

Agricultural and Food Science Technicians

SOC: 19-4010 • Career Profile Report

■ Key Facts

<div>\$48,480</div> <div>Median Salary</div>	<div>38,900</div> <div>Employment</div>	<div>+5.0%</div> <div>Growth Rate</div>
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■ Requirements & Salary Range

Education: Associate's degree

■ Automation Risk Assessment

Low Risk - 8.0% probability of being automated in the next 10-20 years.
This job is relatively safe from automation due to its creative, social, or complex problem-solving requirements.

■■ Work-Life Balance

7.5/10 - Good work-life balance

■ Personality Fit (RIASEC)

Higher scores indicate better personality fit for this career type.

Realistic	6.2/10	Investigative	9.4/10
Artistic	5.6/10	Social	6.4/10
Enterprising	4.8/10	Conventional	6.4/10

■ Top Skills Required

Analytical skills, Communication skills, Decision-making skills, Detail oriented, Interpersonal skills, Physical stamina

✓ Strengths

- High Demand
- Flexible Work
- Continuous Learning

■ Challenges

- Burnout Risk
- Rapid Technological Change

■ What They Do

Agricultural and Food Science Technicians are applied science professionals who support researchers and specialists by conducting **laboratory, field, and production-based testing related to crops, livestock, soil, and food products**. They play a vital role in improving agricultural productivity, food safety, and sustainability by collecting data, running experiments, and ensuring quality standards are met. Their work helps translate scientific research into practical applications used across farms, food processing facilities, and research institutions.

This career is well suited for individuals who enjoy hands-on scientific work, data collection, and contributing to the safety and efficiency of the food system.

What Do Agricultural and Food Science Technicians Do?

These technicians assist scientists by carrying out tests, experiments, and quality checks in both field and laboratory settings. Their responsibilities focus on accuracy, consistency, and adherence to scientific protocols.

Common responsibilities include:

- Collecting soil, plant, animal, and food samples
- Conducting laboratory tests on crops, feed, or food products
- Monitoring crop growth, livestock health, or production conditions
- Recording and analyzing experimental or quality data
- Operating and maintaining laboratory and testing equipment
- Assisting with food safety and quality assurance procedures
- Preparing reports and documenting research findings

Types of Agricultural and Food Science Technicians

Technicians may specialize based on industry or research focus:

- **Agricultural Research Technicians:** Support studies on crop yields, genetics, and soil health.
- **Food Science Technicians:** Assist with food processing, formulation, and quality testing.
- **Animal Science Technicians:** Support livestock nutrition, breeding, and health research.
- **Quality Control Technicians:** Monitor food safety and production standards.
- **Seed and Plant Technicians:** Test seed quality and plant performance.
- **Environmental and Sustainability Technicians:** Support sustainable farming and resource management.

Skills and Abilities Needed

Agricultural and food science technicians combine scientific fundamentals with practical skills.

Core Technical Skills

Personal Qualities That Matter

Education and Training Pathway

Most agricultural and food science technicians enter the field through technical education:

- **Associate Degree:** Commonly in agricultural science, food science, biology, or a related field
- **Bachelor's Degree (sometimes preferred):** For advanced or specialized roles
- **Hands-On Training:** Field and laboratory experience during education or on the job
- **On-the-Job Training:** Learning employer-specific procedures and equipment
- **Continuing Education:** Keeping up with food safety standards and agricultural technology

Where Do Agricultural and Food Science Technicians Work?

These technicians are employed across agriculture, food production, and research settings:

- Agricultural Research Institutions and Universities
- Food Processing and Manufacturing Facilities
- Farms, Greenhouses, and Seed Companies
- Government Agencies and Inspection Services
- Biotechnology and Agribusiness Companies
- Quality Assurance and Testing Laboratories

Work environments may include laboratories, processing plants, and outdoor field sites.

How Much Do Agricultural and Food Science Technicians Earn?

Earnings vary based on education, specialization, and employer:

- Entry-Level Technicians: Typically earn technical wages while gaining experience
- Experienced Technicians: Often earn higher pay with specialization or supervisory roles
- Food Safety and Quality Specialists: May earn more in regulated production environments

Compensation depends on location, industry segment, and responsibilities.

Is This Career Difficult?

This career is moderately demanding both physically and technically. Technicians must follow strict protocols, work in varied environments, and maintain accuracy in data collection. The challenge lies in balancing hands-on field or lab work with consistent documentation and quality standards.

Who Should Consider This Career?

This occupation may be a strong fit if you:

- Enjoy applied science and data collection
- Are interested in agriculture, food, or sustainability
- Like hands-on laboratory or fieldwork
- Prefer structured, procedure-based roles
- Want to support research without pursuing advanced scientific degrees

How to Prepare Early

- Take courses in biology, chemistry, and agricultural science
- Gain experience through farm work or lab internships
- Practice accurate recordkeeping and data entry
- Learn basic lab safety and sampling techniques
- Explore technical or associate degree programs in agriculture or food science

Agricultural and food science technicians support the science behind safe food, productive farms, and sustainable agricultural systems by turning research into reliable, real-world data.

*Generated by StartRight • Data from U.S. Bureau of Labor Statistics & O*NET*

Source: <https://www.bls.gov/ooh/life-physical-and-social-science/agricultural-and-food-science-technicians.htm>