

# Get Involved!

## Planning for a Career in AGNR

The future is bright for students in Agriculture and Natural Resources (AGNR)!

Whether enrolled in a two-year certificate program or an intensive four-year course of study, agriculture and natural resource students receive more than just an education and training. Students become part of a dynamic network of industry, resource agencies, and academia that will help guide them toward an exciting career.

Once enrolled in a program, students are encouraged to take on an industry internship and join technical-professional organizations in the conservation and agricultural fields. Becoming an active participant in developing leadership, marketing, and research skills through these opportunities will position students well for a transition to employment directly from graduation. Consult with your department chair or advisor for more information on the many professional and industry groups that accept student members.



## What can I do to prepare for a career in agriculture?

- Seek out mentors in your field of interest. Ask them about attending conferences and seminars and learn about your field from a professional perspective. Many land grant universities offer AGNR Open House events with speakers and seminars.
- Take advantage of industry and field tours.
- Subscribe to list-serves to get timely information on where and how to get involved!



This resource is designed for students, parents, counselors and administrators! The purpose is to assist in discovering career opportunities for the 21st Century.

One common method for organizing these career opportunities are career clusters. Career Clusters are based on essential economic activities, similar interests, common skills, and knowledge required by those in the field. Career Clusters are used on a national level; within Maryland, there are 10 broad career areas. This brochure, produced by the Maryland Agricultural Education Foundation, Inc., focuses on Maryland's Career Cluster: Environmental, Agricultural, and Natural Resource Systems.

The Maryland State Department of Education has structured this Career Cluster into five pathways: Agricultural Production of Plant Systems, Agricultural Production of Animal Systems, Food and Fiber Processing, Natural Resources Management, and Environmental Services. Under these pathways, the careers are listed by three educational requirements:

1. High School diploma and or an associate degree
2. Bachelor's degree
3. More than bachelor's degree (such as a master's degree or required internship)

## Industry Outlook

- Highly competitive
- Despite recent economic conditions, agriculture and natural resources continues to be one of the top economic drivers in the U.S. Agriculture and natural resources employs over 50,000 college graduates annually! New opportunities are surfacing daily with forecasts for emerging and sustainable growth in renewable energy, organic farming, international development and exciting new markets for producers.
- Major factors defining the market for college graduates in food, agriculture, environmental science and natural resources are:
  - Consumers preferences and growing concerns over food safety and freshness
  - Evolving business structure, role, and scope of management in the U.S. food system
  - New developments in science and technology
  - Public policy choices and food system security and requirements

## Median Salary Information

Median salaries fluctuate with market conditions. Information can be found by visiting your state's Labor & Licensing website.

### Websites for salary ranges, nationally:

Bureau of Labor and Statistics:  
[www.bls.gov](http://www.bls.gov)

National Salary Medians:  
[www.salary.com](http://www.salary.com)

Maryland Labor, Licensing and Regulation:  
[www.dllr.state.md.us](http://www.dllr.state.md.us)

University of Maryland Extension Ag Career Overview:  
<https://extension.umd.edu/agsploration/students/careers>



## Discover A Career in Agriculture

Did you know **AGRICULTURE** is the largest employer in the United States? Did you know it is also the number one industry in the state of Maryland?

### Yes... **AGRICULTURE!**

In fact, nearly 23 million people work in agriculture and related fields. Of that 23 million, 98% work in areas outside of farming.



Start planning your future with a career in agriculture!

Discover the numerous job opportunities that exist in the agricultural, environmental, and natural resources





## Agricultural Production Animal Systems

Agricultural Production of Animal Systems is the planning, producing, and distributing of meat, poultry, seafood, and dairy products. Careers can include veterinary sciences, related research and technical services, business planning and finance.

## Agricultural Production Plant Systems

Agricultural Production of Plant Systems is the planning, producing and distributing of plants, food, fiber, ornamental and environmental products including landscaping and horticultural services, related research and technical services, and business planning and finance.

## Food and Fiber Processing

Food and Fiber Processing is the researching and developing of products, with a focus on the nutritional value, as well as the processing and packaging of plant and animal products.

## Environmental Services

Environmental Services is the planning, testing, monitoring, maintaining and restoring of water, air, and land quality, in addition to the management of waste, for the protection of public health and environmental quality.

## Natural Resources Management

Natural Resources Management is the managing, conserving, and restoring of natural resources, such as parks, fisheries, forestry, wildlife and habitat, watersheds and tributaries, as well as the environmental monitoring of industry.

### Career Examples

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Less than  
Bachelor's  
Degree

- Animal Production Manager
- Animal Trainer (such as dog or horse)
- Artificial Inseminator
- Environmental Technician
- Farmer - Livestock
- Pet Groomer



- Arborist
- Compliance Manager
- Crop Scout
- Farmer - Crops
- Field Production Worker
- Florist
- Landscaper
- Mechanic
- Plant Protection Applicator

- Butcher
- Buyer
- Chef
- Food Inspector
- Logistics and Inventory Manager
- Meat Grader
- Nonfarm Animal Caretaker
- Pest Control Worker
- Production Supervisor

- Emergency Response Technician
- Environmental Technician
- Hazardous Materials Specialist
- Lead Abatement Technician
- Pest Control Worker

- Fishery Technician
- Forestry Technician
- Gas Plant Operator
- Golf Course Superintendent
- Hatchery Technician
- Land Surveyor with Drafting
- Logger
- Natural Resources Officer

Bachelor's  
Degree

- Agricultural/Biological Engineer
- Agri-Science Teacher
- Animal Scientist
- Extension Educator
- Inspector
- Marine Scientist
- Nutritionist
- Soil Conservation Planner
- Waste Management Specialist

- Agricultural / Biological Engineer
- Agri-Science Teacher
- Agronomist
- Botanist
- Crop Consultant
- Extension Educator
- Farm & Ranch Manager
- Food Scientist
- Forester
- Geographic Information Systems Specialist
- Horticulturalist
- Integrated Pest Control Specialist



- Agri-Science Teacher
- Aquacultural Manager
- Farm & Ranch Manager
- Food Engineer
- Food Scientist
- Industrial Engineer
- International Marketer
- Laboratory Technician
- New Product Scientist
- Nutritionist/Dietitian
- Packaging Scientist



- Air Quality Manager
- Environmental Compliance Specialist
- Geologist
- Health Physicist
- Occupational Health & Safety Specialist
- Planner
- Public Health Engineer
- Recycling Coordinator
- Water Resource Engineer



- Conservation Scientist
- Climatologist
- Ecological Engineer
- Environmental Engineer
- Environmental Science Teacher
- Fisheries Manager
- Forester
- Landscape Architect
- Naturalist
- Natural Sciences Manager
- Park Ranger
- Pulp and Paper Technologist
- Policy Analyst
- Precision Ag Technician
- Soil Conservation Planner
- Wetland Specialist

More than  
Bachelor's  
Degree

- Animal Physiologist
- Agricultural Economist
- Biochemist
- Fisheries Scientist
- Geneticist
- Livestock Broker / Sales with MBA
- Product Developer
- Production Quality Assurance Manager
- Research Scientist
- State Health Official
- Veterinarian
- Wildlife Biologist
- Zoologist

- Agricultural Economist
- Agricultural Meteorologist
- Biochemist
- Biophysicist
- Climatologist
- Commodity Broker/ Sales with MBA
- Economist
- Entomologist
- Geneticist

- Landscape Architect
- Molecular Biologist
- Patent Lawyer
- Plant Breeder
- Plant Scientist
- Research Project Manager
- Tissue Culture Specialist



- Environmental Engineer
- Environmental Lawyer
- Industrial Hygienist
- Land Use Specialist
- Marine Scientist
- Toxicologist
- Water Quality Manager



- Biologist
- Entomologist
- Hydrologist
- Ornithologist
- Physical Scientist
- Renewable Energy Specialist
- Wildlife Manager
- Zoologist

