



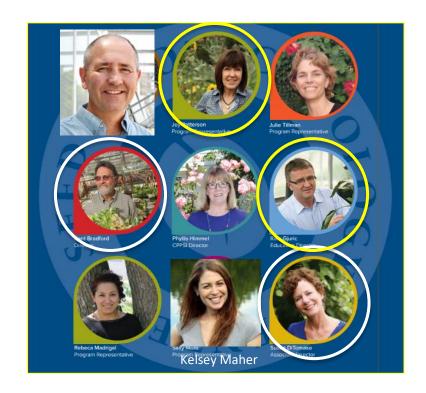
RESEARCH • EDUCATION • OUTREACH • PUBLIC SERVICE

Seed Advisory Board May 5, 2020



### **SBC** in Transition

- Sue retired, Kent 20% WFC
- Rale and Joy- June retired
- New Staff members in June/Sept
- Offer in place for both.







# New Faculty position

- Plant Reproductive Biology
- Assistant/Associate professo
- 44 applicants
- 5 interviewed this week



Seed Biotechnology Center





## Courses for Industry last 6 months



Dec 9-12, 2019, Davis, 35 participants



Feb 10-13, 2020, Davis 38 students



Oct. 29-30, Davis, 165 participants



Oct 2019: European Academy VI, 18 students

Feb 2020: UC Davis Academy VII: 16 students



## Courses for Industry next 6 months







Field Crops, August 17-21, 2020, St. Charles, IL Postponed

Horticulture, December 7-11, 2020, Davis, CA



October 27 - 28, 2020, Davis





Plant Breeding Academy<sup>sm</sup>

<u>EU Class V graduated in Began October 2019.</u>
 18 participants- <u>Postponed March</u>, <u>June?</u>

<u>Davis Class VIII</u> Sept 9-14<sup>th</sup> Recruiting now

 African PBA Class IV, Graduated in December 2019, 32 participants.

African PBA Class V, May 2020, 40 participants.

• >388 breeders from >80 different countries.



http://pba.ucdavis.edu







## Media



Pba.ucdavis.edu



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CBS Morning Show sbc.ucdavis.edu





## International/Policy

- African Plant Breeders Association: Oct 2019; 421 participants
- Discipline of Plant Breeding: Feb 19, 2020, Washington, DC
- Gene editing: Food and Seed Industry: Feb 20, 2020, Washington, DC
- Breeding for Food Safety: Feb 20, 2020, Washington, DC
- Gene editing: American Frozen Food Inst. March 1, 2020, Las Vegas, NV

















#### **MENTORING**

Nomination: Mar 19

Final Submission: Mar 26

GRD: https://www.agronomy.org/awards/view/207 UGRD: https://www.agronomy.org/awards/view/206



# PROFESSIONAL DEVELOPMENT

Interested in mentoring?

https://www.plantbreeding.org/awards/mentor/application



A Symposium organized by the Genes to Growers Project March 16, 2020

The Cliffs Hotel and Spa • Pismo Beach, CA www.G2G.ucdavis.edu

Convening experts in consumer preferences, marketing trends, breeding, production, postharvest handling, and food safety to envision the future of lettuce

Flipped to Virtual in 1 week





UCDAVIS GENOME CENTER

## Seed Central



Student program at ASTA Veg

4:00 - 5:30

Featured speaker

Markita del Carpio Landry
Assistant Professor
Department of Chemical and Biomolecular
Engineering
UC Berkeley

**Topic**: Nanomaterials enable delivery of genetic material without transgene integration in mature plants

See February 2019 news release: "DNA takes a ride on a nanotube: Next stop, genome-edited crops"





### Mechanical Harvesting Lines of Pepper

MUC14-17



MUC14-200



MUC14-330



Joe Parker







United States Department of Agriculture National Institute of Food and Agriculture



# Tomato Spotted Wilt

ISOLATE	LOCATIO	PEPPER	TOMATE			
	N	Tsw	Sw-5		Non Sw-5	
	(County)	Huntington	N6416	H5608	Glamour	Heirloom Red
RB-TSWV-	Yolo	3/3	0/3	0/3	3/3	3/3
CA-P-1						
19-314	Yolo	0/3 <sup>a/</sup>	3/3	3/3	3/3	3/3
19-325	Fresno	3/3	3/3	3/3	3/3	3/3
19-327	Fresno	3/3	3/3	3/3	3/3	3/3
19-329	Fresno	0/3	3/3	3/3	3/3	3/3



Bob Gilbertson and Allen Van Deynze



#### Spinach Breeding Program - People





Charlie Brummer Program Director



Allen Van Deynze Program Director



Allison Krill Brown Breeder



Arsenio D. Ndeve
Post Doc. Plant Path



Samantha Hilborn M.Sc. Student



Oon Ha Shin Ph.D. Student



Steve Klosterman Co-PI USDA-ARS Salinas CA



Richard Smith
Co-PI UC Cooperative
Extension, Salinas CA



A science-based, vegetable seed industry sponsored initiative to standardize the identification of plant pathogen strains and races based on sets of host differentials and reference plant pathogen strains

- CPPSI Services were launched on <u>www.CPPSI.org</u> in July 2019
- CPPSI is now a UC Davis Corporate Partner
- The World Vegetable Center (formerly AVRDC) is the newest CPPSI member
- A CPPSI marketing plan was developed to promote CPPSI membership and services
- Continued collaborations with EU and now Asia associations for consistent plant pathogen strain naming
- Status of Reference Material Development





#### Number of Host Sets Distributed from 2010\* - December 2019

Year	Host Sets Distributed		
2010	18		
2011	83		
2012	147		
2013**	50		
2014	85		
2015***	90		
2016	115		
2017	84		
2018	161		
2019	73		
TOTAL	906		

 $<sup>^*</sup>$  = 2010 - 2012 CPPSI housed on website of International Seed Federation

#### **Reference Materials development status**

Ro	ound 1	Most melon pepper spinach tomato	Pathogen Fusarium wilt Bacterial spot Downy mildew ToMV	Approval date 2007 2007 2007 2007	Expected deployment Deployed Deployed Deployed Deployed
Ro	ound 2	lettuce pepper tomato watermelon	DM TSWV TSWV Fusarium wilt	2016 2016 2016 2016	Deployed Deployed Deployed May 2020
Ro	ound 3	tomato tomato melon	RKN Fusarium wilt Powdery mildew	2017 2017 2017	2020 2020 2020
Ro	ound 4	pepper pepper pepper tomato	PVY PepMV Tobamoviruses Verticillium wilt	2018 2018 2018 2018	2021 2021 2021 2021
	ound 5	tomato tomato pepper	Spot Speck crown and root	2019 2019 2019	2022 2022 2022
K	ound 6	TBD	TBD	2020	2023

<sup>\*\* = 2013</sup> independent CPPSI domaine launched

<sup>\*\*\* = 2015 -</sup> present, CPPSI domaine housed by the University of California at Davis

### Thank You





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