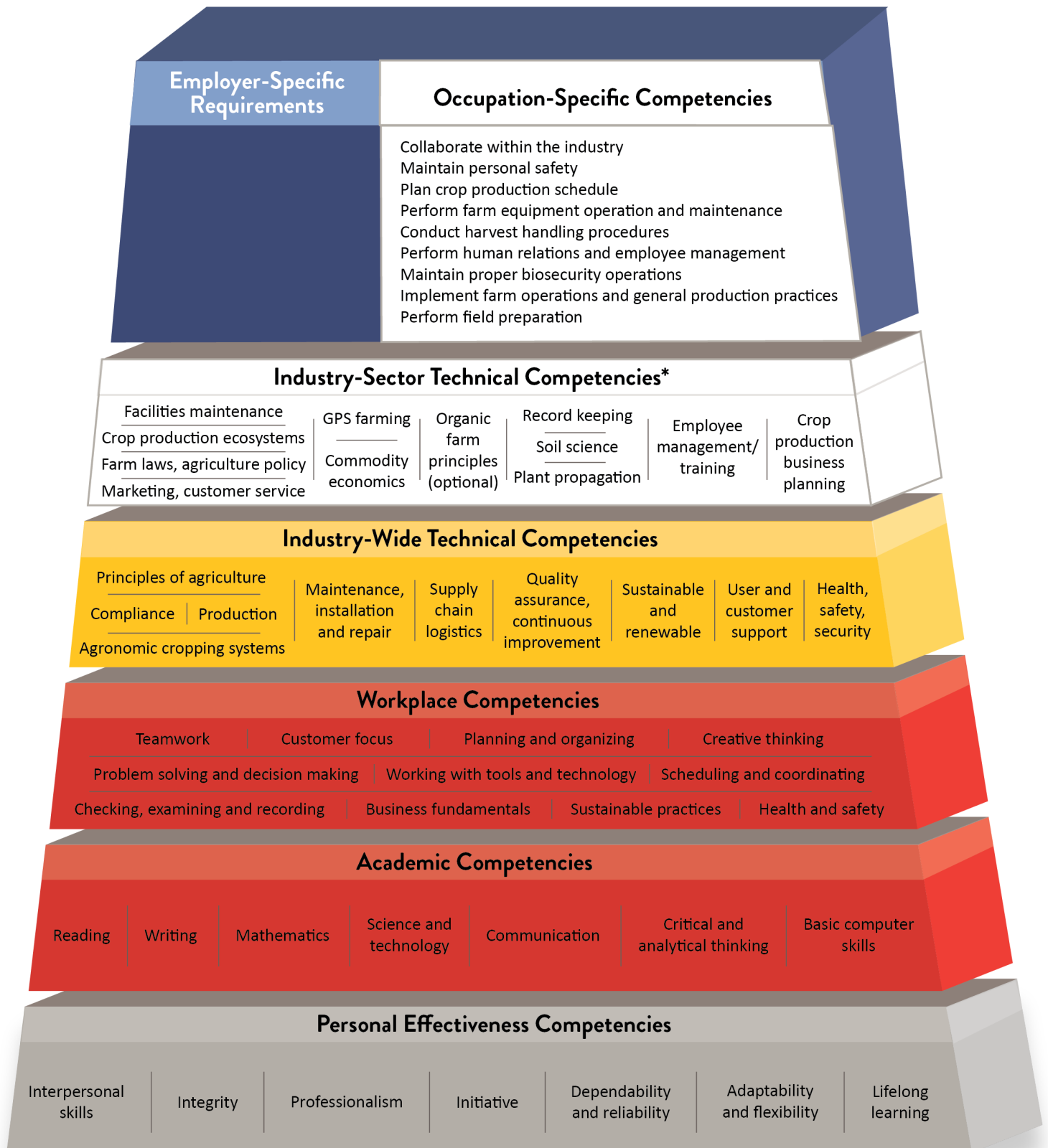


Minnesota Dual-Training Pipeline

Competency Model for Agriculture

Occupation: Crop 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 Crop Farm Manager

Crop Farm Manager – An individual who leads a team in administering processes to ensure sound production of large-scale production field crops such as wheat, soybeans, corn, sugar beets, etc. to assure optimum productivity. Crop Farm Managers are often responsible for all aspects of crop care, facility repair and maintenance at the site. They are also often responsible for marketing and selling the crop.

*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.

- **Facilities maintenance** – Knowledge of how to maintain and repair barns, silos, etc. to ensure best practices for crop production operations.
- **Crop production ecosystems** – Knowledge of principles used to treat farm as an ecosystem and understanding of impact of farm inputs of pesticides, irrigation, fertilizers, etc. to manage productivity and control weeds.
- **Farm laws, agriculture policy** – General understanding of the laws that pertain to farm insurance, trade policy, government subsidies, etc.
- **Marketing, customer service** – Knowledge of the principles of marketing crop products and best practices for customer service.
- **GPS farming** – Know how to use global positioning system (GPS) technology to do things such as farm planning, field mapping, soil sampling, tractor guidance, crop scouting, variable rate applications, and yield mapping.
- **Commodity economics** – Understand how best to buy/ sell / hold onto crop commodities based on fluctuating market prices.
- **Organic farm principles (optional)** – Understand rules, regulations, necessary paperwork, and best practices for operating an organic crop production farm.

- **Record keeping** – Knowledge of record keeping procedures regarding production, economics, and crop issue troubleshooting.
- **Soil science** – Understanding of the principles of creating optimal soil conditions for crop products.
- **Plant propagation** – Know how to seed crops, transplant crops, and maintain fertility as well as how to seed and transplant selections for ongoing genetics and breeding.
- **Employee management/training** – Understand employee management principles and training techniques.
- **Crop production business planning** – Understand how to write and follow a working business plan to manage production costs, labor, transportation and supplies to maximize potential profits.

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.

- **Collaborate within the industry** – Introduction to opportunities to collaborate with other businesses within the agricultural industry.
- **Maintain personal safety** – Ability to use proper industry standards to maintain a safe work environment to ensure personal well-being.
- **Plan crop production schedule** – Planning of when to plant, weed, prune, harvest, and rotate crops.
- **Perform farm equipment operation and maintenance** – Ability to operate and maintain tractor, hand tools, tractor implements, pack tools, etc.
- **Conduct harvest handling procedures** – Ability to harvest crop(s) and then post-harvest properly clean, cool, sort, pack, store, cure, and label crop as well as transport crop for processing/sales.
- **Perform human relations and employee management** – Understanding of proper human relations and managing staff.
- **Maintain proper biosecurity operations** – Knowledge of procedures intended to protect plants against disease or harmful biological agents

- **Implement farm operations and general production practices** – Awareness of general farm production practices and the operations required for running a successful farm business.
- **Perform field preparation** – Know how to get your field to be in optimal condition for utilizing different equipment, while properly balancing cover crops with farm inputs and know how that interacts with soil conditions and weather conditions to create best possible prepared field for crop production.

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