

Directions:

Evaluate the student by checking the appropriate number or letter to indicate the degree of competency. The rating for each task should reflect **employability readiness** rather than the grades given in class.

Rating Scale:

- 3 Mastered** – can work independently with no supervision
2 Requires Supervision – can perform job completely with limited supervision
1 Not Mastered – requires instruction and close supervision
N No Exposure – no experience or knowledge in this area

3	2	1	N	
				The student has mastered the related competencies of Agricultural Science I and II.

3	2	1	N	A. Overview	Notes:
				1. Identify the major Missouri crops and their uses	
				2. Explain the economic importance of crop production	
				3. Identify career opportunities in crop science or crop-related agribusiness	
				4. Explain government influence and identify current trends in crop production	
				Unit: Demonstrate an understanding of how governmental policies and current trends influence agriculture by explaining, in an oral presentation, how a particular policy or trend has affected agriculture in their state.	
				Other:	

3	2	1	N	B. Plant Biology	Notes:
				1. Compare and contrast the parts and functions of monocot and dicot seeds and plants	
				2. Describe how growth stages affect crop management practices	
				Unit: Apply principles of plant biology by devising a time line for the growth stages of a common crop seed and comparing and contrasting, in a poster, the time line with the actual growth stages of seeds they plant and care for.	
				Other:	

3	2	1	N	C. Soil Fertility and Management	Notes:
				1. Identify how the composition of the soil affects fertility	
				2. Identify how soil morphology affects cropping options	
				3. Use soil test results to improve soil fertility and crop production	
				4. Identify fertilizers and the applications needed to obtain optimal crop performance	
				5. Identify how tillage and planting methods affect soil fertility	
				6. Identify the conservation practices that affect crop production	
				Unit: Apply principles of soil fertility and	

				management by conducting and analyzing soil tests and presenting, in an oral report, their crop recommendation and management strategy for the soil they sampled.	
				Other:	

3	2	1	N	D. Identifying and Selecting Crops and Seeds	Notes:
				1. Identify crop and weed seeds and plants	
				2. Identify factors that determine crop selection	
				3. Utilize seed tag information to select quality seed	
				Unit: Demonstrate an understanding of basic principles of plant identification by collecting common crop and grassland plants, identifying them by their leaf characteristics, and presenting them on a poster or in another format, as determined by the instructor.	
				Other:	

3	2	1	N	E. Safety, Environment, and Legal Issues	Notes:
				1. Identify potential crop production hazards to operators/producers	
				2. Identify the environmental and governmental issues that affect crop production	
				3. Identify the legal issues involved with crop production	
				Unit: Demonstrate an understanding of the importance of safety and environmental and legal responsibility in agriculture by identifying and explaining a relevant current safety, environmental, or legal issue in a written report.	
				Other:	

3	2	1	N	F. Corn and Grain Sorghum Production	Notes:
				1. Evaluate local growing conditions and determine fertilizer needs for corn and grain sorghum production	
				2. Select a corn and/or grain sorghum variety	
				3. Determine tillage or planting methods for corn and grain sorghum	
				4. Select a pest control program	
				5. Evaluate the growing crop and determine appropriate solutions	
				6. Identify factors to determine harvesting and post-harvesting management	
				7. Describe marketing opportunities and how grade requirements affect grain prices	
				8. Calculate cost per acre	
				Unit: Demonstrate an understanding of basic principles of corn and grain sorghum production by explaining, in an oral report, a key aspect of production and developing five questions about their topic that can be used for a class review.	
				Other:	

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3	2	1	N	G. Soybean Production	Notes:
				1. Evaluate local growing conditions and determine fertilizer needs for soybean production	
				2. Select a soybean variety suitable for your area	
				3. Determine tillage and/or planting method	
				4. Select a weed control program	
				5. Evaluate the growing crop and determine appropriate solutions	
				6. Identify factors to determine harvesting and postharvesting management	
				7. Describe marketing opportunities	
				8. Calculate cost per acre	
				Unit: Demonstrate an understanding of basic principles of soybean production by comparing and contrasting the management decisions applied by regional soybean producers and presenting their findings in an oral report.	
				Other:	

3	2	1	N	H. Wheat and Small Grain Production	Notes:
				1. Evaluate local growing conditions and determine fertilizer needs for wheat and small grain production	
				2. Select wheat and other small grain varieties	
				3. Determine tillage or planting methods	
				4. Select a pest control program	
				5. Evaluate the growing crop and determine appropriate solutions	
				6. Identify factors to determine harvesting and post-harvesting management	
				7. Describe marketing opportunities	
				8. Calculate cost per acre	
				Unit: Apply basic principles of wheat and small grain production by devising a calendar that follows a variety of wheat or small grain from field preparation through marketing.	
				Other:	

3	2	1	N	I. Forage Production	Notes:
				1. Evaluate local growing conditions for forage production	
				2. Identify the different types of forages and select forages appropriate for intended use	
				3. Identify the principles for establishing forages	
				4. Identify the principles of managing and maintaining forages	
				5. Identify various forage grazing methods	
				6. Identify the principle for producing forage seed	

				7. Identify the principles for harvesting and storing forages for feed	
				8. Describe marketing opportunities and calculate cost per acre	
				Unit: Demonstrate an understanding of forage production by collecting and identifying common forage crops and their seeds and assembling their samples in a binder or other format.	
				Other:	

3	2	1	N	J. Cotton Production	Notes:
				1. Evaluate local growing conditions	
				2. Select cotton variety with a local cotton consultant	
				3. Describe the tillage and planting method for cotton	
				4. Select a weed control program	
				5. Evaluate the growing crop and determine appropriate solutions	
				6. Identify factors to determine harvesting and post-harvesting management	
				7. Describe marketing opportunities	
				8. Calculate cost per acre	
				Unit: Demonstrate an understanding of basic principles of cotton production by explaining, in a slide show presentation, a key aspect of cotton production in their state.	
				Other:	

3	2	1	N	K. Rice Production	Notes:
				1. Evaluate local growing conditions and determine fertilizer needs for rice production	
				2. Select rice variety and grade to be planted with a local rice consultant	
				3. Describe the seedbed preparation	
				4. Evaluate the growing crop and determine appropriate solutions	
				5. Identify factors to determine harvesting and post-harvesting management	
				6. Describe marketing opportunities	
				7. Calculate cost per acre	
				Unit: Demonstrate an understanding of basic principles of rice production by identifying and describing food and nonfood by-products and end products of rice production and presenting their findings on a poster or in a slide show presentation, as determined by the instructor.	
				Other:	

3	2	1	N	L. Leadership and Personal Development for Advanced Students	Notes:
				1. Develop a resume and complete a job application	
				2. Develop a plan for finding a job	

					3. Describe how to apply and interview for a job
					4. Describe the characteristics needed to develop desirable personal and social skills
					5. Describe the importance and process of developing better human relationships
					Unit: Explore a career area by investigating entry-level job opportunities at a local agricultural business and writing a résumé and letter of application for a position.
					Other:

3	2	1	N	D. Using the <i>Missouri Agricultural Record Book for Secondary Students</i>	Notes:
				1. Complete forms needed to open the Missouri Agricultural Record Book for Secondary Students	
				2. Complete a budget for the SAE program	
				3. Complete inventory and financial statement forms for the Missouri Agricultural Record Book for Secondary Students	
				4. Complete receipt and expenditure forms in the Missouri Agricultural Record Book for Secondary Students	
				5. Complete additional forms in the Missouri Agricultural Record Book for Secondary Students	
				Unit: Demonstrate the ability to use selected forms in the <i>Missouri Agricultural Record Book for Secondary Students</i> by using a list of sample entries to complete the applicable forms in the book.	
				Other:	