



Agriculture, Food, & Natural Resources Career Cluster

Cluster Description: This diverse Career Cluster prepares learners for careers in the planning, implementation, production, management, processing and/or marketing of agricultural commodities and services, including food, fiber, wood products, natural resources, horticulture, and other plant and animal products. It also includes related professional, technical and educational services.

Employment Outlook: Employment opportunities will continue to increase for those who provide and market an expanding array of food, forest, and veterinary medical consumer products to a growing world population. Continued globalization of the food, agricultural, and natural resources system will increase opportunities for graduates who understand the socio-economic factors that define international markets. Graduates who know how to satisfy the diverse consumer needs and preferences in different cultures, and who have the language skills to communicate effectively, will have the best opportunities to be employed by the growing number of multi-national businesses.

Pathway Descriptions

Agribusiness Systems workers use high-technology to coordinate all activities that contribute to production, processing, marketing, distribution, financing, and development of agricultural commodities.

Animal Science workers study genetics, nutrition, reproduction, growth, and development of farm animals. They inspect and grade livestock food products, purchase livestock, or work in sales or marketing.

Environmental Service Systems workers are involved in pollution control, recycling, waste disposal, and public health. They conduct hazardous-waste management studies, analysis, and research environmental projects.

Food Products and Processing Systems workers discover new food sources, analyze and develop ways to process, preserve, package or store food. They create new food products and inspect food-processing to ensure sanitation, safety, quality, and waste management standards are met.

Natural Resources Systems workers help to develop, maintain, and manage the forest and natural environment. Conservation scientists and foresters manage, develop, and help protect these natural resources.

Plant Systems workers develop ways to improve the nutritional value of crops and quality of seeds. They use genetic engineering to develop pest and drought resistant crops helping producers while conserving natural resources and maintaining the environment.

Power, Structural, and Technical Systems workers apply knowledge of engineering, hydraulics, pneumatics, electronics, power, structures, and controls to the field of agriculture. They develop conservation of soil and water to improve the processing of agricultural products.



Career Cluster

Career Pathways

Career Specialty

Animal Systems	Animal Geneticist Animal Physiologist Biomaterials Engineering Farm & Ranch Management Veterinarian
Agribusiness Systems	Agricultural Loan Officer Agricultural Manager Financial Managers International Agri-Marketing Specialist
Environmental Service Systems	Environmental Engineer Hazardous Materials Handler Health & Safety Sanitarian Solid Waste Disposer Toxicologist
Food Products and Processing Systems	Biochemist Food Broker Food Engineer Food Science Technicians Quality Assurance Specialist
Natural Resource Systems	Conservation Officer Fisheries Scientist Forest Scientist Water Quality Manager Wildlife Manager
Plant Systems	Agronomist Entomologist Golf Course Superintendent Landscape Architect Plant Scientist
Power, Structural, and Technical Systems	Agricultural Engineer Diesel Mechanic Farm Equipment Mechanic Global Positioning Technician Welder

Cluster Facts

HOT JOBS

- Landscaping & Groundskeeping Worker
- Nursery Workers
- Farmworkers, Farm and Ranch Animals
- First-Line Supervisors/Managers of Farming, Fishing, and Forestry Workers

Nebraska Workforce Development, Nebraska Career Compass Labor Market Information, August 2006.

Endorsed by: Nebraska Department of Education
Nebraska Career Education

Related 4-H Projects

- ◆ Beef
- ◆ Cat
- ◆ Companion Animal
- ◆ Conservation
- ◆ Crop Production
- ◆ Dairy
- ◆ Dog
- ◆ Entomology
- ◆ Food and Nutrition
- ◆ Forestry
- ◆ Goat
- ◆ Horse
- ◆ Horticulture
- ◆ Physical Fitness
- ◆ Poultry
- ◆ Rabbit
- ◆ Range
- ◆ Sheep
- ◆ Swine
- ◆ Tractor
- ◆ Vet Science
- ◆ Wildlife