





Acknowledgements

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Alexander Cherban Agriculture Industry Development Program

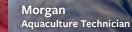


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Josh

Arborist



Why should YOU consider a career in agriculture and food?



Endless opportunities

Farmers only make up about 13% of the people employed in the agriculture and food industry.¹

Fields like engineering, digital technology, research and development, data analysis, environmental consulting and business are poised to play key roles in agriculture's success.²

Financial security

Today, there are 4 jobs available for every 1 post-secondary graduate in agriculture and food. That means way more jobs than people to fill them!

Working in ag pays well. The average Canadian agriculture worker's hourly pay is 25% above the national average.¹



The global population is projected to reach 10 billion by 2050. That means we'll need 60-70% more food to feed the world.' Meanwhile, more consumers are demanding healthy food raised with sustainable agricultural practices.²

Working in agriculture and food is an opportunity to be part of the solution!





agriculture employers plan to hire trade roles.²

1 in 5

agriculture employers plan to hire roles in science, research, business, marketing, environmental consulting and digital technology.² **47%** of agriculture employers can't find enough workers.³

> 1 - <u>www.thinkag.ca</u> 2 - <u>www.digitalthinktankict.com/</u> reports/canadian-agri-food-sustainability 3 - <u>Canadian Agricultural Human Resource Council</u>



DISCOVER YOUR INTEREST AREAS

Everyone's career journey starts with understanding ourselves first.

And understanding starts with something called Holland Codes. Holland Codes help categorize people according to their interests so they can be matched with careers that fit. The system was developed by Dr. John L. Holland, an academic scientist and psychologist.

Holland's theory suggests that there are 6 broad areas into which careers can be grouped to describe people, their personalities, interests, and preferences:





What sounds MOST like you?

Put a checkmark beside the words/phrases that best describe you.



Now, add up the total number of checkmarks in each box and write down your highest scoring Interest Area(s):





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TOP 7 IN-DEMAND SKILLS

identified by agri-food employers



SOFT SKILLS

Work ethic, communication, teamwork, problem-solving, innovation, trustworthiness.



MULTIDISCIPLINARY SKILLS

A general understanding of all facets of the agriculture and food industry.



AGRI-FOOD KNOWLEDGE

A strong understanding of agri-food sectors and the ability to communicate and connect with farmers.



ENVIRONMENTAL KNOWLEDGE

The ability to conduct climate risk assessments and a knowledge of environmental management.



SCIENTIFIC RESEARCH SKILLS

A strong understanding of the scientific process to get scientific results.



DIGITAL SKILLS

The ability to operate and maintain agricultural technologies and equipment, and the ability to understand, analyze and interpret data



BUSINESS & MANAGEMENT SKILLS

A general knowledge of agriculture, technology and business, and strong interpersonal abilities.

Source: https://www.digitalthinktankictc.com/ictc-admin/resources/admin/canadian-agrifood-sustainability.pdf



EXPLORE CAREER POSSIBILITIES

Your skills, interests, perspective, and background are wanted <u>and needed</u> in the agriculture and food sector.

You can find inspiring careers in labs, offices, the great outdoors, and beyond, doing work that feeds our world or makes a difference in countless other ways.

Want to build virtual reality games? Agriculture-based games are becoming a popular educational tool! Want to be an environmentalist? Agriculture needs sustainability managers! Don't be afraid to think outside the box!



Activity 2: Make a Career Shortlist



Find your interest area(s) below. Check off all careers that catch your eye. Remember: there are no wrong answers! Learn more about the careers for each Holland Code here →



🕐 BUILD

- Aerial Applicator
- Agricultural Building
 Planner
- □ Ag Equipment Technician
- □ Arborist
- □ Carpenter

- □ Field Application Engineer
- □ Food Processing Worker
- □ Heavy Duty Mechanic
- □ Irrigation Technician
- Livestock Groomer & Technician
- Nursery & Greenhouse Technician
- □ Truck Driver
- □ Welder

🕐 THINK

- Agricultural Engineer
- Agricultural Lab Technician
- □ Agricultural Scientist
- □ Apiculture (Bee) Specialist
- □ Aquaculture Technologist
- □ Biotechnologist
- Environmental Technician
- □ Food Scientist
- □ Geospatial Analyst
- Horticulturalist

- Policy Analyst
- □ Veterinarian
- Veterinarian Technologist

- Artifical Intelligence (AI)
 Software Developer
- □ Chef
- □ Communications Specialist
- □ Flower Farmer & Florist
- Food & Beverage Product Developer
- □ Food Photographer
- □ Food Stylist
- □ Graphic Designer

- □ Interactive Media Designer
- □ Journalist
- □ Landscape Designer
- □ Social Media Strategist
- □ Web Developer

Check out the career prospects from these websites → for real opportunities available today in agriculture and food!





biomb.ca/ag-biotech

bit.ly/CMECareerViewbook

meia.mb.ca/job-boards



- Agricultural Business Advisor
- Community Program
 Organizer
- Corporate Social Responsibility Representative

- □ Customer Service Rep
- Dietitian
- Digital Products & Innovation Advisor
- □ Drone Operator
- □ Educator

- Human Resources Manager
- Mental Health Counselor
- □ Organization Advisor
- Personnel Recruiter
- Precision Agriculture
 Specialist

PERSUADE

- □ Agricultural Retail Manager
- □ Agronomist
- □ Chief Executive Officer
- □ Crop Farmer

- Digital Agriculture
 Consultant
- Event Planner
- □ Feedlot Manager
- Food Service Manager
- □ Government Manager
- □ Lawyer
- Livestock Farmer
- Public Relations Consultant
- □ Sales Representative

ORGANIZE

- □ Accountant
- Agriculture & Food Inspector
- □ Aquaculture Manager
- Commodity Trader
- Continuous Improvement Specialist
- Data Processing Technician
- □ Financial Analyst & Planner
- Food Production Supervisor

- □ Health & Safety Officer
- Insurance Adjustor
- □ Land Surveyor
- □ Loan Officer
- □ Software Developer



NARROW DOWN YOUR OPTIONS

Now that you have an idea of what agriculture and food careers might work for you, it's time to narrow down the options.

Making a decision can feel daunting, so it helps to research the details of what each career entails. Here are some things to consider and compare for each career:



Activity 3: Choose Your Top 3 Careers

Use the QR codes on pages 7 and 8 to research each of the careers you circled in Step 2. Complete the chart below for your top three career choices.



Picture your future self in each of the three careers. Now that you've explored the details of your top three careers, which one seems the most appealing? Remember, this is your journey and no one else's! You may put more weight in one category than another, and that's perfectly OK.



DISCOVER YOUR PATHWAY

It's time to plan how to get from your high school graduation to landing your dream job.

Whether you decide to leap straight into work after graduating, or you need to earn a post-secondary education first, there's still a lot to think about. Let's dive in!



Path 1: Direct Entry

You can gain direct entry into some agriculture and food careers without needing any postsecondary education!

If you're willing to learn and adapt, diving right into your career might be the perfect choice.

The agriculture and food sector is vast. From farming and livestock management to food processing and distribution, many roles have skill-sets that can be learned on the job. **Here are some advantages to entering the workforce straight out of high school:**





Check this out!

Your Life, Your Agriculture is a short video that highlights all the cool careers avaialble in agriculture, no matter what your interest!





Direct Entry Careers

Start work immediately with no experience required.



Food Processing Worker



Nursery/Greenhouse Worker



Apiary Worker (Beekeeper)



Florist



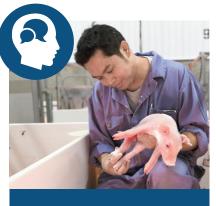
Agriculture Retail Worker



Sales Representative



Livestock Worker



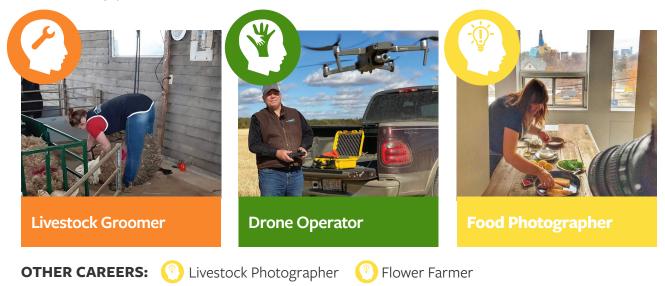
Swine Technician

OTHER CAREERS:

- Farm Machinery Operator
- Pesticide Applicator
-) Harvest Worker
- 🕑 Warehouse Worker

Use Your Skills

Turn the experience and skills you've gained from your hobbies and interests into a direct entry job.



Level Up on the Job

Start work and learn needed skils as you go by taking advantage of employeroffered, on-the-job training programs.





Check out the direct entry career prospects from these websites! →



bit.ly/FABMCareerPathways



bit.ly/MTATruckingCareers

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Path 2: Post Secondary

Many careers in agriculture and food require a post-secondary education. Planning ahead is all a matter of finding the right school and accreditation you need to unlock the career of your dreams.

What level of education is required for the job you want? How long do you want to go to school? Are you looking for skill-based learning or research-based learning? Knowing what program to take and where to take it is half the battle. Let's go over some of your options!

Institution Types

College

Colleges are generally smaller and more personal than universities, and often have better student-to-teacher ratios. Most offer apprenticeship programs, certificates, diplomas, and advanced diplomas, as well as extension programs for students already in the workforce.

Polytechnic

Polytechnics combine the in-depth study you find at universities with the practical, hands-on training you get at technical institutes and colleges. They offer apprenticeships, certificates and diplomas, advanced certificates and diplomas, post graduate certificates and diplomas, degrees, statements of achievement, and microcredentials.

Technical Institute

Technical institutes focus on technical careers including trades, and the software and hardware of technology. Graduates gain hands-on skills that are currently in demand by employers. Technical institutes offer certificates, diplomas, and post-graduate accreditations.

University

Universities offer a variety of academic, research-intensive programs. Depending on your major, this can also include lab work. If you are unsure of what subject areas you like, a general studies program at a university will give you experience in a variety of different fields. Universities also offer graduate studies, should you want to continue your education after receiving an undergraduate degree.

1 https://www.uoguelph.ca/oac/sites/uoguelph.ca.oac/files/Planning%20for%20Tomorrow%202.0%20 Executive%20Summary_AODAFinal.pdf



Available Programs

Advanced/Post-Graduate Certificate or Diploma

Advanced or post-graduate certificates or diplomas build on knowledge acquired from a previous certificate or diploma. These programs are usually shorter, less expensive, and more career- or skill-focused than degree programs.

Apprenticeship

An apprenticeship program is 1 to 4 years in length and offers a mix of technical classroom education and on-the-job learning in the field.

Bachelor's Degree

A bachelor's degree program is 3 to 4 years and can focus on research, lab work, and/or theoretical learning. It's the only program with direct access to graduate studies, which can open up opportunities for higher paying jobs and funded research. Many jobs require graduate studies, including agriculture positions such as plant pathologists, agribusiness and agricultural economics, agriculture professors, veterinarians, and animal nutritionists.

Certificate

A certificate program is a year or less of study tailored towards a specific career.

Cooperative Education

Cooperative education combines classroom education with practical work experience. Students typically alternate a semester of academic coursework with time in paid employment. They repeat this cycle several times until graduation.

Diploma

A diploma program is 2 years (full-time) and prepares you for a career in a particular field.

Distance/Online Learning

If the distance is too great to the campus you want to attend, or you want the freedom to work while you study, virtual programs might be right up your alley! While this path takes a lot of self-discipline, it offers a learning experience outside a formal classroom setting. Many schools now offer a combination of totally online delivery and hybrid delivery (with labs in person and lessons online).

Extension/Continuing Studies

If you already have experience in an agriculture or food career, extension programs help you expand your industry-related skills and knowledge and gain the certifications you need to fulfill specialized duties or roles.

Microcredential

Microcredentials are short, specialized courses or workshops that provide mini-certificates. They offer professional development at a low cost and a fast pace. Often taking less than 4 months to complete, microcredentials are available at universities, colleges, and technology institutes. There are many agriculture options to explore!

Manitoba Schools & Programs

Manitoba's post-secondary schools come in all shapes and sizes. Each one is home to many different types of programs that can prepare you for careers in agriculture and food.

Choosing the right school for you will depend on your lifestyle, interests, location, and career goals. The programs listed here are only a sample of what might be available to start your career in agriculture and food.

> Program offerings change often! Be sure to visit each institution's website for the most up-to-date information.

Interested in a career as a VETERINARIAN?

Earn your pre-requisites from a Manitoba university, then apply for a Manitoba seat at the **Western College of Veterinary Medicine** in Saskatoon, Saskatchewan. Or study abroad and pass the Canadian veterinary medicine exam.



University of Manitoba

The University of Manitoba is Manitoba's only research-intensive university. In addition to the programs offered on the main Fort Garry campus in Winnipeg, the Faculty of Agricultural and Food Sciences has other research centres in Winnipeg and across the province. The faculty's degree and diploma programs prepare you for a career that fits your passion, whether it is working with animals, managing crops, developing a new food product, or promoting human health through nutrition.

DIPLOMA

Agriculture

BACHELOR DEGREES

Agribusiness Agroecology Agronomy Animal Systems Food Science Human Nutritional Sciences Plant Biotechnology Pre-Veterinary Studies

COOPERATIVE EDUCATION

AG-RELATED DEGREE PROGRAMS ARE ALSO AVAILABLE IN OTHER FACULTIES

Asper School of Business Clayton H. Riddell Faculty of Environment, Earth, and Resources Faculty of Science Price Faculty of Engineering

SCAN THE CODE OR VISIT UMANITOBA.CA/ AGRICULTURAL-FOOD-SCIENCES TO FIND OUT MORE:





Assiniboine Community College

Learn by doing at one of Assiniboine's campuses in Brandon, Dauphin, Portage la Prairie, or Winnipeg.

CERTIFICATES

Baking Foundations Civil Technician Food Processing (Animal Proteins) Heavy Equipment Technician Horticultural Production Office Skills Welding

DIPLOMAS

Agribusiness Business Administration Civil Technology Communications Engineering Technology Culinary Arts Digital Art and Design Hotel Business Management Land and Water Management Mechatronics Media and Communications Network Administration Technology Office Management Power Engineering Web and Interactive Development

ADVANCED/POST-GRADUATE DIPLOMAS

Accounting Agriculture Finance Geographic Information Systems (GIS) Human Resource Management Marketing Sustainable Food Systems

APPRENTICESHIPS

Agricultural Equipment Technician Heavy Duty Equipment Technician Truck and Transport Mechanic Welder

EXTENSION/CONTINUING STUDIES

Advanced Drone Flying Commercial Manure Applicator Drone Flight School Heavy Equipment Operator Integrated Pest Management Introduction to Drone Flying Manure Management Planner Pesticide Certification Photography

DISTANCE & ONLINE LEARNING

Advanced Swine Production Prairie Horticulture Swine Production Foundations

SCAN THE CODE OR VISIT ASSINIBOINE.NET TO FIND OUT MORE:



RCAREE



Brandon University

Located in bustling Brandon, the second-largest city in Manitoba and the heart of Westman. At BU you'll find urban living paired with small-town convenience and charm. Join 3,500 other students close to home, with small class sizes and your choice of undergraduate degrees, plus certificates, pre-professional programs, and more.

CERTIFICATES

Business Administration

BACHELOR DEGREE

Business Administration Environmental Science Science

2 YEARS AT ACC + 2 YEARS AT BU

Business Administration Digital Media and Design Enviromental Science

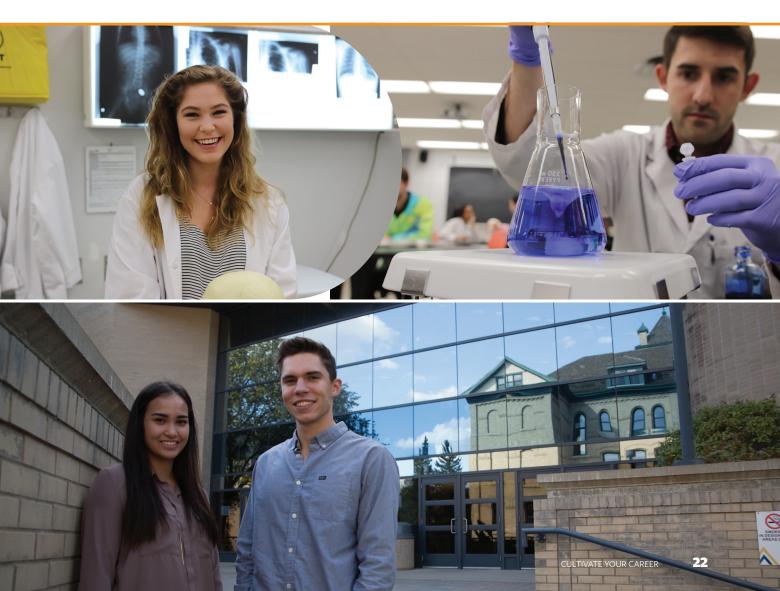
COOPERATIVE EDUCATION

AG-RELATED GRADUATE DEGREE PROGRAMS ARE ALSO AVAILABLE

Graduate Diploma in Rural Development Master of Arts in Rural Development Master of Environmental and Life Sciences

SCAN THE CODE OR VISIT BRANDONU.CA TO FIND OUT MORE:





Manitoba Institute of Trades & Technology (MITT)

Known for its small, welcoming classroom sizes, MITT is your bridge from classroom to career, with 13 learning locations in Winnipeg and surrounding areas.

CERTIFICATES

Business Administrative Assistant Client Services Specialist Culinary Arts and Design Graphic and Print Technician Industrial Mechanic/Millwright Industrial Welding Sales & Event Coordinator

DIPLOMAS

Cyber Defence and Cloud Administration Hospitality Management Diploma Software Developer

ADVANCED/POST-GRADUATE DIPLOMAS

Applied Leadership Business Management Human Resources SCAN THE CODE OR VISIT MITT.CA TO FIND OUT MORE:





Part-Time Enrollment

Studying part-time is a great option for those who are looking for the financial benefits of working while they study. Parttime study is also a great way to try out different programs and classes before committing to anything full-time.



Red River College Polytechnic

Get in front of what's ahead at Manitoba's only polytechnic, with campuses in Winnipeg and throughout the province. Many programs feature cooperative education and distance learning options.

CERTIFICATES

- Accounting Administrative Assistant Applied Accounting Business Analyst Business, Accounting and Management Culinary Arts Culinary Skills (Indigenous) Digital Media Design Heavy Duty Equipment Mechanic Human Resource Management Introduction to Food Manufacturing Management Development
- Operations Management Professional Baking and Pastry Professional Photography Project Management Software Development Transportation, Logistics and Supply Chain Management Warehousing and Distribution Welding

DIPLOMAS

Automotive Technician Business Administration Business Information Technology Civil Engineering Technology





CNC Machining and Advanced Technology Creative Communications Culinary Arts Data Science and Machine Learning Electrical Engineering Technology Environmental Engineering Technology Graphic Design Mechanical Engineering Technology Power Engineering Technology Science Laboratory Technology Veterinary Technology

ADVANCED/POST-GRADUATE DIPLOMAS

Communication Design Communication Management Design Drafting Technician Digital Film and Media Production Information Security

SCAN THE CODE OR VISIT RRC.CA TO FIND OUT MORE:





Activity 4: Evaluate Your Choices

With so many education pathways available, it's important to do your research! **Choose two possible institutions/programs that would support your career of choice from Step 4.** Use the QR codes provided to research the institutions and programs you are interested in. Use the chart below to aid your planning.

OPTION 1	OPTION 2
Institution:	Institution:
Program:	Program:
Program length:	Program length:
Credential earned:	Credential earned:
Benefits:	Benefits:
Drawbacks:	Drawbacks:

STEP 5 APPLY FOR PROGRAMS & FUNDING

So you've picked a school (or two). Now what? The next step is to apply!

Visit the website of the school you want to apply to for information about what you need to know and how to get started. Contact a recruitment or admissions officer for help if you need it!



Funding options

While post-secondary education comes with its costs, there are many ways you can pay for your education. In fact, you will probably use more than one method during your studies!

Scholarships

Scholarships are money awarded to select students who take the time to find and apply to relevant opportunities. While scholarships are competitive, they do not need to be paid back. They are given out by a variety of sources, including governments, organizations, and postsecondary institutions. Scholarships are generally awarded to students who demonstrate academic achievement, leadership skills, or community involvement. However, some scholarships are aimed towards certain groups (e.g. athletes, BIPOC, students with disabilities, agriculture students, etc.). Find one that fits you!



Check out these websites for a closer look at available scholarships: <u>aitc.mb.ca/scholarships</u> thinkag.ca/en-ca/scholarships

Grants & Bursaries

Grants and bursaries are much like scholarships but are usually awarded based on the financial needs of the candidates who apply.

Student Loans

Student loans are given out by the government and are available to anyone who applies and qualifies. These loans open the door to education and break down financial barriers. Because they are loans, they will need to be paid back with interest after graduation. Payment plans are available to make the process manageable. Provincial and federal loans are available.

Student Line of Credit

A student line of credit is a loan given out by a bank. This line of credit has low interest rates when it comes to paying it back, but a parent or guardian might be required to cosign on the loan.

Working Income

Working part-time while attending school or finding employment during the summer can be a great way to help pay for some of your education costs. This could be anything from a customer service position to a co-op program or apprenticeship that provides paid work placements in your field of study. Sometimes employers will even pay for part of your tuition in exchange for commitment to the company for a period of time. The human resources department of the company you're employed at is the perfect place to ask if they provide this type of financial support!

Savings

Savings are another great way to pay for post-secondary education. If you started working in high school or took a gap year after graduation, consider putting a portion of your paycheck away for your future education. Certain tax-free (RESP) or high-interest savings accounts allow you to save money without fees or even gain interest on your money.

Family

Family might also be willing to contribute to your education. They may have started a college fund for you at a young age or plan to assist you with your education little bits at a time. Ask your family if they have savings they are willing to contribute to help with education costs.

Activity 5: Prepare to Apply

Now that you've explored your post-secondary options, it's time to make it happen! Choose one postsecondary program and **use the chart below to prepare for the process of applying and funding your education.**

ADMISSION REQUIREMENTS	ADMISSION COSTS	FUNDING
High school courses →	Application costs →	Savings
	Tuition and fees per semester →	Work income
Grades	Textbooks per semester →	Available scholarships →
Other requirements	Living (rent, books, utilities, etc.) per semester →	Student loans
		Other





AITC.MB.CA