

Listening to the Voices of Our Non-Industry Stakeholders

Steven Weiner, University of Pennsylvania (Industrial Liaison Officer;
Sr. Director of Innovation & Technology for Penn Engineering)

Dr. Katie Stofer, University of Florida, (Research Associate Professor,
Dept. of Agricultural Education and Communication)

Innovation Ecosystem Partnerships

- Two primary IoT4Ag advisory boards for outside stakeholders:
 - Industrial Practitioner Advisory Board (**IPAB**), for technology developers, manufacturers etc.
 - **Agricultural Systems Advisory Board (ASAB): voice of the end-user grower community helping us balance “tech push” vs. “market pull”**
- The insights, concerns, constructive criticism, and network connections of our advisory board members are vital for successful translation of IoT4Ag university research into positive real-world impact through entrepreneurship, industry commercialization, and ultimately adoption by growers

ASAB Roles and Responsibilities

- **Advise IoT4Ag leadership** regarding:
 - strategic research plan
 - technology/system applications and demonstrations
 - barriers and solutions for technology adoption
 - "boots on the ground" perspective
- **Engage and Interact with IoT4Ag students**
 - diverse talent pool
 - technical/social interaction: e.g. annual meeting, farm site visits
- **SWOT** analysis

Who will represent the growers?

ASAB includes a diverse mix of ~ 25 growers and grower associations, agricultural agents, and government agencies.

Here are a few of our current ASAB members. For a complete list see: <https://iot4ag.us/agricultural-systems-advisory-board/>



Anthony Fulford

*Nutrient Management and Soil
Quality Advisor*
University of California,
Cooperative Extension
ucanr.edu



De Broughton

*Founder, 6 Gen Ag Services,
LLC*
Crop Consultant, CCA
6genagservices.com



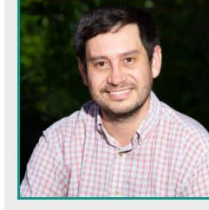
Gene McAvoy

*Associate Director for
Stakeholder Relations*
University of Florida IFAS
Southwest Florida Research and
Education Center
swfrec.ifas.ufl.edu



Chris Gaesser

Solutions from the Land
solutionsfromtheland.org



Sebastian Saa

*Associate Director, Agricultural
Research, Almond Board of
California*
almonds.com



Rigo Rios

Co-Founder
RKE Tierra Consulting
rketierraconsulting.com

National President
Latino Farmers Alliance
latinfoarmers.org



Jose Luis Susa Rincon

CFO
*SocioEnvironmental and
Education Network (SEEN)*
seen.team



Digital Divide Data

digitaldividedata.com



Rigo Rios, *Latino Farmer's Alliance*

Mantra for our research leaders:

Must have “**practical** and **easy-to-use solutions** that cater to all levels of ... expertise. Not all farmers are tech-savvy.”

Beware of tech that is too complex for our target users!

What he loves most about being part of IoT4Ag:

Our “**students’ openness to engaging with growers and listening** to our questions about their innovative ideas... Their willingness to consider our suggestions shows a genuine effort to make their technology more relevant and useful.”

Relationships → new win-win opportunities:

Partnering with IoT4Ag faculty from UC Merced, Rigo recently won a DOE grant for research work focused on solving environmental and sustainability challenges within the agriculture industry.



Rigo Rios

Co-Founder

RKE Tierra Consulting

rketierraconsulting.com

National President

Latino Farmers Alliance

latinofarmers.org

Chris Gaesser, *Solutions From The Land*



David Jeng

Founder

Bliss Executives
Banjul, The Gambia

Board of Directors
Gambia Chamber of
Commerce and Industry

<https://www.solutionsfromtheland.org/stories/african-orphan-crops/>

Building on Cultural and Nutritional Heritage: African Plant Scientists Breeding African Crops for African Farmers

115 mid-career plant breeders from 27 African countries have graduated from the African Plant Breeding Academy after being trained by some of the best plant breeders in the world [and] learning how to improve these 101 key crops through breeding for **improved nutrition, higher yields, water and nutrient use efficiency, pest and disease resistance and climatic resilience**. These graduates have launched 37 improved crop varieties, published over 180 peer reviewed scientific papers, and initiated over 200 national breeding programs



Chris Gaesser

Solutions from the Land
[solutionsfromtheland.org](https://www.solutionsfromtheland.org)

Solutions from the Land is a 501c3 nonprofit supporting **land-based solutions to world problems.**



De Broughton, *Crop Consultant*

During our 2023 annual meeting, we enjoyed a fascinating visit to Townsend Peanut Farm in central Florida – thanks to ASAB member De Broughton!

“My main take home message from [IoT4Ag 2023 annual meeting] is that we must focus on **operational efficiency** when developing technologies for agriculture 🌱 🌽 **Make things easier, not more complicated.**”
- *PhD candidate, Purdue University*



De Broughton

Founder, 6 Gen Ag Services, LLC
Crop Consultant, CCA
6genagservices.com

Bowles family farm: an eye-opening visit

June 25, 2024 – Los Banos, CA



Cannon Michael

Cannon is the **President/CEO** of Bowles Farming Company, the **6th generation in his family's farming business**.

Environmental stewardship, ethical treatment of workers, and sustainable production are all extremely important to Cannon and the Bowles Farming Company team.

“What keeps me up at night”

- California state laws – which he supports and believes in! – mean higher cost of **labor** and tighter restrictions on interventions (chemicals, water)
- How to compete with out-of-state growers??

<https://gsm.ucdavis.edu/profile/bowles-farming-company>

Bowles Farming Company

Optimizing Agricultural Output at a California Farm

The project goal is to provide Bowles management with actionable intelligence on crop rotation to strategically optimize yields and revenues. As a companion to optimized crop rotation, the students are tasked with creating a risk management practice to robustly predict and minimize negative impacts of factors such as water allocations, market prices, and weather. The 11,000-acre Bowles Farm, where the company grows cotton, tomatoes, field crops, and specialty produce, is managed by the sixth generation of farm owners in California's Central Valley.

Workforce Development

- We hear repeatedly from growers that reducing labor costs is a key element of the value proposition for new technologies
- But how do workers feel about “reducing labor costs”?
- Workers are stakeholders too



- Back-breaking labor in 104-F heat is not the future we wish for
- The future lies in **education** and **training** to **participate** in the new opportunities and growth that innovation will create

Chancellor Juan Sánchez Muñoz – Chancellor of UC Merced

A California native whose parents immigrated from Mexico and whose **father worked in the fields of the San Joaquin Valley**, Dr. Juan Sánchez Muñoz has deep roots in the UC System and the Central Valley region... He was appointed by Governor Newsom to the board of the California Strategic Growth Council in December 2020.

Best carrot I ever tasted (Bowles)



The land – and all of us who inhabit it – are also ultimately stakeholders