
What's been your **Agricultural**
experience today?

Emerging Careers in Agriculture



What's been your **Agricultural** experience today?

Sheets
Shampoo
Towels
Clothes
Food
Shelter



What careers created my agricultural experience?

Making a Living: What does it mean?

- \$7/hour \$14,560 per year
- \$10/hour \$20,800 per year
- \$12/hour \$24,960 per year
- \$22,050 poverty level in America,
family of 4

Average U.S. household \$50,233 (2008)

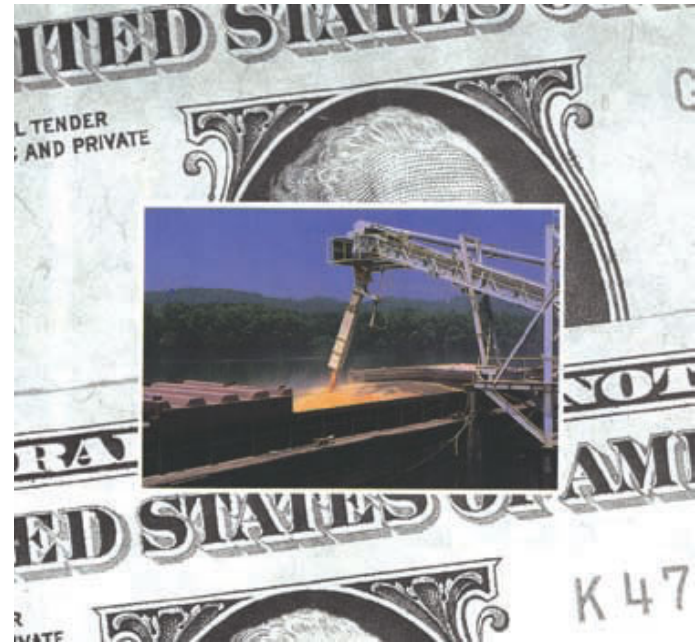
Average household in Utah \$57,999 (2008)

Education can make the difference!

Agricultural Economist

Searching for the Best Answers

- Agricultural economists use communication, analytical, and business skills to find success in sales, marketing, management, and finance careers. Many agricultural economists start their careers as sales representatives to gain knowledge about a firm's products and customers.
- ~ \$69,800 Annual Average Salary



Agricultural Engineer

Engineering a Better Agriculture

- Agricultural engineers design agricultural machinery and facilities such as tractors, implements, animal confinements, storage and handling facilities, irrigation and drainage systems, and soil conservation measures.
- ~\$60,400 Annual Average Salary



Agronomist

Your Field of Dreams

- Agronomists deal with interactions among plants, soils, and the environment. They use sophisticated research tools and techniques to develop new crop hybrids and varieties that grow more efficiently and are more beneficial to society.
- ~\$60,370 Annual Average Salary



Animal Nutritionist

Better Food, Better Life

- Animal nutritionists formulate diets for food, companion, and zoo animals. They work with mammals, birds, and fish. The diets they create must be nutritionally sound, good-tasting, and economical for the ages and types of animals that will use them.
- ~ \$53,800 Annual Average Salary



Animal Physiologist

Hot, Cold, Wet, Dry, Disease, Famine, Bounty
How Do Animals Adapt?

- Animal physiologists study how animals function. That includes how animals interact with things outside them, such as temperature or air, plus things inside them, such as disease, poisons, or diet.
- ~ \$53,800 Annual Average Salary



Aquaculturist

Make a Big Splash Farming in Water

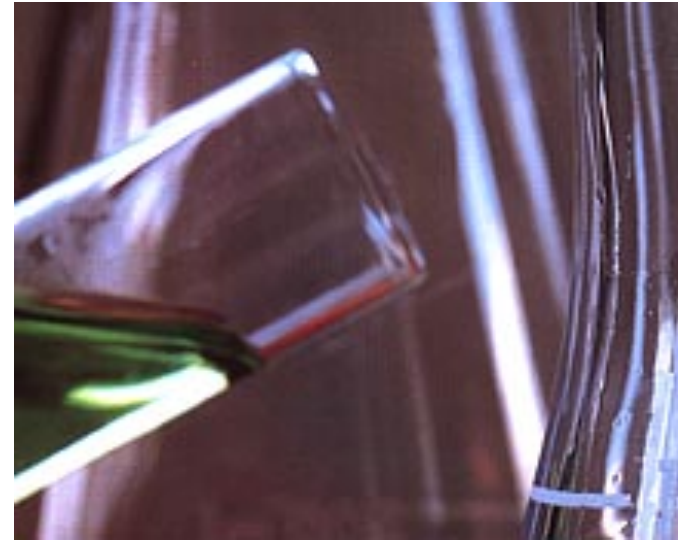
- Aquaculturists raise a diverse array of aquatic plants and animals in controlled or semi-controlled settings.
- ~ \$43,230 Annual Average Salary



Biochemist

When the Chemistry's Missing, it's no Life!

- Biochemists explore the chemical events that cause biological phenomena in living organisms. The knowledge that biochemists gain in their research provides a basic understanding of the marvelous workings of the vast array of life forms.
- ~ \$76,320 Annual Average Salary



Biological Engineer

Engineers Who Know Biology

- Biological engineering is a new, rapidly developing discipline that uses scientific principles involving the life sciences to create products and processes to meet human needs in a profitable, effective manner.
- ~\$72,146 Annual Average Salary



Botanist (Plant Biologist)

Do You Think Green?

- A botanist (plant biologist) studies microorganisms and giant trees — all plant life.
- ~ \$60,370 Annual Average Salary



Climatologist

A Job as Changeable as the Weather

- Climatologists study climate change, climate variability, and the effects of climate on the biosphere. They use computers to predict the effect of weather or climate on the growth and development of grain, vegetables, fruit, and other crops.
- ~\$77,150 Annual Average Salary



Ecologist

Knowing and Sharing Spaceship Earth

- Ecologists teach in college classrooms and laboratories, in nature education centers, in museums, and in public lecture halls. Their work becomes more and more important as our environmental problems increase. Some advise workers in government and private agencies, communicate with a wide variety of groups, and interact with many people.
- ~\$76,511 Annual Average Salary



Entomologist

Study What Bugs Us!

- Entomologists are needed worldwide to help farmers and ranchers produce crops and livestock more efficiently by using sound pest management strategies; to produce information about endangered species, fragile ecosystems and our environment; and to help prevent the spread of serious diseases in plants and animals.
- ~\$45,000 Annual Average Salary



Environmental Scientist

Your Future's Out There

- Many environmental scientists protect the environment through jobs in solid and hazardous waste management, land use, and air or water quality. Their understanding of biology, chemistry, and physics helps them assess environmental quality and find ways to protect air, water, and land.
- ~\$55,190 Annual Average Salary



Fisheries Scientist

A Catchy Career

- Fisheries scientists can hold research or management positions dealing with species or habitat evaluation. They can be federal biologists monitoring commercial harvests of fishes, crabs, shrimps, or oysters; or state biologists studying sport fish populations. Some work as disease specialists at federal fish hatcheries, aquatic resource specialists for environmental consulting firms, or production managers for private aquaculture facilities.

- ~\$55,140 Annual Average Salary



Florist

It's a Bloomin' Business

- A flower shop employee processes incoming flowers, designs floral arrangements, works with customers, and delivers flowers. Those in management positions develop advertising programs, determine what products they will sell, create display themes, and supervise employees.
- ~\$35,000 Annual Average Salary



Food Process Engineer

Engineering for Food Quality and Safety

- Food process engineers (FPEs) research and develop new and existing products and processes. They also design processing, handling, and packaging equipment.
- ~\$53,810 Annual Average Salary



Food Scientist

A Job in Good Taste (and Color and Texture and Nutrition)

- Food scientists preserve our food supply by assuring its flavor, color, texture, nutritional quality, and safety. They use their knowledge of chemistry, biochemistry, microbiology, and engineering to convert grain, livestock, milk, fruit, and vegetables into new food products.
- ~\$56,110 Annual Average Salary



Forester

Keepers of the Forest

- Foresters may spend one day in the laboratory and the next in the field. Some days they speak with executives in board rooms and other days they talk with tree farmers. Therefore, foresters must be highly trained technically, but they must also be good communicators.
- ~\$49,730 Annual Average Salary



Horticulturist

Making Food, Medicine, and Pleasure from Plants

- Horticulturists improve crop yield, quality, nutritional value, and resistance to insects, diseases, and environmental stresses. They make plants more adaptable to different climates and soils and better fit for food uses or processes. They also grow and improve plants used for medicines or spices.
- ~\$60,370 Annual Average Salary



Hydrologist

For Plenty of Cool, Clear, Clean Water...

- Hydrologists help assess and protect our water supplies and water quality. Hydrologists concerned with water supplies manage surface and ground water to avoid problems caused by floods, droughts, population growth, and the impact of human activities.
- ~ \$45,000 Annual Average Salary



Logging Engineer

Timmm...berrr!

- Logging engineers help design timber transportation and harvesting systems; supervise timber harvests; and ensure protection of soil, water, and other natural resources during logging.
- ~\$70,000 Annual Average Salary



Marine Scientist

Sea...the Possibilities

- Marine scientists address problems and issues facing marine life. They systematically gather data in the field or laboratory with special sampling gear and monitoring equipment. They interpret and evaluate the data they collect, then write scientific reports for clients or supervisors.
- ~\$60,370 Annual Average Salary



Molecular Biologist

Dabbling in DNA

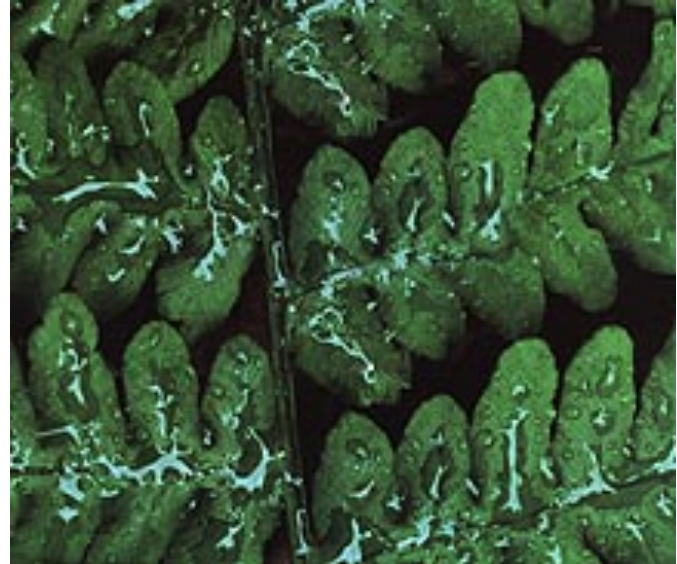
- Molecular biologists study the molecular basis of the phenomena of living things. They ask how genetic information can be encoded in molecules called DNA, and how this information can be used to direct the synthesis of all of the other kinds of molecules that make up living things.
- ~\$60,370 Annual Average Salary



Naturalist

Interpreting the Scheme of Things

- Naturalists study the natural environment and enjoy sharing what they learn with other people. Naturalists help people learn to live more productively on earth without destroying the environment.
- ~\$35,370 Annual Average Salary



Nutritionist/Dietitian

Where Food, Science, and Genetics Meet for Health

- Nutritionists/Dietitians help people look and feel well by making the connection between food, nutrition, and health. They can be healthcare workers, researchers, managers, or educators.
- ~\$44,640 Annual Average Salary



Plant or Animal Geneticist

Designer Genes

- Geneticists fall into many categories. Some try to understand how genes work (functional genomics) or where genes are (structural genomics), or they follow the flow of genes between and within populations to understand forces of evolution (population genetics).
- ~\$60,370 Annual Average Salary



Plant Pathologist

Doctor Green

- Plant pathologists deal with the symptoms, causes, damage, spread, and control of plant diseases. They study disease processes and look for genetic, biological, chemical, or cultural controls for diseases of the plants we use for food and fiber.
- ~\$60,370 Annual Average Salary



Plant Physiologist

What Makes Plants Work?

- Plant physiologists study the physical, chemical, and biological functions of living plants. They study whole plants, as well as plant cells, molecules, and genes. In wheat, for example, a scientist might study milling properties, disease and insect resistance, and yields.
- ~\$60,370 Annual Average Salary



Range Manager & Scientists

Homes on the Range for Plants, Animals, and People

- Range managers care for our country's vast rangelands. From those lands, they produce a sustained yield of such things as plants for forage, wildlife for aesthetics and hunting, red meat, and clean water.
- ~\$40,000 Annual Average Salary



Remote Sensing Specialist

Sky Sci

- Remote sensing specialists interpret and analyze many types of aerial photographs and satellite images.
- ~ \$48,240 Annual Average Salary



Renewable Energy Specialist

- A renewable energy specialist helps ensure that we can meet the world's energy needs in the future. Creating energy from the wind, biomass crops, agricultural residues, municipal wastes, or solar energy requires that the specialists forecast the advent of new technologies and always stay current on relevant public policies at the local, state, and federal levels.
- ~\$65,000 Annual Average Salary



Science Writer

Stupendous Science Simply Stated

- Science writers must fit their writing styles to suit a variety of materials and audiences. They write news stories, manuals, and press releases for non-profit and for-profit corporations. Their main job is to describe science without using scientific terms.
- ~\$56,650 Annual Average Salary



Soil Scientist

Dig into Earthy Problems

- Soil scientists map and classify soils and provide interpretations for land planners and managers. They conduct research on soil degradation or erosion, or on movement of substances such as nutrients and pesticides through the soil profile.
- ~\$53,500 Annual Average Salary



Toxicologist

Is it Dangerous? Will it Hurt Me?

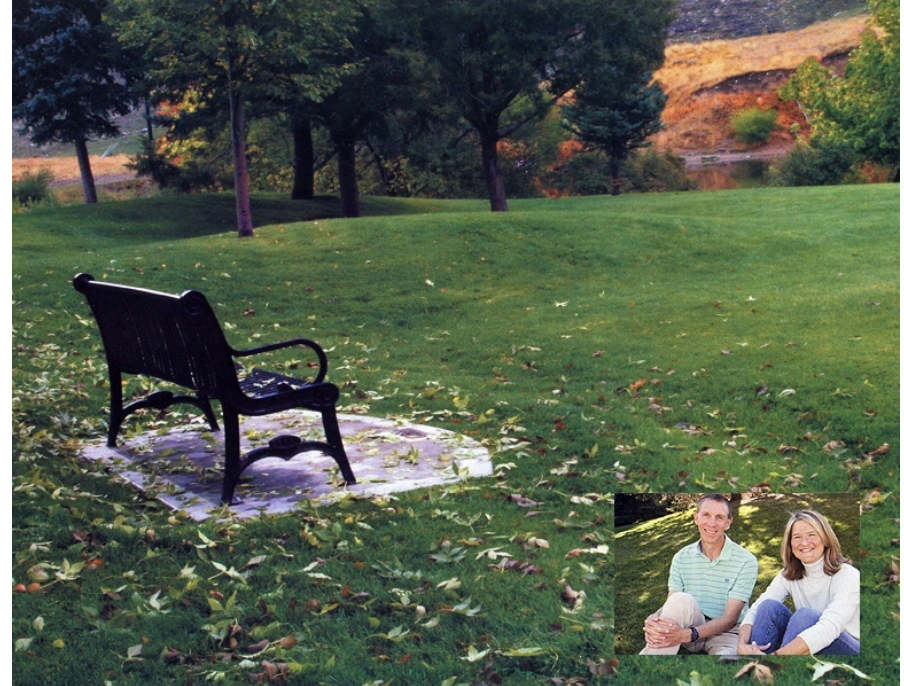
- Toxicologists study the effects of potentially harmful chemicals on people, animals, and the environment. They use their knowledge of biology, chemistry, and the environment to devise strategies to reduce or control exposure to these chemicals.
- ~\$70,000 Annual Average Salary



Turf Scientist

Your Championship Course

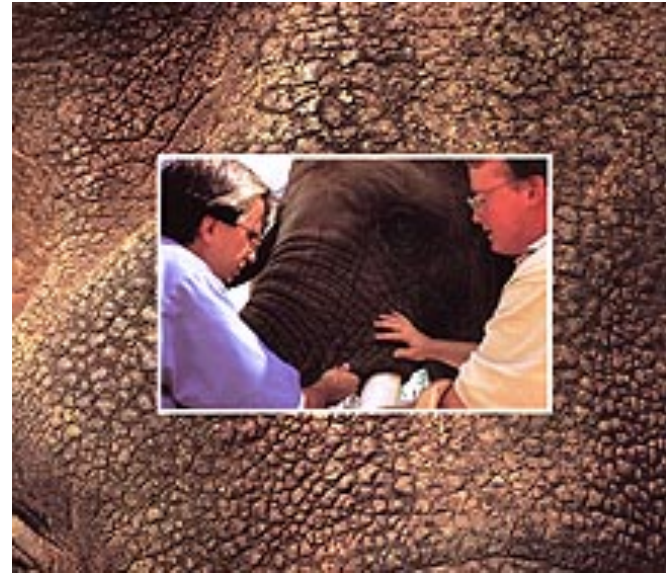
- Turf scientists often work outside caring for lawns, golf courses, park sites, athletic fields, or grounds around corporation headquarters. They use their scientific knowledge to maintain turf, as well as to operate computer-controlled irrigation equipment and highly technical machines. As demand for water in the West increases, the benefits of drought-tolerant turf grass are becoming more enticing.
- ~\$55,190 Annual Average Salary



Veterinarian

Healthy Creatures Great and Small

- Most veterinarians work in private practices where they diagnose, treat, and help prevent disease and disabilities in animals.
- ~\$77,710 Annual Average Salary



Viticulturist

It's a Grape Career!

- Viticulturists may find themselves working in vineyard pruning, trellising, canopy management, and irrigation; grapevine fertilization and mineral nutrition; grape varietal breeding, propagation, and selection; pest management and disease control through rootstock selection, pesticide use, and other vineyard management practices; or agricultural economics, marketing, and quality control.
- ~\$55,470 Annual Average Salary



Weed Scientist

Eliminating the Competition

- Weed scientists teach, perform research, and work in extension at universities investigating invasive species—weeds. Some work for state and federal agencies conducting research, enforcing weed laws, and developing regulations for biological and chemical control agents.
- ~\$55,470 Annual Average Salary



Wildlife Biologist

Walk on the Wildlife Side

- Wildlife biologists do research that helps us better manage our natural resources. They may specialize in fields such as physiology, genetics, ecology, behavior, disease, nutrition, population dynamics, land use, and pollution.
- ~\$53,120 Annual Average Salary



Wood Scientist

Structure and Style from a Renewable Resource

- Wood scientists and technologists expertly convert wood to wood products—a process that takes very little energy. And wood is a renewable resource. Wood scientists can work in manufacturing, marketing, technical service, or research.
- ~\$55,280 Annual Average Salary



Consider. . .

A career in agriculture – the business that meets the needs of people and works with the environment to determine our quality of life.

Discover

Utah State University College of **A**griculture

