



WELCOME!



CAL POLY

College of Agriculture, Food
& Environmental Sciences

TODAY'S TOPICS

1

California agriculture

2

Cal Poly and the College of Agriculture,
Food and Environmental Sciences

3

Continuous change and other
thoughts

CALIFORNIA AGRICULTURE



CALIFORNIA'S POPULATION
2024

39M

CALIFORNIA'S POPULATION
2050

60M (Est.)

CALIFORNIA

WORLD'S 5TH LARGEST GDP



GDP (\$T USD)

1	United States	\$27,360
2	China	\$17,662
3	Germany	\$4,457
4	Japan	\$4,212
5	CALIFORNIA	\$3,862

CALIFORNIA: U.S. AND GLOBAL SUPPLIER

FARMS + RANCHES

62,900

23.8M ACRES OF LAND
DEVOTED TO
AGRICULTURE

CASH RECEIPTS

\$51.1B
13.7% of U.S. total

COMMODITIES

400+

EXPORTS

\$22.5B

TOP EXPORTS

- Almonds \$4.65B
- Dairy \$2.54B
- Pistachios \$2.07B
- Wine \$1.29B
- Walnuts \$1.25B

CA SHARE OF U.S. AG EXPORTS

- Tree nuts 100%
- Vegetables 56.3%
- Fruits 62%
- Flowers/nursery 26.6%

TOP 5 AGRICULTURAL STATES IN CASH RECEIPTS



1	California	51,109,546
2	Iowa	34,626,720
3	Nebraska	26,345,219
4	Texas	24,898,569
5	Illinois	21,720,187

CALIFORNIA'S TOP 10 COMMODITIES



— **Milk and Cream \$10.4B**

— **Grapes \$5.54B**

— **Cattle and calves \$3.63B**

— **Almonds \$3.52B**

— **Lettuce \$3.15B**

— **Strawberries \$2.68B**

— **Pistachios \$1.86B**

— **Broilers \$1.59**

— **Tomatoes \$1.46**

— **Carrots \$1.11B**



CALIFORNIA PRODUCES MAJORITY OF U.S. SPECIALTY FOOD CROPS

- **100% of artichokes**
- **99% of walnuts**
- **97% of kiwis**
- **97% of plums**
- **100% of celery**
- **100% garlic**
- **78% of cauliflower**
- **88% of strawberries**
- **100% of almonds**
- **92% of apricots**
- **96% of avocados**
- **76% of all lettuce**
- **72% of spinach**
- **93% of carrots**
- **79% of all tomatoes**
- **And the list goes on....**

Crop and Livestock Commodities in which California Leads the Nation ¹

Almonds	Flowers, Bulbs	Mandarins & Mandarin Hybrids ²	Plums
Apricots	Flowers, Cut	Melons, Cantaloupe	Plums, Dried
Artichokes	Flowers, Potted Plants	Melons, Honeydew	Pluots
Avocados	Garlic	Dairy products, Milk	Pomegranates
Beans, Dry Lima	Grapes, Raisins	Nectarines	Raspberries
Broccoli	Grapes, Table	Nursery, Bedding Plants	Rice, Sweet
Brussels Sprouts	Grapes, Wine	Nursery Crops	Safflower
Cabbage, Fresh	Hay, Alfalfa	Olives	Seed, Alfalfa
Carrots, Fresh	Herbs	Onions, Dry	Seed, Bermuda Grass
Carrots, Processing	Jojoba	Onions, Green	Seed, Vegetable and Flower
Cauliflower	Kale	Parsley	Spinach, Fresh
Celery	Kiwifruit	Peaches, Clingstone	Strawberries
Cotton, American Pima	Kumquats	Peaches, Freestone	Tomatoes, Processing
Daikon	Lemons	Peppers, Chili	Triticale
Dates	Lettuce, Head	Peppers, Bell	Vegetables, Greenhouse
Eggplant	Lettuce, Leaf	Persimmons	Vegetables, Oriental
Escarole/Endive	Lettuce, Romaine	Pigeons and Squabs	Walnuts
Figs	Limes	Pistachios	Watercress

¹ California is the sole producer (99 percent or more) of the commodities in **bold**.

² Includes tangelos, tangerines, and tangors.

CALIFORNIA'S FOOD AND BEVERAGE PROCESSING IMPACT

\$123B total value-add | 760,000 jobs



California Agricultural Products Export Values and Rankings, 2019-2021

2021 Rank	Product	2019	2020	2021	Change in Value
					2020 to 2021
		\$1 Million			Percent ¹
1	Almonds	4,901	4,658	4,647	-0.2
2	Dairy and Products	1,805	2,037	2,537	24.6
3	Pistachios ^{2,3}	2,009	1,669	2,071	24.0
4	Wine ^{2,3}	1,228	1,143	1,288	12.7
5	Walnuts	1,250	1,246	1,247	0.1
6	Rice	765	831	774	-6.8
7	Table Grapes	743	731	668	-8.7
8	Tomatoes, Processed	623	618	659	6.5
9	Oranges and Products ^{2,3}	549	597	625	4.6
10	Beef and Products ⁴	404	409	572	39.7
11	Strawberries	402	407	475	16.6
12	Hay ²	338	346	382	10.2
13	Seeds for Sowing	333	311	314	0.9
14	Lettuce	292	292	304	4.4
15	Cotton	437	289	287	-0.9
16	Raisins	257	226	224	-1.0
17	Lemons ²	203	186	189	2.0
18	Raspberries and Blackberries ^{2,5}	142	140	162	15.4
19	Prunes	126	122	159	30.4
20	Peaches and Nectarines	119	120	146	21.7

¹ Total export values for each year are rounded to the nearest million dollars. More precise values are used in the percent change calculations.

² Export values for 2020 were revised based on updated production data from the U.S. Department of Agriculture/National Agricultural Statistics Service.

³ Export values for 2019 were revised based on updated production data from the U.S. Department of Agriculture/National Agricultural Statistics Service.

⁴ Hides and skins are included in the heading "Beef and Products".

⁵ "Raspberries and Blackberries" category also includes exports of mulberries and loganberries.

CALIFORNIA'S TOP 10 EXPORT DESTINATIONS

- **Canada**
- **European Union**
- **China/Hong Kong**
- **Japan**
- **Mexico**
- **South Korea**
- **India**
- **United Arab Emirates**
- **Taiwan**
- **Philippines**

CAL POLY

COLLEGE OF

AGRICULTURE, FOOD AND ENVIRONMENTAL SCIENCES

- More than 4,100 students across 15 majors in nine departments
- Our mission: develop talent and solutions for food, agriculture, and environmental management industries in California and beyond
- Experiential learning embedded across the curriculum
- 18:1 student to faculty ratio
- + • 52+ student clubs



9 DEPARTMENTS, 15 MAJORS

Agribusiness	Agricultural Education and Communication	Animal Science	BioResource and Agricultural Engineering	
Agricultural Business	Agricultural Science Agricultural Communication	Animal Science Dairy Science	Agricultural Systems Management BioResource and Agricultural Engineering	
Food Science and Nutrition	Experience Industry Management	Plant Sciences	Natural Resource Management and Environmental Sciences	Wine and Viticulture
Food Science Nutrition	Recreation, Parks and Tourism Administration	Plant Sciences	Environmental Earth and Soil Sciences Environmental Management and Protection Forest and Fire Sciences	Wine and Viticulture



FALL 2024 STUDENT APPLICANTS

GROWING POOL: UNIVERSITY

2024

78,958 Total

68,553 first-year

10,399 transfer

2023

73,097 Total

63,917 first-year

9,180 transfer

2022

68,809 Total

59,004 first-year

9,005 transfer



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FALL 2024 STUDENT APPLICANTS

GROWING POOL: COLLEGE

2024

7,259 Total
6,480 first-year
777 transfer

2023

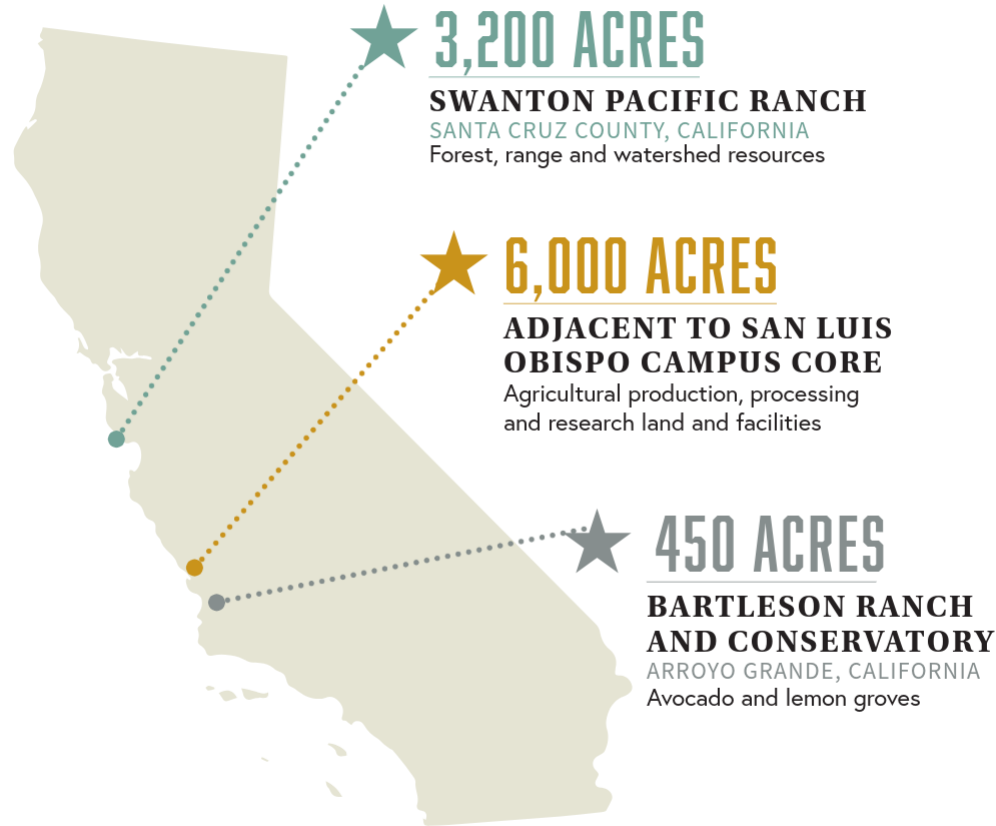
6,647 Total
5,897 first-year
750 transfer

2022

6,137 Total
5,356 first-year
781 transfer

MAJOR	2024	2023	2022	2021	2020
AGB	770	655	612	484	482
AC	210	190	129	110	163
AGSC	211	177	121	105	127
ASM	101	110	67	50	71
ASCI	1,579	1,462	1,361	1,250	1,284
BRAE	225	175	135	97	105
DSCI	52	35	40	45	45
EESS	445	454	340	252	241
ENVM	756	831	741	767	858
FDSC	286	230	265	197	221
FFS	467	416	417	334	182
NUTR	527	430	415	403	389
PLSC	176	177	281	277	188
RPTA	365	359	266	213	280
WVIT	217	188	166	163	205
CAFES TOTAL	6,387	5,897	5,356	4,747	4,750

10,000+ ACRES OF LEARN BY DOING OPEN SPACE



STRATEGIC INTENT

5-YEAR FOCUS



CLIMATE SMART AGRICULTURE AND NATURAL RESOURCES



ONE HEALTH



SUSTAINABLE FOOD SYSTEMS



DATA ANALYTICS AND AUTOMATION

COMPETITIVE ADVANTAGE

We work hard to establish and maintain a premier reputation for key industries in California and beyond

1

Closely tied with industry, government agencies and NGOs, and international partners

2

Willing partner with direct focus on high-impact, specialized industries, e.g., strawberries, organic, forestry & fire science, automation/robotics, startups, etc.

3

Specialized facilities and focused resources, e.g., Meat Processing Center, Dairy and Creamery Complex, Animal Health Center, Center for Wine and Viticulture

4

Prime location: specialty crop-growing region and close to silicon valley entrepreneurial machine

5

CAFES' production operations used for teaching and research are managed by students; exposes them to opportunities for managing operations and other students, fiscal responsibility, undergraduate research, etc.

COMMERCIAL AGRICULTURAL PRODUCTION UNITS



Dairy Unit

Meat Processing Center

Creamery

Poultry Unit

Food Pilot Plant

Winery

Crops Unit

Equine Unit

**JUSTIN AND J. LOHR
CENTER FOR WINE &
VITICULTURE**

Opened 2022



**BOSWELL AG TECH
CENTER**

Opened 2023

WILLIAM AND LINDA FROST
CENTER FOR RESEARCH
AND INNOVATION
101



PLANT SCIENCES COMPLEX



ANIMAL HEALTH CENTER



SWANTON PACIFIC RANCH RECONSTRUCTION



BARTLESON RANCH AND CONSERVATORY



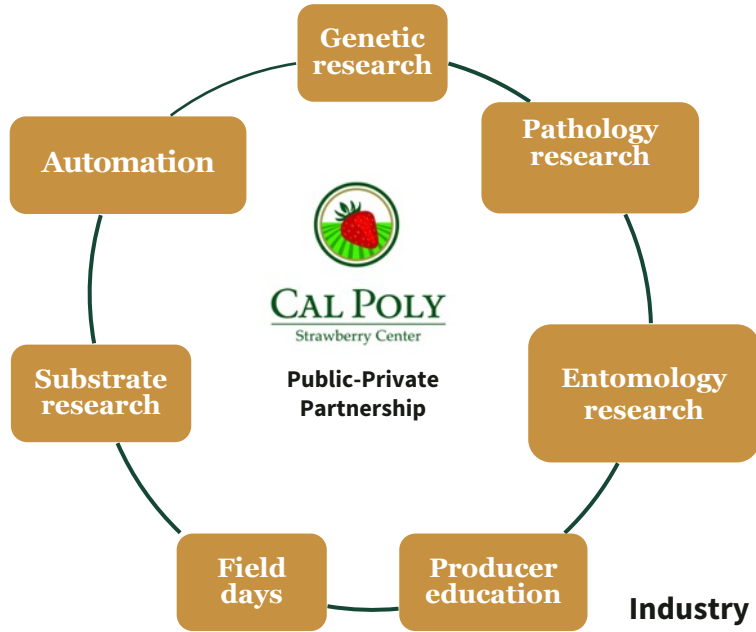
OUR MODEL: CENTERS SUPPORTING INDUSTRY

PUBLIC-PRIVATE PARTNERSHIPS (PPP)

MIXING BOWLS: A MODEL FOR THE FUTURE

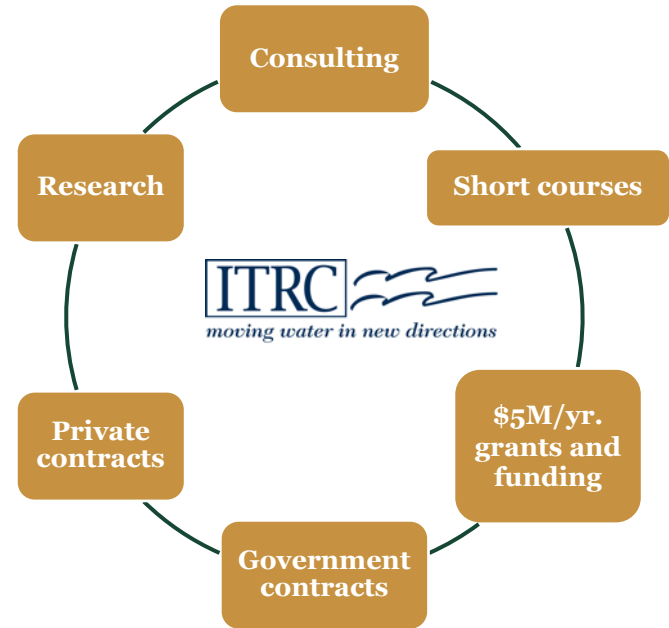
- Break down barriers to collaboration
- Faculty and staff work across departments, colleges, other universities
- Students work in teams from across campus to focus on solutions
- Focus on solving most pressing industry problems within three years
- Researchers from academia and industry work hand-in-hand
- Clearing-house for research efforts and education

PROVEN SUCCESSES



Industry Partners:

- All leading global genetics companies
- All leading strawberry growers and shippers
- All leading chemical companies
- All related technology companies



Industry Partners:

- All leading irrigation supply companies
- All leading water and irrigation entities
- Major farming companies

GRIMM FAMILY CENTER FOR ORGANIC PRODUCTION AND RESEARCH

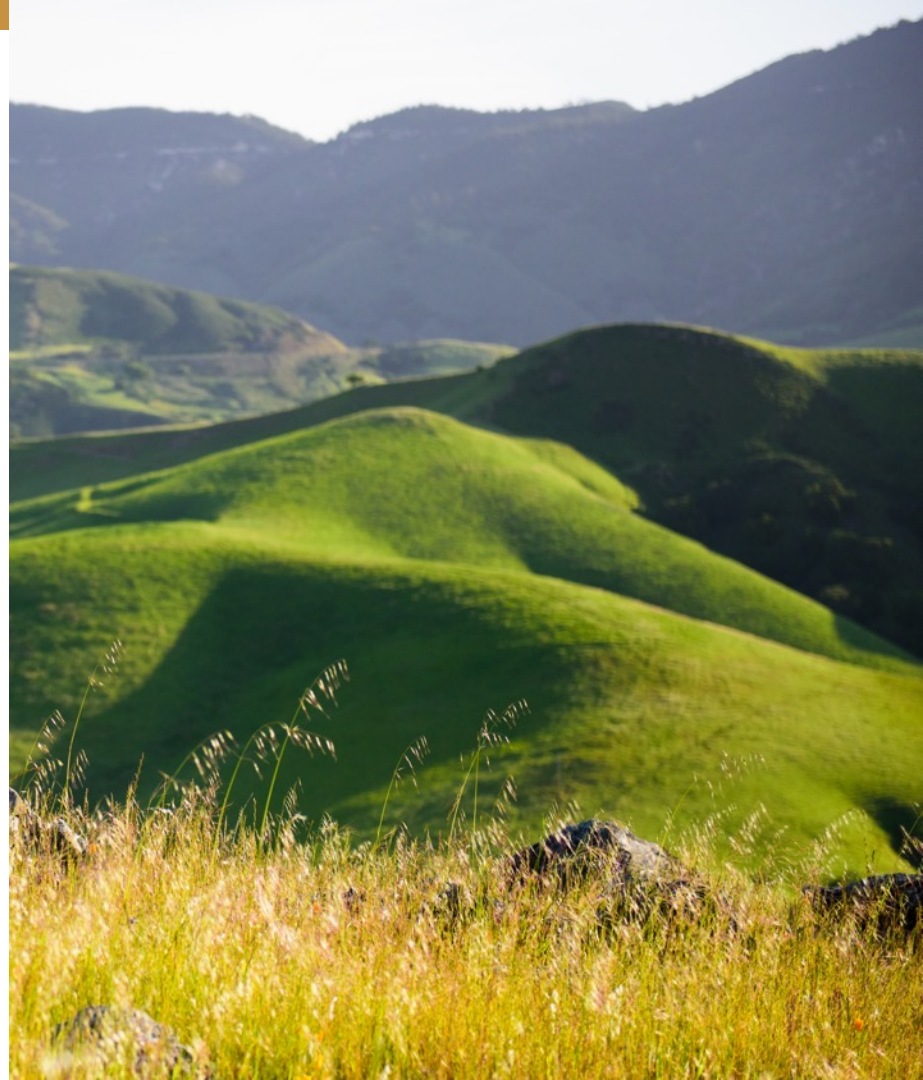
- Grimmway Farms + Cal Poly
- \$5M donation
- Collaborative mixing bowl to solve industry problems
- Partners: other universities + industry + government
- Focus on applied research and workforce development as industry continues to grow



OTHER THOUGHTS

HEAD WINDS

- State budget support decline
- Leadership turnover and cultivation
- High cost of living in SLO
- Limiting domestic pool of PhDs
- Declining number of high school graduates
- Stress on ag production land as university meets growth targets



**BILL'S THOUGHTS
SIX MONTHS
INTO THE ROLE**



QUESTIONS?



CAL POLY

College of Agriculture, Food
& Environmental Sciences

CALIFORNIA STATE UNIVERSITY SYSTEM

The largest university system in the U.S., known for preparing job-ready graduates.

23 **Campuses**

474,600+ **Students**

49,000 **Faculty and Staff**



SIX COLLEGES :: 22,279 STUDENTS

- 1 Engineering :: 6,275
- 2 Agriculture, Food and Environmental Sciences :: 4,160
- 3 Liberal Arts :: 3,639
- 4 Orfalea College of Business :: 3,117
- 5 Bailey College of Science and Mathematics :: 3,096
- 6 Architecture and Environmental Design :: 1,952