to provide the berries.”

And, there are a lot of berries! In August 2017, over thirty pounds of plump, purple berries were harvested from only six mature plants and given to D’Amico for yogurt making. “Per plant yield can average between five to eight pounds per mature Aronia plant, or around six to eight tons per acre,” Brand said.

The two researchers agree that this collaboration is also a great way to engage their students. “There is a lot of interest in novel crops by undergraduate students,” Brand said. His graduate student, Jonathan Mahoney, harvested the berries with the help of the UConn men’s crew team and Spring Valley Student Farm/EcoHouse.

D’Amico included the Aronia project as part of his undergraduate dairy technology class. He said the students welcomed participation in the production process. Together, they decided how to develop and formulate a product made with Aronia that could be manufactured in the creamery. Considerations included food safety, what dairy product worked best as the base for Aronia, what form of the berries would work best and provide the most health benefits, and what type of milk to use.

One healthy advantage of Aronia was published in a 2017 Nutrition Research article. Co-investigator Lee said, “We found that Aronia berry consumption lowered blood total cholesterol and LDL cholesterol [bad cholesterol] concentrations in former smokers.”

Incorporating Aronia into a food product was investigated using plain berry juice and ice cream. Taste test research on the juice was published in the journal Appetite. Duffy said about one of the results, “The juice needed more than sugar to be palatable.
and something to block the astringency, or the drying/puckering sensation.” In another trial by a graduate student, adding whole Aronia berries to ice cream resulted in unappetizing ice crystal formation.

Attention turned toward putting Aronia in yogurt after a visit from the College’s 2017 commencement speaker, David Bouley. The renowned chef, who promotes the connection between food and health, tasted the juice as part of a College facilities tour with Mahoney. Bouley encouraged the collaboration to formulate a new healthy food product.

D’Amico agrees that yogurt seems to be an ideal “healthy delivery device” for UConn’s Aronia berries. The palatability issue was addressed when D’Amico decided to use juice instead of whole berries. He discovered that the juice has less astringency and does not require lots of added sugar when it is extracted with an enzyme and incorporated into yogurt.

D’Amico obtained a license from the state of Connecticut to use the current creamery equipment, and his class made a twenty-five-gallon test batch, which had some distinct advantages over mass-produced yogurt found in supermarkets.

Pluses include a naturally rich pink color with no artificial coloring needed and a consumer-coveted “cream top” produced from using non-homogenized whole milk fresh from the Kellogg Dairy Center. In addition, D’Amico said, “This yogurt showcases the milk, and it can shine.” The yogurt has a longer shelf life because of the quality and freshness of the locally produced milk used, according to D’Amico.

He was so proud of the yogurt, D’Amico personally took a sample to UConn President Susan Herbst. In addition, UConn Dining Services made it into parfaits and said that it was well received.

Both Brand and D’Amico are excited by the idea of the advance of Aronia as a crop and seeing the berries incorporated into dairy food products, perhaps for use at UConn.

For Brand, Aronia is a viable new berry crop that could become mainstream in a way similar to that of cranberries. However, he thinks that product development for Aronia fruits is needed because the berries can’t be eaten fresh.

He also said, “It is a wide-open playing field for modifying the crop because nobody has done anything with Aronia. It should be possible to take some steps forward.” If Aronia is successful as a crop, Brand anticipates the need to enhance its large-scale commercial production potential. To that end, he wants to make it easier to mechanically harvest the Aronia berries by getting the shrub’s heavy branches off the ground. He is currently experimenting with grafting the native black chokeberry onto the rootstock of European mountain ash, which is related to Aronia. A bonus result is a more robust plant with larger fruit. It’s easier to manage the weeds, too.

Although Aronia is being grown around the world, ‘Viking’ is the only variety available as a food crop. This worries Brand. Pests could easily destroy all the plants in production now. He is thinking of ways to add diversity that would protect the crop.

When D’Amico speaks of expanding Aronia yogurt production, he says it from the perspective of the microbiologist that he is. D’Amico said, “I want to maximize the healthfulness with the polyphenols and fiber that are present and the probiotic cultures they use in the production of the yogurt.” And, he wants to know how the yogurt’s properties are enhanced by the berries and whether the yogurt’s nutritional value changes if powder or whole berries are used instead of juice.

by Patsy Evans