



Plant Fundamentals

Youth Apprenticeship

PLANT FUNDAMENTALS

Plant Fundamentals introduces apprentices to key skills in plant related apprenticeships: crops, landscape, and floral/greenhouse.

Length of Apprenticeship: One year. Youth apprentices can enter the Crops, Landscape or Greenhouse/Floral youth apprenticeship for a second year.

REQUIRED COMPETENCIES

Youth apprentices must become proficient in both general employability and occupation-specific competencies. All of these, and examples of how each can be demonstrated, are found in the following pages. Below are 10 occupational competencies that must be learned for this occupation. Employers may substitute out one of these and should write in the competency they are adding. Where necessary, skills can be simulated. Youth apprentices must be evaluated on these competencies at least two times each year of their apprenticeship.

Competencies
<ol style="list-style-type: none">1. Perform job preparation2. Prepare planting spaces3. Perform plant installation4. Perform plant maintenance5. Assist to install and maintain watering and/or irrigation systems6. Apply compost and other fertilizers as allowed <i>NOTE: Only certified professionals can prepare, load, apply, and handle pesticide(s).</i>7. Manage inventory8. Assist to maintain agribusiness records9. Gather supplies and equipment10. Sharpen hand tools

REGISTERED APPRENTICESHIP BRIDGING OPPORTUNITIES

The following Registered Apprenticeship is available in this area:

- Nursery Manager
- Organic Vegetable Farm Manager

POST-SECONDARY PATHWAY OPPORTUNITIES

There are several post-secondary pathway opportunities in this area. Following is partial list.

- Agribusiness Science and Technology – Agronomy
- Horticulture



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ON-THE-JOB LEARNING PERFORMANCE STANDARDS GUIDE

YOUTH APPRENTICE INFORMATION

Youth Apprentice Name
YA Coordinator
YA Consortium
School District

SIGNATURES

The On-the-Job Learning Performance Standards Guide includes a list of competencies youth apprentices learn through mentoring and training at the worksite.

Instructions for the Worksite Employers/Mentors and School-Based or YA coordinators.

This document should be reviewed with the employer / mentor, school-based or YA coordinator on a regular basis with the youth apprentice to record progress and plan future steps to ensure completion of the required competencies. Mentors, school-based / YA coordinator, and the apprentice sign below.

Employer/Mentor

1st Evaluation (Required)

2nd Evaluation (Required)

Employer/Mentor Signature	Employer/Mentor Signature
Employer/Mentor	Employer/Mentor
Business/Company	Business/Company
Date Signed	Date Signed

3rd Evaluation (Optional)

4th Evaluation (Optional)

Employer/Mentor Signature	Employer/Mentor Signature
Employer/Mentor	Employer/Mentor
Business/Company	Business/Company
Date Signed	Date Signed

School-Based and/or YA Coordinator

1st Evaluation (Required)

School-Based and/or YA Coordinator Signature
School-Based and/or YA Coordinator
School District or Organization
Date Signed

2nd Evaluation (Required)

School-Based and/or YA Coordinator Signature
School-Based and/or YA Coordinator
School District or Organization
Date Signed

3rd Evaluation (Optional)

School-Based and/or YA Coordinator Signature
School-Based and/or YA Coordinator
School District or Organization
Date Signed

4th Evaluation (Optional)

School-Based and/or YA Coordinator Signature
School-Based and/or YA Coordinator
School District or Organization
Date Signed

Youth Apprentice

1st Evaluation (Required)

Youth Apprentice Signature
Youth Apprentice
School District / High School
Date Signed

2nd Evaluation (Required)

Youth Apprentice Signature
Youth Apprentice
School District / High School
Date Signed

3rd Evaluation (Optional)

Youth Apprentice Signature
Youth Apprentice
School District / High School
Date Signed

4th Evaluation (Optional)

Youth Apprentice Signature
Youth Apprentice
School District / High School
Date Signed

EMPLOYABILITY SKILLS (TO BE COMPLETED BY YA EMPLOYER/MENTOR)

All youth apprentices must demonstrate the key employability skills listed below in order to complete the YA program. They do so by earning at least a "Meets Expectation" rating in each. **At least two evaluations are required each year of a youth apprenticeship.** More columns are included below for those who choose to conduct more frequent reviews.

1	Working to Meet Expectations: Needs improvement; requires much assistance and supervision; rarely displays this behavior
2	Meets Expectations: Meets entry-level criteria; requires some supervision; often displays this behavior
3	Exceeds Expectations: Exceeds entry-level criteria; requires minimal supervision; consistently displays this behavior

Employability Skills		Rating			
Competency and Rating Criteria		Initial	Mid Year 1	Mid Year 2	Final
1. Develops positive work relationships with others. <i>Examples of qualities and habits that the employee might exhibit include:</i>	<ul style="list-style-type: none"> Interacts with others with respect and in a non-judgmental manner Responds to others in an appropriate and non-offensive manner Helps co-workers and peers accomplish tasks or goals Applies problem-solving strategies to improve relations with others When managing others, shows traits such as compassion, listening, coaching, team development, and appreciation 	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
		<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2
		<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3
2. Communicates effectively with others <i>Examples of qualities and habits that the employee might exhibit include . . .</i>	<ul style="list-style-type: none"> Adjusts the communication approach for the target audience, purpose, and situation to maximize impact Organizes messages/information in a logical and helpful manner Speaks clearly and writes legibly Models behaviors to show active listening Applies what was read to actual practice Asks appropriate questions for clarity 	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
		<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2
		<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3
3. Collaborates with others <i>Examples of qualities and habits that the employee might exhibit include . . .</i>	<ul style="list-style-type: none"> Works effectively in teams with people of diverse backgrounds regardless of sex, race, ethnicity, nationality, sexuality, religion, political views, and abilities Shares responsibility for collaborative work and decision making Uses the problem-solving process to work through differences of opinion in a constructive manner to achieve a reasonable compromise Avoids contributing to an unproductive group conflict Shares information and carries out responsibilities in a timely manner 	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
		<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2
		<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3

Employability Skills		Rating			
Competency and Rating Criteria		Initial	Mid Year 1	Mid Year 2	Final
4. Maintains composure under pressure <i>Examples of qualities and habits that the employee might exhibit include . . .</i>	<ul style="list-style-type: none"> • Uses critical thinking to determine the best options or outcomes when faced with a challenging situation • Carries out assigned duties while under pressure • Acts in a respectful, professional, and non-offensive manner while under pressure • Applies stress management techniques to cope under pressure 	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
		<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2
		<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3
5. Demonstrates integrity <i>Examples of qualities and habits that the employee might exhibit include . . .</i>	<ul style="list-style-type: none"> • Carries out responsibilities in an ethical, legal and confidential manner • Responds to situations in a timely manner • Takes personal responsibility to correct problems • Models behaviors that demonstrate self-discipline, reliability, and dependability 	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
		<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2
		<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3
6. Performs quality work <i>Examples of qualities and habits that the employee might exhibit include . . .</i>	<ul style="list-style-type: none"> • Carries out written and verbal directions accurately • Completes work efficiently and effectively • Performs calculations accurately • Conserves resources, supplies, and materials to minimize costs and environmental impact • Uses equipment, technology, and work strategies to improve workflow • Applies problem-solving strategies to improve productivity • Adheres to worksite regulations and practices • Maintains an organized work area 	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
		<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2
		<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3
7. Provides quality goods or services (internal and external) <i>Examples of qualities and habits that the employee might exhibit include . . .</i>	<ul style="list-style-type: none"> • Shows support for the organizational goals and principles by own personal actions • Displays a respectful and professional image to customers • Displays an enthusiastic attitude and desire to take care of customer needs • Seeks out ways to increase customer satisfaction • Produces goods to workplace specifications 	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
		<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2
		<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3

Employability Skills		Rating			
Competency and Rating Criteria		Initial	Mid Year 1	Mid Year 2	Final
8. Shows initiative and self-direction <i>Examples of qualities and habits that the employee might exhibit include . . .</i> <ul style="list-style-type: none"> • Prioritizes and carries out responsibilities without being told • Responds with enthusiasm and flexibility to handle tasks that need immediate attention • Reflects on any unsatisfactory outcome as an opportunity to learn • Improves personal performance by doing something different or differently • Analyzes how own actions impact the overall organization • Supports own action with sound reasoning and principles • Balances personal activities to minimize interference with work responsibilities 		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
9. Adapts to change <i>Examples of qualities and habits that the employee might exhibit include . . . Shows flexibility and willingness to learn new skills for various job roles</i> <ul style="list-style-type: none"> • Uses problem-solving and critical-thinking skills to cope with changing circumstances • Modifies own work behavior based on feedback, unsatisfactory outcomes, efficiency, and effectiveness • Displays a "can do" attitude 		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
10. Demonstrates safety and security regulations and practices <i>Examples of qualities and habits that the employee might exhibit include . . .</i> <ul style="list-style-type: none"> • Follows personal safety requirements • Maintains a safe work environment • Demonstrates professional role in an emergency • Follows security procedures • Maintains confidentiality 		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
11. Applies job-related technology, information, and media <i>Examples of qualities and habits that the employee might exhibit include . . .</i> <ul style="list-style-type: none"> • Applies technology effectively in the workplace • Assesses and evaluates information on the job • Assesses training manuals, website, and other media related to the job 		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
12. Fulfills training or certification requirements for employment <i>Examples of this requirement may include . . .</i> <ul style="list-style-type: none"> • Participation in required career-related training and/or educational programs • Passing certification tests to qualify for licensure and/or certification • Participation in company training or orientation 		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
13. Sets personal goals for improvement <i>Examples of this requirement may include . . .</i> <ul style="list-style-type: none"> • Setting goals that are specific and measurable • Setting work-related goals that align with the organization's mission • Identifying strategies to reach goals • Reflecting on goal progress to regularly evaluate and modify goals 		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3

OCCUPATIONAL COMPETENCIES

(TO BE COMPLETED BY YA EMPLOYER/MENTOR)

Youth apprentices must earn a rating of at least "MEETS EXPECTATIONS" in each competency by the conclusion of the apprenticeship. A total of 10 competencies, 9 must be from the list below. If necessary, employers can substitute one competency with another occupationally appropriate skill. That skill should be added to the competency list for assessment. At least two evaluations are required each year of a youth apprenticeship. More columns are included below for those who choose to conduct more frequent reviews.

1	Working to Meet Expectations: Needs improvement; requires much assistance and supervision; rarely displays this behavior
2	Meets Expectations: Meets entry-level criteria; requires some supervision; often displays this behavior
3	Exceeds Expectations: Exceeds entry-level criteria; requires minimal supervision; consistently displays this behavior

Occupational Competencies	Rating			
	Evaluation			
	Minimum Rating of 2 for EACH Check Rating			
Competency and Rating Criteria	Initial	Mid Year 1	Mid Year 2	Final
1. Perform job preparation <ul style="list-style-type: none"> gather tools examine the site for safety impacts identify underground utilities that have been located and marked (Digger's Hotline) explain the markings and lines 	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
2. Prepare planting spaces <ul style="list-style-type: none"> mark out and measure beds remove sticks, stones and plant debris till soil level site amend soil/media for planting 	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
3. Perform plant installation <ul style="list-style-type: none"> space plants appropriately plant at the appropriate depth cover plants with soil/media water plants 	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
4. Perform plant maintenance <ul style="list-style-type: none"> water plants and seeds as needed pull excess seedlings control weeds cover plants as required monitor/treat plants for insects and disease using organic methods <p><i>NOTE: Only certified professionals can prepare, load, apply, and handle pesticide(s).</i></p>	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3

Occupational Competencies		Rating			
Competency and Rating Criteria		Evaluation			
		Minimum Rating of 2 for EACH Check Rating			
		Initial	Mid Year 1	Mid Year 2	Final
5. Assist to install and maintain watering and/or irrigation systems <ul style="list-style-type: none"> review the irrigation plan determine water pressure check flowrate locate watering heads establish sprinkler circuits and install valves install and connect pipes, tubing, and watering heads 		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
6. Apply compost and other fertilizers as allowed <i>NOTE: Only certified professionals can prepare, load, apply, and handle pesticide(s).</i> <ul style="list-style-type: none"> don personal protective equipment (PPE) observe surroundings for impact on application determine fertilizer application rate fertilize plants clean equipment discard or store excess fertilizer as required 		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
7. Manage inventory <ul style="list-style-type: none"> verify accuracy of incoming items stock or place inventory perform inventory counts document inventory 		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
8. Assist to maintain agribusiness records <ul style="list-style-type: none"> complete forms file forms and records add/edit/verify/query electronic data maintain filing system 		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
9. Gather supplies and equipment <ul style="list-style-type: none"> obtain landscaping plan list of materials identify the proper tools and equipment needed for the job locate required supplies and equipment stock cars and vehicles with necessary supplies load all materials for transport 		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
10. Sharpen hand tools <ul style="list-style-type: none"> don personal protection equipment (PPE) clean the tool sharpen all cutting edges remove burrs test the sharpness lubricate tools 		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3

Occupational Competencies		Rating			
Competency and Rating Criteria	Evaluation Minimum Rating of 2 for EACH Check Rating				
	Initial	Mid Year 1	Mid Year 2	Final	
Competency Substitute (if you replaced a competency above, note the competency and rating)	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	
	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	
	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	
Comments:					

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