

Agricultural Engineers

SOC: 17-2021 • Career Profile Report

■ Key Facts

\$84,630 Median Salary	1,700 Employment	+6.0% Growth Rate
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■ Requirements & Salary Range

Education: Bachelor's degree

■ Automation Risk Assessment

Low Risk - 17.0% 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

7.2/10 - Good work-life balance

■ Personality Fit (RIASEC)

Higher scores indicate better personality fit for this career type.

Realistic	8.2/10	Investigative	8.8/10
Artistic	6.4/10	Social	5.2/10
Enterprising	5.8/10	Conventional	6.6/10

■ Top Skills Required

Analytical skills, Communication skills, Math skills, Problem-solving skills

✓ Strengths

- High Demand
- Flexible Work
- Continuous Learning

■ Challenges

- Burnout Risk
- Rapid Technological Change

■ What They Do

Agricultural Engineers typically perform the following tasks:

- Prepare reports, sketches, working drawings, specifications, proposals, and budgets for proposed sites or systems.
- Visit sites to observe environmental problems, to consult with contractors, or to monitor construction activities.
- Meet with clients, such as district or regional councils, farmers, and developers, to discuss their needs.
- Discuss plans with clients, contractors, consultants, and other engineers so that they can be evaluated and necessary changes made.
- Test agricultural machinery and equipment to ensure adequate performance.
- Plan and direct construction of rural electric-power distribution systems, and irrigation, drainage, and flood control systems for soil and water conservation.
- Provide advice on water quality and issues related to pollution management, river control, and ground and surface water resources.
- Design structures for crop storage, animal shelter and loading, and animal and crop processing, and supervise their construction.
- Conduct educational programs that provide farmers or farm cooperative members with information that can help them improve agricultural productivity.
- Design sensing, measuring, and recording devices, and other instrumentation used to study plant or animal life.
- Design agricultural machinery components and equipment, using computer-aided design (CAD) technology.
- Design and supervise environmental and land reclamation projects in agriculture and related industries.
- Design food processing plants and related mechanical systems.
- Supervise food processing or manufacturing plant operations.
- Communicate results in peer-reviewed research articles or at workshops or conferences.
- Use agricultural drones for crop monitoring, irrigation management, and pest control.

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

Source: <https://www.bls.gov/ooh/architecture-and-engineering/agricultural-engineers.htm>