



Labor Market Information Report

Sustainable and Organic Food Production Occupations

Cabrillo College

Prepared by the San Francisco Bay Center of Excellence for Labor Market Research
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Recommendation

Based on all available data, there appears to be an “undersupply” of Sustainable and Organic Food Production workers compared to the demand for this cluster of occupations in the Bay region and in the SC-Monterey sub-region (Monterey, San Benito, Santa Cruz counties). There is a projected annual gap of about 7,273 students in the Bay region and 1,292 students in the SC-Monterey Sub-Region.

Introduction

This report provides student outcomes data on employment and earnings for TOP 0109.00 Horticulture programs in the state and region. It is recommended that these data be reviewed to better understand how outcomes for students taking courses on this TOP code compare to potentially similar programs at colleges in the state and region, as well as to outcomes across all CTE programs at Cabrillo College and in the region.

This report profiles Sustainable and Organic Food Production Occupations in the 12 county Bay region and in the SC-Monterey sub-region for a program modification at Cabrillo College.

- **Farmers, Ranchers, and Other Agricultural Managers (11-9013):** Plan, direct, or coordinate the management or operation of farms, ranches, greenhouses, aquacultural operations, nurseries, timber tracts, or other agricultural establishments. May hire, train, and supervise farm workers or contract for services to carry out the day-to-day activities of the managed operation. May engage in or supervise planting, cultivating, harvesting, and financial and marketing activities. Excludes “First-Line Supervisors of Farming, Fishing, and Forestry Workers” (45-1011).
Entry-Level Educational Requirement: High school diploma or equivalent
Training Requirement: None
Percentage of Community College Award Holders or Some Postsecondary Coursework: 32%
- **Landscaping and Groundskeeping Workers (37-3011):** Landscape or maintain grounds of property using hand or power tools or equipment. Workers typically perform a variety of tasks, which may include any combination of the following: sod laying, mowing, trimming, planting, watering, fertilizing, digging, raking, sprinkler installation, and installation of mortarless segmental concrete masonry wall units. Excludes “Farmworkers and Laborers, Crop, Nursery, and Greenhouse” (45-2092).
Entry-Level Educational Requirement: No formal educational credential
Training Requirement: Short-term on-the-job training
Percentage of Community College Award Holders or Some Postsecondary Coursework: 20%

- Agricultural Inspectors (45-2011):** Inspect agricultural commodities, processing equipment, and facilities, and fish and logging operations, to ensure compliance with regulations and laws governing health, quality, and safety.
 Entry-Level Educational Requirement: Bachelor's degree
 Training Requirement: Moderate-term on-the-job training
 Percentage of Community College Award Holders or Some Postsecondary Coursework: 27%
- Agricultural Workers, All Other (45-2099):** All agricultural workers not listed separately.
 Entry-Level Educational Requirement: No formal educational credential
 Training Requirement: Short-term on-the-job training
 Percentage of Community College Award Holders or Some Postsecondary Coursework: 14%

Occupational Demand

Table 1. Employment Outlook for Sustainable and Organic Food Production Occupations in Bay Region

Occupation	2020 Jobs	2025 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Earning	Median Hourly Wage
Farmers, Ranchers, and Other Agricultural Managers	11,027	11,037	10	0%	6,584	1,317	\$20	\$64
Landscaping and Groundskeeping Workers	35,052	36,402	1,350	4%	27,215	5,443	\$14	\$40
Agricultural Inspectors	242	258	16	7%	230	46	\$23	\$52
Agricultural Workers, All Other	2,913	2,918	4	0%	2,637	527	\$11	\$35
Total	49,234	50,615	1,381	3%	36,666	7,333		

Source: EMSI 2021.3

Bay Region includes: Alameda, Contra Costa, Marin, Monterey, Napa, San Benito, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano and Sonoma Counties

Table 2. Employment Outlook for Sustainable and Organic Food Production Occupations in SC-Monterey Sub-region

Occupation	2020 Jobs	2025 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Earning	Median Hourly Wage
Farmers, Ranchers, and Other Agricultural Managers	2,501	2,462	-38	-2%	1,449	290	\$16	\$57
Landscaping and Groundskeeping Workers	5,634	5,957	322	6%	4,518	904	\$14	\$41
Agricultural Inspectors	21	22	1	7%	20	4	\$19	\$51
Agricultural Workers, All Other	644	634	-9	-1%	570	114	\$11	\$38
Total	8,800	9,075	275	3%	6,557	1,312		

Source: EMSI 2021.3

SC-Monterey Sub-Region includes: Monterey, San Benito, Santa Cruz Counties

Job Postings in Bay Region and SC-Monterey Sub-Region

Table 3. Number of Job Postings by Occupation for latest 12 months (Jan 2021 - Dec 2021)

Occupation	Bay Region	SC-Monterey
Landscaping and Groundskeeping Workers	2,802	265

Farm and Ranch Managers	240	28
Aquacultural Managers	105	18
Agricultural Inspectors	68	0
Nursery and Greenhouse Managers	66	5
Agricultural Workers, All Other	10	0
Agricultural Sciences Teachers, Postsecondary	8	1

Source: Burning Glass

Table 4a. Top Job Titles for Sustainable and Organic Food Production Occupations for latest 12 months (Jan 2021 - Dec 2021) Bay Region

Title	Bay	Title	Bay
Groundskeeper	249	Porter/Groundskeeper	40
Landscaper	191	Label Inspector	39
Gardener	96	Janitor/Groundskeeper	37
Irrigation Technician	92	Groundsman	33
Landscape Gardener	63	Groundskeeper/Porter	31
Landscape Laborer	60	Landscape Technician	29
Cultivation Technician	47	Yard Crew Member	29
Enhancement Landscape Laborer	45	Landscape Crew Member	25
Greenskeeper	41	Landscape Construction Laborer	23

Source: Burning Glass

Table 4b. Top Job Titles for Sustainable and Organic Food Production Occupations for latest 12 months (Jan 2021 - Dec 2021) SC-Monterey Sub-Region

Title	SC-Monterey	Title	SC-Monterey
Landscaper	31	Groundskeeper/Porter	5
Groundskeeper	23	Climate Research Farm Manager	4
Greenskeeper	14	Farmer Market Vendor	4
Yard Crew Member	11	Maintenance Groundskeeper	4
Irrigation Technician	10	Cultivator	3
Grounds Maintenance	7	Farmer Market Crew For Organic Farm	3
Landscape Laborer	6	Golf Course Maintenance	3
Cannabis Cultivator	5	Greenskeeper I	3
Gardener	5	Landscape Installation Crew	3

Source: Burning Glass

Industry Concentration

Table 5. Industries hiring Sustainable and Organic Food Production Workers in Bay Region

Industry – 6 Digit NAICS (No. American Industry Classification) Codes	Jobs in Industry (2020)	Jobs in Industry (2025)	% Change (2020-25)	% Occupation Group in Industry (2020)
Landscaping Services	24,715	25,404	3%	51%
Crop Production	12,573	12,569	0%	26%
Local Government, Excluding Education and Hospitals	2,093	2,291	9%	4%
Private Households	1,177	1,329	13%	2%
Animal Production	989	938	-5%	2%
Golf Courses and Country Clubs	533	511	-4%	1%
Colleges, Universities, and Professional Schools (State Government)	313	313	0%	1%
Colleges, Universities, and Professional Schools	268	289	8%	1%
All Other Amusement and Recreation Industries	273	262	-4%	1%
Temporary Help Services	249	258	4%	1%

Source: EMSI 2021.3

Table 6. Top Employers Posting Sustainable and Organic Food Production Occupations in Bay Region and SC-Monterey Sub-Region (Jan 2021 - Dec 2021)

Employer	Bay	Employer	SC-Monterey
Brightview	127	A Tool Shed Incorporated	8
Greystar	45	Hyatt	7
Fpi Management Incorporated	45	Kd Landscaping	5
Brightview Landscapes	45	Greystar	5
Brightview Landscape Services	42	Driscolls, Inc	5
Cagwin Dorward	41	Carmel Valley Ranch	5
Multi Color Corporation	34	Santa Lucia Preserve	4
Farm Fresh To You	31	Kd Landscaping Incorporated	4
Meadows In Bloom	29	Casa De Fruta	4
Trugreen	26	Bayer Corporation	4

Source: Burning Glass

Educational Supply

There are eight (8) community colleges in the Bay Region issuing 60 awards on average annually (last 3 years ending 2018-19) on TOP 0109.00 Horticulture. In the SC-Monterey Sub-Region, there are two (2) community colleges that issued 20 awards on average annually (last 3 years) on this TOP code.

Table 7. Community College Awards on TOP 0109.00 Horticulture in Bay Region

College	Subregion	Associate	Certificate Low	Total
Cabrillo	SC-Monterey	7	9	16
Diablo Valley	East Bay	0	8	8

Foothill	Silicon Valley	8	6	14
Las Positas	East Bay	0	1	1
Merritt	East Bay	0	9	9
Monterey	SC-Monterey	1	3	4
San Francisco	Mid-Peninsula	1	0	1
Solano	North Bay	2	5	7
Total		19	41	60

Source: Data Mart

Note: The annual average for awards is 2016-17 to 2018-19.

Gap Analysis

Based on the data included in this report, there is a large labor market gap in the Bay region with 7,333 annual openings for the Sustainable and Organic Food Production occupational cluster and 60 annual (3-year average) awards for an annual undersupply of 7,273 students. In the SC-Monterey Sub-Region, there is also a gap with 1,312 annual openings and 20 annual (3-year average) awards for an annual undersupply of 1,292 students.

Student Outcomes

Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0109.00 Horticulture

Metric Outcomes	Bay All CTE Program	Cabrillo All CTE Program	State 0109.00	Bay 0109.00	SC-Monterey 0109.00	Cabrillo 0109.00
Students with a Job Closely Related to Their Field of Study	73%	76%	70%	70%	87%	84%
Median Annual Earnings for SWP Exiting Students	\$44,575	\$39,206	\$32,188	\$37,783	\$33,092	\$31,671
Median Change in Earnings for SWP Exiting Students	30.40%	31%	20%	20%	38%	44%
Exiting Students Who Attained the Living Wage	53%	50%	45%	43%	36%	33%

Source: Launchboard Strong Workforce Program Median of 2016-18.

Skills, Certifications and Education

Table 9. Top Skills for Sustainable and Organic Food Production Occupations in Bay Region (Jan 2021 - Dec 2021)

Skill	Posting	Skill	Posting
Repair	854	Occupational Health and Safety	157
Cleaning	699	Landscaping	152
Irrigation Systems	617	Herbicides	141
Debris and Litter Control	427	Power Saws	138
Lifting Ability	401	Irrigation (Agriculture)	130

Fertilizers	353	Plumbing	118
Hand Tools	338	Carpentry	108
Power Tools	337	Customer Contact	104
Customer Service	265	Masonry	98
Personal Protective Equipment (PPE)	262	Sales	94
Machinery	241	Weed Eaters	86
Scheduling	211	Facility Maintenance	84
Painting	193	Plant Identification	79
Budgeting	161	Property Management	75

Source: Burning Glass

Table 10. Certifications for Sustainable and Organic Food Production Occupations in the Bay Region (Jan 2021 - Dec 2021)

Certification	Posting	Certification	Posting
Driver's License	1,506	Leadership In Energy And Environmental Design (LEED) Certified	6
Certified Pest Control	40	Certified Arborist	6
Cdl Class C	38	CDL Class A	6
Contractors License	25	Occupational Safety and Health Administration Certification	4
First Aid Cpr Aed	14	Certified Crop Advisor	4
Certified Applicator	11	Food Service Certification	3
Applicators License	8	Certified Landscape Technician	3
Food Handler Certification	7	Phlebotomy Certification	2
Backflow Prevention Certification	7	OSHA Safety 10 Hour	2
Master Gardener Certification	6	EPA CFC/HCFC Certification	2

Source: Burning Glass

Note: 52% of records have been excluded because they do not include a certification. As a result, the chart above may not be representative of the full sample.

Table 11. Education Requirements for Sustainable and Organic Food Production Occupations in Bay Region

Education (minimum advertised)	Latest 12 Mos. Postings	Percent 12 Mos. Postings
High school or vocational training	803	85%
Associate's degree	29	3%
Bachelor's degree	115	13%

Source: Burning Glass

Note: 71% of records have been excluded because they do not include a degree level. As a result, the chart above may not be representative of the full sample.

Methodology

Occupations for this report were identified by use of skills listed in O*Net descriptions and job descriptions in Burning Glass. Labor demand data is sourced from Economic Modeling Specialists International (EMSI) occupation data and Burning Glass job postings data. Educational supply and student outcomes data is retrieved from multiple sources, including CTE Launchboard and CCCCCO Data Mart.

Sources

O*Net Online

Labor Insight/Jobs (Burning Glass)

Economic Modeling Specialists International (EMSI)

CTE LaunchBoard www.calpassplus.org/Launchboard/

Statewide CTE Outcomes Survey

Employment Development Department Unemployment Insurance Dataset

Living Insight Center for Community Economic Development

Chancellor's Office MIS system

Contacts

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