

Be a Part of Agriculture, Food and Natural Resources





IMPACTING LIVES EVERY DAY: Careers in Agriculture, Food and Natural Resources

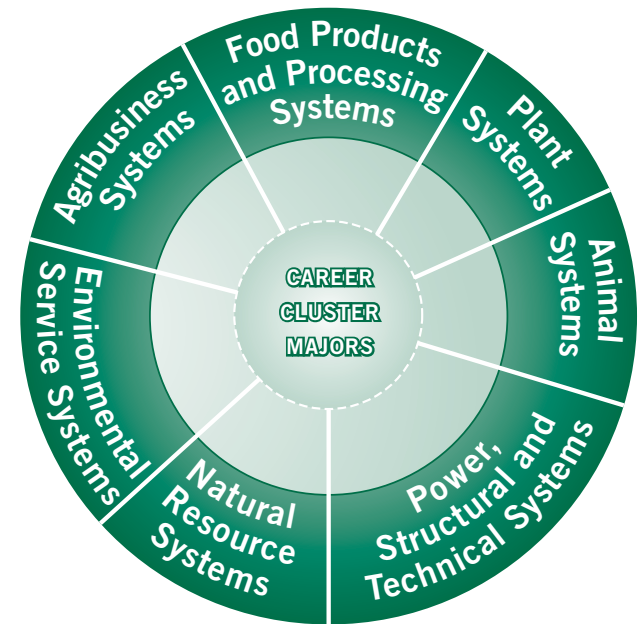
This diverse career cluster has a wide range of occupations, including the production, processing, marketing, financing and development of agricultural commodities and resources including food, fiber, wood products, natural resources, horticulture and other plant and animal products. The career cluster also includes related professional, technical and educational services.

THE AGRICULTURE, FOOD AND NATURAL RESOURCES CAREER CLUSTER

The Agriculture, Food and Natural Resources Career Cluster is divided into seven majors. They are as follows:

- Food Products and Processing Systems
- Plant Systems
- Animal Systems
- Power, Structural and Technical Systems
- Natural Resources Systems
- Environmental Service Systems
- Agribusiness Systems

Each of these majors is grouped by common knowledge and skills required of occupations in these career fields. The knowledge and skills needed for jobs in each major can be obtained via on-the-job training as well as at two-year institutions such as Midlands Technical College and four-year colleges, such as the University of South Carolina and Clemson University, which has curricula in agricultural sciences and agricultural education at both the undergraduate and graduate levels.





FOOD PRODUCTS AND PROCESSING SYSTEMS: People who work in this major discover new food sources, analyze food content and develop ways to process, preserve, package or store food according to industry and government regulations.

**IF YOU CHOOSE FOOD PRODUCTS AND PROCESSING SYSTEMS
AS YOUR CAREER MAJOR, YOU MAY BE A PART OF:**

- Inspecting food-processing areas to ensure that sanitation, safety, quality and waste management standards are met
- Performing a cut in the production of a meat, poultry, or fish product
- Designing and supervising environmental and land reclamation projects in agriculture and related industries
- Analyzing sales data to determine how many farm goods to buy and at what price customers will pay for such goods

SAMPLE CAREERS

Associate's Degree or Less

Annual Salary Range

\$20,000-\$50,000

- Food and Drug Inspector
- Meat, Poultry, and Fish Cutter and Trimmer
- Food Batchmaker
- Food Cooking Machine Operator and Tender
- Slaughterer and Meat Packer

Bachelor's Degree

Annual Salary Range

\$50,000-\$100,000

- Quality Assurance Manager
- Bacteriologist
- Food Science Professor
- Research and Development Manager
- Toxicologist

Career	Entry-Level Education	Annual Median Salary & Hourly Pay (2022)	Job Outlook (2022-32)	Responsibilities	Skills
Food Processing Equipment Workers	High School Diploma or On-the-Job Training	\$35,430/year \$17.03/hour	4% (Average)	<ul style="list-style-type: none"> • Grade, sort or classify unprocessed food and other agricultural products by size, weight, color or condition • Discard inferior or defective products and/or foreign matter • Weigh products or estimate their weight visually or by feel • Place products in containers according to grade and mark grades on containers • Record grade and/or identification numbers on tags or on shipping, receiving or sales sheets 	<ul style="list-style-type: none"> • Active listening • Concentration • Coordination • Judgment and Decision making • Physical strength • Reading comprehension
First Line Supervisors of Farming, Fishing, and Forestry Workers	Bachelor's Degree	\$54,490/year \$26.20/hour	4% (Average)	<ul style="list-style-type: none"> • Cut steaks and chops and shape and tie roasts • Perform a cut in the production of a meat, poultry or fish product • Grind meats for sale as chopped meats or sausage • Inspect products for defects and irregularities • Label or identify goods to make transporting and using them easy • Clean all knives, equipment and workspaces to meet health guidelines 	<ul style="list-style-type: none"> • Concentration • Coordination • Customer service • Listening skills • Stamina • Teamwork
Agricultural and Food Science Technicians	Associate's Degree	\$44,810/year \$21.54/hour	9% (Faster than average)	<ul style="list-style-type: none"> • Measure and analyze the quality of food products • Prepare laboratory samples for analysis, following proper protocols to ensure that they will be stored, prepared, and disposed of efficiently and effectively • Test food, food additives and food containers to ensure they comply with established safety standards • Assist food scientists with food research, development and quality control • Analyze chemical properties of food to determine ingredients and formulas • Compile test results that go into charts, presentations and reports • Keep a safe, sterile laboratory environment 	<ul style="list-style-type: none"> • Active Listening • Analytical • Critical thinking • Interpersonal • Speaking
Food Scientists and Technologists	Bachelor's Degree	\$79,860/year \$38.39/hour	6% (Average)	<ul style="list-style-type: none"> • Work to ensure food safety • Create new food products and develop new and better ways to process, package and deliver them • Conduct research and experiments concerning animal nutrition and field crops • Discover ways to improve the quality, quantity and safety of agricultural products 	<ul style="list-style-type: none"> • Communication • Critical thinking • Data analysis • Decision making • Observation



PLANT SYSTEMS: People who work in this major study plants and their growth, as well as develop ways to improve the nutritional value of crops and the quality of seeds.

IF YOU CHOOSE PLANT SYSTEMS AS YOUR CAREER MAJOR, YOU MAY BE A PART OF:

- Helping producers of food, feed and fiber crops continue to feed a growing population while conserving natural resources and maintaining the environment
- Using genetic engineering to develop crops resistant to pests and drought
- Studying the composition of soil as it relates to plant growth
- Monitoring forestry and conservation activities to assure compliance with government regulations

SAMPLE CAREERS

Associate's Degree or Less

Annual Salary Range

\$20,000-\$50,000

- Agricultural Sciences Teacher
- Seed Analyst
- Agricultural Laboratory Technician
- Research Associate

Bachelor's Degree

Annual Salary Range

\$50,000-\$100,000

- Plant Breeder
- Soil and Water Specialist
- Certified Crop Advisor
- Botanist
- Geneticist

Career	Entry-Level Education	Annual Median Salary & Hourly Pay (2022)	Job Outlook (2022-32)	Responsibilities	Skills
Biological Technicians	Bachelor's Degree	\$49,650/year \$23.87/hour	9% (Faster than average)	<ul style="list-style-type: none"> Conduct research, or assist in the conduct of research, including the collection of information and samples, such as blood, water, soil, plants and animals Use computers, computer-interfaced equipment, robotics or high-technology industrial applications to perform work duties Monitor and observe experiments, recording production and test data for evaluation by research personnel Analyze experimental data and interpret results to write reports and summaries of findings Provide technical support and services for scientists and engineers working in fields such as agriculture, environmental science, resource management, biology, and health sciences 	<ul style="list-style-type: none"> Reading comprehension Critical thinking Active listening Judgment and Decision making Monitoring Science Writing Complex problem solving
Soil and Plant Scientists	Masters's Degree	\$65,730/year \$31.60/hour	9% (Faster than average)	<ul style="list-style-type: none"> Conduct research in breeding, physiology, production, yield and management of crops and agricultural plants and trees Classify and map soils and investigate effects of alternative practices on soil and crop productivity Identify or classify species of insects or allied forms, such as mites or spiders Develop improved measurement techniques, soil conservation methods, soil sampling devices or related technology Investigate soil problems and poor water quality to determine sources and effects 	<ul style="list-style-type: none"> Reading comprehension Critical thinking Active listening Judgment and Decision making Monitoring Science Writing Complex problem solving
Pesticide, Handlers, Sprayers, and Applicators, Vegetation	High School Diploma or Less	\$41,440/year \$19.93/hour	5% (Average)	<ul style="list-style-type: none"> Identify lawn or plant diseases to determine the appropriate course of treatment Mix pesticides, herbicides, or fungicides for application to trees, shrubs, lawns, or botanical crops Cover areas to specified depths with pesticides, applying knowledge of weather conditions, droplet sizes, elevation-to-distance ratios, and obstructions Related occupations Clean or service machinery to ensure operating efficiency, using water, gasoline, lubricants, or hand tools Provide driving instructions to truck drivers to ensure complete coverage of designated areas, using hand and horn signals Plant grass with seed spreaders, and operate straw blowers to cover seeded areas with mixtures of asphalt and straw 	<ul style="list-style-type: none"> Active listening Complex problem solving Critical thinking Speaking Time Management
Tree Trimmers and Pruners	High School Diploma	\$47,080/year \$22.64/hour	2% (Little to no change)	<ul style="list-style-type: none"> Operate shredding and chipping equipment, and feed limbs and brush into the machines Operate boom trucks, loaders, stump chippers, brush chippers, tractors, power saws, trucks, sprayers, and other equipment and tools Cut away dead and excess branches from trees, or clear branches around power lines, using climbing equipment or buckets of extended truck booms, or chainsaws, hooks, handsaws, shears, and clippers Clean, sharpen, and lubricate tools and equipment Hoist tools and equipment to tree trimmers, and lower branches with ropes or block and tackle 	<ul style="list-style-type: none"> Complex problem solving Coordination Critical thinking Instructing Operations monitoring and control



ANIMAL SYSTEMS: People who work in this major strive to develop better, more efficient ways of producing and processing meat, poultry, eggs and dairy products.

IF YOU CHOOSE ANIMAL SYSTEMS AS YOUR CAREER MAJOR, YOU MAY BE A PART OF:

- Studying genetics, nutrition, reproduction, growth and development of domesticated farm animals
- Inspecting and grading livestock food products or purchasing livestock
- Advising agricultural producers on how to upgrade animal housing facilities properly, lower mortality rates, handle waste matter or increase production of animal products, such as milk or eggs
- Training, feeding, watering, grooming, bathing and exercising animals, as well as cleaning, disinfecting and repairing their fences and cages

SAMPLE CAREERS

Associate's Degree or Less

Annual Salary Range

\$20,000-\$50,000

- Animal Breeder
- Animal Trainer
- Poultry Farm Worker
- Veterinary Assistant
- Laboratory Animal Caretaker

Bachelor's Degree

Annual Salary Range

\$50,000-\$100,000

- Animal Geneticist
- Aquaculturalist
- Animal Nutritionist
- Animal Scientist
- Poultry Manager
- Zoo Curator

Career	Entry-Level Education	Annual Median Salary & Hourly Pay (2022)	Job Outlook (2022-32)	Responsibilities	Skills
Animal Care Workers/ Animal Caretakers	High School Diploma or Equivalent	\$29,530/year \$14.20/hour	20% (Much faster than average)	<ul style="list-style-type: none"> Care for the needs of animals, including feeding, watering, grooming, bathing and exercising them Clean equipment and living spaces of animals Monitor animals and record information such as their diet, physical condition and behavior Examine animals for signs of illness or injury Train animals to do specific behaviors 	<ul style="list-style-type: none"> Compassion Detail oriented Patience Problem solving Stamina
Veterinary Technologists and Technicians	High School Diploma or Equivalent/ Associate's Degree	\$38,240/year \$18.38/hour	16% (Much faster than average)	<ul style="list-style-type: none"> Perform medical tests under the supervision of a licensed veterinarian to treat or to diagnose the illnesses or injuries of animals Provide emergency first aid to injured animals Collect laboratory tests, such as urinalyses and blood counts Administer medications, vaccines and treatments prescribed by a veterinarian Take and develop x-rays 	<ul style="list-style-type: none"> Compassion Detail oriented Interpersonal Manual dexterity
Zoologists and Wildlife Biologists	Bachelor's Degree	\$67,430/year \$32.42/hour	1% (Little or no change)	<ul style="list-style-type: none"> Study the characteristics and habitats of animals and wildlife, such as their interactions with other species, reproduction, diseases and movement patterns Develop and conduct experimental studies with animals in controlled or natural surroundings Write research papers, reports and scholarly articles that explain the findings of an experimental study Give presentations on research findings 	<ul style="list-style-type: none"> Communication Critical thinking Interpersonal Observation Problem solving
Veterinarians	Doctoral or Professional Degree	\$100,370/year \$48.26/hour	19% (Much faster than average)	<ul style="list-style-type: none"> Care for the health of animals, by diagnosing, treating or researching medical conditions and diseases of pets, livestock, and animals in zoos, racetracks and laboratories Examine animals to diagnose their health problems Treat and dress wounds Perform surgery on animals Test for and vaccinate against diseases Operate medical equipment such as x-ray machines Prescribe medication Advise animal owners about general care, medical conditions and treatments 	<ul style="list-style-type: none"> Compassion Judgment and Decision making Interpersonal Management Manual dexterity Problem solving



POWER, STRUCTURAL AND TECHNICAL SYSTEMS: People who work in this major apply knowledge of engineering, hydraulics, pneumatics, electronics, power structures and controls to the field of agriculture.

IF YOU CHOOSE POWER, STRUCTURAL AND TECHNICAL SYSTEMS AS YOUR CAREER MAJOR, YOU MAY BE A PART OF:

- Designing and maintaining architectural structures, machinery and equipment
- Developing ways to conserve soil and water and improve the processing of agricultural products
- Collecting data and providing spatial information to specialists in water resource engineering, forestry and other fields in agriculture
- Researching and selling spare and replacement parts for heavy farm equipment

SAMPLE CAREERS

Associate's Degree or Less

Annual Salary Range

\$20,000-\$50,000

- Agricultural Equipment Operator
- Farm Equipment Mechanic
- Service Technician
- Parts Salesperson
- Welder

Bachelor's Degree

Annual Salary Range

\$50,000-\$100,000

- Remote Sensing Specialist
- Global Positioning Systems Technician
- Electronics Systems Technician
- Communication Technician
- Recycling Technician
- Equipment Parts Manager
- Mobile Heavy Equipment Mechanic

Career	Entry-Level Education	Annual Median Salary & Hourly Pay (2022)	Job Outlook (2022-32)	Responsibilities	Skills
Agricultural Equipment Operators	High School Diploma or Less	\$37,780/year \$18.16/hour	11% (Faster than average)	<ul style="list-style-type: none"> • Load and unload crops or containers of materials, manually or using conveyors, handtrucks, forklifts, or transfer augers • Mix specified materials or chemicals, and dump solutions, powders, or seeds into planter or sprayer machinery • Spray fertilizer or pesticide solutions to control insects, fungus and weed growth, and diseases, using hand sprayers • Observe and listen to machinery operation to detect equipment malfunctions • Manipulate controls to set, activate, and adjust mechanisms on machinery 	<ul style="list-style-type: none"> • Active Listening • Equipment Maintenance and Repair • Monitoring • Observation • Troubleshooting
Farm Equipment Mechanics and Service Technicians	High School Diploma or Equivalent	\$48,010/year \$23.08/hour	11% (Faster than average)	<ul style="list-style-type: none"> • Set up and operate a variety of computer-controlled or mechanically-controlled machine tools to produce precision metal parts, instruments and tools for farm use • Work from blueprints, sketches or computer-aided design (CAD) or computer-aided manufacturing (CAM) files • Calculate dimensions using measuring instruments • File, grind and adjust parts so they fit together properly • Measure, examine and test completed products for defects 	<ul style="list-style-type: none"> • Analytical • Detail oriented • Computer and Mathematics • Mechanical • Technical
Heavy Vehicle and Mobile Equipment Service Technicians	High School Diploma or Equivalent	\$53,770/year \$25.85/hour	8% (Faster than average)	<ul style="list-style-type: none"> • Inspect, maintain and repair vehicles and machinery used in farming and other industries • Read and understand operating manuals, blueprints and drawings • Perform scheduled maintenance, such as cleaning and lubricating parts • Diagnose and identify malfunctions, using computerized tools and equipment • Inspect, repair and replace defective or worn parts, such as bearings, pistons and gears • Disassemble and reassemble heavy equipment and components 	<ul style="list-style-type: none"> • Manual dexterity • Mechanical • Physical strength • Technical • Troubleshooting
Agricultural Engineer	Bachelor's Degree	\$83,260/year \$40.03/hour	2% (Little or no change)	<ul style="list-style-type: none"> • Prepare reports, sketches, working drawings, specifications, proposals, and budgets for proposed sites or systems • Discuss plans with clients, contractors, consultants, and other engineers so that they can be evaluated and necessary changes made • Meet with clients, such as district or regional councils, farmers, and developers, to discuss their needs • Provide advice on water quality and issues related to pollution management, river control, and ground and surface water resources • Plan and direct construction of rural electric-power distribution systems, and irrigation, drainage, and flood control systems for soil and water conservation 	<ul style="list-style-type: none"> • Active listening • Complex problem solving • Critical thinking • Judgment and Decision making • Reading comprehension



NATURAL RESOURCES SYSTEMS: People who work in this major perform a variety of tasks from helping to develop, maintain and manage the forest and natural environment to catching and trapping various types of marine life for human consumption, animal feed, bait and other uses.

IF YOU CHOOSE NATURAL RESOURCES SYSTEMS AS YOUR CAREER MAJOR, YOU MAY BE A PART OF:

- Supplying wood products, livestock forage, minerals and water for forests and rangelands
- Managing, developing and protecting habitats for wildlife and other natural resources
- Patrolling assigned areas to prevent fish and game law violations and investigating reports of damage to crops or property by wildlife
- Directing fishing operations, finding fish using specialized equipment and supervising a fishing crew

SAMPLE CAREERS

Associate's Degree or Less

Annual Salary Range

\$20,000-\$50,000

- Water Monitoring Technician
- Forest Worker
- Logging Equipment Operator
- Park Naturalist
- Fisher or Fishing Worker

Bachelor's Degree

Annual Salary Range

\$50,000-\$100,000

- Wildlife Manager or Technician
- Park Manager
- Forest Manager or Technician
- Geological Sample Test Technician
- Geophysical Data Technician
- Fish and Game Warden

Career	Entry-Level Education	Annual Median Salary & Hourly Pay (2022)	Job Outlook (2022-32)	Responsibilities	Skills
Log Graders and Scalers	High School Diploma or Equivalent	\$42,370/year \$20.37/hour	5% (Average)	<ul style="list-style-type: none"> Evaluate log characteristics and determine grades, using established criteria Record data about individual trees or load volumes into tally books or hand-held collection terminals Measure felled logs or loads of pulpwood to calculate volume, weight, dimensions, and marketable value, using measuring devices and conversion tables Paint identification marks of specified colors on logs to identify grades or species, using spray cans, or call out grades to log markers Jab logs with metal ends of scale sticks, and inspect logs to ascertain characteristics or defects such as water damage, splits, knots, broken ends, rotten areas, twists, and curves 	<ul style="list-style-type: none"> Active listening Coordination Critical thinking Judgment and Decision making Monitoring Speaking
Geological Technicians (Except Hydrologic Technicians)	Bachelor's Degree	\$48,490/year \$23.31/hour	4% (Average)	<ul style="list-style-type: none"> Test and analyze samples to determine their content and characteristics, using laboratory apparatus or testing equipment Collect or prepare solid or fluid samples for analysis Compile, log, or record testing or operational data for review and further analysis Prepare notes, sketches, geological maps, or cross-sections Participate in geological, geophysical, geochemical, hydrographic, or oceanographic surveys, prospecting field trips, exploratory drilling, well logging, or underground mine survey programs 	<ul style="list-style-type: none"> Active listening Communication Critical thinking Data analysis Reading comprehension
Natural Sciences Managers	Bachelor's Degree	\$137,900/year \$69.44/hour	6% (Average)	<ul style="list-style-type: none"> Hire, supervise, or evaluate engineers, technicians, researchers, or other staff Design or coordinate successive phases of problem analysis, solution proposals, or testing Plan or direct research, development, or production activities Review project activities and prepare and review research, testing, or operational reports Confer with scientists, engineers, regulators, or others to plan or review projects or to provide technical assistance 	<ul style="list-style-type: none"> Active listening Coordination Critical thinking Judgment and Decision making Negotiation and Persuasion Problem solving
Conservation Scientists and Foresters	Bachelor's Degree	\$64,220/year \$30.87/hour	5% (Average)	<ul style="list-style-type: none"> Manage overall land quality of forests, parks, rangelands and other natural resources Supervise activities for other forestry and conservation workers Negotiate terms and conditions for forest harvesting and land-use contracts Determine ways to remove timber with minimum environmental damage Choose and prepare sites for new trees using controlled burning, bulldozers or herbicides to clear land 	<ul style="list-style-type: none"> Analytical Critical thinking Decision making Interpersonal Physical stamina Speaking



ENVIRONMENTAL SERVICE SYSTEMS: People who work in this major are involved in water and air pollution control, recycling, waste disposal and public health issues.

**IF YOU CHOOSE ENVIRONMENTAL SERVICE SYSTEMS
AS YOUR CAREER MAJOR, YOU MAY BE A PART OF:**

- Conducting hazardous-waste management studies and evaluating the significance of a hazard
- Offering analysis on treatment and containment and developing regulations to prevent hazardous-waste mishaps
- Designing municipal sewage and industrial wastewater systems
- Analyzing scientific data, researching environmental projects and performing quality control checks

SAMPLE CAREERS

Associate's Degree or Less
Annual Salary Range
\$20,000-\$50,000

- Environmental Sampling Technician
- Environmental Engineering Technician
- Hazardous Materials Handler
- Solid Waste Disposer/Recycler
- Recycling and Reclamation Worker
- Recycling Coordinator

Bachelor's Degree
Annual Salary Range
\$50,000-\$100,000

- Pollution Prevention and Control Manager
- Health and Safety Sanitarian
- Water Environment Engineer
- Environmental Compliance Inspector
- Wastewater Treatment Plant System Operator
- Water Quality Manager

Career	Entry-Level Education	Annual Median Salary & Hourly Pay (2022)	Job Outlook (2022-32)	Responsibilities	Skills
Environmental Engineering Technologists and Technicians	Bachelor's Degree	\$50,980/year \$24.51/hour	7% (Average)	<ul style="list-style-type: none"> • Maintain project logbook records or computer program files • Record laboratory or field data, including numerical data, test results, photographs, or summaries of visual observations • Perform environmental quality work in field or office settings • Produce environmental assessment reports, tabulating data and preparing charts, graphs, or sketches • Collect and analyze pollution samples, such as air or ground water 	<ul style="list-style-type: none"> • Active learning • Active listening • Critical thinking • Monitoring • Reading comprehension
Environmental Science and Protection Technicians	Bachelor's Degree	\$48,380/year \$23.26/hour	8% (Faster than average)	<ul style="list-style-type: none"> • Monitor the environment and investigate sources of pollution and contamination • Inspect public places and businesses to ensure that there are no environmental, health or safety hazards • Set up and maintain equipment used to monitor pollution levels, such as remote sensors that measure emissions from smokestacks • Collect samples of air, soil, water and other materials for laboratory analysis • Perform scientific tests to identify and measure levels of pollutants in samples 	<ul style="list-style-type: none"> • Active listening • Analytical • Communication • Critical thinking • Interpersonal
Environmental Scientists and Specialists	Bachelor's Degree	\$76,530/year \$36.79/hour	5% (Average)	<ul style="list-style-type: none"> • Identify problems and find solutions that minimize hazards to the health of the environment and the population • Determine data collection methods for research projects, investigations and surveys • Collect environmental data, such as samples of air, soil, water, food and other materials for scientific analysis • Develop plans to prevent, control or fix environmental problems, such as pollution and harm to land or water 	<ul style="list-style-type: none"> • Analytical • Communication • Interpersonal • Judgment and Decision making • Monitoring • Problem solving
Environmental Engineers	Bachelor's Degree	\$96,820/year \$46.55/hour	4% (Average)	<ul style="list-style-type: none"> • Use the principles of engineering, soil science, biology and chemistry to develop solutions to environmental problems • Join efforts to improve recycling, waste disposal, public health and control of water and air pollution • Address global issues, such as safe drinking water, climate change and sustainability • Prepare, review and update environmental investigation reports • Design projects leading to environmental protection, such as water reclamation facilities, air pollution control systems and operations that convert waste to energy 	<ul style="list-style-type: none"> • Communication • Problem solving • Reading comprehension • Systems analysis • Teamwork



AGRIBUSINESS SYSTEMS: People who work in this major are involved in the coordination of all activities that contribute to the production, processing, marketing, distribution, financing and development of agricultural commodities and resources.

IF YOU CHOOSE AGRIBUSINESS SYSTEMS AS YOUR CAREER MAJOR, YOU MAY BE A PART OF:

- Working in all facets of agribusiness, including food, fiber, wood products, natural resources, horticulture and other plant and animal products and services
- Using high-tech innovations to increase efficiency and profitability, including satellite systems, biotechnology, computer databases and spreadsheets
- Advising, instructing and assisting individuals and families engaged in agriculture and agricultural-related processes
- Supervising all steps of the crop production and ranging process, including planting, fertilizing, harvesting and herding

SAMPLE CAREERS

Associate's Degree or Less

Annual Salary Range
\$20,000-\$50,000

- Farmworker or Crop Laborer
- First-Line Supervisor
- Groundskeeping Worker
- Agricultural Salesperson

Bachelor's Degree

Annual Salary Range
\$50,000-\$100,000

- Feed/Farm Supply Store Manager
- International Agri-Marketing Specialist
- Agricultural Loan Officer

Bachelor's Degree + Graduate Degrees and/or Certifications

Annual Salary Range
\$100,000+

- Vegetable Farm Owner
- Cattle Ranch Owner
- Dairy Farm Owner
- Plant and Flower Nursery Owner
- Landscaping Company Owner
- Florist Owner

Career	Entry-Level Education	Annual Median Salary & Hourly Pay (2022)	Job Outlook (2022-32)	Responsibilities	Skills
Agricultural Workers	On-the-Job Training	\$35,720/year \$17.17/hour	4% (Average)	<ul style="list-style-type: none"> Harvest and inspect crops by hand Irrigate farm soil and maintain ditches, pipes and pumps Operate farm machinery Spray fertilizer or pesticide solutions to control insects, fungi and weeds Move shrubs, plants and trees with wheelbarrows or tractors Feed livestock and clean and disinfect their pens, cages, yards and hutches Herd livestock to pastures for grazing or to scales, trucks or other enclosures 	<ul style="list-style-type: none"> Listening skills Manual dexterity Physical stamina Physical strength Technical skills
Farm Labor Contractors	High School Diploma or Equivalent	\$49,330/year \$23.72/hour	11% (Faster than average)	<ul style="list-style-type: none"> Pay wages of contracted farm laborers Provide food, drinking water, and field sanitation facilities to contracted workers Recruit and hire agricultural workers Employ foremen to deal directly with workers when recruiting, hiring, instructing, assigning tasks, and enforcing work rules Supervise the work of contracted employees 	<ul style="list-style-type: none"> Active listening Critical thinking Management of personnel resources Judgment and Decision making Social perceptiveness
Farm and Home Management Advisors	Masters Degree	\$53,450/year \$25.70/hour	1% (Little to no change)	<ul style="list-style-type: none"> Advise, instruct and assist individuals and families engaged in agriculture, agricultural-related processes or home economics activities Demonstrate procedures and apply research findings to solve problems Instruct and train in product development, sales and the use of machinery and equipment to promote general welfare 	<ul style="list-style-type: none"> Active listening Coordination Critical thinking Instructing Judgment and Decision making
Farmers, Ranchers, and Other Agricultural Managers	High School Diploma or Equivalent	\$75,760/year \$36.42/hour	-2% (Slight Decline)	<ul style="list-style-type: none"> Supervise all steps of the crop production and ranging process, including planting, fertilizing, harvesting and herding Determine how to raise crops or livestock according to factors such as market conditions, federal program availability and soil conditions Maintain farm facilities, including its water pipes, hoses, fences and animal shelters Serve as the sales agent for livestock and crops Keep financial, tax, production and employee records 	<ul style="list-style-type: none"> Analytical Critical thinking Interpersonal Machine operation Organization

PROFILE OF THE South Carolina Graduate

WORLD-CLASS KNOWLEDGE

Rigorous standards in language arts
and math for career and college
readiness

Multiple languages, science, technology,
engineering, mathematics (STEM), arts and
social sciences



WORLD-CLASS SKILLS

Creativity and innovation

Critical thinking and
problem solving

Collaboration and teamwork

Communication, information,
media and technology

Knowing how to learn

LIFE AND CAREER CHARACTERISTICS

Integrity • Self-direction • Global perspective • Perseverance • Work ethic • Interpersonal skills

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Codified by the South Carolina General Assembly in 2016

Adopted by: SC Arts Alliance, SC Arts in Basic Curriculum Steering Committee, SCASCD, SC Chamber of Commerce, SC Coalition for Math & Science, SC Commission on Higher Education, SC Council on Competitiveness, SC Education Oversight Committee, SC School Boards Association, SC State Board of Education, SC State Department of Education, TransformSC Schools and Districts



WHAT'S TRENDING NOW



CERTIFIED ORGANIC FOOD – The Pros and Cons of Organic Crop Farming

Many consumers today are looking for healthy, environmentally sustainable alternatives to typical food, resulting in the recent demand for organically produced food. However, there's more research to be done on whether organic food is truly better for you than food grown on a conventional farm. For many farmers, while organic farming is a growing trend, the amount of resources needed to grow organic food is not worth the return on investment.

Conventional vs. Organic Farming

CONVENTIONAL FARM	ORGANIC FARM
› Uses pesticides to fight insects that damage crops	› Uses predatory bugs that feed on damage-inducing insects in place of pesticides
› Requires fewer workers to harvest the crops	› Requires more workers to harvest the crops, as the process involves additional requirements than conventional farming requires
› Harvested quickly due to a simple process	› Harvested longer due to a more complicated process
› Uses standard inspection processes	› Uses the “Certified Organic” seal where a farm must pass inspection by an accredited certifying agency
› Produces more food on less land	› Produces less food on more land

“Farming today is much different than it was over 65 years ago when my grandfather started our family farm. Today, farmers not only plow fields, plant crops and irrigate, they work with state-of-the-art irrigation technology and GPS systems, implement soil and water conservation practices and work daily in operations and business management to improve the efficiencies of farm production.”

*— Chris Rawl, Co-Owner
Clayton Rawl Farms, Inc.*



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