



Agricultural Pest Control Adviser and Operator (Licensed) (TOP 0103.10)

March 2022

Prepared by the South Central Coast Center of Excellence for
Labor Market Research

Program Recommendation

This report was compiled by the South Central Coast¹ Center of Excellence to provide regional labor market data for the program recommendation – Agricultural Pest Control Adviser and Operator. This report can help determine whether demand in the local labor market is not being met by the supply from programs of study (CCC and non-CCC) that align with this occupation group.

Key Findings

- In the South Central Coast region, **the number of jobs related to Agricultural Pest Control Adviser and Operator are expected to remain steady** for First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers and Pesticide Handlers, Sprayers, and Applicators, Vegetation while **increasing** for the other three occupations.
- Agricultural Pest Control Adviser and Operator is anticipated to experience a **low risk of automation** for Farmers, Ranchers, and Other Agricultural Managers, and First-Line Supervisors of Farming, Fishing, and Forestry Workers, and a **high risk** for the other three related occupations.
- In 2020 there were 431 regional completions in programs related to the occupations identified as aligned with Agricultural Pest Control Adviser and Operator and 6,371 openings, indicating an **undersupply**.
- Typical entry-level education is **no formal education credential** for Farmworkers and Laborers, Crop, Nursery, and Greenhouse, and a **high school diploma or equivalent** for the other three occupations.
- Completers of Agricultural Pest Control Adviser and Operator programs from the 2018-2019 academic year statewide had a **median annual wage upon completion of \$56,604**. (statewide)
- 78% of students are **employed within a year** after completing a program. (statewide)
- 80% of students **attained a living wage** within a year of completion. (statewide)
- Completers experienced an average of +41% **change in earnings after exiting**. (statewide)
- 40% of students were **first-generation**, 77% were **part-time**, 18% **skills-builders**, and 64% **economically disadvantaged**. (statewide)

¹ The South Central Coast Region consists of San Luis Obispo County, Santa Barbara County, Ventura County, and the following cities from North Los Angeles County: Canyon Country, Castaic, Lake Hughes, Lancaster, Littlerock, Llano, Newhall, Palmdale, Pearblossom, Santa Clarita, Stevenson Ranch, and Valencia.

Occupation Codes and Descriptions

Five occupations in the standard occupational classification (SOC) system were identified as related to Agricultural Pest Control Advisor and Operator for this analysis. The occupation titles and descriptions, as well as reported job titles, are included in Exhibit 1.

Exhibit 1 – Occupation, description, and sample job titles

SOC Code	Title	Description	Sample of Reported Job Titles
11-9013	Farmers, Ranchers, and Other Agricultural Managers	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.	--
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	Directly supervise and coordinate activities of workers engaged in landscaping or groundskeeping activities. Work may involve reviewing contracts to ascertain service, machine, and workforce requirements; answering inquiries from potential customers regarding methods, material, and price ranges; and preparing estimates according to labor, material, and machine costs.	Field Manager, Golf Course Superintendent, Grounds Crew Supervisor, Grounds Foreman, Grounds Maintenance Supervisor, Grounds Manager, Grounds Supervisor, Groundskeeper Supervisor, Landscape Manager, Landscape Supervisor
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	Mix or apply pesticides, herbicides, fungicides, or insecticides through sprays, dusts, vapors, soil incorporation, or chemical application on trees, shrubs, lawns, or crops. Usually requires specific training and state or federal certification.	Chemical Applicator, Integrated Pest Management Technician (IPM Technician), Lawn Specialist, Lawn Technician, Licensed Pesticide Applicator, Pest Control Technician, Pesticide Applicator, Spray Applicator, Spray Technician, Tree and Shrub Technician
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	Directly supervise and coordinate the activities of agricultural, forestry, aquacultural, and related workers.	--

SOC Code	Title	Description	Sample of Reported Job Titles
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	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.	--

Source: O*NET Online

Current and Future Employment

In the South Central Coast region, the number of jobs related to Agricultural Pest Control Advisor and Operator are expected to remain steady for First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers and Pesticide Handlers, Sprayers, and Applicators, Vegetation while increasing for the other three occupations.

Exhibit 2 – Five-year projections for Agricultural Pest Control Advisor and Operator in the South Central Coast region

SOC	Occupation	2020 Jobs	2025 Jobs	2020-2025 Change	2020-2025 % Change
11-9013	Farmers, Ranchers, and Other Agricultural Managers	10,833	11,884	1,051	10%
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	1,444	1,442	-2	0%
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	217	221	4	2%
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	1,775	1,931	156	9%
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	27,885	29,689	1,804	6%

Source: Economic Modeling Specialists International (EMSI)

Earnings

In the South Central Coast region, the average wage for the listed occupations is \$13.54 per hour.

Exhibit 3 contains hourly wages and annual average earnings for these occupations. Entry-level hourly earnings are represented by the 25th percentile of wages, median hourly earnings are represented by the 50th percentile of wages, and experienced hourly earnings are represented by the 75th percentile of wages, demonstrating various levels of employment.

Exhibit 3 – Earnings for Agricultural Pest Control Advisor and Operator in the South Central Coast region

SOC	Occupation	Entry-Level Hourly Earnings	Median Hourly Earnings	Experienced Hourly Earnings
11-9013	Farmers, Ranchers, and Other Agricultural Managers	\$12.02	\$16.43	\$29.51
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	\$15.33	\$21.64	\$29.53
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	\$15.22	\$19.29	\$23.64
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	\$14.23	\$18.48	\$25.43
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	\$12.15	\$13.14	\$15.01

Source: Economic Modeling Specialists International (EMSI)

Employer Job Postings

In this research brief, real-time labor market information is used to provide a more nuanced view of the current job market, as it captures job advertisements for occupations relevant to the field of study. Employer job postings are consulted to understand who is looking for pest control workers, and what they are looking for in potential candidates. To identify job postings related to Agricultural Pest Control Advisor and Operator the following standard occupational classifications were used:

11-9013	Farmers, Ranchers, and Other Agricultural Managers
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse

Top Occupations

In 2021, there were 265 employer postings for the occupations related to Agricultural Pest Control Advisor and Operator.

Exhibit 4 – Top occupations in job postings and risk of automation tables

SOC Code	Occupation	Job Postings, Full Year 2021
11-9013	Farmers, Ranchers, and Other Agricultural Managers	107
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	72
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	56
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	21
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	9

Source: Labor Insight/Jobs (Burning Glass)

SOC Code	Occupation	Risk of Automation
11-9013	Farmers, Ranchers, and Other Agricultural Managers	Low
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	High
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	Low
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	Low
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	Low

Source: Labor Insight/Jobs (Burning Glass)

Top Titles

The top job titles for employers posting ads for jobs related to Agricultural Pest Control Advisor and Operator are listed in Exhibit 5. Landscape Foreman is mentioned as the job title in 4% of all relevant job postings (10 postings).

Exhibit 5 –Job Titles

Title	Job Postings, Full Year 2021
Landscape Foreman	10
Grower Manager	8
Manager Branch Commercial L2	5
Ranch Work	4
Landscape Supervisor	3

Source: Labor Insight/Jobs (Burning Glass)

Top Employers

Exhibit 6 lists the major employers hiring professionals in the Agricultural Pest Control Advisor and Operator field. The top employer posting job ads was Speedling Inc. The top worksite cities in the region for these occupations were San Luis Obispo, Santa Barbara, Nipomo, Paso Robles, and Santa Clarita.

Exhibit 6 – Top Employers (n=131)

Employer	Job Postings, Full Year 2021
Speedling Inc	9
ServiceMaster	6
Pacific States Marine Fisheries Commission	5
Ag Rx	3
Ball Horticultural Company	3

Source: Labor Insight/Jobs (Burning Glass)

Skills

Scheduling is the most sought-after skill for employers hiring for jobs related to Agricultural Pest Control Advisor and Operator.

Exhibit 7 –Job Skills (n=179)

Skills	Job Postings, Full Year 2021
Scheduling	43
Cleaning	35
Repair	32
Fertilizers	25
Quality Assurance and Control	21
Lifting Ability	20
Customer Service	19

Source: Labor Insight/Jobs (Burning Glass)

Industry Concentration

Exhibit 8 shows the industries with the most Agricultural Pest Control Advisor and Operator postings in the South Central Coast. Note: 49% of records have been excluded because they do not include an industry. As a result, the chart below may not be representative of the full sample.

Exhibit 8 – Industries employing the most in the Agricultural Pest Control Advisor and Operator field, 2021

Industry	Occupation Group Jobs in Industry	% of Occupation Group in Industry
Agriculture, Forestry, Fishing and Hunting	60	44.4%
Administrative and Support and Waste Management and Remediation Services	24	17.8%
Manufacturing	19	14.1%
Finance and Insurance	7	5.2%
Health Care and Social Assistance	7	5.2%

Source: Labor Insight/Jobs (Burning Glass)

Education and Training

Exhibit 9 shows the typical entry-level education requirement for the occupations of interest, along with the typical on-the-job training needed to attain competency in the occupation.

Exhibit 9 – Education and Training Requirements

SOC	Occupation	Typical entry-level education	Typical on-the-job training
11-9013	Farmers, Ranchers, and Other Agricultural Managers	High school diploma or equivalent	None
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	High school diploma or equivalent	None
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	High school diploma or equivalent	Moderate-term on-the-job training
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	High school diploma or equivalent	None
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	No formal education credential	Short-term on-the-job training

Source: Bureau of Labor Statistics Employment Projections (Educational Attainment)

Regional Completions and Openings

There were 431 regional completions (2020) and 6,371 regional openings (2020) in the South Central Coast region in programs related to the occupations identified as aligned with Agricultural Pest Control Advisor and Operator.

Exhibit 10 – Completions and Openings

6 Regional Institutions had Related Programs (2020)	431 Regional Completions (2020)	6,371 Annual Openings (2020)
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Source: Economic Modeling Specialists International (EMSI)

Related Programs

CIP Code	Program	Completions (2020)
01.0102	Agribusiness/Agricultural Business Operations	181
01.1004	Viticulture and Enology	74
01.1102	Agronomy and Crop Science	65
01.0000	Agriculture, General	48
04.0601	Landscape Architecture	25
01.0601	Applied Horticulture/Horticulture Operations, General	17
01.0605	Landscaping and Groundskeeping	11
01.0304	Crop Production	7
01.0606	Plant Nursery Operations and Management	3

Source: Economic Modeling Specialists International (EMSI)

Student Outcomes

The CTE LaunchBoard provides student outcome data on the effectiveness of CTE programs. The following student outcome information was collected from exiters of Agricultural Pest Control Advisor and Operator Programs (TOP: 0103.10) statewide for the 2018-19 academic year.

- Completers of Agricultural Pest Control Advisor and Operator programs from the 2018-2019 academic year statewide had a **median annual wage upon completion of \$56,604.** (statewide)
- 78% of students are **employed within a year** after completing a program. (statewide)
- 80% of students **attained a living wage** within a year of completion. (statewide)
- Completers experienced an average of +41% **change in earnings after exiting.** (statewide)
- 40% of students were **first-generation**, 77% were **part-time**, 18% **skills-builders**, and 64% **economically disadvantaged.** (statewide)

Sources

O*Net Online, Labor Insight/Jobs (Burning Glass), Economic Modeling Specialists International (EMSI), MIT Living Wage Calculator, Bureau of Labor Statistics (BLS) Education Attainment, California Community Colleges Chancellor's Office Management Information Systems (MIS) Data Mart, CTE LaunchBoard, Statewide CTE Outcomes Survey, Employment Development Department Unemployment Insurance Dataset

Notes

Data included in this analysis represent the labor market demand for relevant positions most closely related to Agricultural Pest Control Advisor and Operator. Traditional labor market information was used to show current and projected employment based on data trends, as well as annual average awards granted by regional community colleges. Real-time labor market information captures job post advertisements for occupations relevant to the field of study and can signal demand and show what employers are looking for in potential employees, but is not a perfect measure of the quantity of open positions. All representations have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. The most recent data available at the time of the analysis was examined; however, data sets are updated regularly and may not be consistent with previous reports. Efforts have been made to qualify and validate the accuracy of the data and findings; however, neither the Centers of Excellence for Labor Market Research (COE), COE host district, nor California Community Colleges Chancellor's Office are responsible for the applications or decisions made by individuals and/or organizations based on this study or its recommendations.