

School of Plant Sciences

News and updates for our SPLS community
September 2024



Calvin Perkins, a second-year graduate student working with Ravi Palanivelu, was one of the three Willemse Poster Award winners at the 27th International Congress on Sexual Plant Reproduction, held in July Providence, RI. Calvin presented a poster titled: "Tomatoes for Tomorrow: Genes that Thrive in a Warming World."

What's new in SPLS?

Greetings from Forbes 303C, where I am honored to be working on behalf of the unit as our Interim Director. I'd like to share a few updates with our community. - Betsy Arnold

- **Our newsletter is back after a summer hiatus and the busy first month of the semester.** To all, **welcome**, and to many among us, **welcome back**. I hope you're doing well as we move into the second full month of Academic Year 2024-2025, and as we close the first quarter of our unusual Fiscal Year '25. I wish everyone the best as you take or teach courses, advance your research and Extension work, and contribute service in so many ways.

- **Today we are looking ahead**, with our new University President starting his term tomorrow, an experienced Interim Provost currently supporting our academic endeavors, and our unit moving steadily forward. Interviews for our **Accountant II** position are commencing shortly, with the aim of finding just the right person to advance our unit's impact and mission delivery. Our **Accountant I** position is open; applications are being reviewed. We continue to work as a team to improve coverage of our business office needs, with sincere thanks to **Jen Rascon and Kevin Teres**. We are fortunate to be pairing with a **graduate coordinator** of high acclaim; please see page 2. Our future remains bright and grows brighter every day.

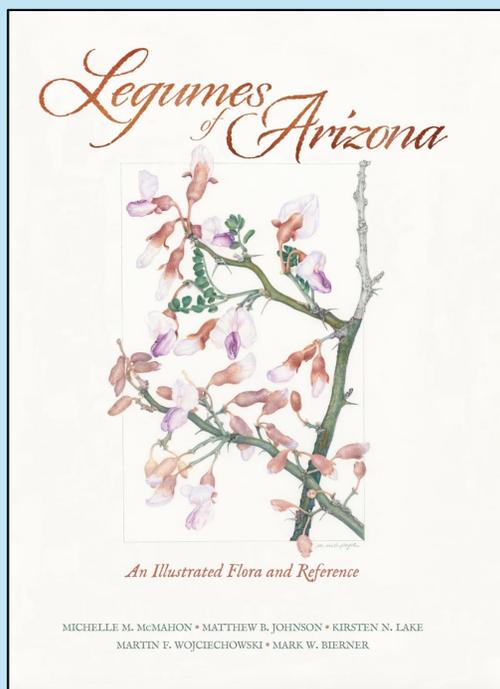
- **Just now, we are delighted to welcome our newest faculty member, Dr. Bhupinder Singh**, who joins us as an Assistant Professor and Specialist in agronomy, with a focus on conventional cropping systems. Please read more about Dr. Singh and his Extension and research plans on page 4, in our New Faculty Spotlight.

~ Good news ~

Congratulations to SPLS PhD student Will LaVoy for being selected in a travel grant competition to attend the bi-annual meeting of the International Plant Phenotyping Symposium. Way to go, Will!

Congratulations to Dr. Kabir Hossain, a postdoc in the Computational Plant Science Lab, who was selected to be one of 15 postdocs to receive extensive career development support through the Center for the Integration of Research, Teaching, and Learning at the University of Arizona. Well done Kabir!

Congratulations to SPLS faculty member, Dr. Shelley McMahon, on the publication of a spectacular new book, *Legumes of Arizona: an Illustrated Flora and Reference* (McMahon et al., eds.). This tour-de-force was published this summer and is available now on Amazon. Warmest congratulations, Shelley!



**HAVE NEWS TO SHARE?
PLEASE LET US KNOW!**
<https://forms.gle/xBbxZMKG5Bkb83eB9>

Priorities on the Interim Director's desk this week

- **SPLS committee assignments** were completed in August. Thank you to all for participating in our shared responsibilities for our School. All committees were activated in August with a full roster. As a final step, I'll send the list around shortly in the traditional format used in SPLS.
- **Position descriptions have been tracked down where possible in our SPLS servers**, but a few haven't been found despite my best efforts. Please stay tuned as I finalize the last few for our faculty members. After this round, we should have a simple and persistent curatorial process to keep track of position descriptions.
- **Meeting with our graduate students, and meeting our graduate students' needs.** I look forward to time this week with our graduate student leadership, and to meeting with graduate students as a group later this fall. Students in our MS and PhD program remain central to our diverse missions in education, training, mentorship, research, Extension, and instruction. I'm looking forward to these conversations very much.
- **Advancing our understanding of Unit, College, and University budget matters.** Right now, we're in a bit of a pause as we wait for President Garimella to take office. The ALVSCE Fall Budget Retreat reiterated that we're on the right track in stabilizing our unit's financial outlook. I look forward to being in touch with more information as we have it.
- **Addressing infrastructure needs.** As Marley users will know, we are partnering with Facilities Management to grow communication and understanding of our needs in our 'precociously aging' building. Please stay tuned this week as we outline plans for our building management, as Christopher will be out starting Oct. 7.
- **Working on our behalf to position SPLS so that we may recruit an outstanding Director at the earliest opportunity.** No news yet. Asking weekly. 😊

Call for sabbatical leave applications for AY2025-2026

Interested in sabbatical leave next fall or in spring 2026? The call for sabbatical leave applications is out. The deadline is November 22. Please contact me (Betsy) if you wish to apply for leave and we haven't talked about it yet. I'm here to help.

Funding opportunities for graduate and undergraduate students

The American Philosophical Society has field research awards available for PhD students, and the Garden Clubs of America offer funding awards for students at all stages.

<https://www.amphilsoc.org/grants/lewis-and-clark-fund-exploration-and-field-research> and <https://www.gcamerica.org/scholarships>

A few words of thanks

Two of our most visible elements as a unit are our Seminar and our website. I want to take a moment to thank **Zhongguo Xiong**, whose leadership on both have been a tremendous contribution to the unit. Stay tuned for information on both, and thank you Xiong!

As part of getting to know our faculty accomplishments, resources, partnerships, and needs, I was honored to spend time with faculty who are based in Yuma and Maricopa over the past month. Thank you **Glenn Wright and Ali Mohammed** for sharing a day with me in Yuma, and thank you **Bhupinder Singh** for meeting with me at MAC. It was a pleasure to learn more about your programs and partners. Thank you.

Many more thanks are due to members of our SPLS community. Please stay tuned for our next newsletter.

Supporting our graduate student program & room / course scheduling

We are very fortunate to be finalizing a partnership with **Danielle Buhrow** in AREC, who is poised to assist us with urgent matters for the unit as they pertain to our graduate program and scheduling needs. Please stay tuned for a formal announcement this week.

The Herbarium has a new website!

Please visit <https://herbarium.arizona.edu> to see our Herbarium's new online look! Contact Shelley McMahan and team by email at herbarium@cals.arizona.edu to get on the mailing list to hear about our weekly seminars or other events in our world-class biodiversity collection in historic Herring Hall.

Do you have questions or concerns? Please reach out.

Arnold@ag.arizona.edu

520.396.0854

Things to know...

- **Thank you to all who attended our first SPLS Faculty and Staff meeting on Sept. 6, 2024.** For those who couldn't join us in person or remotely, or for anyone who would like to review our discussion, please find slides here: [Faculty and staff meeting slides](https://arizona.box.com/s/ucvubzu4rolqhogw8x6ckzjv8clhm37) are in Box (or try: <https://arizona.box.com/s/ucvubzu4rolqhogw8x6ckzjv8clhm37>).

- **At this time, we continue forward under the spending authority rules imposed by the University.** Current rules were reviewed at the Division-wide Fall Budget Retreat. Discussions with Division leaders showed that we have taken the careful and responsible approach needed to steward our unit in a difficult time. Although our current situation is not ideal, I am happy to share that this point, we are stable and do not have any immediate changes to make. We will receive more information later in October, and I remain grateful as Jen and Kevin continue to move us in the right direction for financial stability, clarity, and accuracy..

As we navigate this 'year like no other', a few special messages:

- ***New faculty relying on startup***, thank you for your communication with us as we continue to ensure that you are able to spend within the limits you proposed with Kevin in summer 2024. There is no change to report at this time.

- ***For all other faculty***, we thank you for understanding our need to have paused spending on accounts beginning with 1- or 2 (unless they are NIFA funds). This policy affects many of us, including me, and it's far from ideal – but please, stay the course and I will aim to update us at our next faculty meeting.

More generally, my goal is that we aim to be a thriving and active unit with a growth mindset and high potential, so that when the University returns to incentivizing activity, we will be a unit that will attract investment, foster pride, and deliver impact in all of our core mission areas.

- **Looking ahead, our next meetings will be as follows.** Meetings will be in hybrid format, and slides will be shared after each meeting. Agendas will be available before each meeting.

Upcoming faculty meetings will be held from 11am-12:15pm, October 18 and November 22, location TBA. Note: I am scheduling the October meeting a bit later in the month in hopes that we will have more information about our status under spending authority rules.

Our next faculty and staff meeting will be integrated into the Plant Sciences Retreat, currently in 'save the date' mode for Dec. 12-13. Funding for this retreat will not draw from sensitive unit resources: we continue to work toward a cost-effective plan to bring our unit together. Please stay tuned for the time and place. For more general questions about the retreat, please reach out to Alex Bucksch (bucksch@arizona.edu).

Reminder: The University of Arizona observes Veterans Day, a national holiday, on November 11. The University will be closed on that day, and for Thanksgiving on November 28 and 29, 2024.

Congratulations to Dr. Matt Jenks!

Please join me in warmly congratulating **Dr. Matt Jenks**, Professor and Bud Antle Endowed Chair for Excellence, on the occasion of his retirement from the University of Arizona (Sept. 30, 2024).



Matt has had an extensive history of affiliation with the University over a three-decade span. He was a postdoc in our unit for two years (1994-1996) and Adjunct Professor in association with our unit for three years (2012-2015). Subsequently he joined us as Director of the School of Plant Sciences in 2018, serving in that role for four years that included the complex challenges of the COVID-19 pandemic. For the past two years, he has been Professor and Endowed Chair, returning to writing and assembling lasting contributions in many aspects of his research program.

Highlights of Matt's service as Director include special emphasis on degree programs and workforce-ready training opportunities for students, improved connections with Yuma and stakeholders statewide, and growing our faculty roster, mission delivery, and impact at regional to international scales through new hires, initiatives, and vision. In parallel, his stature in research brought a light to us all.

We thank Matt for all he he has done for our School, congratulate him on his many accomplishments, we wish him the very best as he looks ahead.

Congratulations, Matt!

Celebrating our SPLS strengths, vol. 4: new faculty spotlight

The School of Plant Sciences has incredible resources. The more we know about them, the more we can communicate those strengths to others. Our greatest resource is our people. Today I'm happy to introduce our newest faculty member, Dr. Bhupinder Singh.



Dr. Bhupinder Singh joined the University of Arizona as an Assistant Professor and Extension Specialist in Agronomy (Conventional Cropping Systems) at Maricopa Agricultural Center in August 2024. Dr. Singh was born and raised in an agricultural family where his parents instilled an interest in growing food and fiber crops of global interest in the Punjab State of India. Those early hands-on work experiences in a field setting paved his interest to pursue a bachelor's degree in Agricultural Sciences at Punjab Agricultura University, India. He received his M.S. and Ph.D. in Agronomy (Crop Physiology) from Mississippi State University under the guidance of Drs. Daryl Chastain and K. Raja Reddy. He developed screening tools for abiotic (drought, heat, and soil fertility) and biotic stress (reniform nematode) tolerance in agriculturally important crops such as rice, soybean, cotton, and cover crops that assisted US Midsouth farmers in the selection of cultivars best suited to their environmental conditions. He gained

experience in remote sensing and crop modeling by working as a Postdoctoral Researcher at the University of Missouri and Texas A&M AgriLife Research. He also served as Chair and Vice Chair for the Global Climate Change Community of the American Society of Agronomy in 2022-2023. Dr. Singh aims to utilize his expertise in crop physiology, remote sensing, and crop modeling to develop an Extension program and related research program focused on "Cropping Systems and Physiology" that could provide detailed explanations and the best possible solutions to farmers' or stakeholders' problems. His focus will be on dissecting morphophysiological mechanisms to elucidate cultivars' adaptation and acclimation mechanisms to various biotic and abiotic stresses experienced in the arid environment of Arizona, and using appropriate agronomic, physiological, and remote sensing-based screening tools to enhance our knowledge of stress tolerance in existing and developing crop cultivars.

Making a home in SPLS

Next time you're in Forbes, please feel the warmth and sense of home offered by **Daniel Jiménez Flores**, our Academic Advisor II in SPLS. Daniel's office is in 319 Forbes, and recently he took it upon himself to make his space into a place of support, welcome, and belonging for students. Daniel's cozy **First Gen Den** offers a quiet, friendly, and calming space where first-gen students – and students of all backgrounds – can take a moment to recenter during their busy days. Thank you Daniel for making your vision a reality – and for all you do to help foster our students' success and sense of belonging.



One more round of kudos, plus an opportunity to support undergraduates in research

Congratulations to Dr. Ali Mohammed, who has received support from the **Western Alliance to Expand Student Opportunities (WAESO)-NSF** for three students from groups historically under-represented in STEM. The goal of this program is to provide students with the opportunity to serve as apprentice researchers, in this case collaborating on Dr. Mohammed's research project, *Seasonal Water Use and Yield Productivity: Comparing Organic vs. Conventional Iceberg Lettuce with Different Irrigation Scheduling Strategies under Two Irrigation Methods in the Low Deserts of the Southwest USA*. During the fall semester, the students will participate in installing wireless sensors at various soil depth profiles; taking soil moisture and electrical conductivity measurements; and measuring crop growth development, including plant height and leaf area index, weekly throughout the season. The students will gain skills in experimental design using a wide range of wireless soil moisture sensors in both organic and conventional iceberg lettuce production systems, installing and calibrating four types of wireless soil moisture and electrical conductivity (salinity) sensors, measuring and calculating seasonal water use and water productivity in iceberg lettuce, and writing for an Extension publication. Via these activities, students will gain a comprehensive set of skills that will prepare them for careers in STEM research, particularly in fields related to agriculture, environmental science, and technology.



Interested in applying to WAESO? Applications are due Oct. 28, 2024 for opportunities in spring 2025. Please check out the [Western Alliance to Expand Student Opportunities \(WAESO\) website](#).

SPLS in action

A few photos of our SPLS community members – feel free to send yours to be included in a future newsletter!



Dr. Jesse Woodson presents a cross-cutting talk on plant stress and signaling at a variety of scales. Undergraduate **Ethan Smook** and PhD candidate **Ciara Garcia** check on sorghum treated with microbial consortia in a campus greenhouse. MS student **Kieryn Zizzo** works on fresh produce at the border as part of her internship with USDA APHIS PPQ at the Nogales port of entry. **Dr. Dave Baltrus** presents a synthesis of his lab's work in bacteriology from many angles, part of our fall 2024 SPLS seminar series.

