

# Plant and Soil Science Major

## CAREERS

### Strategies & Tips for Success

- For entry-level positions in most areas of landscape design, horticulture, turf, agronomy, and biotechnology, a bachelor's degree is sufficient. A graduate degree may be necessary for advancement in some fields, such as research and consulting.
- Depending upon which specialty you choose, supplement curriculum with important supporting courses: business, journalism, planning, geology, entomology, soils, and biology. Take communications courses and develop computer skills.
- Majoring in two subject areas or pursuing a minor can increase marketability. For example, study in landscape design and business, or public horticulture and journalism, can lead to greater opportunities.



Feed Our World.  
Fuel Your Career.

### Agriculture Plant Science Associate of Science for Transfer (AST)

*Plant and soil scientists help producers of food, feed, and fiber crops to feed a growing population and to conserve natural resources. Agronomists and crop scientists not only help increase productivity, but also study ways to improve the nutritional value of crops and the quality of seed, often through biotechnology.*

### Core Major Courses

(in addition to GE and depending on your college):

- Agriculture Sales & Communications
- Agriculture Accounting
- Agriculture Economics
- Farm Management
- Agriculture Computer Applications
- Soil Science
- Statistics

### Career Examples

Of the nearly 40,000 agriculture job opportunities listed annually, 45% are in plant science.

- Pest Control Advisor - \$80,000
- Fruit Broker - \$60,000
- Irrigation Management - \$70,000

### Job Outlook and Salary Data

Ag Sector	2013 Jobs	5-Year New Jobs	% New Job Growth	Avg. Annual Salary
Support	500,088	46,522	9.3%	\$76,067
Production	382,833	720	0.2%	\$33,089
Processing	214,484	9,459	4.4%	\$58,717
Distribution	546,127	75,942	14.0%	\$46,645
<b>Total</b>	<b>1,643,532</b>	<b>132,643</b>	<b>8.1%</b>	<b>\$53,630</b>

The Agriculture Value Chain is comprised of jobs in Agriculture Support, Agriculture Production, Agriculture Processing and Packaging, and Agriculture Distribution.

### More Information

If you would like more information about careers in plant and soil science, visit [www.calagcc.org](http://www.calagcc.org).



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AGRICULTURE WATER ENVIRONMENTAL TECHNOLOGY\*



# OPPORTUNITIES ABOUND. FIND YOURS.

The table below highlights the many different paths graduates can take towards a successful career in plant and soil science.

## Area

## Employer

## Information/Strategies

### Soil Science

- Soil and Water Conservation
- Land Use Planning
- Waste Disposal
- Environmental Compliance
- Reclamation of Contaminated Lands
- Landfill Operation and Monitoring
- Agrichemical Management
- Fertilizer Technology
- Agricultural Production
- Research
- Education

- U.S. Environmental Protection Agency
- Natural Resource Conservation Services
- USDA Forest Service
- U.S. Department of Health and Human Services
- State Farm Bureaus
- Environmental Research Laboratories
- Agricultural or Environmental Consultant Firms
- Privately Owned Farms and Ranches
- Universities

- Maintain knowledge of current environmental issues, including policy, conservation, and industry trends.
- Develop acute observational skills.
- Stay current on technology used in natural resource management, including software, geographical information systems, and global positioning systems.
- Seek related experience through co-ops, internships, or part-time jobs in area of interest.
- Gain extensive laboratory and research experience to prepare for research positions.
- Participate in related clubs, organizations, and soil judging teams to build contacts and cultivate academic interests.
- Learn about certification programs offered by the Soil Science Society of America, including soil science and agronomy.
- Become familiar with the federal job application procedure for government employment.
- Obtain a PhD for optimal research and university teaching careers.

### Solid Waste Management

- Chemistry
- Engineering
- Hydrology
- Logistics
- Planning
- Recycling
- Transportation
- Compliance

- Federal, State, and Local Government
- Private Waste Management Firms
- Consulting Firms
- Non-Profit Organizations

- Develop strong communication skills, both written and oral.
- Develop decision-making and problem-solving skills, diplomacy, and the ability to work under pressure.
- Gain familiarity with current technologies, regulations, and statutes.
- Join community groups or service organizations that focus on environmental awareness; attend public meetings about waste management.
- Become flexible and learn to look at issues from various perspectives.

### Land and Water Conservation

- Biology
- Ecology
- Planning
- Law
- Geographic Information Systems
- Preserve Management
- Natural Resource Management
- Soil Conservation
- Land Acquisition

- Federal, State, and Local Government
- Indian Nations
- Utilities and Timber Companies
- Consulting Firms
- Non-Profit Organizations
- Land Trust Organizations (e.g., The Nature Conservancy, Trust for Public Land)

- Gain a solid background in the basic sciences, while obtaining a broad-based education.
- Obtain legal, real estate, and financial skills through coursework, internships, or part-time jobs.
- Volunteer through the Student Conservation Association (SCA) and hold an office.
- Keep up with new funding sources.
- Consider law school for careers as counsel to environmental organizations.

### Plant Sciences, Horticulture, and Biotechnology

- Greenhouse and Nursery Management
- Vegetable and Fruit Production
- Plant Biotechnology
- Plant Breeding and Genetics
- Agronomy

- Nurseries, Greenhouses, Florists, and Other Wholesale and Retail Companies
- Extension Service
- Biotechnology Companies
- Agribusinesses
- Plant Propagation and Production Businesses
- Harvesting and Fertilization Manufacturers
- Consulting Firms
- International, Federal, State, and Local Government
- High Schools, Colleges, and Universities

- Gain practical experience in the field through internships and summer and part-time jobs.
- Assist a professor with a research project.
- Join horticultural or agronomy clubs or other student professional associations to network and cultivate related academic interests.
- Become a certified horticulturist.
- A master's or doctoral degree may be necessary for advancement. Some federal and private agency work, consulting positions, and especially research positions require a graduate degree.
- Maintain a strong grade point average to be competitive for graduate school admission.

