

Growing Careers

Occupations in Agriculture and the Food Processing Industry



The 'Growing Careers - Occupations in Agriculture and the Food Processing Industry' Guide has been funded through a generous contribution from the South Lake Community Development Fund.

Salary Range Information

The salaries reflected in these agricultural job profiles include ranges that account for variables that impact overall employee pay. The variables include the level within the position (i.e. entry level to management and administration roles), privately owned enterprises and large corporately owned organizations. All salaries reported are for a full-time role (unless otherwise noted) within the province of Ontario.

Educational Pathways Information

The colleges and universities suggested for each occupation profile are direct agricultural and food programs that could lead to careers in that occupation. All colleges and universities in Canada offer general business or general science studies diploma or degree programs that could be applied to each. Also, many colleges offer university transfer programs that could be a starting point for education in the fields. This list is not intended to be all inclusive and further research into a specific educational choice is strongly advised to ensure that certification is recognized by the respective governing body of that profession.

At the high school level, Specialist High Skills Major (SHSM) programs are offered in Agriculture, Horticulture and Landscaping for those students who want to gain sector-specific skills and knowledge in the context of engaging, career-related learning environments to help them focus on graduation and on pursuing their post secondary goals. An SHSM program gives students the opportunity to explore, identify and refine career goals and make informed decisions related to post secondary education or training in and next steps towards a career. Students interested in pursuing a SHSM should visit their school guidance department.



southlakecfdc.org



agcareers.com



wpboard.ca

Disclaimer:

The Growing Careers - Occupations in Agricultural and the Food Processing Industry Guide is written as a source of information only. The information contained in this guide should by no means be considered a substitute for the advice of qualified professionals. All efforts have been made to ensure the accuracy of the information as of the date of printing. The Workforce Planning Board of York Region and Bradford West Gwillimbury and the Government of Ontario expressly disclaim responsibility for any adverse effect arising from the use of the information contained herein.

Funded By:

This guide is funded in part by the Government of Ontario. The views expressed in this brochure do not necessarily reflect those of the Government of Ontario or the Workforce Planning Board of York Region and Bradford West Gwillimbury.



**EMPLOYMENT
ONTARIO**

Contents

PAGE	
2.	Guide Introduction
ANIMAL PRODUCTION/HEALTH	
3.	AI Technician
4.	Animal Control Officer
5.	Animal Groomer
6.	Animal Health Sales Representative
7.	Animal Nutritionist
8.	Cattle Herd Manager
9.	Dairy Herd Manager
10.	Feed Mill Manager
11.	Renderer
12.	Shearer
13.	Sheep Herd Manager
14.	Slaughter Worker
15.	Spinner
16.	Swine Production Supervisor (Finishing/Nursery)
17.	Swine Production Supervisor (Sow Farm)
18.	Tanner
19.	Veterinarian
20.	Veterinary Technician
CROP	
21.	Agronomist - Field Sales
22.	Agronomist - Research
23.	Conservation Manager
24.	Fertilizer Specialist
25.	Irrigation Manager
26.	Production Manager
27.	Quality Control Specialist
28.	Sprayer Operator
29.	Soil Chemist
30.	Soil Conservationist
31.	Soil Technician
32.	Watershed Specialist
ENVIRONMENT	
33.	Ecologist
34.	Environmental Biologist
35.	Environmental Botanist
36.	Environmental Hydrologist
37.	Environmental Microbiologist
38.	Environmental Technician
39.	Environmental Waste Specialist
EQUINE	
40.	Equine Facility Manager
41.	Farrier
42.	Riding Instructor
43.	Show Groom
44.	Stable Groom

Easy to Use:

Click on the Occupation in the list and go directly to the page.

Click on 'Career Pathways in Agriculture' at the bottom of each page to return to the menu.

PAGE	
FOOD PROCESSING	
45.	Butcher
46.	Cheese Maker
47.	Chef/Baker
48.	Dietician
49.	Food Engineer
50.	Food Inspector
51.	Food Technologist
52.	Line Operator
53.	Meat Inspector
54.	Milk Processor
55.	Operations Manager
56.	Quality Assurance Technician
FRUIT/VEGETABLE	
57.	Beekeeper
58.	Custom Sprayer
59.	Growing Operator
60.	Harvest Manager
61.	Irrigation Manager
62.	Produce Buyer
63.	Quality Control Specialist
HORTICULTURE	
64.	Arborist
65.	Assistant Grower
66.	Greenhouse Technician
67.	Irrigation Specialist
68.	Nursery Worker
POULTRY	
69.	Hatchery Manager
70.	Operations Manager
71.	Production Manager (Breeder/Layer)
72.	Production Manager (Broiler)
73.	Quality Control Specialist
TURF	
74.	Turf Grass Manager
75.	Turf Grass Technician
WINE	
76.	Marketing Manager
77.	Sales Manager
78.	Tasting Room Manager
79.	Vineyard Manager
80.	Viticulturist
81.	Wine Maker
82.	Associations
84.	Colleges and Universities
85.	Educational Reference Charts

Guide Introduction

The agriculture and food industry is an important part of Canada's economy and prosperity. Nearly one in every seven jobs is related to agriculture, production, processing, distribution and consumerism. Quality food production or food grown locally is important to ensure the health of Canada's residents. Canadian agriculture accounts for \$34.2 billion in annual sales but the reality is 98% of farms are independent family-owned operations.

Here at home in York Region, 970 farms comprising of 167,000 acres of agricultural land report \$225 million in total gross farm receipts every year.¹

New technologies and the changing demands of consumers have significantly changed the agriculture sector. Food safety, plant health, and environmental regulations have evolved. Production methods and equipment are increasingly high-tech. Agriculture businesses need to keep up with the trends - attracting and retaining people with the right skills to compete in today's global economy.²

The Canadian Agricultural Human Resource Council's (CAHRC) Labour Market Information on Recruitment and Retention Report, (June 2009), reveals that in Ontario 11% of all jobs in primary agriculture are currently unfilled. This number represents more than 14,000 people and speaks to the urgent challenges currently faced by one of Canada's most important industries.

For some, it's the chance to run the family business, support local agriculture, protect local farmland and contribute to a healthy local economy. For others, it's the freedom of working outdoors enjoying the sunshine, fresh air and become more aware of their own relationship to the land and the natural processes that make our food and our quality of living possible.

Careers in agriculture and sectors that support agriculture offer many opportunities for significant contributions into the development of the local economy. These careers have a broad range of educational requirements ranging from high school through to PhD qualifications. The average age of a farmer is 52 years.³ Canadian agriculture is facing a growing shortage of skilled workers. Over the next five years, an estimated 50,000 positions will need to be filled. These include supervisory and technical specialists, machinery operators and mechanics as well as general farm workers.⁴

This guide provides a variety of occupational profiles both directly and indirectly related to agriculture that will be required by the industry in the future. These occupations represent different educational backgrounds and experience; however these careers are all necessary to support this sector.

We hope that this guide will increase your awareness of the many career opportunities that exist in the agriculture and food processing sectors. It is important that the tradition of highly quality food, grown and processed locally continues.

REMEMBER, FARMERS FEED CITIES.

¹Victoria Di Poce, Ellis Goarley & Burkhard Mausberg (Nov 2009) Greenbelt Grown. A profile of Agriculture in Ontario's Greenbelt

²Canadian Agricultural Human Resource Council, www.carhc-ccrha.ca

³The Ontario Farm Animal Council (OFAC), 2006 The Real Dirt on Farming

⁴Fact Sheet, Labour Market Information on Recruitment & Retention in Primary Agriculture (2008) Canadian Agricultural Human Resource Council www.carhc-ccrha.ca

Job titles also known as:

Artificial Insemination Technician

What responsibilities will I have?

- Disseminate technical information to veterinarians or related animal health personnel
- Perform daily insemination and sales, heat detection and schedule of the herd
- Maintain records of procedures, farm calls and emergencies
- Analyze, develop, and implement sales goals and plans
- Routine maintenance and sterilization of equipment and machinery
- Semen collection and processing semen orders
- Maintain and grow the market share within a specific sales territory
- Attend training programs and education workshops to ensure customer satisfaction
- On-farm training of personnel
- Develop and implement a sales call process to productively manage accounts within a specific territory

What education and training is required?

A bachelor degree in agriculture, science or business is required. A diploma in animal science with sufficient knowledge and experience is an adequate qualification. Artificial insemination training courses offered by livestock genetic companies are required.

To pursue a career as an AI Technician:

- High school courses: Chemistry, biology, mathematics, english
- Dairy industry knowledge and insemination experience
- Experience in semen collection and processing
- Ability to understand and acquire technician skills
- Good understanding or background in production and or animal agriculture

Personal qualities:

- Strong communication and interpersonal skills, punctual, caring, patient, analytical, strong work ethic
- Comfortable working with all types of livestock in close proximity

Where can I work? What will my hours be? How much money will I make?

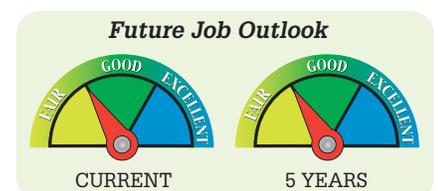
Typical employers: Livestock genetic companies, universities, large farm operations, embryo transfer companies

Type of employment: Full-time or Part-time, willingness to travel to farms on a daily basis

Average annual full-time salary range for Ontario: \$35,000 – \$65,000

Future Job Market

The future job market for AI Technician is stable.



Job titles also known as:

By-law Enforcement Officer, Humane Society Officer

What responsibilities will I have?

- Capture and remove stray, uncontrolled, or abused animals from undesirable conditions
- Use nets, nooses, or tranquilizer darts as necessary
- Educate the public about animal welfare, and animal control laws and regulations
- Euthanize unsafe or severely injured animals
- Check animal licenses
- Issue warnings with animal-related offenses, or contact police to report violations and request arrests when required
- Inspect establishment's housing facilities for compliance with animal rights and laws
- Study animals for injuries or undernourishment
- Arrange for any necessary medical treatment
- Investigate reports of animal attacks or animal cruelty
- Interview witnesses, collect evidence, and write reports after attacks or cruelty are reported
- Liaise with Humane Society for adoption of unclaimed animals
- Sanitize facilities and equipment such as dog pens and animal control trucks
- Supply animals with food, water, and personal care
- Answer public inquiries regarding animal control and regulations

What education and training is required?

A high school diploma may be adequate for entry-level positions, with on-the-job training. Desirable backgrounds include study in criminology, law enforcement, veterinary technology, or animal science/behaviour. A diploma is preferred to work as an Animal Control Officer.

To pursue a career as an Animal Control Officer:

- High school courses: Biology, english
- Computer skills in Microsoft Office
- Vocational or technical training
- Demonstrate social perceptiveness

Personal qualities:

- Strong communication and interpersonal skills, punctual, self-directed, caring, patient
- Ability to work in rough conditions injured animals
- Emotionally stable and physically fit

Where can I work? What will my hours be? How much money will I make?

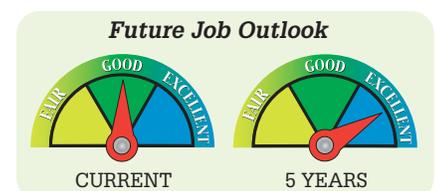
Typical employers: Humane societies, Municipal, Provincial and Federal Governments

Type of employment: Full-time or Part-time and/or shift work hours

Average annual full-time salary range for Ontario: \$24,000 - \$52,000

Future Job Market

The future job market for Animal Control Officer is strong as it is one of the fastest growing professions in the country. Smaller communities are usually limited in positions and advancement opportunities. Mid-sized and larger cities offer the most variety and opportunities for advancement within the Animal Control structure.



Job titles also known as:

Animal Fitter, Small or Large Animal Groomers

What responsibilities will I have?

- Assess and evaluate animal appearance and needs prior to event
- Coordinate leads people
- Schedule appropriate washing, clipping and fitting times prior to showing
- Manage a crew of people and delegate tasks
- Ensure animal bedding cleanliness and that the surrounding area is also tidy
- Prepare and put up animal identification signs in front of each animal's bedding area
- Purchase fitting supplies such as sprays, clippers and dryers prior to event
- Guarantee clipper blades are clean and sharp prior to using on the animals
- Responsible for vaccinating animals with medication if ill during event
- Communicate animal health, schedules or any concerns with owner
- Supervise watering schedule, making sure animals are drinking an appropriate amount
- Clip body hair of animal prior to event
- Assist with animal transportation on and off trailers
- Provide and operate equipment to prepare animals for shows or sales
- Train animals to lead prior to shows or sales
- Allocate appropriate feed and fill amounts for individual animals
- Clip show day hair and style to enhance animal strengths and hide weaknesses
- Communicate regularly with owner regarding progress, concerns and timing

What education and training is required?

No formal education is needed to pursue a career as an animal fitter; experience is the most important asset. Experience in livestock 4-H* programs is an asset. A farm background and livestock experience is required.

To pursue a career as an Animal Groomer:

- High School Diploma
- Experience handling animals
- Good understanding and background in livestock production and/or animal science

Personal qualities:

- Strong communication and interpersonal skills, punctual, caring, analytical, strong work ethic, detail oriented
- Ability to multi task effectively

Where can I work? What will my hours be? How much money will I make?

Typical employers: Animal owners will hire individuals for events such as: trade shows, a genetic company walk of fame, animal show, sale, open house, herd dispersal, herd clip or classification

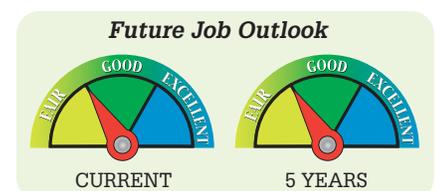
Type of employment: Part-time and/or Seasonal - Full-time hours during peak season (weekend hours and travel are required)

Average annual full-time salary range for Ontario: \$22,000 – \$30,000

Note: Typically Animal Groomers are paid by the day and/or per animal.

Future Job Market

The future job market for Animal Fitters is stable. Typically Animal Groomers will have a second job and or move on to a livestock genetics organization or farm management.



*4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.

Animal Health Sales Representative *Animal Production/Health*

Job titles also known as:

Animal Nutrition Representative, Veterinarian Sales Representative

What responsibilities will I have?

- Disseminate technical information to veterinarians or related animal health personnel
- Analyze, develop, and implement sales goals and plans
- Maintain and grow the market share within a specific sales territory
- Execute marketing meetings with sales team
- Develop territory business planning template
- Participate in brand forecasting function and accuracy
- Attend regional, annual and vendor meetings
- Work with supplier representatives to install programs or products
- Attend training programs and education workshops to ensure customer satisfaction
- Develop and implement a sales call process to productively manage accounts within a specific territory

What education and training is required?

A bachelor degree in agriculture, science or business is required. A diploma in animal science with sufficient knowledge and experience in feed or animal health is an adequate qualification.

To pursue a career as an Animal Health Sales Representative:

- High school courses: Chemistry, biology, mathematics, english
- Practical work experience such as an internship/summer experience is an asset
- Computer skills in Microsoft Office

Personal qualities:

- Strong communication and interpersonal skills, punctual, team oriented, analytical skills, strong work ethic, goal-oriented, patient
- Good understanding or background in production and or animal agriculture

Where can I work? What will my hours be? How much money will I make?

Typical employers: Feed and Animal Nutrition companies

Type of employment: Full-time

Average annual full-time salary range for Ontario: \$38,000 – \$121,000

Future Job Market

The future job market for Animal Health Sales Representatives is expected to grow at a steady pace.



Job titles also known as:

Ruminant Specialist

What responsibilities will I have?

- Analyze client needs and develop nutritional plans for their animal(s)
- Develop and test new feed supplements for farmers
- Assess new nutritional products and feed combinations
- Investigate nutritional disorders
- Write reports and give informational presentations regarding animal nutrition
- Customize ingredient blends and management programs
- Monitor feed formulations to meet standards and quality control regulations
- Evaluate chemical and nutritional value of feeds and feed supplements
- Develop technical materials to support selling processes
- Support animal product line
- Coordinate research trials
- Review and prioritize portfolios
- Initiate and support patent applications for securing new products
- Ensure health, safety and environmental procedures and regulations are put in place and followed
- Attend training when needed and coordinate training for team members
- Monitor laboratory analysis and assist when needed
- Undertake business planning projects which may consist of research, trials and product development

What education and training is required?

A Masters Degree in Animal Nutrition or Animal Science is required.

A Bachelor's degree in a related field of study such as Animal Nutrition, Animal Science, Veterinary Science, Equine Science, Medicine, Biology, Nutrition, Agriculture or a similar program, with significant experience in the industry may be equivalent.

To pursue a career as an Animal Nutritionist:

- High school courses: Chemistry, biology, mathematics, english
- Practical clinical or laboratory work experience is an asset
- Computer skills in Microsoft Office
- A farm or livestock background and 4-H* experience is an asset

Personal qualities:

- Strong communication and interpersonal skills, punctual, self-directed, caring, patient

Where can I work? What will my hours be? How much money will I make?

Typical employers: Universities and or Colleges as well as Private,

Clinical, Provincial or Federal Veterinarian offices, Laboratories, Zoos, Emergency Veterinary Clinics

Type of employment: Full-time

Average annual full-time salary range for Ontario: \$55,000 – \$120,000

Future Job Market

The future job market for Animal Nutritionists is steadily increasing.



*4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.

Job titles also known as:

Feedlot Manager, Herdsman, Feed Yard Supervisor

What responsibilities will I have?

- Supervise production of livestock raised to achieve volume, quality and cost objectives – Buying, calving, feeding and/or watering, doctoring, weaning, transporting, and vaccinating
- Handle livestock as per management and animal welfare practices
- Monitor animal health and feeding requirements – work closely with veterinarians and nutritionist
- Prepare short and long term operational and business plans in conjunction with management
- Prepare budget and report operational and capital expenditure – feed costs, equipment, livestock, and production results
- Document livestock breeding dates
- Ensure security of all assets including land, livestock produce and inventories
- Undertake activities to minimize environmental degradation and monitor environmental effects of the operation
- Repair and maintain equipment and structures - ex. stock water, yards, fence, and buildings
- Additional farm responsibility/seasonal field work such as haying, planting, harvesting, nutrient management and pasture management may be included
- Recruit and ensure the ongoing training of farm staff
- Maintain and/or initiate an environmental farm plan
- Efficient and productive personnel management and assessment of staff
- Manage appropriate safety standards and relations with employees, suppliers and customers

What education and training is required?

A two-year diploma or bachelor's degree in animal science, general agriculture or other related field or equivalent experience may be satisfactory. General business administration course work is beneficial. Onsite training is likely to be provided.

To pursue a career as a Cattle Herd Manager:

- High school courses: Science, animal science, biology, mathematics, business, and computer science
- Involvement in associations or organizations that focus on agriculture, such as 4-H* to gain experience through showing livestock, animal husbandry** activities, judging, and farm maintenance projects
- Practical hands-on work experience as a herds person or trainee on a feedlot in all areas of cattle production will be beneficial
- Specific experience suggested – Animal health skills. Artificial insemination experience. Calving experience, roping ability, and doctoring skills. Welding ability. Production skills with crops (hay, corn, etc). Routine maintenance and repair skills. Ability to operate farm equipment. Supervisory/managerial skills (manager only), budgeting and financial skills (manager only)

Personal qualities:

- Good work ethic, responsible, team player, diagnostic and decision-making capabilities, ability to work in indoor and outdoor conditions, stamina to work with large livestock animals,

Where can I work? What will my hours be? How much money will I make?

Typical employers: Self-employed, family-owned operations, feedlots, meat processors and cattle research facilities

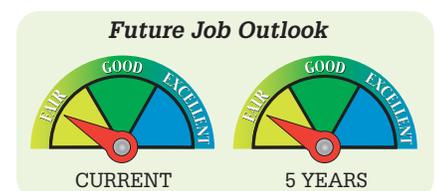
Type of employment: Full-time, can be long days and possibly weekend/holiday work

Average annual full-time salary range for Ontario:
\$22,000 - \$63,000

Future Job Market

With increased training and depending on the size of the operation, higher level management positions may be available.

*4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment. **Husbandry - Care and management of animals



Job titles also known as:

Dairy Manager, Parlor Manager, Herdsperson

What responsibilities will I have?

- Manage dairy farm issues, including cattle inventory, herd health, barn maintenance, bio-security, and safety
- Direct staff and manage cow care - daily herd health, vaccinations, sorting/moving of cattle, fresh cow/calf care, feeding, sick/fresh cow programs, tagging, breeding, and hoof trimming
- Monitor animal health and feeding requirements - work closely with veterinarians and nutritionist
- Depending on the size of the dairy, supervise milking or conduct daily milking
- Examine and treat cows for illness, injury, and calving
- Develop and/or modify farm protocols for optimum herd performance and worker efficiency
- Develop operations budget including feed costs, animal health costs, and equipment
- Order feed, supplies, and medications
- Complete record keeping for overall operation
- Operate and maintain mechanical aspects of the facility and equipment
- Assist in developing criteria and monitor/train/motivate individual staff performance
- Additional seasonal field work may be included consisting of haying, corn silage and haylage production for livestock rations

What education and training is required?

A diploma or bachelor's degree in animal science, general agriculture or other similar field is desired; however an equivalent time period of experience may be satisfactory. General business administration and finance course work is also beneficial. Onsite training is likely to be provided. Entry level positions available with specific duties or within a specific area (examples: milking or calving) with little to no managerial responsibilities.

To pursue a career as a Dairy Herd Manager:

- High school courses: Science, animal science, biology, mathematics, business, and computer science
- Involvement in associations or organizations that focus on agriculture, such as 4-H* to gain experience through animal husbandry** activities, dairy judging, farm maintenance projects
- Practical work experience as a herds person or trainee on a dairy in all areas of dairy production will be beneficial - opportunities for hands-on experience are available
- Computer literate, bilingual (beneficial)
- Budgeting and financial skills (manager role)

Personal qualities:

- Good work ethic, responsible, team player, diagnostic and decision-making capabilities, ability to work in indoor and outdoor conditions, stamina to work with large livestock animals, supervisory/managerial skills (manager role)

Where can I work? What will my hours be? How much money will I make?

Typical employers: Self-employed, family-owned operations, large corporate dairies or dairy research facilities

Type of employment: Full-time or Part-time, can be long days and possibly weekend/holiday work

Average annual full-time salary range for Ontario:

Manager level - \$38,000 - \$96,000; Assistant level - \$22,000 - \$35,000

Future Job Market

With increased training and depending on the size of the operation, higher level management positions may be available. This is a supply managed industry. The Dairy Farmers of Ontario and financial sectors are working to decrease the barriers to entry in this industry sector.

*4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment. **Husbandry - Care and management of animals



Job titles also known as:

Feed Mill Operations Manager

What responsibilities will I have?

- Oversee operation of a feed manufacturing facility
- Order ingredients for the mill
- Coordinate transportation to and from the mill
- Supervise all employees throughout the mill
- Responsible for maintenance and functionality of the overall operation including machinery repairs
- Implement quality control processes and operating procedures
- Prepare budgets and expenditures
- Responsible for hiring and terminating personnel
- Ensure employee training is up to date
- Adhere to federal and provincial mill regulations
- Provide performance data to management for business planning
- Report environmental issues to supervisor
- Establish and maintain inventory control programs to achieve targets
- Take instruction from supervisors and delegate to mill workers

What education and training is required?

A diploma program is required. A Bachelor of Science in Agriculture or a Mechanical Degree would also be adequate education for this position.

To pursue a career as a Feed Mill Manager:

- High school courses: Chemistry, biology, mathematics, english, machine shop
- Practical work experience such as an internship/summer experience is preferred
- Desire to continuously improve daily operations
- Knowledge of bulk feed deliveries
- Experience with following federal regulations

Personal qualities:

- Strong communication and interpersonal skills, punctual, self-directed, detail attentive, ambitious, leader, decision maker, patient, problem solver

Where can I work? What will my hours be? How much money will I make?

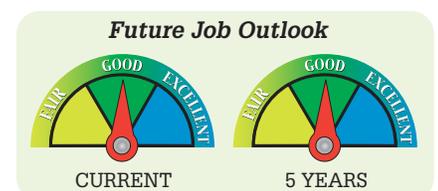
Typical employers: Feed Mill, Food or Feed Processing Company

Type of employment: Full-time

Average annual full-time salary range for Ontario: \$35,000 – \$85,000

Future Job Market

The future job market for Feed Mill Managers is expected to grow at a steady pace.



What responsibilities will I have?

- Determine whether certain raw materials can be used for animal feed
- Apply heat to carcasses using equipment
- Extract moisture and separate fat from carcass
- Examine temperature gauges and rate of flow
- Monitor condition of materials passing through cookers, expellers and grinders
- Adjust valves and rate of flow
- Remove and discard guts, bones and inedible or condemned parts into a chute
- Maintain equipment for proper use
- Observe process control with computer technology
- Enforce and comply with government regulations
- Research new rendering processes

What education and training is required?

A high school diploma may be adequate for this position. Experience working with animals and years of rendering is the biggest asset. A diploma or degree in agriculture is desirable.

To pursue a career as a Renderer:

- High School Diploma
- Computer skills in Microsoft Office

Personal qualities:

- Innovative, determined, adapt well to changes, strong communication, interpersonal and organizational skills, strong work ethic, positive attitude
- Ability to work in rough conditions with blood, muscles, and bones
- Effective decision-maker with critical time constraints
- Works well in both a team and independently

Where can I work? What will my hours be? How much money will I make?

Typical employers: Renderer processing plants, meat processing factories

Type of employment: Full-time, Part-time or Hourly

Average annual full-time salary range for Ontario: \$22,000 – \$45,000

Future Job Market

The future job market for renderers is good. Meat will continue to be processed at a steady rate and environmental efficiency is becoming more and more important to consumers.



Job titles also known as:

Sheep Shearer

What responsibilities will I have?

- Examine animals for illness or injury prior to shearing
- Transport and place animals into shearing stations
- Operate power-driven clippers and or hand shears
- Shear wool from live sheep, clipping close to the hide to remove fleece in one piece
- Responsible for ensuring sanitary measures before, during and after all procedures
- Provide prevention care to maintain animal health
- Advise animal owners of animal care
- Maintain sharp clippers and shears, oil and fix tools as needed
- Tie fleece to keep together

What education and training is required?

A high school diploma may be adequate for this position. Experience working with sheep and years of shearing is the biggest asset. A diploma or degree in agriculture is desirable for this position.

To pursue a career as a Shearer:

- Experience and ability to work with animals and shearing equipment
- Own and able to operate clippers or hand shears
- Must be physically strong to handle a 80 to 100 lb lamb
- A farm or livestock background and/or experience working with sheep
- Completion of Sheep 4-H* Projects is considered an asset

Personal qualities:

- Strong communication and interpersonal skills, punctual, self-directed, caring, motivated, patient, ambitious, driven
- Able to work at a fast pace while performing quality work

Where can I work? What will my hours be? How much money will I make?

Typical employers: Self-employed, sheep farmers, large farm trade shows

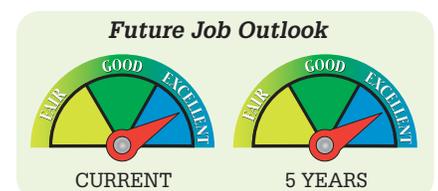
Type of employment: Full-time, Part-time or Hourly

Average annual full-time salary range for Ontario: \$35,000 – \$85,000

Note: Typically Sheep Shearers are paid per animal.

Future Job Market

The future job market sheep shearing is excellent. The number of sheep has decreased over the last three years; however, consumption of lamb across Canada has increased. Declines in size of flock size in Ontario means less work for sheep shearers, however, this is a niche position in the agriculture job market, and there are a limited number of sheep shearers in Ontario. Many sheep shearers will have a second job as it is a seasonal position.



*4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.

Job titles also known as:

Herdsmen, Farmer, Farm Assistant

What responsibilities will I have?

- Supervises the production of livestock to be raised to achieve volume, quality and cost objectives – specifics could include buying, shepherding the flock, lambing, feeding and/or watering, doctoring, shearing, transporting, vaccinating, and trimming feet
- Handle livestock as per management and animal welfare practices
- Look after new lambs, tail docking* and feeding
- Monitor animal health and feeding requirements – work closely with veterinarians and nutritionist
- Prepare short and long term operational plans in conjunction with management
- Prepare budget and report operational and capital expenditure – feed costs, equipment, livestock, production results, etc.
- Document livestock breeding records including receipt of husbandry*** inputs
- Repair, maintain and operate equipment and structures
- Responsible for wool processing
- Ensure security of all assets including land and livestock inventories
- Undertake activities to minimize environmental degradation and monitor environmental effects of the operation
- Additional farm responsibility such as haying, mowing, spraying, harvesting/gardening and instructing

What education and training is required?

A diploma or bachelor's degree in animal science, general agriculture or other like field is desired. However, an equivalent time period of experience may be satisfactory. General business administration course work is also beneficial. Onsite training is likely to be provided.

To pursue a career as a Sheep Herd Manager:

- High school courses: Science, animal science, biology, mathematics, business, and computer science
- Involvement in associations or organizations that focus on agriculture, such as 4-H**, are beneficial to gain experience through showing livestock, animal husbandry*** activities, farm maintenance projects, etc.
- Practical hands-on work experience as a farm hand or trainee on a farm with sheep or goats will be beneficial
- Specific experience suggested – animal health skills, routine maintenance and repair skills, welding ability, ability to operate farm equipment, production skills with crops (hay, corn, etc), valid driver's license and may require a CDL license (spray technician license)

Personal qualities:

- Eager to learn, good work ethic, responsible, diagnostic and decision-making capabilities, team player, ability to work in outdoor environment, stamina to work with large livestock animals

Where can I work? What will my hours be? How much money will I make?

Typical employers: Self-employed and family-owned operations

Type of employment: Full-time or Part-time - can be long days and possibly weekend/holiday work

Average annual full-time salary range for Ontario:

Manager level - \$25,000 - \$98,000; Assistant level - \$22,000 - \$45,000

Future Job Market

With increased training and depending on the size of the operation, higher level management positions may be available.

*Tail docking - to remove the tail.

**4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.

***Husbandry - Care and management of animals



Job titles also known as:

Abattoir Worker

What responsibilities will I have?

- Move and manage animals before they are slaughtered
- Stun and kill animals
- Sever jugular veins and drain carcass blood
- Remove hides and internal organs using meat processing equipment
- Split and trim carcasses
- Remove bones and cut meat into standard cuts for marketing
- Wrap dressed carcasses and meat cuts
- Move carcasses to freezing rooms
- Package meat and load into trucks
- In a management position:
 - Supervise other employees and line workers
 - Oversee facility orders, shipping and time lines
- Perform quality control analysis
- Thorough knowledge of government regulations and meat processing standards
- Understanding and awareness of different meat cuts

What education and training is required?

A high school diploma is adequate for this type of position. Meat Cutting and Processing Diploma or Certificate or several years experience is required.

To pursue a career as a Slaughter Worker:

- Experience working in a slaughter house
- Interested in practical and manual activities

Personal qualities:

- Physically fit and able to work safely, good hand-eye coordination, works well individually, capable of working in a slaughter facility, able to communicate effectively with team members
- Ability to work in a cold environment

Where can I work? What will my hours be? How much money will I make?

Typical employers: Meat processing facilities, kill facility, butcher

Type of employment: Full-time or Part-time - hourly or shift hours

Average annual full-time salary range for Ontario: \$26,000 – \$37,000

Future Job Market

The future job market for Slaughter Workers is stable. There is an increase in demand for niche markets although there is a large overhead costs to enter the market due to government standards and regulations.



What responsibilities will I have?

- Sort fleece
- Remove manure tags or damaged pieces of fleece
- Pre-rinse materials, including fleece, in hot water
- Remove grease by washing fleece with a dishwashing soap
- Card fleece* with a machine drum carder, hand carder or metal toothed comb
- Set up drop spindle or spinning wheel
- Draw out the wool, or other material being spun
- Unwind thread and make a skein**
- Dye material with various colours for marketing
- Ensure customer deadlines are met
- Attend trade shows and events to sell product
- Maintain inventory of supplies and materials needed
- Develop marketing materials to communicate with current and potential customers

What education and training is required?

A high school diploma may be adequate for this position. Experience is the most important factor. Education in clothing design, knitting and sewing is an asset. 4-H*** experience from homemaking clubs is an asset.

To pursue a career in as a Spinner:

- Experience and ability to work with spinning equipment
- Knowledge of sheep and wool is extremely important.

Personal qualities:

- Strong communication and interpersonal skills, self-directed, caring, patient, motivated, ambitious, driven
- Able to work in a fast pace while performing quality work

Where can I work? What will my hours be? How much money will I make?

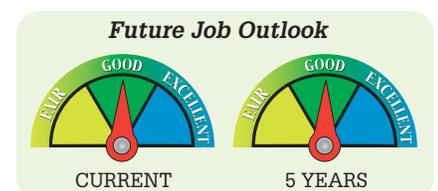
Typical employers: Independent entrepreneurs, sheep farmers, large farm trade shows

Type of employment: Part-time and/or Seasonal - Full-time hours during peak season

Average annual full-time salary range for Ontario: \$22,000 – \$35,000

Future Job Market

The future job market for spinning is good. As the industry declines in size, so do its spinners making spinning a niche position in the agriculture job market. However, many spinners will have a second job as it is a low paying position.



*Card Fleece - Clean and prepare fleece for spinning

**Skein - Loosely coiled bundle of yarn or thread

***4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.

Swine Production Supervisor (Finishing/Nursery*) *Animal Production/Health*

Job titles also known as:

Site Manager, Operations Manager, Finishing Manager, Nursery Manager

What responsibilities will I have?

- Maintain compliance of standard operating procedures - including animal health programs, such as biosecurity, animal well-being, nutrient management plans, vaccination plans and environmental protocols, such as ventilation, water quality, and waste removal
- Check barn temperatures to insure desired room temperature by checking fans, static pressure, pits, ventilation and lighting, as well as monitor humidity levels and regulate as needed
- Perform feeding and watering operations as per daily schedule ensuring feeders are kept clean, dry and free of stale, wet and moldy feed. Check water nipples and flow rates
- Work with outside team members to ensure flow of animals into the facility and timing
- Identify and document sick animals and the reason, treat and record according to the medication chart
- Remove dead stock and ensure proper documentation
- Maintain accurate activity reports, feed and supply orders, business plans, maintenance reports and production results
- Develop and manage a production budget
- Ability to use documentation, reports and production history to make informed decisions to alter production quotas, reduce business costs, and add revenue to the bottom line as necessary
- Direct responsibility for all on-site operations staff, including supervision, safety, training, scheduling, and many additional human resource functions, such as performance reviews and conflict mediation
- Potentially assist with field work including planning, harvesting and nutrient management
- Responsible to shower before entering as well as before exiting each barn as a precautionary biosecurity measure

What education and training is required?

A bachelor's degree or diploma in animal science, general agriculture or other like field is desired, or an equivalent time period of experience may be satisfactory. Onsite training is likely to be provided.

Entry level positions, such as Nursery/Finishing Worker or Nursery/Finishing Tech are available with specific duties with little to no managerial responsibilities.

To pursue a career as a Swine Production Supervisor (Finishing/Nursery*) :

- High school courses: Science, animal science, biology, mathematics and computer science
- Involvement in associations or organizations that focus on agriculture, such as 4-H** to gain experience through showing livestock, judging, animal husbandry*** experience, farm maintenance projects, etc.
- Practical work experience as a herds person or trainee on a swine farm in all areas of swine production to become employed at this higher level - opportunities for experience are within the industry
- Excellent computer skills, financial management skills, bilingual (preferred)
- Ability to work in a barn environment

Personal qualities:

- Strong supervisory skills (manager role only), effective communication skills, good work ethic, responsible, problem solving skills, stamina to work with livestock animals

Where can I work? What will my hours be? How much money will I make?

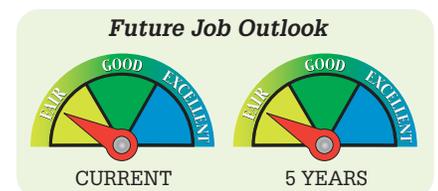
Typical employers: Self-employed, family-owned operations, meat processors and swine research facilities

Type of employment: Full-time, on-site or multiple locations can be long days and weekend/holiday work

Average annual full-time salary range for Ontario:
\$25,000 - \$45,000

Future Job Market

With increased training and depending on the size of the organization, higher level management positions may be available.



*Finishing/Nursery - Where baby pigs grow to adults for slaughter.

4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment. *Husbandry - Care and management of animals

Job titles also known as:

Site Manager, Operations Manager, Sow Farm Manager, Sow/Boar Farm Manager

What responsibilities will I have?

- Oversee and manage farrow (birthing) to weaning, including herd composition, artificial insemination techniques, supervision of herd health, administering proper treatments, monitoring ventilation, environmental, and water usage systems
- Development and compliance of standard operating procedures including hand mating and artificial insemination, heat detection and pregnancy checks, farrowing processes, processing/castration of baby pigs, cross-fostering** pigs and weaning pigs
- Work with outside team members to ensure timing and flow of animals into the facility
- Responsible for proper loading and unloading of pigs as well as removal of dead stock
- Identify and report reasons of sick animals. Treat according to the medication chart
- Maintenance of accurate activity reports, feed and supply orders, business plans and budgets, maintenance reports and production results
- Ability to use documentation, reports and production history to make informed decisions to alter production quotas, reduce business costs, and add revenue to the bottom line
- Direct responsibility for all on-site operations staff, including supervision, safety, training, scheduling, and many additional human resource functions, such as performance reviews and conflict mediation
- Responsible to shower before entering barn and exiting the barn as a biosecurity measure

What education and training is required?

A bachelor's degree or diploma in animal science, general agriculture or other like field is desired, or an equivalent time period of experience may be satisfactory. Onsite training is likely to be provided. Entry level positions, such as Nursery/Finishing Worker or Nursery/Finishing Tech are available with specific duties with little to no managerial responsibilities.

To pursue a career as a Swine Production Supervisor (Sow Farm*):

- High school courses: Science, animal science, biology, mathematics and computer science
- Involvement in associations or organizations that focus on agriculture, such as 4-H*** to gain experience through showing livestock, judging, farm maintenance projects, animal husbandry**** activities, etc.
- Practical work experience as a herds person or trainee on a swine farm in all areas of swine production will be beneficial - opportunities for experience are prevalent within the industry
- Bilingualism an asset. Excellent computer skills, financial management skills

Personal qualities:

- Strong supervisory skills (manager only), effective communication skills, hard work ethic, responsible, problem solving skills

Where can I work? What will my hours be? How much money will I make?

Typical employers: Self-employed, family-owned operations, meat processors and swine research facilities

Type of employment: Full-time, one or multiple sites, can be long days and possibly weekend/holiday work

Average annual full-time salary range for Ontario:

\$36,000 - \$55,000

Future Job Market

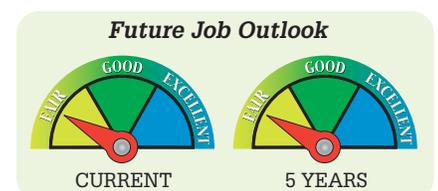
With increased training and depending on the size of the organization, higher level management positions may be available.

*Sow Farm - Where pigs give birth

**Cross Fostering - Moving piglets from one litter to another

***4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.

****Husbandry - Care and management of animals



What responsibilities will I have?

- Operate unhairing knife to remove animal hair from hide
- Remove flesh, fat and or tissue from animal skin
- Soak hides in water
- Stretch hide to remove excess moisture
- Split hide in half with equipment
- Smooth the skin with a sleeker
- Formulate tanning solution and saturate hide in it
- Apply colour through spray on techniques
- Emboss to add texture
- Shine animal skin using a buffer
- Determine amount of supplies and quantities of hides needed according to demand
- Maintain relationship with companies that supply animal hides
- Perform quality control analysis
- Thorough knowledge of government regulations and meat processing standards

What education and training is required?

Most employers prefer to hire a high school graduates. All necessary training is provided on the job however, preference will be given to individuals who are mechanically inclined.

To pursue a career as a Tanner:

- High School Diploma
- Experience and ability to work with large equipment to tan leather

Personal qualities:

- Physically fit and able to work safely with good hand-eye coordination. Works well individually, able to communicate effectively with team members
- Ability to work in an unpleasant smelling environment
- Able to work in a fast pace while performing quality work
- Ability to work in rough conditions with blood, muscles, and bones

Where can I work? What will my hours be?

How much money will I make?

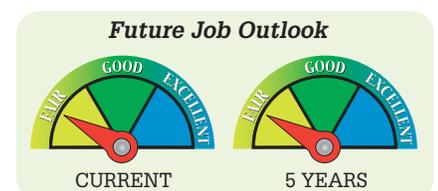
Typical employers: Independent entrepreneurs, hunters, leather companies

Type of employment: Part-time and/or Seasonal - Full-time hours during peak season

Average annual full-time salary range for Ontario: \$22,000 – \$35,000

Future Job Market

The future job market for a Tanner is minimal as it is a niche market.



Job titles also known as:

Doctor of Veterinary Medicine, Large or Small Animal Veterinarian

What responsibilities will I have?

- Provide health care for pets, livestock, zoo, sporting and or laboratory animals
- Examine animals to determine nature of illness or injury
- Diagnose and treat injuries for pets and/or farm animals
- Test daily herds, horses and sheep for diseases
- Perform surgical or medical procedures such as dressing wounds, setting fractures and performing operations
- Research new diseases, medicines and procedures
- Teach veterinarian students about veterinarian medicine and animal related illnesses
- Vaccinate, prevent and control contagious animal diseases
- Advise animal owners of animal care and feeding
- Responsible for ensuring sanitary measures before, during and after all procedures
- Operate medical equipment
- Euthanize animals when necessary
- Provide preventative care to maintain animal health
- Document for each specific animal treated
- Oversee staff and office/business affairs

What education and training is required?

A Pre-Veterinary degree in biology, chemistry, animal nutrition, zoology or a related animal science degree program is required to apply to Veterinarian College. A four year College of Veterinarian Medicine certificate is then required to be a certified Veterinarian.

To pursue a career as a Veterinarian:

- High school courses: Chemistry, biology, mathematics, english
- Practical work experience such as an internship/summer experience is preferred – assistant level opportunities are also available to gain exposure and experience with various types of animals
- Computer skills in Microsoft Office

Personal qualities:

- Strong communication and interpersonal skills, punctual, self-directed, caring, patient
- Ability to work in rough conditions with blood, muscles, bones and injured animals

Where can I work? What will my hours be? How much money will I make?

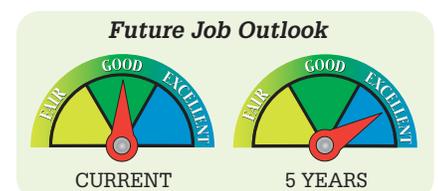
Typical employers: Universities, colleges as well as private, clinical, Provincial or Federal veterinarian offices, humane societies, zoos

Type of employment: Full-time with long hours for home visits and emergency situations

Average annual full-time salary range for Ontario: \$62,000 – \$114,000

Future Job Market

The future job market for veterinarians is excellent. In Ontario, there is a shortage of veterinarians. The opportunities are expected to increase and employment is expected to grow faster than average, although the education requirements are very competitive.



What responsibilities will I have?

- Provide health care for pets, livestock, zoo, sporting and or laboratory animals
- Examine animals to determine nature of illness or injury
- Perform laboratory tests such as urinalysis and blood counts
- Expose and develop x rays and radiographs
- Treat injuries for pets and or farm animals
- Assist veterinarian in treatments and surgeries
- Teach veterinarian students about veterinarian medicine and animal related illnesses
- Advise animal owners of animal care and feeding
- Responsible for ensuring sanitary measures before, during and after all procedures
- Operate medical equipment
- Euthanize animals when necessary
- Provide prevention care to maintain animal health
- Vaccinate against diseases
- Communicate with the veterinarian about the progress of animal treatments and recovery
- Document for each specific animal treated

What education and training is required?

A diploma or a bachelor's degree or diploma is required to work as a Veterinary Technician.

To pursue a career as a Veterinary Technician:

- High school courses: Chemistry, biology, mathematics, english
- Practical clinical or laboratory work experience is an asset
- Computer skills in Microsoft Office

Personal qualities:

- Strong communication and interpersonal skills, punctual, self-directed, patient, caring
- Ability to work in rough conditions with blood, muscles, bones and injured animals

Where can I work? What will my hours be? How much money will I make?

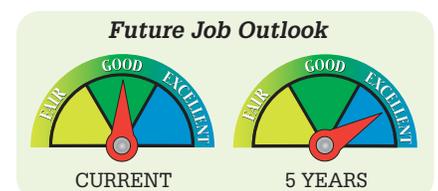
Typical employers: Universities, colleges, private, clinical, Provincial or Federal veterinarian offices, laboratories, zoos, emergency veterinary clinics, humane societies

Type of employment: Full-time or Part-time - hourly with long hours and weekends to care for animals

Average annual full-time salary range for Ontario: \$38,000 – \$90,000

Future Job Market

The future job market for veterinary technicians is excellent. The opportunities are expected to increase and employment is expected to grow faster than average.



Job titles also known as:

Agronomist, Agronomist - Field, Agronomy Manager, Sales Agronomist

What responsibilities will I have?

- Provide seed and fertilizer advice in relation to research and production of crops directly to the farmer
- Provide advice regarding crop husbandry* and crop rotation
- Responsible for making agronomic related decisions regarding production activities
- Develop and implement long term agronomic plans and practices to support organization/farm plans and budgets to maintain maximum production
- Develop and implement regional agronomic marketing plans to support organization plans and budget
- Responsible for marketing specific products and agronomic services to clients such as fertilizer, chemicals and/or seed
- Develop and maintain close customer relations with key clients by providing professional agronomic service and advice
- Arrange and coordinate various technical and marketing activities, these may include field days, farmer meetings, demonstration trials and trial sites
- Maintain industry awareness regarding technical developments via networking, personal development and training
- Organize or act as the liaison between the company and farmers to organize trial programs – assist with analyzing and reporting results

What education and training is required?

A bachelor's of science degree in plant agriculture is recommended. Sales experience is a definite asset.

To pursue a career as an Agronomist - Field Sales:

- High school courses: Science, biology, chemistry, physics, business and computer science
- Involvement in associations or organizations that focus on agriculture, such as 4-H**, are also beneficial
- Practical work experience such as an internship/summer experience or participating in sales or agronomy research
- Advanced computer skills (training in specific programs), chemical knowledge, sales skills

Personal qualities:

- Diagnostic skills, detail-oriented, analytical, ability to effectively convey scientific information in an easy to understand format and provide compelling recommendations, self-motivated, excellent customer service skills, self-starter

Where can I work? What will my hours be? How much money will I make?

Typical employers: Seed companies, crop protection companies, and cooperatives

Type of employment: Full-time, possible traveling with limited overnight stays

Average annual full-time salary range for Ontario: \$50,000 - \$89,000

Future Job Market

With increased training and proven success, advancement opportunities are available.



*Crop Husbandry - Care and management of crops

**4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.

Job titles also known as:

Agronomist, Agronomy Manager, Product Development Agronomist, Tech Agronomist

What responsibilities will I have?

- Provide specialized seed and fertilizer advice to farmers in relation to research and production of crops
- Responsible for decisions regarding crop husbandry** and crop rotation
- Responsible for making agronomic related decisions regarding research and trial activities
- Develop and implement long term agronomic plans and practices to support organization plans and budgets
- Potentially contribute to sales efforts of fertilizer, chemicals and/or seed
- Coordinate production activities in conjunction with predetermined schedules
- Organize or takes part in replicated trial programs - analyze and report on results
- Crop scout***, soil sample, identify weeds and insects, identify and make crop nutrient and crop protection recommendations
- Maintain industry awareness regarding technical developments via networking, personal development and training
- Ensure the latest technology is provided to the team so that it can be utilized in the production of crops
- Could involve laboratory/greenhouse analysis/testing

What education and training is required?

A bachelor's degree of science in plant science or related field is recommended.

Advanced education may be necessary if pursuing an agronomist's role on the research side.

To pursue a career as an Agronomist - Research:

- High school courses: Science, biology, chemistry, physics, mathematics, business and computer science
- Involvement in associations or organizations that focus on agriculture, such as 4-H*, are also beneficial; as well as participation in agronomy club and competitions at university
- Practical work experience such as an internship/summer experience or participating in on-campus research is imperative
- Advanced computer skills (training in specific programs), chemical knowledge

Personal qualities:

- Diagnostic skills, detail-oriented, analytical, ability to effectively convey scientific information in an easy to understand format and provide compelling recommendations, ability to work independently and within a team, comfortable with a lab/research atmosphere as well as in the field

Where can I work? What will my hours be? How much money will I make?

Typical employers: Seed companies, crop protection companies, and cooperatives

Type of employment: Full-time, possible traveling with limited overnight stays

Average annual full-time salary range for Ontario: \$40,000 - \$75,000

Future Job Market

With increased training and proven success, advancement opportunities are available for research agronomists



*4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.

**Crop Husbandry - Care and management of crops

***Crop Scout - Responsible for monitoring and analyzing the development of crops

Job titles also known as:

Land Resource Manager, Land Manager, Wildlife Biologist, Ranger

What responsibilities will I have?

- Research or study conservation management practices to provide sustained production of forage*, livestock, and wildlife
- Develop technical standards and specifications used to manage, protect and improve the natural resources of conservation
- Maintain soil stability and vegetation for non-grazing uses, such as wildlife habitats and outdoor recreation
- Manage forage* resources through fire, herbicide use, or re-vegetation to maintain a sustainable yield from the land
- Plan and direct construction and maintenance of conservation improvements such as water shed research and soil-erosion control structures
- Study forage* plants and their growth requirements to determine varieties best suited to particular area
- Utilization of equipment for monitoring conservation structure and navigation
- Develop new and improved instruments and techniques for activities such as reseeding
- Measure and assess vegetation resources for biological assessment companies, environmental impact statements, and conservation monitoring programs
- Offer advice regarding water management, forage production methods and control of brush

What education and training is required?

A bachelor's degree in natural resources, crop science, soil science, biology or a related field, such as horticulture, plant physiology or environmental science is required. Positions that are research focused require a master's or doctorate degree.

To pursue a career as a Conservation Manager:

- High school courses: Science, earth science, chemistry, biology, botany, mathematics and physics
- Knowledge of the chemical composition, structure, and properties of the earth and of the chemical processes and transformations they undergo
- Computer skills in Microsoft Office

Personal qualities:

- Practical, works well in a team and as an individual, analytical, strong communication, organizational and writing skills, strong planning and organizing skills, problem solver

Where can I work? What will my hours be? How much money will I make?

Typical employers: Research firms, governmental organizations, environmental organizations or conservation organizations, and colleges or universities

Type of employment: Full-time, possible traveling with limited overnight stays to work/research sites.

Average annual full-time salary range for Ontario: \$52,000 - \$73,000

Future Job Market

With increased interest in preserving natural habits and maintaining them for public use and research, the need to conserve those environments will continue to grow and create job opportunities for public conservation managers.



*Forage - Natural vegetation that animals eat or graze

Job titles also known as:

Regional Agronomist, Fertilizer Sales Representative

What responsibilities will I have?

- Knowledge of soil nutrient needs and plant growth habits
- Provide agronomic advice to increase production yield or improve quality
- Responsible for making agronomic related decisions regarding production activities
- Arrange and co-ordinate production activities in cooperation with management
- Keep informed regarding technical developments via networking, personal development and training
- Utilize new technology, such as global positioning systems
- Ability to read and interpret maps and to navigate through various terrains
- Manage customer service relations
- Organize and coordinate application timetable with customers

What education and training is required?

A diploma or bachelor's degree in Agricultural Science, crop science, soil science or agronomy and/or 3+ yrs of farming experience.

To pursue a career as a Fertilizer Specialist:

- High school courses: Science, biology, chemistry, earth science, geology, mathematics and computer science.
- Involvement in associations or organizations that focus on agriculture, such as 4-H*, are beneficial
- Practical work experience such as an internship/summer experience
- Desire to work outside with growing plants/animals

Personal qualities:

- Love of outdoors, communication skills, patience and self-discipline to work independently, and the ability to traverse difficult terrain

Where can I work? What will my hours be? How much money will I make?

Typical employers: Independent retailer, cooperative, fertilizer company

Type of employment: Full-time; seasonal hours including nights/weekends and holidays, long hours depending on the weather, some traveling with overnight stays

Average annual full-time salary range for Ontario: \$42,000 - \$80,000

Future Job Market

Individuals must be committed to constant training and knowledge of new products. As we continue to experience growing populations the need for specialization in fertilizer use will be needed.



*4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.

Job titles also known as:

Irrigation Specialist

What responsibilities will I have?

- Manage the production of irrigated crops to achieve volume, quality and cost objectives
- Assist with preparation of annual forecasts, budget and other business plans - reporting regularly on actual performance
- Assimilate and communicate needs to owners, customers and co-workers – must understand the principles of water use assessments
- Maintain production and other irrigation records including the estimated operating costs, ordering of irrigation inputs, marketing of produce and monitoring of animal health and feeding requirements
- Control all cost of production in line with budget expectation
- Maintain irrigation equipment
- Recruit, supervise and ensures the ongoing training of farm staff
- Ensure safe working conditions and compliance with industrial conditions by planning activities to minimize environmental degradation
- Monitor environmental effects of farming activities and repairs existing damage

What education and training is required?

Bachelor's of science degree in agriculture, crop science or agriculture engineering would be beneficial

To pursue a career as an Irrigation Manager:

- High school courses: Science, biology, chemistry, physics, mathematics, business and computer science
- A farm background or practical work experience such as a part-time job or internship/ summer experience is imperative
- Experience with global positioning systems and knowledge of fertilizer a plus

Personal qualities:

- Leadership skills, record keeping and attention to detail aptitude, technically and mechanically inclined, customer service attitude, good verbal communication skills, and the ability to work in dependently as well as with others

Where can I work? What will my hours be? How much money will I make?

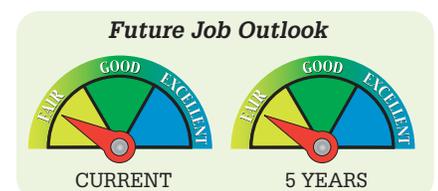
Typical employers: Cooperatives, seed companies, large/small farms, self-employed

Type of employment: Full-time; long hours, weekend and holiday work may be required through busy seasons (typically spring, summer, fall) – other times of the year may provide a slower pace

Average annual full-time salary range for Ontario: \$34,000 - \$63,000

Future Job Market

Additional responsibilities such as staff management may be available with added experience



Job titles also known as:

Production Specialist, Farmer, Crop Production Manager

What responsibilities will I have?

- Handles land management, all aspects of field preparation, planting, chemical application, irrigation, and harvest
- Supervise the production of crops to be raised to achieve volume, quality and cost objectives
- Oversee farm budgeting development and execution while looking for areas of improvement
- Manage storage facilities and transportation of finished goods
- Ability to run and operate all farm equipment (eg: planter and combine)
- Develops water budgets and strategies, cropping budgets, and capital expenditure costs, while looking for areas of cost efficiency
- Responsible for the inventory of seed, chemical and fertilizers
- Maintain shop, equipment and all buildings
- Utilize new technology, such as global positioning systems
- Ensure farm records, maintenance schedules, estimated operating costs, ordering of farm inputs and marketing of products are managed
- Help manage relationships with neighboring community members and regulatory agencies
- Recruit and provide personnel direction and training while looking for efficiencies in respect to labour
- Ensure safe working conditions, compliance with industrial conditions
- Carry out environmentally friendly farming activities
- May have livestock to oversee in this role also, depending on the size and type of operation

What education and training is required?

A diploma or bachelor's degree in an agriculture field is recommended, work experience on a farm is very valuable.

To pursue a career as a Production Manager:

- High school courses: Science, biology, chemistry, earth science, mathematics, business and computer science
- Participation in clubs and organizations with an agriculture focus, such as 4-H* are helpful
- Practical work experience is key to this role, working as a farm assistant and learning the business first hand often is what is needed to pursue a career in this field
- Agronomic background, chemical knowledge, irrigation knowledge, general repair skills
- Computer literate, record keeping, knowledge of farm electronics (such as Global Positioning System)

Personal qualities:

- People skills, leadership, good judgment, decision-making skills, ability to work under pressure, ability to work independently, attention to detail aptitude, willingness to work in unpredictable outdoor conditions and often long hours

Where can I work? What will my hours be? How much money will I make?

Typical employers: Self-employed, large farms, contract growers

Type of employment: Full-time; seasonal hours including nights/weekends and holidays

Average annual full-time salary range for Ontario:

\$38,000 - \$88,000

Future Job Market

Improve professional development in order to gain additional experience and grow the size of the operation.



*4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.

Job titles also known as:

Plant Breeder, Seed Officer, Plant Superintendent, Field Technician, Breeding Technician

What responsibilities will I have?

- Develop and manage a breeding program/ plant/seed breeding schedule and associated activities required to achieve program objectives
- Develop and maintain links between the company and technology support providers to achieve agreed program objectives
- Maintain and forecast a budget for breeding activities
- Technical interaction with marketers and end-users of the company's products
- Technical interaction with relevant authorities and institutions
- Develop a plant breeding team succession plan
- Supervise plant breeding team
- Develop and maintain key industry links
- Ability to undertake the manual operations required for the support of the production of seed and/or crops
- Utilize new technologies such as a Global Positioning System

What education and training is required?

A bachelor's degree in crop science, plant genetics, or agronomy. In many cases a PhD or Masters of Science in plant science is required.

To pursue a career as a Quality Control Specialist:

- High school courses: Science, biology, chemistry, physics, mathematics, business and computer science
- Practical and applied research is needed in this field of work – participate on campus in labs and research trials when possible

Personal qualities:

- Analytical, self-motivated, ability to work independently, good verbal communication skills, ability to relay scientific thoughts in a user-friendly format, attention to detail aptitude

Where can I work? What will my hours be? How much money will I make?

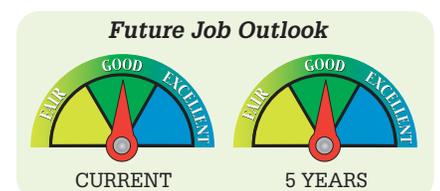
Typical employers: Seed and biotechnology companies, government or universities, cooperatives

Type of employment: Full-time; may require additional hours during research trials

Average annual full-time salary range for Ontario: \$37,000 - \$60,000

Future Job Market

Further education and experience will allow for a career advancement.



Job titles also known as:

Custom Sprayer, Production Farm Applicator, Custom Applicator

What responsibilities will I have?

- Operate and maintain all equipment and vehicles (sprayers, spreaders, trucks, etc.)
- Mixing, loading and application of pesticides/fertilizers
- Apply pesticides and fertilizers at applicable rates to the appropriate fields
- Handle and deliver bulk and packaged chemicals
- Perform daily vehicle inspections
- Clean and maintain equipment
- Maintain application/spray records
- Manage customer service relations
- Organize and coordinate application timetable with customers
- Knowledgeable with seed, chemical and fertilizer to make informed decisions
- Recertify spraying technician license and safety training every two years

What education and training is required?

Post secondary education is not required, but a diploma in agriculture can enhance the chance to obtain a job.

To pursue a career as a Sprayer Operator:

- High school courses: Science, biology, chemistry, physics, mathematics, business and computer science
- A farm background or practical work experience such as a part-time job or internship/summer experience is imperative
- An Ontario Pesticide Technician course and exam for applicators license is required
- Experience or knowledge surrounding global positioning systems
- A valid driving licence

Personal qualities:

- Attention to detail/accuracy, technically and mechanically inclined, customer service attitude, good verbal communication skills, and the ability to work independently as well as with others

Where can I work? What will my hours be? How much money will I make?

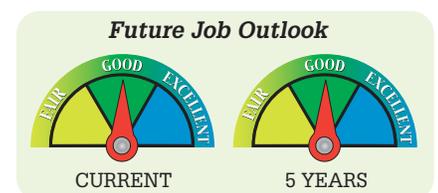
Typical employers: Cooperatives, seed companies, large farms, custom farm operator, self-employed

Type of employment: Full-time and/or Seasonal; long hours, weekend and holiday work may be required through busy seasons

Average annual full-time salary range for Ontario: \$24,000 - \$42,000

Future Job Market

Additional responsibilities such as staff management or increased territory responsibility may be available with added experience



Job titles also known as:

Environmental Chemist, Chemist, Soil Scientist, Soil Researcher

What responsibilities will I have?

- Research or study soil characteristics, map soil types, and investigate responses of soils to known management practices to determine use capabilities of soils and effects of alternative practices on soil productivity
- Provide advice on rural or urban land use
- Perform chemical analysis on micro-organism content of soil to determine microbial reactions and chemical mineralogical relationship to plant growth
- Investigate responses of specific soil types to soil management practices, such as fertilization, crop rotation and industrial waste control
- Conduct experiments on farms or experimental stations to determine best soil types for different plants
- Initiate and implement research and development programs for soil research
- Prepare documented proposals and successfully establish research trials
- Regularly communicate with relevant industry sectors and initiate targeted research projects
- Meet the company requirements for trial planning and operation of research projects
- Manage trial experiments and collection of data
- Budget for research work and provide management reporting in regard to trial/research progress

What education and training is required?

A bachelor's degree in chemistry, crop science, soil science, biology or a related field, such as horticulture, plant physiology or environmental science is required to become a soil chemist. Positions that are research focused require a master's or doctorate degree.

To pursue a career as a Soil Chemist:

- High school courses: Science, earth science, chemistry, biology, mathematics and physics
- Knowledge of the chemical composition, structure, and properties of substances, the chemical processes and transformations
- Computer skills in Microsoft Office

Personal qualities:

- Practical, works well in a team and as an individual, analytical, strong communication, writing skills, strong planning and organizing skills, problem solver

Where can I work? What will my hours be? How much money will I make?

Typical employers: Research firms, governmental organizations, environmental organizations or conservation organizations, and colleges or universities

Type of employment: Full-time; possible travel with limited overnight stays

Average annual full-time salary range for Ontario: \$40,000 – \$128,000

Future Job Market

With increased training and proven success, advancement opportunities are available for a soil chemist.



Job titles also known as:

Land Nutrient Management Specialist, Agronomist, Soil Environmentalist

What responsibilities will I have?

- Advisory or consultant role for crop management
- Responsible for recommendations and decisions regarding crop rotation for the purpose of conserving farmland/soils
- Ability to interpret soil reports and classify soil types
- Knowledge and utilization of Global Positioning System equipment
- Plan and develop coordinated practices for soil erosion control, soil and water conservation, and sound land use
- Develop, conduct and/or participate in surveys, studies and investigations of various land uses, gathering information for use in developing corrective action plans
- Plan soil management and conservation practices, such as crop rotation, reforestation, permanent vegetation, contour plowing, or terracing, to maintain soil and conserve water
- Provide information, knowledge, expertise, and training to government agencies at all levels to solve water and soil management problems and to assure coordination of resource protection activities
- Provide clients access to programs and training to assist in completion of government groundwater protection plans
- Respond to concerns on wetland jurisdiction, providing information and clarification
- Followup with land users to view implemented land use practices and plans
- Survey property to mark locations and measurements, using surveying instruments
- In a management position supervise other soil technicians, coordinate team meetings and delegate specific tasks to team members

What education and training is required?

A bachelor's degree in a scientific field such crop science, natural resources or biology, agronomy, soil science or environmental science is preferred and/or a doctorate degree in a related field. Advance degrees along with experience are needed for more administrative positions in the field.

To pursue a career as a Soil Conservationist:

- High school courses: Science, earth science, chemistry, biology, mathematics and physics
- A strong understanding of plant organisms, their tissues, cells, functions and interactions with each other and the environment
- Knowledge of practical application engineering including applying principles, techniques, procedures, and equipment to the design and production of soil conserving environments
- Computer skills in Microsoft Office

Personal qualities:

- Practical, works well in a team, analytical, strong communication, organizational and writing skills, strong planning and organizing skills, problem solver

Where can I work? What will my hours be? How much money will I make?

Typical employers: Companies, research firms, governmental organizations, environmental organizations or conservation organizations

Type of employment: Full-time; possible travel with limited overnight stays

Average annual full-time salary range for Ontario: \$38,000 – \$93,000

Future Job Market

With increased land use for farming and development soil conservationists are needed to ensure our stable environment. Soil conservationists are needed to establish long-range objectives and specifying the strategies and actions to achieve a sustainable environment.



Job titles also known as:

Soil Conversation Technician, Agronomy Technician, Crop Technician, Soil Inspector

What responsibilities will I have?

- Conduct soil samples for analysis
- Ability to interpret soil reports and classify soil types
- Manage and maintain field lab equipment independently
- Order supplies needed for daily field laboratory processes and activities
- Sterilize appropriate laboratory equipment
- Prepare graphs, charts and reports from test results
- Use Global Positioning System equipment to take soil samples and track sample locations
- Knowledge of chemicals (fertilizers) and their application
- Perform quality control analysis including tests and inspections of products and processes
- In a management position, supervise other soil technicians, coordinate team meetings and delegate specific tasks to team members

What education and training is required?

Two years postsecondary training and or a diploma in applied science or a science – related technology. Bachelors of Science degrees in agronomy or soil science are recommended, although not required.

To pursue a career as a Soil Technician:

- High school courses: Science, earth science, chemistry, biology and mathematics
- A strong understanding of plant production including techniques, growing, planting, harvesting, consuming and handling products
- Computer skills in Microsoft Office

Personal qualities:

- Practical, works well in a team, analytical, strong communication, organizational and writing skills, strong planning and organizing skills problem solver

Where can I work? What will my hours be? How much money will I make?

Typical employers: Research firms, governmental organizations, environmental organizations or conservation organizations

Type of employment: Full-time; possible travel with limited overnight stays to research sites when outside the laboratory. Some long hours are required for collecting samples

Average annual full-time salary range for Ontario: \$30,000 – \$60,000

Future Job Market

With a growing need to feed a growing population the importance of utilizing our soil for growing to its fullest potential while still protecting it as a resource is great. The job prospects for this field are expected to remain good-to-excellent over the next five years.



Job titles also known as:

Environmentalism, Water Conservationist, Water Technician

What responsibilities will I have?

- Restore and protect groundwater and surface water resources
- Conduct educational programs and training
- Provide technical assistance for individuals who are developing watersheds
- Organize protection and restoration programs
- Utilize new technology, such as global positioning systems
- Ability to read and interpret maps and to navigate through heavily wooded areas
- Knowledge of a variety of natural resource conservation issues, including water resource regulations and best management practices
- Knowledge of the water cycle and its impacts on soil erosion
- Assist in the development and use of resource inventories, land use information and available water quality assessments to identify existing and potential source pollution and non-easily identifiable source pollution
- Facilitate the transfer of technical information among government agencies, watershed groups and land managers.
- Advise these clients on ways they can preserve their water sources

What education and training is required?

A bachelor's degree in biology or a related field, such as earth science, geology, chemistry or environmental science/engineering is required.

To pursue a career as a Watershed Specialist:

- High school courses: Science, biology, chemistry, earth science, geology, mathematics and physics, engineering and computer science are also recommended.
- Involvement in associations or organizations that focus on agriculture, such as 4-H*, are beneficial
- Practical work experience such as an internship/summer experience which can often be obtained through local government
- Desire to work in the environment and water in both their natural and simulated environments

Personal qualities:

- Love of outdoors, communication skills, patience and self-discipline to work independently and the ability to traverse difficult terrain
- Desire to preserve the environment

Where can I work? What will my hours be? How much money will I make?

Typical employers: Research firms, conservation organizations, schools/universities and environmental organizations and individuals

Type of employment: Full-time, long hours depending on the weather when outside work is needed, which is frequent. Some travel with overnight stays.

Average annual full-time salary range for Ontario: \$25,000 – \$56,000

Future Job Market

As more individuals, companies, and local governments are striving to preserve natural environments, watershed specialist will be in increasing demand. As our population grows so will commercial and private construction.



*4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.

Job titles also known as:

Crop Ecologist, Microbial Ecologist, Ag Ecologist, Restoration Ecologist, Forest Ecologist

What responsibilities will I have?

- Investigate the growth and characteristics of microscopic organisms such as bacteria, algae, or fungi
- Research cell reproduction and human disease
- Manage research of how organisms react to processes in the environment
- Study the relationships among organisms and between organisms in their ecosystem
- Examine the effects of population size, pollutants, rainfall, temperature and altitude
- Collect, study, and report data on the quality of air, food, soil, and water
- Planning, initiation, coordination, data analysis, report preparation and scientific execution of plant ecological assessment experiments
- Research situations caused by man-made practices and their impact on natural habitats
- Develop biological control strategies to combat pest insects, weeds and pollutants on natural vegetation and wildlife
- Use computer simulations to model problems and evaluate solutions
- Prepare written reports and recommendations
- Ensure operations comply with government regulations and monitor the production of products

What education and training is required?

A bachelor's degree in biology or a related field, such as horticulture, chemistry or environmental science is required. Some microbiologists practice with a diploma in a scientific field such as chemistry or biology, but most have at least a four-year bachelor's degree from a college or university. Positions that are research focused require a master's or doctorate degree.

To pursue a career as an Ecologist:

- High school courses: Science, biology, chemistry, botany, mathematics, physics, engineering and computer science
- Involvement in associations or organizations that focus on agriculture, such as 4-H*, are beneficial
- Practical work experience such as an internship/summer experience
- Desire to work with plants and animals in both their natural and simulated environments

Personal qualities:

- Love of outdoors, an investigative personality, strong communication skills for those interested in aspiring to management or administrative positions
- Patience and self-discipline to conduct long and detailed research projects
- Desire to preserve the environment

Where can I work? What will my hours be? How much money will I make?

Typical employers: Research firms, governmental organizations, schools/universities, environmental organizations or conservation organizations

Type of employment: Full-time, possible travel with limited overnight stays to research sites when outside the laboratory. Some long hours are required for observation.

Average annual full-time salary range for Ontario:
\$36,000 – \$130,000

Future Job Market

Those interested in a career as an ecologist can expect a wealth of opportunities. With increased training and education, administration will be available at institutions and organizations.



*4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.

Job titles also known as:

Aquatic Biologists, Biochemists, Biological Scientists, Ag Biologist

What responsibilities will I have?

- Study living organisms and their relationship to their environment
- Research problems dealing with life processes and living organisms
- Conduct product development to preserve and repair the natural environment
- Work in teams, interacting with engineers, scientists of other disciplines, business managers, and technicians
- Analyze scientific data, and perform quality control checks
- Conduct various field research activities
- Characterize plants for agronomic traits and animals for development traits

What education and training is required?

A bachelor's degree in biology or a related field, such as horticulture, chemistry or environmental science is required. Positions that are research focused require a master's or doctorate degree.

To pursue a career as an Environmental Biologist:

- High school courses: Science, biology, chemistry, botany, mathematics, physics, engineering and computer science.
- Involvement in associations or organizations that focus on agriculture, such as 4-H*, are beneficial
- Practical work experience such as an internship/summer experience
- Desire to work with plants and animals in both their natural and simulated environments

Personal qualities:

- Love of outdoors, an investigative personality, strong communication skills for those interested in who aspire to management or administrative positions
- Patience and self-discipline to conduct long and detailed research projects
- Desire to preserve the environment

Where can I work? What will my hours be?

How much money will I make?

Typical employers: Research firms, governmental organizations, schools/universities and environmental organizations

Type of employment: Full-time, possible traveling with limited overnight stays to research sites when outside the laboratory

Average annual full-time salary range for Ontario: \$45,000 – \$128,000

Future Job Market

With increasing technological advancements and threats on the environment the future job market for environmental biologist is expected to grow. Those with increased training and education will find available administration level roles with institutions and organizations.



*4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.

Job titles also known as:

Plant Physiologist, Biologist, Biological Scientist, Ag Botanist, Head Gardener

What responsibilities will I have?

- Study plants and their environment
- Investigate all aspects of plant life, including algae, fungi, lichens, mosses ferns, conifers, and flowering plants
- Specialize in identification and classification of plants
- Research the structure and function of plant parts
- Analyze the biochemistry of plant processes
- Research the causes and cures of plant diseases, the interaction of plants with other organisms and the environment as well as the geological record of plants
- Conduct activities for seed and plant testing

What education and training is required?

A bachelor's degree in botany, biology or a related field, such as horticulture, plant physiology or environmental science is required. Positions that are research focused require a master's or doctorate degree.

To pursue a career as an Environmental Botanist:

- High school courses: Science, biology, chemistry, botany, mathematics, physics, engineering and computer science.
- Involvement in associations or organizations that focus on agriculture, such as 4-H*, are beneficial
- Practical work experience such as an internship/summer experience
- Desire to work with plants in both their natural and simulated environments

Personal qualities:

- Love of outdoors, an investigative personality, strong communication skills for those interested in aspiring to management or administrative positions
- Patience and self-discipline to conduct long and detailed research projects
- Desire to preserve the environment

Where can I work? What will my hours be? How much money will I make?

Typical employers: Research firms, parks and other public outdoor gardens, governmental organizations, schools/universities, golf and country clubs and environmental organizations

Type of employment: Full-time, possible travel with limited overnight stays to research sites when outside the laboratory

Average annual full-time salary range for Ontario: \$32,000 – \$128,000

Future Job Market

With increasing technological advancements and threats on the world food supply, the future job market for environmental botanist is expected to grow at a steady pace. Those with increased training and education will find available administration level roles with institutions and organizations.



*4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.

Job titles also known as:

Aquatic Biologist, Biologist, Hydrogeochemist, Water Scientist

What responsibilities will I have?

- Research and understand the movement of water in the environment and its impacts on the environment
- Supervision of field activities/research trials
- Oversee groundwater flow and transport modeling in the environment
- Assessment of natural attenuation processes in soil and groundwater
- Perform environmental consulting
- Design dams, ponds, piping and pumping systems, as well as sewage system for rainfall
- Study water contamination, how it takes place and prevention
- Predict changes in climates and ecosystems
- Supervise technicians assisting with your research or field work
- Prepare reports and documents with findings and recommendations
- Advise clients on ways they can preserve their water sources

What education and training is required?

A bachelor's degree in biology or a related field, such as earth science, geology, chemistry or environmental science/engineering is required. Positions that are research focused require a master's or doctorate degree.

To pursue a career as an Environmental Hydrologist:

- High school courses: Science, biology, chemistry, earth science, geology, mathematics, physics, engineering and computer science
- Involvement in associations or organizations that focus on agriculture, such as 4-H*, are beneficial
- Practical work experience such as an internship/summer experience
- Desire to work in the environment and water in both their natural and simulated environments

Personal qualities:

- Love of outdoors, strong communication skills for those interested in aspiring to management or administrative positions
- Patience and self-discipline to conduct long and detailed research projects
- Desire to preserve the environment

Where can I work? What will my hours be? How much money will I make?

Typical employers: Research firms, environmental consulting companies, conservation authorities, provincial and federal government, schools/universities and environmental organizations, individuals

Type of employment: Full-time, long hours depending on the weather when outside work is needed, which is frequent. Some travel with overnight stays.

Average annual full-time salary range for Ontario: \$40,000 - \$180,000

Future Job Market

The demand for Environmental Hydrologists will increase as more individuals, companies, and local governments strive to preserve the natural environment. As our population grows so will commercial and private construction.



*4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.

Job titles also known as:

Biologist, Lab Microbiologist, Field Biologist, Environmental Scientist

What responsibilities will I have?

- Investigate the growth and characteristics of microscopic organisms such as bacteria, algae, or fungi
- Use biotechnology to advance knowledge of cell reproduction and disease
- Directing nutrient analysis and establishing testing systems for fertilizer products including on-site field tests and quality control
- Improve and develop products, lead research and development efforts to expand product lines
- Conduct tests to sample environmental products for the appearance of microscopic organisms
- Environmental monitoring, swabbing manufacturing equipment surfaces
- Collect micro data for analysis
- Act as a liaison with other departments on microbiological and sanitation issues
- Manage ecological studies to assess the environmental fate of plant biotechnology traits and evaluate potential effects on soil organisms and microbial processes

What education and training is required?

Microbiologists practice with a bachelor's degree in a scientific field such as chemistry or biology.

To pursue a career as an Environmental Microbiologist:

- High school courses: Science, biology, chemistry, botany, mathematics, physics, engineering and computer science.
- Involvement in associations or organizations that focus on agriculture, such as 4-H*, are beneficial
- Practical work experience such as an internship/summer experience
- Desire to work with plants and animals in both their natural and simulated environments

Personal qualities:

- Love of outdoors, an investigative personality, strong communication skills for those interested in aspiring to management or administrative positions
- Patience and self-discipline to conduct long and detailed research projects
- Desire to preserve the environment

Where can I work? What will my hours be? How much money will I make?

Typical employers: Research firms, governmental organizations, schools/universities, environmental or conservation organizations

Type of employment: Full-time, possible travel with limited overnight stays. Some long hours are required for observation.

Average annual full-time salary range for Ontario: \$45,000 – \$128,000

Future Job Market

With increasing technological advancement and the increasing awareness of food safety environmental microbiologist can expect strong career opportunities in the future. As more people strive for organically grown foods microbiologists who specialize in the environment will be at a larger demand. Those with increased training and education will find available administration level roles with institutions and organizations.



*4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.

Job titles also known as:

Biological Technician, Chemical Technician, Lab Technician, Geological Technologist

What responsibilities will I have?

- Conduct field sampling of the air, water and soil
- Carry out hazardous goods and waste handling methods
- Develop emergency planning and spill response methods
- Enforcement of environmental law and ethics including recycling and waste minimization
- Taking inventory and quantifying sources of locally-generated pollution
- Preparing reports of lab results for internal and external use
- Classify products and compare test results with standard tables
- Order supplies needed for daily laboratory processes and activities
- Sterilize appropriate laboratory equipment
- Examine samples and identify, if any, bacterial or non-desirable excess material
- Prepare graphs, charts and reports from test results
- Ability to operate laboratory equipment independently
- Perform quality control analysis including tests and inspections of products and processes
- In a management position, supervise other technicians, coordinate team meetings and delegate specific tasks to team members

What education and training is required?

Two years post secondary training in applied science or a science related technology is required. Bachelor of biological science degrees are recommended.

To pursue a career as an Environmental Technician:

- High school courses: Science, chemistry, biology and mathematics
- A strong understanding of plant production including techniques, growing, planting, harvesting, consuming and handling products.
- Computer skills in Microsoft Office

Personal qualities:

- Practical, works well in a team, analytical, strong communication, organizational and writing skills, strong planning skills, problem solving.

Where can I work? What will my hours be? How much money will I make?

Typical employers: Research firms, governmental organizations, schools/universities, environmental organizations or conservation organizations

Type of employment: Full-time, possible travel with limited overnight stays. Some long hours are required for observation.

Average annual full-time salary range for Ontario: \$23,000 – \$48,000

Future Job Market

With increasing technological advancement and public and government awareness of environmental issues the roles of environmental technicians will greatly expand in the coming years. The job prospects for this field are expected to remain good-to-excellent over the next five years.



Job titles also known as:

Waste Water Treatment Operator, Environmental Treatment Operator

What responsibilities will I have?

- Prepare and maintain environmental settings
- Conduct clean up following natural disasters
- Knowledge of hazardous materials and handling of those materials for clean up
- Operate heavy machinery
- Monitor processes that remove or destroy harmful materials, chemicals, and microorganisms from the water or land
- Research environmentally friendly cleaning processes
- Read meters and gauges to make sure that plant/lab equipment is working properly

What education and training is required?

A bachelor's or diploma in biology or a related field, such as earth science, geology, or environmental science is needed to become an Environmental Waste Specialist. Certificate programs in water-quality and wastewater-treatment technology are also desirable. Those with more advanced degrees along with experience are needed for more administrative positions in the field.

To pursue a career as an Environmental Waste Specialist:

- High school courses: Science, biology, chemistry, botany, mathematics, physics, engineering and computer science
- Involvement in associations or organizations that focus on agriculture, such as 4-H*, are beneficial
- Practical work experience such as an internship/summer experience
- Desire to work outside and ability to work in unpleasant environments

Personal qualities:

- Love of outdoors, strong communication skills for working with the public for those interested in aspiring to management or administrative positions
- Desire to preserve the environment

Where can I work? What will my hours be? How much money will I make?

Typical employers: Governmental organizations and environmental/conservation organizations

Type of employment: Full-time, with heavy travel to impacted sites that need water removal consultations

Average annual full-time salary range for Ontario: \$25,000 – \$60,000

Future Job Market

There is a growing concern for a safe and healthy outdoor environment across Ontario resulting in an increased need for individuals who specialize in monitoring or removing waste that can sometimes be harmful to the environment. Those with greater experience in the field will be at higher demand.



*4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.

Job titles also known as:

Barn Manager

What responsibilities will I have?

- Responsible for the keeping horse facilities running smoothly and in good repair
- Responsible for the ordering of supplies and feed
- Primary contact and liaison for all veterinarians, owners, boarders, staff and farriers
- Responsible for the health and welfare of the animals in their charge
- The realm of responsibility varies on the size of the operation and the number of staff
- Managers for small facilities responsible for groundskeeper, pasture management, general maintenance, tractor maintenance, grooming, stall cleaner, and bookkeeping
- Related jobs: Head Trainer, Head Groom, Assistant Barn Manager, Brood Mare Manager, Office Manager: Sales

What education and training is required?

Prior Head Groom/Assistant Manager experience preferred and/or equine business management education (business management, equine nutrition, equine first aid, pasture management). Racing industry requires license and knowledge of racing industry regulations. Years of previous experience depends on size of operation and scope of responsibility.

To pursue a career as an Equine Facility Manager:

- High School Diploma or higher
- Certificate in Equine Business Studies or equivalent preferred
- Practical work experience in a horse farm environment
- Budget management and financial skills, supervisory/managerial skills
- Computer skills in Microsoft Office
- Other courses include WHMIS, First Aid, OHS, Work Safety, HACCP or QA, Equine Medicines

Personal qualities:

- Strong work ethic, responsible, team leader, decision-making capabilities, ability to work in indoor and outdoor conditions

Where can I work? What will my hours be? How much money will I make?

Typical employers: Private and public horse farms, riding schools, equine breeding/training centres, race tracks

Type of employment: Full-time - long and irregular hours, weekends. May be longer during competition, sales or breeding season or during breeding barn night watch)

Average annual full-time salary range for Ontario: \$25,000 - \$50,000 - often includes housing. Additional revenue may be earned by training, horse sales or teaching lessons.

Future Job Market

Industry is steadily growing and resistant to recession. As the baby boomer population ages, some people will use disposable income to purchase horses and the related expenses. Jobs will become available as current workers retire from the industry.



Job titles also known as:

Blacksmith, Equine Podiatry, Hoof Care Specialist

What responsibilities will I have?

- Responsible for the trimming, balancing and shoeing of horse to maintain healthy hooves and physical wellness of the animal
- Farrier demands vary according to horse breed/discipline
- Good physical shape - very physically demanding requiring strong knees and back.
- To specialize in equine podiatry and lameness issues (requires further education according to horse breed/discipline)
- Predominantly self-employed and success generally relies on self motivation, quality of work and depth of knowledge
- Responsible for obtaining insurance, truck, safety wear, portable forge and tools
- Related jobs: Equine Podiatry, Veterinarian, Education, Farrier Related Sales and Marketing

What education and training is required?

Educational courses range from 12 weeks to 2 years both of which will need to be followed by a working apprenticeship of a minimum of 3-5 years. Farriers require constant continuing education due to changes in scientific research and the products/resources available. Membership in the Ontario Farriers Association will provide the resources for the necessary training required to stay up to date on changes in this industry. There are no required levels of education, however, knowledgeable horse owners look for education and experience when placing the care of their horses with a farrier

To pursue a career as a Farrier:

- High School Diploma or higher
- Certificate in Farrier Science or equivalent
- Knowledge and experience in horse husbandry* and knowledge of gaits and equine conformation

Personal qualities:

- Works well with tools, self motivated, enjoys working with hands and being in outdoor environment, physically fit, strong communication and interpersonal skills

Where can I work? What will my hours be? How much money will I make?

Typical employers: Self-employed - clients include horse owners, breeders, trainers and equine facilities

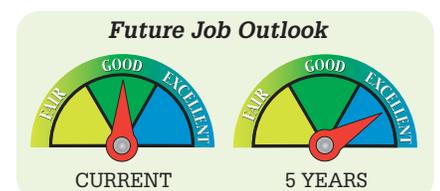
Type of employment: Part-time or Full-time - busiest time is during competition and/or race season

Average annual full-time salary range for Ontario: Apprentices: \$8 - \$12/hour

Established Farrier: \$80,000

Future Job Market

As the baby boomer population ages, some people will use disposable income to purchase horses and the related expenses. Jobs will become available as current workers retire from the industry.



*Husbandry - Care and management of animals

Job titles also known as:

Riding Coach, Certified Coach, Trainer, Trail Guide

What responsibilities will I have?

- Riding instructors can train a variety of level of students from beginners to Olympic athletes - this role varies greatly on the level of expertise of the instructor.
- Most instructors concentrate on one discipline or riding style and promote themselves as a “specialist” to create a marketing niche
- A successful instructor must possess strong riding skills and the ability to train and coach others
- Many instructors are self-employed and responsible for their own insurance coverage
- Certified coaches and instructors are responsible for keeping their certification status and memberships current.
- Coaches and Self-employed Riding Instructors are responsible for providing proof of insurance
- Related jobs: Trainer, Coach, Camp Director, Facilities Manager, Event/Show Manager

What education and training is required?

Coaching certifications are available through the Ontario Equestrian Federation and Equine Canada. The National standards for equestrian coaching programs are developed by the National Coaching Committee of Equine Canada, in conjunction with the Coaching Association of Canada and Equine Canada. The program for Level 1 and 2 coaches is administered in each province by the provincial equestrian federation, on behalf of Equine Canada. As a certified Equine Canada Coach, there are substantial savings on insurance policies because of the Equine Canada Certification which also must be kept current

To pursue a career as a Riding Instructor:

- High School Diploma or higher
- Involvement in associations or organizations that focus on equine industry such as Ontario Equestrian Federation, Equine Canada
- Experience as a rider
- Completion of First Aid course is preferred
- Many coaches are also barn managers with administrative and business management skills

Personal qualities:

- Strong communication and interpersonal skills, articulate, patient, caring, desire to improve sport knowledge and increase skill set, self motivated, able to market and promote skills

Where can I work? What will my hours be? How much money will I make?

Typical employers: Self-employed, private public horse farms, riding schools, equine training centres

Type of employment: *Contract:* Part-time or Full-time - early morning, evening and weekends. Travel to various shows and competitions. *Full-time or hourly:* - long hours and weekends

Average annual full-time salary range for Ontario: Variable \$15 - \$25 per lesson. Starting/Level One coaches in a riding school earn an hourly per lesson rate. More experienced instructors may be paid a retainer from riding schools or barns.

Future Job Market

As the baby boomer population ages, some people will use disposable income to purchase horses and the related expenses. Jobs will become available as current workers retire from the industry.



Job titles also known as:

Travelling Groom, Head Groom, Lead Groom, Assistant Barn Manager

What responsibilities will I have?

- Similar to a Stable Groom but this position travels with the horse from event to event and holds a higher level of responsibility
- Usually assigned to a specific number of horses and responsible to prepare them for the show season
- During the season, prepare horses and supplies for travel
- Travel to the show locations, set up stalls and tack
- Load and unload horses from the travel trailer and care for the horse while at the show
- Prepare the horse for the event
- In the off-season assume many of the same duties as a stable or home groom
- Usually not considered a riding position, however some show grooms may assist with training and warm up/cool down of horses during show season
- Related jobs: Head Groom, Barn Manager Assistant Riding Instructor, Exercise Rider, Trainer, Assistant Barn Managers

What education and training is required?

Entry level positions do not usually require any formal education although experience working with/being around horses is generally expected. Experience as a groom is required prior to applying for show groom or travelling groom positions. Certificate courses are now being offered for entry level groom positions that prepare students for safe work practices, basic equine nutrition and healthcare, barn maintenance etc. Many consider these courses as a great foundation upon which to build and grow.

To pursue a career as a Show Groom:

- High School Diploma or higher
- Equine Science or Equine Management Diploma/Certificate course or higher
- Work experience in a horse farm environment and working with performance horses
- Passport required for international travel
- Salary depends on experience and scope of responsibility

Personal qualities:

- Patient, strong desire to work with animals, strong interpersonal skills, caring, motivated and flexible. Ability to work in a barn environment and in harsh weather conditions. Expected to be infinitely flexible, indefinitely cheerful, able to take and follow orders, think for themselves and make decisions in the animals best interest

Where can I work? What will my hours be? How much money will I make?

Typical employers: Competition/show barns, private barns

Type of employment: Seasonal Part-time or Full-time - long hours during the show season, travel required and long periods of time away

Average annual full-time salary range for Ontario: Starting: \$10-\$12/hour and up to \$20/hour
Experienced: \$60,000 Plus expenses which include accommodation, company vehicle, travel opportunities

Future Job Market

As the baby boomer population ages, some people will use disposable income to purchase horses and the related expenses. Jobs will become available as current workers retire from the industry.



Job titles also known as:

Home Groom, Groom, Barn Help

What responsibilities will I have?

- Responsible for the daily care of the horses
- Valuable asset to any barn because keeps horses healthy and happy
- Must be alert to possible injury or illness to prevent small problems from developing into major or costly procedures
- Duties include mucking stalls, sweeping aisles and keeping barn clean and organized
- Feeding and monitoring medications and/or supplements, blanketing, turn out, tacking up and bandaging horses
- Tack cleaning, some minor maintenance work around the barn
- Function as occasional exercise riders, assist with training and/or lessons
- Act as a liaison with veterinarians, breeders, owners, staff and farriers
- Related jobs: Show Groom, Head Groom, Assistant Riding Instructor, Exercise Rider, Trainer, Assistant Barn Managers

What education and training is required?

Entry level positions do not usually require any formal education although experience working with/being around horses is generally expected. Certificate courses are now being offered for entry level groom positions that prepare students for safe work practices, basic equine nutrition and healthcare, barn maintenance etc. Courses are a great foundation upon which to build and grow a career in the equine industry.

To pursue a career as a Stable Groom:

- High School Diploma or higher
- Equine Science or Equine Management Diploma/Certificate course or higher
- Involvement in associations or organizations that focus on agriculture such as 4-H*, Pony Club etc. are advantageous
- Must be familiar with horses and/or have work experience in a horse farm environment

Personal qualities:

- Patient, desire to work with animals, strong interpersonal skills, caring, motivated. Ability to work in a barn environment and harsh weather conditions. Expected to be infinitely flexible, indefinitely cheerful, able to take and follow orders, think for themselves and make decisions in the animals best interest

Where can I work? What will my hours be? How much money will I make?

Typical employers: Private and public horse farms, equine centres, race tracks

Type of employment: Full-time or Part-time - usually early morning start, long days, weekends

Average annual full-time salary range for Ontario: Starting: \$10/hour for entry level positions
Racing Industry pays per horse and requires that groomer has a license

Future Job Market

As the baby boomer population ages, some people will use disposable income to purchase horses and the related expenses. Jobs will become available as current workers retire from the industry.



*4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.

Job titles also known as:

Meat Processor, Food Process Worker, Retail Meat Cutter

What responsibilities will I have?

- Process orders and recommend specific meat cuts for customers
- Remove bones and cut meat into standard cuts for marketing
- Grind meat into hamburger and into trimmings used for sausage, lunch meats and other products
- Wrap dressed carcasses and meat cuts
- Move carcasses to freezing rooms
- Package meat for retail sale
- In a management position: supervise other employees and line workers, oversee facility orders, shipping and time lines

What education and training is required?

A meat cutting and processing Diploma and/or several years experience is required. A bachelors degree in food science or business is an important asset. In Ontario, a Retail Meat Cutter is an apprenticeship trade.

To pursue a career as a Butcher:

- Interested in practical and manual activities
- Perform quality control analysis
- Thorough knowledge of government regulations and meat processing standards
- Understanding and awareness of different meat cuts

Personal qualities:

- Physically fit and able to work safely, good hand-eye coordination, works well individually, capable of working in a slaughter facility, able to communicate effectively with team members
- Ability to work in a cold environment
- Good customer service skills

Where can I work? What will my hours be? How much money will I make?

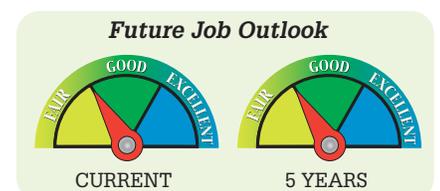
Typical employers: Meat processing facilities, independent butcher, grocery store

Type of employment: Full-time or Part-time - hourly or shift work

Average annual full-time salary range for Ontario: \$22,000 – \$37,000

Future Job Market

The future job market for Butchers is stable. There is an increase in demand for niche markets although there is a large over-head costs to enter the market due to government standards and regulations.



What responsibilities will I have?

- Possess an understanding of various types of cheese making processes
- Coordinate all fermentation and aging procedures
- Pasteurize, blend, cook and prepare hard, soft and semi soft cheeses
- Supervise packaging processes
- Develop and track production budgets
- Maintain ingredient inventory and records
- Oversee operation, maintenance and sanitization of equipment and production facilities
- Supervise, train and manage team members
- Ensure a safe working environment for staff
- Assist with sales, marketing and public relations activities
- Source various types of ingredients such as cow, goat, sheep and buffalo milk
- Operate mechanized cheese production equipment
- Support, develop, implement and maintain Hazard Analysis Critical Control Point food safety models according to Canadian Food Inspection Agency

What education and training is required?

There is no formal education required for a career in cheese making, however, a degree or diploma in Agriculture, Food Science or Business is encouraged and a strong asset. Many employers do their own specific training although short term cheese making specific courses are offered by universities and colleges.

To pursue a career as a Cheese Maker:

- High school courses: Science, microbiology, chemistry and mathematics
- Practical work experience such as an internship/summer experience is preferred – assistant level opportunities are also available to gain food processing experience
- Computer skills in Microsoft Office
- Certificate of Food Processing
- Ability to lift heavy products and operate some small heavy equipment

Personal qualities:

- Analytical, diagnostic and laboratory skills, works well under pressure, ability to interact with internal and external customers, ability to physically perform the duties of the job, and work extended work hours if needed, works well in a team environment

Where can I work? What will my hours be? How much money will I make?

Typical employers: *Large Scale Operations:* Cheese processing plants, factories, large food processing companies. *Small Scale Operations:* Organic farms, family business, niche markets

Type of employment: Full-time or Part-time - some shift work required

Average annual full-time salary range for Ontario: \$27,000 - \$45,000

Future Job Market

Entry level positions available and minimal to some growth potential with practical work experience. There is potential for niche markets and organic cheeses as consumer demand grows.



Job titles also known as:

**Cook, Executive Chef, Sous Chef (also known as a second chef),
Food Production Manager**

What responsibilities will I have?

- Possess an understanding of various types of foods
- Coordinate and plan cooking and baking schedules to fit daily needs
- Develop and prepare recipes and menus both individually and with Assistant Chef
- Supervise the preparation of meals and ingredients, final presentation, sanitary issues and timeliness on the part of the employees
- Develop and track production budgets
- Order and maintain ingredient and supply inventory and records
- Oversee operation, maintenance and sanitization of equipment and production facilities
- Supervise, train and manage kitchen staff
- Ensure that safety standards and sanitary requirements are met each day
- Thorough knowledge of local health department regulations

What education and training is required?

A bachelor's degree in food science, chemistry, culinary studies or hospitality management is needed. To act as a small restaurant or assistant chef, fewer years of experience are required. A Business degree may also be an asset for a small restaurant chef/baker. Some restaurants or companies also hire chef's with a diploma in culinary studies. Experience or training in supervising or managing teams is an asset.

To pursue a career as a Chef/Baker:

- High school courses: Chemistry, food and nutrition, mathematics
- Practical work experience such as kitchen assistant, waiter or waitressing, fast food meal preparation or small restaurant chef are also available to gain food processing, preparing and serving experience
- Skills in applying, interpreting, and explaining standards in a food product environment

Personal qualities:

- Strong interpersonal skills, excellent organizational skills including time management, ability to effectively prioritize multiple projects, ability to work independently, strong communication skills, self motivated, innovative, practical, creative, and adaptable

Where can I work? What will my hours be? How much money will I make?

Typical employers: Restaurants, catering companies, entrepreneur, pastry or niche food shop, wineries

Type of employment: Full-time or Part-time - hourly, long hours

Average annual full-time salary range for Ontario: \$35,000 – \$100,000

Future Job Market

Entry level positions available and growth potential with practical work experience.



Job titles also known as:

Nutritionist

What responsibilities will I have?

- Complete initial patient nutrition related screenings and assessments
- Provide nutritional recommendations to patients and family members
- Coordinate planning, implementation and evaluation of individual nutrition programs
- Utilize safe and protective equipment
- Work with family physician and other medical staff to ensure quality patient care
- Council family members relating to nutritional concerns
- Modify menu for specialized diets for specific patients
- Answer patient questions after program is in place
- Provide education to other health care professionals in a workplace environment
- Maintain College of Dieticians membership
- Research and keep up to date with new studies and nutritional recommendations for health conditions and diseases

What education and training is required?

Employers in this field require applicants with a degree in Nutrition or Food Science. Positions in Ontario require a current College of Dieticians of Ontario membership. Employers may require a membership certificate of the Dieticians of Canada.

To pursue a career as a Dietician:

- High school courses: Chemistry, biology, mathematics, food and nutrition
- Minimum 1-2 years experience as an intern or other practical work experience
- Able to work with many different types of people
- Experience in Clinical Nutrition or Geriatrics is an asset
- Ability to speak a second language is an asset but may not be required

Personal qualities:

- Patient, strong interpersonal skills, punctual, self-directed, work well with a team, organized and strong communication skills both verbal and written

Where can I work? What will my hours be?

How much money will I make?

Typical employers: Hospitals, doctors offices, individual firms, fitness center, sports team or individual athletes

Type of employment: Full-time

Average annual full-time salary range for Ontario: \$38,000 – \$90,000

Future Job Market

The future job market for Dieticians is good as people become more health conscious and nutrition becomes a large concern with obesity rates increasing.



Job titles also known as:

Food Scientist

What responsibilities will I have?

- Design, develop and test processes and processing equipment for food processing factories
- Improve quality of equipment and increase production of food products
- Create new methods and processes to preserve food and increase food manufacturing efficiency
- Source equipment for company usage
- Fix processes that are not working properly
- Evaluate and record costs of processes and equipment
- Work with quality assurance teams to maintain food product standards
- Present and discuss processes and equipment findings with company management
- Teach and train new employees about processes and equipment
- Identify and correct quality problems
- Monitor production process to observe new opportunities
- Ensure operations are safe and effective

What education and training is required?

An Engineering degree in Chemical and Process, Materials and Process, Food Engineering, Biochemical, Biotechnology or Bioprocess Engineering is mandatory for a career as a Food Engineer.

To pursue a career as a Food Engineer:

- High school courses: Science, physics, chemistry, biology and mathematics
- Practical work experience
- Computer skills in Microsoft Office
- Thorough knowledge of process engineering, the chemical and physical properties of food products, food hygiene and microbiology, the interaction between food and the equipment used to process food products and food processing equipment such as canning equipment, dryers, pumps and heat exchangers

Personal qualities:

- Practical, works well in a team, analytical, strong communication and writing skills, strong planning and organizing skills, problem solver

Where can I work? What will my hours be? How much money will I make?

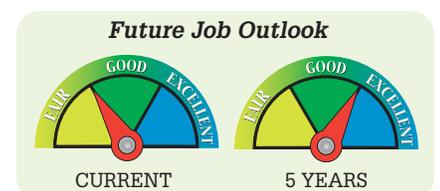
Typical employers: Food processing factories, food and beverage manufacturers or processing companies or large processing engineering consultancies

Type of employment: Full-time

Average annual full-time salary range for Ontario: \$43,000 – \$85,000

Future Job Market

There is a long term skill shortage in the Food Engineering industry.



Job titles also known as:

Health Inspector, Sanitary Inspector

What responsibilities will I have?

- Review tests and analysis completed by company
- Prepare reports on each company, restaurant or business visited
- Compute formulas, percentages or production specific factors using chemical and mathematical procedures
- Recommend changes with marketers and processors if conditions are not up to standard regulations
- Investigate compliances
- Sample and identify, if any, bacterial or non desirable excess material
- Prepare graphs, charts and reports from test results
- Observe employees and daily procedures to assure quality control standards are met
- Oversee and inspect procedures performed by each operating unit and team
- Meet with company management and maintain relationship
- Perform quality control analysis including tests and inspections of products and processes

What education and training is required?

A food science or food engineering bachelors degree or 10 years experience is required.

To pursue a career as a Food Inspector:

- High school courses: Science, chemistry, biology and mathematics
- Ability to write and present formal reports
- Computer skills in Microsoft Office
- Knowledge of sanitation practices and control measures used in the commercial handling and preparation of food products for human consumption
- Skills in applying, interpreting, and explaining standards in a food product environment

Personal qualities:

- Patient, analytical, strong communication, organizational and writing skills, strong planning skills, problem solver, observant, detail oriented, administrative

Where can I work? What will my hours be? How much money will I make?

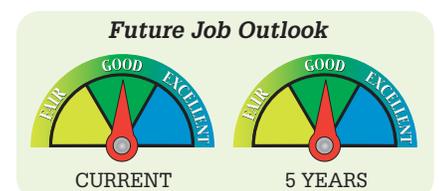
Typical employers: Federal, Provincial and Regional Governments, inspection agencies, large food processing companies

Type of employment: Full-time or Part-time - hourly or shift work

Average annual full-time salary range for Ontario: \$40,000 – \$93,000

Future Job Market

The future job market for Food Inspectors will continue to be stable as regulations and restrictions are put in place and need to be monitored to insure quality within the sector.



Job titles also known as:

Food Science Technician, Food Services Technician, Biological Technician, Chemical Technician, Lab Technician

What responsibilities will I have?

- Classify products and compare test results with standard tables
- Compute formulas, percentages or production specific factors using chemical and mathematical procedures
- Order supplies needed for daily laboratory processes and activities
- Sterilize appropriate laboratory equipment
- Ensure all products are safe, legal and pass all regulations required
- Monitor Environmental Health and customer complaints
- Complete factory or business audits
- Communicate with suppliers and customers regarding deliveries, invoices, inquiries and problems
- Examine samples and identify, if any, bacterial or non-desirable excess material
- Prepare graphs, charts and reports from test results
- Perform quality control analysis including tests and inspections of products and processes
- In a management position, supervise other food technologists, coordinate team meetings and delegate specific tasks to team members

What education and training is required?

A minimum of a diploma in applied science or related technology is required.

To pursue a career as a Food Technologist:

- High school courses: Science, chemistry, biology and mathematics
- A strong understanding of food production including techniques, growing, planting, harvesting, consuming and handling products.
- Ability to operate laboratory equipment independently
- Computer skills in Microsoft Office

Personal qualities:

- Practical, works well in a team, analytical, strong communication, organizational and writing skills, strong planning skills, problem solver.

Where can I work? What will my hours be? How much money will I make?

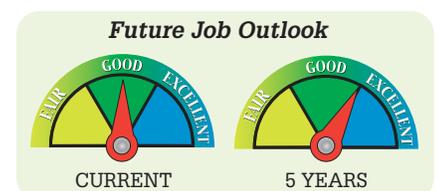
Typical employers: Professional, scientific, and technical firms, educational services, government, pharmaceutical manufacturing and food manufacturing, food processor

Type of employment: Full-time or Part-time - hourly or shift work

Average annual full-time salary range for Ontario: \$38,000 – \$90,000

Future Job Market

Overall demand for Food Technologists is steadily increasing due to increasing demand for research and manufacturing related technologists.



Job titles also known as:

Line Worker, Food Processing Worker, Production Worker, Foreman

What responsibilities will I have?

- Maintain daily processing targets
- Ensure quality and safety standards and regulations are met within the operating line
- Pull out undesirable products from the line that do not meet standards or regulations
- Operate machine/robot and or packaging line
- Report to supervisor if there are any malfunctions or problems on the line
- Communicate with team members on operating line regularly
- Oversee safety procedures, quality of workmanship and production costs
- Coordinate scheduling, daily reports and quality control concerns with other team members when required

What education and training is required?

High school diploma is required.

To pursue a career as a Line Operator:

- Ability to work in a fast pace environment
- Capable of standing, bending, reaching and or stooping for significant periods of time
- Experience in warehouse, factory or manufacturing environment
- Basic numeracy and literacy skills
- Ability to do repetitive work
- Capable of working at a constant speed to ensure product development efficiency
- Able to work various work shifts, and extra hours when production level demands increase

Personal qualities:

- Practical, works well in a team, strong communication, organized, attention to detail, quick learner, flexible and cooperative
- Solves problems appropriately and makes timely decisions

Where can I work? What will my hours be? How much money will I make?

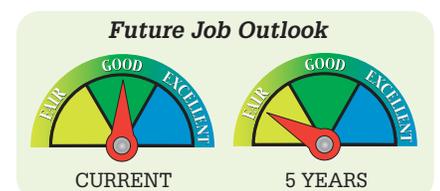
Typical employers: Large food processing companies, factories, warehouse, distribution centers

Type of employment: Full-time or Part-time - hourly or shift work

Average annual full-time salary range for Ontario: \$22,000 – \$35,000

Future Job Market

The future job market for a Line Operator is stable although may decrease due to increase in technology.



Job titles also known as:

Meat Grader

What responsibilities will I have?

- Inspect and grade various types and cuts of meat
- Investigate and enforce compliances to federal standards
- Examine samples for bacterial or non desirable excess material
- Prepare reports from test results
- Observe employees and daily procedures to assure standards are met
- Send animal tissue to lab for testing
- Perform quality control analysis including tests and inspections of products and processes

What education and training is required?

A diploma in a technical science is required.

To pursue a career as a Meat Inspector:

- High school courses: Science and mathematics
- Ability to write and present formal reports
- Computer skills in Microsoft Office
- Ability to work in a slaughter facility

Personal qualities:

- Patient, analytical, strong communication, organizational and writing, planning skills, problem solver, observant, administrative and attention to detail

Where can I work? What will my hours be? How much money will I make?

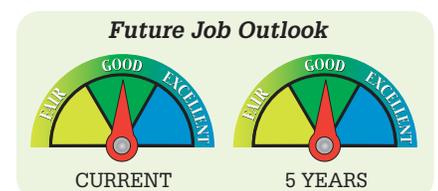
Typical employers: Federal and provincial governments, inspection agencies, food or meat processing companies

Type of employment: Full-time or Part-time - hourly or shift work

Average annual full-time salary range for Ontario: \$29,000 - \$45,000

Future Job Market

The future job market for Meat Inspectors is stable.



Job titles also known as:

Dairy Technician, Food Process Worker

What responsibilities will I have?

- Maintain daily processing targets
- Remove solid impurities from milk prior to pasteurization
- Monitor time and temperature combinations of the pasteurization process
- Effectively eliminate potential pathogenic microorganisms while pasteurizing through sterilization
- Ensure quality and safety standards and regulations are met within the operating line
- Operate machine/robot and or packaging line
- Report to supervisor if there are any malfunctions or problems on the line
- Communicate with team members on operating line regularly
- Oversee safety procedures, quality of workmanship and production costs
- Coordinate scheduling, daily reports and quality control concerns with other team members
- Manage evaporation and dehydration processes
- Use compressor to steam and refrigerate milk in final preparation stages
- Thorough knowledge of Dairy Farmers of Ontario and/or government regulations

What education and training is required?

A Bachelors degree in Business, Food Science, Hospitality, Food Processing or Food Engineering is usually required.

To pursue a career as a Milk Processor:

- High school courses: Science, mathematics, food and nutrition
- Minimum 1-4 years experience in a related workforce environment
- Knowledge and understanding of the Dairy and/or Food Processing industry
- Experience in warehouse, factory or manufacturing environment
- Basic numeracy and literacy skills
- Ability to do repetitive work
- Capable of working at a constant speed to ensure product development efficiency

Personal qualities:

- Organizational, leadership, analytical and communication skills, practical, works well in a team, strong communication, organized, attention to detail, quick learner, flexible and cooperative
- Experience with various types of people and managing teams
- Ability to work in a fast pace environment
- Capable of standing, bending, reaching and or stooping for significant periods of time
- Solve problems and make timely decisions

Where can I work? What will my hours be? How much money will I make?

Typical employers: Milk processing companies, large food production companies, laboratory research organizations or universities

Type of employment: Full-time - shift work and extra hours

Average annual full-time salary range for Ontario:

\$47,000 – \$63,000

Future Job Market

The future job market for Milk Processors is steady as milk in Ontario is regulated and kept constant to meet consumer demand.



Job titles also known as:

Plant Manager, Production Manager, Production Worker, Processing Manager

What responsibilities will I have?

- Plan, staff and supervise work units, projects and teams
- Coordinate solutions for operating problems and difficulties
- Perform additional assignments as per management's request
- Responsible for new leads and the future outlook of the operation
- Hire, motivate and assign team members to various projects as needed
- Implement policies, procedures and structure for operating unit or team within the corporate policy
- Compile and accept responsibility for monthly expenses and reports within the operation
- Develop strong field force including apprentices, labour foremen, project managers, carpenter foremen and other temporary positions
- Establish and ensure compliance of operational unit's goals with overall corporate objectives
- Provide support to operational, financial and resource aspects of specific projects
- Monitor flow of personnel
- Maintain good working relationships and public relations with owners, architects and the community

What education and training is required?

A Bachelors degree in Business, Food Science, Hospitality, Food Processing, or Food Engineering.

To pursue a career as an Operations Manager:

- High school courses: Mathematics, business, finance
- Minimum 1-4 years experience in a related workforce environment
- Knowledge and understanding of the Food Processing industry
- Experience with various types of people and managing teams
- Thorough knowledge of food products and government regulations

Personal qualities:

- Organizational, leadership, analytical and strong communication skills

Where can I work? What will my hours be? How much money will I make?

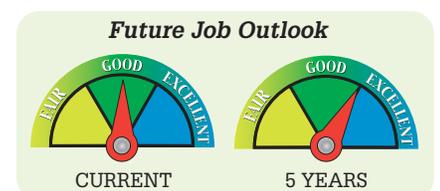
Typical employers: Large food processing facilities, food manufacturing companies

Type of employment: Full-time or Part-time

Average annual full-time salary range for Ontario: \$32,000 – \$96,000

Future Job Market

The future job market for Operations Managers is increasing as current managers retire and demand rises. Overall employment growth will also require more management to oversee projects and teams.



Job titles also known as:

Quality Tester, Quality Controller, Laboratory Assistant, Technical Assistant

What responsibilities will I have?

- Prepares reports on each test performed for measuring quality, quantity and composition
- Computes formulas, percentages or production specific factors using chemical and mathematical procedures
- Sample and identify, if any, bacterial or non desirable excess material
- Prepare graphs, charts and reports from test results
- Obtain, interpret and present information
- Responsible for maintaining the long-term continuity of production and service quality
- Completes tests required for food product packaging
- Provide accuracy and attention to detail to each test performed
- Keep records of all tests that have been carried out
- Demonstrate a logical and methodical approach to each report
- Perform quality control analysis including tests and inspections of products and processes

What education and training is required?

A diploma or a degree in science or engineering is required.

To pursue a career as a Quality Assurance Technician:

- High school courses: Science, chemistry, biology and mathematics
- Ability to write and present formal reports
- Computer skills in Microsoft Office

Personal qualities:

- Patient, analytical, strong communication, organizational and writing skills, strong planning skills, problem solver, observant, administrative and attention to detail.

Where can I work? What will my hours be? How much money will I make?

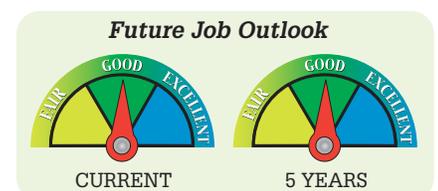
Typical employers: Federal and Provincial Governments, inspection agencies, food processing companies

Type of employment: Full-time or Part-time, hourly or shift work

Average annual full-time salary range for Ontario: \$40,000 - \$90,000

Future Job Market

The future job market for Quality Assurance Technician will continue to be stable as there is a constant need to monitor food quality and safety.



What responsibilities will I have?

- Supervise production of bee stock, honey bee hive health, pollination services to achieve volume, quality and cost objectives - specifics could include buying, feeding and/or watering, transporting, extracting honey and bee by-products
- Maintain healthy hive protocols
- Monitor hive health and feeding requirements - work closely with researchers and Technology Transfer Specialists
- Prepare short and long term operational and business plans in conjunction with management
- Prepare budget and report operational and capital expenditure - feed costs, equipment, bee stock and production results
- Document hives production
- Ensure security of all assets including land, bee stock produce and inventories
- Undertake activities to minimize environmental degradation and monitor environmental effects of the operation
- Repair and maintain equipment and structures - ex. Fencing, bee hives, extraction equipment, tools, etc.
- Recruit and ensure the ongoing training of bee yard staff
- Efficient and productive personnel management and assessment of staff
- Manage appropriate safety standards and relations with employees, suppliers and customers

What education and training is required?

Attend the Ontario Beekeepers' Association Technology Transfer Programs Courses; Introduction in Best Beekeeping Practices, Integrated Pest Management, and Queen Bee Rearing.

To pursue a career as a Beekeeper:

- High school courses: Science, animal science, biology
- Involvement with a local Beekeeping Association to foster learning
- Post secondary entomology*
- Practical work experience as a Beekeeper or trainee on a bee yard, performing tasks in all areas of beekeeping will be beneficial - opportunities for hands-on experience are available
- Specific experience suggested - routine maintenance and repair skills, ability to operate beekeeping equipment, honey production skills, queen rearing, and other beekeeping skills
- Supervisory/managerial skills (manager only), budgeting and financial skills (manager only)

Personal qualities:

- Good work ethic, responsible, team player, diagnostic and decision-making capabilities, ability to work in indoor and outdoor conditions, stamina to work with heavy lifting and long hours and no allergies to bees

Where can I work? What will my hours be? How much money will I make?

Typical employers: Self-employed, family-owned operations

Type of employment: Full-time, can be long days and possibly weekend/holiday work

Average annual full-time salary range for Ontario: \$25,000 - \$60,000

Future Job Market

With increased training and depending on the size of the operation, higher level management positions may be available.



*Entomology - Zoology dealing with the study of insects

Job titles also known as:

Sprayer Operator, Production Farm Applicator, Custom Applicator

What responsibilities will I have?

- Operate and maintain all equipment and vehicles (sprayers, spreaders, and trucks)
- Mixing, loading and application of pesticides/fertilizers
- Apply pesticides and fertilizers at applicable rates to the appropriate fields
- Handle and deliver bulk and packaged chemicals
- Perform daily vehicle inspections
- Clean and maintain equipment
- Maintain application/spray records
- Manage customer service relations
- Organize and coordinate application timetable with customers
- Knowledgeable with seed, chemical and fertilizer to make informed decisions
- Recertify every two years spraying technician license and safety training

What education and training is required?

A diploma in agriculture is recommended.

To pursue a career as a Custom Sprayer:

- High school courses: Science, biology, chemistry, physics, mathematics, business and computer science
- A farm background or practical work experience such as a part-time job or internship/summer experience is imperative
- Certification as an Ontario Pesticide Technician is required
- Experience or knowledge surrounding global positioning systems

Personal qualities:

- Attention to detail/accuracy, technically and mechanically inclined, customer service attitude, a good driving record, good verbal communication skills, and the ability to work independently as well as with others

Where can I work? What will my hours be? How much money will I make?

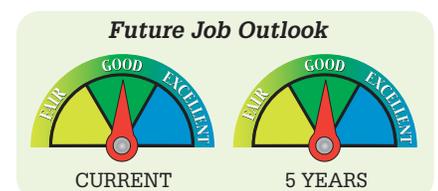
Typical employers: Custom sprayers in the produce industry can work for themselves, contract a farm with a produce organization, or work directly with a produce organization

Type of employment: Full-time and/or Seasonal - overtime hours required

Average annual full-time salary range for Ontario: \$24,000 - \$42,000

Future Job Market

Additional responsibilities such as staff management or increased territory responsibility may be available with added experience.



Job titles also known as:

Farmer, Farm Manager, Crop Manager

What responsibilities will I have?

- Responsible for the company's total farming operation
- Develop annual operating strategies and goals
- Develop and monitor planting schedule based on sales demands
- Participate in operational decisions regarding farming location, plant variety mix, production curve, planting dates, cultural practices, and other strategic operational decisions pertinent to the entity.
- Able to resolve critical growing problems by generating ideas and incorporating technologies
- Develop and monitor spraying, fertilizing, soil and tissue samples to ensure year-round supply and quality standards
- Collaborates with Quality Control Specialist to achieve quality standards
- Works with chemical companies/custom sprayers to meet control needs while adhering to government regulations
- Meets crop volume budget
- Provide ongoing operational status reporting (production results, financial results, quality measurements, issues and resolutions, etc.) - prepare and deliver summary of results
- Works with a team to produce and stay within operating budgets
- Negotiate and coordinate grower contracts
- Responsible for the acquisition, development, retention and management of land base, including contract negotiations.
- Recruit and manage an adequate and cost effective labour force as well as seasonal employees

What education and training is required?

A bachelor's degree in horticulture, agronomy, or related field is required. A master's degree may be preferred. A strong educational background in business is also helpful for this role.

To pursue a career as a Growing Operator:

- High school courses: Science, biology, chemistry, physics, business and mathematics
- Practical work experience is important in this field – an internship/summer work experience or part-time job on a produce farm or facility will be beneficial
- Experience with crop advising, pest management, and irrigation a plus, as well as mechanical and agriculture tools/equipment knowledge
- Bilingualism is an asset, computer literate
- A valid driver's licence

Personal qualities:

- Results-oriented, leadership skills, ability to plan and think ahead, effective communication skills, team player, entrepreneurial spirit, self-starter, comfortable with outdoor work and varying temperatures

Where can I work? What will my hours be? How much money will I make?

Typical employers: Independently or contract work

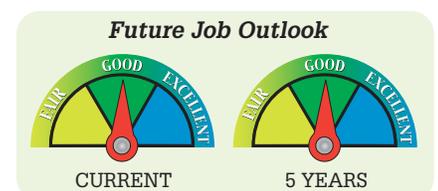
Type of employment: Full-time Seasonal - overtime hours required

Average annual full-time salary range for Ontario:

\$32,000 - \$90,000

Future Job Market

Additional responsibility may be available through added management of farms.



What responsibilities will I have?

- Lead directly at local level the implementation of procedures and protocols allowing for consistent management of daily harvest, packing operations and cooling / inventory process, including assessments of quality, volume, and food safety
- Identify potential disease, insect pressure, and evaluate irrigation management prior to and during the harvest
- Contribute effectively to the harvest forecast: provide timely and accurate harvest estimates
- Interact with quality control specialists to insure compliance at all levels
- Assist and support the planning, monitoring and executing of trials for competitive or new products
- Communicate, monitor, and enforce company policies and procedures
- Ensure a cost efficient execution of the agreed production plan
- Supervise maintenance and fixing of production equipment
- Oversee and manage seasonal and full-time employees
- May be considered a part of the Growing Operators or Farm Manager's role depending on the size of the operation

What education and training is required?

A degree is suggested for this role; however a diploma in agronomy, agriculture business, general agriculture or a related field would be the minimum requirement.

To pursue a career as a Harvest Manager:

- High school courses: Science, biology, chemistry physics, mathematics and business
- Job opportunities in this field typically require work experience. Practical work experience such as an internship/summer work experience or a part-time job is a plus
- General knowledge of agriculture practices and business finances for a production location are beneficial
- Ability to work in outdoor conditions and temperatures, and ability to conduct manual labour

Personal qualities:

- Good work ethic, ability to take on a challenge, ability to take direction and provide clear direction for others, attention to policies, team player,

Where can I work? What will my hours be? How much money will I make?

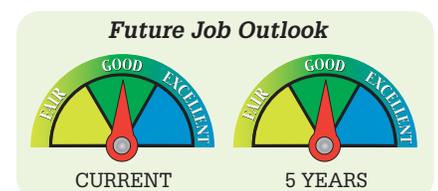
Typical employers: Self-employed or contract work

Type of employment: Seasonal - full-time hours in peak season

Average annual full-time salary range for Ontario: \$35,000 - \$68,000

Future Job Market

This is an entry level to mid-level position and could allow for advancement into a Growing Operator type position.



Job titles also known as:

Irrigation Specialist, Farm Manager

What responsibilities will I have?

- Manage the production of irrigated crops to achieve volume, quality and cost objectives
- Assist with preparation of annual forecasts, budget and other business plans - reporting regularly on actual performance to target
- Assimilate and communicate needs to owners, customers and co-workers - must understand the principles of water use assessments
- Maintain production and other irrigation records including the estimated operating costs, ordering of irrigation inputs, and marketing of produce
- Control all cost of production in line with budget expectation
- Maintain irrigation equipment
- Recruit, supervise and ensures the ongoing training of farm staff
- Ensure safe working conditions and compliance with industrial conditions by planning activities to minimize environmental degradation
- Monitor environmental effects of farming activities and repairs existing damage

What education and training is required?

Post secondary education is beneficial. Consider a diploma in agriculture, crop science or agriculture engineering.

To pursue a career as an Irrigation Manager:

- High school courses: Science, biology, chemistry, physics, mathematics, business and computer science
- A farm background or practical work experience such as a part-time job or internship/summer experience is imperative
- Experience or knowledge of global positioning systems is a growing need
- Knowledge of fertilizer a plus

Personal qualities:

- Self-starter, record keeping and attention to detail aptitude, technically and mechanically inclined, customer service attitude, good verbal communication skills, and the ability to work independently as well as with others

Where can I work? What will my hours be?

How much money will I make?

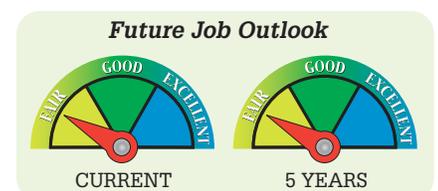
Typical employers: Cooperatives, seed companies, large/small farms, self-employed, contract work produce company or organization

Type of employment: Seasonal - full-time during peak hours

Average annual full-time salary range for Ontario: \$34,000 - \$63,000

Future Job Market

Additional responsibilities such as staff management may be available with added experience.



Job titles also known as:

Produce Retailer, Produce Merchandiser, Produce Broker

What responsibilities will I have?

- Buy fruit and vegetables for wholesale/retail purpose
- Establish and maintain relationships with growers/shippers/packers in order to provide the best service/selection to customers
- Work with grower/shipper/packers in sourcing product
- Understand market information that may affect market price, such as weather, consumer demands, seasonal demands and disease
- Maintain good relations with customers and suppliers, keeping head office advised of competitor activities
- Work with retail customers, foodservice and wholesale accounts to distribute fruit and vegetables for sale
- Work with transportation companies to ensure understanding of handling/delivery
- Negotiate price with regards to quality for product and services
- Recommend solutions to problems involved in the preparation of account contracts and negotiations with customers
- Provide customers with daily price quotes, availability and quality descriptions
- Budgeting and forecasting responsibility
- Identify new sources of supply
- Manage inventory including quality and profitability
- Maintains correct data on all assigned commodities

What education and training is required?

A bachelor's degree in business, marketing or related field is preferred. Knowledge of the produce industry is a must.

To pursue a career as a Produce Buyer:

- High school courses: Business, mathematics, computer science and science, biology
- Job opportunities in this field typically ask for experience in sales or as a buyer/merchandiser, particularly in the produce field
- Computer skills

Personal qualities:

- Self starter, customer service, excellent communication skills (particularly over the phone), negotiation skills

Where can I work? What will my hours be? How much money will I make?

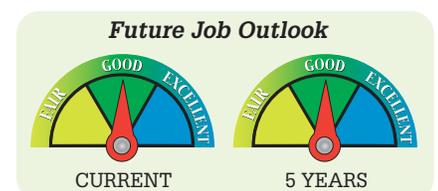
Typical employers: Grocery chains, wholesale grocery vendors, restaurants, merchandising companies

Type of employment: Full-time with some travel

Average annual full-time salary range for Ontario: \$40,000 - \$75,000

Future Job Market

This is a role with advancement opportunities from entry level to management level.



Job titles also known as:

Quality Assurance Manager, Quality Control Manager, Supply Chain Auditor

What responsibilities will I have?

- Responsible for establishing and executing policies, procedures, and programs that assure products are developed, manufactured, and marketed with superior quality in compliance with in-house specifications and all applicable legal and regulatory agencies
- Manage and coordinate a company-wide regulatory guidance, training and compliance effort
- Develop and maintain audit schedules to ensure all suppliers are evaluated to timescales according to designated risk status
- Develop corrective/preventative (continuous quality improvement) action plans
- Responsible for the microbiological and analytical disposition of all raw materials and products harvested and packed in the plant
- Assist in the development of raw material specifications
- Help to develop and monitor a program of consistent product presentation to support the brand and corporate image
- Lead and facilitate customer inspection of product and facilities
- Troubleshoot quality and safety issues with growers
- Review and check plant sanitation
- Act as the primary liaison with all third party audit bodies
- Develop and maintain a successful staff through selection, training, leadership, and motivation
- Manage daily and weekly product evaluations and report findings to management
- Responsible for maintaining relevant technical expertise and continually establishing an up-to-date awareness of evolving quality control and pack style changes

What education and training is required?

A bachelor's degree in food technology, chemistry or other related field is required. An advanced level of experience is required for management level positions. Entry level position as a Quality Control staff member may be available to those with fewer years of experience.

To pursue a career as a Quality Control Specialist:

- High school courses: Science, chemistry, physics, mathematics and computer science
- A significant level of work experience is required. Practical work experience such as an internship/summer work experience or participating in on-campus research is imperative
- Knowledge of food safety regulations is a benefit as well as the tests and how to perform them to evaluate processed products – basic growing knowledge is also beneficial
- Bilingualism is an asset, budget preparation ability, computer literate, leadership experience

Personal qualities:

- Diagnostic skills, detail-oriented, organized, analytical, people management skills, ability to maintain confidentiality, work independently as well with others, ability to make sound decisions, excellent communication skills (verbal and written) and the ability to work in a flexible work environment

Where can I work? What will my hours be? How much money will I make?

Typical employers: Produce growers, universities - as a consultant

Type of employment: Seasonal - full-time during peak hours

Average annual full-time salary range for Ontario:

\$33,000 - \$55,000

Future Job Market

This is an upper level position – advancement is possible, but limited; entry level positions as associates are available and would allow for advancement to more senior roles.



Job titles also known as:

Utility Arborists, Plant Health Care Technician, Tree Specialist, Diagnostician, Tree Expert, Forestry Technicians

What responsibilities will I have?

- Identify and recommend plant and tree needs to maintain long-term growth
- Diagnose tree diseases and recommend treatments
- Advise growers regarding trimming and pruning
- Recommend types of trees appropriate for specific locations and use
- Assist after storm and emergency situations in regards to clearing or pruning of damaged trees
- Oversee and manage crews in pruning and trimming plants
- Responsible for the health and safety of individual trees or wooded landscapes
- Maintain right-of-way for roads, sidewalks, or utilities, or to improve appearance, health, and value of tree

What education and training is required?

A bachelor's degree in arboriculture or a related field, such as horticulture, forestry or landscaping is required. Certification can include The Certified Tree Care Safety Professional (CTSP) or Certified Arborist (CA).

To pursue a career as an Arborist:

- High school courses: Science, biology, chemistry, botany, mathematics and computer science
- Involvement in associations or organizations that focus on agriculture, such as 4-H*, are also beneficial
- Practical work experience such as an internship/summer experience
- Ability to identify local tree species, have knowledge of growth rates as well as working knowledge of computers and Global Positioning System experience. Experience in electric utilities, telecommunications or the horticulture industry is also valuable

Personal qualities:

- Love of outdoors, good communication skills for advising clients and managing co-workers and property owners. Ability to work and hike in rugged terrain and inclement weather.

Where can I work? What will my hours be? How much money will I make?

Typical employers: Municipalities, utilities, businesses, homeowners and environmental organizations, conservation authority

Type of employment: Full-time, possible travel with limited overnight stays

Average annual full-time salary range for Ontario: \$34,000 - \$59,000

Future Job Market

With increased training and experience individuals may be able to advance to higher level management positions. With increased experience some arborist will become independent contractors or business owners.



*4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.

Job titles also known as:

Grower, Horticulturist

What responsibilities will I have?

- Oversee the production and care of plants, fruits and vegetables
- Manage crop scheduling for timing of appropriate planting and harvesting
- Perform propagation, irrigation, and pest management of plants
- Control plant growth regulation through mixing and testing fertilizers, and monitor injectors in greenhouses
- Responsible for greenhouse environment management and maintenance of plant material in assigned greenhouses
- Direct labour in the functions of crop management
- Operate equipment such as vans, tractors and sprayers
- Oversee seasonal staff and production labour

What education and training is required?

A diploma or equivalent or six months to one year related experience and/or training; or equivalent combination of education and experience. Certifications such as a Pesticide Applicator's License are typically preferred.

To pursue a career as an Assistant Grower:

- High school courses: Science, biology, chemistry, botany, mathematics and computer science
- Involvement in associations or organizations that focus on agriculture, such as 4-H* or horticultural societies, are also beneficial
- Practical work experience such as an internship/summer experience
- Experience in growing various crops, plant identification, knowledge of chemical products, and plant production

Personal qualities:

- Love of outdoors, ability prioritize tasks and solve problems quickly along with the capability to adapt to changing priorities along with the ability to perform physical work

Where can I work? What will my hours be? How much money will I make?

Typical employers: Plant and food production businesses, research firms, homeowners, municipalities and plant nurseries/greenhouses

Type of employment: Full-time depending on season early mornings or late afternoons

Average annual full-time salary range for Ontario: \$30,000 - \$55,000

Future Job Market

With increased experience and education individuals may be able to advance to higher level management positions or as grower. If working in a laboratory setting advancement may lead to becoming a researcher or lab foreman.



*4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.

Job titles also known as:

Greenhouse Customer Service Representative, Farm Worker/Labourer, Horticulture Technician

What responsibilities will I have?

- Responsible for preparing soil and seeds for planting
- Conduct transplanting, watering, and maintenance of plants in greenhouse and/or growth chambers
- Keep and maintain documentation of plant growth and relay information to management
- Interact with customers to take and retrieve orders
- Operate machinery such as a box truck, tractor, and/or sprayer
- Ensure that irrigation, filtering systems and other equipment is adequately maintained
- Identify plants and monitor for unusual behavior or potential risk such as pest or disease

What education and training is required?

A diploma or bachelor's degree in plant or agricultural sciences is required. Certifications such as a Pesticide Applicator's License are typically preferred.

To pursue a career as a Greenhouse Technician:

- High school courses: Science, biology, chemistry, botany, mathematics and computer science
- Involvement in associations or organizations that focus on agriculture, such as 4-H* and horticultural societies, are also beneficial
- Practical work experience such as an internship/summer experience
- Experience in growing various crops, plant identification, knowledge of chemical products, and plant production
- Understanding of government plant regulations typically is highly desired

Personal qualities:

- Love of outdoors, ability to follow specific instructions and have attention to detail along with the ability to perform physical work

Where can I work? What will my hours be? How much money will I make?

Typical employers: Plant and food production businesses, research firms, homeowners, municipalities and plant nurseries/greenhouses

Type of employment: Full-time - depending on season early mornings or late afternoons. Scheduling of work during weekend and evening hours will be required periodically.

Average annual full-time salary range for Ontario: \$22,000 - \$38,000

Future Job Market

With increased experience and education individuals may be able to advance to higher level management positions or as grower. If working in a laboratory setting advancement may lead to becoming a researcher or lab foreman.



*4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.

Job titles also known as:

Irrigation Manager, Farm Manager, Water Management Technician

What responsibilities will I have?

- Manage the production of irrigated plants to achieve volume, quality and cost objectives
- Assimilate and communicate needs to owners, customers and co-workers – must understand the principles of water use assessments
- Maintain production and other irrigation records including the estimated operating costs, ordering of irrigation inputs, marketing of plants and monitoring usage
- Maintain irrigation equipment including but not limited to welders, tractors, loaders, forklifts, electrical wiring.
- Ensure safe working conditions and compliance with industrial standards by planning activities to minimize environmental degradation – Monitor environmental effects of irrigation activities and repairs existing damage

What education and training is required?

Post secondary education is beneficial – consider a Bachelor of Science in agriculture, crop science or agriculture engineering

To pursue a career as an Irrigation Specialist:

- High school courses: Science, biology, chemistry, physics, mathematics, business, computer science, technology or shop courses
- A farm background or practical work experience such as a part-time job or internship/summer experience is imperative
- Experience or knowledge surrounding global positioning systems
- Record keeping
- Knowledge of fertilizer a plus

Personal qualities:

- Leadership skills, and attention to detail aptitude, technically and mechanically inclined, customer service attitude, good verbal communication skills, and the ability to work independently as well as with others

Where can I work? What will my hours be? How much money will I make?

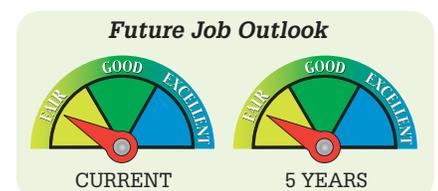
Typical employers: Independent greenhouse operations, research firms, environmental companies, plant, produce or nursery business, and the provincial government

Type of employment: Full-time; long hours, weekend and holiday work during busy seasons (typically spring, summer, fall) – other times of the year may provide a slower pace

Average annual full-time salary range for Ontario: \$22,000 - \$40,000

Future Job Market

Additional responsibilities such as staff management may be available with added experience.



Job titles also known as:

Nursery Technician, Nursery Foreperson, Nursery Specialist

What responsibilities will I have?

- Participate in planting, pollination, harvest and other activities associated with plant breeding nurseries
- Manage crop scheduling for timing of appropriate planting and harvesting
- Perform propagation, irrigation, and pest management of plants
- Control plant growth regulation through mixing and testing fertilizers
- Conduct electronic data collection in field and laboratory settings utilizing personal computer and handheld data collection devices.
- Train and supervise permanent and temporary employees
- Operate and maintain equipment such as vans, tractors and sprayers
- Organizing and ensuring all materials are prepared for the day's activities
- Advise customers regarding growing and maintenance protocol

What education and training is required?

A diploma or six months to one year related experience and/or training; or equivalent combination of education and experience. Certifications such as a Pesticide Applicator's License are typically preferred.

To pursue a career as a Nursery Worker:

- High school courses: Science, biology, chemistry, botany, mathematics and computer science
- Involvement in associations or organizations that focus on agriculture, such as 4-H* and horticultural societies, are also beneficial
- Practical work experience such as an internship/summer experience
- Working knowledge of field growing procedures (i.e. pruning, winterizing, fertilizing, and spacing)

Personal qualities:

- Love of outdoors, ability prioritize tasks and solve problems quickly along with the capability to adapt to changing priorities along with the ability to perform physical work

Where can I work? What will my hours be? How much money will I make?

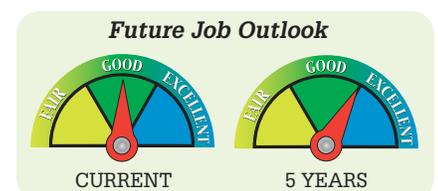
Typical employers: Landscaping business, municipalities, environmental businesses and nurseries/greenhouses

Type of employment: Full-time or Part-time - depending on season, early mornings or late afternoons may be required

Average annual full-time salary range for Ontario: \$22,000 - \$35,000

Future Job Market

With increased experience and education individuals may be able to advance to higher level management positions, sales representative or as a consultant.



*4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.

Job titles also known as:

Hatchery Assistant

What responsibilities will I have?

- Manage all day-to-day activities of the hatchery to ensure the delivery of healthy chicks to growers in a sufficient quantity to meet the demands of the processing plant
- Ensure the availability of eggs as per the production schedule - This includes making projections on egg numbers, scheduling the placement of day old pullets* and the moving of pullets* to breeder units, and advising and informing egg producers and pullet* growers
- Ensures chick quality is maintained to target levels
- Manages egg pick-up and chick delivery
- Develop and implement standard operating procedures for the hatchery
- Maintain the sanitation and maintenance of the hatchery facility as well as the equipment
- Collect, consolidate, analyze and report hatchery data to management – utilizes quality control support to ensure reports are completed accurately and timely
- Interact with all departments to implement hatchery production and productivity goals
- Train and develop staff workers to ensure that organization goals are met while standard operating procedures are followed
- Develop and maintain a production budget while continually working to reduce production costs
- Ensure that all animal welfare programs are followed
- Maintain a safe operation of the hatchery
- Entry level positions such as an Assistant are available with specific duties with little to no managerial responsibilities

What education and training is required?

A bachelor's degree in animal science or related field is required for a management level. A high school diploma in conjunction with live production work experience is sufficient for entry level roles.

To pursue a career as a Hatchery Manager:

- High school courses: Science, animal science, biology, mathematics, business and computer science
- Involvement in associations or organizations that focus on agriculture, such as 4-H** to gain experience through animal husbandry*** activities, judging and showing poultry
- Practical work experience as a farm hand or trainee on a poultry farm/hatchery will be beneficial - opportunities for hands-on experience are available
- Basic computer skills, financial management skills (manager only)

Personal qualities:

- Strong leadership skills (manager only), analytical, responsible, effective communication skills, problem solving skills, goal-oriented, attention to detail

Where can I work? What will my hours be? How much money will I make?

Typical employers: Poultry production company, university poultry farm/research, hatchery facility

Type of employment: Full-time, can include shift work - evenings and weekends

Average annual full-time salary range for Ontario:

\$46,000 - \$110,000

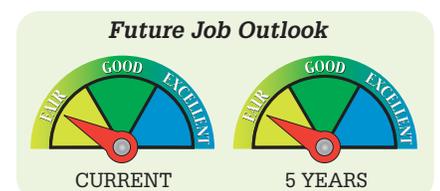
Future Job Market

There are opportunities from entry level to manager roles available with training and experience

* Pullets - Baby birds (chicks)

**4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.

***Husbandry - Care and management of animals



Job titles also known as:

Production Manager, Production Supervisor

What responsibilities will I have?

- Responsible for learning and overseeing all aspects of a poultry operation, which may include a processing plant, feed mill, hatchery and live production
- Manage personnel in order to produce a quality product in an efficient manner
- Responsible for the coordination of information and communication between all personnel/managers of the individual functions of a poultry operation
- Identify and improve all areas of operation efficiencies
- Work closely with contract growers to ensure that procedures and processes are consistent with the overall goals of the organization
- Direct relations with all governmental regulatory agencies and management and resolution of issues
- Also work with all support departments such as Quality Assurance/Quality Control, maintenance, human resources, accounting
- Develop and adhere to operational budgets – provide feedback to management regarding cost of inputs and suggestions for selling price points
- Administrative duties – include team time cards, scheduling, training and safety responsibilities – work with human resources regarding all areas of employee relations
- Assistance with on-farm duties as needed, such as filling in for a supervisor/farm manager that is away

What education and training is required?

A bachelor's degree in animal science or related field or equivalent work experience is suggested. This is a role that generally starts from a lower level position because understanding the organization's procedures is key.

To pursue a career as an Operations Manager:

- High school courses: Science, animal science, biology, mathematics, business and computer science
- Practical work experience as a farm hand or trainee with poultry will be beneficial - opportunities for hands-on experience are available – again, working up the system within the organization is a way to secure this role
- Basic computer skills in MS Office

Personal qualities:

- Excellent written and communication skills, excellent and proven management skills (manager only), good work ethic, organized, detail oriented, analytical, ability to work in a barn environment and ability/stamina to work with livestock

Where can I work? What will my hours be? How much money will I make?

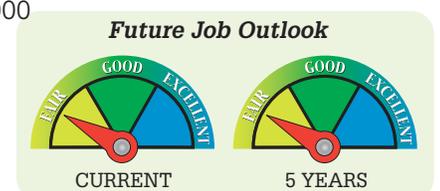
Typical employers: Self-employed, contract grower, poultry company, university farm/research or an integrated poultry company

Type of employment: Full-time, can be long days and possibly weekend/holiday work

Average annual full-time salary range for Ontario: \$53,000 – \$85,000

Future Job Market

This is an upper level position – entry level and mid-level jobs most likely will be required to assume this role.



Job titles also known as:

Farm Manager, Live Production Manager, Breeding Farm Supervisor, Layer Manager

What responsibilities will I have?

- Plan, organize, staff, direct, and control activities to achieve cost effective hatching of egg – includes animal husbandry* duties such as, bedding, feeding, watering, medicating, lighting, and vaccinating
- Prepare annual forecasts, budgets, production strategies and management methods to produce quality birds to meet the organization's goals and standards
- Maintain farm records, egg records, mortality, individual flock records, maintenance schedules, estimated operating costs, and monitoring of animal health/feeding requirements
- Monitor and maintain all activities relating to the breeding and health/welfare of the animals including natural breeding, artificial insemination, and pregnancy-check
- Develop water budgets, cropping budgets, capital expenditure requirements and livestock programs
- Report regularly on actual performance
- Ensure effective handling of stock/equipment
- Clean and maintain buildings, sheds, equipment and facilities to maintain health standards and high quality birds
- Monitor environmental effects of farming activities and minimize environmental degradation
- Train and provide career direction for all farm staff – assure that all employees are kept informed and involved with farm activities
- Organize, schedule, and train staff
- Provide a safe work environment adhering to all safety guideline
- Ability to work closely with other departments to ensure programs and processes are carried out throughout the organization

What education and training is required?

A diploma or bachelor's degree in animal science, general agriculture or other like field is desired. However, an equivalent time period of experience may be satisfactory. General business administration course work is also beneficial. Onsite training is likely to be provided.

To pursue a career as a Production Manager (Breeder/Layer):

- High school courses: Science, animal science, biology, mathematics, business, and computer science
- Involvement in associations or organizations that focus on agriculture, such as 4-H** to gain experience through animal husbandry* activities, judging, showing poultry, etc.
- Practical work experience on a poultry farm will be beneficial - opportunities for hands-on experience
- Computer literate, record keeping ability

Personal qualities:

- Effective communication skills, goal oriented, organized, forward-thinking, problem solver, leadership skills (manager), prioritization ability, detail oriented and ability/stamina to work with livestock animals

Where can I work? What will my hours be? How much money will I make?

Typical employers: Self-employed, family-owned operations, contract growers, poultry companies, university poultry farm/research

Type of employment: Full-time - can be long days, evenings and possibly weekend/holiday work - may require living on the farm (typically housing is provided)

Average annual full-time salary range for Ontario:
\$35,000 - \$53,000

Future Job Market

With increased training and depending on the size of the operation, higher level management positions may be available.

*Husbandry - Care and management of animals.

**4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.



Job titles also known as:

Farm Manager, Broiler Farm Manager

What responsibilities will I have?

- Plan, organize, staff, direct and control activities to achieve the most number of birds for processing while maintaining a low cost - includes animal husbandry* duties such as feeding, watering, medicating and vaccinating
- Develop water budgets, cropping budgets, capital expenditure requirements and livestock programs
- Monitor various feeding and health programs for broilers
- Prepare annual forecasts, budgets, production strategies and management methods to produce quality birds to meet organization's goals and standards
- Maintain farm records, mortality, individual flock records, maintenance schedules, estimated operating costs, and animal health/feeding requirements
- Schedule birds for processing according to weight in relation to demand
- Communicate with growers and give advice on management practices
- Report regularly on actual performance
- Ensure effective handling of stock/equipment
- Clean and maintain buildings, barns, equipment and facilities to maintain health standards and high quality birds
- Monitor environmental effects of farming activities and minimize environmental degradation
- Train and provide career direction for all farm staff – assure that all employees are kept informed and involved with farm activities
- Organize, schedule and train staff
- Provide a safe work environment adhering to all safety guidelines
- Ability to work closely with other departments to ensure programs and processes are carried out throughout the organization

What education and training is required?

A diploma or bachelor's degree in animal science, general agriculture or other like field is desired. However, an equivalent time period of experience may be satisfactory. General business administration course work is also beneficial. Onsite training is likely to be provided.

To pursue a career as a Production Manager (Broiler):

- High school courses: Science, animal science, biology, mathematics, business and computer science
- Involvement in associations or organizations that focus on agriculture, such as 4-H** to gain experience through animal husbandry* activities, judging, and showing poultry
- Practical work experience on a poultry farm will be beneficial - opportunities for hands-on experience
- Computer literate, record keeping ability

Personal qualities:

- Effective communication skills, goal oriented, organized, forward-thinking, problem solver, leadership skills (manager), prioritization ability, detail oriented and ability/stamina to work with livestock animals

Where can I work? What will my hours be? How much money will I make?

Typical employers: Self-employed, family-owned operations, contract growers, poultry companies, university poultry farm/research

Type of employment: Full-time - can be long days, evenings and possibly weekend/holiday work - may require living on the farm (typically housing is provided)

Average annual full-time salary range for Ontario:
\$35,000 - \$53,000

Future Job Market

With increased training and depending on the size of the operation, higher level management positions may be available.

*Husbandry - Care and management of animals.

**4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.



Job titles also known as:

Quality Control Manager, Quality Assurance Manager, Quality Control/Assurance Supervisor, Quality Assurance Clerk

What responsibilities will I have?

- Assure safe food products for customers using statistical, hazard, and quality management programs
- Develop, implement, and maintain food safety according to company standards and government compliance programs
- Conduct quality control inspections of facilities
- Conduct necessary testing, inspection, and monitoring of activities associated with production
- Monitor sanitation, microbiological control and food safety - audit these processes regularly
- Monitor finished product for compliance - verifying all product labels are updated and correct
- Lead customer, third party quality or government food safety audits
- Investigate quality complaints and recommend corrective measures
- Outline product deficiencies and suggested corrections, track corrective actions to the customer, government and Quality Assurance inspections
- Document and keep records of quality programs and standards
- Develop department budgets
- Coordinate the duties of a quality control team with the emphasis on continuous improvement
- Train, manage and schedule employees
- Be aware of current food industry trends and customers needs
- Assist Research and Development on projects (i.e. writing procedures, capability studies, records organization, computer application, and implementation)

What education and training is required?

A bachelor's degree and/or Masters of Science in food science, biology, microbiology or related field are required at the management level. In entry level roles, a bachelor's degree is preferred. Practical work experience in the field is also beneficial.

To pursue a career as a Quality Control Specialist:

- High school courses: Science, animal science, biology, chemistry, mathematics and computer science
- Practical work experience in a lab setting is helpful. Many meat processing companies offer internships/summer work experiences. Research at a university would provide relevant work experience - knowledge of food safety is key.
- Computer literate

Personal qualities:

- Strong verbal and written communication skills, ability to communicate scientific knowledge, ability to function in a fast-paced production environment, multi-tasking capabilities, attention to detail, work in a team environment, leadership/managerial skills (manager only)

Where can I work? What will my hours be? How much money will I make?

Typical employers: Meat processing organization, university, poultry companies, research company, or food processing facility

Type of employment: Full-time, can be shift work, weekends/nights

Average annual full-time salary range for Ontario:

\$28,000 - \$58,000

Future Job Market

Job opportunities from entry level to supervisor roles are available.



Job titles also known as:

Turf Grass Superintendent, Sod Manager, Grounds Manager, Lawn Care Specialist, Sod Producer, Athletic Field Manager, Parks and Grounds Manager

What responsibilities will I have?

- Grow, maintain and manicure varieties of turf grasses
- Conduct routine inspection of equipment and vehicle to ensure productivity and safety of the facility
- Work closely with maintenance superintendents in executing horticultural schedules
- Oversee treatment and make adjustments as needed for future applications to ensure continued quality of turf and ornamentals
- Manage and document chemical, pesticide and fertilizer use in accordance with regulations
- Implement the agronomic plan for turf farm or golf course
- Oversee labourers and other technicians in carrying out farm practices
- Coordinate logistics of harvest, delivery, and transportation of product
- Manage full-time and seasonal employees

What education and training is required?

A bachelor's degree in agronomy or turf grass or a related field, such as horticulture, or landscaping is required to become a turf grass manager. Many employers require or desire certification or membership although it is not always mandatory. Certification can include Pesticide Applicators License or Golf Course Superintendent Membership.

To pursue as a Turf Grass Manager:

- High school courses: Science, biology, chemistry, botany, mathematics and computer science
- Involvement in associations or organizations that focus on agriculture, such as 4-H*, are beneficial
- Practical work experience such as an internship/summer experience
- Ability to operate machinery such as mowers, knowledge of various turf varieties and knowledge of growth protocol for varying grasses in different climates. A working knowledge of computers and Global Positioning System experience is beneficial
- Knowledge of select sports involved in turf play is helpful

Personal qualities:

- Love of outdoors, good communication skills

Where can I work? What will my hours be? How much money will I make?

Typical employers: Golf courses, athletic fields, landscaping companies, hotels, parks, cities and sod farms

Type of employment: Full-time, during seasonal times long hours will be required

Average annual full-time salary range for Ontario: \$30,000 - \$90,000

Future Job Market

With increased training and experience individuals may be able to advance to technical sales positions, research associate positions and extension specialists for state universities, or work as consultants.



*4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.

Job titles also known as:

Turf Grass Labourer, Sod Farmer, Grounds Worker, Lawn Care Technician, Assistant Superintendent

What responsibilities will I have?

- Grow, maintain and manicure varieties of turf grasses
- Perform daily tasks at golf course or grounds set-up
- Administer pesticide and fertilizer treatments along with record keeping
- Assist with labour forecasting and budgeting
- Manage ordering and receiving of parts, equipment and materials for the course or farm as well as equipment maintenance
- Operate machinery such as mowers, irrigation equipment, and light duty tractors
- Assist with implementation of integrated pest management practices
- Assist with logistics of harvest, delivery, and transportation of product
- Certify every two years in spray technician license and safety

What education and training is required?

A high school diploma with relative experience or a diploma in agronomy or turf grass or a related field, such as horticulture, or landscaping is required to become a turf grass technician. For select roles as a turf grass technician a bachelors degree may be required.

To pursue a career as a Turf Grass Technician:

- High school courses: Science, biology, chemistry, botany, mathematics and computer science
- Involvement in associations or organizations that focus on agriculture, such as 4-H*, are also beneficial
- Practical work experience such as an internship/summer experience
- Ability to operate machinery such as various mowers and light equipment, knowledge of various turf varieties and knowledge of growth protocol for varying grasses in varying climates
- A working knowledge of computers and Global Positioning System experience is beneficial
- Knowledge of select sports involved in turf play is helpful

Personal qualities:

- Love of outdoors and a hand's on work attitude, ability to multitask and problem solve.

Where can I work? What will my hours be? How much money will I make?

Typical employers: Golf courses, athletic fields, landscaping companies, hotels, parks, cities, and sod farms

Type of employment: Full-time, during seasonal times long hours will be required

Average annual full-time salary range for Ontario: \$22,000 - \$40,000

Future Job Market

With increased training and experience individuals may be able to advance to roles such as turf grass manager, sod farm manager, sales positions, or work as consultants.



*4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.

Job titles also known as:

Market Manager, Communications Manager, Events Coordinator

What responsibilities will I have?

- Plan, develop, and direct the efforts for distribution of wine
- Develop and execute marketing programs to increase annual sales volume and revenue
- Develop a marketing strategy for the organization, such as advertising, promotions, public relations, trade marketing, digital media
- Responsible for internal and external communications
- Coordinate and execute special events
- Work with suppliers to ensure distribution programs including training/education, pricing, inventory management, communication pieces, reporting, tradeshows, etc.
- Create incentive programs for sales people and suppliers
- Monitor brand performance and use information gained to recommend actions
- Provide financial analysis and business planning for each individual brand as well as the winery
- Conduct market research on own products as well as competitive products
- Develop a marketing budget and adhere to outlined expenses
- Work with all other functions of the business to carry out business goals
- Depending on the size of the organization, key functions of the Marketing Manager role may be split out, such as an Event Coordinator or Communications Manager

What education and training is required?

A bachelor's degree in viticulture*, oenology** or agriculture business with an emphasis in marketing is recommended. A master's degree in business administration, viticulture*, oenology** or a like field may be required also.

To pursue a career as a Marketing Manager:

- High school courses: Business, computer science and mathematics
- Practical work experience in retail or marketing is a plus, specifically within the wine, food or high-end product field and/or alcoholic beverage brand management (specifically wine). Consider an internship/summer work experience at a winery, such as a tasting room staff member
- Financial and management experience are valuable
- Excellent computer skills

Personal qualities:

- Work well under pressure, organized and detail oriented, prioritization capabilities, discretion, tactfulness, set and meet deadlines, self motivated, strong work ethic, good written and verbal communication skills, analytical, common sense/logical thinker, relationship builder and physical capabilities to do the job

Where can I work? What will my hours be? How much money will I make?

Typical employers: Wineries - estates, large and small

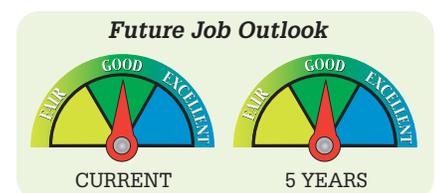
Type of employment: Full-time - possible travel with overnight stays

Average annual full-time salary range for Ontario:

\$55,000 - \$124,000

Future Job Market

With increased training and proven success, advancement opportunities are available.



*Viticulture - Cultivation of grapes

**Oenology - Science of wine and winemaking

Job titles also known as:

Retail Sales Associate, Regional Sales Manager, Territory Manager, Sales Representative

What responsibilities will I have?

- Maintain and grow a territory of accounts (grocery stores, distributors, etc)
- Outline and achieve distribution and growth objectives/sales goals within a specific geographic area through effective account management
- Introduce new products, promote improved distribution and ensure in-store promotion results
- Recommend programs for brand building and line expansion of existing brands
- Stay abreast of business/market conditions, intensively plan sales efforts, recognize new opportunities within each account and maintain the necessary territory records
- Provide educational wine training to accounts through tastings, seminars and trade events
- Build and develop the trust and confidence of the retailer through knowledge of wine products, persuasive presentations, and overcoming objections
- Conduct sales meeting for area distributors

What education and training is required?

A bachelor's degree in viticulture*, oenology**, fermentation science, agriculture business, business, marketing or communications preferred. Additional sales experience may be required based on the level of position.

To pursue a career as a Sales Manager:

- High school courses: Business, math, science and computer science
- Retail or marketing experience is a plus, specifically in the wine and food industry – management roles require more years of practical work experience specifically in sales
- Valid driver's license and clean driving record
- Sales skills, bilingualism preferred (French), solid computer skills

Personal qualities:

- Effective communications skills (oral and written), strong presentation skills, excellent customer service and follow-up skills, self-motivated, goal-oriented, physical capabilities to complete job duties

Where can I work? What will my hours be? How much money will I make?

Typical employers: Wineries - estates, large and small

Type of employment: Full-time, evening and overnight hours as well as travel may be necessary

Average annual full-time salary range for Ontario: \$60,000 - \$129,000

Future Job Market

Entry level positions to management level roles available.



*Viticulture - Cultivation of grapes

**Oenology - Science of wine and winemaking

Job titles also known as:

Tasting Room Specialist

What responsibilities will I have?

- Manage day-to-day operations
- Build a strong sales culture
- Promote the brand, offering guests a one-of-a-kind experience to learn about wines
- Strive to continuously improve the quality of service, hospitality, and presentation to build a strong, reliable client base
- Develop and maintain standard operating procedures and practices for Tasting Room
- Complete transactions with customer base
- Implement and manage point of sale computer systems
- Ability to analyze and report to accounting and the management team sales information in an accurate and timely manner
- Ensure adherence to the accounting and inventory procedures
- Manage inventory levels to maintain optimum re-order points and controls for wine and retail merchandise
- Manage and reconcile physical inventory counts with perpetual inventory system according to a prescribed accounting schedule
- Produce and adhere to the budget
- Possess superior winemaking and viticulture* knowledge
- Coordinate with event staff to integrate Tasting Room activities with private and public events held by the winery
- Hire, train, and schedule staff
- Be able to resolve conflict in a professional manner and comply with all HR policies and procedure
- Manager role - management skills, experience hiring, training and supervising staff and scheduling experience

What education and training is required?

A bachelor's degree in viticulture*, agriculture or agriculture business or marketing is preferred

To pursue a career as a Tasting Room Manager:

- High school courses: Business, science and computer science
- Retail or marketing experience is a plus, specifically in the wine and food industry - management roles require more years of practical work experience
- Sales skills, ability to build customer relationships
- Knowledge or willingness to learn about winemaking
- Point of sale computer program knowledge

Personal qualities:

- Effective communications skills (oral and written), detail oriented, organized, able to lift cases of wine, and stand for long periods of time

Where can I work? What will my hours be? How much money will I make?

Typical employers: Wineries - estates, large and small

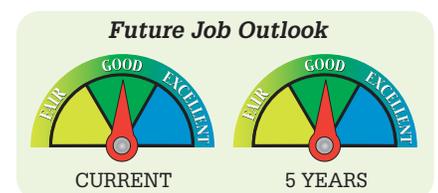
Type of employment: Full-time or Part-time - hourly work hours

Average annual full-time salary range for Ontario:

\$24,000 - \$50,000

Future Job Market

Entry level positions to management level roles available.



*Viticulture - Cultivation of grapes

Job titles also known as:

Vineyard Foreman, Vineyard Director, Viticulturist*

What responsibilities will I have?

- Manage day to day operations in the vineyards - pruning, canopy management, spraying irrigation, fertilization, pest control, frost protection, and harvesting
- Protect and develop all vineyard assets, including identifying, developing, and implementing effective programs to accomplish grape quality and quantity objectives
- Develop farming strategies to ensure long term efficient farming of high quality grapes
- Supervise the production of crops to be raised to achieve volume, quality and cost objectives
- Responsible for organizing harvest with other winery teams to achieve winemaking goals
- Identify vineyard issues regarding grape quality
- Develop and recommend short and long term plans for vineyard operations, in conjunction with all legal and regulatory requirements
- Conduct routine farm and equipment maintenance
- Prepare and manage annual forecasts, budgets and other business plans for vineyards
- Report on vineyard operations through record keeping and computerized databases/reporting systems - draw conclusions and make operations recommendations
- Hire, develop, and supervise vineyard operations staff; direct vineyard activities through these positions
- Manage labour for manual work, equipment operations, pest control, and harvest
- Ensure development and management of training and safety programs for staff
- Assure consistent, effective working relations and communication with other department managers
- In a manager role - supervisory skills, recruiting experience, training and development skills and commitment to safety

What education and training is required?

A bachelor's degree in viticulture* or related field is recommended, however equivalent vineyard work experience is accepted.

To pursue a career as a Vineyard Manager:

- High school courses: Science, biology, chemistry, physics, mathematics, business and computer science
- Involvement in associations or organizations that focus on agriculture, such as 4-H**, are beneficial
- Practical work experience on a vineyard or farm is imperative.
- Bilingual in English and Spanish helpful
- Ability to run motor vehicles/equipment - must have valid driver's license
- Developed computer skills in programs such as MS Office, Weather programs, etc.

Personal qualities:

- Diagnostic skills, detail-oriented, analytical, effective communication skills, organized, prioritization, tactful, accurate, self-starter, strong work ethics, flexible, efficient, maintenance skills and physically fit

Where can I work? What will my hours be? How much money will I make?

Typical employers: Wineries - estates, large and small

Type of employment: Full-time - heavy seasonal hours and on-call status for emergencies and weekend/nighttime

Average annual full-time salary range for Ontario:

Manager Level - \$35,000 - \$68,000

Assistant Level - \$22,000 - \$35,000

Future Job Market

With increased experience advancement is available by moving wineries to larger operations with more responsibility.

*Viticulture - Cultivation of grapes

**4-H - A volunteer based program which provides hands-on training for youth in agriculture, food, health and the environment.



What responsibilities will I have?

- Production of grapes under a wide variety of natural conditions including preparation of the land, planting, trellising, pruning, monitoring and controlling of pests and diseases, fertilizing, irrigation and canopy management
- Potential to manage both table and wine grapes
- Understand optimum ripeness (fruit development and characteristics) and proper harvesting of grapes
- Design and implement pest and disease control programs following pest management practices and a sustainable farming approach
- Use plant, climate and soil moisture monitoring equipment for scheduling irrigation and modeling grapevine phenology*
- Diagnose and solve viticulture** problems
- Collect, organize and report viticulture** data to support farming and marketing decisions
- Possibly direct and supervise staff
- Provide feedback and guidance to wine farmers/vineyard managers to yield the best results
- Direct contact with the winemaker to communicate grape characteristics needed to begin the winemaking process

What education and training is required?

A bachelor's degree in viticulture**, oenology***, or horticulture is required. A master's degree in viticulture** or oenology*** or horticulture is also often a requirement.

To pursue a career in Viticulture:

- High school courses: Science, biology, chemistry, physics, mathematics and computer science
- Job opportunities in this field require a significant level of work experience. Practical work experience such as an internship/summer work experience or participating in on-campus research is imperative
- Experience with pest management, vine nutrition and irrigation a plus
- Ability to effectively convey scientific information in an easy to understand format and provide compelling recommendations

Personal qualities:

- Diagnostic skills, detail-oriented, analytical, hard working, leadership skills and a willingness to work outdoors

Where can I work? What will my hours be? How much money will I make?

Typical employers: Government, educational institutions, wine farms, private wine companies, consultants.

Type of employment: Full-time - seasonal overtime hours

Average annual full-time salary range for Ontario: \$30,000 - \$90,000

Future Job Market

This is an upper level position - advancement is possible, but limited.



*Phrenology - Shape of the grape

**Viticulture - Cultivation of grapes

***Oenology - Science of wine and winemaking

Job titles also known as:

Cellar Master, Bottling Manager, Assistant Wine Maker

What responsibilities will I have?

- Possess a full understanding of the winemaking business from vineyard to bottle including maintaining the financial objectives of the winery, wine/blending decisions, wine movement and finishing/bottling
- Supervise and assess vineyard quality
- Coordinate all harvest activities with vineyard manager
- Coordinate all fermentation and aging procedures
- Develop filtering, production/blending programs
- Coordinate barrel selection and aging program
- Supervise the bottling process
- Develop and track production budgets
- Maintain winemaking records, inventory, etc.
- Oversee maintenance and sanitization of winemaking equipment and production facilities
- Supervise, train and manage members of the winemaking team
- Ensure a safe working environment for staff
- Assist with sales, marketing and public relations activities
- In a manager role - developed leadership skills, tact, decision-making and problem-solving skills

What education and training is required?

A bachelor's degree in oenology*, fermentation science or viticulture** is needed. To act as an assistant wine maker, fewer years of experience are required. Most primary wine maker positions require five years of experience.

To pursue a career as a Wine Maker:

- High school courses: Science, biology, chemistry, physics, mathematics, business and computer science
- Practical work experience such as an internship/summer experience is preferred - assistant level opportunities are also available.
- Computer skills in Microsoft Office are needed
- Diagnostic and laboratory skills
- Effectively convey scientific information in an easy to understand format

Personal qualities:

- Analytical, ability to interact with internal and external customers, ability to physically perform the duties of the job, and work extended work hours (especially during harvest)

Where can I work? What will my hours be? How much money will I make?

Typical employers: Wineries - estates, large and small

Type of employment: Full-time or Part-time - possible extended seasonal hours (specifically harvest)

Average annual full-time salary range for Ontario:

\$35,000 - \$150,000

Future Job Market

Entry level positions available and growth potential with practical work experience.



*Oenology - Science of wine and winemaking

**Viticulture - Cultivation of grapes

Associations

Agricultural Associations of Ontario

Canadian Pony Club	www.canadianponyclub.org
Chicken Farmers of Ontario	www.ontariochicken.ca
Christmas Tree Farmers of Ontario	www.christmastrees.on.ca
Dairy Farmers of Ontario	www.milk.org
Egg Farmers of Ontario	www.getcracking.ca
Equine Canada	www.equinecanada.ca
Farm Safety Association Inc	www.farmsafety.ca
Fresh Vegetable Growers of Ontario	www.freshvegetablesontario.com
Fruit Wines of Ontario	www.fruitwinesofontario.ca
HorseJobs.ca	www.HorseJobs.ca
Jersey Ontario	www.jerseyontario.com
Master Gardeners of Ontario Inc	www.mgoi.ca
Mushroom's Canada	www.mushrooms.ca
Nursery Sod Growers Association of Ontario	www.nsgao.com
Oat and Barley Council of Ontario	www.ocirc.org
Ontario Market Vendors	www.farmersmarketsontario.com
Ontario Apple Growers	www.onapples.com
Ontario Asparagus Growers` Marketing Board	www.asparagus.on.ca
Ontario Bean Producers` Marketing Board	www.ontariobean.on.ca
Ontario Beekeepers` Association	www.ontariobee.com
Ontario Berry Growers Association	www.ontarioberries.com
Ontario Bison Association	www.ontariobison.ca
Ontario Blonde d'Aquitaine Association	www.ontarioblondes.com
Ontario Canola Growers` Association	www.ontariocanolagrowers.ca
Ontario Cattle Feeders` Association	www.ontariocornfedbeef.com
Ontario Cattlemen`s Association	www.cattle.guelph.on.ca
Ontario Charolais Association	www.charolaisbanner.com/local/index.htm
Ontario Cheese Society	www.ontariocheese.org
Ontario Co-operative Association	www.ontario.coop
Ontario Corn Producers` Association	www.ontariocorn.org
Ontario Dairy Council	www.ontariodairies.ca
Ontario Dairy Goat Co-operative	www.ontariodairygoat.com
Ontario Dairy Sheep Association	www.ontariodairysheep.org
Ontario Deer and Elk Farmers` Association	www.ontariodeerelkfarmers.com
Ontario Equestrian Federation	www.horse.on.ca
Ontario Farm Fresh Marketing Association	www.ontariofarmfresh.com
Ontario Farriers Association	www.ontariofarriers.com
Ontario Food Processing Association	www.aofp.ca
Ontario Forage Council	www.ontarioforagecouncil.com
Ontario Fresh Grape Growers Marketing Board	www.ontariotenderfruit.ca
Ontario Fruit & Vegetable Growers Association	www.ofvga.org
Ontario Garlic Growers` Association	www.garlicgrowers.on.ca
Ontario Ginseng Growers Association	www.ginsengontario.com
Ontario Goat Breeders` Association	www.ogba.ca
Ontario Goat Milk Producers	www.ontariogoatmilk.org

Associations

Ontario Greenhouse Vegetable Growers	www.ontariogreenhouse.com
Ontario High Bush Blueberry Growers` Association	www.ontarioberries.com/lbinfo.htm
Ontario Highland Cattle Association	www.ontariohighlandcattle.com
Ontario Holstein	www.ontario.holstein.ca
Ontario Independent Meat Processors	www.oimp.ca
Ontario Institute of Agrologists	www.oia.on.ca
Ontario Large Dairy Herd Operators	www.ocl.net/projects
Ontario Limousin Association	www.ontariolimousin.com
Ontario Maple Syrup Producers Association	www.ontariomaple.com
Ontario Plowmens Association	www.plowingmatch.org
Ontario Pork Industry Council	www.opic.on.ca
Ontario Pork Producers` Marketing Board	www.ontariopork.on.ca
Ontario Potato Board	www.ontariopotatoes.ca
Ontario Poultry Industry Council	www.poultryindustrycouncil.ca
Ontario Processing Vegetable Growers	www.opvg.org
Ontario Sheep Marketing Agency	www.ontariosheep.org
Ontario Shorthorn Association	www.ontarioshorthorns.com
Ontario Simmental Association	www.ontariosimmentalassociation.com
Ontario Soil & Crop Improvement Association	www.ontariosoilcrop.org
Ontario Soybean Growers	www.soybean.on.ca
Ontario Veal Association	www.ontarioveal.on.ca
Ontario Wheat Producers` Marketing Board	www.ontariowheatboard.com
Ontario Wildflowers	www.ontariowildflowers.com
Organic Council of Ontario	www.organiccouncil.ca
Ostrich Producers of Ontario	www.ostrichproducersofontario.com
Seed Corn Growers of Ontario	www.seedcorngrowers.on.ca
Society of Ontario Nut Growers	www.songonline.ca
The Canadian Guernsey Association	www.guernseycanada.ca
Turkey Farmers of Ontario	www.turkeyfarmers.on.ca
Wine Council of Ontario	www.winesofontario.org

Other Associations of Interest

AgCall Human Resources	www.Agcallhr.com
AgCare	www.agcare.org
Agriculture Canada	www.agr.gc.ca
AgriTalent Database - CAHRC	www.AgriTalent.ca
Christian Farmers Federation of Ontario	www.christianfarmers.org
Greater Toronto Area Agricultural Action Committee (GTAAAC)	www.gtalocalfood.ca
National Coaching Certificate Program (NCCP)	www.coach.ca
National Farmers Union	www.nfu.ca
Ontario Agri Business Association	www.oaba.on.ca
Ontario Agri-Food Education Inc.	www.oafe.org
Ontario Farm Animal Council	www.ofac.org
Ontario Federation of Agriculture	www.ofa.on.ca
Ontario Ministry of Agriculture Food and Rural Affairs	www.omfra.gov.on.ca
Ontario's Greenbelt	www.greenbelt.ca

Colleges and Universities

Suggested Ontario Colleges

Algonquin College of Applied Arts and Technology	www.algonquincollege.com
Cambrian College of Applied Arts and Technology	www.cambriancollege.ca
Canadore College of Applied Arts and Technology	www.canadorec.on.ca
Centennial College	www.centennialcollege.ca
Collège Boréal	www.borealc.on.ca
Collège d'Alfred	www.alfredc.uoguelph.ca
Conestoga College Institute of Technology and Advanced Learning	www.conestogac.on.ca
Confederation College of Applied Arts and Technology	www.confederationc.on.ca
Durham College of Applied Arts and Technology	www.durhamcollege.ca
Fanshawe College of Applied Arts and Technology	www.fanshawec.ca
Fleming College	www.flemingc.on.ca
George Brown College of Applied Arts and Technology	www.georgebrown.ca
Georgian College of Applied Arts and Technology	www.georgianc.on.ca
Humber College Institute of Technology and Advanced Learning	www.humber.ca
Kemptville College	www.kemptvillec.uoguelph.ca
La Cité collégiale	www.lacitecollegiale.com
Lambton College of Applied Arts and Technology	www.lambton.on.ca
Loyalist College of Applied Arts and Technology	www.loyalistc.on.ca
Mohawk College of Applied Arts and Technology	www.mohawkcollege.ca
Niagara College of Applied Arts and Technology	www.niagaracollege.ca
Northern College of Applied Arts and Technology	www.northernc.on.ca
Ontario Agricultural College (OAC)	www.oac.uoguelph.ca
Ridgetown College	www.ridgetownc.uoguelph.ca
Sault College	www.saultcollege.ca
Seneca College of Applied Arts and Technology	www.senecac.on.ca
Sheridan College Institute of Technology and Advanced Learning	www.sheridanc.on.ca
St. Clair College of Applied Arts and Technology	www.stclaircollege.ca
St. Lawrence College of Applied Arts and Technology	www.sl.on.ca

Suggested Canadian Universities

Concordia University College	www.concordia.ab.ca
Grant MacEwan University	www.macewan.ca
McGill University	www.mcgill.ca
Simon Fraser University	www.sfu.ca
Université de Montréal	www.umontreal.ca
University College of the Fraser Valley	www.ufrv.ca
University of Alberta	www.ualberta.ca
University of British Columbia	www.ubc.ca
University of Calgary	www.ucalgary.ca
University of Guelph	www.uoguelph.ca
University of Lethbridge	www.uleth.ca
University of Manitoba	www.umanitoba.ca
University of Prince Edward Island	www.upei.ca
University of Regina	www.uregina.ca
University of Saskatchewan	www.usask.ca
University of Victoria	www.uvic.ca
University of Waterloo	www.uwaterloo.ca
University of Windsor	www.uwindsor.ca
University of Winnipeg	www.uwinnipeg.ca
Wilfrid Laurier University	www.wlu.ca

	Algonquin	Cambrian	Canadore	Centennial	Collège Boréal	Collège d'Alfred	Conestoga	Confederation	Durham	Fanshawe	Fleming	George Brown	Georgian	Humber	Kemptville	La Cité collégiale	Lambton	Loyalist	Mohawk	Niagara	Northern	Ontario Agricultural	Ridgetown	Sault	Seneca	Sheridan	St. Clair	St. Lawrence
ANIMAL PRODUCTION/HEALTH																												
1. AI Technician					•	•									•								•		•		•	
2. Animal Control Officer						•									•						•		•		•		•	
3. Animal Groomer																												
4. Animal Health Sales Representative																												
5. Animal Nutritionist																												
6. Cattle Herd Manager						•									•							•	•					
7. Dairy Herd Manager						•									•							•	•					
8. Feed Mill Manager		•	•	•	•		•		•		•				•		•	•	•					•	•	•		•
9. Renderer - <i>Direct to workplace</i>																												
10. Shearer						•									•						•		•			•		
11. Sheep Herd Manager						•									•						•	•	•					
12. Slaughter Worker															•						•		•					
13. Spinner - <i>Direct to workplace</i>																												
14. Swine Production Supervisor (Finishing/Nursery)						•									•							•	•					
15. Swine Production Supervisor (Sow Farm)						•									•							•	•					
16. Tanner - <i>Direct to workplace</i>																												
17. Veterinarian																												
18. Veterinary Technician					•	•			•			•		•	•						•		•		•	•	•	•
CROP																												
19. Agronomist - Field Sales						•									•							•	•					
20. Agronomist - Research						•									•							•	•					
21. Conservation Manager																												
22. Fertilizer Specialist						•									•						•				•			
23. Irrigation Manager						•									•							•	•					
24. Production Manager						•									•							•	•					
25. Quality Control Specialist						•									•							•	•					
26. Sprayer Operator						•									•							•	•					
27. Soil Chemist																												
28. Soil Conservationist																												
28. Soil Technician		•				•		•		•				•	•				•	•				•	•		•	
29. Watershed Specialist																												
ENVIRONMENT																												
30. Ecologist																												
31. Environmental Biologist																												
33. Environmental Botanist																												
34. Environmental Hydrologist																												
35. Environmental Microbiologist																												
36. Environmental Technician		•		•	•		•	•	•	•						•			•		•		•	•	•	•	•	
37. Environmental Waste Specialist			•				•		•	•				•							•		•	•		•	•	
EQUINE																												
38. Equine Facility Manager						•									•							•	•					
39. Farrier*																												
40. Riding Instructor*																												
41. Show Groom						•									•							•	•					
42. Stable Groom						•									•							•	•					

*Training available through related associations. See profile.

• College

Blank Square - See Universities Pathway Chart

	Algonquin	Cambrian	Canadore	Centennial	Collège Boréal	Collège d'Alfred	Conestoga	Confederation	Durham	Fanshawe	Fleming	George Brown	Georgian	Humber	Kemptville	La Cité collégiale	Lambton	Loyalist	Mohawk	Niagara	Northern	Ontario Agricultural	Ridgetown	Sault	Seneca	Sheridan	St. Clair	St. Lawrence	
<i>FOOD PROCESSING</i>																													
43. Butcher				•			•		•	•				•	•														
44. Chef/Baker	•	•	•		•			•	•	•		•	•	•		•				•				•	•				
45. Cheese Maker		•	•				•	•	•	•		•	•	•				•		•									
46. Dietician																													
47. Food Engineer																													
48. Food Inspector															•						•								
49. Food Technologist	•			•			•		•	•		•	•	•	•			•											
50. Line Operator															•														
51. Meat Inspector															•						•						•		
52. Milk Processor																													
53. Operations Manager																													
54. Quality Assurance Technician	•			•			•		•	•		•	•	•	•			•			•						•		
<i>FRUIT/VEGETABLE</i>																													
55. Beekeeper*																													
56. Custom Sprayer						•									•							•	•						
57. Growing Operator						•									•							•	•						
58. Harvest Manager						•									•							•	•						
59. Irrigation Manager						•									•							•	•						
60. Produce Buyer						•									•							•	•						
61. Quality Control Specialist						•									•							•	•						
<i>HORTICULTURE</i>																													
62. Arborist						•									•							•	•						
63. Assistant Grower						•									•							•	•						
64. Greenhouse Technician						•									•							•	•						
65. Irrigation Specialist						•									•							•	•						
66. Nursery Worker						•									•							•	•						
<i>POULTRY</i>																													
67. Hatchery Manager						•									•							•	•						
68. Operations Manager						•									•							•	•						
69. Production Manager (Breeder/Layer)						•									•							•	•						
70. Production Manager (Broiler)						•									•							•	•						
71. Quality Control Specialist						•									•							•	•						
<i>TURF</i>																													
72. Turf Grass Manager						•									•							•	•						
73. Turf Grass Technician						•									•							•	•						
<i>WINE</i>																													
74. Marketing Manager						•									•							•	•						
75. Sales Manager						•									•							•	•						
76. Tasting Room Manager						•									•							•	•						
77. Vineyard Manager						•									•							•	•						
78. Viticulturist						•									•							•	•						
79. Wine Maker						•									•							•	•						

*Training available through related associations. See profile.

• College Blank Square - See Universities Pathway Chart

	Alberta	British Columbia	Calgary	Concordia	Fraser Valley	Grant MacEwan	Guelph	Lethbridge	Manitoba	McGill	Montréal	Prince Edward Island	Regina	Simon Fraser	Saskatchewan	Victoria	Waterloo	Wilfrid Laurier	Windsor	Winnipeg	
ANIMAL PRODUCTION/HEALTH																					
1. AI Technician	•	•					•		•				•		•						
2. Animal Control Officer																					
3. Animal Groomer																					
4. Animal Health Sales Representative	•	•	•				•		•	•			•		•						
5. Animal Nutritionist	•	•	•				•		•	•			•		•						
6. Cattle Herd Manager																					
7. Dairy Herd Manager																					
8. Feed Mill Manager	•						•		•	•				•	•						
9. Renderer - <i>Direct to workplace</i>																					
10. Shearer																					
11. Sheep Herd Manager																					
12. Slaughter Worker																					
13. Spinner - <i>Direct to workplace</i>																					
14. Swine Production Supervisor (Finishing/Nursery)																					
15. Swine Production Supervisor (Sow Farm)																					
16. Tanner - <i>Direct to workplace</i>																					
17. Veterinarian			•				•				•	•			•						
18. Veterinary Technician	•	•	•				•		•	•			•		•						
CROP																					
19. Agronomist - Field Sales																					
20. Agronomist - Research																					
21. Conservation Manager	•	•	•	•			•	•	•	•			•	•	•	•	•		•	•	
22. Fertilizer Specialist	•	•	•	•			•	•	•	•			•	•	•		•		•	•	
23. Irrigation Manager																					
24. Production Manager																					
25. Quality Control Specialist																					
26. Sprayer Operator																					
27. Soil Chemist	•	•	•	•			•	•	•	•			•	•	•		•		•	•	
28. Soil Conservationist	•	•	•	•			•	•	•	•			•	•	•		•		•	•	
28. Soil Technician	•	•	•	•			•	•	•	•			•	•	•		•		•	•	
29. Watershed Specialist	•	•	•	•			•	•	•	•			•	•	•	•	•		•	•	
ENVIRONMENT																					
30. Ecologist	•	•	•	•	•	•	•	•	•	•			•	•	•	•	•	•	•	•	
31. Environmental Biologist	•	•	•	•	•	•	•	•	•	•			•	•	•	•	•	•	•	•	
33. Environmental Botanist	•	•	•	•	•	•	•	•	•	•			•	•	•	•	•	•	•	•	
34. Environmental Hydrologist	•	•	•	•			•	•	•	•			•	•	•	•	•		•	•	
35. Environmental Microbiologist	•	•	•	•	•	•	•	•	•	•			•	•	•	•	•		•	•	
36. Environmental Technician	•	•	•	•			•	•	•	•			•	•	•	•	•		•	•	
37. Environmental Waste Specialist	•	•	•	•			•	•	•	•			•	•	•	•	•		•	•	
EQUINE																					
38. Equine Facility Manager																					
39. Farrier*																					
40. Riding Instructor*																					
41. Show Groom																					
42. Stable Groom																					

*Training available through related associations. See profile.

• University

Blank Square - See Colleges Pathway Chart

	Alberta	British Columbia	Calgary	Concordia	Fraser Valley	Grant MacEwan	Guelph	Lethbridge	Manitoba	McGill	Montréal	Prince Edward Island	Regina	Simon Fraser	Saskatchewan	Victoria	Waterloo	Wilfrid Laurier	Windsor	Winnipeg	
<i>FOOD PROCESSING</i>																					
43. Butcher	•						•		•	•					•						
44. Chef/Baker	•						•		•	•					•						
45. Cheese Maker	•						•		•	•					•						
46. Dietician	•		•				•		•	•					•						
47. Food Engineer	•						•		•	•					•						
48. Food Inspector	•						•		•	•					•						
49. Food Technologist	•						•		•	•					•						
50. Line Operator																					
51. Meat Inspector																					
52. Milk Processor	•						•		•	•					•						
53. Operations Manager	•						•		•	•					•						
54. Quality Assurance Technician	•						•		•	•					•						
<i>FRUIT/VEGETABLE</i>																					
55. Beekeeper																					
56. Custom Sprayer																					
57. Growing Operator																					
58. Harvest Manager																					
59. Irrigation Manager																					
60. Produce Buyer																					
61. Quality Control Specialist																					
<i>HORTICULTURE</i>																					
62. Arborist																					
63. Assistant Grower																					
64. Greenhouse Technician																					
65. Irrigation Specialist																					
66. Nursery Worker																					
<i>POULTRY</i>																					
67. Hatchery Manager																					
68. Operations Manager																					
69. Production Manager (Breeder/Layer)																					
70. Production Manager (Broiler)																					
71. Quality Control Specialist																					
<i>TURF</i>																					
72. Turf Grass Manager																					
73. Turf Grass Technician																					
<i>WINE</i>																					
74. Marketing Manager																					
75. Sales Manager																					
76. Tasting Room Manager																					
77. Vineyard Manager																					
78. Viticulturist																					
79. Wine Maker																					

*Training available through related associations. See profile.

• University

Blank Square - See Colleges Pathway Chart

Growing Careers

COMMUNITY
PARTNERS

EMPLOYMENT
ONTARIO

Workforce
Planning BOARD
OF YORK REGION & BRADFORD WEST GWILLIMBURY

Occupations
in Agriculture
and the
Food Processing
Industry



AG
Careers.com



South Lake
Community Futures
Development Corporation

Working
together
to find
solutions