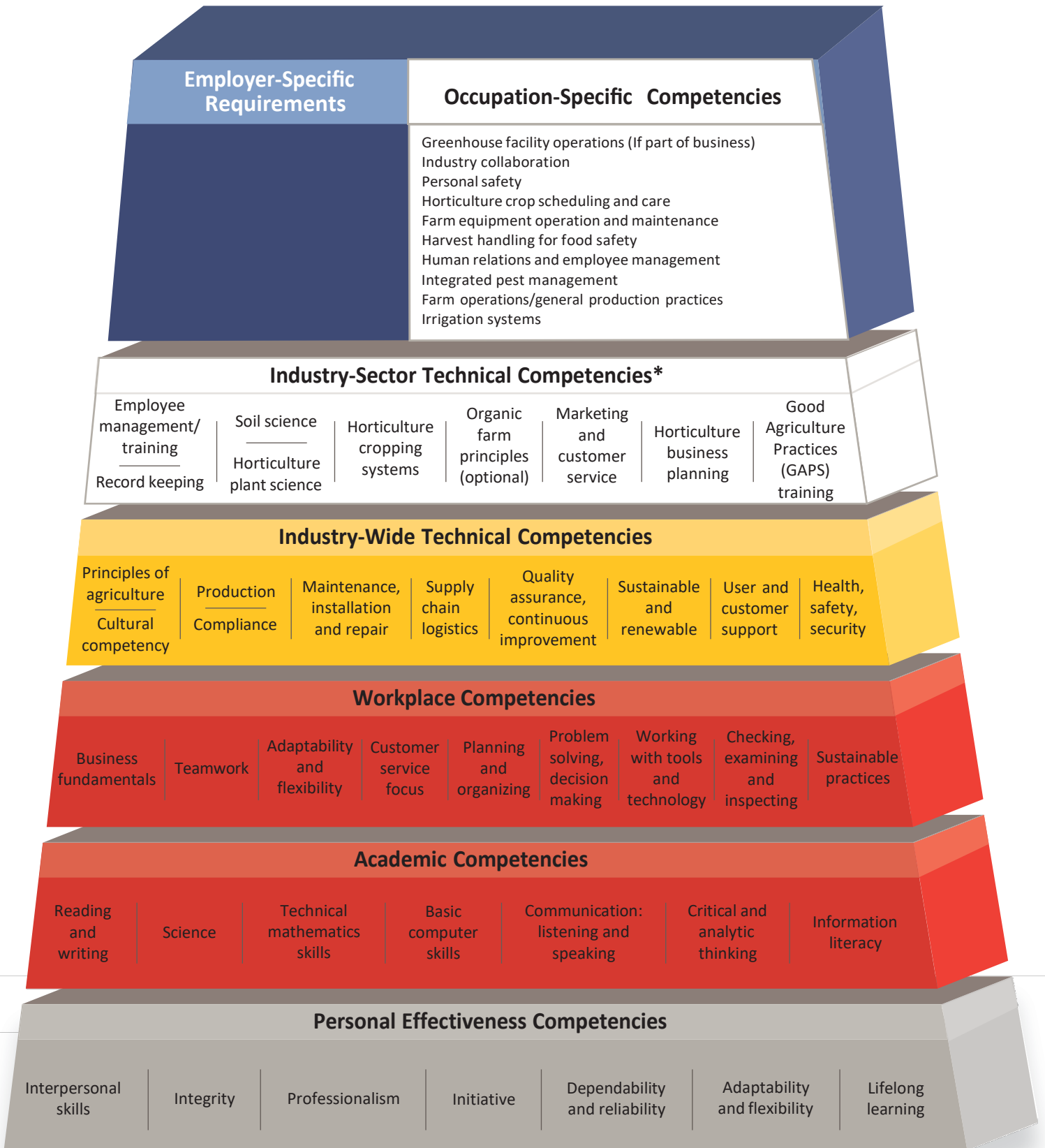


# Minnesota Dual-Training Pipeline

## Competency Model for Agriculture

### Occupation: Horticulture Farm Manager



Based on: Competency Model Employment and Training Administration, United States Department of Labor.

\* Pipeline recommends the Industry-Sector Technical Competencies as formal training opportunities (provided through related instruction) and the Occupation-Specific Competencies as on-the-job training opportunities.



## Occupational Competency Summary

### Horticulture Farm Manager

Horticulture Farm Manager is one who leads a team in the processes of caring for and administering processes to ensure sound production of fruit, vegetables and/or flowers and plants to assure optimum productivity and profits. Horticulture Farm Managers are often responsible for all aspects of plant care, facility repair and maintenance at the site. They also are in-charge of marketing and selling the horticulture products as well.

### Industry-Sector Technical Competencies

- Record Keeping – Knowledge of record keeping procedures regarding production, economics and horticulture issue troubleshooting.
- Employee Management/Training – Understand employee management principles and training techniques.
- Horticulture Plant Science – Training on process of plant propagation and knowing how to select plants, seed vegetables, propagate fruits and vegetables, transplant crops, prune, and maintain plant quality and growth. Understanding the general principles of how plants work and grow from seed to full plant maturity.
- Soil Science – Understanding of the principles of creating optimal soil conditions for growing horticulture products.
- Horticulture Cropping Systems – Knowledge of principles used to manage crop productivity with minimal use of nutrients, pesticides and cultivation.
- Organic Farm Principles (Optional) – Understand rules, regulations, necessary paperwork, documentation, and best practices for operating an organic horticulture production farm.
- Marketing and Customer Service – Knowledge of the principles of marketing horticulture products and best practices for customer service.
- Horticulture Business Planning – Understand how to write and follow a working business plan to manage production costs, labor, transportation and supplies to maximize potential profits.
- GAPS (Good Agriculture Practices) training – Science based training on how to reduce risks of microbial contamination in produce.

### Occupation-Specific Competencies

- Greenhouse Facility Operations (If part of business) – Management of all systems and controls of the greenhouse facility including ventilation, temperature controls, lighting, moisture, and watering systems. Includes maintenance and upkeep of greenhouse facility.
- Industry Collaboration – Introduction to opportunities to collaborate with other businesses within the agricultural industry.
- Personal Safety – Ability to use proper industry standards to maintain a safe work environment to ensure personal well-being for all staff at the agriculture business.

- Horticulture Crop Scheduling and Care – Planning and knowledge of when to plant, weed, prune, harvest, rotate or move plant materials to optimize productivity and protect plants through systems change from seed to harvest.
- Farm Equipment Operation and Maintenance – Ability to create, operate and maintain trellising, irrigation systems, hand tools, pack tools, and occasionally tractor equipment, etc.
- Harvest Handling for Food Safety – Ability to harvest crop(s) and then post-harvest to be able to properly clean, cool, sort, pack, store, cure and label crop as well as transport crop for processing/ sales in a manner that also protects plants overall appearance and quality.
- Human Relations and Employee Management – Understanding of proper human relations and managing staff.
- Integrated Pest Management – Knowledge of procedures intended to protect plants against disease or harmful biological agents from pests or rodents.
- Farm Operations/General Production Practices – Awareness of general farm production practices and the operations required for running a successful horticulture business.
- Irrigation Systems – Know how to create systems for watering equipment that efficiently provides the most appropriate amount of water to plants to ensure peak production and growth.

## Horticulture Farm Manager Occupational Competency Training Plan

*Related Instruction means an organized and systematic form of instruction designed to provide the dual trainee with the knowledge of the theoretical and technical subjects related to their trade, occupation, or industry.*

	<b>Course</b>	<b>Course Description</b>	<b>Credit/Non-Credit</b>	<b>Hours Spent on Competency</b>
	Record Keeping			
	Employee Management and Training			
	Horticulture Plant Science			
	Soil Science			
	Horticulture Cropping Systems			
	Organic Farm Principles			
	Marketing and Customer Service			
	Horticulture Business Planning			
	GAPS training			

*On-The-Job Training is the work experience and instruction. Training experience need not be in the exact order as listed below.*

	<b>Trainer/Instructor</b>	<b>Name of person responsible for verifying competency mastery</b>	<b>Hours spent on competency</b>
	Greenhouse Facility Operations		
	Industry Collaboration		
	Personal Safety		
	Horticulture Crop Scheduling and Care		
	Farm Equipment Operation and Maintenance		
	Harvest Handling for Food Safety		

Human Relations and Employee Management			
Integrated Pest Management			
Farm Operations / General Productions Practices			
Irrigation Systems			