



**Agriculture (AGR 196)-Occupational Work Experience  
LEARNING OBJECTIVES**

Objective	Outcome Measurement	Learning Process
Demonstrate an introductory understanding of how to build and maintain soil fertility	I will use proper terminology as it relates to soil fertility; I will accurately discuss basic soil building and maintenance strategies; I will properly and safely handles raw materials used in building soils; I will accurately mix materials for further processing	I will review educational materials recommended by supervisor; I will observe experienced workers manage materials necessary for soil building and maintenance; I will perform basic soil building techniques under observation, making adjustments based on the feedback received; I will practice resource handling and soil building techniques with periodic review and feedback.
To demonstrate a basic understanding of plant spacing strategies for various crops	I will accurately explain the importance of accurate plant placement. I will accurately identify the spacing needs of each of the common vegetable varieties and accurately and concisely answer questions regarding the number of plants per bed. I will demonstrate alternative placement strategies to utilize plots more fully when not confined to a strict bed configuration. I will accurately locate the placement of plants.	I will read materials recommended by my supervisor regarding various bed configurations and plant spacing. I will observe my supervisor and other skilled workers prepare beds for plant spacing and then prepare a bed for plant spacing under supervision. I will make adjustments to my approach based on feedback I receive until I become proficient in accurate plant placement.
To effectively, efficiently and safely use garden tools as indicated below: <input type="checkbox"/> Shovel <input type="checkbox"/> Spade <input type="checkbox"/> Hoe <input type="checkbox"/> Rake <input type="checkbox"/> Trowel <input type="checkbox"/> hand pruner <input type="checkbox"/> wheel barrow <input type="checkbox"/> cultivator <input type="checkbox"/> rototiller <input type="checkbox"/> chainsaw	I will use gardening tools in the proper manner without damaging them and without injury to myself or others. My work with tools will be done in an effective and efficient manner, according to the observations of my supervisor. All gardening tools I use will be left clean and well maintained	I will read any materials provided to me by my supervisor regarding the proper use of gardening tools. I will observe my supervisor and/or skilled co-workers use the tools, and then use them under supervision. I will make adjustments in my approach based on the feedback I receive. I will continue to use the tools with periodic observation and feedback until I am proficient in

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To acquire a basic understanding of plant identification	I will be able to identify by common and botanical names all plants under propagation. I will be able to identify cultivated plants in each phase of their growth. I will be able to identify most common non-propagated plants (weeds). I will have cultivated garden beds by removing weeds without damaging cultivated plants.	I will read any material provided to me by my supervisor on plant identification. I will observe my supervisor identifying plants, at each stage of their growth, and will keep an illustrated journal of all plants we propagate, and those present that we don't (weeds). I will cultivate garden beds under my supervisor's observation, and make adjustments in my approach based on the feedback I receive.
To demonstrate a basic understanding of plant spacing strategies for various crops	I will accurately explain the importance of accurate plant placement. I will accurately identify the spacing needs of each of the common vegetable varieties and accurately and concisely answer questions regarding the number of plants and per bed. I will demonstrate alternative placement strategies to utilize plots more fully when not confined to a strict bed configuration. I will accurately locate the placement of plants.	I will read materials recommended by my supervisor regarding various bed configurations and plant spacing. I will observe my supervisor and other skilled workers prepare beds for plant spacing and then prepare a bed for plant spacing under supervision. I will make adjustments to my approach based on feedback I receive until I become proficient in accurate plant placement.
To attain knowledge of plant families for fruits and vegetables which are most adapted and productive for our area.	I will provide my supervisor with an illustrated report regarding the most productive fruits and vegetables for the farm's climate, including propagation, cultivation, water, spacing, pest management and nutrient requirements. I will be able to answer questions about how the plants grown on the farm are related and how this information is helpful for farmers and gardeners in the field.	I will read materials regarding plant families provided to me by my supervisor. I will conduct independent research. I will discuss with my supervisor my understanding of the materials I've read. I will create a draft report for my supervisor's review, and I will make adjustments to the report based on the feedback I receive.

<p>To acquire an understanding of the varieties of winter garden vegetables which are most adapted and productive for our area</p>	<p>I will provide my supervisor with an illustrated report regarding the most productive winter garden vegetables for the farm's climate, including propagation, cultivation, water, spacing, pest management and nutrient requirements. I will be able to answer questions about how the plants grown on the farm are related and how this information is helpful for farmers and gardeners in the field. I will have grown harvested specific plants that will grow in our area through the winter.</p>	<p>I will interview local growers for their insights regarding what winter crops do well in this area. I will conduct research about each plant regarding ideal soil conditions, fertilizer, cultivation techniques and disease and pest management techniques. I will focus on organic techniques. I will create a log to record my soil preparation, seed selection, use of fertilizer and water, and disease and pest occurrences and management, and review these with my supervisor.</p>
<p>To gain a comprehensive understanding of the watering system and the ability to troubleshoot problems that may arise.</p>	<p>The plants under irrigation will have proper levels of water at all times. I will be able to make appropriate adjustments to the water system, according to my supervisor's observation. I will be able to troubleshoot and repair basic problems.</p>	<p>I will read the instruction manual and go over the details of the system with the supervisor. I will then create an irrigation system map. I will keep a journal of soil moisture and plant health in each of the watering zones, which I will discuss with my supervisor, and make adjustments in the watering schedule according to the feedback I receive. I will observe my supervisor and/or co-workers troubleshoot and repair the irrigation system as needed. I will then</p>
<p>To gain a basic understanding of pest identification and pest control practices.</p>	<p>I will be able to answer questions about the pest control practices used on the farm and other techniques of pest control. I will be able to identify common pests. I will be able to efficiently and appropriately apply pest control practices on the farm. I will complete an illustrated journal of common pests, their lifecycles, and appropriate interventions.</p>	<p>I will read any material provided to me by my supervisor on pest control. I will observe my supervisor identifying and treating pests, at each stage of their growth, and will keep an illustrated journal of all pests we study. I will apply organic control practices under my supervisor's observation, and make adjustments in my approach based on the feedback I receive.</p>

<p>To learn how to effectively spray pesticides and supervise the spraying of pesticides.</p>	<p>I will be able to answer any questions posed to me by my supervisor regarding the safe and appropriate application of pesticides. I will earn a qualified applicator's license. I will safely, efficiently and correctly apply pesticides as observed by my supervisor.</p>	<p>I will study course materials for the qualified applicator's license and any other materials provided by my supervisor. I will observe my supervisor and/or co-workers apply pesticides. I will apply pesticides under their supervision, and make adjustments in my approach, as needed.</p>
<p>To learn how to create and maintain a useful and easily referenced inventory of plants on the farm.</p>	<p>I will create an updated farm map, approved by my supervisor, showing the location of all crops on the farm. Information in the farm map will be current and make it easy to locate crops at any given time.</p>	<p>I will review the existing mapping system, discuss it with my supervisor, and identify any need for modifications. I will draft a revised mapping system under the direction of my supervisor. I will interview my co-workers to find out which system is best for efficiency and ease of use, and set up a feedback method for ongoing evaluation. I will take notes on the feedback I receive, and further discuss with my supervisor.</p>
<p>To learn how to create and maintain an effective and efficient inventory of plants in the greenhouse.</p>	<p>There will be an easy to use system in place, approved by my supervisor, to locate all plants at any given time.</p>	<p>I will review the existing situation, discuss with my supervisor, and identify any current problems. I will brainstorm ways to resolve existing inefficiencies and other problems with my supervisor and co-workers. I will take notes on the feedback I receive, and further discuss with my supervisor. I will implement changes, under the direction of my supervisor. I will interview my co-workers to find out which system is best for efficiency and ease of use, and set up a feedback method for ongoing evaluation.</p>
<p>To learn basic skills in plant propagation</p>	<p>I will be able to answer questions about the proper propagation techniques recommended for different species. I will demonstrate my ability to</p>	<p>I will read materials regarding plant propagation provided to me by my supervisor. I will discuss with my supervisor my understanding of the materials</p>

	efficiently performing these techniques in the greenhouse and in the field.	I've read. I will observe my supervisor on how to correctly propagate plants and repeat this process until I can do it correctly and efficiently. I will keep a journal of which plants I have propagated.
To be able to propagate hard-to-grow plants.	I will measure the outcome of my experiment by recording data throughout the entire process and comparing growth and germination rates in different growing conditions.	I will review the current method of propagating such plants, and research how that same species germinates and grows in differing growing conditions. Use varying growing conditions, I will make notes comparing and contrasting the results. I will discuss these results with my supervisor, and analyze which methods are most effective.
To learn how to correctly calculate and fertilize nursery container stock with various granular fertilizers and soluble fertilizers.	I will produce a record of my fertilizing practices. Plants will show proper nutritional health as acknowledged by my supervisor.	I will read materials regarding fertilizers provided to me by my supervisor. I will discuss with my supervisor my understanding of the materials I've read. I will observe my supervisor on how to correctly use a dosatron, and will use it under his observation until I am able to use it correctly. I will keep a journal of which blocks of plants I treat and with what type of fertilizer used and amount applied.
To compost plant materials with skill and understanding of the composting process	I will be able to answer questions about the composting methods used on the farm and other techniques of composting. I will be able to efficiently build, maintain, and evaluate a compost pile. The compost piles on the farm will be well cared for and result in useable soil amendment material.	I will read materials regarding composting provided to me by my supervisor. I will discuss with my supervisor my understanding of the materials I've read. I will observe my supervisor on how to correctly build and care for a compost pile and repeat this process until I can do it correctly and efficiently. I will keep a journal of the composting process on the farm.
To gain a working knowledge of organic fertilizers and soil amendments and their applications.	Crops grown on the farm will have received the correct amount of fertilizer in a timely manner. I will be able to answer	I will read materials regarding organic fertilizers and soil amendments provided to me by my supervisor. I will discuss with

	<p>questions about plant fertilizer needs.</p>	<p>my supervisor my understanding of the materials I've read. I will observe my supervisor on how to apply fertilizers and amendments, and repeat this process until I can do it correctly and efficiently. I will keep a journal of which blocks of plants I treat with what type of fertilizer used and amount applied. I will keep of record of the plants' appearance and growth.</p>
<p>To gain knowledge of soil cultivation techniques and the ability to prepare a well-cultivated seed bed ready for planting</p>	<p>I will prepare a well-dug seed bed ready for planting. I will be able to answer questions about soil preparation.</p>	<p>I will read materials regarding soil preparation provided to me by my supervisor. I will discuss with my supervisor my understanding of the materials I've read. I will observe my supervisor on how to correctly cultivate soil and repeat this process until I can do it correctly and efficiently. I will keep a journal of the beds I prepare and the type of soil cultivation techniques used in different beds.</p>
<p>Develop a landscape equipment service and maintenance schedule</p>	<p>I will have created a service and maintenance schedule that I have been able to comply with, and that meets the approval of my supervisor</p>	<p>I will discuss with my supervisor the critical activities and most efficient sequence of tasks for landscape service and maintenance. I will review any sample schedules and discuss these with my supervisor. I will draft a service and maintenance schedule for my supervisor's review and make adjustments based on the feedback I receive. I will follow the schedule and discuss any concerns I have with my supervisor.</p>
<p>To apply basic animal husbandry principles and skills</p>	<p>I will provide basic care to the livestock in an effective and efficient manner, and accurately answer questions posed to me by my supervisor regarding care, feeding and pasturing of livestock</p>	<p>I will read and subsequently discuss any materials given to me by my supervisor. I will observe my supervisor and other skilled individuals as they tend to livestock and keep a journal of my observations. I will</p>

		provide care to the livestock under the observation of my supervisor and/or co-workers, and make adjustments in my approach based on the feedback I receive.
To identify common animal health problems and apply basic treatment.	I will accurately describe common ailments and their treatments. I will be able to accurately identify common animal health problems, and effectively assist in the treatment of these problems	I will read and discuss materials given to me by my supervisor regarding animal health. I will observe animals in both healthy and sick states and note the differences. I will observe my supervisor treat health problems and then apply treatment myself under the observation of my supervisor and/or co-workers. I will make adjustments in my approach based on the feedback I receive.
To effectively assist in uncomplicated animal birthing and prenatal care	I will accurately describe appropriate prenatal care and various approaches to birthing and infant care. I will effectively assist in prenatal care, delivery, and infant care.	I will read any materials provided or recommended to me by my supervisor. I will discuss my understanding of these materials with my supervisor. I will assist my supervisor provide prenatal care. I will observe and assist in the birthing process, and help provide care for mothers and babies.
To make useful recommendations regarding alternative marketing strategies	I will provide a report that outlines a variety of cost-effective and realistically achievable alternative marketing strategies	I will read a variety of materials related to marketing, especially concerning agriculture products. I will conduct further research by reviewing advertisements and marketing strategies used by other farmers/food producers. I will draft recommendations for my supervisor's review, and then create a final marketing strategy based on the feedback I receive
Demonstrate the ability to properly prune fruit trees	Trees will be properly pruned in an efficient manner and at the appropriate time. Pruned materials will be properly disposed of. All tools I use will be used correctly and cleaned and	I will read materials regarding pruning provided to me by my supervisor. I will discuss with my supervisor my understanding of the materials I've read. I will observe my supervisor prune,

	stored properly.	and will prune under his observation, making adjustments in my approach based on the feedback I receive. I will observe my supervisor and/or co-workers use and care for pruning tools, and do so under their supervision, making adjustments based on the feedback I receive.
Demonstrate the ability to appropriate thin, harvest and handle fruit	Fruiting trees and bushes will be properly maintained. Fruit will be harvested and handled in accordance to my supervisor's standards.	I will read materials regarding fruit tree maintenance, harvesting and fruit packaging provided to me by my supervisor. I will discuss with my supervisor my understanding of the materials I've read. I will observe my supervisor maintain, harvest and handle fruit, and will do so under his observation, making adjustments in my approach based on the feedback I receive. I will observe my supervisor and/or co-workers use and care for harvesting tools and equipment, and do so under their supervision, making adjustments based on the feedback I receive.
To understand and apply Integrated Pest Management techniques	I will knowledgeably and effectively assist in the application of IPM techniques	I will read materials regarding IPM provided to me by my supervisor. I will discuss with my supervisor my understanding of the materials I've read. I will observe my supervisor apply IPM techniques, and will do so under his observation, making adjustments in my approach based on the feedback I receive. I will observe my supervisor and/or co-workers use and care for beneficial insects and microorganisms, and bird/bat houses, etc. and do so under their supervision, making adjustments based on the feedback I receive.
To grow, harvest and store	I will have properly grown,	I will read materials regarding

<p>seeds for future propagation.</p>	<p>harvested and stored selected seeds for future planting.</p>	<p>seed-saving provided to me by my supervisor. I will discuss with my supervisor my understanding of the materials I've read. I will observe my supervisor propagate, harvest and store seeds, and will do so under his observation, making adjustments in my approach based on the feedback I receive.</p>
<p>To demonstrate appropriate crop management techniques (thinning, weeding, staking/ trellising, selective pruning, shading, etc.)</p>	<p>Plants I care for will show optimal growth with minimal trauma</p>	<p>I will read materials regarding plant management provided to me by my supervisor. I will discuss with my supervisor my understanding of the materials I've read. I will observe my supervisor manage plants, and will do so under his observation, making adjustments in my approach based on the feedback I receive.</p>
<p>To properly apply plant succession and rotation techniques</p>	<p>I will correctly choose and cultivate plants for succession plantings based on accurate timing and rotation, in accordance with my supervisor's expectations.</p>	<p>I will read materials regarding plant succession and rotation provided to me by my supervisor. I will discuss with my supervisor my understanding of the materials I've read. I will observe my supervisor use of plant succession and rotation techniques, and will do so under his observation, making adjustments in my approach based on the feedback I receive.</p>
<p>To apply basic construction skills in the construction of a simple, properly ventilated greenhouse</p>	<p>I will effectively assist in the construction of a greenhouse. Tools will be used correctly and safely, and maintained and stored properly</p>	<p>I will read materials regarding basic construction techniques provided to me by my supervisor. I will read materials regarding greenhouse design and function. I will discuss with my supervisor my understanding of the materials I've read. I will observe my supervisor and/or co-workers use of construction tools and techniques, and apply these techniques under observation, making adjustments in my approach based on the feedback I receive.</p>

<p>To conduct community outreach and education about the farm and recruit volunteers for the farm.</p>	<p>I will conduct meetings and give presentations about the farm. I will actively recruit people to volunteer at Brookside Farm. New volunteers will be recruited and will work on the farm.</p>	<p>I will observe my supervisor recruiting volunteers and giving presentations about the farm. I will receive instructions from my supervisor regarding these tasks. I will assist my supervisor with recruiting volunteers and giving community outreach presentations. I will perform tasks under supervision until proficient. With my supervisor's input I will create a volunteer recruitment plan which I will implement with my supervisor's input. I will make adjustments in my approach based on the feedback I receive.</p>
<p>To provide leadership to groups of volunteers on the farm</p>	<p>I will lead and supervise volunteer groups on the farm. The volunteer group will accomplish the work goals under my supervision. Feedback from my supervisor and the volunteers regarding my leadership will be positive.</p>	<p>I will observe my supervisor coordinating volunteers. I will ask questions and receive input from my supervisor. I will assist my supervisor and then perform the task under supervision until proficient. With my supervisor's input I will create a volunteer supervision plan which I will implement. I will create a volunteer survey, with my supervisor's input, regarding my skill and effectiveness as a volunteer leader which I will ask the volunteers to complete. I will review the results with my supervisor. I will make adjustments in my approach based on the feedback I receive.</p>