

UIDPCONNECT
2020

New Models for Engaging Graduate Students: An Industry Perspective

September 21, 2020 8:45-9:35 AM EDT



Moderator
Ashley Chan
Penn State University



Jason Rauscher
Corteva Agriscience



Nathan Silvernail
PPG



Strengthening
University-Industry
Partnerships



New Models for Engaging Graduate Students: The Elevator Pitch Competition

Nathan Silvernail, Ph.D.
PPG

PPG and Penn State University: a Model for Industry/Academic Engagement

New Models for Engaging Graduate Students

- Several modes of engagement
 - Sponsored Research
 - Analytical facilities usage
 - Graduate Fellowships
 - Undergraduate internship program
 - Advisory board participation
 - In resident programs
 - Materials Day program
 - *Elevator pitch competition*



The Pitch Competition

New Models for Engaging Graduate Students

- 45 Graduate students from STEM Colleges
- Two minutes to pitch graduate research
- Training provided by Penn State
 - Everybody Needs a Elevator Pitch (Business Focus)
 - Effective Presentation Skills for Elevator Pitches (Communications Focus)

Evaluation Criteria

- Big Picture
- Structure & Clarity
- Use of technology
- Passion
- Pace



The Elevator Pitch Competition

New Models for Engaging Graduate Students

- Student Benefits

- Concise summarization skills, speaking skills, soft skills, critical consideration of research, and a monetary reward

- Industry Benefits

- Exposure to new technologies/faculty members and techniques throughout the University
- Quick assessment of candidate skills that are key to industry today
- Branding and recruitment



Strengthening
University-Industry
Partnerships



**THANK
YOU!**

Nathan Silvernail, Ph.D.

PPG

nsilvernail@ppg.com



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University-Industry
Partnerships





CORTEVA™ agriscience



The only major agriscience company
completely dedicated to agriculture

SEEDS

- Alfalfa
- Canola
- Cereals
- Corn
- Cotton
- Rice
- Silage inoculants
- Sorghum
- Soybeans
- Sunflowers
- Wheat

CROP PROTECTION

- Cereals Herbicides
- Corn and Soybean Herbicides
- Fungicides
- Insecticides
- Pasture and Land Management
- Rice, Trees and Vines Herbicides
- Seed-Applies Technologies
- Specialty Crop Herbicides
- Structural Pest Management
- Turf and Ornamental Pest Management

DIGITAL

- Software for growers to build and sustain stronger businesses by:
- Maximizing yield with data-driven crop models
 - Improving teamwork efficiency and communication
 - Measuring profit down to the field-level
 - Simplifying farmland research and transactions



- \$13.8B Global Net Sales
- \$1.99B Global Operating EBITDA





R&D Academic Engagement

Marlin Rice, PhD
Academic Engagement Lead

Jason Rauscher, PhD
Academic Relations Manager

Providing Corteva R&D with the leadership and support to build strong relationships with the academic scientific community, facilitating talent recruitment, employee development, knowledge exchange, and collaboration.

- R&D Internship Program
- Grants and Sponsorships
- New Frontiers in Applied Science Conference Series
- Plant Sciences Symposia Series



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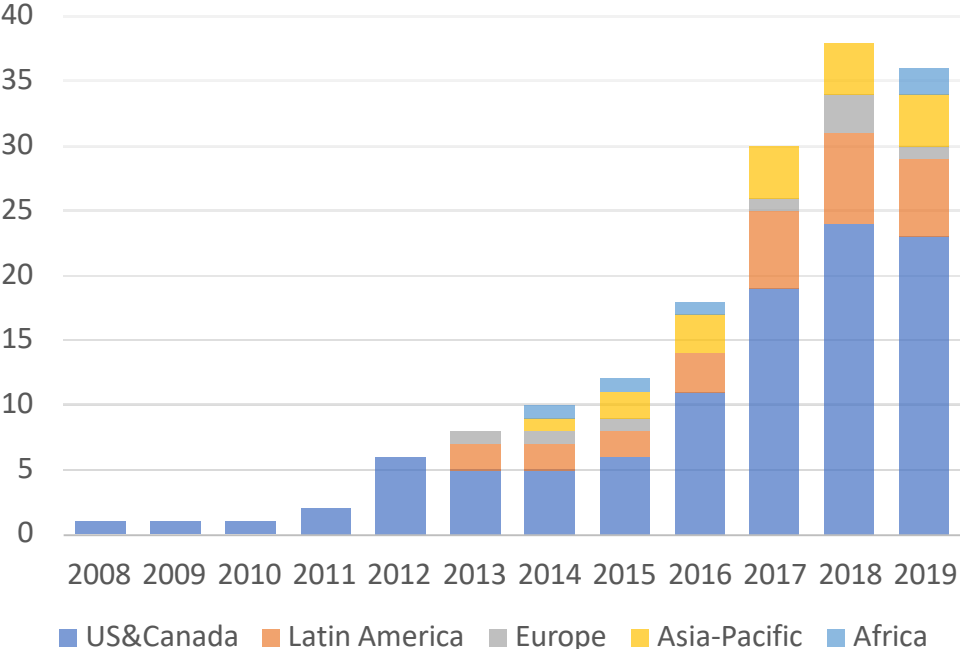
Plant Sciences Symposia Series



REACHING THE NEXT GENERATION OF
PLANT SCIENTISTS SINCE 2008

- Corteva-sponsored global program of scientific symposia; initiated and organized by graduate students
- Innovative high-impact model for industry support of graduate education

Plant Sciences Symposia Series



2008: single symposium at University of Minnesota; now: 30-35 events per year

>155 symposia
>60 institutions
16 countries

- University of Minnesota
- University of Wisconsin
- Cornell University
- University of California Davis
- University of Nebraska
- Iowa State University
- Texas A&M University
- Purdue University
- University of Illinois
- University of California Berkeley
- University of Florida
- Colorado State University
- University of Georgia
- Washington State University
- University of Missouri
- University of Guelph
- CIMMYT, Mexico
- American Society of Agronomy
- Sorghum ICNA
- University of Hawaii
- University of Manitoba
- The Ohio State University
- Clemson University
- Wheat-CAP
- Tennessee State University
- Michigan State University



- Wageningen University
- University of Hohenheim
- AgroParisTech/Paris-Sud
- University of Edinburgh
- Technical U Munich

- Huazhong Ag University
- Northwest AAF University
- Shandong Ag University
- Sichuan Ag University
- Henan Ag University
- JAAS, Changchun
- China Ag University

IRRI, Philippines

- Punjab Ag University
- University of Bangalore
- PJT State Ag University
- IARI
- ICRISAT
- Tamil Nadu Ag University

- Federal University of Viçosa
- Federal University of Lavras
- CIAT, Colombia
- University of Sao Paulo Piracicaba
- Federal University of Brasilia
- Brazilian Plant Breeding Congress
- University of Norte Fluminense
- Embrapa Arroz e Feijao
- Pontifical Catholic University of Chile
- Federal University of Rio Grande do Sul
- Federal University of Goiás

- North-West University
- University of Pretoria
- SAPB Symposium
- SA Soc Plant Pathology
- Makerere University

University of Queensland/TropAg

Plant Sciences Symposia Series



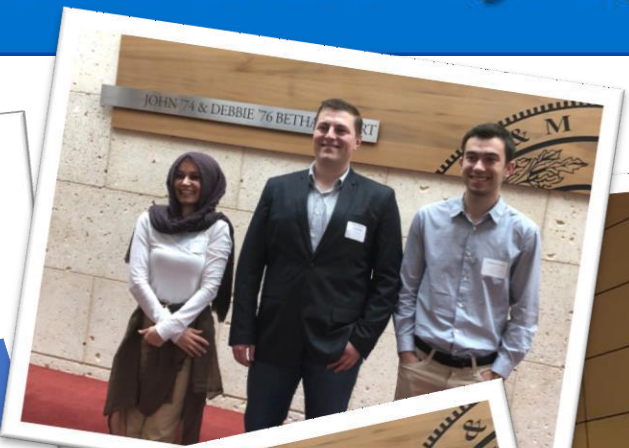
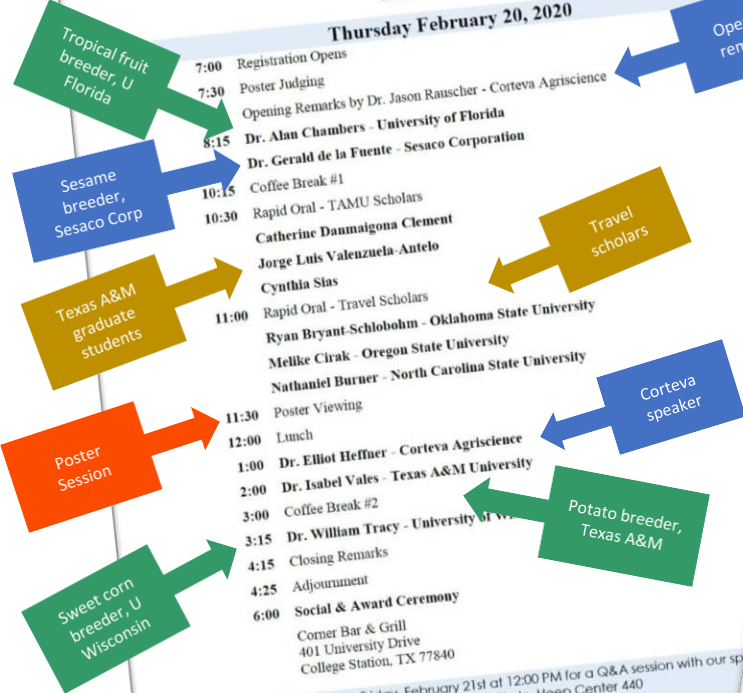
Foresight 2020: Tuning Crops for Future Needs

2020 Texas A&M Plant Breeding Symposium

Event Schedule

Thursday February 20, 2020

- 7:00 Registration Opens
- 7:30 Poster Judging
- 8:15 Opening Remarks by Dr. Jason Rauscher - Corvea Agriscience
- Dr. Alan Chambers - University of Florida
- Dr. Gerald de la Fuente - Sesaco Corporation
- 9:15 Coffee Break #1
- 10:15 Rapid Oral - TAMU Scholars
- Catherine Damaigona Clement
- Jorge Luis Valenzuela-Antelo
- Cynthia Stas
- 11:00 Rapid Oral - Travel Scholars
- Ryan Bryant-Schlobohm - Oklahoma State University
- Melike Cirak - Oregon State University
- Nathaniel Burner - North Carolina State University
- 11:30 Poster Viewing
- 12:00 Lunch
- 1:00 Dr. Elliot Heffner - Corvea Agriscience
- 2:00 Dr. Isabel Vales - Texas A&M University
- 3:00 Coffee Break #2
- 3:15 Dr. William Tracy - University of Wisconsin
- 4:15 Closing Remarks
- 4:25 Adjournment
- 6:00 Social & Award Ceremony
- Corner Bar & Grill
- 401 University Drive
- College Station, TX 77840



keynote speakers,
graduate student
talks, poster sessions,
and networking
opportunities

155 events since 2008:
estimated up to
30,000 participants



Plant Sciences Symposia Series

Learning



Enhance graduate education by providing students with exposure to relevant, cutting edge science

Networking



Build and strengthen networks between students and established scientists, other students around the world

Careers



Expose students to a wide range of public and private-sector career opportunities in agriculture and plant sciences

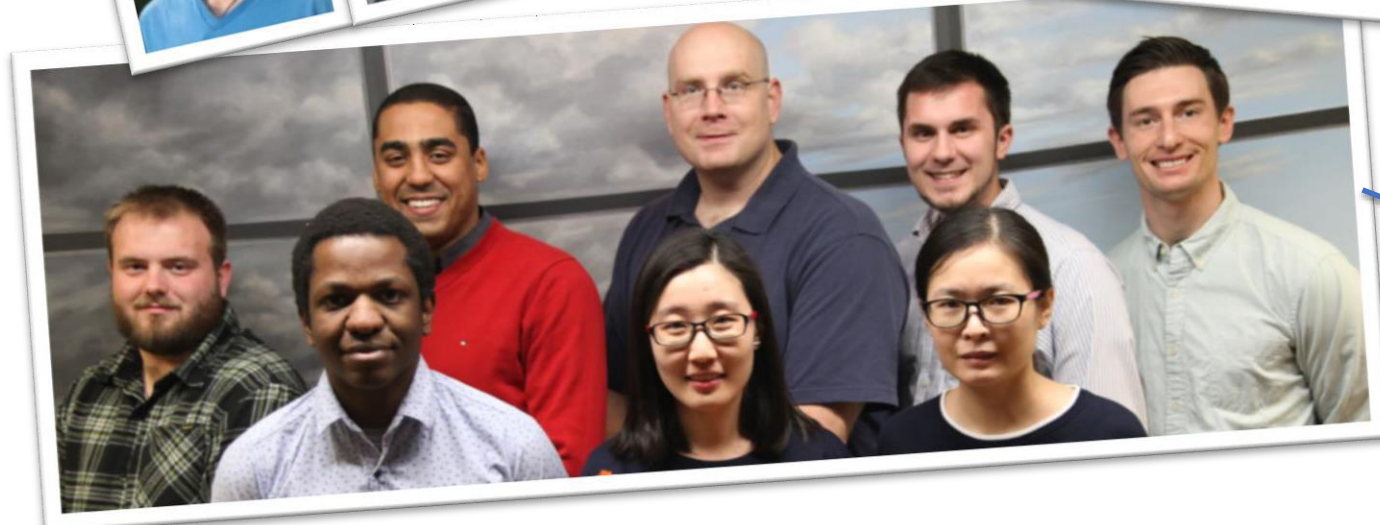
Soft Skills



Provide opportunities to build leadership, teamwork, organizational and management skills

To empower and support future plant scientists

Plant Sciences Symposia Series



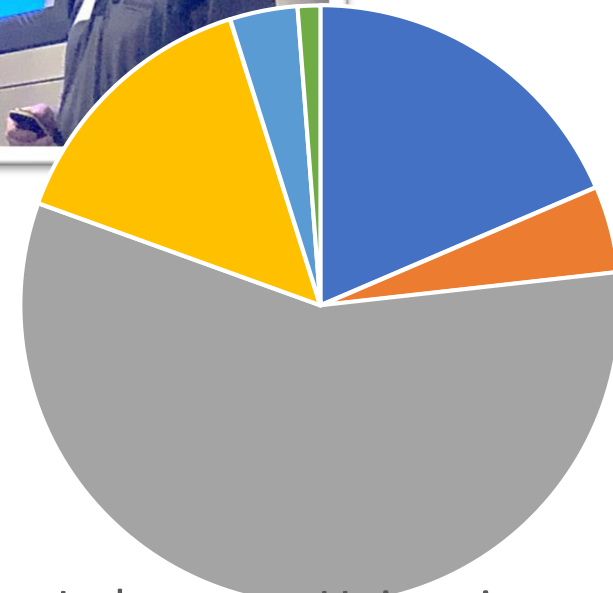
Student empowerment:
since 2008, hundreds of
symposium organizers
have participated



Plant Sciences Symposia Series

Private industry participation

- Corteva R&D speakers
- participation from other companies, including competitors, as speakers, attendees and sponsors is encouraged
- opportunity to explore career paths in industry, build networking, participate in open conversations



■ Corteva
■ Public

■ Other Industry
■ CGIAR

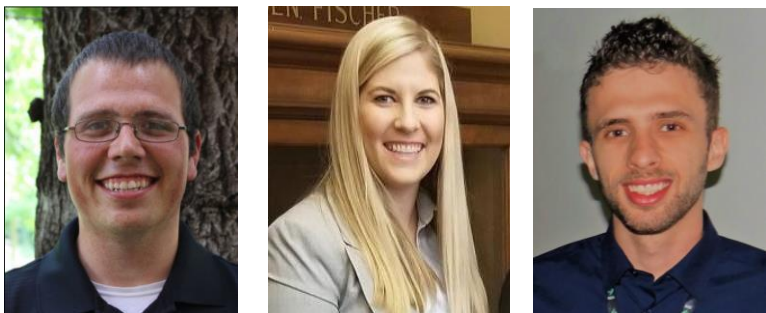
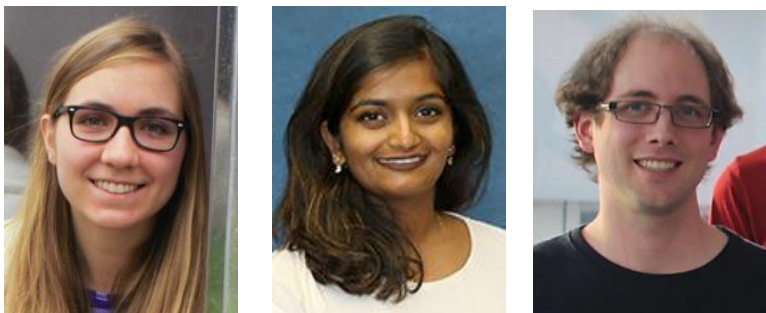
■ University
■ Non-Profit

Plant Sciences Symposia Series

Outcomes have included initiation of new graduate student organizations



U Florida Plant Science Council



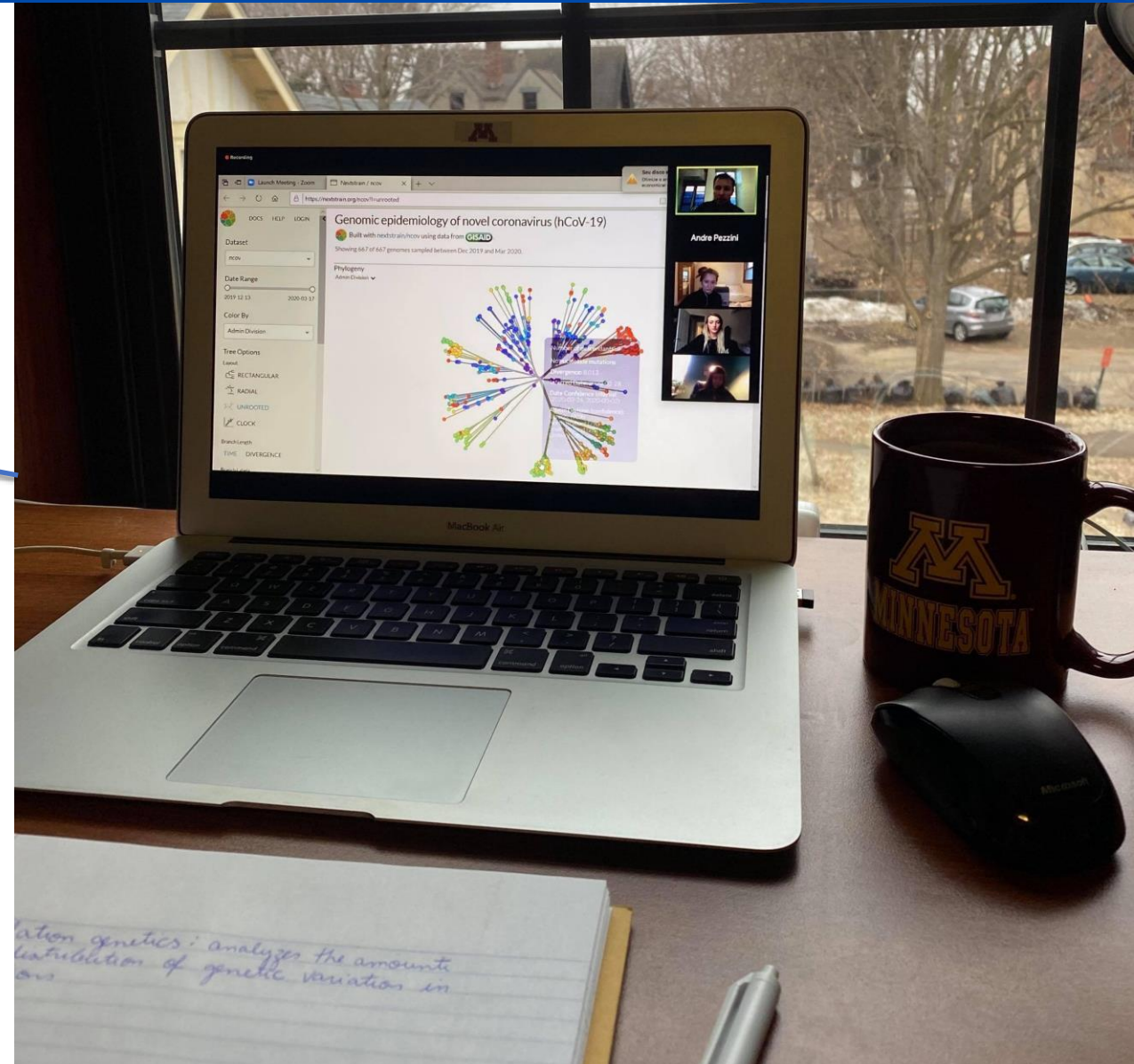
2020 PSSS Student Advisory Council



Plant Sciences Symposia Series



COVID-19 pandemic has had a profound impact on both academia and industry, including the PSSS



Plant Sciences Symposia Series

CAREER & EDUCATION

STUDENTS

Plant Sciences Symposia Series Student Advisory Council Hosts Virtual Plant-Breeding Symposium

By Austin Dobbels, Margaret Krause, Samantha McConaughy, Ammani Kyanam, Matt Breitzman, Gustavo Pucci, Tabare Abadie, and Jason Rauscher, Plant Sciences Symposia Series Student Advisory Council

Since 2008, Corteva Agriscience has sponsored more than 150 Plant Sciences Symposia Series (PSSS) events at more than 60 universities and research centers in 16 countries around the world. Through this program, graduate students are given the means by which to plan, organize, and host scientific conferences of interest to them. These events provide educational opportunities that build agricultural scientific literacy, foster networking opportunities between students and top scientists from both the public and private sectors, and expose students to a diversity of potential careers in plant science (see <https://bit.ly/2MhntuJ>). Equally as valuable as the event itself is the unique opportunity provided to students who participate in the organizing committees to enhance their skills in organization, leadership, and teamwork.



2020 PSSS Student Advisory Council

Figure 1. Plant Sciences Symposia Series Student Advisory Council members who helped organize the first-ever virtual plant sciences symposium. Top (l to r): Margaret Krause, Ammani Kyanam, and Matt Breitzman. Bottom (l to r): Austin Dobbels, Samantha McConaughy, and Gustavo Pucci.

Responding to the COVID-19 Disruption

Recently, the PSS Student Advisory Council was tasked with responding to disruptions in the Plant Sciences Symposia Series schedule caused by the COVID-19 pandemic. Like many scientific conferences around the world this year, PSSS events have been impacted by the need to social distance and isolate at home. Student organizing committees were suddenly forced to make



APRIL 24TH
9:45 AM - 2:00 PM CST

PLANT BREEDING: PERSPECTIVES FROM INDUSTRY & ACADEMIA

BY THE PLANT SCIENCES SYMPOSIA SERIES STUDENT ADVISORY COUNCIL

PSSS-SAC Symposium:
>1000 participants, 65 countries; publication in CSA News July 2020

Genetics and plant breeding

VIRTUAL SYMPOSIUM INTERGEN

14 July

SESSION 1 – GENOTYPE X ENVIRONMENT INTERACTION
14:15 – 14:55 (BRT): Natalia de Leon (University of Wisconsin-Madison)
15:05 – 15:45 (BRT): Fred Van Eeuwijk (Wageningen University)

SESSION 2 – BREEDING FOR RESISTANCE TO BIOTIC AND ABIOTIC STRESSES
16:30 – 17:10 (BRT): Danilo Hottis Lyra (Rothamsted Research)
17:20 – 18:00 (BRT): James Holland (North Carolina State University/USDA-ARS)

15 July

SESSION 3 – PHENOMICS
14:15 – 14:55 (BRT): Marion Limberger (Corteva Agriscience)
15:05 – 15:45 (BRT): Roberto Fritsche Neto (ESALQ/USP)

SESSION 4 – GENE EDITING
16:30 – 17:10 (BRT): Piero Barone (Corteva Agriscience)
17:20 – 18:00 (BRT): Elizabeth Pacheco Batista Fontes (UFV)

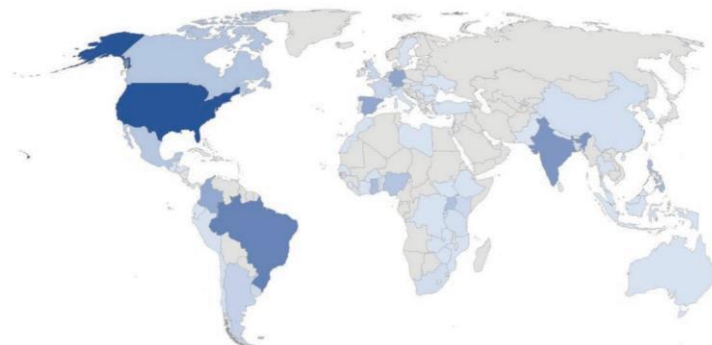
Brazil: Intergen Virtual Symposium: >900 participants

ESALQ - UFG - UFLA - UFRGS - UFV - UNESP

INTERGEN

GVENCK - ELGEM - GEN - GENMELHOR - GEMP

- 2020 -





Plant Sciences Symposia Series



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Thank you!