

# **A REPORT ON FARM APPRENTICESHIPS AND AGRICULTURAL WORKFORCE DEVELOPMENT**

**PURSUANT TO CH LAW 110**

**FIRST SPECIAL SESSION OF THE 131<sup>ST</sup> MAINE LEGISLATURE**

**PRESENTED TO THE JOINT STANDING COMMITTEE ON  
AGRICULTURE, CONSERVATION AND FORESTRY**

**March 1, 2025**



Amanda E. Beal  
Commissioner

Randy Charette  
Deputy Commissioner

Nancy McBrady  
Deputy Commissioner



18 Elkins Lane  
Augusta, ME 04333

(207) 287-3200  
[maine.gov/dacf](http://maine.gov/dacf)

## Table of Contents

Authorizing Resolve.....	3
Farm Apprenticeship Stakeholder Group .....	4
Executive Summary.....	5
Introduction.....	5
Project Background.....	6
Legislative History .....	6
Project Approach.....	6
Workforce Trends .....	7
Existing Program Characteristics .....	8
Key Interview and Focus Group Themes .....	15
Difficulty Recruiting Workers.....	15
Basic Skills Gap in Entry-Level Workers .....	15
Flexibility and Seasonal Variability.....	16
Regional Distribution .....	16
Resource and Capacity Needs .....	16
Economic Model .....	16
The Path Forward .....	17
1. Create Connections .....	17
2. Develop a Feeder Program .....	17
3. Increase Awareness .....	18
4. Support Farms & Farm Workers.....	19
Appendix A: Table of Existing Workforce Development Programs.....	20
Appendix B: Focus Group Participants and Interviewee List .....	28
Appendix C: Potential Models .....	29

# Authorizing Resolve

APPROVED	CHAPTER
JULY 26, 2023	110
BY GOVERNOR	RESOLVES

STATE OF MAINE

IN THE YEAR OF OUR LORD  
TWO THOUSAND TWENTY-THREE

H.P. 557 - L.D. 901

## Resolve, to Establish a Stakeholder Group to Inform the Development of a Farm Apprenticeship Pilot Program

**Sec. 1. Stakeholder group regarding a farm apprenticeship pilot program.**  
**Resolved:** That the Commissioner of Agriculture, Conservation and Forestry shall convene a group of stakeholders including, but not limited to, representatives from the Department of Agriculture, Conservation and Forestry; the Department of Labor; the Department of Economic and Community Development; the Department of Education; educational institutions, particularly public and private postsecondary institutions; statewide organizations representing organic farmers and gardeners and conventional farmers; a statewide organization that works to protect farmland and support farmers; and a statewide business association to develop recommendations for a potential farm apprenticeship pilot program. The stakeholder group shall consider existing models for farm apprenticeships and solicit input from interested parties. The Department of Agriculture, Conservation and Forestry may undertake a survey of existing programs within the State and in other states to inform the work of the stakeholder group. The commissioner shall report the findings and recommendations of the stakeholder group, including suggested legislation, to the joint standing committee of the Legislature having jurisdiction over agriculture, conservation and forestry matters by March 1, 2025. The joint standing committee may submit a bill to the 132nd Legislature in 2025 relating to the subject matter of the report.

**Sec. 2. Appropriations and allocations.** **Resolved:** That the following appropriations and allocations are made.

### AGRICULTURE, CONSERVATION AND FORESTRY, DEPARTMENT OF Bureau of Agriculture 0393

**Initiative:** Provides one-time funding for contracted services to manage a stakeholder group to develop recommendations for a farm apprenticeship pilot program.

<b>GENERAL FUND</b>	<b>2023-24</b>	<b>2024-25</b>
All Other	\$0	\$20,000
<b>GENERAL FUND TOTAL</b>	<b>\$0</b>	<b>\$20,000</b>

## Farm Apprenticeship Stakeholder Group

Interest Represented	Affiliation	Name
DACF	Director, Bureau of Agriculture	Craig Lapine
DOL	Director, Apprenticeship & Strategic Partnerships	Joan Dolan
DECD	Office of the Commissioner	Deputy Commissioner Denise Garland
DOE	Workforce Development	Emily Doughty
Public Postsecondary Education	UMaine Cooperative Extension	Tori Jackson
Public Postsecondary Education	UMaine Sustainable Ag	Bryan Peterson
High School Tech Programs	MSAD 1 Educational Farm	Jeff Hoffses
Statewide Organization – Organic Farmers	Maine Organic Farmers and Gardeners Assoc.	Bo Dennis
Statewide Organization – Conventional Farmers	Farm Bureau	Garrett Mason
Statewide Organization – Farmland Protection	Maine Farmland Trust	Shelley Megquier
Statewide Business Association	Coastal Enterprises, Inc.	Tabin Tangila Mesu Kamba
Blueberry Producer	Wyman	Jamie Libby
Aquaculture	Maine Aquaculture Association	Christian Brayden
Mixed Veg or Beef Producer	Roebucks Angus	Jay Roebuck
Dairy Producer	Maine Dairy Promotion Board	Sarah Littlefield
Potato Producer	Seed Pro Inc.	Ben Corey

## Executive Summary

Like many Maine businesses, Maine farms need more workers. As importantly, they need workers equipped with the skills and knowledge for farming. There are various workforce development programs geared towards agriculture in Maine, which vary across different sectors. Some existing programs are successful due to the sector's economic viability or well-thought-out program structure, while others are a good match between the sector's seasonality and how programs are traditionally delivered. However, workforce development programs serving other agricultural sectors are struggling due to economic viability challenges, a mismatch between existing program structures and the sector's needs, or both.

This report discusses the needs and challenges identified through interviews and a focus group with producers and technical support organizations. Some of the most common needs expressed included better professional and basic farming skills in entry-level workers, more awareness of agricultural career opportunities (especially for youth), and the creation of flexible training pathways that fit the seasonality of farming. Broader issues such as access to affordable housing, healthcare, and transportation are making it more difficult to recruit workers. This is complicated by the difficulty of paying a genuinely competitive wage in some farm sectors.

This working group process helped identify key opportunities for fostering agricultural workforce development, which this report groups into four categories:

- Creating connections
- Developing a feeder program
- Raising awareness
- Supporting farms and farm workers

Creating connections among workforce development programs and between those programs and the broader farming community will help share resources and information, improve program quality, surface gaps in programming, and create more integrated training pathways. Developing a feeder program as an entry point for people interested in entering the agricultural workforce will help build critical professional and farming skills, aid in exploring career options, and guide people toward jobs or further workforce development opportunities. Raising awareness of agricultural careers by partnering with existing organizations, organizing awareness events, and creating a coordinated publicity campaign could boost workforce recruitment and retention by educating people on the diversity of opportunities available in this industry. Finally, supporting farmers and farm workers by playing an active role in broader discussions and initiatives related to affordable housing, access to healthcare, rural transportation, and providing living wages will help address some of the most fundamental barriers individuals face as they contemplate a career in farming.

## Introduction

Maine has a goal of increasing the amount of food consumed in Maine from state food producers to 30% by 2030. This ambitious target will advance several critical objectives at once: to foster a food system that supports Maine's climate goals, to safeguard Maine's food security, and to drive

investment in agriculture, a natural resource industry that is the backbone of many of Maine's rural communities. To get to 30%, Maine farms will need a robust and reliable workforce.

The Maine Department of Agriculture, Conservation & Forestry (DACF) convened a working group to explore workforce development strategies in agriculture, focusing on investigating the promise and potential of agricultural apprenticeships. As a part of this process, DACF reviewed existing agriculture workforce development programs in Maine and beyond while soliciting feedback from producers and technical assistance providers. This report contains DACF's findings.

## Project Background

### Legislative History

The 131st Legislature passed LD 901, which Governor Mills signed into law on July 26, 2023. The resolve directed DACF to convene a working group regarding a farm apprenticeship pilot program.

### Project Approach

DACF recognizes that apprenticeships are one part of a larger workforce development system. Apprenticeships are generally understood to be an arrangement in which someone new to a profession or trade learns their craft through the tutelage of an experienced practitioner. Apprenticeships have a long history as an exchange of labor for instruction, with compensation arrangements varying widely. Some trades have formal, registered apprenticeship programs in many states, including Maine. A new worker is paired with an experienced person in the field and undertakes a structured training program while performing job duties typical for that field. Successful completion typically leads to a credential recognized in that industry. Examples of this are found among Maine Department of Labor Registered Apprenticeship programs, which must meet criteria including 2,000 hours of paid work experience and 144 hours of classroom instruction. Other apprentice programs are opportunities for a less experienced person to work with a more experienced one, but with a wide range of structures and compensation arrangements. Maine agriculture apprenticeships fit within a matrix of workforce development opportunities, including formal classwork, short courses, introductory training, community volunteer programs, and others. Because of the importance of the entire workforce development network in addressing worker shortages and viable career paths, this project addresses agricultural workforce development broadly.

In preparation for convening the working group, the team conducted an inventory of existing workforce development programs and resources in Maine and gathered information from producers and technical support providers through interviews and a focus group (see Appendix B). Information gathered during this process was used to prepare a landscape scan for the working group to review.

An initial inventory of existing programs was developed based on online research and was supplemented during the interviews. The inventory focused on workforce development programs for new or aspiring farmers or agricultural workers in all sectors, including aquaculture, greenhouse and nursery production, fruit and vegetable production, potatoes, blueberries, and dairy and other

animal agriculture. The information cataloged on these programs included the program name, organization, state department sponsor(s), a description, contact information, sector, topics covered, target age group, expected outcomes, and format. This compilation included formal apprenticeship programs, high school technical programs, post-secondary degree programs and coursework, and workshops.

DACF and its consultants developed a list of interview candidates to represent a cross-section of agricultural sectors in Maine. Of these, 13 interviews were successfully conducted. The goals of these interviews included gathering information about additional programs in Maine or elsewhere, identifying unmet needs for each agricultural sector, and understanding typical career development pathways for agricultural workers and farmers today and how they might be improved. The project team asked interviewees to preview interview questions along with an inventory of existing workforce development programs and a copy of LD 901. Team members conducted these interviews in person or via video call. In addition to one-on-one interviews, a small producer group was also convened. Notes were recorded for each interview and returned to the interviewee for review. Ideas and common themes from these conversations were captured by the team and incorporated into this report.

Following the initial interviews and focus group, the project team developed a list of potential working group members based on the stakeholders described in L.D. 901. The working group convened twice. During the first meeting, the working group reviewed the results of the inventory, interviews, and focus group. They identified areas of agreement and generated preliminary ideas for solutions. The following meeting focused on refining and prioritizing the group's recommendations, now reflected in this report.

## Workforce Trends

According to the 2022 USDA Census of Agriculture, the number of farms in Maine has declined since 2012, but the industry has grown in value, with nearly \$870 million worth of product sold in 2022. In 2022, the USDA Agricultural Census determined that Maine had 7,036 farms, 95% of which were family farms. These farms had a net income of \$252 million in 2022, derived from a variety of products including fruits and vegetables, dairy and other livestock, plants, fish/shellfish, and much more.

The average age of farmers in Maine increased from 56.5 years in 2017 to 57.5 years in 2022, mirroring the trend in the overall population in the state. Nearly 39% of farmers were 65 and older in 2022. The number of producers under age 45 decreased slightly in that same period and made up just under 22% of the total. In 2022, 43% of farmers were female, and just under 3% were farmers of color. Just under half (43%) of farmers reported farming as their primary occupation.

Twenty-seven percent of farms relied on hired farm labor in 2022, employing over 11,000 people, a decline of 17% from 2017. Nearly 65% of these workers were seasonal (working 150 days or less). Hired labor made up 22.3% of the total operating expense of farms in Maine. Interestingly, hired farm labor was reported in all size categories of farms, with nearly 2,700 hired workers reported at farms with fewer than 50 acres of land.

## Existing Program Characteristics

The program inventory focuses on Maine programs and resources for workforce development, particularly for adults new to farming. These include apprenticeship programs, workshops/short-term training, coursework, and learning resource libraries. Time commitment varies from multi-year apprenticeships to self-guided learning resource libraries. Several non-profit organizations, educational institutions, and the University of Maine Cooperative Extension sponsor these programs. There are only a few examples of cross-organization/institution coordination to develop a clear, buildable pathway for workforce development for a particular agricultural sector, mostly in the context of apprenticeship/pre-apprenticeship programs registered with the Department of Labor.

Existing programs in Maine are summarized here, and a detailed listing is available in Appendix A.

*Table 1. Existing agricultural workforce development programs in Maine, summarized*

Program Name	Organization	Brief Description
MOFGA Apprenticeship Program (Being phased out)	Maine Organic Farmers and Gardeners Association (MOFGA)	MOFGA's Apprenticeship Program connects apprentices, with or without previous farming experience, with host farms to learn and work. The duration and compensation vary by farm, but the typical apprenticeship involves labor in exchange for room and board, instruction, experience, and financial compensation.
Farm Beginnings	Maine Organic Farmers and Gardeners Association (MOFGA)	MOFGA Farm Beginnings is a three-month, cohort-based business-planning course designed to help established farmers set goals and develop a business plan.
B.S. in Sustainable Agriculture	University of Maine	This four-year degree at the University of Maine focuses on sustainable farming practices, such as building healthy soils, protecting water quality, managing ecological pests and weeds, developing a stable and community-based business, and taking a scientific approach to testing ecological farming practices.
Journeyperson Program	Maine Organic Farmers and Gardeners Association (MOFGA)	This 2-year business development program is for beginning farmers and farm workers to support them in operating an impactful farm business in Maine. It includes technical assistance, participation in MOFGA Farm Beginnings, and other resources.
Statewide New Farmer Programming	University of Maine Cooperative Extension (UMCE)	This library compiles courses, events, workshops, and farm visits on various topics, from farm business management to livestock or fruit and vegetable production. UMCE and other partners around the state and online provide these events.



Aquaculture Training Program	Southern Maine Community College	This week-long introductory training covers topics such as an introduction to farmed shellfish and algae species, basic boat safety and vessel operation, aquaculture production and culture systems, and more.
Aquaculture Boot Camp	Maine Aquaculture Innovation Center	The Aquaculture Boot Camp is a 5-day training that offers essential skill-building exercises to prepare new entrants to safely participate in shellfish and kelp farming as practiced in Maine.
Aquaculture Pioneers Program	Educate Maine	This Maine Department of Labor certified pre-apprenticeship program prepares participants to enter the aquaculture industry and participate in the Maine Aquaculture Apprenticeship program. Participants tour farms and hatcheries throughout the state and gain skills to equip them to join the aquaculture workforce.
Aquaculture in Shared Waters Core Program	Maine Aquaculture Innovation Center	This 14-week course provides fundamental aquaculture know-how to commercial fishermen, working waterfront professionals, and new farmers to increase their knowledge of best practices and likelihood of success. The curriculum is taught by industry, regulatory, and research experts and is paired with one-on-one business and production planning and field trips to aquaculture operations.
Maine Aquaculture Apprenticeship Program	Gulf of Maine Research Institute, Maine Aquaculture Association	This Maine Department of Labor registered apprenticeship program offers 2,000 hours of hands-on experience under the guidance of an experienced aquaculturist and classroom instruction from Southern Maine Community College. In this paid apprenticeship, participants learn about vessel operation, shellfish culture, and regulatory compliance.
Maine Wild Blueberries Grower Resources	University of Maine Cooperative Extension (UMCE)	This online resource library has documents and videos on growing wild blueberries focused on pest management.
Dairy Grazing Apprenticeship Program	Dairy Grazing Alliance (Wolfe's Neck Center for Agriculture & the Environment and individual farms are placement sites)	The Dairy Grazing Apprenticeship is a National Apprenticeship registered with the U.S. Department of Labor. It consists of 4,000 hours of training over two years. Most of this time is spent on mentorship and employment on the farm with an approved Mentor Dairy Grazer, such as at the Wolfe's Neck Organic Dairy Research and Farmer Training Program.
Fruit and Vegetable Farmer Training Program	Wolfe's Neck Center for Agriculture & the Environment	During this paid yearlong apprenticeship, fruit and vegetable apprentices receive classroom instruction and field experience on agricultural techniques for small-scale organic fruit and vegetable production, business planning, and problem-solving.

Farm Skills Training Program	Merrymeeting Food Council	The Farm Skills Training Program is a part-time, 11-week paid training program that helps participants gain skills for farm jobs and grow their own food. Following the program, participants have the opportunity to connect with hiring farms.
Boots-to-Bushels	University of Maine Cooperative Extension (UMCE)	This 10-week online course, supplemented with farm visits, prepares participants with the knowledge and skills necessary for fruit and vegetable production, from pest management to marketing.
Community Farm Program (formerly the New American Sustainable Agriculture Project)	Cultivating Community	The Community Farm Program provides growers from immigrant, refugee, and asylum-seeking backgrounds with access to affordable growing space, shared infrastructure, training, and support to continue growing food vital to their culture, financial security, and health.
Liberation Farms Community Farming Program	Somali Bantu Community Association	This program helps Somali Bantu family farmers participate in sustainable food production for their families and communities by providing access to land, seeds, training, technical assistance, and marketing.
Horticulture Associate Degree	Southern Maine Community College	This 2-year degree prepares graduates to work in various horticultural occupations through a hands-on curriculum covering plant function and development, soil science, plant identification and care, landscape design, pest and disease treatment, and horticultural business.
B.S. in Environmental Horticulture	University of Maine	This four-year degree at the University of Maine focuses on the applied science of managing ornamental plants. It gives students knowledge and hands-on experience in landscape design, plant production, plant/soil science, and business, with a choice of concentration.
Maine Horticulture Apprentice Training Program	University of Maine Cooperative Extension (UMCE)	This apprenticeship blends an 18-week online course with a 200-hour hands-on apprenticeship, preparing apprentices with the foundational knowledge and experience to enter the workforce, enhance existing skills, or start a business.
Potato Resources	University of Maine Cooperative Extension (UMCE)	This online resource library has documents and videos on potato production and storage.
High School Programs		
Agriculture Program of Study	Caribou Tech Center	Students will learn to cultivate, plant, maintain, harvest, and sell fresh commodities. It teaches all basic farm skills, including basic electricity, welding, tractor operation, and small engine repair.

Aquaculture Program of Study	Coastal Washington County Institute of Technology	Course topics include fish ecology, anatomy and physiology, water quality, aquaponics, and commercial and recreational management operations.
Horticulture Program of Study	Portland Arts and Technology High School	This program exposes students to “Green Industry” jobs, including landscaping, greenhouse production, hydroponic and outdoor vegetable production, floral trades, and retail sales.
Agriscience Program of Study	Presque Isle Tech Center	Agriscience offers various courses that combine principles and techniques, science theory, and hands-on learning in classrooms, laboratories, and on the educational farm.
Landscaping and Horticulture Program of Study	Sanford Regional Technical Center	This program prepares students to enter the “Green Industry” through courses in greenhouse operation, orchard management, landscape design, organic vegetable production, and aquaculture.
Environmental Horticulture/Outdoor Recreation	United Technologies Center	Horticulture and Outdoor Recreation covers commercial landscaping, hydroponics, arboriculture, forestry, hunting, fishing, and guiding careers.
Maine FFA Association	Maine FFA Association (formerly Future Farmers of America)	FFA impacts students' lives by developing their potential for leadership, personal growth, and career success through agricultural education.
Youth Leadership Internship	Cultivating Community	Interns learn to grow, prepare, and share food with East Bayside neighbors while creating a healthier, more food-secure community for themselves and those around them.
Maine 4-H Agriculture Ambassadors Program	UMaine Cooperative Extension: 4-H	This program allows youth to connect to local agriculture, build relationships with industry professionals, develop professional and advocacy skills, and explore careers in agriculture. Following a six-week training, participants serve a year-long term as a Maine 4-H Agriculture Ambassador team member.

## Cross-Sector Programs

A few programs and resources are designed to serve all agriculture sectors. These include UMCE workshops, a B.S. in Sustainable Agriculture from the University of Maine, and the MOFGA Farm Training Project (the successor to the MOFGA Apprenticeship Program which was active from the 1970s until 2024).

UMCE provides several free learning resources and workshops for farming in general and a few sector-specific resource libraries for some commodities. MOFGA's programming is intended to serve all agricultural sectors, not strictly organic. The University of Maine also offers a 4-year Bachelor of Science in Sustainable Agriculture, which teaches sustainable agricultural techniques and farm business skills.

## Fruit & Vegetable Programs

Programs focused on fruit and vegetable production include an apprenticeship program, two training programs, and two cooperative farming programs for people with immigrant backgrounds. The Wolfe's Neck Center for Agriculture & the Environment hosts an apprenticeship program on-site at the Center's demonstration farm. UMCE's Boots-to-Bushels program is a tuition-based online course with the option for farm visits. Merrymeeting Food Council's Farmer Training program and cooperative farming programs for people with immigrant backgrounds are offered through the Somali Bantu Community Association and Cultivating Community.

## Dairy Programs

Only one program was identified for the dairy industry in Maine, the Dairy Grazing Apprenticeship program. This is a nationally registered apprenticeship program with the US Department of Labor, and farms in Maine can sign up to mentor apprentices. Apprentices undertake 4,000 hours of training over two years and must be paid at least \$8 per hour. Wolfe's Neck Center for Agriculture & the Environment's Organic Dairy Research and Training program is a site of the national Dairy Grazing Apprenticeship. Classroom training is required, and a competency book is provided to track progress throughout the apprenticeship.

## Aquaculture Programs

Aquaculture has the most coordinated and extensive workforce development programs for agriculture in the state, with offerings for complete beginners to those who want to pursue a degree in aquaculture. There are two short "boot camp" training programs, one pre-apprenticeship program, one registered apprenticeship, and one course. Aquaculture Pioneers is a pre-apprenticeship program that gives participants a foundation that prepares them for the Maine Aquaculture Apprenticeship program. The Maine Aquaculture Apprenticeship is registered with the Department of Labor. It combines classroom instruction at Southern Maine Community College with 2,000 hours of hands-on experience with an experienced aquaculturist on the farm.

## Horticulture Programs

The horticulture sector currently has two post-secondary education opportunities and an apprenticeship program. The Maine Horticulture Apprentice Training Program is an 18-week course and 200-hour apprenticeship run by UMCE. Southern Maine Community College has an associate

degree in horticulture that prepares students to enter the workforce or start a horticultural business. The University of Maine has a bachelor's degree in environmental horticulture that covers both theoretical and applied knowledge of landscape design, plant and soil science, and horticulture business practices, with a choice of concentration in either Sustainable Horticulture, Landscape Design, Horticultural Business or Turfgrass Management.

## Blueberry and Potato Programs

Though blueberries and potatoes represent two of Maine's three largest commodity crops (the third being dairy), there are no specific programs for blueberry or potato production. UMCE provides an online resource library for each sector. There are some internal workforce training programs within larger farm businesses.

## Youth and High School Programs

Maine Agriculture in the Classroom, an independent program that is co-located office of in a DACF facility, that funds projects to increase awareness of agriculture and food in the classroom. This includes lesson plans and resources for teachers of all grade levels; the Read ME Agriculture event, and a summer workshop for PreK-12 teachers. There is also a grant program to fund school gardens and greenhouses, agricultural leadership programs, and educational projects that promote agriculture awareness.

There are six high school technical programs with an agriculture curriculum, some offering an overview of several agricultural sectors and others offering instruction focused on one sector. These programs are concentrated in the northern part of the state (Presque Isle, Caribou, Columbia) and to the south (Portland, Sanford), with only one program serving central Maine (United Technologies Center in Bangor). Three of these programs focus on horticulture, one on aquaculture, and two on the agriculture industry as a whole. Extracurricular activities are available for high school students through the FFA program, the 4-H Ambassadors program, and Cultivating Community's Youth Leadership Internship.

## Program Analysis

The amount of workforce development programming varies widely between sectors, from the well-coordinated network of programs in aquaculture to sectors with almost no workforce development resources. Aquaculture is an example of how coordination between different program providers/sponsors can help create a clear pathway for participants to enter the field or build on existing skills while avoiding unnecessary duplication of program material. Program participants can better build the pathway that suits their needs when programs are complementary, which could boost participation and retention. This may be enabled because there appears to be more opportunity for living wage employment in this sector's business model than in some other sectors. Even in sectors with sufficient career development programs, coordination is needed to ensure that program material/curricula align (either building on one another or covering distinct topics), as well as collaboration on the marketing of these opportunities and how they fit together. The Beginning Farmer webpage provided by UMCE has filled this communication gap in some ways by posting workforce development opportunities by other organizations and by publishing a regular bulletin.

However, there is still a need for more consistency and communication between programs within each sector.

In some sectors, such as horticulture, there is also a need for increased communication between post-secondary education and apprenticeship programs and producers. There is a desire for more connection between local agribusiness/farms and learners, which could be achieved through increased communication about apprenticeship opportunities, farm visits, and learning outcomes.

Another barrier to participation in workforce development programs is their uneven geographic distribution throughout the state. This is especially notable in the distribution of high school technical programs, with a gap in programming in the central part of the state.

Some existing apprenticeship programs, such as those in the dairy industry, have more openings than they can fill. This recruitment gap may be partly due to a lack of awareness of agricultural careers, especially among young adults.

A pressing issue specific to apprenticeship programs is worker compensation. A few apprenticeship programs pay apprentices for their labor, but some do not pay apprentices for work hours, or they pay them a small stipend, or charge tuition/fees. This depends on the structure and requirements of the apprenticeship. In the context of a Registered Apprenticeship program with the Department of Labor, hours that apprentices work must be compensated, but required classroom time may or may not be paid. This raises the barrier for people participating in these programs, especially young people, those seeking to make a career change, and those from under-resourced communities. This could be a limiting factor for participation, especially when these apprenticeships are on farms in areas of the state with few other jobs and community supports, such as public transportation and affordable housing. Apprentice compensation may be a barrier for smaller producers, especially if instruction time takes away from work. Identifying funding resources available to support producers in paying apprentices will likely be necessary.

## Key Interview and Focus Group Themes

Several common themes emerged during interviews and focus groups with farmers, associations, and technical resource providers. These needs, observations, and challenges have been reviewed and refined in working group discussions.

### Difficulty Recruiting Workers

Many producers reported that workers are hard to find. In some sectors, like potatoes, some workers are retiring, and it's challenging to find younger workers who are prepared for and interested in farm work, which can involve long or irregular hours and much physical labor. Finding workers with skills in newer technology for farms that are becoming more mechanized can also be challenging. Some farmers have tried hiring workers through the H2A/H2B or J1 visa programs, but this process requires extensive paperwork and can be expensive, and seasonality requirements don't align well with the needs of year-round operations, such as dairy farms and horticulture operations.

For the industries with opportunities to expand now, the lack of workers is holding back economic growth in the state. Some of the difficulty in finding workers may be a marketing issue – the need to market farming as a rewarding career path. This may be easier in sectors with significant open positions that are more than entry-level seasonal work. There is an inextricable link between the viability of any given sector and the ability to attract local workers. Horticulture is one example of a field where both seasonal and year-round positions are available. Orchards and agritourism have room for additional employees as well. Graduates from some technical programs go on to affiliated or support industries rather than farming because the hours can be more regular and there are more benefits.

### Basic Skills Gap in Entry-Level Workers

For someone who has never worked on a farm, it can be difficult to anticipate what farm work is like. Many farmers interviewed were concerned that fewer people are being exposed to farms and agriculture. Creating interest and awareness at the high school level would be helpful, as would getting an introduction to farm work before starting for the season, so prospective workers can make a more informed decision about whether to sign on to a farm. If a worker quits partway into the season or is inconsistent about showing up for work, it creates labor issues for the farmer.

According to the interviewees, the most important skills for a potential new farm worker to learn are a work ethic, general knowledge of equipment operation and maintenance, tolerance for the rigors of physical labor and odd schedules, basic computer skills for automated machinery, and the ability to fill out paperwork when needed. Once they are established in farming, other skills, such as food safety training and business knowledge, become important. In aquaculture, the Aquaculture Bootcamp held by Aquaculture in Shared Waters has helped get interested apprentices in the door. In larger, more mechanized operations such as blueberries, key needs are safety training (pesticide use, equipment safety, etc.) and mechanical skills for new technology such as electric equipment.

## Flexibility and Seasonal Variability

Farm work is often seasonal, and different skills are needed in the summer compared to the winter. Some farms can provide winter work in warehousing or equipment maintenance, but others cannot. For farms that cannot provide winter work, matching the farm season with other employment during the off months can be a challenge. One farmer suggested pairing farm work with other work, such as school bus driving.

Alternative post-secondary education models held at times of the year that complement, but don't encroach on, the field season are helpful. The programs need to be presented in a flexible, bite-sized manner because the agricultural career pathway is less standardized and linear than many other trades. UMCE has experimented with a micro-credentialing model that exemplifies this approach for higher-level skills. It may also be important to create similar opportunities to gain entry-level skills. Some options could be the development of training videos on the basics or short courses that help people decide whether agriculture is the right field for them.

## Regional Distribution

Having more agricultural and mechanical high school tech programs or apprentice programs close to farms that need the labor would be helpful. Central Maine and the Van Buren area are two examples. Students who attend a tech high school in one part of the state are not likely to move to an entirely different part of the state for a farm job. A southern Maine horticulture business indicated they didn't have a close connection with the UMCE Horticulture Apprenticeship program and wondered if it was partly a distance issue.

## Resource and Capacity Needs

Providing a high-quality apprenticeship experience can take financial resources to provide housing, food, and hourly pay. Supplementing the farmer's resources with a paid program through government or nonprofits would be very helpful, especially in sectors like mixed vegetables, potatoes, and orchards. In some cases, good programs are already available (dairy, aquaculture, agronomy). Some programs have plenty of participant interest (aquaculture), and others have more capacity than applicants (dairy). Organizations or farms that might want to participate in workforce development programming may not be able to develop the organizational structure and human resources expertise needed to run an apprenticeship program.

## Economic Model

Perhaps the biggest challenge to agricultural workforce development is the fragility of the underlying business model in many farming sectors. Farm profit margins tend to be low, making it hard for farms to pay competitive wages. This stakeholder process surfaced several examples of farm families netting less than their hired workers.



# The Path Forward

The charge to the stakeholder group created by LD 901 was to “inform the development of a farm apprenticeship pilot program.” Although there was not a consensus within the stakeholder group that an apprenticeship pilot program was the right next step, the process created a broad consensus on what Maine organizations, employers, and state government could do to foster stronger workforce development pathways for agricultural businesses.

## 1. Create Connections

As documented, Maine has a rich variety of workforce development programs for agriculture, ranging across sectors, age groups, and formats. However, there is a lack of coordination and communication among different programs and between programs and the wider farming community (farmers, workers, educators, and youth). There are opportunities for programs to collaborate to streamline training pathways for workers, avoid duplication of programming, and work to fill in gaps in programming. Programs and farmers would also benefit from sharing knowledge, ensuring training goals sufficiently equip trainees for farming, creating richer learning experiences (such as farm visits), and connecting trainees with potential employers.

The first step to fostering communication between programs is to provide platforms for connection and collaboration. This could take the form of an active, updated database of agriculture workforce development programs in the state. This could also include the convening of regular conversations about workforce development. Building intentional communication among programs would open the door for collaboration between programs and technical support providers in the workforce development space, encouraging the sharing of information, existing/working models, and resources in increased capacity (such as funding opportunities). It would also make it easier to identify gaps in the existing framework of programs and ways to connect and streamline programming.

Leveraging existing networks in this space, such as the Maine Farmer Resource Network (MFRN) or the Agriculture Council of Maine (AgCOM), would be the most effective way to build these connections. MFRN already has a page of resources for beginning farmers that could be updated, and AgCOM has a goal in its strategic plan related to supporting workforce development. UMCE has already been working on workforce development opportunities and convening conversations—all efforts that DACF could support and amplify. State agencies and technical resource providers, such as the Department of Labor, the Department of Education, and the Department of Economic and Community Development, would be key partners in sharing information and resources with this group.

## 2. Develop a Feeder Program

There is an identified need for supporting students and new workforce members in developing essential skills, ranging from basic job readiness to general farming knowledge. This could be addressed by creating a broad program focused on building familiarity with farming, introducing people to various agriculture careers, and developing professional skills like time management. In addition to preparing potential workers for agricultural careers, it would be an opportunity to

increase exposure to different career paths within the industry and recruit trainees for more advanced workforce development programs, such as apprenticeships.

The content could be broad enough to apply to multiple sectors, making it an easy first step for someone curious about farming as a career. The format could combine in-person and remote classroom instruction over a multi-day or weeklong session to minimize participation barriers. This program should conclude before the beginning of the growing season so that participants have the best opportunity to move on to more advanced training programs or agricultural jobs that start at that time.

Existing models and structures, such as the Maine Department of Labor's (DOL) pre-apprenticeship program, could streamline the development of this program. Opportunities exist to partner with Career and Technical Education schools, community colleges, or adult education providers to develop curriculum. Utilizing an intermediary sponsor, an organization that coordinates pre-apprenticeships and registered apprenticeships, could lighten the administrative burden.

### 3. Increase Awareness

There is a lack of awareness of the breadth of opportunities and pathways available in agricultural careers. With fewer people growing up in rural areas near farms, it's becoming more critical to reach youth and adults considering a career change. Raising awareness of agriculture careers and available workforce development programs is an essential piece of recruiting and retaining future workers.

Many programs and organizations are already working to raise awareness of agricultural careers for youth. The Maine FFA Association, the 4-H Agriculture Ambassador Program, and Maine Agriculture in the Classroom offer a variety of opportunities for young people to learn about agriculture and food systems and develop related skills. Agriculture programs at Career and Technical Education schools also allow youth to explore career opportunities, learn more about the industry, and cultivate their interests. These organizations would be key partners in sharing information about workforce development opportunities for youth interested in taking the next step toward a career in agriculture. There are also opportunities to broaden outreach through farm education events, farm field trips, and encouraging gardening in schools.

Adults may be more challenging to reach and would require a broader approach. Part of the approach should include partnering with adult education providers and community colleges to support and grow agricultural education offerings. A coordinated publicity campaign about the breadth of agriculture careers could also raise awareness. More research should be conducted on how to best reach New Mainers, including working with organizations like the New Mainers Resource Center.

A vital component that would contribute to the success of this strategy is ensuring that there are sufficient and clear next steps for anyone interested in exploring a career in agriculture. This reinforces the importance of Strategy 1: Creating Connections, which will help create more clearly defined pathways for career development.

## 4. Support Farms & Farm Workers

Recruitment issues in agriculture do not occur in an agriculture-only vacuum but are a part of workforce challenges in the broader Maine and US economies. As in other businesses, it is becoming more difficult for farms to attain viability in the face of rising production costs. The cost of production for Maine farms is increasing, and in 2022, the Census reported that more than half of Maine's farms operated at a net loss. Workers face a parallel crisis of affordability, with limited access to affordable healthcare, housing, and transportation.

These issues are not unique to agriculture or rural communities, but they are deeply tied to the challenges of worker recruitment and viability faced by the industry. Recent State and federal budgets have made historic investments in affordable housing, rural transportation, healthcare access, rural development, and more. Some farm employers are engaging in community-based or hyper-local solutions, such as providing on-farm housing, and these initiatives show promise. Stakeholder group members recognized that many solutions lie outside the bounds of agriculture per se, but that the agricultural community can be an ally to advocate for solutions to these issues and support state and federal efforts to address them.

This process did not produce a strong consensus that piloting an agricultural apprenticeship program was the best next step for agricultural workforce development in Maine. It did, however, surface the four tenets cited above as a basis for the agricultural workforce development investments that Maine needs.

## Appendix A: Table of Existing Workforce Development Programs

### Adult Workforce Development Opportunities

Program Name	Organization & Partners	Description	Link	Sector	Age Range	Funding Model	Timeline	Format
MOFGA Apprenticeship Program (note: this well-known program ceased to function after the 2024 growing season, with some offering absorbed into MOFGA's Farm Beginnings program)	Maine Organic Farmers and Gardeners Association (MOFGA)	MOFGA's Apprenticeship Program connects apprentices, with or without previous farming experience, with host farms to learn and work. The duration and compensation vary by farm, but the typical apprenticeship involves labor in exchange for room and board, instruction, experience, and financial compensation.	<a href="#">Link</a>	Any	Adult	Room, board, instruction, and compensation	Growing Season	Apprenticeship
Farm Beginnings	Maine Organic Farmers and Gardeners Association (MOFGA)	MOFGA Farm Beginnings is a three-month, cohort-based business-planning course designed to help established farmers set goals and develop a business plan.	<a href="#">Link</a>	Any	Adult	Tuition (\$350 per farm)	3 months	Coursework
B.S. in Sustainable Agriculture	University of Maine	This 4-year degree at the University of Maine focuses on sustainable farming practices, such as building healthy soil, protecting water quality, ecological pest and weed management, developing a stable and community-based business,	<a href="#">Link</a>	Any	Adult	Tuition	4 years	Coursework

		and a scientific approach to testing ecological farming practices.						
Journey person Program	Maine Organic Farmers and Gardeners Association (MOFGA)	This 2-year business support program is for beginning farmers and farm workers to support them in overcoming barriers to operating an impactful farm business in Maine. It includes technical assistance, participation in MOFGA Farm Beginnings, and other resources.	<a href="#">Link</a>	Any	Adult	Free	2 years	Coursework, Resource Library, Technical Assistance
Statewide New Farmer Programming	University of Maine Cooperative Extension (UMCE)	This library compiles courses, events, workshops, and farm visits on various topics, from farm business management to livestock or fruit and vegetable production. UMaine Cooperative Extension and other partners around the state and online provide these events.	<a href="#">Link</a>	Any	Adult	Free	Self-guided	Resource Library
Maine Aquaculture Apprenticeship Program	Gulf of Maine Research Institute, Maine Aquaculture Association, Maine Department of Labor, USDA	This Maine Department of Labor registered apprenticeship program offers 2,000 hours of hands-on experience under the guidance of an experienced aquaculturist and classroom instruction from Southern Maine Community College. In this paid apprenticeship, participants will learn vessel operation, shellfish culture, and regulatory compliance.	<a href="#">Link</a>	Aquaculture	Adult	Paid	1 year	Apprenticeship

Aquaculture in Shared Waters Core Program	Maine Aquaculture Innovation Center, Maine Sea Grant, Maine Aquaculture Association, Coastal Enterprises, University of Maine School of Marine Sciences	This 14-week course provides fundamental aquaculture know-how to commercial fishermen, working waterfront professionals, and new farmers to increase their knowledge of best practices and likelihood of success. The curriculum is taught by industry, regulatory, and research experts and is paired with one-on-one business and production planning and field trips to aquaculture operations.	<a href="#">Link</a>	Aquaculture	Adult	Free	14 weeks	Apprenticeship
Aquaculture Training Program	Southern Maine Community College, Maine Department of Labor, USDA	This week-long introductory training covers topics including an introduction to farmed shellfish and algae species, basic boat safety and vessel operation, aquaculture production & culture systems, and more.	<a href="#">Link</a>	Aquaculture	Adult	Free	1 week	Coursework
Aquaculture Boot Camp	Maine Aquaculture Innovation Center, Maine Sea Grant, Maine Aquaculture Association, Coastal Enterprises, UMaine School of Marine Sciences	The Aquaculture Boot Camp is a 5-day training that offers essential skill-building exercises to prepare new entrants to safely participate in shellfish and kelp farming as practiced in Maine.	<a href="#">Link</a>	Aquaculture	Adult	Free	5 days	Coursework

Aquaculture Pioneers Program	Educate Maine	This Maine Department of Labor certified pre-apprenticeship program prepares participants to enter the aquaculture industry and participate in the Maine Aquaculture Apprenticeship program. Participants tour farms and hatcheries throughout the state and gain skills to equip them to join the aquaculture workforce.	<a href="#">Link</a>	Aquaculture	16+	Employer pays interns, and employers receive a stipend from Educate Maine to account for paying interns \$15/hr	Summer	Pre-Apprenticeship
Maine Wild Blueberries Grower Resources	University of Maine Cooperative Extension (UMCE)	This online resource library has documents and videos on growing wild blueberries focused on pest management.	<a href="#">Link</a>	Blueberry	Adult	Free	Self-guided	Resource Library
Dairy Grazing Apprenticeship Program	Dairy Grazing Apprenticeship (501c3 non-profit), US Dept of Labor, Stonyfield	The Dairy Grazing Apprenticeship is a national apprenticeship registered with the U.S. Department of Labor that consists of 4,000 hours of training over two years. Most of this time is spent on mentorship and employment on the farm with an approved Master Dairy Grazer, such as at the Wolfe's Neck Organic Dairy Research and Farmer Training Program.	<a href="#">Link</a>	Dairy	Adult	Minimum of \$8/hour	2 Years	Apprenticeship
Fruit and Vegetable Farmer Training Program	Wolfe's Neck Center for Agriculture & the Environment	During this paid year-long apprenticeship, fruit and Vegetable Apprentices receive classroom instruction and field experience on agricultural techniques for small-scale organic fruit and vegetable production, business planning, and problem-solving.	<a href="#">Link</a>	Fruit & Vegetable	Adult	\$500/week stipend, housing, five paid days off	Yearly	Apprenticeship

Farm Skills Training Program	Merrymeeting Food Council	The Farm Skills Training Program is a part-time, 11-week paid training program that helps participants gain skills for farm jobs and growing their own food, with the opportunity to connect with hiring farms following the program.	<a href="#">Link</a>	Fruit & Vegetable	Adult	\$15/hr for 11 weeks	11 weeks	Apprenticeship, Coursework
Boots-to-Bushels	University of Maine Cooperative Extension (UMCE), USDA	This 10-week online course, supplemented with farm visits, prepares participants with the knowledge and skills necessary for fruit and vegetable production, from pest management to marketing.	<a href="#">Link</a>	Fruit & Vegetable	Adult	Tuition (\$150)	10 Weeks- 9 months	Coursework, Farm visits
Community Farm Program (formerly NASAP)	Cultivating Community	The Community Farm Program provides access to affordable growing space, shared infrastructure, training, and support for growers from immigrant and refugee backgrounds to continue growing food vital to their culture, financial security, and health.	<a href="#">Link</a>	Fruit & Vegetable	Adult	Farmers lease land or plots	Annual Lease	Technical Assistance
Liberation Farms Community Farming Program	Somali Bantu Community Association	This program helps Somali Bantu family farmers participate in sustainable food production for their families and their communities by providing access to land, seeds, training, technical assistance, and marketing.	<a href="#">Link</a>	Fruit & Vegetable	Adult	Free	N/A	Technical Assistance
Horticulture Associate Degree	Southern Maine Community College	This 2-year degree prepares graduates to work in a wide variety of horticultural occupations through a hands-on	<a href="#">Link</a>	Horticulture	Adult	Tuition	2 years	Coursework



		curriculum covering plant function and development, soil science, plant identification and care, landscape design, pest and disease treatment, and business.						
B.S. in Environmental Horticulture	University of Maine	This 4-year degree at the University of Maine focuses on the applied science of managing ornamental plants, giving students knowledge and hands-on experience in landscape design, plant production, plant/soil science, and business, with a choice of concentration.	<a href="#">Link</a>	Horticulture	Adult	Tuition	4 years	Coursework
Maine Horticulture Apprentice Training Program	University of Maine Cooperative Extension (UMCE)	This apprenticeship blends an 18-week online course with a 200-hour apprenticeship, preparing apprentices with the knowledge and experience to enter the workforce or start a business.	<a href="#">Link</a>	Horticulture	Adult	Tuition (\$600, sliding scale)	18-week course + 200-hour apprenticeship	Coursework, Apprenticeship
Potato Resources	University of Maine Cooperative Extension (UMCE)	This online resource library has documents and videos on potato production and storage.	<a href="#">Link</a>	Potato	Adult	Free	Self-guided	Resource Library

## Youth and High School Opportunities

Program Name	Organization	Brief Description	Link	Sector	Funding Model	Timeline	Format
Agriculture Program of Study	Caribou Tech Center	Students will utilize the fields and forests at Caribou Technology Center to cultivate, plant, maintain, harvest, and sell fresh commodities. We teach all the skills needed on a farm, including basic electricity, welding, tractor operation, and small engine repair. Students will also have the opportunity to work with live animals and gain summer employment working at their farm stand.	<a href="#">Link</a>	Any	Free	Classes by Semester	High School Coursework
Aquaculture Program of Study	Coastal Washington County Institute of Technology	Course topics include fish ecology, anatomy and physiology, water quality, aquaponics, and commercial and recreational management operations. Emphasis is placed on hands-on skill acquisition. Students will also explore educational and career opportunities in this rapidly growing field.	<a href="#">Link</a>	Aquaculture	Free	Classes by Semester	High School Coursework
Horticulture Program of Study	Portland Arts and Technology High School	The Horticulture program is designed to expose students to the varied jobs in the “Green Industry,” including landscaping, greenhouse production, hydroponic and outdoor vegetable and fruit production, floral trades, and retail sales.	<a href="#">Link</a>	Horticulture	Free	Classes by Semester	High School Coursework
Agriscience Program of Study	Presque Isle Tech Center	Agriscience offers a wide variety of courses combining principles and techniques, science theory, and integrated hands-on learning experiences in the classrooms, laboratories, and at the MSAD#1 Educational Farm. All Agriscience courses contain hands-on instruction with inquiry-based instruction as the goal.	<a href="#">Link</a>	Horticulture, Aquaculture, Fruit & Vegetable Production, Animal Husbandry	Free	Classes by Semester	High School Coursework

Landscaping and Horticulture Program of Study	Sanford Regional Technical Center	The goal of this program is to prepare students to enter the 'Green' industry, training in the field, or for further education. Topics covered include greenhouse operation, plant identification, orchard management, landscape design, Integrated Pest Management, organic vegetable production, floral design, and aquaculture.	<a href="#">Link</a>	Horticulture	Free	Classes by Semester	High School Coursework
Environmental Horticulture/ Outdoor Recreation	United Technologies Center	Horticulture and Outdoor Recreation covers careers relating to commercial landscaping, food-based hydroponics, arboriculture (tree care), forestry, canoeing, outdoor survival, hunting, fishing, and guiding.	<a href="#">Link</a>	Horticulture & Forestry	Free	Classes by Semester	High School Coursework
Maine FFA Association	Maine FFA Association (formerly Future Farmers of America)	FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth, and career success through agricultural education.	<a href="#">Link</a>	Any	Free	Varies	Club
Youth Leadership Internship	Cultivating Community	Interns learn to grow, prepare, and share food with East Bayside neighbors, make new friends, and have new outdoor experiences, all while creating a healthier, more food-secure community for themselves and those around them.	<a href="#">Link</a>	Any	Paid Internship	Semester	Internship
Maine 4-H Agriculture Ambassadors Program	University of Maine Cooperative Extension (UMCE): 4-H	This hybrid program provides youth with an opportunity to connect to local agriculture, build relationships with industry professionals, develop professional and advocacy skills, and explore careers in agriculture. Following completion of the 6-week training, participants serve a year-long term as a member of a Maine 4-H Agriculture Ambassador team in an area of their choosing.	<a href="#">Link</a>	Any	Free	6-week training + 1 year	Internship

## Appendix B: Focus Group Participants and Interviewee List

Name	Organization	Sector (if applicable)
Sarah Littlefield	Dairy Grazing Alliance & Apprenticeship	Dairy
Jamie Libby and April Norton	Wyman's Blueberries	Blueberry
Tom Estabrook	Maine Landscape and Nursery Association	Horticulture
Sebastian Belle	Maine Aquaculture Association	Aquaculture
Tori Jackson	University of Maine Cooperative Extension	Technical Support Provider
Sen. Russell Black	Maine Maple Syrup Producers	Maple Syrup
Sen. Jeff Timberlake	Ricker Hill Orchards	Fruit
Dominic Lajoie	Lajoie Growers	Potato
Joan Dolan	Department of Labor	N/A
Shayna Cohen (Karen Karp & Partners) Laura Ginsburg (Vermont Agency of Agriculture)	Northeast Dairy Business Innovation Center	N/A
Bo Dennis	Maine Organic Farmers and Gardeners Association	Technical Support Provider
Courtney Hammond	Lynch Hill Farms	Blueberry
Richard East	Growing Concern	Vegetables
Jay Roebuck	Roebuck's Angus	Animal Agriculture
Thomas Henninger	Madeleine Point Oysters	Aquaculture

## Appendix C: Potential Models

Below is a sampling of programs from other states that were researched to inform the recommendations in this report.

### **Savannah Institute, WI. Nonprofit model for agroforestry internships in the Midwest.**

The Savannah Institute launched an apprenticeship program in 2019, which provides on-farm learning and mentorship opportunities with experienced agroforestry farmers, including silvopasture, forest farming, alley cropping, and more. Experiences are a minimum of 10 weeks but may be longer. Pay and benefits vary by host farm. In addition to the on-farm work, participants take online classes and participate in activities with other apprentices. The institute's funding model includes public and private grants, and donations from individuals and organizations.

### **ATTRA – the National Sustainable Agriculture Information Service Internship Hub**

<https://attra.ncat.org/internships/>

Authorized in the Farm Bill, ATTRA provides technical assistance to farmers and to individuals who would like to enter farming. ATTRA maintains a listing of internships and displays them on a map of the U.S., including some in Maine. ATTRA reviews the listings prior to posting but is not otherwise involved in the internships themselves. Internship types and compensation vary widely.

### **UMASS extension's Green School – Online short course for horticulture**

<https://ag.umass.edu/landscape/education/umass-extensions-green-school>

The Green School offers a 60+ hour synchronous online learning course for people who are in or entering the horticulture field. The course teaches fundamentals of the field and is based on BMPs and IPM principles, and includes pesticide licensing hours. The fee is around \$1,000, but employers may qualify for a Workforce Training Fund Express Grant for partial or full reimbursement.

### **Tufts New Entry Sustainable Farming Project – Practicum for Beginning Farmers**

<https://nesfp.nutrition.tufts.edu/>

New Entry offers several types of experiences, but the Practicum in Sustainable Agriculture is “a hands-on course designed to help participants build farm skills, expand their knowledge of vegetable production, and prepare them to pursue a career in sustainable agriculture. The Practicum is designed for those new to farming and can prepare someone to work on a farm or start their own farm on the New Entry Incubator Farm Training Program. The minimum age for the program is 15. The program emphasizes entry-level vegetable farming skills as well as an entrepreneurial mindset, using time efficiently, and resilience. Students attend 2 hours of classroom time and 8 hours of field time weekly for 10 weeks. The cost is \$800, but scholarships are available.

### **Rhode Island Nursery and Landscape Association (RINLA) Apprenticeship and Pre-apprenticeship Programs**

<https://rinla.org/apprenticeship/>

RINLA's Growing Futures Registered Apprenticeship program is a structured, paid opportunity that provides job-related classroom instruction and results in a credential that is recognized in the industry. The program is approved by the state's Apprenticeship Council, and there are 30 businesses currently listed as participating. Experiences are from 1-5 years, with wage progression from entry-level to full occupational wage over the course of the experience. Apprentices complete a minimum of 144 hours of classroom or online education per year. Skills taught are customized to the employer's business and delivered in formal steps throughout the experience.

RINLA also offers the Career Catalyst Pre-Apprenticeship program. Participants work on projects on Rhode Island's public lands while learning skills and topics that are essential to success in green industry jobs and careers. In this rigorous program, participants earn while they learn, pair theory with practice, and engage with scientists, industry leaders, and practitioners. Program graduates are matched with job opportunities and a potential pathway to the more advanced Growing Futures Registered Apprenticeship program.

### **Iowa Artisanal Butchery Task Force Report**

<https://workforce.iowa.gov/employers/resources/iowa-meat-processor-locker>

In 2022, an Iowa task force made recommendations to address a worker shortage in the meat locker and processor sector. The task force recommended establishing a 1-year community college certificate program that combined classroom instruction with hands-on, paid internship experience with participating employers. Iowa also offers summer youth work experiences to expose high school students to potential careers and registered apprentice opportunities.