

# Soil Scientists

A guide for newcomers to British Columbia



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## Contents

1. Working as a Soil Scientist [NOC 2115] .....	2
2. Skills, Education and Experience.....	6
3. Finding Jobs .....	9
4. Applying for a Job .....	11
5. Getting Help from Industry Sources .....	12

## 1. Working as a Soil Scientist [NOC 2115]

### *Job Description*

Soil scientists conduct research into the composition, distribution and changing nature of soils.

As a soil scientist you do the following:

- Collect and analyze data
- Conduct research in laboratory and field settings
- Monitor industrial activities to ensure environmental regulation
- Plan and implement land development and reclamation plans
- Assist in technology development
- Conduct assessments
- Write reports
- Classify soil and prepare soil maps

Source:

<http://www5.hrsdc.gc.ca/NOC/English/NOC/2011/ProfileQuickSearch.aspx?val=2&val1=2115&val65=2115>

## Soil Scientists

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### **Industry Overview**

Soil scientists are part of the larger occupational group of physical science professionals. With accreditation and registration you may also be called an Agrologist in the province of BC.

Soil science is considered a specialization within the field of agrology and is in high demand. In BC, there is a growing demand for agrologists. According to the BC Institute of Agrologists (BCIA), there are more jobs than qualified people in this field.

Soil Science offers career opportunities in a range of sectors including:

- Agriculture
- Forestry
- Environmental assessment and land use
- Mining and oil & gas industries
- Researcher for government or educational institutions

Sources: BC Institute of Agrologists, <http://www.bcia.com/index.php> and Canadian Society of Soil Science <http://www.csss.ca>

### **Job Outlook in BC**

#### **Physical Science Professionals (NOC 2115)**



Chart from WorkBC

## Soil Scientists

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The **Employment Outlook for BC** provides job openings projections for *Other Professional Occupations in Physical Sciences*, which includes *soil scientists*, within BC regions:

Region	2010 Estimated Employment	2015 Estimated Employment	Avg Annual % Change, 5 Years, 2010 to 2015
Vancouver Island	50	50	0.8%
Lower Mainland / Southwest	170	180	1.9%
Thompson-Okanagan	40	40	0.6%
Kootenay	10	20	3.6%
Cariboo	10	10	2.8%
North Coast & Nechako	10	10	5.3%
Northeast	10	20	4.1%

Source: Regional Employment Projections, BC Stats. Projections for development regions.

<http://www.bcstats.gov.bc.ca/StatisticsBySubject/LabourIncome/EmploymentUnemployment/RegionalEmploymentProjections.aspx> [accessed 2014]

You can learn more about working as a soil scientist from:

- **WorkBC, Career Profile**  
<http://www.workbc.ca/Careers/> [search 2115]
- **ECO Canada, Career Profile: Soil Scientist**  
<https://www.eco.ca/career-profiles/soil-scientist/>

### ***Types of Employers***

Soil scientists are employed by:

- Federal, provincial and municipal government departments
- many industries including agriculture, forestry, oil & gas, mining
- environmental consulting and management companies
- universities, colleges and research institutes
- conservation agencies

You may also be self-employed and work as an independent consultant.

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### **Salary**

Soil scientists in entry level positions make an average of \$58,250 per year in Canada.

With several years of experience and education you can make between \$55,500 and \$102,000 per year.

Your salary depends on your area of specialization, experience, employer, and level of education. If you have a Master's degree or PhD you generally earn a higher salary than if you only have a bachelor degree.

Source: ECO Canada Career Profile <https://www.eco.ca/career-profiles/soil-scientist/>

Job Bank Canada provides salaries for other Professional Occupations in Physical Sciences in BC regions:

Location	Wage (\$/hr)		
	Low	Median	High
<b>British Columbia</b>	13.48	43.45	78.29
<a href="#">Lower Mainland - Southwest Region</a>	13.40	42.56	81.63

Source: Job Bank Canada, Wage Reports, <http://www.jobbank.gc.ca/>

### ***Working Hours***

Most soil scientists work 40 hours a week. However, you may occasionally be required to work evenings and weekends when special inspections or studies of sites must be done.

You may have to travel in order to conduct fieldwork, taking soil samples for further study.

## **2. Skills, Education and Experience**

### ***Skills***

- Strong written and oral communication skills
- Project and financial management
- Making presentations
- Problem-solving skills
- An aptitude for science
- Organized
- Detail-oriented
- Able to work well individually and as part of a team

### ***Education and Experience***

- A bachelor's degree in a science, resource or agricultural discipline is required
- A master's degree or PhD in soil science may be required
- Familiarity with Canadian soil classification types is helpful

### ***Qualifications***

***The occupation Professional Agrologist is regulated in British Columbia.***

Although it is not mandatory to become certified in order to work as a soil scientist in BC, you may choose to apply for professional status as a Professional Agrologist.

To use the title *Professional Agrologist (P.AG)* you must be a member of the British Columbia Institute of Agrologists (BCIA)

To become a Professional Agrologist you must have:

- completed a four year Bachelors degree with a required number of courses related to agrology
- completed the Articling Agrologist Program (which involves participating in a number of events and activities and completing milestones)
- been employed in the practice of agrology for a minimum of two years

For more information:

- **British Columbia Institute of Agrologists (BCIA)**  
<http://www.bcia.com/criteria.php>

### ***Internationally Trained Soil Scientists***

If you are an internationally trained soil scientist and want to become a member of the British Columbia Institute of Agrologists you are required to have your credentials evaluated by:

International Credential Evaluation Services (ICES)

Phone: (604) 432-8800

toll free 1-866-434-9197

e-mail: [icesinfo@bcit.ca](mailto:icesinfo@bcit.ca)

<http://www.bcit.ca/ices/>

Ask for the normal or basic assessment, as required by the BC Institute of Agrologists.

## Soil Scientists

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Many soil scientists trained outside of Canada are still having difficulty finding jobs even with the demand in the agrology sector. The main issue is lack of hands-on experience with BC's agriculture and resource industries.

The BC Institute of Agrologists recommends that soil scientists new to Canada first search for work in a lab with a senior agrologist to gain experience with BC's soil and local issues.

You can learn more about qualifying to work as an agrologist from the BCIA:

Robert Moody, M.Sc., RPBio., P.Ag., Executive Director/Registrar

BC Institute of Agrologists

Phone: 250-380-9292

Website: <http://www.bcia.com/>

### 3. Finding Jobs

You'll find job advertisements in local newspapers, trade journals, and electronic sources, as well as through professional association publications.

#### ***Local Newspapers***

You can look at the *Vancouver Sun* & *The Province* at Vancouver Public Library for free. Check the job postings daily and the careers section in the *Vancouver Sun* on Wednesdays and Saturdays and in *The Province* on Sundays.

#### ***Job White Pages***

- Available in print at the Central Library or online at <http://jobfreeway.com/memberdocs/vpl-home.htm>

**NOTE:** You can only access this database from the Central Library or VPL branch libraries. Access is NOT available from home or outside the Library.

#### ***Online Job Postings***

- **BC Public Service Job Opportunities**

[www.gov.bc.ca/myhr/employment](http://www.gov.bc.ca/myhr/employment).

Search for positions with the BC Government under the category 'Scientific & Technical'

- **Indeed.com**

[http://ca.indeed.com/advanced\\_search](http://ca.indeed.com/advanced_search)

Find jobs posted on a multitude of company career sites and job boards

- **Neuvoo.ca**

<http://neuvoo.ca/en>

#### ***Professional Associations' Career Resources***

- **British Columbia Institute of Agrologists**

[http://www.bcia.com/job\\_postings.php](http://www.bcia.com/job_postings.php)

## ***Identifying the Right Position***

When you browse job advertisements, you will find a range of different job titles that may be relevant.

For Soil Scientists, look for these related titles:

- Agrologist
- Agronomist
- Land-use specialist
- Resource manager
- Soil technician

## ***Creating a List of Potential Employers***

You can use directories to produce lists of employers. Contact them directly to find out if they're hiring. (Many large engineering firms have a soil or agriculture department.)

- **Business in Vancouver. Book of Lists.** (Biggest Engineering Firms in BC)  
Available at the Central Library, 338.9711 B97b AND online at  
<http://www.biv.com/lists>
- **Association of Consulting Engineer Companies British Columbia  
Directory of Consulting Engineers**  
<http://www.acec-bc.ca/membership/directory-of-members.aspx>  
Search by 'Agriculture' or browse through alphabetic listings of companies
- **Reference Canada**  
[http://www.vpl.ca/electronic\\_databases/alpha/r](http://www.vpl.ca/electronic_databases/alpha/r)  
Available from the VPL Online Articles, Encyclopedias & More page:  
Select "Reference Canada". Go to "Canadian Businesses", click on "Search",  
click on "Custom Search", click on "Yellow Page Heading"; create a custom  
search using Yellow Page Headings, for example, enter "SOIL" and click

LOOKUP. You can also add City, Province, for example, "Vancouver" or another city, such as Burnaby or Richmond.

**NOTE:** *You can access this database from the Central Library or at our branches. If you are using a computer outside the library, you will need a Vancouver Public Library card to login to this database. After clicking on the database name, you will be asked to enter your library card number and PIN (usually last four digits of your telephone number).*

## 4. Applying for a Job

In Canada, employers usually expect to receive a resume or curriculum vitae and a cover letter. These should identify the position you are applying for and summarize your relevant experience.

Use the library catalogue, <http://vpl.bibliocommons.com/> to find books on writing resumes and cover letters specific to your industry.

To learn about applying for jobs in Canada, use the following guides which are available in print at the Central Library or online:

- **Writing Resumes and Cover Letters**  
Go to <http://pwp.vpl.ca/siic/career-advice/>
  
- **Getting Canadian Work Experience**  
Go to <http://pwp.vpl.ca/siic/career-advice/>
  
- **Networking for Employment**  
Go to <http://pwp.vpl.ca/siic/career-advice/>
  
- **Learn More About Working in BC and Canada**  
Go to <http://pwp.vpl.ca/siic/career-advice/>

## 5. Getting Help from Industry Sources

### *Industry Associations*

Associations for soil scientists and agrologists in BC and Canada provide assistance to individuals. Registration and fees are usually required for membership.

- **Agricultural Institute of Canada (AIC)**  
<http://www.aic.ca/>
- **British Columbia Institute of Agrologists (BCIA)**  
<http://www.bcia.com/>
- **Canadian Society of Agronomy (CSA)**  
<http://www.agronomycanada.com/>
- **Canadian Society of Soil Science (CSSS)**  
<http://www.csss.ca/>
- **Pacific Regional Society of Soil Science (PRSSS)**  
<http://prsss.landfood.ubc.ca/>
- **Career Options in Soil Science. Soil 4 Youth**  
<http://soilweb.landfood.ubc.ca/youth/career-path/careers-in-soil>

### ***Industry Journals***

Search the Vancouver Public Library catalogue for journals related to your profession.

Examples at the Central Library:

- **Canadian Journal of Soil Science**  
<http://pubs.aic.ca/loi/cjss>
- **British Columbia Institute of Agrologists (BCIA)**  
See "Publications" <http://www.bcia.com/publications.php>

***Questions? Please ask the Information Staff in the Central Branch,  
Vancouver Public Library or telephone 604-331-3603.***

*Please note that the information in this guide is also available online through the  
Skilled Immigrant InfoCentre website at <http://skilledimmigrants.vpl.ca/>*