



Quarterly Webinar Series

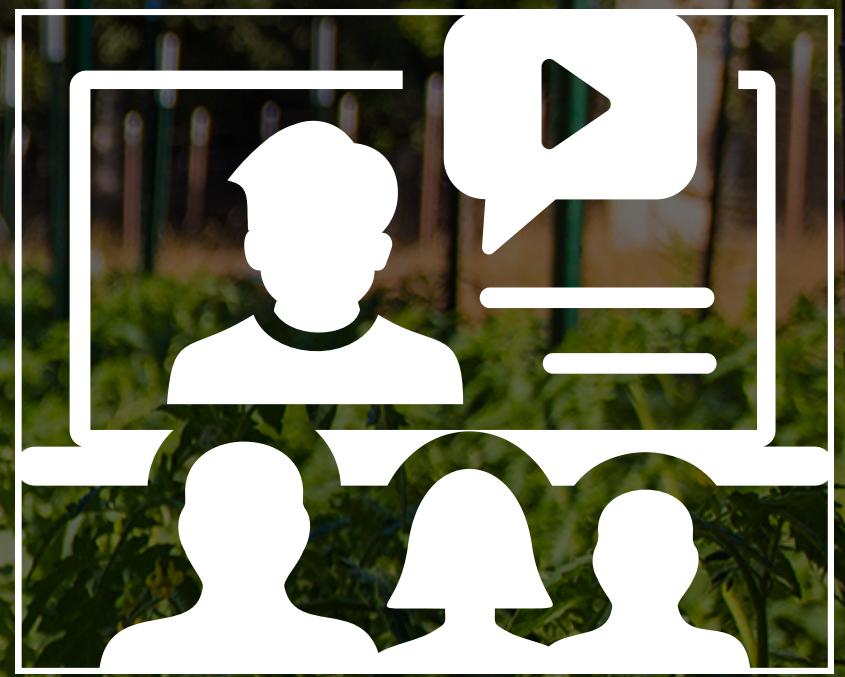
Agriculture Technology for Small and Mid-Sized Farms

April 16th, 2025 | 3 PM - 4 PM PT



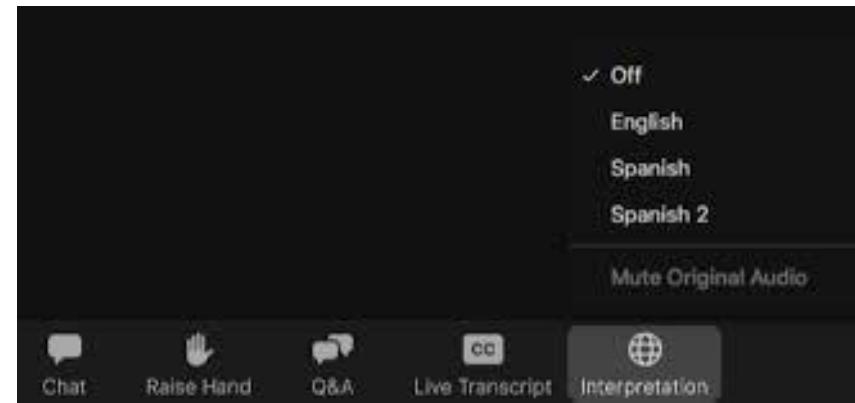
Webinar Logistics

- All webinar materials, including the recording and presentation, will be available on the Center's website (www.swfoodbiz.org) and shared with all registered.
- We encourage participants to turn their cameras on and use the chat to ask questions, share resources, and connect with other participants.
- There is time for Q/A at the end of the webinar

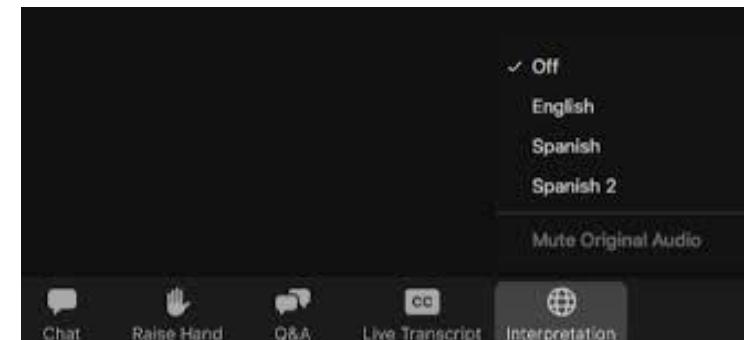
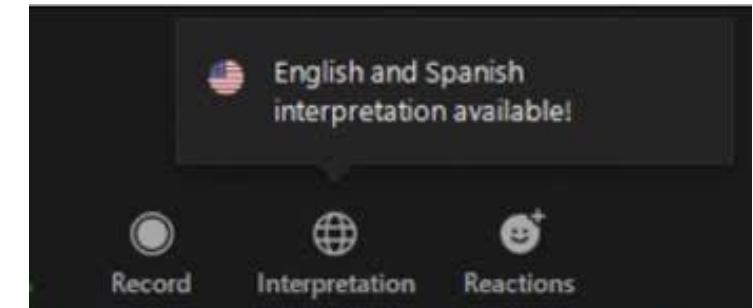
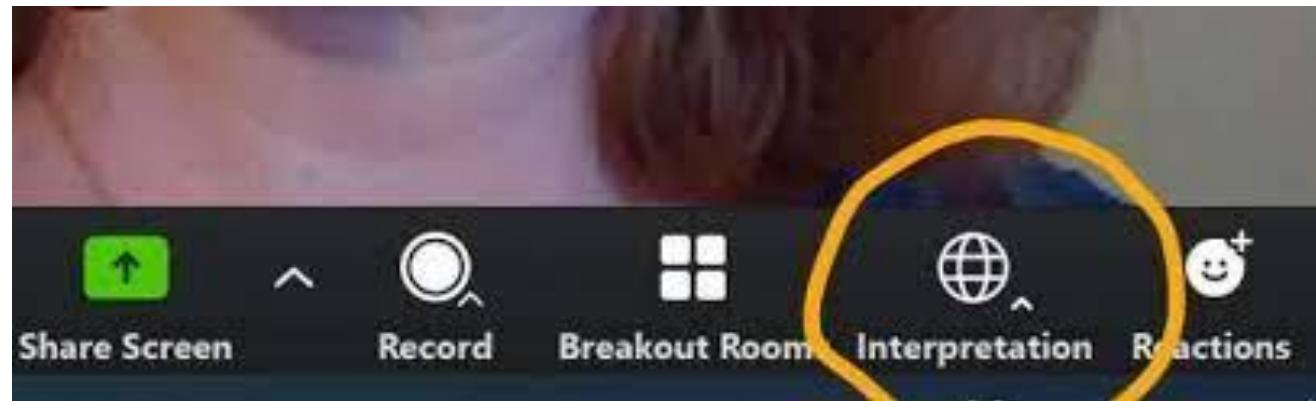


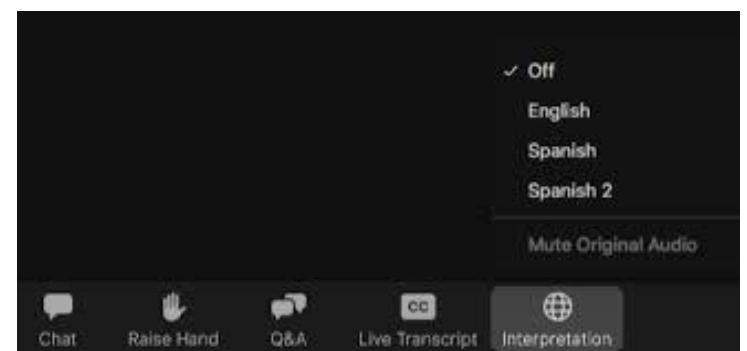
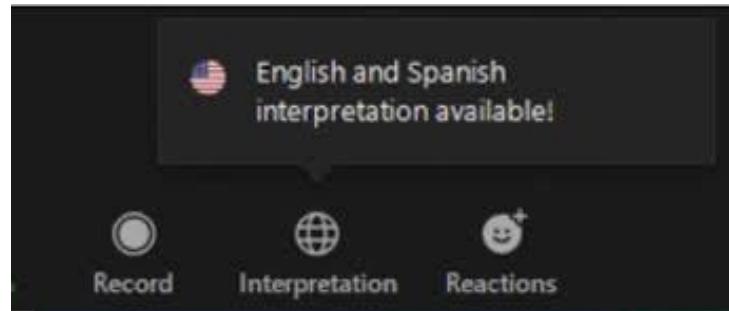


Interpretación al
español disponible



Interpretación al español disponible





The Center's Three Pillars



CAPACITY BUILDING

- We provide financial assistance through business builder subawards to support projects focused on regional needs and businesses that are looking to expand
- We ensure these sub-awards support staff time, business planning activities, software implementations, the purchase of special purpose equipment, and other related expenses



TECHNICAL ASSISTANCE

- We provide technical assistance directly to small- and mid-sized food and farm businesses, as well as food value and supply chain coordination
- We will identify priority areas for technical assistance through the Center's Business Builder workgroup



COORDINATION

- We coordinate across geographic areas with USDA, other federal, state, colonias, and tribal agencies
- We act as a regional hub for sharing best practices and relevant resources
- We conduct outreach to underserved communities and businesses

Gabriel Youtsey

Chief Innovation Officer



Gabriel serves as the Chief Information Officer for UC Agriculture and Natural Resources. He provides leadership to UC ANR's information technology unit to support programmatic, educational, administrative and marketing-oriented projects. Collaborating with colleagues across disciplines and UC locations he implements technology to provide innovative enhancements to support UC ANR's mission and administration.



Maria Ridoutt-Orozco

Small Farm Technology Advisor



Maria Ridoutt-Orozco is the Small Farm Technology Advisor at the Community Alliance with Family Farmers. With a passion for sustainable agriculture, environmental stewardship, and community engagement, Maria has traveled around the world to keep on learning about innovative and sustainable solutions. For the past several years, Maria has been based in California, bridging sustainability, agriculture, and community development.



BreAnn Brown

Principle Advisor



As a Senior Advisor and Ag Specialist for Larta's Commercialization Assistance Programs, BreAnn Brown brings more than 18 years of leadership and commercialization experience in start-ups and small business in the construction, hospitality and recreation, agriculture/aquaculture, and information technology industries. She was introduced to AgTech and her first start-up, a vision automation company that focused on Agricultural grading and sorting.



LARTA
INSTITUTE



Innovating the Future of California Agriculture



UC ANR
innovate

UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources



University of California Agriculture and Natural Resources 110 years of innovation



Key Challenges

FOOD INSECURITY

U.S. is a growing net food importer



GLOBAL COMPETITION

Food production costs and impacts are rising



CLIMATE CHANGE

Forcing us to rethink how we produce food



ECONOMIC DISPARITY

Economic stagnation in forgotten communities



U.S. LEADERSHIP

Manufacturing of AI and biotechnology

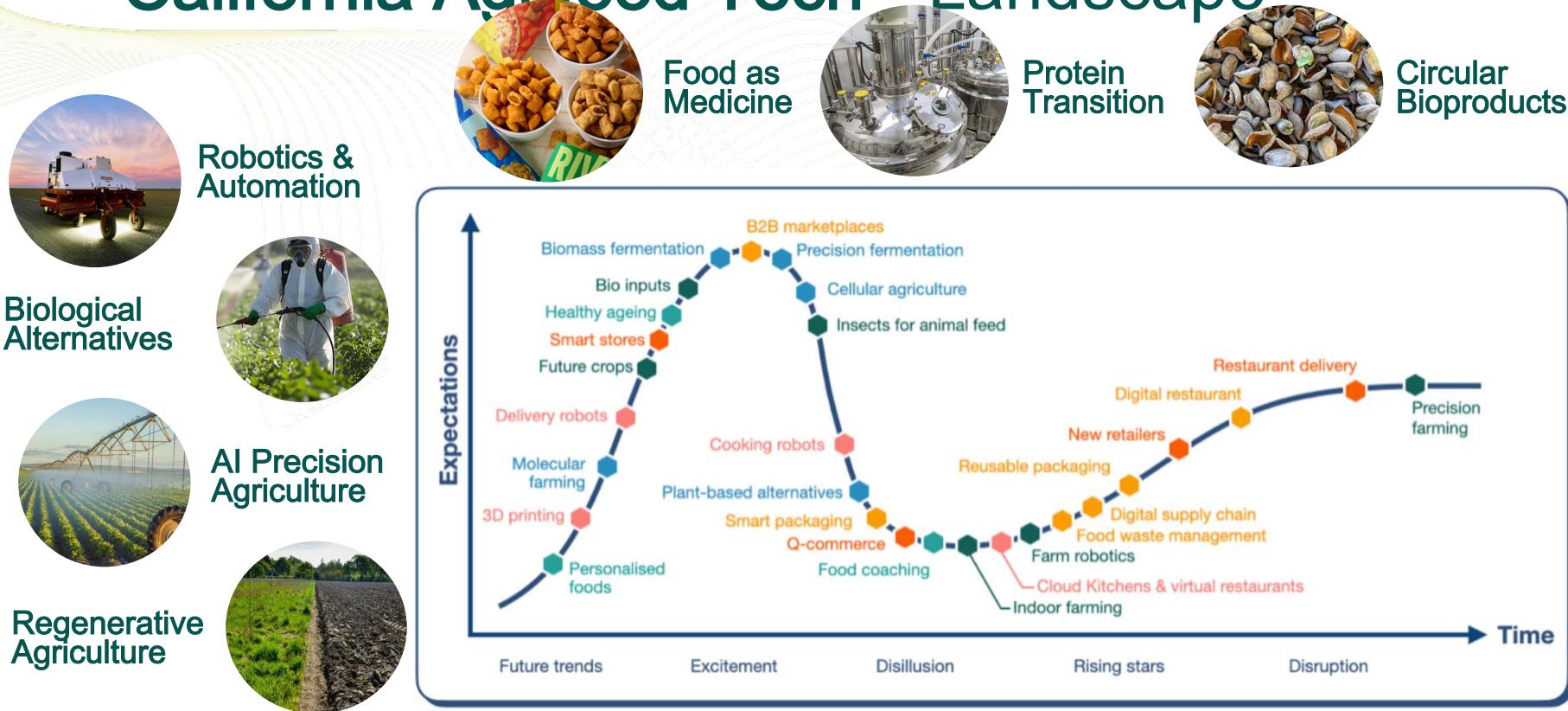


SW Agriculture Challenges

- Land, labor and input cost
- Cost of regulation
- Export competition
- Pest and disease pressure
- Changing consumer demand



California Agrifood Tech Landscape



Why it Matters

INNOVATION
GAP

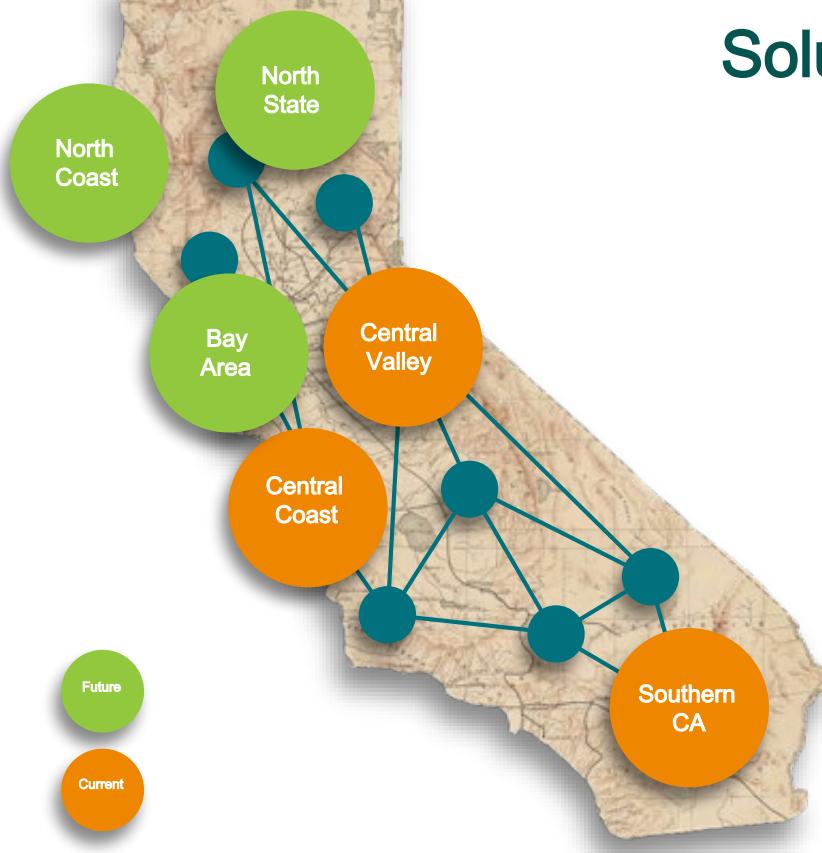
Industry needs appropriate tech solutions faster

Emerging solutions are not “farm ready”

Funding R&D for AgTech is hard

Tech must integrate with business and
workforce

Solution: Regional AgTech Innovation



- Unified brand, marketing, communications globally
- Global AgTech concierge to bring resources/partners to regions
- Linkage to AgTech National US-wide network
- Cross-regional network navigation services
- Investor network
- Support regional implementation projects to get funded

NETWORK PARTNERS



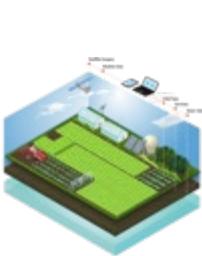
Solution: Turning Research into Solutions

OFF GROUND ALMOND HARVESTING
FOR DRAMATIC REDUCTION IN DUST

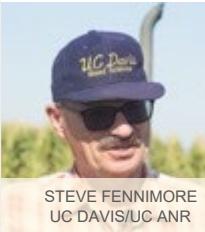


STEFANO FORESTI
UC MERCED

PRECISION PRESCRIPTION FOR
IRRIGATION AND NUTRITION



STEAM WEEDEER TO REPLACE
CHEMICALS



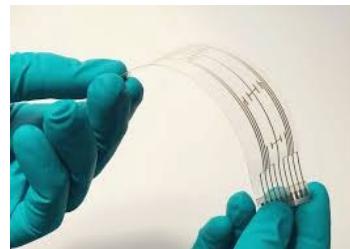
STEVE FENNIMORE
UC DAVIS/UC ANR

AI AGRONOMIC INSIGHTS
TO IMPROVE WINEMAKING



MASON EARLES, UC DAVIS

RAPID SOIL TESTING WITH PRINTABLE SENSORS
TO MITIGATE NITROUS OXIDE EMISSIONS



ANA CLAUDIA ARIAS, UC BERKELEY

Solution: Demonstrating Tech to Farmers

Smart-spreading drone system



Fully electric autonomous tractor



Visionsteer -enabled autonomous shaker



Trap AI system for real time
pest detection



RapidAIM



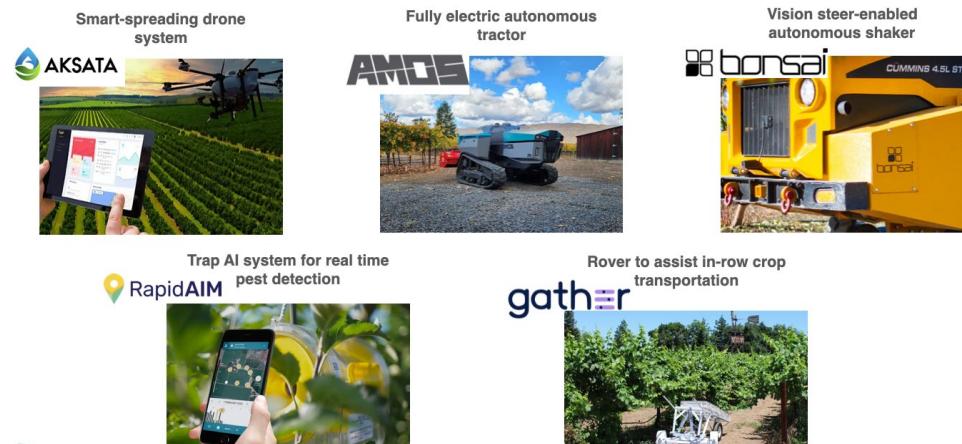
Rover to assist in -row crop
transportation



Solution: Innovation Grants for Entrepreneurs

A \$3 million fund offering up to 60 grants of \$50,000 each to startup companies

- Funds used to de-risk tech or relocate
- “Non-dilutive” funding
- Funds what the startup needs to grow and scale their business in California
- Equitably invested across the participating regions

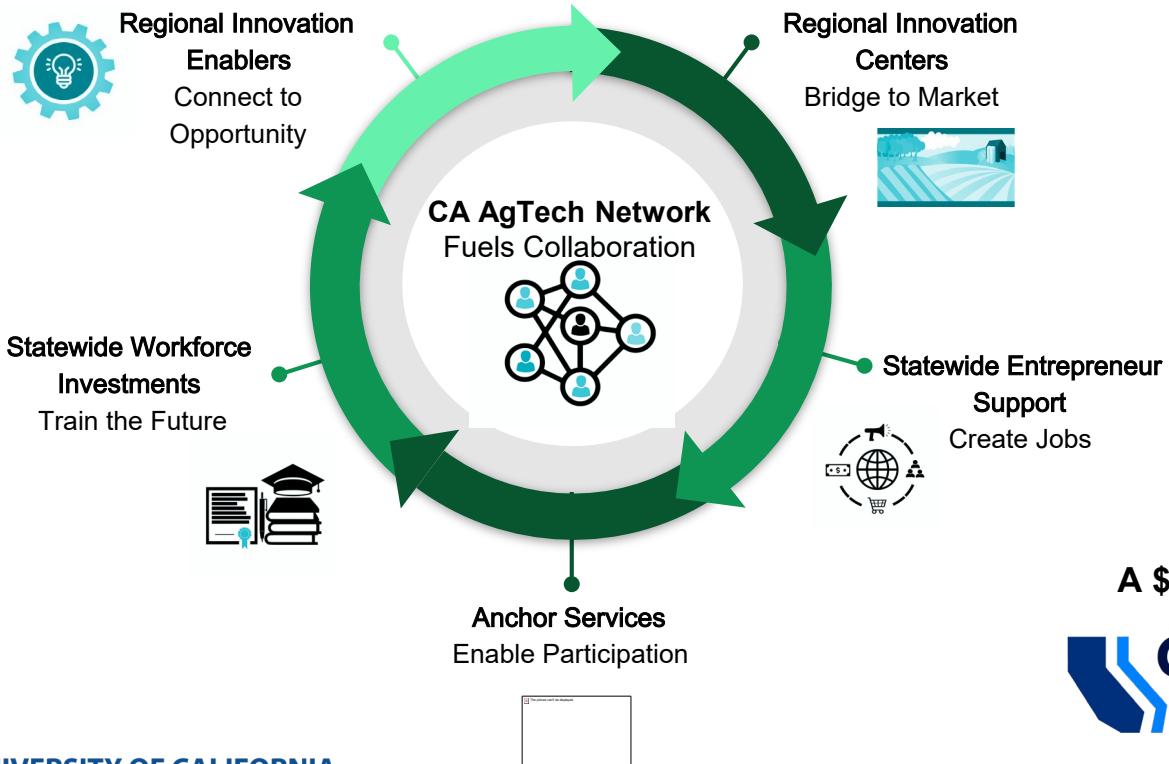


Solution: Scale unique AgTech workforce programs

- K-14 focused on junior high, high school and community college students
- Practical programs for incumbent ag workforce
- Related to AgTech
- Compliment, not overlap or compete with, existing K-16 programs



UC ANR is Proposing AgTech Investment in California



CA AgTech is a cross-regional innovation ecosystem to accelerate **entrepreneur** growth, cultivate **talent**, and drive **equitable** economic impact, positioning AgTech as a leading **tradable sector** across California.

A \$30M+ Proposal





CONTACT

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CAFF

COMMUNITY ALLIANCE
with **FAMILY FARMERS**



Meet CAFF's Tech Hub Team



Elizabeth Vaughan
Small Farm Tech Hub Senior
Manager



Maria Ridoutt-Orozco
Small Farm Technology Advisor

TOGETHER, WE CAN EMPOWER FAMILY FARMS, HEALTHY LAND & THRIVING LOCAL FOOD SYSTEMS



We build sustainable food and farming systems through policy advocacy and on-the-ground programs that create more resilient family farms, communities and ecosystems.





small farm TECH HUB



What is appropriate technology?

Appropriate technology is a movement encompassing technological choice and application that is small-scale, affordable by locals, decentralized, labor-intensive, energy-efficient, environmentally sustainable, and locally autonomous.

Small Farm

[smawl fahrm]

noun

1. An agricultural enterprise in which the owner is actively engaged in the day-to-day operations; i.e. has their feet on the ground, hands in the soil.
2. A farm whose end-user is known, whose products feed the local community to which the farmers themselves belong.
3. A parcel of productive land at a scale no larger than one person can know intimately by simply walking through it.
4. A farm business whose profits stay in the community

Synonyms: community-scaled farm, family farm, smallholder farm

small farm TECH HUB



Identifying right-fit technologies for the small farm. We help small-scale farmers, food hubs, and farmers markets navigate technological resources & expand market opportunities.

www.caff.org/TechHub



Free Consultations!

Provided to CA-based operators seeking to access or expand their use of web-based technologies including e-commerce, social media, marketing, and more!

[REQUEST A CALL](#)



Resources

From e-commerce platforms to point of sale systems to basic online marketing tips we have you covered! Browse our collection of resources for farmers, markets and other local food professionals.

Get connected with others through these online, interactive groups and gain knowledge from the farming community!

[ACCESS RESOURCES](#)

[LEARN MORE](#)



Tech FAQ

Visit our Tech Forum to see common questions asked from the Tech Hub community!

[COMING SOON](#)



Small Farm Innovation Challenge

The Tech Hub is hosting the 2nd Small Farm Innovation Challenge, a contest open to anyone with an idea to help small farms thrive.

[SUBMIT A QUESTION](#)

[EVENT WEBSITE](#)

[SUBSCRIBE HERE](#)



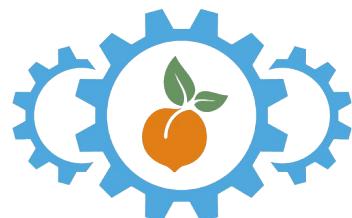
Stay Informed!

Subscribe to CAFF's monthly newsletter for the latest news and resources on small scale agriculture in CA. Make sure to check "Small Farm Tech."





Projects





The Small Farm INNOVATION CHALLENGE



The Small Farm INNOVATION CHALLENGE

Farmers need right-sized technology.

We need innovators who understand small farms and innovations that empower as many farms as possible. We need solutions that strengthen local food systems. Are you an innovator with bright ideas, crafty hands and a commitment to small farm resilience? We're looking for you!

Global competition

Cash prizes

Opens annually

<https://caff.org/innovation-challenge/>

Why?



Purpose of the Innovation Challenge:

- Empowering farmers to steer the tech innovation space.
- Highlight that farmers are some of the best problem solvers in the world.
- To encourage farmers with limited resources and capacity to submit their ideas.
- To spread knowledge and spark discussion on what is "appropriate" and right-fit small farm technology.
- To make more resources available to the small farmer.
- Public education on what small farmers need to remain viable.

DIY Innovation Award: Sena Daniel Ahiabor – Ubiquitous Multi-Purpose Farm Use Station

Tuskegee University, Alabama

Sena Daniel Ahiabor, a Sustainable Food Systems Resource Specialist and Post-Harvest Specialist at Tuskegee University, has been awarded the Best DIY Innovation Award for the second time. Ahiabor's latest innovation, the **Ubiquitous Multi-Purpose Farm Use Station**, is an all-in-one workstation designed to assist small-scale



DIY Innovation Award: Jennifer Bantle – DIY Mulch Blower

Fallbrook, CA



As an avocado and citrus farmer in San Diego County, **Jennifer Bantle** faced a costly dilemma—mulch delivery fees often exceeded the price of the mulch itself, and expensive commercial mulch spreaders were financially out of reach. Determined to find a solution, Bantle developed a **DIY Mulch Blower** that makes spreading mulch on steep hillsides more efficient and affordable. The

2025 Innovation Challenge

Small Farmers Lead the Way in Innovation: 5th Annual Small Farm Innovation Challenge

Winners Announced

March 24, 2025

Proving that innovation thrives on a small scale, the winners of the 5th Annual Small Farm Innovation Challenge have introduced groundbreaking solutions to address critical challenges in small-scale agriculture. Hosted

2024 Innovation Challenge

Mobile
Drying Rack
Greathouse
Garden

Rachel Greathouse



PastuRx
a field tool for the Rx Grazing industry

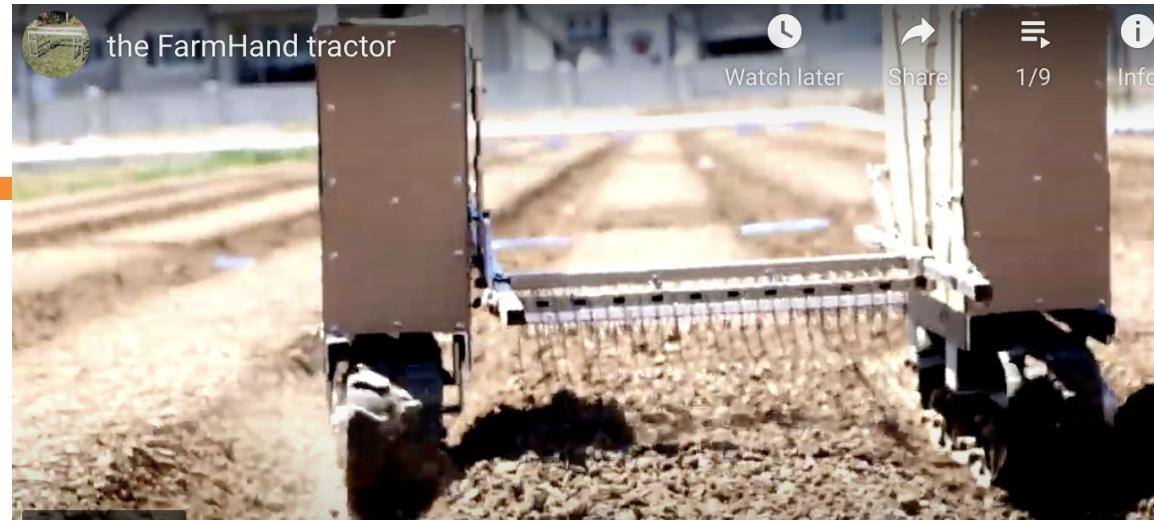
Cole Bush & Noe Vega of
Sheepherds Land and Livestock Co.

PAKA

Trusty
Trucker
Electric
Utility



<https://caff.org/tech-innovators-lend-creativity-to-small-farms/>





SEEKING JUDGES, PARTNERS & INNOVATORS FOR THE 2025-26 CHALLENGE

The Innovation Challenge is seeking judges, promotional partners, and sponsors for the 6th Small Farm Tech Innovation Challenge.

See chat for link if interested. <https://bit.ly/3YVmDrH>

We are especially seeking out fabrication and prototyping partners!

THIS YEAR'S APPLICATION PORTAL OPENS FALL 2025

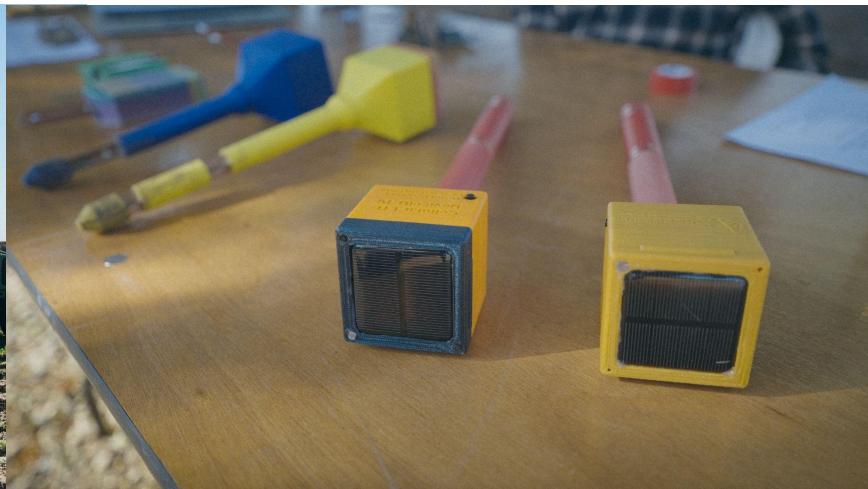
small farm TECH EXPO



An **in-person** event with a *Winners Lane Exhibit* featuring previous winners of the Challenge

Join us and help inform what small farm technology works for you!

<https://caff.org/tech-expo/>





CAFF
COMMUNITY
ALLIANCE
with
FAMILY
FARMERS



2023 Small Farm Tech Expo
Parlier, Fresno county
Demo of 15 technologies



2024 Small Farm Tech Expo
Madera Community College
Focus on digital technologies

Demographics of farmers who provided feedback:

52 years of age

13 years of experience

37% chance of being female

28 acres farm size

Growing vegetables, prunes, or berries

Top 3 reasons farmers acquire technology:

1. Reduce labor demand
2. Increase productivity
3. Make heavier tasks easier

Top 3 factors farmers consider before buying new technology:

1. Price
2. Operation costs
3. Functionalities/features

What are you using now to track your farm tasks? (check all that apply)

Nothing	36.36%
Pad & pencil	31.82%
Excel or g-sheets	45.45%
Paid subscription or open-source software	0.00%
Other: _____	9.09%

What are the main reasons you adopted / would adopt digital technologies? (check all that apply)

Make admin tasks easier	63.64%
Improve crop quality	59.09%
Efficient use of resources	59.09%

What are the factors that hinder you from using digital technology? (check all that apply)

Lack of knowledge	45.45%
Price	31.82%
Other (please specify) _____	27.27%



<https://www.f3local.org/sf-adapt>

Interested in participating?
Fill out our interest form:
<https://forms.gle/VjF7ac5yyBc3RmEd9>

Small Farms Alliance to Develop Appropriate Technology (SF-ADAPT) is a collaborative network dedicated to steering technology development to better serve small- and medium-scale farmers, with a focus on five key California counties: Fresno, Merced, Madera, Tulare, and Kings.

Co-led by UC ANR and CAFF, the Alliance brings together farmers, ag-tech developers, researchers and community organizations.

Through ongoing communication, planning, and convenings, the Alliance aims to create a more equitable and innovative agricultural landscape in California's Central Valley that benefits small-scale farmers and farm operators.

Thank you!

Subscribe to CAFF's Tech Hub
mailing list for future events.

<https://www.caff.org/subscribe-to-our-mailing-list/>

Additional questions? Feel free to reach out!

maria@caff.org



www.caff.org



@famfarms



@caff_famfarms



@famfarms



youtube.com/CAFFflix



www.caff.org/blog



Larta's Ag Technology Solutions for the Southwest Regional Food Business Center

April 16, 2025



Let's feed,
fuel & heal
the world.

Our impact since 1993.

6,500+

STARTUPS ASSISTED

\$4.9B+

NON-DILUTIVE FUNDING RAISED
BY OUR PORTFOLIO COMPANIES

200

AQUISITIONS OF LARTA
PORTFOLIO COMPANIES

7,000+

SCIENCE & TECHNOLOGIES
COMMERCIALIZED

\$2.4B+

PRIVATE INVESTMENT RAISED
BY OUR PORTFOLIO

26

IPOS BY LARTA
PORTFOLIO COMPANIES

Our impact areas:





Since 2004, we have partnered with government agencies to offer leading Commercialization Accelerator Programs (CAP) and Technical & Business Assistance (TABA).



Tibbetts Award of Excellence in Support of the SBIR/STTR Program



Commercialization Assistance & Accelerator Programs (CAP)

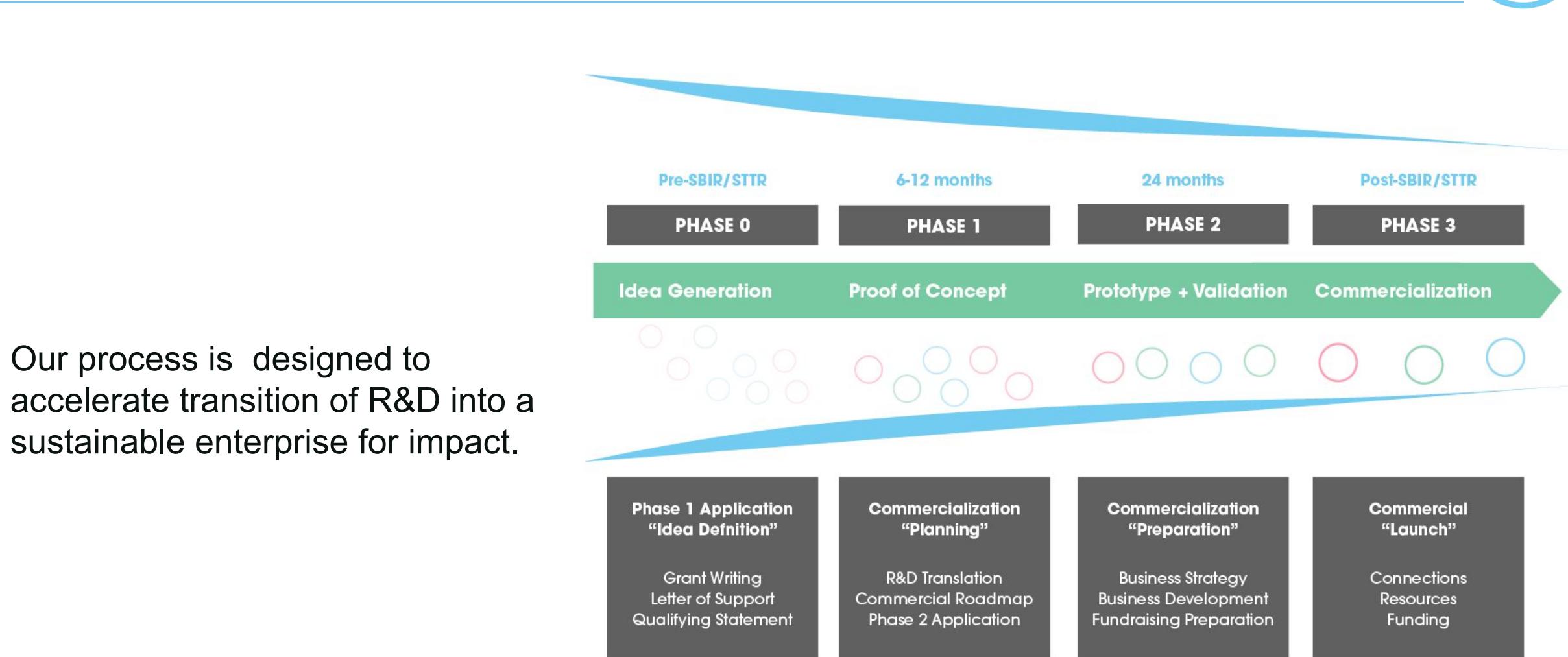
Larta has administered SBIR/STTR commercialization assistance & accelerator programs since 2004, for various federal agencies.



Technical & Business Assistance (TABA)

Larta was instrumental in defining TABA supplementary commercialization funding to complement SBIR/STTR grants.

Supporting Entrepreneurs across the Innovation Lifecycle



Road to commercialization: Larta's portfolio



Our portfolio of 40+ services (products & tools) for awardees have been designed, refined & proven over 32-years to accelerate translating R&D into sustainable enterprises.



Larta Principal Advisors:
Work 1:1 to deliver strategic value customized to your stage of growth and specific goals.



125+
Highly experienced experts/mentors with real-world experience.



Ag Technology: Agriculture Lifecycle



Seed to Sprout



Growth & Development



Harvest & Post Harvest

Larta & the USDA Regional Food Business Centers



RFBC: Post Harvest Pain Points



- Cold Storage
- Processing Solutions
- Pathogen Detection & Disinfection
- Distribution
- Food Marketing and Agritourism
- Processing Space & Best Practices
- Market Access
- Accounting Systems
- Business Planning

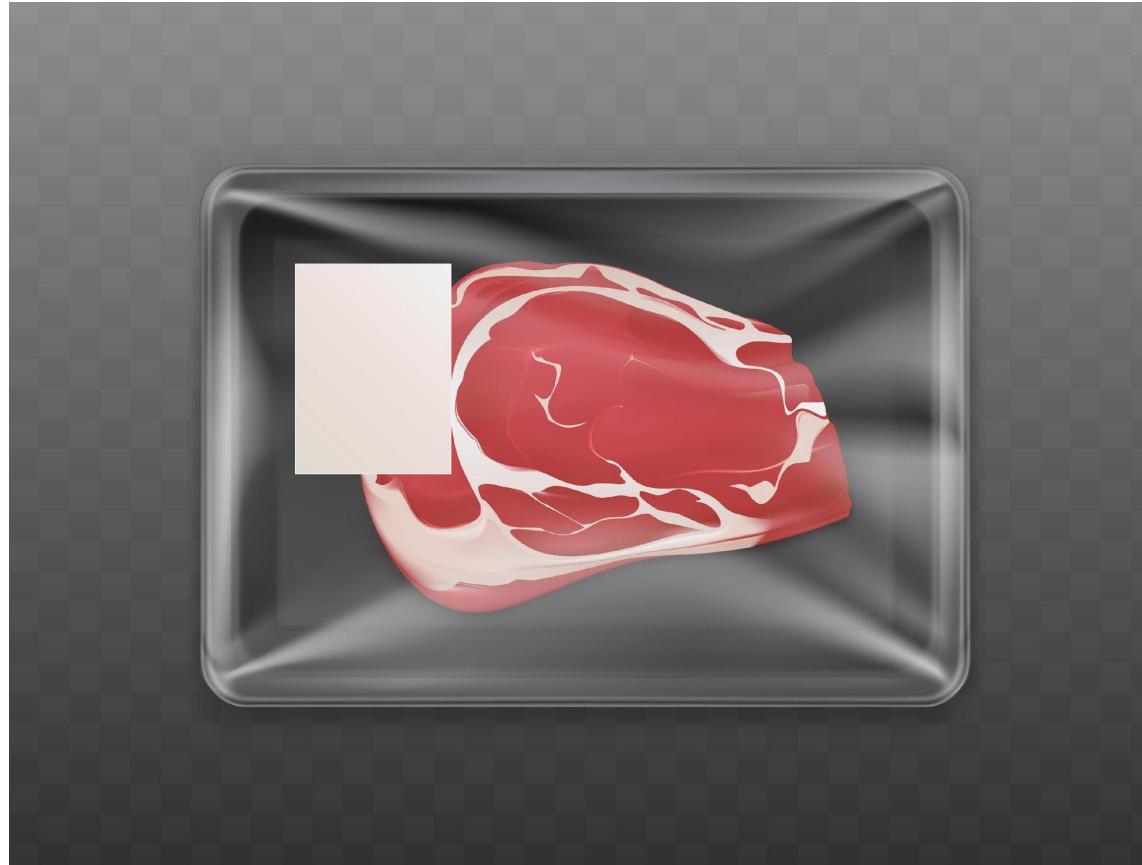
Ag Technology: Solutions Vimaan

[PRODUCTS](#)[SOLUTIONS](#)[RESOURCES](#)[ABOUT VIMAAN](#)[CONTACT US](#)[Get A Demo](#)

**Real-Time Computer Vision Solutions Enable 100% Inventory Accuracy
and Visibility Across the Entire Warehouse**

A WMS is only as good as the data it receives. Bad data in, bad data out. Vimaan customers report nearly instant improvements and typically achieve a return on investment within *months*, not years!

Ag Technology: Solutions Vimaan



Ag Technology: Learn More



- Share your pain points
- Join the Urban Ag Task Force
- Learn more about Technology

Solutions for Ag



Let's feed,
fuel & heal
the world.

Thank you!

Questions? Reach out



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Q&A



The next webinar in the series will take place on **July 16th!**

Scan the QR code below to learn more about the Southwest Center:



Thank you!

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(530) 236-7360

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