

# Horticulture (Sustainable Gardening)

*Inland Empire/Desert Region (Riverside and San Bernardino counties combined)*

*This workforce demand report uses state and federal job projection data developed before the economic impact of COVID-19. The COE is monitoring the situation and will provide more information as it becomes available. Please consult with local employers to understand their current employment needs.*

## Introduction

This report provides labor market occupational demand and wage research and postsecondary program outcomes related to sustainable gardening and horticulture. The California Community College horticulture (TOP 0109.00) program prepares students for employment through instruction related to the production of flowers, foliage, and related plant materials in fields and greenhouses for garden and ornamental purposes (Taxonomy of Programs, 2012). Horticulture programs prepare students for employment in one community college-level occupation and one no degree-level occupation. Occupational definitions, alternative job titles, education, work experience, and training requirements are provided below:

### **Farmers, Ranchers, and Other Agricultural Managers (11-9013) (Community College-level)**

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.

**Sample job titles:** Aquaculture Director, Farm Manager, Farm Operations Technical Director, Fish Hatchery Manager, Greenhouse Manager, Harvesting Manager, Hatchery Manager, Hatchery Supervisor, Nursery Manager, Ranch Manager

*Entry-Level Educational Requirement: High school diploma or equivalent*

*Training Requirement: None*

*Work Experience: Five years or more*

*Incumbent workers with a Community College Award or Some Postsecondary Coursework: 31%*

### **Farmworkers and Laborers, Crop, Nursery, and Greenhouse (45-2092) (No Degree-level)**

Manually plant, cultivate, and harvest vegetables, fruits, nuts, horticultural specialties, and field crops. Use hand tools, such as shovels, trowels, hoes, tampers, pruning hooks, shears, and knives. Duties may include tilling soil and applying fertilizers; transplanting, weeding, thinning, or pruning crops; applying pesticides; or cleaning, grading, sorting, packing, and loading harvested products. May construct trellises, repair fences and farm buildings, or participate in irrigation activities.

**Sample job titles:** Farm Laborer, Field Irrigation Worker, Gardener, Greenhouse Worker, Grower, Harvester, Nursery Worker, Orchard Worker, Picker, Propagation Worker

*Entry-Level Educational Requirement: No formal education*

*Training Requirement: Less than one-month on-the-job training*

*Work Experience: None*

*Incumbent workers with a Community College Award or Some Postsecondary Coursework: 15%*

## Employment

In 2021, there were 11,638 total horticulture jobs in the Inland Empire/Desert Region. Despite an expected 5% decrease in employment for farmers, ranchers, and other agricultural managers through 2026, this occupation is projected to have 295 replacement job openings annually. Farmworkers and laborers, crop, nursery, and greenhouse are expected to have 1,323 replacement annual job openings, despite a 5% decline in jobs projected through 2026. Exhibit 1 displays the job counts, five-year projected job growth, job openings, and the share of incumbent workers aged 55 years and greater in the region. Nearly half (49%) of farmers, ranchers, and other agricultural managers are above 55 years old, indicating that these workers may exit the workforce through retirement in the coming years. The community college-level occupation, farmers, ranchers, and other agricultural managers, is displayed in blue, and the no degree-level occupation, farmworkers and laborers, crop, nursery, and greenhouse, is displayed in green.

Exhibit 1: Five-year projections, 2021-2026

Occupation	2021 Jobs	2026 Jobs	Change	% Change	2021-26 Job Openings	Annual Job Openings	% of workers age 55+
Farmers, Ranchers, and Other Agricultural Managers	3,106	2,942	(164)	(5%)	1,473	295	49%
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	8,531	8,131	(400)	(5%)	6,616	1,323	25%
<b>Total</b>	<b>11,638</b>	<b>11,074</b>	<b>(564)</b>	<b>(5%)</b>	<b>8,088</b>	<b>1,618</b>	<b>32%</b>

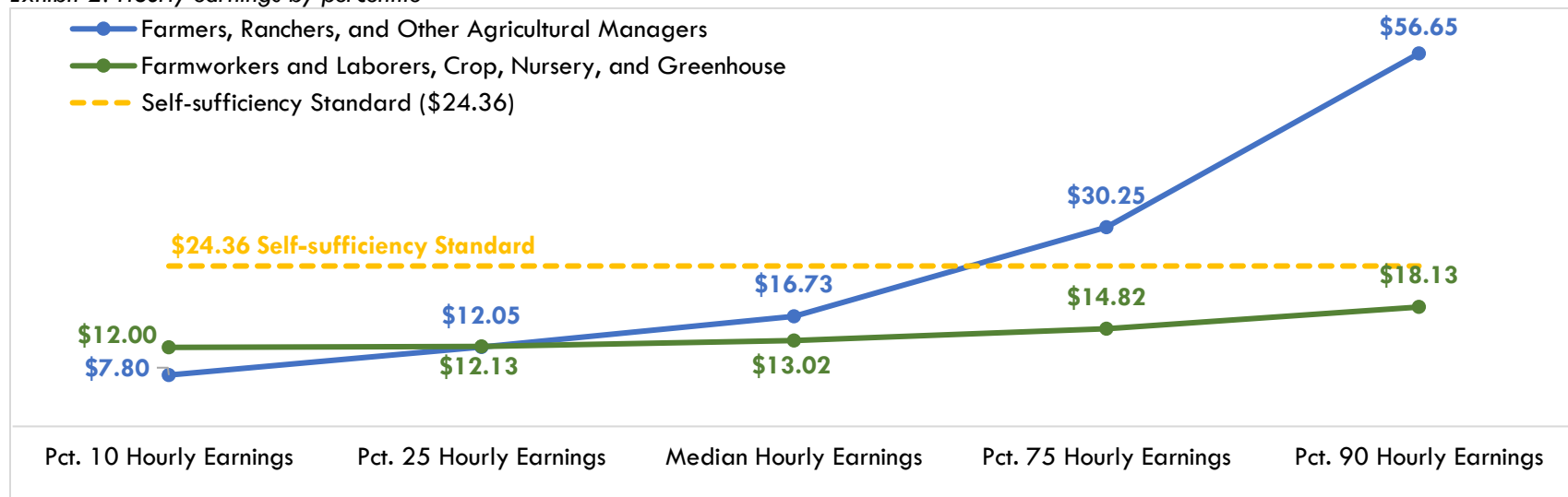
Source: Emsi 2022.2

## Earnings

Community colleges should ensure their training programs lead to employment opportunities that provide self-sustainable income. The University of Washington estimates that a self-sufficient hourly rate for a single adult with one school-age child is \$24.36 per hour or \$51,452 annually in Riverside County; \$23.73 per hour or \$50,119 annually in San Bernardino County (Pearce, 2021). For this study, the higher hourly earnings requirement in Riverside County is adopted as the self-sufficiency standard for the two-county region.

Exhibit 2 displays the hourly earnings for the horticulture occupational group in the Inland Empire/Desert Region. The 75<sup>th</sup> percentile hourly earnings for farmers, ranchers, and other agricultural managers surpass the self-sufficiency standard, indicating that at least the top 25% of workers earn a self-sustainable wage. The hourly earnings for farmworkers and laborers, crop, nursery, and greenhouse do not surpass the self-sustainability rate, indicating that workers in this occupation may struggle to support themselves. The community college-level occupation is displayed in blue, and the no degree-level occupation is displayed in green.

Exhibit 2: Hourly earnings by percentile



Source: Emsi 2022.2

## Employer Online Job Advertisements

The tables below provide online job advertisement analytics data for the horticulture occupational group with sustainable gardening skills over the last 12 months, from May 2021 to April 2022. Over the previous twelve months, there were 155 job ads posted for the horticulture occupational group in the Inland Empire/Desert Region. Sustainable gardening jobs were located using a keyword filter to job ads for the horticulture occupational group. The following keywords were used to focus on sustainable gardening: sustainable, sustainability, sufficient, sufficiency, conserve, conservation, sustenance, green, ecosystem, impact, efficiency, compost, composting, integrated pest management, companion plant, beneficial insects, eco-friendly, and organic.

Over the last 12 months, there were 26 job ads for the sustainable gardening occupational group, accounting for 17% of the total ads for the horticulture occupational group. Eighteen ads were posted for farmers, ranchers, and other agricultural managers, and eight were for farmworkers and laborers, crop, nursery, and greenhouse. This may indicate that sustainable gardening skills are a niche segment of overall employment for this classification of workers. Exhibit 3 displays the employers posting the most job advertisements for the sustainable gardening occupational group.

Showing employer names provides some insight into where students may find employment after completing a program. Approximately 27% of job ads were posted by employers operating in the cannabis industry.

*Exhibit 3: Employers posting the most job advertisements for the sustainable gardening occupational group*

Employers	Unique Job Ads
Yaamava' Resort & Casino at San Manuel	3
High Caliber Organics	2
Marriott International	2
AmericannMade	2
Bayer	1
CannabizTeam	1
Claybourne Co.	1
Ecological Farming Association	1
Healing Tree	1
University of California, Riverside	1

Source: Emsi 2022.2

Exhibits 4 display the most common skills or qualifications found in employer job advertisements for the sustainable gardening occupational group. Qualifications refer to the certifications decided on by a third-party entity (school, government, industry, etc.) that acknowledges a body of skills and abilities. Skills are competencies at specific tasks or familiarity with specific subjects and tools acquired through education or experience.

*Exhibit 4: The skills or qualifications most frequently included in employer job advertisements for the sustainable gardening occupational group*

Skill or Qualification	Job Ads	% of Total Ads
Communications	17	65%
Operations	13	50%
Management	12	46%

Skill or Qualification	Job Ads	% of Total Ads
Irrigation (Landscaping and Agriculture)	11	42%
Valid Driver's License	10	38%
Leadership	9	35%
Planning	7	27%
Standard Operating Procedure	7	27%

Source: Emsi 2022.2

## Community College Programs

Two regional community colleges currently offer horticulture (TOP 0109.00) programs. Regional community college programs have issued 40 awards annually over the last three academic years, 2018-2021. Exhibit 5 displays the horticulture awards conferred over the previous three academic years.

*Exhibit 5: Average annual community college completions in horticulture programs, 2018-21*

Colleges (Local Program Title)	Annual Average Awards (2018-21)
<b>Desert</b> (Arborist Technician, Environmental Horticulture, Landscape & Irrigation Technician, Pest Management Technician)	29
<b>Victor Valley</b> (Environmental Horticulture, Environmental Horticulture and Landscaping)	11
<b>Total</b>	<b>40</b>

Sources: MIS Data Mart, COCI

This labor market brief provides an occupational and community college program overview and is not intended for regional program recommendation or submission to the California Community Colleges Chancellor's Office.

## Contact

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## References

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