

Pathways to Agriculture

Post-Secondary Opportunities in Nova Scotia



**FARM & WORKFORCE
DEVELOPMENT**



NOVA SCOTIA
NSFA
FEDERATION OF AGRICULTURE

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Post-secondary Opportunities in Nova Scotia

2022-2023

There are many pathways leading to a career in agriculture and they don't all start with growing up on a farm! Agriculture is a vast industry that requires many different skill sets and experiences. There are many career opportunities that stretch far beyond the stereotypical.

A variety of post-secondary education options are available that can lead to a career in agriculture. Those listed in purple have a clear connection to the agriculture industry, while those in green you may not have considered.

Use this list as a reference guide and check out what is available in Nova Scotia.

<p>Agricultural Businesses, BSc 4 year degree</p> <p>Be introduced to current issues, challenges and opportunities in the agricultural and related sectors. This program covers business management, natural science and agriculture and provides the entrepreneurial know-how to start an agricultural or science-based business.</p> <p>Available at: Dalhousie University (including DAL AC and University of Kings College)</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none">• Farm Operator• Financial Credit Advisor• Business Consultant• Program Policy Analyst• Export Commodity Trader• Agribusiness Management
<p>Agricultural Economics, BSc 4 year degree</p> <p>Brings together elements of mathematics, management and the social sciences as part of a wide-ranging educational experience. Gain an understanding of food production, public policy, trade opportunities and international food aid, among other topics.</p> <p>Available at: Dalhousie University (including DAL AC and University of Kings College)</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none">• Economic Analyst• Government or Private Industry Economist• Policy Analyst• Policy Advisor• Resource Manager
<p>Animal Science, BSc 4 year degree.</p> <p>Designed to give students the scientific foundation required to understand and work with animals in a variety of contexts. Graduates leave the program with an understanding of how animals work, as well as the practical experience to work with them.</p> <p>Available at: Dalhousie University (including DAL AC and University of Kings College)</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none">• Farm Manager (livestock)• Animal Nutrition Specialist• Animal Control Officer• Veterinary Pharmaceutical Representative• Research Technician

<p>Biology, BSc 4 year degree. Biology is the science of life. Study fundamental concepts of life and its different forms, from simple microbes to highly complex animals and plants. Learn about genetics, cellular and molecular biology, morphology (form) and physiology (function), development, and ecology.</p> <p>Available at: Acadia University Cape Breton University Dalhousie University (including DAL AC and University of Kings College) Mount Saint Vincent University Saint Francis Xavier University Saint Mary's University Université Sainte-Anne</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • Veterinarian • Biology teacher or professor • Botanist • Conservation biologist • Wildlife ecologist • Zoologist
<p>Bioveterinary Science, BSc 4 year degree. Blends a general science education with specialized courses in animal health and welfare. Work directly with animals like sheep, dairy cows and chickens in both an academic and research capacity. Foundation courses in biology, chemistry, math, physics, genetics, biochemistry and cell biology give a background for more in-depth studies in topics such as veterinary epidemiology, animal health and nutrition and mammalian physiology.</p> <p>Available at: Dalhousie University (including DAL AC and University of Kings College)</p>	<p>Future Career Possibilities:</p> <p>Bioveterinary Science can be a launching point to a career as a veterinarian, but graduates can also follow a wide range of other paths.</p> <ul style="list-style-type: none"> • Wildlife Conservation Officer • Food Promotion and Inspection Officer • Animal Nutrition Specialist • Research Technician
<p>Cool Climate Wine and Vitaculture 1 year certificate This program covers the essentials of growing grapes to the science of wine making to the business of tourism, sales and marketing.</p> <p>Available at: Nova Scotia Community College</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • Vitaculture or Vineyard Assistants • Wine Maker Assistants • Cellar Workers • Winery Lab Technicians • Tasting Bar Host • Wine Marketing Specialist
<p>Horticulture and Landscape Technology 2 year diploma Develop an in-depth knowledge of plants and an understanding of the horticulture industry. Graduates can work in a variety of industries, including nurseries, greenhouses, farm markets, interior and exterior landscape operations, park maintenance, botanical gardens and more. After 1 year, choose between a Landscape or Operations concentration.</p>	<p>Horticulture and Landscape Technology – Landscape Build skills and knowledge in landscape design, construction, maintenance and operations and develop a strong understanding of how plants and landscaping benefit the economy, environmental sustainability and lifestyles.</p>

<p>Available at: Nova Scotia Community College</p>	<p>Horticulture and Landscape Technology – Operations Learn all aspects of greenhouse, nursery and garden centre practices. Courses are focused on plant propagation/production, plant care, and maintenance of greenhouses and nurseries.</p>
<p>Plant Science, BSc 4 year degree. Plant Science provides the knowledge and skills to research and investigate issues associated with food security, quality and wellness. Examine issues related to environmental integrity, biotechnology, plant breeding, sustainable crop production and more. Studies may lead to expertise in many sub-disciplines such as fruit, vegetable, ornamental or field crops and may focus on the genetics or physiology of plants.</p> <p>Available at: Dalhousie University (including DAL AC and University of Kings College)</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • Crop farmer • Crop or Greenhouse Manager • Plant Breeding and Development • Soil and Water Conservationist • Soil Science Research • Pest Management • Service and Support Industries (product suppliers, consulting)
<p>Plant Science, BSc 2 year diploma Gain more than a theoretical knowledge of plants; learn how to solve problems, get insight into diagnostics, and holistically analyze systems. Observe how environmental factors affect plant growth and discover how you can control and improve them.</p> <p>Available at: Dalhousie University (including DAL AC and University of Kings College)</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • Crop farmer • Plant Technologist • Greenhouse Manager • Nursery Crop Producer • Plant Breeding Technician • Agriculture and Horticulture Consultant
<p>Pre-Veterinary Science 2 diploma This program has the specific goal of preparing the student for the Doctor of Veterinary Science program at the Atlantic Veterinary College.</p> <p>Available at: Université Sainte-Anne</p>	<p>Future Career Possibilities: Prepare to attend the Atlantic Veterinary College by taking your first two years in Nova Scotia.</p>
<p>Veterinary Administrative Assistant 41 week diploma A hands-on program that trains specialized skills in veterinary nursing and receptionist skills. Learn medical terminology and how to properly care for animals, big or small to prepare for a role in the world of veterinary care.</p> <p>Available at: Eastern College</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • Veterinary clinic reception • Animal care • Pet / feed stores

<p>Veterinary Technology 2 year diploma</p> <p>Take a variety of courses in animal medicine and nursing, clinical exercises and pathology, anatomy, physiology and pathophysiology. This program is oriented mainly towards companion animals, however, also teaches on large animal practice, lab animals and alternative pet medicine.</p> <p>Available at: Dalhousie University (including DAL AC and University of Kings College)</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • Veterinary Technical Assistant • Animal Husbandry • Surgical Assistant • Laboratory Diagnostics • Veterinary Receptionist • Client Education
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<p>Accounting and Payroll Administrator 60 week diploma</p> <p>Be trained in key areas of financial accounting and payroll, business application software, and the implementation and operation of computerized accounting systems. Graduates are eligible to pursue their Payroll Compliance Practitioner certification from the Canadian Payroll Association.</p> <p>Available at: Eastern College</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • On-farm Payroll Administrator • On-farm Pay and Benefits Administrator • Accounts Clerk
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<p>Business Administration, BBA 4 year degree.</p> <p>Offers both a comprehensive understanding of business fundamentals and the opportunity to pursue your choice of specialization. Majors include accounting, business technology management, employment relations, entrepreneurship and innovation, finance, and marketing.</p> <p>Available at: Acadia University Mount Saint Vincent University</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • Farm Operations Manager • Agri-business Entrepreneur • Accountant • Advertising Executive • Human Resources manager • Marketing manager • Sales manager
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<p>Business Administration - Accounting 2 year diploma</p> <p>This program will teach computerized accounting and help you analyze numbers in a way that will enable strategic business recommendations. Expand your knowledge around corporate accounting, manufacturing accounting, partnership accounting and the tax implications for different types of businesses</p> <p>Available at: Nova Scotia Community College</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • On-farm Payroll Administrator • Accounts Clerk
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<p>Climate and Environment, BA/ BSc 4 year degree.</p> <p>The Bachelor of Arts and Science in Climate and Environment is for those who seek an interdisciplinary education with a unique strength in both Environment and Climate. The field of environment focuses on the physical and chemical composition, nature, and the societal relationship we maintain with our physical setting, while the field of climate focuses on how the Earth's energy balance affects our environment.</p> <p>Available at: Saint Francis Xavier University</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • Environment and Climate consulting for farm operations • Environment and Climate research • Environment and Climate Policy Advisor
<p>Computer Science, BCs/BSc 4 year degree.</p> <p>Move beyond being just a user of computers and learn how to design and implement computer systems that solve real-world problems. Computer Science offers defined options in Software Development, Game Development, Data Analytics, Mobile and Ubiquitous Computing, as well as options to take a second major or an interdisciplinary minor.</p> <p>Available at: Acadia University Saint Francis Xavier University Saint Mary's University</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • Farm Technology Analyst • Database administrator • Data scientist • Mobile applications developer • Network administrator • Programmer • Software developer • Software engineer
<p>Diesel Repair 2 year diploma</p> <p>This program teaches how to maintain and repair industrial and marine diesel engines and their components. You will learn to overhaul diesel engines as well as acquire knowledge of systems (such as cooling, lubrication and electrical). You also learn how to use tools and equipment; fabricate items to specific tolerances; read and interpret schematics, drawings and manuals; and apply mechanical, electrical, hydraulic and pneumatic principles to various systems.</p> <p>Available at: Nova Scotia Community College</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • Diesel Technician • Truck and transport mechanic • Service Technician • Diesel-powered equipment repair • Parts supplier • Service Advisor
<p>Engineering and Applied Science, BASc Engineering, BEng 4 year degree.</p> <p>Engineering lets you enter multiple fields of work and prepares you for a multi-faceted profession that incorporates elements of design, analysis and project management. Use science to solve real-world problems and create the things we see around us every day. You will study physics, math and chemistry along with a wealth of dedicated engineering courses, focusing on practical application of the knowledge gained along the way.</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • Farm Robotics Designer • Biomedical Engineer • Chemical Engineer • Design Engineer • Electrical Engineer • Industrial Engineer • Mechanical Engineer

<p>Available at: Acadia University Dalhousie University (including DAL AC and University of Kings College) Saint Francis Xavier University Saint Mary's University</p>	<ul style="list-style-type: none"> • Renewable Energy Engineer • Pollution Control Specialist
<p>Entrepreneurship, BC, BA 4 year degree. Entrepreneurship offers a range of courses over several course topics. This program will provide knowledge and insight into the practices used to enhance innovation, and to create social and sustainable start-ups using design thinking and lean start-up methodologies.</p> <p>Available at: Saint Mary's University</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • Farm Business Owner • Entrepreneur • Investor • Management Consultant
<p>Environmental Studies, BET, BA 4 year degree. This program will help you to increase your understanding of the interconnectedness of physical, chemical, and biological processes in natural and built environments. Learn to balance environmental sustainability with economic development and technological progress. Projects may include contaminated site assessments, environmental impact assessments or measuring water, soil, and air quality to determine appropriate pollution control and treatment strategies.</p> <p>Available at: Cape Breton University Saint Mary's University</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • Environmental Field Technician • Environmental Consultant • Environmental Remediation Professional • Water/wastewater Treatment
<p>Environmental and Sustainability Studies, BA 4 year degree. Environmental and Sustainability Studies is an interdisciplinary subject that will challenge you to combine skills and knowledge from a variety of different fields. Gain a more complete understanding of natural and human environments as you become prepared to lead change. This program will give you the skills and knowledge to lead transformational change towards more sustainable, just, and socially responsible lifestyles, communities, institutions, and societies. Prepare for a broad range of career opportunities across the non-profit, government and private sectors.</p> <p>Available at: Acadia University</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • Food Production Sustainability • Policy Analyst • Alternative Energy Analysis and Implementation • Community Sustainability Planning • Ecotourism • Environmental Research

<p>Environmental Science, BSc 4 year degree. This program includes core courses in biology, earth science and chemistry, with a central theme of environmental science. Focus areas may include ecology, conservation biology, environmental geoscience, environmental policy and sustainable development.</p> <p>Available at: Acadia University Dalhousie University (including DAL AC and University of Kings College) Saint Mary's University</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • Environmental impact assessment • Environment and Agriculture Policy • Conservation Ecology • Ecotoxicologist • Soil Conservation • Natural Resources Management • Resource conservation • Environmental Consultant
<p>Heavy Duty Equipment Repair 2 year diploma Gain a working knowledge of fundamental shop skills, tires and rims, track and under-carriage systems, braking systems, hydraulics, welding, powertrains, engines and engine systems, and electrical and electronic systems used in off-highway heavy duty equipment vehicles and stationary equipment.</p> <p>Available at: Nova Scotia Community College</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • Farm Equipment Repair • Heavy Duty Equipment Sales • Department of Transportation
<p>Human Resources, BBA, BA 4 year degree. Learn leadership skills, interpersonal communication skills, organizational behaviours and gain a deep understanding of HR processes. This program will help you to determine an organization's human resource needs and guide others through the demands of economic and societal changes</p> <p>Available at: Cape Breton University Saint Mary's University</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • On-farm HR professional • Human Rights Officer • Health and Safety Officer • Compensation/Payroll Specialist • Industrial Relations Specialist
<p>Human Resource Management 1 year graduate certificate This graduate certificate takes you through the major functional competencies required for HR professionals, supported by business fundamentals, and prepares you for an HR role by giving you a strong generalist portfolio of skills. Learn about hiring, performance management, wage structures, collective agreements and emotionally difficult decisions, such as downsizing.</p> <p>Available at: Nova Scotia Community College</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • On-farm HR professional • Human Resource consultant

<p>Industrial Engineering Technology 2 year diploma</p> <p>The role of an industrial engineering technologist is to determine the most effective way to produce a product or provide a service. In this program, you learn how to analyze the location and layout of plant facilities, materials handling, ergonomics, simulations, quality management systems, occupational health and safety processes and cost studies.</p> <p>Available at: Nova Scotia Community College</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • Agri-food Facility Management • Manufacturing • Industrial Engineer consultant
<p>Integrated Environmental Management, BSc 4 year degree.</p> <p>Build a foundation in the core sciences of agriculture, biology, chemistry and calculus. Continue by studying the technologies associated with biological and environmental systems as they apply to fiber fuel and food. Learn about a variety of topics such as agriculture, water and food processing systems, mechanics of materials, structures and their environment, renewable energy and engineering measurements and controls.</p> <p>Available at: Dalhousie University (including DAL AC and University of Kings College)</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • Environmental Program coordinator • Efficient/Renewable energy advisor • Agricultural Research • Sustainability officer • Wastewater treatment operator • Government policy analyst
<p>International Food Business, BA 4 year degree.</p> <p>Module-based program of study is built around the competencies needed to succeed as a business leader in the international food industry. Be introduced to a range of food business concepts, including global supply chain logistics and new product development.</p> <p>Available at: Dalhousie University (including DAL AC and University of Kings College)</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • Agri-food trade specialist • Agri-business entrepreneur • International Sales consultant • Product distribution and logistics
<p>Manufacturing, BET 4 year degree.</p> <p>Within the field of Engineering and Technology, learn critical thinking, flexibility skills, quality assurance and control, manufacturing practices. Apply these skills to a variety of agriculture and food processing careers.</p> <p>Available at: Cape Breton University</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • Manufacturing specialist • Production planner • Manufacturing designer • Quality assurance

<p>Nutrition and Dietetics, BSN / BScAHN 4 year degree. Study the relationships among food, its nutrients, the environment, and health. Acquire an understanding about the art and science of food and develop an appreciation for current issues in nutrition and dietetics as well as gain solid knowledge in biology and chemistry that is applied to studies of food and nutrient metabolism.</p> <p>Available at: Acadia University Mount Saint Vincent University</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • Food product developer or marketer • Food service manager or administrator • Food/nutrition writer/journalist • Nutrition educator • Public health or community nutritionist • Sensory scientist
<p>Occupational Health and Safety 2 year diploma Gain hands-on problem solving skills for working with and educating people, managing, collecting and interpreting data and identifying issues in the workplace Promoting legislation, standards and best practices in OH&S while improving working environment conditions.</p> <p>Available at: Nova Scotia Community College</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • Farm Safety advisor • OH&S supervisor
<p>Small Business Management, BTech 2 year post-diploma program Add business skills to the knowledge gained in through a technical diploma program, opening new doors to pursue entrepreneurial ventures or manage a business.</p> <p>Available at: Dalhousie University (including DAL AC and University of Kings College)</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • Farm business owner • Farm manager • Agri-business entrepreneur • Purchasing manager • Sales or Marketing representative
<p>Supply Chain and Logistics 61 weeks The Supply Chain and Logistics program provides students with exposure to the international supply chain and the skills needed to be successful in the industry. Students will develop proficiencies appropriate for a wide range of careers in the supply chain and logistics field. Graduates will have developed essential skills needed to succeed in a role that requires attention to detail, analytical thinking and problem solving.</p> <p>Available at: Eastern College</p>	<p>Future Career Possibilities:</p> <ul style="list-style-type: none"> • Logistics Coordinator • Dispatcher • Purchasing Agent • Materials Management Analyst • Cargo and Freight Agent

Supply Chain Management, BBA

4 year degree.

Focus on supply chain management theory and practice to build the foundations to understanding today's global economy. Develop an understanding of potential risks in global sourcing, including hidden costs of working alongside different geopolitical zones, cultural differences, time zones, currency exchange, and exposure to financial and political risks.

Learn to identify potential markets, tap into skills or resources not readily or economically available on a local level, and develop alternative collaborators to achieve goals.

Available at:

Cape Breton University

Future Career Possibilities:

- Supply Chain Analyst
- Procurement Specialist
- General Management and Business