Agricultural Engineering

Making farms more efficient! By integrating technological principles into food growing and processing, agricultural engineers help farmers produce larger crop yields while improving sustainability. Agricultural engineering is involved with the food production chain, from developing seeds to designing and testing farm equipment. They also optimize transportation and storage.

Where do Agricultural Engineers Work?

Agricultural engineers work in a variety of organizations, including:

- United States Department of Agriculture
- State agriculture extension programs
- Foreign Agricultural Service (USDA)
- Farm equipment manufacturers
- Engineering consulting firms

Explore Our Agricultural Curriculum

Grades 3-5:

Cutting Through Soil

Lab Experiments in Rebuilding Soil with Biochar

Plant Cycles: Photosynthesis & Transpiration

Grades 6-8:

Rooftop Gardens

Soil Biosolarization: Using Waste & Sunshine to...

Sun Keeps the Pests Away: How Soil Solarization...

Agricultural engineering spans many disciplines, but is generally broken into a few subfields:

soil science, plant biology, organic chemistry, climatology and atmospheric science, along with engineering practices around equipment design, molecular optimization, and waste management.

What do Agricultural Engineers Study?

A combination of many engineering disciplines, including environmental, civil, and chemical, agricultural engineering requires an understanding of a wide array of key principles. Agricultural engineers may study farming sciences such as soil science, plant biology, organic chemistry, climatology and atmospheric science, along with engineering practices around equipment design, molecular optimization, and waste management. Agricultural engineers also work on specialized projects that help grow their knowledge of the manufacturing involved in raising crops and animals for food and other consumer products.