

Careers in Horticulture and Related Fields

Horticulture is an applied science dealing with fruits, vegetables and ornamentals. It is an extremely diversified field with nearly unlimited career opportunities in a variety of job settings.

The majority of horticultural positions require a minimum of either a two- or four-year degree. In some careers, however, educational requirements can vary greatly, depending on the level of expertise required for the position. Some entry level positions provide on-the-job training and require only a high school diploma, while other positions within that same career may require specialized technical or professional training.

The following list is meant to provide basic information on some of the more common careers in horticulture and horticulture-related fields.

Agricultural Business Consultant

Evaluates agricultural businesses with the goal of increasing productivity, efficiency and profits. Assists in establishing budgets. Provides advice on taxes, estate planning and other financial issues. May be self-employed or work for financial consulting firms and agribusinesses. Requires a four-year degree in agricultural business or agricultural education.

Arboretum, Botanical Garden, and Horticultural Garden Worker

Involves planting and maintaining plant collections in naturalized, systematic or



aesthetic arrangements. May also propagate plants, teach and conduct research. Employed by arboreta, botanical gardens, city parks, colleges/universities, historical sites, nature preserves, public and private gardens, and recreational areas. Wide range of educational requirements.

Arborist, Urban Forester and Tree Service Technician

Concerned with all aspects of the care, protection and maintenance of woody plants, especially trees, in urban settings. Employed by arboreta, botanical gardens, colleges/universities, consulting firms, Cooperative Extension, government agencies, landscape maintenance firms, large private estates, parks departments, research institutions, resorts, theme parks, tree nurseries, tree



service companies, and utility companies. Wide range of educational requirements. Voluntary certification available through International Society of Arboriculture.

Botanist (Plant Biologist)

Studies the form and function of plants. Most are employed by educational institutions and government agencies. Others may be employed by arboreta, biological supply companies, biotechnology firms, botanical gardens, chemical companies, food companies, fruit growers, research institutions, and seed companies. Requires a minimum of a four-year degree.

Business Sales Representative

Promotes, markets and distributes agriculturally-related products to retail or wholesale businesses and growers. May work for companies that manufacture or sell chemicals, fertilizers, equipment or horticultural supplies, as well as seed and plant suppliers. Wide range of educational requirements.

Communications

Involves one or more forms of mass media. Types of positions include agriculture/farm news director, book/magazine author, editor, journalist, photographer, public relations, scientific writer, technical illustrator, videographer, and Web designer. Employment opportunities include radio/TV stations, newspapers, trade/garden magazines, and agribusiness firms. Wide range of educational requirements.

Consultant

Provides expert horticultural advice to businesses and growers. May specialize in one area, e.g. nursery crops. Many are self-employed; others work for equipment companies, landscape firms and pesticide companies. Requires a minimum of a four-year college degree.

Extension Agent

Develops and coordinates programs to promote agriculture in the county. Involves research

(such as field trials and test demonstrations) and providing educational opportunities for growers. Employed by land grant universities. Requires a minimum of a four-year college degree.

Extension Specialist

Develops and coordinates programs to promote horticulture in their state. Provides educational opportunities for Extension agents and conducts applied research. May also have teaching responsibilities at the university. Employed by land grant universities. Requires a Ph.D.

Educator

Teaches horticulture or related subjects at high schools, colleges, universities, vocational schools, technical schools, and junior colleges. Requires a minimum of a Bachelors Degree or Masters Degree. Ph.D. required for teaching at the college or university level.

Enologist/Oenologist (Winemaker)

Studies the science of wine and winemaking. Job types include operating machinery, picking grapes, teaching and research, as well as winemaker. May be hired by colleges/universities, wineries, and grape producers. Wide range of educational requirements.

Floriculturist

A general term for horticulturalists who specialize in cut flowers, bedding plants, and potted plants. May be involved in marketing floral supplies and products, teaching or conducting research. Employed by colleges/universities, florists, garden centers, producers, and technical schools. Wide range of educational requirements.

Florist and Floral Designer

Floriculturists who design flower and foliage plant arrangements. May also care for and sell live or dried floral material. Positions in florist shops and floral retail businesses. Also large grocery stores and retail chains with floral departments. Wide range of educational requirements.

Garden Center Owner, Manager and Worker

Sells landscape plants, tools and supplies in a retail outlet. Provides plant information to customers. Positions include garden center owner, manager, field worker, greenhouse worker, and sales clerk. Wide range of educational requirements.

Greenhouse Manager and Worker

Plants, cultivates, manages and harvests greenhouse crops. May be hired by commercial greenhouses or landscape companies. Wide range of educational requirements.

Grower, Plant Producer and Farmer

Produces horticultural crops for retail or wholesale markets. Works on and/or owns a vegetable farm, orchard, nursery, vineyard, greenhouse, sod farm, etc. May be an independent grower or be employed by other producers. Wide range of educational requirements.

Horticultural Therapist

Uses plants and horticultural activities to improve emotional, mental and/or physical well-being of patients. Works as part of a team consisting of other health-care professionals, rehabilitation specialists and/or social workers. May work with mentally disabled, emotionally disabled, senior groups, inner city youth, and prisoners. Employed by hospitals, nursing homes, prisons, schools and rehabilitation centers. Requires specialized training in a post-secondary program accredited by the American Horticultural Therapy Association.

Interior Landscaping

Involves designing, installing and maintaining interior plantings in private or public buildings. May be self-employed or work for landscape or interior design companies. Wide range of educational requirements.

Irrigation Specialist

Sells, installs, operates and repairs irrigation

systems at various locations, such as golf courses, athletic fields, farms, nurseries and greenhouses. Requires a two- or four-year college degree in grounds management, landscape design or a closely related field.

Landscape Architect

Plans and designs exterior landscapes for parks, recreational areas, campuses, industrial sites, institutional grounds, shopping malls, and other large projects. May be self-employed or work for developmental companies, government agencies, landscape architectural firms, or resorts. A four-year college degree is required for most entry level positions; however, some positions require a graduate degree. State registration or certification required.

Landscape Construction

Installs ornamental plant material, turfgrass and structural landscape features according to plans from a landscape designer or landscape architect. Employed by a landscape contractor firm or landscape nursery. Wide range of educational requirements.

Landscape Designer

Plans and designs exterior landscapes for homes, estates, and small commercial buildings. Generally involved in smaller projects, compared to a landscape architect. May be self-employed or work for landscape firms. Requires a minimum of a two-year college or technical degree.

Landscape Maintenance, Landscape Gardener, Groundskeeper and Grounds Manager

Involves planting and maintaining private and public landscapes, gardens and lawns. Employment opportunities exist at amusement parks, cemeteries, golf courses, parks, lawn and garden service companies, public grounds, racetracks, recreation and sports facilities, and university campuses. A two- or four-year college degree is recommended.

Lawn Care Specialist

Home lawn maintenance, including mowing grass, seeding lawns, applying pesticides, and making fertilizer applications. Generally employed by lawn care companies, but may also work for landscape firms or government agencies. Some serve as independent contractors. Wide range of educational requirements.

Marketing

Involves all aspects of marketing and promoting horticultural crops or products, including improving methods and equipment used in grading, packaging, storage and shipping. May be employed by processing companies, producers and marketing organizations. Post secondary training is required.

Nurseryman, Nursery Manager and Nursery Worker

Plants, propagates, transplants, maintains, and harvests nursery crops. May be involved in grafting and propagating plants. Job opportunities at greenhouses, landscaping companies and wholesale or retail nurseries. Wide range of educational requirements.

Plant Breeder and Geneticist

Produces new and improved plant varieties. Positions with arboreta, biotechnology firms, botanical gardens, colleges/universities, consulting firms, government agencies, and research and development departments in large corporations. Requires a four-year college degree for entry level positions and a graduate degree for advanced positions.

Plant Diagnostician

Specialists who attempt to determine the cause of various plant problems, which can include plant diseases, insects, and cultural problems. Provides pest management solutions. May be employed by colleges/universities, the Cooperative Extension Service, greenhouses, and large nurseries. Requires post-secondary training.

Plant Inspector

Inspects plants in commercial nurseries, garden centers, orchards, field plantings, as well as county, state or national entry/exit points, to ensure material is free of specific insects or diseases. Generally federal or state employees. Requires a four-year degree or graduate degree.

Plant Pathologist

Studies plant diseases, their cause and management. May be involved in teaching, research, diagnostic work or agribusiness sales. Some serve as private consultants, while others may be employed by colleges/universities, the Cooperative Extension Service, industrial firms, government agencies, pesticide companies, and regulatory services. A four-year college degree is required for technical positions, while a graduate degree is essential for more advanced positions.

Plant Propagator

Propagates new plant material using various techniques (e.g. grafting, seed production, tissue culture, and vegetative propagation). Employed by arboreta, botanical gardens, greenhouses, propagation nurseries, and universities. Wide range of educational requirements.

Pomologist

Specializes in the production and marketing of tree fruits, tree nuts and small fruits. May be an independent grower or employed by colleges/universities, research institutions, and food processing companies. Wide range of educational requirements.

Researcher

Conducts experiments, studying various aspects of plant cultivation, propagation, production, pest control, etc. Basic and/or applied research. Employed by arboreta, chemical companies, colleges/universities, experiment stations, government agencies, private industry, public gardens, research institutions, and seed companies. Requires a graduate degree.

Sales Clerk and Sales Manager

Coordinates sales of horticultural crops and products. Provides information and advice to customers. Employed by garden centers, floral shops, nurseries, and other retail outlets. Wide range of educational requirements

Technician

Provides technical assistance to professionals, such as arborists, foresters, landscape architects and researchers. Employed by arboreta, botanical gardens, chemical companies, colleges/universities, government agencies, research and development departments in large corporations, research firms, and seed companies. Requires a minimum of a four-year college degree; however, some positions require a graduate degree.

Tree Assessors

Arborists who estimate tree values and the cost of tree damage for insurance claims. Employed by insurance companies. Requires post-secondary training.

Turfgrass Management

Develops and maintains turf areas, such as those at commercial sites, golf courses, sod farms, and sports fields. Types of positions include golf course superintendent, golf course manager, and greenskeeper. May work for athletic fields, golf courses, government agencies, landscaping companies, lawn care companies, and sod farms. Requires a two- or four-year college degree in turfgrass management.

Viticulturist

Studies grape production for wine, juice, raisins and other grape products. Employers include companies manufacturing grape products, colleges/universities, vineyards, and wineries. Requires a four-year college degree.

Related Careers

Ag Economist	Forester
Ag Engineer	Forest Ranger
Agronomist	Habitat Restoration Specialist
Conservationist	Naturalist
Ecologist	Park Manager
Entomologist	Park Ranger
Environmental Scientist	Plant Physiologist
Environmental Engineer	Silviculturist
Farm Business Manager	Soil Scientist
	Water Quality Specialist
	Weed Scientist

Resources

- Agripedia Agricultural Careers List (University of Kentucky)
<http://www.ca.uky.edu/agripedia/AGMANIA/CAREER/INDEX.asp>
- Agripedia Careers in Agriculture Links (University of Kentucky)
<http://www.ca.uky.edu/agripedia/LINKS/LINKCARE.asp>
- American Horticultural Therapy Association
<http://www.ahta.org/>
- Career Center (National FFA Organization)
<http://www.teamaged.org/ffa/careers/clusters.htm>
- Career Search (Schools in the USA)
http://www.schoolsintheusa.com/career_search.cfm
- Careers in Agricultural Science (Florida Department of Agriculture)
<http://www.florida-agriculture.com/consumers/careers.htm>
- Careers in Horticulture (American Society of Horticultural Science) *Click on "careers"*
<http://ashs.org>
- Horticulture and Landscape Design Career Guide (Vocational Information Center)
<http://www.khake.com/page21.html>