Agricultural and Food Science Technicians

SOC: 19-4010 • Career Profile Report

■ Key Facts

$48,480	**38,900**	**+5.0%**
Median Salary	Employment	Growth Rate

■ 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 typically perform the following tasks: • Prepare land for cultivated crops, orchards, or vineyards by plowing, discing, leveling, or contouring. • Operate farm machinery, including tractors, plows, mowers, combines, balers, sprayers, earthmoving equipment, or trucks. • Record data pertaining to experimentation, research, or animal care. • Maintain or repair agricultural facilities, equipment, or tools to ensure operational readiness, safety, and cleanliness. • Perform crop production duties, such as tilling, hoeing, pruning, weeding, or harvesting crops. • Collect animal or crop samples. • Examine animals or crop specimens to determine the presence of diseases or other problems. • Set up laboratory or field equipment as required for site testing. • Supervise or train agricultural technicians or farm laborers. • Conduct studies of nitrogen or alternative fertilizer application methods, quantities, or timing to ensure satisfaction of crop needs and minimization of leaching, runoff, or denitrification. • Prepare laboratory samples for analysis, following proper protocols to ensure that they will be stored, prepared, and disposed of efficiently and effectively. • Measure or weigh ingredients used in laboratory testing. • Perform tests on seeds to evaluate seed viability. • Prepare data summaries, reports, or analyses that include results, charts, or graphs to document research findings and results. • Perform laboratory or field testing, using spectrometers, nitrogen determination apparatus, air samplers, centrifuges, or potential hydrogen (pH) meters to perform tests. • Supervise pest or weed control operations, including locating and identifying pests or weeds, selecting chemicals and application methods, or scheduling application. • Devise cultural methods or environmental controls for plants for which guidelines are sketchy or nonexistent. • Conduct insect or plant disease surveys. • Perform general nursery duties, such as propagating standard varieties of plant materials, collecting and germinating seeds, maintaining cuttings of plants, or controlling environmental conditions. • Record environmental data from field samples of soil, air, water, or pests to monitor the effectiveness of integrated pest management (IPM) practices.