



Department of Plant & Environmental Sciences Fall 2019 Newsletter

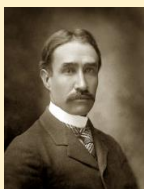
In this issue



Faculty Profile 3



Aggies Go Global 4



...the award goes to 5

October, 2019



Rolston St. Hilaire
Department Head

Introduction

Our faculty, staff, and students continue to excel. For example, Sierra Strebe, a Genetics and Biotechnology major, and a member of the Plant and Environmental Sciences Fall 2018 graduating class, won a Fulbright Scholarship to study in Germany.

The department continues to foment activities that support the undergraduate student learning experience. HortForum, the undergraduate student horticulture club, along with one of its faculty advisers, Rachel Gioannini, spent their spring break learning more about plants. The Environmental Science Student Organization along with its advisor, Dr. April Ulery, learned and practiced sustainable construction.

Last fall, several of our students graduated and our student data revealed that most of our students found jobs or have enrolled in graduate programs. As these students transition from the Department, we will need to bring in a new cohort of students. Hence, our faculty and staff continue to participate in numerous recruitment activities.

In February, Dr. Mary O'Connell retired. Mary built a research, teaching, and outreach program that spawned collaborations across multiple levels. In this newsletter's faculty profile, we summarize a few of Mary's accomplishments. We sincerely thank Mary for being a mentor and role model to many faculty, staff, and students.

<https://aces.nmsu.edu/academics/pes/> • Tel: 575-646-3405 • Dept. pesadmin@nmsu.edu

Spring 2019 PES Graduating Class

Congratulations!



Bottom Row: Israel Joukhadar, Khadijeh Mozaffari; Sarah Dysinger, Nicholas Gallegos, Kyle Moore. Bottom Row: Simon Blevins; Nathaniel Emerick; Luis Garza Martinez; Christopher Kubicki; Rolston St. Hilaire.

13th Annual PES Welcome Ice Cream Social – August 28, 2019



Faculty and staff gladly serve up ice cream to students, faculty and staff



Long lasting friendships forged as refreshments, ambience, and good company are enjoyed by all.



Yummy!!!



Faculty Profile:



Dr. Paul Bosland, Regents Professor, "The Chileman," retires

Known by many as the "Chileman," and widely considered the world's foremost authority on chile peppers, Dr. Bosland officially retired on August 1, 2019 following a 33-year career at New Mexico State University. His education, and hence, his career, began at the University of California, Davis (UC Davis), where he consecutively earned his B.S. in Genetics (1976), his M.S. in Vegetable Crops (1977) and a secondary teaching credential (1980). His first positions included teaching vocational agriculture at high school and the community college levels and being a Research Associate administering vegetable trials with the CA Cooperative Extension Service. He returned to school at the University of Wisconsin-Madison, and earned his Ph.D. in Plant Breeding and Plant Genetics (1986).

He started his chile pepper journey when he accepted a faculty position as a vegetable breeder, in the Department of Horticulture at New Mexico State University (NMSU). During his tenure at NMSU he led the breeding and genetics research program to improve the horticulture and physiological traits of chile peppers; developed technology for multiple disease resistance chile pepper seedling screenings; examined chile pepper capsaicinoid profiles to increase food product acceptability; founded the Capsicum Genetics Cooperative; developed the 'chile heat profile' to describe heat sensations one feels when consuming a chile pepper; organized the chile pepper naming taxonomy used throughout the world today; released more than 50 new varieties of chile peppers; re-introduced three Mesilla Valley varietals with their original flavors; co-founded the Chile Pepper Institute (CPI) (1992) which is now the go-to global resource for scientists, researchers, and chile aficionados; and co-chaired the New Mexico Chile Conference - the world's largest conference dedicated to growing chile peppers.

He published more than 110 scientific papers, written eight books, 21 book chapters, numerous guides, research reports, and bulletins; advised 19 M.S., 17 Ph.D., and 4 post-doctoral students; taught undergraduate, graduate, and Honors College courses, hosted international scientists from 22 countries, and been awarded more than \$12 million in research funding. Paul received many honors and awards including being named a Regents Professor, Distinguished Achievement Professor, Fellow of the ASHS, one of the 2,000 Outstanding Scientists of the 20th Century. Bosland and his program have been featured in hundreds of popular press and media outlets ranging from feature articles in the Smithsonian Magazine, the Chronicle of Higher Education, Martha Stewart's Living, Scientific American Frontiers, National Geographic, the New York Times, the New Yorker Magazine, CBS Sunday Morning, National Public Radio, the Food Network, and Discovery Channel, just to name a few.

Thank you, Dr. Paul Bosland, for your unparalleled service and contributions to our department and the university. Best wishes in your retirement; you will be missed.

NMSU Aggies Go Global, 2019



New Mexico State University graduate students from left to right: Emily Creegan, Esmail Mokari, Curt Pierce, Jeremy Schallner and Shanelle Trail; and NMSU associate professor Dave Dubois among Chinese students and faculty at the China Agricultural University in Beijing. *(Photo: Courtesy Photo / New Mexico State University)*

LAS CRUCES - Five New Mexico State University graduate students saw up-close the impact of desertification due to drought and man-induced water shortage, and the efforts of the common-person to reclaim their ancestral lands.

The Aggies Go Global students were touring Shiyanghe Experimental Station and project sites in the Shiyang River Basin in Gansu Province in northwest China as part of an NMSU-China Agricultural University 1+1 Graduate Exchange program.

College of Agricultural, Consumer and Environmental Sciences graduate students Emily Creegan, Esmail Mokari, Curt Pierce, Jeremy Schallner and Shanelle Trail; and NMSU associate professor David DuBois joined China graduate students and faculty for a water conservation convergence on high-efficient water use in agriculture.

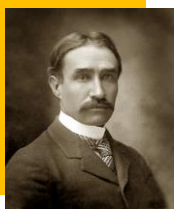
"Five years ago the NMSU-CAU Water Science and Engineering Joint Research Center was created," said Manoj Shukla, NMSU coordinator of the ACES Global Initiative program. "Each year NMSU faculty members have visited China to participate in this program. This spring during a trip attended by Dean Rolando A. Flores it was agreed to have a program for graduate students to meet and share their research."

(for complete story, go to: <https://www.lcsun-news.com/story/news/local/community/2019/10/12/nmsu-graduate-students-visit-china-desertification-control-project/3961973002/>)



New Mexico State University graduate students, from right, Emily Creegan, Shanelle Trail, Esmail Mokari, Jeremy Schallner and Curt Pierce with three Chinese students at the Great Wall of China. *(Photo: Courtesy Photo / New Mexico State University)*

...and the award goes to:



Fabián García, a Mexican immigrant whose research at New Mexico State University helped influence agriculture nationwide, will be inducted this fall into the National Agricultural Center's Hall of Fame in Kansas, joining the ranks of Thomas Jefferson, George Washington and Eli Whitney, among other notable contributors to agriculture. For complete story, go to: <http://newscenter.nmsu.edu/Articles/view/13821/pioneer-nmsu-horticulturist-to-be-named-to-national-agricultural-hall-of-fame>

Undergraduate ASHS Award Recipients

The American Society of Horticultural Sciences (ASHS) announced the 2019 ASHS Collegiate Scholars. This award honors the academic achievements of junior and senior undergraduates from departments of horticulture, or plant and crop science, who are majoring in horticulture. Plant & Environmental Science students awarded are Adam L. Hopper, Dagoberto Matta, Eduardo A. Rascon Aldana, Donna M. Farmer, James O. Martin, and Amador G. Gonzales. Also announced was the 2019 Outstanding Undergraduates; the award officially recognizes exceptional undergraduate horticulture students in baccalaureate programs. Rachel A. Herrington of PES was selected for this prestigious award.



Dr. Akasha Faust, Animal and Range Science, was awarded the Fall 2019 PES First Friday Kickoff Science Communicator Award for her presentation entitled: *Creative methods to identify and overcome barriers to ecological restoration*.



Ms. Sabine Green, was awarded the Stephen W. and Robert E. Roberts Memorial Staff Award that is presented annually to a member of the New Mexico State University staff who has exhibited positivity and made a great impact on the college and community



Rolston St. Hilaire, head of the Department of Plant and Environmental Sciences and Interim Head of Extension and Plant Sciences in the College of Agricultural, Consumer and Environmental Sciences was inducted into the American Society for Horticulture Science's 2019 class of fellows and serves as the ASHS International Division Vice President. (full article can be seen at:

<http://newscenter.nmsu.edu/Articles/view/13837/nmsu-professor-inducted-into-ashs-s-2019-class-of-fellows>)



Subhankar Mandal
Outstanding TA



Esmail Mokari
Outstanding
Ph.D. Paper



Vesh Thapa
Outstanding MS
Paper

Completing 1st Year of Leadership Training in the Bioeconomy



At the conclusion of a four-day conference, in which students gave their final presentations about current issues in the bioeconomy, New Mexico State student, Ujala Sehar, was recognized as a graduate of [CABLE \(the Consortium for Advanced Bioeconomy Leadership Education\)](#).

Sehar and her Faculty Mentor, Dr. Omar Holguin, represent New Mexico State in CABLE, a nationwide organization of 20 universities led by The Ohio State University and supported by the [United States Department of Agriculture, National Institute of Food and Agriculture \(USDA NIFA\)](#) that aims to provide students with a year of leadership development in the bioeconomy.

Coming together for their Spring Conference at North Carolina State University, CABLE Student Delegates and Faculty Mentors had the opportunity to hear from current industry professionals representing [Syngenta](#), [BASF](#), [Stephen Gould](#), and [BioFuels Digest](#), present their final

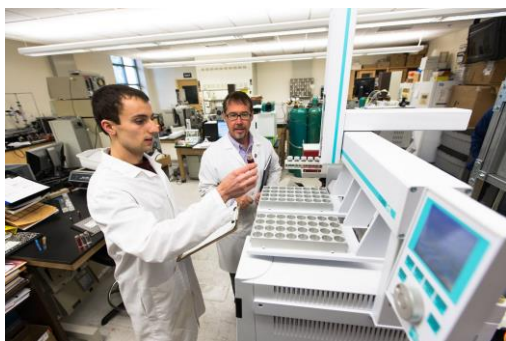
reports on issues currently affecting the bioeconomy, and take a tour of biotechnology company, [Novozymes](#).

Having access to industry is a key benefit of the CABLE program. CABLE was created to develop bioeconomy industry leaders who will be ready to fill bioeconomy careers. Those future jobs include chemists, engineers, and scientists, among others. CABLE Program Director, Dennis Hall, of The Ohio State University, notes "The advanced bioeconomy is critical to a more sustainable future for society but largely invisible to all but few college students. The ultimate goal is to equip more students with the knowledge and leadership skills necessary for successful biobased enterprises."

Over the course of the 2018-2019 school year, Sehar worked with peers from Delaware State University, Fresno State University, and the University of Tennessee to provide a policy perspective on the global biofuel efforts that can be utilized and incorporated into U.S. bioeconomic policy.

Upon successful completion of her CABLE term, Sehar was recognized as a graduate of the program and CABLE looks forward to the wonderful things she will accomplish throughout her career. CABLE is intent on expanding the leadership education of students and aiding them in achieving their goals of becoming future bioeconomy professionals.

NMSU Receives Grants



Kenneth "KC" Carroll, an associate professor in New Mexico State University's College of Agricultural, Consumer and Environmental Sciences, and his collaborators have received two \$300,000 grants from the Department of Energy. (full article can be seen at: <http://newscenter.nmsu.edu/Articles/view/13720/nmsu-receives-two-grants-from-doe-to-work-with-national-laboratories>)

The College of Agricultural, Consumer and Environmental Sciences is an engine for economic and community development in New Mexico, improving the lives of New Mexicans through academic, research, and Extension programs.