Horticulture Occupation Cluster

Riverside-San Bernardino-Ontario MSA (Riverside and San Bernardino County combined)

# Occupation Definitions

**Farmers, Ranchers, and Other Agricultural Managers (SOC: 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.

Sample of reported job titles: Fish Hatchery Manager, Orchard Manager, Animal Husbandry Manager, Dairy Farm Manager

**Soil and Plant Scientists (SOC: 19-1013)** Conduct research in breeding, physiology, production, yield, and management of crops and agricultural plants or trees, shrubs, and nursery stock, their growth in soils, and control of pests; or study the chemical, physical, biological, and mineralogical composition of soils as they relate to plant or crop growth. May classify and map soils and investigate effects of alternative practices on soil and crop productivity.

Sample of reported job titles: Agronomist, Agronomy Research Manager, Agronomy Specialist, Crop Nutrition Scientist, Extension Specialist, Microbiology Soil Scientist, On-Site Soil Evaluator, Research Soil Scientist, Soil Fertility Extension Specialist, Soil Scientist

**Floral Designers (SOC: 27-1023)** Design, cut, and arrange live, dried, or artificial flowers and foliage.

Sample of reported job titles: Design Manager, Designer, Floral Artist, Floral Clerk, Floral Department Specialist, Floral Designer, Floral Manager, Florist, Flower Shop Laborer/Designer, Wedding Decorator

**First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers (SOC: 37-1012)** 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.

Sample of reported job titles: Field Manager, Golf Course Superintendent, Grounds Crew Supervisor, Grounds Foreman, Grounds Maintenance Supervisor, Grounds Manager, Grounds Supervisor, Groundskeeper Supervisor, Landscape Manager, Landscape Supervisor

**Landscaping and Groundskeeping Workers (SOC: 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.

Sample of reported job titles: Gardener, Greenskeeper, Grounds Maintenance Worker, Grounds Person, Grounds Worker, Grounds/Maintenance Specialist, Groundskeeper, Landscape Specialist, Landscape Technician, Outside Maintenance Worker

**Pesticide Handlers, Sprayers and Applicators, Vegetation (SOC: 37-3012)** Mix or apply pesticides, herbicides, fungicides, or insecticides through sprays, dusts, vapors, soil incorporation, or chemical application on trees, shrubs, lawns, or botanical crops. Usually requires specific training and State or Federal certification.

Sample of reported job titles: 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

# Horticulturists Occupation Cluster Outlook

By 2020 the horticulture occupation cluster is projected to increase employment by 1,354 jobs; more than 880 job opportunities will be available in this occupation cluster annually due to new job growth and replacement need. The landscaping and groundskeeping occupation makes up the bulk of horticulture occupation cluster. This occupation is projected to increase employment seven percent by 2020, adding 1,645 new jobs, or 748 job openings each year during the five-year projection time-frame. First-line supervisors of landscaping, lawn service, and groundskeeping workers will add an additional 95 new and replacement job opportunities over five years. Framers, ranchers, and other agricultural managers will have a 27% decrease within a five-year period. This will result in a 429 job loss by 2020.

According to Burnings Glass, an online job posting search resource, there were a combined 512 horticulturists occupation cluster job postings in 2015. Job postings included: 380 postings for landscaping and groundskeeping workers; 48 postings for first-line supervisors of landscaping, lawn service, and groundskeeping workers; 33 postings for floral designers; 26 postings for pesticide handlers, sprayers, and applicators, vegetation; 13 postings for soil and plant scientists; and 12 postings for farmers, ranchers, and other agricultural managers.

Table 1. Horticulturists occupations in the **Riverside-San Bernardino-Ontario MSA**, 5-year Projections

| Occupation | 2015 Jobs | 2020 Jobs | 5-yr Growth | 5-yr % Growth | Annual Openings |
| --- | --- | --- | --- | --- | --- |
| Landscaping and Groundskeeping Workers | 22,002 | 23,647 | 1,645 | 7% | **748** |
| First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers | 2,336 | 2,431 | 95 | 4% | **67** |
| Farmers, Ranchers, and Other Agricultural Managers | 1,579 | 1,150 | (429) | (27%) | **24** |
| Pesticide Handlers, Sprayers, and Applicators, Vegetation | 520 | 551 | 31 | 6% | **16** |
| Floral Designers | 483 | 487 | 4 | 1% | **22** |
| Soil and Plant Scientists | 73 | 80 | 7 | 10% | **4** |
| Total | **26,992** | **28,346** | **1,354** | **5%** | **881** |

Source: EMSI 2016.4 Class of Worker

In California, the landscaping and groundskeeping workers also made up a large part of the horticulturists occupation cluster. This occupation is expected to increase by 6 percent, adding 10,565 jobs over the five-year period. California framers, ranchers, and other agricultural managers occupations are projected to decrease by 9% within a five-year period. This will result in a 3,628 job loss by 2020. Overall, this occupation cluster is projected to increase employment by 8,458 jobs; over 7,102 job opportunities will be available in this occupation cluster annually due to new job growth and replacement need.

According to Burnings Glass, there were a 4,843 combined horticulturists occupation cluster job postings in California in 2015. Job postings included: 3,121 postings for landscaping and groundskeeping workers; 494 postings for first-line supervisors of landscaping, lawn service, and groundskeeping workers; 488 postings for floral designers; 381 postings for farmers, ranchers, and other agricultural managers; 228 postings for soil and plant scientists; and 131 postings for pesticide handlers, sprayers, and applicators, vegetation.

Table 2. Horticulturists occupations in **California**, 5-year Projections

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Occupation | 2015 Jobs | 2020 Jobs | 5-yr Growth | 5-yr % Growth | Annual Openings |
| Landscaping and Groundskeeping Workers | 175,542 | 186,107 | 10,565 | 6% | **5,429** |
| Farmers, Ranchers, and Other Agricultural Managers | 38,859 | 35,231 | (3,628) | (9%) | **622** |
| First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers | 18,734 | 19,287 | 553 | 3% | **491** |
| Floral Designers | 5,413 | 5,837 | 424 | 8% | **290** |
| Pesticide Handlers, Sprayers, and Applicators, Vegetation | 4,104 | 4,407 | 303 | 7% | **139** |
| Soil and Plant Scientists | 2,190 | 2,430 | 240 | 11% | **130** |
| Total | **244,842** | **253,300** | **8,458** | **3%** | **7,102** |

Source: EMSI 2016.4 Class of Worker

# Wages, Education, and Training

Table 3 below lists the entry level, median, and experienced earnings for the horticulturists occupation cluster. The median wage for nearly all of the occupations in this cluster exceeds the living wage of $11.75 per hour for the local region according the MIT Living Wage Calculator. However, the landscaping and groundskeeping workers occupation wage is $11.22 which is less than the $11.75 living wage. The typical entry level education for most occupations in this cluster is a high school diploma or equivalent; soil and plant scientist require a bachelor’s degree and landscaping and groundskeeping workers require no formal education credential.

Table 3. Wage and Educational Requirements for the Horticulturists Occupations in the **Riverside-San Bernardino-Ontario MSA**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Occupation | Entry Hourly  Earnings | Median Hourly Earnings | Experienced Hourly Earnings | Median Annual Salary | Typical Entry Level Education | Typical On-The-Job Training |
| Farmers, Ranchers, and Other Agricultural Managers | $11.83 | $18.60 | $26.19 | $40,227 | High school diploma or equivalent | None |
| Soil and Plant Scientists | $20.66 | $31.95 | $50.90 | $70,387 | Bachelor’s degree | None |
| Floral Designers | $10.46 | $13.10 | $15.91 | $27,622 | High school diploma or equivalent | One to 12 months |
| First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers | $13.62 | $17.26 | $23.25 | $37,502 | High school diploma or equivalent | None |
| Landscaping and Groundskeeping Workers | $9.29 | $11.22 | $16.36 | $25,002 | No formal educational credential | One month or less |
| Pesticide Handlers, Sprayers, and Applicators, Vegetation | $13.81 | $18.22 | $25.29 | $39,166 | High school diploma or equivalent | One to 12 months |
| Averages | **$9.96** | **$12.40** | **$17.78** | **$39,984** | **\_** | **\_** |

Source: EMSI 2016.4 Class of Worker. Entry hourly earnings is 10th percentile, experienced hourly earnings is 90th percentile.

Table 4 below lists the entry level, median, and experienced earnings for the horticulturists occupation cluster in California. The median wage for nearly all of the occupations in this cluster exceeds the living wage of $12.62 per hour for the state of California according the MIT Living Wage Calculator. However, the landscaping and groundskeeping workers occupation and floral designers occupations have median wage under the $12.62 living wage.

Table 4. Wage and Educational Requirements for the Horticulturists Occupations in **California**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Occupation | Entry Hourly  Earnings | Median Hourly Earnings | Experienced Hourly Earnings | Median Annual Salary | Typical Entry Level Education | Typical On-The-Job Training |
| Farmers, Ranchers, and Other Agricultural Managers | $14.36 | $21.33 | $31.10 | $46,030 | High school diploma or equivalent | None |
| Soil and Plant Scientists | $20.19 | $32.22 | $59.34 | $75,130 | Bachelor’s degree | None |
| Floral Designers | $9.63 | $12.55 | $17.66 | $27,123 | High school diploma or equivalent | One to 12 months |
| First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers | $13.52 | $18.81 | $28.30 | $41,309 | High school diploma or equivalent | None |
| Landscaping and Groundskeeping Workers | $9.74 | $12.57 | $18.88 | $28,038 | No formal educational credential | One month or less |
| Pesticide Handlers, Sprayers, and Applicators, Vegetation | $12.53 | $17.90 | $25.64 | $38,501 | High school diploma or equivalent | One to 12 months |
| Averages | **$10.90** | **$14.70** | **$21.99** | **$42,689** | **\_** | **\_** |

Source: EMSI 2016.4 Class of Worker. Entry hourly earnings is 10th percentile, experienced hourly earnings is 90th percentile.

# Advertised Skills

Table 6 lists the top skills requested by employers in online job postings for each of the occupations in the horticulturalists cluster in 2015.

*Table 6. Job postings advertisements with top skills in the Riverside-San Bernardino-Ontario MSA*

|  |  |
| --- | --- |
| Occupation | Top Skills |
| Farmers, Ranchers, and Other Agricultural Managers | Fertilizers, Farm Management, Water Quality, Sales Management |
| Soil and Plant Scientists | Sales, Retail Setting, Product Sales, Description and Demonstration of Products |
| Floral Designers | N/A |
| First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers | Supervisory Skills, Scheduling, Lawn Care, Business Development, |
| Landscaping and Groundskeeping Workers | Repair, irrigation, Irrigation Systems, Cleaning, Inspections |
| Pesticide Handlers, Sprayers, and Applicators, Vegetation | Inspection, Vehicle Inspections, Prospective Clients, Labeling |

## Source: Burning Glass

## Advertised Certifications

Table 7 lists the top certifications requested by employers in online job postings for each of the occupations in the horticulturists cluster in 2015.

*Table 7. Job postings advertisements with top certifications in the Riverside-San Bernardino-Ontario MSA*

|  |  |
| --- | --- |
| Occupation | Top Certifications |
| Farmers, Ranchers, and Other Agricultural Managers | N/A |
| Soil and Plant Scientists | Security Clearance \* |
| Floral Designers | N/A |
| First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers | Commercial Driver’s License\* |
| Landscaping and Groundskeeping Workers | Commerciale Driver’s License, CDL Class C, Pest Control Applicator |
| Pesticide Handlers, Sprayers, and Applicators, Vegetation | Certified Arborist, First CPR AED, Certified Nephrology Nurse |

## Source: Burning Glass\*Based on less than 5 job postings

# Horticulturists Employer and Location

Table 8 lists the top employers and worksite locations for the horticulturists occupation cluster in 2015.

Table 8. Horticulturists Employer and Location the Riverside-San Bernardino-Ontario MSA

|  |  |  |
| --- | --- | --- |
| Occupation | Employer Name | Worksite Location |
| Farmers, Ranchers, and Other Agricultural Managers | Moon Valley Nursery, Farmers District 48 LLC, Dole Food Company Incorporated | Riverside (23.1%), Corona (23.1%), San Bernardino (15.4%), Rancho Cucamonga (15.4%) |
| Soil and Plant Scientists | Best Buy, Geotek, Waxie Sanitary Supply, Natural Resources Conservation | Riverside (23.1%), Corona (23.1%), San Bernardino (15.4%), Rancho Cucamonga (15.4%) |
| Floral Designers | Michael’s Arts and Crafts, Riverside Mission Florist | Riverside (21.2%), Palm  Desert (9.1%), Upland (6.1%), Redlands (6.1%) |
| First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers | The Brickman Group, ServiceMaster, Trugreen, Moon Valley Nursery, Colton Joint Unified School District | Riverside (27.1%), San Bernardino (16.7%), Fontana (14.6%), Upland (12.5%) |
| Landscaping and Groundskeeping Workers | Homeadvisor, Waldrof Astoria Hoel & Resorts, The Brickman Group. | Riverside (13.7%), La Quinta (10%), San Bernardino (5.5%), Palm Desert (5.3%) |
| Pesticide Handlers, Sprayers, and Applicators, Vegetation | Trugreen, Arbor Technical Services, ServiceMaster, Palm Springs Unified School District | Riverside (53.9%), Palm Springs (23.1%), Hemet (11.5%), Cathedral City (11.5%) |

## Source: Burning Glass

## Student Completions

Exhibit 9 shows the projected annual job openings for the occupation cluster in Table 1 with the associated TOP06 programs. Table 9 also shows the annual average regional community college awards. Please note, an award is not equivalent to a single person in search of a job opening since students may earn more than one award, such as a degree in addition to a certificate. Exhibit 10 displays a training gap of 816 jobs for the horticulturists occupation cluster in the two-county region.

*Table 9: Student Completions and Annual Openings in the Riverside-San Bernardino-Ontario MSA*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **TOP06** | **TOP06 Title** | **Total Annual Openings from Table 2** | **Annual Avg Associate Degrees (2012-15)** | **Annual Avg Certificates or Other Credit Awards (2012‑15)** |
| 010900 | Horticulture | **881** | 11 | 27 |
| 010910 | Landscape Design and Maintenance | 0 | 0 |
| 010920 | Floriculture/floristry | 0 | 0 |
| 010930 | Nursery Technology | 0 | 4 |
| 010940 | Turfgrass Technology | 8 | 15 |
| **TOTAL** | | **65** | |

Source: MIS Datamart

*Exhibit 10: Training Gap in the Riverside-San Bernardino-Ontario MSA*

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