

# CHOOSING A CAREER IN SOIL SCIENCE

**A CAREER IN SCIENCE.  
A LIFETIME OF ADVENTURE.**

**DIG IN. DO GOOD.**



## EVERYTHING STARTS WITH SOIL. LITERALLY EVERYTHING.

You thought soil was just dirt? It's the foundation of ecosystems, food systems, water quality, and climate stability. If you love science and want to help solve environmental challenges, soil science is a great place to start.

### WHAT IS SOIL SCIENCE?

Soil science explores and seeks to understand Earth's land and water resources. You'll identify, interpret, and manage soils for agriculture, forestry, rangelands, ecosystems, urban development, and mining reclamation. This field combines biology, chemistry, physics, ecology, geology, geography, and microbiology—focused on understanding and improving land and water.

You use high-tech tools for soil exploration, analysis, data interpretation, and modeling. Your work integrates people, food production, and environment. Every decision about land use, water quality, or waste management involves soil science.

**YOUR SCIENCE BECOMES  
POLICY. YOUR DATA BECOMES  
ACTION PLANS.**

### WHAT DO SOIL SCIENTISTS DO?

Conduct research on soil and water resources. Manage soils for crop production and erosion control. Identify farming practices that regenerate soils and ecosystems. Design hydrologic plans for development. Evaluate nutrient availability for crops. Manage mine reclamation and site restoration. Regulate land use. Map soil properties. Consult on environmental projects. Teach at universities. Educate the public on good practices.

### WHY BECOME A SOIL SCIENTIST?

The work is incredibly diverse. Fieldwork or laboratory? Both. Environmental consulting or government regulation? Choose your path. Work for government agencies, non-profits, environmental firms, universities, research institutions, or international agencies. Pursue graduate studies.

Your expertise matters in decisions about soil and water resources. You're at the table when communities plan development, farmers need sustainability strategies, and restoration projects need guidance.

**Research or public service? Outdoors or  
laboratory? Government or private? YOU DECIDE.**

## WHAT DO SOIL SCIENTISTS NEED?

1. Love of science and working outdoors or in a lab
2. Curiosity about digging into soil to discover what lies beneath
3. Interest in biology, chemistry, physics, or mathematics
4. Desire to influence environmental or agricultural decisions
5. Good communication skills
6. Problem-solving mindset

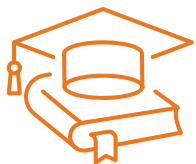
**No farm background required.**

## THE FUTURE OF SOIL SCIENCE



### JOB OUTLOOK:

Growing focus on sustainable land management, climate adaptation, water quality protection, environmental restoration. **Demand increasing** as climate change and urban/commercial development pressure soil resources.



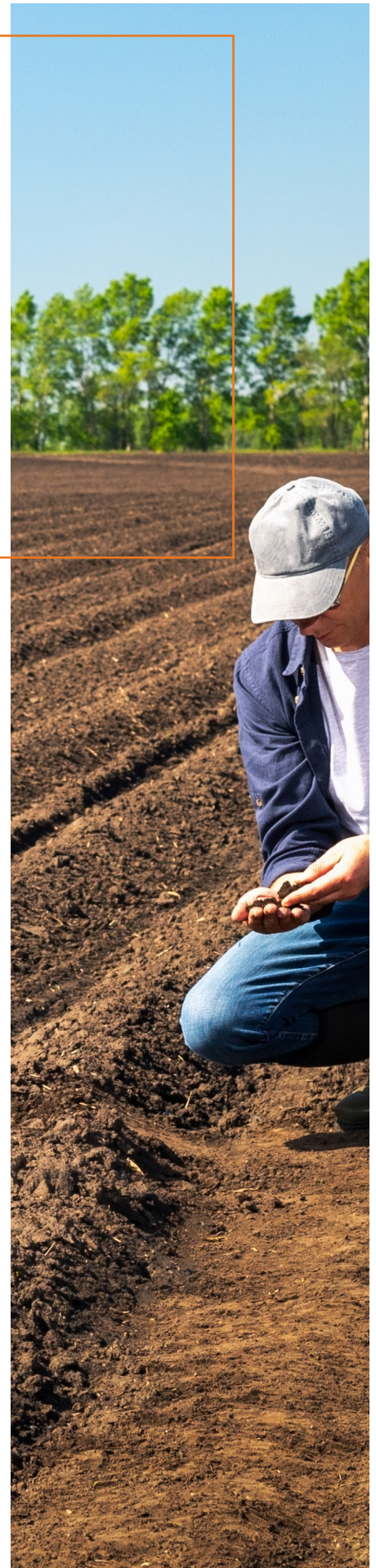
### EDUCATION REQUIRED:

**Bachelor's degree** minimum in Soil Science or Environmental Science. Many positions require a master's or PhD for research and advanced roles.

**\$83K**  
AS OF 2024

### AVERAGE SALARY:

Soil and plant scientists earn a median annual wage of **\$83,040**, according to the Bureau of Labor Statistics May 2024.





## GET STARTED

### IN HIGH SCHOOL:

Excel in biology, chemistry, physics, or math. Join environmental clubs or agricultural-related organizations or clubs. Seek internships with conservation districts, environmental companies, or government agencies.

### IN COLLEGE:

Major in Soil Science or Environmental Science. Take soil chemistry, soil physics, soil microbiology, geology, ecology, hydrology.

## THE BOTTOM LINE

Soil science sits at the intersection of food security, water quality, climate change, and land conservation. Your field work informs development decisions. Your research guides agricultural practices. Your consulting protects land and water resources.

**IT'S A CAREER ROOTED IN SCIENCE. BUT MORE IMPORTANTLY, IT'S A CAREER THAT WILL TAKE YOU ON A LIFETIME OF FULFILLING ADVENTURE—PROFESSIONALLY AND PERSONALLY, TOO.**