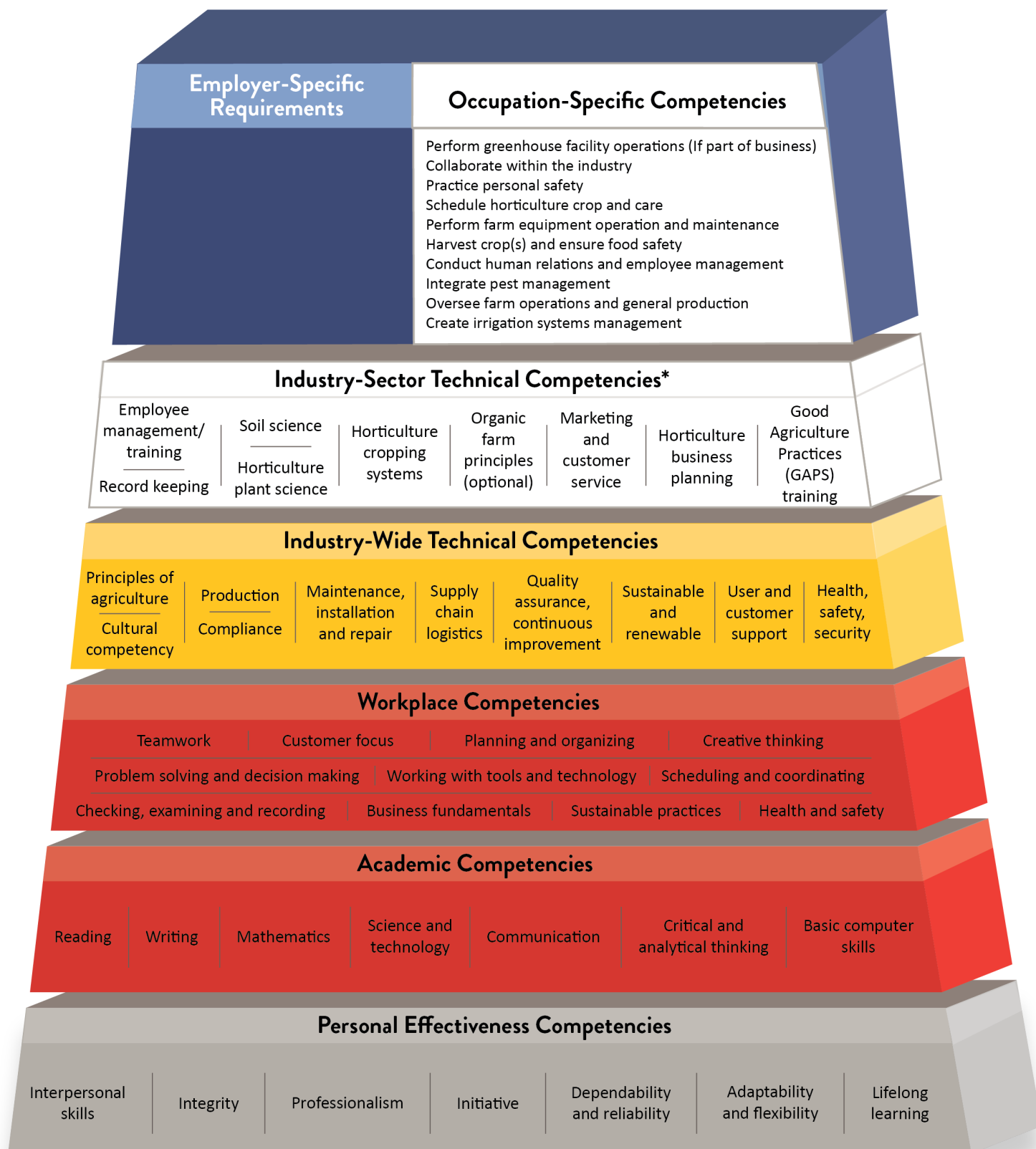


Minnesota Dual-Training Pipeline

Competency Model for Agriculture

Occupation: Horticulture Farm Manager



Based on: Building Blocks for Competency Models – Foundational Competencies, Employment and Training Administration, United States Department of Labor, February 2025. For more detailed information about competency model creation and sources, visit dli.mn.gov/business/workforce/agriculture.

Competency Model for Horticulture Farm Manager

Horticulture Farm Manager – An individual who leads a team in the processes of caring for and administering 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 are also often in charge of marketing and selling the horticulture products.

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

Industry-Sector Technical Competencies

Related Instruction for dual training means the organized and systematic form of education resulting in the enhancement of skills and competencies related to the dual trainee's current or intended occupation.

- **Employee management/training** – Understand employee management principles and training techniques.
- **Record keeping** – Knowledge of record keeping procedures regarding production, economics, and horticulture issue troubleshooting.
- **Soil science** – Understanding of the principles of creating optimal soil conditions for growing horticulture products.
- **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.
- **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** – Knowledge of the science-based training on how to reduce risks of microbial contamination in produce.

Occupation-Specific Competencies

On-the-Job Training is hands-on instruction completed at work to learn the core competencies necessary to succeed in an occupation. Common types of OJT include job shadowing, mentorship, cohort-based training, assignment-based project evaluation and discussion-based training.

- **Perform greenhouse facility operations (if part of business)** – Understand 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.
- **Collaborate within the industry** – Introduction to opportunities to collaborate with other businesses within the agricultural industry.
- **Practice 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.
- **Schedule horticulture crop 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.
- **Perform farm equipment operation and maintenance** – Ability to create, operate and maintain trellising, irrigation systems, hand tools, pack tools, and occasionally tractor equipment, etc.
- **Harvest crop(s) and ensure 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.
- **Conduct human relations and employee management** – Understanding of proper human relations and managing staff.
- **Integrate pest management** – Knowledge of procedures intended to protect plants against disease or harmful biological agents from pests or rodents.

- **Oversee farm operations and general production** – Awareness of general farm production practices and the operations required for running a successful horticulture business.
- **Create irrigation systems management** – 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.

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