Dear Friends,

It’s been a while since our last printed newsletter, but that doesn’t mean things haven’t changed. We’ve welcomed new faculty and bid farewell to longtime Professor Virginia Walter, who retired after 45 years. Virginia is a legend on campus and in the horticulture industry — she has probably educated at least half the people in the industry! We’ve embarked on a campaign to fund an endowed professorship in greenhouse production. (See related article, Page 4.)

Launnie Ginn announced his retirement this year after 22 years of keeping our fields and crops up to commercial standards. He will be sorely missed, especially his dedication to Learn by Doing — or more accurately, “learn by breaking.” His tolerance for student failures allowed students to learn their best lessons.

Jerry Mahoney also retired from Cal Poly. Jerry kept the Cal Poly Organic Farm running during some rough years and is credited for the farm’s No. 6 ranking on the 60 Blue Ribbon College Farms list published by Online College Plan in 2016.

Soil fertility specialist Charlotte Decock was hired in a joint appointment with the Natural Resources Management and Environmental Sciences Department to augment our curriculum focused on the certified crop advisor license.

The department’s revamped website (aeps.calpoly.edu) provides clear information that will help students. It contains information and links to opportunities for employment and internships. Our certifications and licenses make our graduates employable as certified pest control advisors, certified crop advisors, and American Society of Horticultural Science-certified horticulturists.

We have made solid progress on the programming phase of the new Plant Sciences Complex, which will include a vegetable processing line, high-tech greenhouses and a plant science technology building. Faculty, staff, students, outside experts and industry stakeholders participated in discussions leading to several design options. We toured greenhouse production and research facilities, including Windsett Farms and UC Davis’s Plant Sciences facilities in California; Colorado State University’s Horticulture and Landscape Architecture Department; and Wageningen University, Bijk Zwaan and PRIVA in the Netherlands. We can now prioritize the form and function that will best meet our needs. We hope to complete programming in 2017-18.

Exciting things are happening. People may come and go, structures may be torn down and rebuilt, but the one constant is our Learn by Doing approach. It has made Cal Poly — and especially the Horticulture and Crop Science Department — effective at producing graduates who can think critically and solve problems.

SCOTT STEINMAUS  |  DEPARTMENT HEAD

Scott Steinmaus teaches AEPS 321: Weed Biology and Management.

PHOTO BY BALLESTEROS PHOTOGRAPHY
UPON RETIREMENT, LONGTIME PROFESSOR VIRGINIA WALTER WORKS TO ESTABLISH AN ENDOWED PROFESSORSHIP

Professor Emeritus Virginia Walter may have retired from teaching after more than four decades of service to Cal Poly and the Horticulture and Crop Science (HCS) Department, but she hasn’t stopped working on behalf of the students.

To ensure that future generations of Cal Poly students are afforded the same opportunities as those that came before, she has donated $100,000 as seed money to establish the Greenhouse Production Endowed Professorship.

“I have enjoyed working with so many bright and eager students during my 43 years at Cal Poly,” Walter said. “Their joy and enthusiasm for growing plants was my primary reason for wanting this hands-on Learn by Doing activity to continue in perpetuity for future students interested in the challenges and satisfaction of greenhouse production.”

Walter is a widely known and highly regarded expert in hydroponics and specialized greenhouse courses. She has taught and influenced countless students who went on to successful careers in major horticulturally related businesses such as Brightview Landscapes, Ball Seed Co. and Windset Farms.

“We will be indebted to Virginia for her dedication and service to the department and to the discipline for years to come,” said Department Head Scott Steimle. “She has provided invaluable service to the department, to the College of Agriculture, Food and Environmental Sciences (CAFES), and to the university. We are indebted to her service most recently for providing guidance on the programming and planning for the new Horticulture Unit and Plant Sciences Complex adjacent to the Crops Unit.”

In her honor, the department will host the Virginia Walter Greenhouse Endowment Celebration Dinner on Friday, Nov. 3.

Doors will open at 4:30 p.m. and dinner will be served at 6 p.m. at the Officers Club, 10 Sonoma Ave., at Camp San Luis. The cost is $30 per person.

Reserve a spot online at http://bit.ly/vwalterdinner, call 805-756-1237, or email aeps@calpoly.edu by Oct. 20.

The Officers Club is on a National Guard military base, so security measures will be taken. Everyone who makes a reservation will have their names included on the guest list. Drivers will need to obtain a pass at the main gate. To receive a pass, drivers must show a valid, current driver’s license, proof of insurance and auto registration (or vehicle rental contract).

Attendees will be required to show their driver’s license or an identification card.

The Greenhouse Production Endowed Professorship is my way of guaranteeing that future generations will know and benefit from the joy of growing plants in greenhouses,” Walter said.

The initial goal of $1 million to fund this endowed position allows the position to exist in perpetuity.

To support the Greenhouse Production Endowed Professorship, contact Russ Kabaker, assistant dean of advancement and external relations, at 805-756-5400 or rskabaker@calpoly.edu.

ANNUAL EVENING WITH INDUSTRY SET FOR NOV. 1

The Horticulture and Crop Science Department’s 16th annual Evening with Industry will be from 6 to 8 p.m. Wednesday, Nov. 1, in the Performing Arts Center Pavilion.

The event provides an opportunity for students to learn from industry representatives about internship and employment opportunities.

Companies are invited to sponsor a table for $500 and send one or two representatives to participate. Registration deadline is Wednesday, Oct. 25. For more information and to register, contact Kristi Golin at kgolin@calpoly.edu or 805-756-2279.

CAMPUS FARM STAND AND U-PICK ORCHARDS ARE OPEN TO PUBLIC

The Cal Poly Horticulture and Crop Science Department opens its orchard gates to give Farm Stand customers the opportunity to pick fresh fruit themselves. These “U-Picks” take place throughout the year, offering a variety of fruit choices.

U-Pick selections might include apples, Satsuma mandarins, peaches, nectarines, plums and various citrus. The campus Farm Stand sells the U-Pick produce as well as other Cal Poly-grown fruits and organic vegetables.

In the fall, the U-Picks and Farm Stand are open from 2 to 5 p.m. Wednesdays and Fridays and from 10 a.m. to 2 p.m. Saturdays.

Get weekly recorded updates and directions to the orchards and stands by calling the U-Pick hotline at 805-756-6778. To sign up for weekly email messages, email requests to cpfarmmarket@calpoly.edu.
Although corn has been around for about 10,000 years, people are still discovering new and worthwhile uses for it. It’s common knowledge that ethanol comes from corn, but it’s not widely known that corn can also be used to make therapeutics such as insulin or vaccines.

Professor Jeff Wong in the Horticulture and Crop Science Department hopes to be able to add new applications to the list of medicinal substances derived from corn.

Working with the Applied Biotechnology Institute (ABI), a tenant in Cal Poly’s Technology Park, Wong is helping the company produce corn in which the protein trypsin can be produced. “Bovine trypsin is widely used in the medical field, including in the making of insulin and vaccines,” explained Wong. But because it comes from cows, there’s a risk of human exposure to animal pathogens, such as the organism causing mad cow disease or E. coli. Plant production offers a way to replace animal-derived proteins safely and economically.

“We have inserted into corn a gene from cows that produces the enzyme trypsin, which has the potential to lead to treatment options for an array of diseases—from diabetes to some cancers,” Wong said. “The trypsin grown in corn is clean and virus-free.”

Wong is working to quantify the amount of trypsin that is produced in the kernels. “We have to identify lines of corn that produce the highest amount of trypsin,” he said.

Growing New Medicine?

PROFESSOR JEFF WONG RESEARCHES CORN’S POTENTIAL IN HELPING TO TREAT OR CURE DISEASES

Kudos!

Two Horticulture and Crop Science faculty members were honored with 2017 College of Agriculture, Food and Environmental Sciences (CAFES) awards. Professor David Headrick received the Outstanding Faculty Award, and Associate Professor Kelly Ivors received the New Scholar Award.

Headrick, a pillar of the department for 20 years, is a former recipient of the university’s Distinguished Teaching Award and two earlier college-level teaching awards. He has also received college awards as Club Advisor of the Year (twice) and Outstanding Researcher.

“He brings humor and passion to the material he teaches, which in turn ignites students’ own passion for the subject,” CAFES Dean Andrew Thulin said. His research in biological pest control has proven vital to the industry, and he has been awarded more than $2.3 million in grant funding.

Ivors is the lead researcher at the Cal Poly Strawberry Center. In her three years at Cal Poly, she has established herself as an authority in strawberry disease diagnostics, pathogen biology and disease control methods. She has been awarded 16 grants totaling more than $1.1 million to sustain her research.

“Dr. Ivors quickly established the Cal Poly Strawberry Center as one of the preeminent research facilities in California,” said Thulin. “She is an outstanding scholar and we, and our students, are fortunate that she calls Cal Poly home.”

Professor Jeff Wong’s research may lead to additional medicinal uses for corn.

BALLESTEROS PHOTOGRAPHY
Learn by Doing was experienced on a whole new level by a diverse group of 11 Cal Poly students who spent almost three weeks of their summer working at the Children of Hope orphanage farm on the outskirts of Nairobi in Kenya, Africa.

Students led by Ashraf Tubeileh, assistant professor in the Horticulture and Crop Science Department, were part of the agriculture team. Those led by Keri Schwab, assistant professor in the Experience Industry Management Department, were on the sustainable tourism track.

The students came from seven different majors in three colleges: Agriculture, Food and Environmental Sciences; Architecture and Environmental Design; and the Orfalea College of Business. The trip was part of the students’ Internship in Agriculture class.

The Children of Hope farm is situated on 50 acres, on which various crops are raised and animal enterprises are maintained to help feed the residents and generate income.

“We had two main goals,” Tubeileh said. “We wanted to improve the profitability of the farm by improving crop and animal management, and we wanted to expose Cal Poly students to tropical agriculture in a developing country.

“The agriculture team evaluated crop production, animal production, budgets and record-keeping practices on the farm,” Tubeileh continued. “Their approach was based on interviews with farm staff, field observations and visits to other farms and facilities with similar missions. Students took composite soil samples from major fields and sent them for analysis to determine soil pH and chemical fertility.”

The team’s recommendations were compiled in a 90-page report that included improving soil fertility through lime and fertilizer applications, switching fertilizers, expanding irrigation, starting a greenhouse operation, and growing new crops.

When time allowed, the students played with the orphans and visited another children’s safe house in the port city of Kisumu. The group also explored Hell’s Gate National Park, Lake Naivasha, Lake Victoria, the Giraffe Centre, Daphne and David Sheldrick’s elephant orphanage, and Nairobi’s Maasai Market.

Julia Predmore, an agricultural business senior, said the “eye-opening” trip reinforced her passion for agriculture.

“It was exciting to implement everything I’ve learned and apply it to a real-world situation. We helped improve agricultural techniques, which in turn can improve people’s lives.”
Four agricultural and environmental plant sciences (AEPS) students were awarded Arnold D. Haskell Scholarships for the 2017-18 academic year.

Senior Gage S. Willey received a full scholarship, which covers California resident fees for tuition, books and supplies, room and board, personal expenses and transportation costs for the academic year. The award includes a paid internship at the Sherman Library and Gardens in Corona del Mar, California, during summer 2018.

The scholarship is awarded based on many factors, including grades, involvement in the major and department, and work experience.

Willey meets all the criteria and then some. In addition to maintaining a 3.7 GPA, he is the student manager of the Environmental Horticultural Unit on campus, leading the production crew and managing the greenhouses and production schedules.

He is vice president of Pi Alpha Xi, the honorary horticulture society, and vice president of the student Horticulture Club, which “brings people and plants together, invites guest speakers to campus, organizes visits to nurseries and production facilities, puts on activities, and holds fundraising events.”

Willey is also involved in the Poinsettia Enterprise, which holds a popular annual holiday sale of the iconic plants in various colors and sizes.

Willey “was beyond grateful” when he heard he would receive the scholarship.

“Plants are not as appreciated as they should be. They give us food, shelter, the air we breathe and beauty. It’s uplifting to know the Sherman Library and Gardens are so invested in the future of horticulture.”

Cash scholarships of $1,500 were also awarded to Jacob Mattlin and Lauren Mocettini and $500 to Conor Stephen.
Emilio Uranga III, a fifth-year landscape architecture student, pitches in at Cal Poly’s Leaning Pine Arboretum. “In my major, I don’t usually get to see the installation or maintenance of the landscapes I design,” says Uranga. “Working at the Leaning Pine Arboretum has given me the opportunity to see what works and what doesn’t from a landscape maintenance perspective.”