F3 FARMS FOOD FUTURE
AgTEC

AgTEC Workforce Initiative

Agri-food Technology & Engineering Collaborative

The AgTEC Workforce Initiative is developing a skilled, next-generation workforce to support advanced, sustainable food production and manufacturing.

F3: Farms Food Future

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F3 Innovate:

- Commercialization & Business Acceleration
- Industry Leadership & Global Identity
- Innovation
- Talent Pipeline Coordination

Integrator, navigator and champion of the cluster; tech-based economic development

Goals: Diversified regional economy; higher quality jobs; increased exports; sustainable food production

AgTEC Workforce:

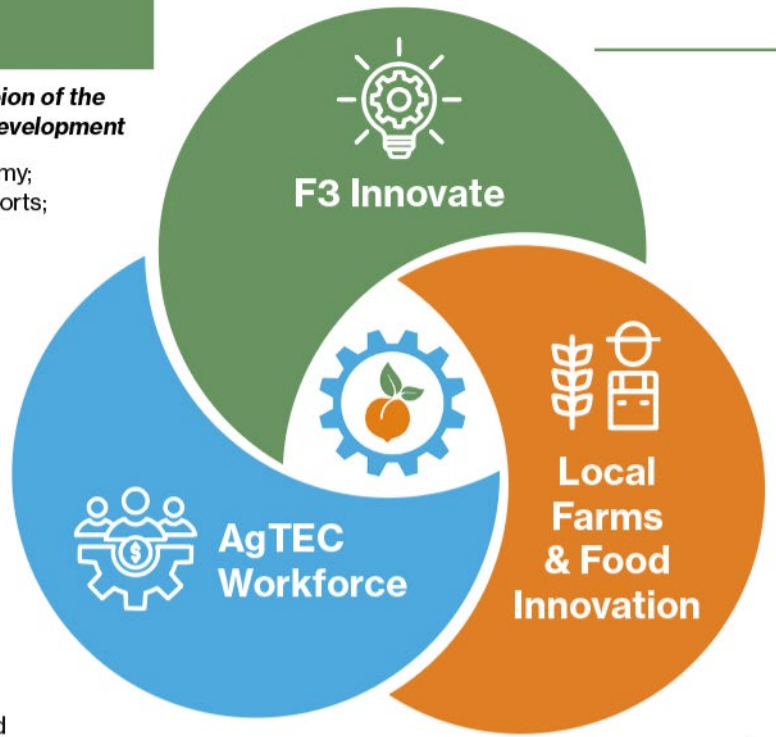
- Industry-Aligned, Interdisciplinary Curriculum
- Competency Based Education
- Connecting Talent to Industry

Regional skilled workforce pipeline ready for the future

Goals: Industry-recognized skilled talent pipeline; removing barriers to upskilling; wage growth; creating & filling jobs

Complementary Investment:

CA High Speed Rail: Connecting the region to Silicon Valley's innovation resources



Local Farms & Food Innovation

- Food Entrepreneurship
- Small Farm Market Access
- Technology Testing & Adoption
- Business Support

Industry adoption and investment in small BIPOC farms & entrepreneurs

Goals: Inclusive, resilient local food systems; small business growth; small-to-large producer-informed innovation; sustainable tech adoption

Partner Integration & Collective Impact

- Coordination of Lead Applicants
- Community engagement
- Measurement & evaluation

Goals: Integrated, leveraged network of civic actors in support of cluster

F3 Innovate

Timeline

July 2021
Build Back Better Regional Challenge Announced

October 19, 2021
Phase 1 applications due (**529** applicants)

December 15, 2021
60 finalists announced

March 15, 2022
Final applications due

September 2, 2022
21 Winners Announced

September 7, 2022
$15 million in Additional State Funding for AgTEC Made Possible by Senator Anna Caballero

April 20, 2023
AgTEC Kickoff!

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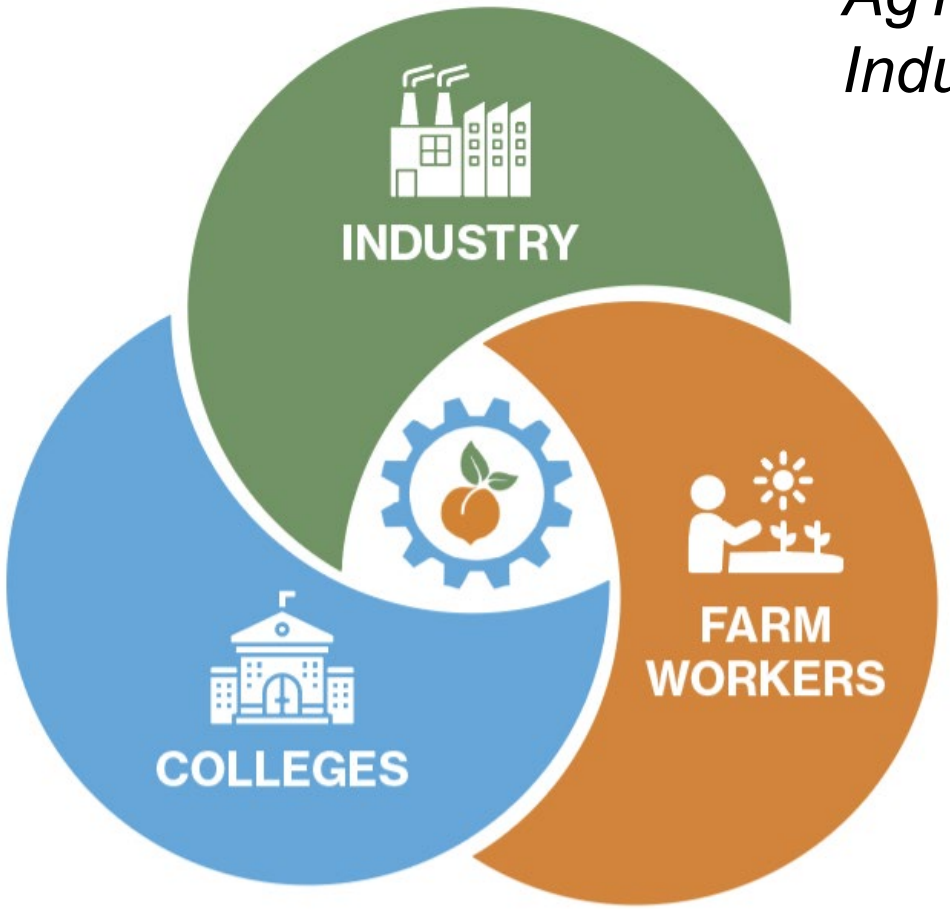
The AgTEC Workforce Initiative



AgTEC creates economic opportunity for Industry, Colleges, & Farmworkers.

INDUSTRY: The integration of industry-validated skills ensures that employers can readily find and train workers with the expertise required for the jobs of the future.

COLLEGES: By offering accessible and relevant training programs, colleges can attract and retain a broader student base, and contribute to their region's economic prosperity and sustainability.

FARMWORKERS: The program's forward-thinking approach empowers farmworkers to take control of their economic future by providing them with an opportunity to upskill, embrace new and higher-paying industry careers, and thrive in the changing agricultural landscape.

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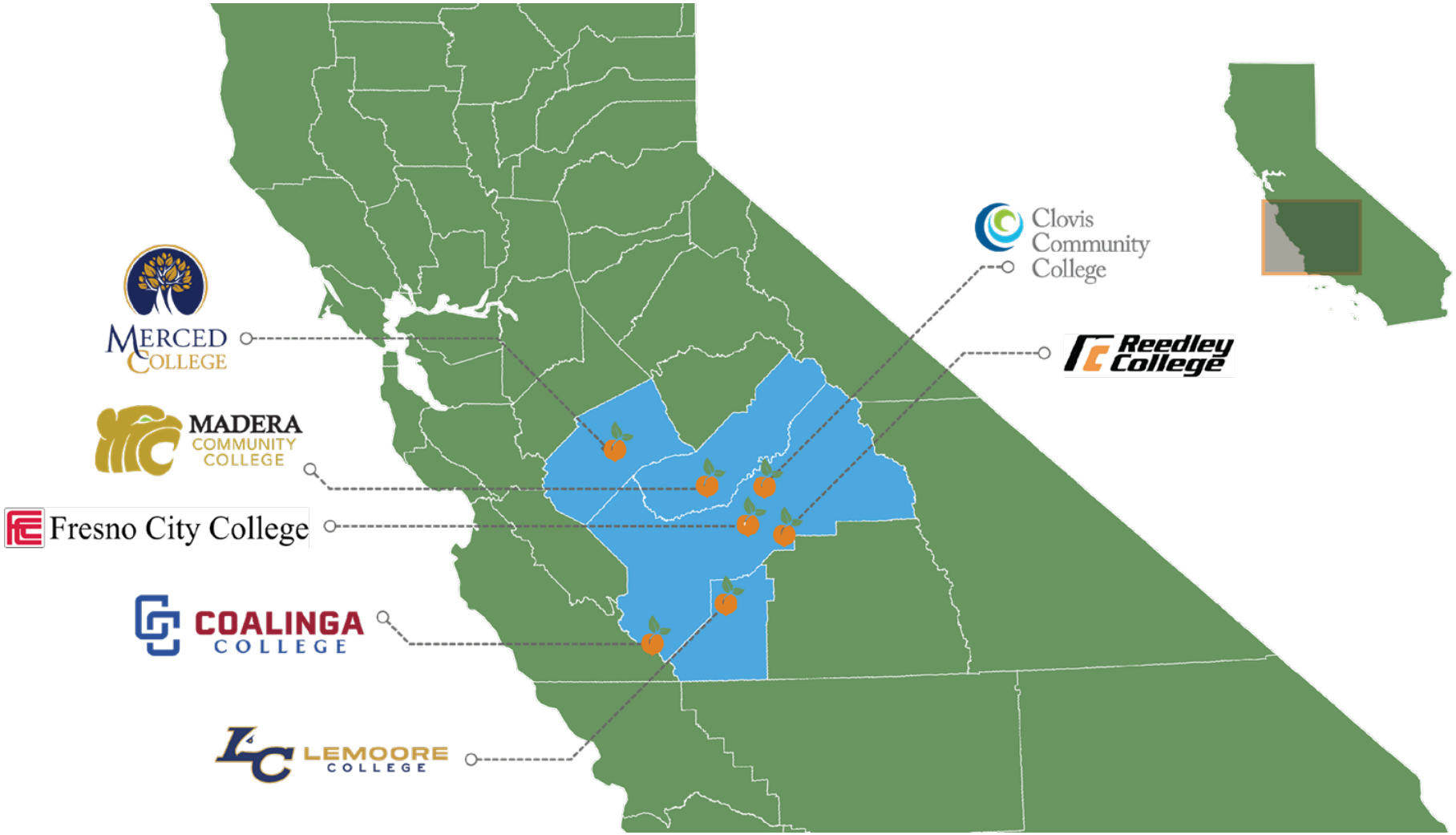
AgTEC's Community College Partnerships

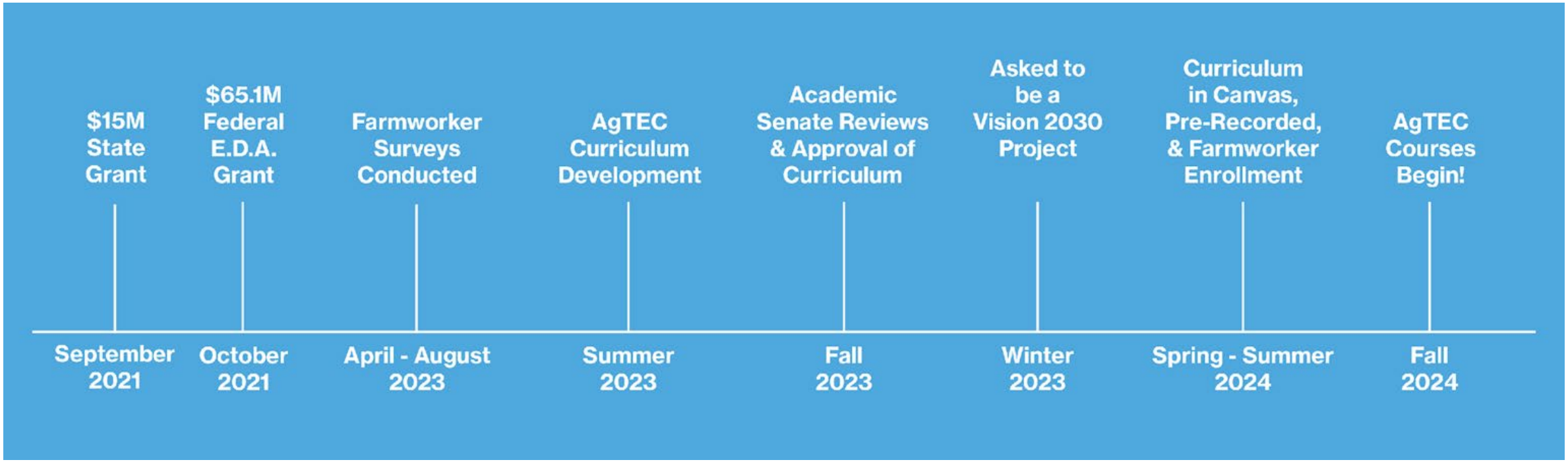


Challenges in Agricultural Labor

- **Automation Impact:** 1 in 3 ag workers at risk due to increasing automation.
- **Industry Evolution:** Significant changes expected within the next 5-10 years.
- **Skills Shortage:** Emerging labor gaps for critical new skills.
- **Upskilling Barriers:** Farmworkers with indigenous knowledge face upskilling challenges.

AgTEC's Timeline Highlights

The 4-year grant includes several distinct milestones and deliverables defined under each of AgTEC's three pillars. Below are just a few highlights from the overall workforce initiative timeline.



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Farmworker Survey Data

Surveys were administered in Merced, Madera, Fresno, Tulare, & Kings Counties

11,475 Surveys Collected

As of August 8, 2023

85%
of respondents are foreign born & identify as hispanic or latin(o)(a)(x)

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Farmworker Survey Data

70%
of respondents have dependents

84%
have reliable transportation

78% have felt financially insecure in the last year

70% have only a 6th grade education

78% view their education as "important" or "very important"

Work & Financial Barriers were the top reasons respondents have not continued their education

70% said their interest would increase if they could take classes online

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Takeaways

Program Goals:

- Online with in person assessments
- Flexible Pace
- Flexible Time
- Focuses on filling skills gaps
- Program is free
- Registration available several times a year
- Program is available in English or Spanish
- No GED required

Aligning with Industry Needs

We engaged with industry six times in 2023 through panels, conducted surveys, and had one-on-one conversations to inform and validate the development of the certificate.

- **Core Needs:** Understanding of the ag value chain, problem-solving, critical thinking, employability skills.
- **Industry Commitment:** Focus on durable skills at the college levels with company's training on the technical skills.

Collaborative Curriculum Development

In July 2023, over 20 faculty members convened to develop the program's curriculum. The program's goal was to identify the essential skills needed for a career in agriculture, explore various career pathways within the field, and gain a comprehensive understanding of the agriculture industry. Despite the challenge of distilling such a broad discipline to a foundational level, this approach establishes a robust base for pursuing any career in agriculture.

- **Faculty Collaboration:** Across disciplines to integrate industry and farmworker needs. Certificate Goals: Upskill workforce from a 6th-grade education level, broaden career opportunities.

- **Certificate Goals:** Upskill workforce from a 6th-grade formal education level, broaden career opportunities.

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The Ag Systems Certificate: Program At-A-Glance

Core Competency	Performance Indicators
Digital Literacy	I can identify and utilize digital technology (hardware and software) used in agriculture.
Basic Equipment Operations	I can safely operate electronic and mechanical equipment used in agriculture.
Basic Equipment Configuration	I can safely set up electrical and mechanical equipment in agricultural tasks.
Basic Equipment Troubleshooting	I can troubleshoot basic electrical, mechanical, and software systems and communicate identified issues effectively.
General Agricultural Systems Fundamentals	I can explain agriculture industry fundamentals.
Crop Production Systems	I can explain the fundamentals of plant science and crop production systems.
Tool Operations	I can safely use basic hand and power tools.
Applied Technical Reading	I can read and interpret agricultural industry documents.
Interpersonal Skills	I can demonstrate social and emotional intelligence in professional settings.
Animal Production Systems	I can explain the fundamentals of animal systems.
Food Safety	I can implement best practices to meet manufacturing, food safety, and sanitation requirements.
Basic Safety	I can follow workplace safety protocols using Occupational Safety & Health Administration (OSHA) standards.
Industry Communication	I can communicate effectively using industry methods within an organizational structure.
Applied Technical Writing	I can write effective agricultural technical reports.

Interactives

13 Storyboards Written

26 Interactives created

Course Build

28 Courses built & reviewed

1,976 Canvas pages built

34 Amatrol lessons built

Custom Videos

124 Total Videos

62 Concepts & Scripts

Videos Produced English

Videos Produced Spanish

186 Script Reviews
* 3 rounds

5 Filming days

602 Shots filmed

186 Videos Reviews
* 3 rounds

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Program Delivery

Learner-Centered Approach: Putting the learner at the center of the education process. Students often have control over the time, place, and pace of their learning, enabling them to adjust their learning paths according to their specific needs and abilities.

Flexible Pacing: Students progress through a curriculum at their own pace. They move forward only after they have demonstrated mastery of the subject matter, which contrasts with the traditional time-based education models where students move forward based on time spent in class.

Mastery-Based: Progression is based on demonstrating mastery of key competencies or skills as opposed to time spent in class. Assessment is thus integral and ongoing, meaning that it can occur multiple times until mastery is achieved

Explicit Learning Outcomes: Competencies are clearly defined and are known to students from the start. These competencies are measurable and are directly linked to the required knowledge and skills needed for success in school, career, and civic life.

Digital Literacy

Video de introducción

Basic Equipment Operation

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Thank You!