

TASK	Observation/Rating					
Preparation and Planning	4	3	2	1	0	N/A
Analyzing Perspectives	4	3	2	1	0	N/A
Collaboration and Teamwork	4	3	2	1	0	N/A
Evaluating Choices/Making Decisions	4	3	2	1	0	N/A

**STANDARD IS 3 IN EACH APPLICABLE TASK**

**Rating Scale**

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence.
- 3 meets defined outcomes. Plans and solves problems in a self-directed manner. Tools, materials and/or processes are selected and used efficiently and effectively.
- 2 meets defined outcomes. Plans and solves problems with limited assistance. Tools, materials and/or processes are selected and used appropriately.
- 1 meets defined outcomes. Follows a guided plan of action. A limited range of tools, materials and/or processes are used appropriately.
- 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.
- N/A Not applicable

**TASK CHECKLIST**

The student:

**Preparation and Planning**

- accurately describes five current issues in agriculture on which people disagree, explaining specific causes of disagreement
- poses thoughtful questions regarding each of the issues
- accesses a range of relevant information sources and recognizes when additional information is required
- demonstrates resourcefulness in collecting data

**Analyzing Perspectives**

- categorizes different points of view regarding each of five issues in agriculture:  
*e.g., cultural, ethical, economic, environmental, health-related, scientific, political*
- states a position on each issue and insightful reasons for adopting that position
- states three or more opposing positions on each issue and thoughtful reasons for adopting those positions
- analyzes interrelationships among different perspectives/points of view
- recognizes underlying bias/assumptions/values in information and ideas

**Collaboration and Teamwork**

- shares work appropriately among group members
- respects and considers the views of others
- negotiates with sensitivity solutions to agriculture management issues

**Evaluating Choices/Making Decisions**

- describes in detail important and appropriate alternatives regarding each of five agriculture issues
- establishes knowledge- and value-based criteria for assessing each alternative:  
*e.g., social, economic, environmental*
- selects an appropriate and useful alternative for each issue by showing differences among choices
- assesses strengths/weaknesses of decisions by considering consequences and implications
- communicates thoughts/feelings/ideas clearly to justify choices/decisions made

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**REFLECTIONS/COMMENTS**

TASK	Observation/Rating					
Preparation and Planning	4	3	2	1	0	N/A
Information Gathering and Processing	4	3	2	1	0	N/A
Content	4	3	2	1	0	N/A
Collaboration and Teamwork	4	3	2	1	0	N/A
Information Sharing	4	3	2	1	0	N/A

**STANDARD IS 3 IN EACH APPLICABLE TASK**

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- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence.
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- 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.

N/A Not applicable

**TASK CHECKLIST**

*The student:*

**Preparation and Planning**

- sets clear goals and establishes steps to achieve them
- creates and adheres to detailed timelines
- uses personal initiative to formulate questions and find answers
- plans and uses time effectively, prioritizing tasks on a consistent basis

**Information Gathering and Processing**

- accesses a range of relevant information sources and recognizes when additional information is required
- demonstrates resourcefulness in collecting data
- interprets, organizes and combines information in creative and thoughtful ways
- records information accurately with appropriate supporting detail and using correct technical terms
- recognizes underlying bias/assumptions/values in information sources
- assesses and refines approach to the task and project status based on feedback and reflection

**Content**

- provides a clear statement of a social, economic or environmental issue in agriculture relevant within the Alberta and/or Canada context
- compares and contrasts the Alberta/Canada issue to a similar issue at the global level

**Content (continued)**

- cites statements made by scientists, key stakeholder groups and the media regarding the issue
- suggests different approaches for dealing with the issue at local, national and global levels
- provides an analysis of costs and benefits associated with different approaches for dealing with the issue
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

**Collaboration and Teamwork**

- cooperates with group members
- shares work appropriately among group members
- negotiates with sensitivity solutions to problems
- displays effective communication and leadership skills.

**Information Sharing**

- demonstrates effective use of a variety of communication media:  
*e.g., written, oral, audio-visual*
- communicates thoughts/feelings/ideas clearly to justify or challenge a position
- maintains acceptable grammatical and technical standards
- gives evidence of adequate information gathering by citing seven or more relevant information sources

**REFLECTIONS/COMMENTS:**

TASK	Observation/Rating					
Preparation and Planning	4	3	2	1	0	N/A
Content	4	3	2	1	0	N/A
Presenting/Reporting	4	3	2	1	0	N/A

**STANDARD IS 3 IN EACH APPLICABLE TASK**

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- 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.
- N/A Not applicable

**TASK CHECKLIST**

*The student:*

**Preparation and Planning**

- sets goals and describes steps to achieve them
- uses personal initiative to formulate questions and find answers
- accesses a range of relevant information sources and recognizes when additional information is required
- interprets, organizes and combines information in creative and thoughtful ways
- records information accurately using appropriate technical terms and supporting detail
- plans and uses time effectively, prioritizing tasks on a consistent basis
- assesses and refines approach to task and project status based on feedback and reflection

**Content**

- provides a clear and concise statement of the issue
- examines social, political, scientific, ethical, economic and/or environmental perspectives related to the issue
- provides detailed examples of the consequences of previous human activities relevant to the issue
- establishes a logical argument and conclusion regarding the issue, and provides a rationale for the position taken
- develops a plan of action for dealing with the issue at local and global levels

**Content (continued)**

- provides a glossary of terms relevant to the issue
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

**Presenting/Reporting**

- demonstrates effective use of a variety of communication media:  
*e.g., Written: spelling, punctuation, grammar, format (formal/informal, technical/literary)*  
*Oral: voice projection, body language, appearance, enthusiasm, evidence of prior practice*  
*Audio-visual: techniques, tools, clarity, speed and pacing*
- maintains acceptable grammatical and technical standards through proofreading and editing
- provides an introduction that describes the purpose and scope of the project
- communicates thoughts/feelings/ideas clearly to justify or challenge a position
- states a conclusion by analyzing and synthesizing the information gathered
- gives evidence of adequate research through a reference list including seven or more relevant information sources

**REFLECTIONS/COMMENTS:**

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Preparation and Planning	4	3	2	1	0	N/A
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Content	4	3	2	1	0	N/A
Collaboration and Teamwork	4	3	2	1	0	N/A
Information Sharing	4	3	2	1	0	N/A

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- N/A Not applicable

**TASK CHECKLIST**

*The student:*

**Preparation and Planning**

- sets clear goals and establishes steps to achieve them
- creates and adheres to detailed timelines
- uses personal initiative to formulate questions and find answers
- plans and uses time effectively, prioritizing tasks on a consistent basis

**Information Gathering and Processing**

- accesses a range of relevant information sources and recognizes when additional information is required
- demonstrates resourcefulness in collecting data
- interprets, organizes and combines information in creative and thoughtful ways
- records information accurately with appropriate supporting detail and uses correct technical terms
- recognizes underlying bias/assumptions/values in information sources
- assesses and refines approach to the task and project status based on feedback and reflection

**Content**

- provides a summary of production and consumption patterns within Alberta, Canada and the global community
- explains the impact of economic, environmental and social factors on practices within a specific production industry; e.g.:
  - international trade/global competition
  - rural and urban populations
  - consumer preferences
  - environmental stewardship/sustainable production

**Content (continued)**

- identifies market factors that influence enterprise selection; e.g.:
  - market size, location and access
  - market trends and competition
- identifies financial opportunities related to a specific production enterprise; e.g.:
  - fixed and variable costs
  - forecast of returns
  - risk factors/income stabilization
- establishes land requirements, and the suitability of soil, water and climatic conditions to production activities
- identifies other needs relative to production activities; e.g.:
  - structures and equipment
  - labour and transportation

**Collaboration and Teamwork**

- cooperates with group members
- shares work appropriately among group members
- suggests solutions to problems
- displays effective communication and leadership skills

**Information Sharing**

- demonstrates effective use of a variety of communication media:
  - e.g., written, oral, audio-visual*
- communicates thoughts/feelings/ideas clearly to justify or challenge a position
- maintains acceptable grammatical and technical standards
- provides evidence of adequate information gathering by citing relevant and current information sources

**REFLECTIONS/COMMENTS**

RATING	ASSESSMENT CRITERIA
<p><b>4</b> <b>3</b> <b>2</b> <b>1</b> <b>0</b></p> <p><b>4</b> <b>3</b> <b>2</b> <b>1</b> <b>0</b></p> <p><b>4</b> <b>3</b> <b>2</b> <b>1</b> <b>0</b></p>	<p><i>The student:</i></p> <p><b>Scheduling Tasks:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> sets goals and establishes steps to achieve them</li> <li><input type="checkbox"/> accesses a range of relevant in-school/community resources</li> <li><input type="checkbox"/> poses important questions regarding strategies used to maintain/improve quality and productivity of a field crop species</li> <li><input type="checkbox"/> plans and uses time effectively</li> <li><input type="checkbox"/> _____</li> </ul> <p><b>Identifying Major Components of the Breeding Strategy</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> interprets, organizes and combines information into a logical sequence</li> <li><input type="checkbox"/> explains principles of heredity as they relate to plants that are grown; e.g.:               <ul style="list-style-type: none"> <li>– dominant/recessive and desirable/undesirable traits</li> <li>– selection criteria and procedures</li> </ul> </li> <li><input type="checkbox"/> explains applications of hybridization and/or other systems of breeding used within the industry</li> <li><input type="checkbox"/> describes procedures used to maintain plant quality; e.g.:               <ul style="list-style-type: none"> <li>– standards for grading</li> <li>– record keeping systems</li> </ul> </li> <li><input type="checkbox"/> explains current and emerging applications of reproductive technology within the industry; e.g.:               <ul style="list-style-type: none"> <li>– propagation techniques</li> <li>– genetic engineering</li> </ul> </li> <li><input type="checkbox"/> _____</li> </ul> <p><b>Presenting and Assessing the Strategy</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> presents major components of the breeding strategy in a logical sequence using a variety of communication media</li> <li><input type="checkbox"/> assesses the general success of the breeding strategy</li> <li><input type="checkbox"/> makes summative statements regarding opportunities and challenges relevant to maintaining/improving crop quality and productivity within the industry</li> <li><input type="checkbox"/> _____</li> </ul>

**STANDARD IS 3 IN EACH APPLICABLE TASK**

**Rating Scale**

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence.
- 3 meets defined outcomes. Plans and solves problems in a self-directed manner. Tools, materials and/or processes are selected and used efficiently and effectively.
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- 1 meets defined outcomes. Follows a guided plan of action. A limited range of tools, materials and/or processes are used appropriately.
- 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.

N/A Not applicable

<p><b>REFLECTIONS/COMMENTS</b></p>
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**TASK CHECKLIST: Field Crops 2**

**AGR3030–3**

<b>PRODUCTION TASK</b>	Soil Preparation	Seeding/ Propagation	Crop Cultivation	Irrigation	Fertilizing	Pest/Weed/Disease Control	Harvesting
<i>The student:</i>							
A. performs routine checks on condition of crop plants/growth medium to determine crop production requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. selects, assembles and calibrates/adjusts appropriate equipment and/or materials as necessary to perform the production task	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. performs the production task by following established procedures and using equipment/materials in an efficient manner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>D. follows established guidelines for the safe use of hand and power equipment in performing crop production tasks*</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. disassembles, cleans and/or stores equipment and/or materials used in the course of performing the production task	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. performs routine safety checks on hand and power equipment, and cleans/sharpens/lubricates/adjusts as required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G. demonstrates effective conservation practices and regard for the environment throughout crop production cycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**STANDARD IS 2 FOR TASKS A, B, C, E, F AND G IN TWO AREAS OF CROP PRODUCTION ADDITIONAL TO THOSE STUDIED IN AGR203**

**\* STANDARD IS 3 FOR TASK D (SAFE USE OF HAND AND POWER EQUIPMENT)**

**Rating Scale**

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence. Quality, particularly details and finishes, and productivity are consistent and exceed standards. Leads others to contribute to team goals. Analyzes and provides effective client/customer services beyond expectations.
- 3 meets defined outcomes. Plans and solves problems in a self-directed manner. Tools, materials and/or processes are selected and used efficiently and effectively. Quality and productivity are consistent. Works cooperatively and contributes ideas and suggestions that enhance team effort. Analyzes and provides effective client/customer services.
- 2 meets defined outcomes. Plans and solves problems with limited assistance. Tools, materials and/or processes are selected and used appropriately. Quality and productivity are reasonably consistent. Works cooperatively to achieve team goals. Identifies and provides customer/client services.
- 1 meets defined outcomes. Follows a guided plan of action. A limited range of tools, materials and/or processes are used appropriately. Quality and productivity are reasonable consistent. Works cooperatively. Provides a limited range of customer/client services.
- 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.

TASK	Observation/Rating					
Preparation and Planning	4	3	2	1	0	N/A
Information Gathering and Processing	4	3	2	1	0	N/A
Content	4	3	2	1	0	N/A
Collaboration and Teamwork	4	3	2	1	0	N/A
Information Sharing	4	3	2	1	0	N/A

**STANDARD IS 3 IN EACH APPLICABLE TASK**

**Rating Scale**

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**TASK CHECKLIST**

*The student:*

**Preparation and Planning**

- sets clear goals and establishes steps to achieve them
- creates and adheres to detailed timelines
- uses personal initiative to formulate questions and find answers
- plans and uses time effectively, prioritizing tasks on a consistent basis

**Information Gathering and Processing**

- accesses a range of relevant information sources and recognizes when additional information is required
- demonstrates resourcefulness in collecting data
- interprets, organizes and combines information in creative and thoughtful ways
- records information accurately with appropriate supporting detail and uses correct technical terms
- recognizes underlying bias/assumptions/values in information sources
- assesses and refines approach to the task and project status based on feedback and reflection

**Content**

- provides a summary of animal production and consumption patterns within Alberta, Canada and the global community
- explains the impact of economic, environmental and social factors on practices within a specific animal production industry; e.g.:
  - international trade/global competition
  - rural and urban populations
  - consumer preferences
  - environmental stewardship/sustainable production

**Content (continued)**

- identifies market factors that influence enterprise selection; e.g.:
  - market size, location and access
  - market trends and competition
- identifies financial opportunities related to a specific production enterprise; e.g.:
  - fixed and variable costs
  - forecast of returns
  - risk factors/income stabilization
- establishes land requirements, and the suitability of soil, water and climatic conditions to production activities
- identifies other needs relative to production activities; e.g.:
  - structures and equipment
  - labour and transportation

**Collaboration and Teamwork**

- cooperates with group members
- shares work appropriately among group members
- suggests solutions to problems
- displays effective communication and leadership skills

**Information Sharing**

- demonstrates effective use of a variety of communication media:
  - e.g., written, oral, audio-visual*
- communicates thoughts/feelings/ideas clearly to justify or challenge a position
- maintains acceptable grammatical and technical standards
- provides evidence of adequate information gathering by citing relevant and current information sources

RATING	ASSESSMENT CRITERIA
<p><b>4</b> <b>3</b> <b>2</b> <b>1</b> <b>0</b></p>	<p><i>The student:</i> <b>Scheduling Tasks</b>  <input type="checkbox"/> sets goals and establishes steps to achieve them  <input type="checkbox"/> accesses a range of relevant in-school/community resources  <input type="checkbox"/> poses important questions regarding strategies used to maintain/improve quality of a livestock, poultry or specialty animal  <input type="checkbox"/> plans and uses time effectively  <input type="checkbox"/> _____</p>
<p><b>4</b> <b>3</b> <b>2</b> <b>1</b> <b>0</b></p>	<p><b>Identifying Major Components of the Breeding Strategy</b>  <input type="checkbox"/> interprets, organizes and combines information into a logical sequence  <input type="checkbox"/> explains principles of heredity as they relate to the animals being raised; e.g.:                      – dominant/recessive and desirable/undesirable traits                      – selection criteria and procedures  <input type="checkbox"/> explains applications of inbreeding, linebreeding and crossbreeding within the industry  <input type="checkbox"/> explains the reproductive process and related terminology; e.g.:                      – estrus cycle                      – natural service/artificial insemination                      – gestation period                      – birthing process  <input type="checkbox"/> describes systems used to maintain animal quality within the industry; e.g.:                      – pedigrees and performance information                      – showing/judging systems and standards                      – registry and record systems  <input type="checkbox"/> explains current and emerging applications of reproductive technology within the industry; e.g.:                      – embryo transfer                      – gender selection  <input type="checkbox"/> _____</p>
<p><b>4</b> <b>3</b> <b>2</b> <b>1</b> <b>0</b></p>	<p><b>Presenting and Assessing the Strategy</b>  <input type="checkbox"/> presents major components of the breeding strategy in a logical sequence using a variety of communication media  <input type="checkbox"/> assesses the general success of the breeding strategy  <input type="checkbox"/> makes summative statements regarding opportunities and challenges relevant to maintaining/improving animal quality within the industry  <input type="checkbox"/> _____</p>

**STANDARD IS 3 IN EACH APPLICABLE TASK**

**Rating Scale**

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence.
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- 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.

N/A Not applicable

**REFLECTIONS/COMMENTS**

<p style="text-align: center;"><b>FEEDING</b></p> <p><i>The student:</i></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> monitors animals and pens for adequate water supply/consumption and ensures animals are properly watered</li> <li><input type="checkbox"/> selects correct ration and quantity of food for animal</li> <li><input type="checkbox"/> explains rules of thumb for quantities/volumes consumed daily or weekly</li> <li><input type="checkbox"/> feeds at correct times</li> <li><input type="checkbox"/> operates required feeding equipment</li> <li><input type="checkbox"/> performs routine health checks during feeding</li> <li><input type="checkbox"/> performs routine inspection/cleaning/maintenance of feed boxes and troughs during feeding</li> </ul>	<p style="text-align: center;"><b>HANDLING AND RESTRAINT</b></p> <p><i>The student:</i></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> demonstrates effective animal handling technique (e.g., body stance/movement, appropriate use of force, control of noise)</li> <li><input type="checkbox"/> uses animal handling aids in a proper and safe manner (e.g., prods, whips, canes)</li> <li><input type="checkbox"/> uses animal handling facilities in a proper and safe manner (e.g., chutes, pens, gates)</li> <li><input type="checkbox"/> uses animal restraint equipment in a proper and safe manner (e.g., cattle squeeze, hog crate, head gate)</li> <li><input type="checkbox"/> demonstrates ability to handle animals in groups and/or in large areas (e.g., herding, droving, moving)</li> </ul>
<p style="text-align: center;"><b>HOUSING</b></p> <p><i>The student:</i></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> monitors physical environment, ensuring appropriate light, temperature, air circulation and space variables</li> <li><input type="checkbox"/> provides appropriate fencing and shelter to ensure animal safety</li> <li><input type="checkbox"/> cleans and disinfects trailers, pens and other animal holding structures</li> <li><input type="checkbox"/> ensures animal comfort through supply of bedding material</li> </ul>	<p style="text-align: center;"><b>CARE FOR YOUNG</b></p> <p><i>The student:</i></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> demonstrates appropriate technique to catch/hold baby animals</li> <li><input type="checkbox"/> cleans newborn animals</li> <li><input type="checkbox"/> assists newborn animals to nurse</li> </ul>
<p style="text-align: center;"><b>HEALTH AND WELFARE</b></p> <p><i>The student:</i></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> identifies basic symptoms of ill health/disorders in:             <ul style="list-style-type: none"> <li>– respiration</li> <li>– movement</li> <li>– eating habits</li> <li>– physical appearance (e.g., stomach, coat, eyes, ears)</li> <li>– sounds</li> <li>– manure and urine analysis</li> </ul> </li> <li><input type="checkbox"/> identifies symptoms and treatments for common pests, diseases and ailments that affect the health of animals within the industry</li> <li><input type="checkbox"/> administers basic treatments for common pests, diseases and/or ailments (e.g., injections, dusting)</li> </ul>	<p style="text-align: center;"><b>BREEDING OPERATIONS</b></p> <p><i>The student:</i></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> explains reproductive processes characteristic of the animal:             <ul style="list-style-type: none"> <li>– estrus cycle</li> <li>– gestation period</li> <li>– natural service/artificial insemination</li> <li>– normal birth process</li> <li>– age criteria for breeding</li> </ul> </li> <li><input type="checkbox"/> identifies stages/signs of estrus</li> <li><input type="checkbox"/> demonstrates appropriate care and handling of animals during the breeding season</li> <li><input type="checkbox"/> explains/applies appropriate reproductive technologies (e.g., artificial insemination, embryo transfer, estrus manipulation, gender selection)</li> </ul>

**STANDARD IS 2 FOR THE ANIMAL CARE TASKS LISTED IN EACH AREA OF ANIMAL PRODUCTION**

**Rating Scale**

- 4** exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence. Quality and productivity are consistent and exceed standards. Leads others to contribute to team goals. Analyzes and provides effective client/customer services beyond expectations.
- 3** meets defined outcomes. Plans and solves problems in a self-directed manner. Tools, materials and/or processes are selected and used efficiently and effectively. Quality and productivity are consistent. Works cooperatively and contributes ideas and suggestions that enhance team effort. Analyzes and provides effective client/customer services.
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- 0** has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.

**Assessment Criteria and Conditions:**

- given a specific agrifood industry, identify and describe:
  - the roles of federal, provincial and local government agencies responsible for product quality, worker safety and environmental impact within the industry
  - examples of government policy and/or legislation that regulate practices within the industry

**Suggested Reference(s):**

- *Agriscience and Technology*

**STANDARD: Respond to a minimum standard of 3 on the rating scale**

**Rating Scale**

- 4 meets project/task objectives in a self-directed manner. Provided explanations and critical judgements based on a superior knowledge base. Demonstrates an understanding of relevant concepts and related issues.
- 3 meets project/task objectives in a self-directed manner. Provides explanations and comparisons of relevant concepts using precise terminology. Requires little or no prompting.
- 2 meets project/task objectives with limited assistance in planning and in selecting and using resources. Applies knowledge of concepts in different situations using correct terminology. Requires occasional prompting.
- 1 completes task as directed, demonstrating basic skills/completeness by following a guided course of action. Uses simple recall to demonstrate basic knowledge of concepts. Requires prompting.
- 0 does not complete task, or is unable to provide a suitable response.

N/A Not applicable

<b>Background Information</b>	<b>Sample Questions/Activities</b>
<p>See <i>Agriscience and Technology</i>, Chapter 9: Processing Agricultural Products:</p> <ul style="list-style-type: none"> <li>• Control Systems</li> <li>• Quality Control</li> <li>• Processing</li> <li>• Preserving</li> <li>• Packaging</li> <li>• Storage.</li> </ul> <p>Contact local agrifood industries and government agencies for current information and resources. See the Learning Resource Guide (Section I) for a listing of industry and government contacts.</p>	<ol style="list-style-type: none"> <li><b>1. Explain the role of government legislation in maintaining product quality and safety within an agrifood industry; e.g.:</b> <ul style="list-style-type: none"> <li>– inspection of raw materials</li> <li>– product grading, labelling and packaging</li> <li>– sanitation standards</li> <li>– worker safety</li> <li>– environmental impact.</li> </ul> </li> <li><b>2. Research the mandates of specific government agencies in maintaining product quality and worker safety; e.g.:</b> <ul style="list-style-type: none"> <li>– Agriculture Canada</li> <li>– Alberta Agriculture, Food and Rural Development</li> <li>– Consumer and Corporate Affairs</li> <li>– Health and Welfare Canada.</li> </ul> </li> <li><b>3. Research potential applications of the International Standards Organization (ISO) in regulating industry practices.</b></li> <li><b>4. Research the mandates of specific government agencies regarding environmental safety and industry use of land, water and air; e.g.:</b> <ul style="list-style-type: none"> <li>– Alberta Environmental Protection</li> <li>– Environment Canada.</li> </ul> </li> </ol>

TASK	Observation/Rating					
Preparation and Planning	4	3	2	1	0	N/A
Content	4	3	2	1	0	N/A
Presenting/Reporting	4	3	2	1	0	N/A

**STANDARD IS 3 IN EACH APPLICABLE TASK**

**Rating Scale**

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence.
- 3 meets defined outcomes. Plans and solves problems in a self-directed manner. Tools, materials and/or processes are selected and used efficiently and effectively.
- 2 meets defined outcomes. Plans and solves problems with limited assistance. Tools, materials and/or processes are selected and used appropriately.
- 1 meets defined outcomes. Follows a guided plan of action. A limited range of tools, materials and/or processes are used appropriately.
- 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.
- N/A Not applicable

**TASK CHECKLIST**

*The student:*

**Preparation and Planning**

- sets goals and describes steps to achieve them
- uses personal initiative to formulate questions and find answers
- accesses a range of relevant information sources and recognizes when additional information is required
- interprets, organizes and combines information in creative and thoughtful ways
- records information accurately using appropriate technical terms and supporting detail
- plans and uses time effectively, prioritizing tasks on a consistent basis
- assesses and refines approach to task and project status based on feedback and reflection

**Content**

- provides a brief introduction that explains the application of basic economic principles within an agrifood industry; e.g.:
  - supply and demand
  - diminishing return
  - comparative advantage
- identifies relevant supply management systems and their impact on industry practices
- explains management practices adopted by the agrifood industry to comply with government policy/legislation concerning product quality and safety; e.g.:
  - inspection of raw materials
  - product grading
  - packaging and labelling
  - sanitation and safety standards

**Content (continued)**

- explains specific management practices adopted by the agrifood industry to comply with government policy/legislation concerning responsible use of the environment; e.g.:
  - effluent disposal
  - soil conservation practices
  - water treatment after use
  - use of biodegradable materials
- \_\_\_\_\_
- provides a glossary of terms relevant to management practices within the agrifood industry

**Presenting/Reporting**

- demonstrates effective use of a variety of communication media:
  - e.g., Written: spelling, punctuation, grammar, format (formal/informal, technical/literary)*
  - Oral: voice projection, body language, appearance, enthusiasm, evidence of prior practice*
  - Audio-visual: techniques, tools, clarity, speed and pacing*
- maintains acceptable grammatical and technical standards through proofreading and editing
- provides an introduction that describes the purpose and scope of the project
- states a conclusion by analyzing and synthesizing the information gathered
- gives evidence of adequate research through a reference list including seven or more relevant information sources

TASK	Observation/Rating					
Preparation and Planning	4	3	2	1	0	N/A
Information Gathering and Processing	4	3	2	1	0	N/A
Content	4	3	2	1	0	N/A
Collaboration and Teamwork	4	3	2	1	0	N/A
Information Sharing	4	3	2	1	0	N/A

**STANDARD IS 3 IN EACH APPLICABLE TASK**

**Rating Scale**

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence.
- 3 meets defined outcomes. Plans and solves problems in a self-directed manner. Tools, materials and/or processes are selected and used efficiently and effectively.
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- 1 meets defined outcomes. Follows a guided plan of action. A limited range of tools, materials and/or processes are used appropriately.
- 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.
- N/A Not applicable

**TASK CHECKLIST**

*The student:*

**Preparation and Planning**

- sets clear goals and establishes steps to achieve them
- creates and adheres to detailed timelines
- uses personal initiative to formulate questions and find answers
- plans and uses time effectively, prioritizing tasks on a consistent basis

**Information Gathering and Processing**

- accesses a range of relevant information sources and recognizes when additional information is required
- demonstrates resourcefulness in collecting data
- interprets, organizes and combines information in creative and thoughtful ways
- records information accurately with appropriate supporting detail and using correct technical terms
- recognizes underlying bias/assumptions/values in information sources
- assesses and refines approach to the task and project status based on feedback and reflection

**Content**

- describes current impacts of economic, environmental and societal trends on industry practices; e.g.:
  - international trade/global competition
  - trade liberalization
  - sustainable development
  - rural/urban demographics
  - food safety/consumer confidence
  - consumer preferences

**Content (continued)**

- outlines opportunities for product research and development within the industry; e.g.:
  - altering existing products
  - developing new products
  - developing new markets
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- makes summative statements regarding industry trends and opportunities within Alberta, Canada and the global community, based on current challenges, needs and issues

**Collaboration and Teamwork**

- cooperates with group members
- shares work appropriately among group members
- negotiates with sensitivity solutions to problems
- displays effective communication and leadership skills

**Information Sharing**

- demonstrates effective use of a variety of communication media:
  - e.g., written, oral, audio-visual*
- communicates thoughts/feelings/ideas clearly to justify or challenge a position
- maintains acceptable grammatical and technical standards
- gives evidence of adequate information gathering by citing seven or more relevant information sources

**TASK CHECKLIST: Landscape/Turf Management 2**

**AGR3060-1**

MAINTENANCE TASK	Watering and Fertilizing (measurement, application)	Cultivation and Mulching of Plants	Mowing, Trimming and Edging of Turfgrass	Pruning of Plants (fruit trees, hedges, specialty plants))	Turfgrass Management (analysis of problems, corrective measures)	Spring/Winter Preparation (clean-up, repair, dethatching, aeration)	Installation of Plant Material (planting, transplanting, turf establishment, staking, guying)
<i>The student:</i>							
A. performs routine checks on plants/ growth medium to determine the need for service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. selects, assembles and calibrates appropriate equipment and/or materials as necessary to perform the maintenance service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. performs the maintenance service by safely following established procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>D. follows established guidelines for the safe use of hand and/or power equipment relevant to the service*</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. disassembles, cleans and/or stores equipment and/or materials used in the course of performing the service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. performs routine safety checks on hand and power equipment, and cleans/ sharpens/lubricates as required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G. demonstrates effective conservation practices and regard for the environment in providing the service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Rating Scale**

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence. Quality, particularly details and finishes, and productivity are consistent and exceed standards. Leads others to contribute to team goals. Analyzes and provides effective client/customer services beyond expectations.
- 3 meets defined outcomes. Plans and solves problems in a self-directed manner. Tools, materials and/or processes are selected and used efficiently and effectively. Quality and productivity are consistent. Works cooperatively and contributes ideas and suggestions that enhance team effort. Analyzes and provides effective client/customer services.
- 2 meets defined outcomes. Plans and solves problems with limited assistance. Tools, materials and/or processes are selected and used appropriately. Quality and productivity are reasonably consistent. Works cooperatively to achieve team goals. Identifies and provides customer/client services.
- 1 meets defined outcomes. Follows a guided plan of action. A limited range of tools, materials and/or processes are used appropriately. Quality and productivity are reasonable consistent. Works cooperatively. Provides a limited range of customer/client services.
- 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.

**STANDARD IS 2 FOR TASKS A, B, C, E, F AND G IN EACH APPLICABLE AREA OF LANDSCAPE/TURFGRASS SERVICE**

**\* STANDARD IS 3 FOR TASK D (SAFE USE OF HAND AND/OR POWER EQUIPMENT)**

RATING	ASSESSMENT CRITERIA
<p>4 3 2 1 0</p>	<p><i>The student:</i></p> <p><b>Scheduling Tasks</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> defines the task</li> <li><input type="checkbox"/> provides an explanation of need for the landscape item/system</li> <li><input type="checkbox"/> sets goals and establishes steps to achieve them</li> <li><input type="checkbox"/> plans and uses time effectively</li> <li><input type="checkbox"/> _____</li> </ul>
<p>4 3 2 1 0</p>	<p><b>Gathering Information</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> poses important questions regarding the landscape item/system</li> <li><input type="checkbox"/> accesses a range of relevant industry/community resources</li> <li><input type="checkbox"/> interprets, organizes and combines information into a logical sequence</li> <li><input type="checkbox"/> provides a clear description of component parts and their function</li> <li><input type="checkbox"/> establishes an estimate of total material costs</li> <li><input type="checkbox"/> _____</li> </ul>
<p>4 3 2 1 0</p>	<p><b>Planning for Installation</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> considers client/customer preferences and needs in planning installation</li> <li><input type="checkbox"/> addresses local regulations in planning installation procedures</li> <li><input type="checkbox"/> develops a flowchart depicting installation steps and procedures</li> <li><input type="checkbox"/> establishes an estimate of total labour costs</li> <li><input type="checkbox"/> summarizes opportunities and challenges relevant to installation</li> <li><input type="checkbox"/> _____</li> </ul>
<p>4 3 2 1 0</p>	<p><b>Presenting the Proposal</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> presents the proposal in a logical sequence using two or more communication media:                             <ul style="list-style-type: none"> <li>- explanation of need/goals</li> <li>- description of component parts</li> <li>- plan for installation</li> <li>- estimated total cost</li> </ul> </li> <li><input type="checkbox"/> uses correct grammatical convention and technical terms</li> <li><input type="checkbox"/> makes summative statements regarding opportunities/challenges, and general feasibility of the landscape proposal</li> <li><input type="checkbox"/> _____</li> </ul>

**STANDARD IS 3 IN EACH APPLICABLE TASK**

**Rating Scale**

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence.
- 3 meets defined outcomes. Plans and solves problems in a self-directed manner. Tools, materials and/or processes are selected and used efficiently and effectively.
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- 1 meets defined outcomes. Follows a guided plan of action. A limited range of tools, materials and/or processes are used appropriately.
- 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.

N/A Not applicable

***REFLECTIONS/COMMENTS***

TASK	Observation/Rating					
Preparation and Planning	4	3	2	1	0	N/A
Information Gathering and Processing	4	3	2	1	0	N/A
Content	4	3	2	1	0	N/A
Collaboration and Teamwork	4	3	2	1	0	N/A
Information Sharing	4	3	2	1	0	N/A

**STANDARD IS 3 IN EACH APPLICABLE TASK**

**Rating Scale**

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence.
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- 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.
- N/A Not applicable

**TASK CHECKLIST**

*The student:*

**Preparation and Planning**

- sets clear goals and establishes steps to achieve them
- creates and adheres to detailed timelines
- uses personal initiative to formulate questions and find answers
- plans and uses time effectively, prioritizing tasks on a consistent basis

**Information Gathering and Processing**

- accesses a range of relevant information sources and recognizes when additional information is required
- demonstrates resourcefulness in collecting data
- interprets, organizes and combines information in creative and thoughtful ways
- records information accurately with appropriate supporting detail and uses correct technical terms
- recognizes underlying bias/assumptions/values in information sources
- assesses and refines approach to the task and project status based on feedback and reflection

**Content**

- describes the use of stables and other confinement structures; e.g.:
  - fences and shelters
  - totally confined rearing structures
- identifies criteria relevant to the selection and/or design of structures and equipment; e.g.:
  - function, operation and maintenance
  - safety and efficiency
  - ethical, legal and environmental factors
  - economics and cost

**Content (continued)**

- identifies specific factors to consider in selecting:
  - a stall
  - type of flooring
  - interior ancillary facilities
- describes selection criteria relevant to watering and feeding systems
- describes approved waste management systems
- describes factors to consider in selecting an appropriate type of fencing
- identifies policy, legislation and safe practices relevant to the use of physical structures and equipment
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

**Collaboration and Teamwork**

- cooperates with group members
- shares work appropriately among group members
- suggests solutions to problems
- displays effective communication and leadership skills

**Information Sharing**

- demonstrates effective use of a variety of communication media:
  - e.g., written, oral, audio-visual*
- communicates thoughts/feelings/ideas clearly to justify or challenge a position
- maintains acceptable grammatical and technical standards
- provides evidence of adequate information gathering by citing relevant and current information sources

<p align="center"><b>STALL CLEANING, BEDDING, TURNOUT AND SHELTER</b></p>	<p align="center"><b>HORSEMANSHIP TECHNIQUES</b></p>
<p><i>The student:</i></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> describes the characteristics of a healthful environment for horses (e.g., sanitation, housing, pest control, exercise)</li> <li><input type="checkbox"/> monitors physical environment, ensuring appropriate light, temperature, air circulation and space variables</li> <li><input type="checkbox"/> provides appropriate fencing and shelter to ensure safety of equine</li> <li><input type="checkbox"/> identifies agents and sources of stress for a horse, and their effects on general health (e.g., physical signs, vital signs, behaviour)</li> <li><input type="checkbox"/> describes veterinary services that are available, and the protocol for accessing these services</li> <li><input type="checkbox"/> demonstrates appropriate procedures for cleaning and disinfecting stalls</li> <li><input type="checkbox"/> demonstrates appropriate procedures for bedding a horse through supply of suitable bedding material</li> <li><input type="checkbox"/> demonstrates appropriate procedures for turnout and shelter</li> <li><input type="checkbox"/> plans and implements a daily equine exercise program</li> <li><input type="checkbox"/> _____</li> <li><input type="checkbox"/> _____</li> <li><input type="checkbox"/> _____</li> </ul>	<p><i>The student:</i></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> demonstrates active and passive use of the hands in riding (e.g., acting, yielding, holding, following)</li> <li><input type="checkbox"/> demonstrates active and passive use of the seat in riding (e.g., at the walk, at the trot, at the lope)</li> <li><input type="checkbox"/> demonstrates active and passive use of the legs in riding (e.g., acting, yielding, following leg)</li> <li><input type="checkbox"/> demonstrates appropriate use of artificial aids in reinforcing natural aids (e.g., riding crop, spurs)</li> <li><input type="checkbox"/> displays stability and balance while riding by maintaining an independent seat</li> <li><input type="checkbox"/> explains the use of psychology in achieving personal riding goals (e.g., focusing, imagery, self-talk)</li> <li><input type="checkbox"/> demonstrates appropriate use of selected bits in communicating with a horse (e.g., snaffle bits, curb bits)</li> <li><input type="checkbox"/> explains applications of various biting devices in the training of horses (e.g., draw reins, German martingale, running martingale, standing martingale, cavesson)</li> <li><input type="checkbox"/> _____</li> <li><input type="checkbox"/> _____</li> <li><input type="checkbox"/> _____</li> </ul>

**STANDARD  
ACIEVE A MINIMUM PERFORMANCE RATING  
OF 2 IN EACH AREA OF TASK ASSESSMENT**

**REFLECTIONS/COMMENTS**

- Rating Scale**
- 4** exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently and with confidence. Quality and productivity are consistent and exceed standards. Leads others to contribute to team goals. Analyzes and provides effective client/customer services beyond expectations.
  - 3** meets defined outcomes. Plans and solves problems in a self-directed manner. Tools, materials and/or processes are selected and used efficiently and effectively. Quality and productivity are consistent. Works cooperatively and contributes ideas and suggestions that enhance team effort. Analyzes and provides effective client/customer services.
  - 2** meets defined outcomes. Plans and solves problems with limited assistance. Tools, materials and/or processes are selected and used appropriately. Quality and productivity are reasonable consistent. Works cooperatively to achieve team goals. Identifies and provides client/ customer services.
  - 1** meets defined outcomes. Follows a guided plan of action. A limited range of tools, materials and/or processes are used appropriately. Quality and productivity are reasonably consistent. Works cooperatively. Provides a limited range of customer/client services.
  - 0** has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.

**CONDITIONING FRESH CUT FLOWERS AND GREENERY  
(PERFORMANCE STANDARD IS 3 IN EACH TASK AREA)**

*The student:*

- unpacks incoming stock and inspects for disorders/irregularities

---

- prepares containers for incoming stock

---

- mixes preservatives

---

- uses correct water temperature to condition materials

---

- cuts stems under water

---

- cuts stems to correct length

---

- stores materials at correct temperature

---

- incorporates recutting of stems and replacement of solutions as part of regular work routine

---

- handles and cleans emergency spills, and maintains facilities in a sanitary condition

---

- 

---

- 

**HANDLING DRIED AND FABRIC FLOWERS AND GREENERY  
(PERFORMANCE STANDARD IS 3 IN EACH TASK AREA)**

*The student:*

- bundles materials correctly

---

- hangs/boxes materials in a manner that prevents breaking, soiling and fading

---

- organizes materials in an effective manner

---

- 

**PACKAGING CUT FLOWERS, INTERIOR PLANTS AND FLORAL ARRANGEMENTS (continued)**

- includes care tags, preservatives, etc., in packaging

---

- keeps packaging neat and clean in appearance

---

- performs tasks in order of priority

---

- 

---

- 

**PACKAGING CUT FLOWERS, INTERIOR PLANTS AND FLORAL ARRANGEMENTS  
(PERFORMANCE STANDARD IS 3 IN EACH TASK AREA)**

*The student:*

- packages materials to protect, stabilize and preserve during transport

---

- packages materials without causing damage to floral stock

---

- packages materials to withstand adverse weather conditions

**USING CONSTRUCTION MATERIALS  
(PERFORMANCE STANDARD IS 3 IN EACH TASK AREA)**

*The student:*

- ties floral bows using ribbons of different width

---

- wraps wires of different gauge using floral tape

---

-

<b>CONSTRUCTING FLORAL ARRANGEMENTS (PERFORMANCE STANDARD IS 3 IN EACH TASK AREA)</b>	
<i>The student:</i>	
<input type="checkbox"/>	identifies different types of European arrangements: <ul style="list-style-type: none"> <li>- presentation-style bouquet</li> <li>- cluster arrangement</li> <li>- vegetative arrangement</li> <li>- parallel arrangement</li> <li>- hogarth curve</li> </ul>
<input type="checkbox"/>	identifies different types of Oriental arrangements: <ul style="list-style-type: none"> <li>- Ikebana</li> <li>- Moribana</li> <li>- Ritka</li> </ul>
<input type="checkbox"/>	identifies different types of arrangements used for weddings, calendar events and other special occasions: <ul style="list-style-type: none"> <li>- nosegay</li> <li>- cascade</li> <li>- crescent</li> <li>- wreath</li> <li>- garland</li> </ul>
<input type="checkbox"/>	follows and implements a plan for constructing a European arrangement that incorporates a hogarth curve
<input type="checkbox"/>	follows and implements a plan for constructing an Oriental arrangement
<input type="checkbox"/>	follows and implements a plan for constructing a bridal design (e.g., nosegay, cascade)

<b>CONSTRUCTING FLORAL ARRANGEMENTS (continued)</b>	
<input type="checkbox"/>	follows and implements a plan for constructing a second bridal design (e.g., crescent, garland)
<input type="checkbox"/>	follows and implements a plan for constructing an arrangement for a calendar event (e.g., Xmas, Easter)
<input type="checkbox"/>	follows and implements a plan for constructing an arrangement for an other special occasion (e.g., hospital, birthday)

**Rating Scale**

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence.
- 3 meets defined outcomes. Plans and solves problems in a self-directed manner. Tools, materials and/or processes are selected and used efficiently and effectively.
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- 1 meets defined outcomes. Follows a guided plan of action. A limited range of tools, materials and/or processes are used appropriately.
- 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.

N/A Not applicable

**STANDARD IS 3 AS INDICATED IN EACH APPLICABLE TASK AREA**

<i>REFLECTIONS/COMMENTS</i>

<b>PROJECT STANDARDS</b>	<b>PROJECT: European Arrangement (hogarth curve)</b>	<b>PROJECT: Oriental Arrangement</b>	<b>PROJECT: Bridal Design (e.g., nosegay, cascade)</b>	<b>PROJECT: Bridal Design (e.g., crescent, garland)</b>	<b>PROJECT: Calendar Event Arrangement (e.g., Xmas, Easter)</b>	<b>PROJECT: Other Special Occasion Arrangement (e.g., hospital, birthday)</b>	<b>PROJECT:</b>
<b>Application of Design Principles</b> <ul style="list-style-type: none"> <li>• colour harmony is appropriate</li> <li>• composition and arrangement are correct</li> <li>• balance and symmetry are achieved</li> <li>• proportion and scale are evident</li> <li>• rhythm and harmony are achieved</li> <li>• depth and/or line are evident</li> <li>• texture and/or focal emphasis are evident</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Quality of Workmanship</b> <ul style="list-style-type: none"> <li>• materials used were appropriate and consistent with design concept</li> <li>• secure in construction and finished on all sides</li> <li>• construction is concealed</li> <li>• all floral materials placed at proper height, depth and/or angle</li> <li>• wrapping is smooth, snug and tight</li> <li>• performs check on final product for quality, quantity and/or appeal</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>PROJECT RATING</b>							

**STANDARD IS 3 IN EACH APPLICABLE TASK**

**Rating Scale**

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence. Quality, particularly details and finishes, and productivity are consistent and exceed standards. Leads others to contribute to team goals. Analyzes and provides effective client/customer services beyond expectations.
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- 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.

**REFLECTIONS/COMMENTS**

THEME OF PROMOTIONAL DISPLAY: \_\_\_\_\_

Observation/ Rating	ASSESSMENT CRITERIA FOR PROMOTIONAL DISPLAY
4 3 2 1 0	<p><b><u>Power to Attract Attention</u></b></p> <input type="checkbox"/> theme is apparent <input type="checkbox"/> appropriate background/location is used <input type="checkbox"/> colour, lighting and props enhance theme and product/service <input type="checkbox"/> idea is original, unique and interesting <input type="checkbox"/> _____
4 3 2 1 0	<p><b><u>Arrangement</u></b></p> <input type="checkbox"/> proper amounts of product are used <input type="checkbox"/> all elements are in proportion <input type="checkbox"/> use of line and design principles leads eye to focal point <input type="checkbox"/> specific arrangement of goods is evident <input type="checkbox"/> display is in balance (formal or informal) <input type="checkbox"/> _____
4 3 2 1 0	<p><b><u>Promotional Power</u></b></p> <input type="checkbox"/> display creates interest and desire for the product/service <input type="checkbox"/> customer can find and concentrate on most important item(s) being sold <input type="checkbox"/> related products/services are presented <input type="checkbox"/> all parts of the display create unity <input type="checkbox"/> _____
4 3 2 1 0	<p><b><u>Technical Excellence and Cleanliness</u></b></p> <input type="checkbox"/> supplies are used effectively to display product/service <input type="checkbox"/> all props (forms and fixtures) are clean and in good repair <input type="checkbox"/> base/background is clean and neat <input type="checkbox"/> signage is professional looking <input type="checkbox"/> _____

**STANDARD IS 2  
IN EACH APPLICABLE TASK**

**Rating Scale**

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence. Quality, particularly details and finishes, and productivity are consistent and exceed standards. Leads others to contribute to team goals. Analyzes and provides effective client/customer services beyond expectations.
  - 3 meets defined outcomes. Plans and solves problems in a self-directed manner. Tools, materials and/or processes are selected and used efficiently and effectively. Quality and productivity are consistent. Works cooperatively and contributes ideas and suggestions that enhance team effort. Analyzes and provides effective client/customer services.
  - 2 meets defined outcomes. Plans and solves problems with limited assistance. Tools, materials and/or processes are selected and used appropriately. Quality and productivity are reasonably consistent. Works cooperatively to achieve team goals. Identifies and provides customer/client services.
  - 1 meets defined outcomes. Follows a guided plan of action. A limited range of tools, materials and/or processes are used appropriately. Quality and productivity are reasonable consistent. Works cooperatively. Provides a limited range of customer/client services.
  - 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.
- N/A Not applicable

**REFLECTIONS/COMMENTS**

TASK	Observation/Rating					
Preparation and Planning	4	3	2	1	0	N/A
Information Gathering and Processing	4	3	2	1	0	N/A
Content	4	3	2	1	0	N/A
Collaboration and Teamwork	4	3	2	1	0	N/A
Information Sharing	4	3	2	1	0	N/A

**STANDARD IS 3 IN EACH APPLICABLE TASK**

**Rating Scale**

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence.
  - 3 meets defined outcomes. Plans and solves problems in a self-directed manner. Tools, materials and/or processes are selected and used efficiently and effectively.
  - 2 meets defined outcomes. Plans and solves problems with limited assistance. Tools, materials and/or processes are selected and used appropriately.
  - 1 meets defined outcomes. Follows a guided plan of action. A limited range of tools, materials and/or processes are used appropriately.
  - 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.
- N/A Not applicable

**TASK CHECKLIST**

*The student:*

**Preparation and Planning**

- sets clear goals and establishes steps to achieve them
- creates and adheres to detailed timelines
- uses personal initiative to formulate questions and find answers
- plans and uses time effectively, prioritizing tasks on a consistent basis

**Information Gathering and Processing**

- accesses a range of relevant information sources and recognizes when additional information is required
- demonstrates resourcefulness in collecting data
- interprets, organizes and combines information in creative and thoughtful ways
- records information accurately with appropriate supporting detail and uses correct technical terms
- recognizes underlying bias/assumptions/values in information sources
- assesses and refines approach to the task and project status based on feedback and reflection

**Content**

- identifies social, economic and environmental factors that influence market trends for an agriculture commodity
- provides a rationale for “supply management” within the industry
- explains specific marketing structures, agencies and/or policies that regulate commodity supply and exchange; e.g.:
  - marketing boards and cooperatives
  - quota systems and monopolies

**Content (continued)**

- explains the influence of specific government policies and legislation on marketing activities
- compares approaches used to market the commodity in Canada with other nations; e.g.:
  - United States
  - nations of the Pacific Rim
  - Europe
- makes forecasts regarding future exchange and marketing of the commodity
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

**Collaboration and Teamwork**

- cooperates with group members
- shares work appropriately among group members
- suggests solutions to problems
- displays effective communication and leadership skills

**Information Sharing**

- demonstrates effective use of a variety of communication media:
  - e.g., written, oral, audio-visual*
- communicates thoughts/feelings/ideas clearly to justify or challenge a position
- maintains acceptable grammatical and technical standards
- provides evidence of adequate information gathering by citing relevant and current information sources

RATING	ASSESSMENT CRITERIA
<p>4 3 2 1 0</p>	<p><i>The student:</i></p> <p><b>Scheduling Tasks</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> defines the task</li> <li><input type="checkbox"/> identifies task components and organizes them into a logical sequence</li> <li><input type="checkbox"/> uses time effectively</li> <li><input type="checkbox"/> _____</li> </ul>
<p>4 3 2 1 0</p>	<p><b>Developing a Venture Plan</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> accesses basic in-school/community information sources regarding the product/service and potential customers/markets</li> <li><input type="checkbox"/> describes the product/service, customer and target market</li> <li><input type="checkbox"/> analyzes <u>six</u> or more factors that affect decisions to produce and market the commodity; e.g.:                             <ul style="list-style-type: none"> <li>– commodity supply, quality and/or pricing</li> <li>– existing sources of competition</li> <li>– time constraints on perishable products</li> <li>– international and/or domestic trade rules</li> <li>– income support programs and subsidies</li> </ul> </li> <li><input type="checkbox"/> establishes a viable marketing alternative for the product/service; e.g.:                             <ul style="list-style-type: none"> <li>– extensive (open)</li> <li>– selective (niche)</li> </ul> </li> <li><input type="checkbox"/> establishes a pricing, packaging/labelling, advertising, promotion and distribution strategy consistent with venture goals and consumer preferences</li> <li><input type="checkbox"/> identifies intended venture outcomes and/or product/service sales</li> <li><input type="checkbox"/> summarizes opportunities and challenges relevant to the venture plan</li> <li><input type="checkbox"/> _____</li> </ul>
<p>4 3 2 1 0</p>	<p><b>Assessing and Communicating the Venture Plan</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> presents the venture plan in a logical sequence using one or more communication media</li> <li><input type="checkbox"/> uses correct grammar and technical terms</li> <li><input type="checkbox"/> predicts the likelihood of suggested outcomes/sales being realized</li> <li><input type="checkbox"/> make summative statements regarding strengths/weaknesses and general feasibility of the venture plan</li> <li><input type="checkbox"/> _____</li> </ul>

**STANDARD IS 2 IN EACH APPLICABLE TASK**

**Rating Scale**

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence.
- 3 meets defined outcomes. Plans and solves problems in a self-directed manner. Tools, materials and/or processes are selected and used efficiently and effectively.
- 2 meets defined outcomes. Plans and solves problems with limited assistance. Tools, materials and/or processes are selected and used appropriately.
- 1 meets defined outcomes. Follows a guided plan of action. A limited range of tools, materials and/or processes are used appropriately.
- 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.

N/A Not applicable

**REFLECTIONS/COMMENTS**

TASK	Observation/Rating					
Preparation and Planning	4	3	2	1	0	N/A
Information Gathering and Processing	4	3	2	1	0	N/A
Content	4	3	2	1	0	N/A
Collaboration and Teamwork	4	3	2	1	0	N/A
Information Sharing	4	3	2	1	0	N/A

**STANDARD IS 3 IN EACH APPLICABLE TASK**

**Rating Scale**

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence.
  - 3 meets defined outcomes. Plans and solves problems in a self-directed manner. Tools, materials and/or processes are selected and used efficiently and effectively.
  - 2 meets defined outcomes. Plans and solves problems with limited assistance. Tools, materials and/or processes are selected and used appropriately.
  - 1 meets defined outcomes. Follows a guided plan of action. A limited range of tools, materials and/or processes are used appropriately.
  - 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.
- N/A Not applicable

**TASK CHECKLIST**

*The student:*

**Preparation and Planning**

- sets clear goals and establishes steps to achieve them
- creates and adheres to detailed timelines
- uses personal initiative to formulate questions and find answers
- plans and uses time effectively, prioritizing tasks on a consistent basis

**Information Gathering and Processing**

- accesses a range of relevant information sources and recognizes when additional information is required
- demonstrates resourcefulness in collecting data
- interprets, organizes and combines information in creative and thoughtful ways
- records information accurately with appropriate supporting detail and uses correct technical terms
- recognizes underlying bias/assumptions/values in information sources
- assesses and refines approach to the task and project status based on feedback and reflection

**Content**

- identifies a specific problem in agriculture and food production recently addressed through biotechnology; e.g.:
  - production costs
  - product quality
  - market supply
  - environmental impact
- identifies key stakeholder groups affected by the problem
- describes funding and partnerships established to address the problem

**Content (continued)**

- explains applications of biotechnology in dealing with the problem:
  - principles of genetic engineering
  - scientific design
  - experimental outcomes
- assesses the social, economic and environmental consequences of technology applications
- makes recommendations regarding the current and future use of the technology; e.g.:
  - management actions
  - further research
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

**Collaboration and Teamwork**

- cooperates with group members
- shares work appropriately among group members
- suggests solutions to problems
- displays effective communication and leadership skills.

**Information Sharing**

- demonstrates effective use of a variety of communication media:
  - e.g., written, oral, audio-visual*
- communicates thoughts/feelings/ideas clearly to justify or challenge a position
- maintains acceptable grammatical and technical standards
- provides evidence of adequate information gathering by citing relevant and current information sources

TASK	Observation/Rating					
Preparation and Planning	4	3	2	1	0	N/A
Content	4	3	2	1	0	N/A
Presenting/Reporting	4	3	2	1	0	N/A

**STANDARD IS 3 IN EACH APPLICABLE TASK**

**Rating Scale**

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence.
- 3 meets defined outcomes. Plans and solves problems in a self-directed manner. Tools, materials and/or processes are selected and used efficiently and effectively.
- 2 meets defined outcomes. Plans and solves problems with limited assistance. Tools, materials and/or processes are selected and used appropriately.
- 1 meets defined outcomes. Follows a guided plan of action. A limited range of tools, materials and/or processes are used appropriately.
- 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.
- N/A Not applicable

**TASK CHECKLIST**

*The student:*

**Preparation and Planning**

- sets goals and describes steps to achieve them
- uses personal initiative to formulate questions and find answers
- accesses a range of relevant information sources and recognizes when additional information is required
- interprets, organizes and combines information in creative and thoughtful ways
- records information accurately using appropriate technical terms and supporting detail
- plans and uses time effectively, prioritizing tasks on a consistent basis
- assesses and refines approach to task and project status based on feedback and reflection

**Content**

- provides a clear and concise statement of an issue regarding the impact of one or more agriculture practices on the water resource
- describes social, political, scientific, ethical, economic and environmental perspectives related to the issue
- develops a logical argument and conclusions regarding a position taken on the issue, and provides a rationale for the position taken
- develops a responsible plan of action for dealing with the issue at local and global levels
- provides a glossary of terms relevant to the issue

**Content (continued)**

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

**Presenting/Reporting**

- demonstrates effective use of a variety of communication media:  
*e.g., Written: spelling, punctuation, grammar, format (formal/informal, technical/literary)*  
*Oral: voice projection, body language, appearance, enthusiasm, evidence of prior practice*  
*Audio-visual: techniques, tools, clarity, speed and pacing*
- maintains acceptable grammatical and technical standards through proofreading and editing
- provides an introduction that describes the purpose and scope of the project
- communicates thoughts/feelings/ideas clearly to justify or challenge a position
- states a conclusion by analyzing and synthesizing the information gathered
- gives evidence of adequate research through a reference list including seven or more relevant information sources

**REFLECTIONS/COMMENTS**

TASK	Observation/Rating					
Management	4	3	2	1	0	N/A
Teamwork	4	3	2	1	0	N/A
Equipment and Materials	4	3	2	1	0	N/A
Investigative Techniques	4	3	2	1	0	N/A

**STANDARD IS 3 IN EACH APPLICABLE TASK**

**Rating Scale**

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence.
  - 3 meets defined outcomes. Plans and solves problems in a self-directed manner. Tools, materials and/or processes are selected and used efficiently and effectively.
  - 2 meets defined outcomes. Plans and solves problems with limited assistance. Tools, materials and/or processes are selected and used appropriately.
  - 1 meets defined outcomes. Follows a guided plan of action. A limited range of tools, materials and/or processes are used appropriately.
  - 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.
- N/A Not applicable

**TASK CHECKLIST**

*The student:*

**Management**

- prepares self for task
- organizes and works in an orderly manner
- interprets and carries out instructions accurately
- plans and uses time effectively in a logical sequence
- displays leadership in adhering to routine procedures
- attempts to solve problems prior to requesting help

**Teamwork**

- cooperates with group members
- shares work appropriately among group members
- negotiates with sensitivity solutions to problems
- displays effective communication skills

**Equipment and Materials**

- independently selects and uses equipment/materials
- demonstrates concern for safe procedures/techniques
- measures accurately and efficiently
- practises proper sanitation procedures
- minimizes waste of materials
- anticipates potential hazards and emergency response

**Investigative Techniques**

- conducts investigations of physical properties of water important to plants and/or animals; e.g.:
  - turbidity
  - temperature
  - odour/taste
- conducts investigations of chemical properties of water important to plants and/or animals; e.g.:
  - dissolved oxygen
  - pH
  - mineral content
- conducts investigations of biological properties of water important to plants and/or animals; e.g.:
  - bacteria
  - viruses
  - algae and plankton
- interprets water test results and makes recommendations regarding the suitability of the sample for a specific use in agriculture
- recommends water treatments prior to use in agriculture based on the results of water tests
- performs one or more water treatments designed to enhance water quality/suitability for use in agriculture

**REFLECTIONS/COMMENTS**

RATING	ASSESSMENT CRITERIA
<p>4 3 2 1 0</p>	<p><i>The student:</i></p> <p><b>Scheduling Tasks</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> sets goals and establishes steps to achieve them</li> <li><input type="checkbox"/> accesses a range of relevant in-school/community resources</li> <li><input type="checkbox"/> poses important questions regarding water management strategies for an agriculture venture</li> <li><input type="checkbox"/> plans and uses time effectively</li> <li><input type="checkbox"/> _____</li> </ul>
<p>4 3 2 1 0</p>	<p><b>Developing a Water Management Plan</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> interprets, organizes and combines information into a logical sequence</li> <li><input type="checkbox"/> identifies available surface and ground water supplies</li> <li><input type="checkbox"/> determines water requirements for the venture according to estimates of consumption</li> <li><input type="checkbox"/> describes suitable techniques for managing limited and/or excess water supplies in the venture; e.g.:                             <ul style="list-style-type: none"> <li>- irrigation, storage, recycling</li> <li>- diversion, drainage, flood control</li> </ul> </li> <li><input type="checkbox"/> identifies treatments for enhancing water quality both before and after use in agriculture</li> <li><input type="checkbox"/> identifies agriculture practices effective in maintaining a sustainable production system; e.g.:                             <ul style="list-style-type: none"> <li>- cropping rotations</li> <li>- management of animal wastes</li> <li>- conservation tillage</li> <li>- fertilizer and pesticide management</li> </ul> </li> <li><input type="checkbox"/> _____</li> </ul>
<p>4 3 2 1 0</p>	<p><b>Presenting and Assessing the Plan</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> presents major components of the water management plan in a logical sequence using a variety of communication media</li> <li><input type="checkbox"/> assesses the general feasibility of the water management plan</li> <li><input type="checkbox"/> makes summative statements regarding opportunities and challenges relevant to maintaining/improving water supply and quality for the venture</li> <li><input type="checkbox"/> _____</li> </ul>

**STANDARD IS 3 IN EACH APPLICABLE TASK**

**Rating Scale**

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence.
- 3 meets defined outcomes. Plans and solves problems in a self-directed manner. Tools, materials and/or processes are selected and used efficiently and effectively.
- 2 meets defined outcomes. Plans and solves problems with limited assistance. Tools, materials and/or processes are selected and used appropriately.
- 1 meets defined outcomes. Follows a guided plan of action. A limited range of tools, materials and/or processes are used appropriately.
- 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.
- N/A Not applicable

**REFLECTIONS/COMMENTS**

TASK	Observation/Rating					
Preparation and Planning	4	3	2	1	0	N/A
Information Gathering and Processing	4	3	2	1	0	N/A
Content	4	3	2	1	0	N/A
Collaboration and Teamwork	4	3	2	1	0	N/A
Information Sharing	4	3	2	1	0	N/A

**STANDARD IS 3 IN EACH APPLICABLE TASK**

**Rating Scale**

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence.
- 3 meets defined outcomes. Plans and solves problems in a self-directed manner. Tools, materials and/or processes are selected and used efficiently and effectively.
- 2 meets defined outcomes. Plans and solves problems with limited assistance. Tools, materials and/or processes are selected and used appropriately.
- 1 meets defined outcomes. Follows a guided plan of action. A limited range of tools, materials and/or processes are used appropriately.
- 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.
- N/A Not applicable

**TASK CHECKLIST**

*The student:*

**Preparation and Planning**

- sets clear goals and establishes steps to achieve them
- creates and adheres to detailed timelines
- uses personal initiative to formulate questions and find answers
- plans and uses time effectively, prioritizing tasks on a consistent basis

**Information Gathering and Processing**

- accesses a range of relevant information sources and recognizes when additional information is required
- demonstrates resourcefulness in collecting data
- interprets, organizes and combines information in creative and thoughtful ways
- records information accurately with appropriate supporting detail and using correct technical terms
- recognizes underlying bias/assumptions/values in information sources
- assesses and refines approach to the task and project status based on feedback and reflection

**Content**

- explains major activities conducted within two or more agriculture systems; e.g.:
  - field crop production
  - greenhouse production
  - feedlot production
  - range grazing
- describes the impacts of specific land use practices within each system on ecosystems; e.g.:
  - land clearing
  - cultivation practices

**Content** (continued)

- describes the impacts of specific water management practices within each system on the environment; e.g.:
  - water diversion
  - irrigation practices
- describes potential impacts of pesticide/fertilizer use within each system on soil, water and air characteristics
- describes potential impacts of selective breeding/genetic engineering within each system on the biodiversity of plant/animal populations
- identifies other environmental pollutants resulting from large-scale and/or specialized production practices within each system, and their impact on land, water, air and wildlife

**Collaboration and Teamwork**

- cooperates with group members
- shares work appropriately among group members
- negotiates with sensitivity solutions to problems
- displays effective communication and leadership skills

**Information Sharing**

- demonstrates effective use of a variety of communication media:
  - e.g., written, oral, audio-visual*
- communicates thoughts/feelings/ideas clearly to justify or challenge a position
- maintains acceptable grammatical and technical standards
- gives evidence of adequate information gathering by citing seven or more relevant information sources

**REFLECTIONS/COMMENTS**

TASK	Observation/Rating					
Preparation and Planning	4	3	2	1	0	N/A
Content	4	3	2	1	0	N/A
Presenting/Reporting	4	3	2	1	0	N/A

**STANDARD IS 3 IN EACH APPLICABLE TASK**

**Rating Scale**

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence.
- 3 meets defined outcomes. Plans and solves problems in a self-directed manner. Tools, materials and/or processes are selected and used efficiently and effectively.
- 2 meets defined outcomes. Plans and solves problems with limited assistance. Tools, materials and/or processes are selected and used appropriately.
- 1 meets defined outcomes. Follows a guided plan of action. A limited range of tools, materials and/or processes are used appropriately.
- 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.
- N/A Not applicable

**TASK CHECKLIST**

*The student:*

**Preparation and Planning**

- sets goals and describes steps to achieve them
- uses personal initiative to formulate questions and find answers
- accesses a range of relevant information sources and recognizes when additional information is required
- interprets, organizes and combines information in creative and thoughtful ways
- records information accurately using appropriate technical terms and supporting detail
- plans and uses time effectively, prioritizing tasks on a consistent basis
- assesses and refines approach to task and project status based on feedback and reflection

**Content**

- provides a brief introduction that explains economic and environmental goals relevant to a production venture
- outlines plans for multiple land use within the venture
- outlines plans for ensuring sustainable use of the environment; e.g.:
  - strategies for soil fertility and conservation
  - water management practices
- develops strategies to manage interrelationships and dependencies among domestic and non-domestic plant and animal species; e.g.:
  - retention of grasslands
  - maintenance of wetlands

**Content** (continued)

- identifies relevant government policies and regulations that support sustainable production practices within the venture; e.g.:
  - environmental constraints
  - inspection and regulation
- \_\_\_\_\_
- \_\_\_\_\_
- provides a glossary of terms relevant to sustainable production practices

**Presenting/Reporting**

- demonstrates effective use of a variety of communication media:
  - e.g., Written: spelling, punctuation, grammar, format (formal/informal, technical/literary)*
  - Oral: voice projection, body language, appearance, enthusiasm, evidence of prior practice*
  - Audio-visual: techniques, tools, clarity, speed and pacing*
- maintains acceptable grammatical and technical standards through proofreading and editing
- provides an introduction that describes the purpose and scope of the project
- states a conclusion by analyzing and synthesizing the information gathered
- gives evidence of adequate research through a reference list including seven or more relevant information sources

**REFLECTIONS/COMMENTS**

RATING	SELECTION CRITERIA
<p>4 3 2 1 0</p> <p>4 3 2 1 0</p> <p>4 3 2 1 0</p>	<p><i>The student:</i></p> <p><b>Environmental Factors</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> identifies climatic factors essential for successful crop production; e.g.:                             <ul style="list-style-type: none"> <li>- length of growing season (growing days, frost-free days)</li> <li>- air and soil temperatures</li> <li>- relative humidity</li> <li>- wind</li> </ul> </li> <li><input type="checkbox"/> identifies other environmental factors necessary for successful crop production; e.g.:                             <ul style="list-style-type: none"> <li>- land and space requirements</li> <li>- soil and water characteristics</li> </ul> </li> <li><input type="checkbox"/> assesses general feasibility of crop production based on environmental factors</li> <li><input type="checkbox"/> _____</li> </ul> <p><b>Technology and Labour Requirements</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> identifies equipment needs at different stages of production</li> <li><input type="checkbox"/> identifies structures that may be required throughout the production cycle</li> <li><input type="checkbox"/> identifies labour and transportation needs relevant to the production enterprise</li> <li><input type="checkbox"/> assesses general feasibility of crop production based on technology and labour requirements</li> <li><input type="checkbox"/> _____</li> </ul> <p><b>Market and Financial Opportunities</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> predicts market demands and trends for the nursery or greenhouse commodity</li> <li><input type="checkbox"/> identifies the size and location of potential markets</li> <li><input type="checkbox"/> identifies sources of market competition and a potential marketing strategy</li> <li><input type="checkbox"/> makes forecasts of financial opportunities related to crop production; e.g.:                             <ul style="list-style-type: none"> <li>- fixed and variable costs</li> <li>- anticipated returns</li> <li>- risk factors</li> </ul> </li> <li><input type="checkbox"/> assesses general feasibility of crop production based on market and financial opportunities</li> <li><input type="checkbox"/> _____</li> </ul>

**STANDARD IS 3 IN EACH APPLICABLE TASK**

**Rating Scale**

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence.
- 3 meets defined outcomes. Plans and solves problems in a self-directed manner. Tools, materials and/or processes are selected and used efficiently and effectively.
- 2 meets defined outcomes. Plans and solves problems with limited assistance. Tools, materials and/or processes are selected and used appropriately.
- 1 meets defined outcomes. Follows a guided plan of action. A limited range of tools, materials and/or processes are used appropriately.
- 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.

N/A Not applicable

**REFLECTIONS/COMMENTS**

TASK	OBSERVATIONS/RATING					
Preparation and Planning	4	3	2	1	0	N/A
Information Gathering and Processing	4	3	2	1	0	N/A
Content	4	3	2	1	0	N/A
Collaboration and Teamwork	4	3	2	1	0	N/A
Information Sharing	4	3	2	1	0	N/A

**STANDARD IS 3 IN EACH APPLICABLE TASK**

**Rating Scale**

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence.
- 3 meets defined outcomes. Plans and solves problems in a self-directed manner. Tools, materials and/or processes are selected and used efficiently and effectively.
- 2 meets defined outcomes. Plans and solves problems with limited assistance. Tools, materials and/or processes are selected and used appropriately.
- 1 meets defined outcomes. Follows a guided plan of action. A limited range of tools, materials and/or processes are used appropriately.
- 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.

N/A Not applicable

**TASK CHECKLIST**

*The student:*

**Preparation and Planning**

- sets clear goals and establishes steps to achieve them
- creates and adheres to detailed timelines
- uses personal initiative to formulate questions and find answers
- plans and uses time effectively, prioritizing tasks on a consistent basis

**Information Gathering and Processing**

- accesses a range of relevant information sources and recognizes when additional information is required
- demonstrates resourcefulness in collecting data
- interprets, organizes and combines information in creative and thoughtful ways
- records information accurately with appropriate supporting detail and uses correct technical terms
- recognizes underlying bias/assumptions/values in information sources
- assesses and refines approach to the task and project status based on feedback and reflection

**Content**

- identifies desirable and undesirable plant traits relevant to one nursery/greenhouse crop variety
- describes selection criteria and procedures relative to one nursery/greenhouse crop variety

**Content (continued)**

- explains applications of hybridization in the propagation of one nursery/greenhouse crop variety
- provides a summary of procedures used by industry to maintain/improve the quality of a specific nursery/greenhouse crop variety
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

**Collaboration and Teamwork**

- cooperates with group members
- shares work appropriately among group members
- suggests solutions to problems
- displays effective communication and leadership skills

**Information Sharing**

- demonstrates effective use of a variety of communication media:  
*e.g., written, oral, audio-visual*
- communicates thoughts/feelings/ideas clearly to justify or challenge a position
- maintains acceptable grammatical and technical standards
- provides evidence of adequate information gathering by citing relevant and current information sources

**REFLECTIONS/COMMENTS**

<b>SOIL PREPARATION</b>	
<i>The student:</i>	
<input type="checkbox"/>	identifies major soil components
<input type="checkbox"/>	selects an appropriate growing medium
<input type="checkbox"/>	moistens growing medium as necessary
<input type="checkbox"/>	evenly mixes growing medium given a recipe materials
<input type="checkbox"/>	identifies and safely uses appropriate tools and equipment
<input type="checkbox"/>	

<b>CULTIVATION</b>	
<i>The student:</i>	
<input type="checkbox"/>	removes weeds and other debris
<input type="checkbox"/>	adds/mixes amendments as required
<input type="checkbox"/>	smoothes soil for planting and/or rough digs for winter preparation
<input type="checkbox"/>	identifies and safely uses appropriate tools and equipment
<input type="checkbox"/>	

<b>PROPAGATION/TRANSPLANTING</b>	
<i>The student:</i>	
<input type="checkbox"/>	identifies basic germination requirements
<input type="checkbox"/>	germinates seeds using row, broadcast or plug patterns
<input type="checkbox"/>	performs stem cuttings of different plants (e.g., hardwood, softwood)
<input type="checkbox"/>	performs leaf section cuttings
<input type="checkbox"/>	performs air layering
<input type="checkbox"/>	performs simple division
<input type="checkbox"/>	performs pinching/pruning where appropriate
<input type="checkbox"/>	identifies plant material in need of transplanting
<input type="checkbox"/>	transplants rooted seedlings and cuttings
<input type="checkbox"/>	re pots pot-bound plants to containers of appropriate size
<input type="checkbox"/>	identifies and safely uses appropriate tools and equipment
<input type="checkbox"/>	
<input type="checkbox"/>	

<b>WATERING/FERTILIZING</b>	
<i>The student:</i>	
<input type="checkbox"/>	checks growing medium for moisture content
<input type="checkbox"/>	applies moisture to plants as required
<input type="checkbox"/>	identifies fertilizer components and function
<input type="checkbox"/>	perform fertilizer calculations given a concentration formula (e.g., 200 parts per million of 9-45-15)
<input type="checkbox"/>	mixes and applies fertilizer according to instructions provided
<input type="checkbox"/>	identifies and safely uses appropriate tools and equipment
<input type="checkbox"/>	

<b>CONTROL OF PESTS/DISEASE</b>	
<i>The student:</i>	
<input type="checkbox"/>	recognizes common plant pests/diseases and their symptoms:
<input type="checkbox"/>	aphid
<input type="checkbox"/>	fungus gnat
<input type="checkbox"/>	mealy bug
<input type="checkbox"/>	spider mite
<input type="checkbox"/>	scales
<input type="checkbox"/>	damping-off
<input type="checkbox"/>	botrytis

**CONTROL OF PESTS/DISEASE**

*The student:*

- performs preventive measures for common plant pests and diseases

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- performs eradication procedures for common plant pests and diseases:
  - uses pesticide sprayers
  - uses sticky traps

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- recognizes and applies appropriate biological pest control measures

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- uses nontoxic and safe materials

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- identifies and safely uses appropriate tools and equipment

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**USE OF GROWING SPACE**

*The student:*

- explains relationships among plant quality, profitability and spacing

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- identifies factors that determine plant spacing; e.g.:
  - plant size
  - container shape
  - available space
  - air movement
  - humidity/light conditions

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- follows appropriate practices for spacing and rotating plants

**CONSERVATION PRACTICES**

*The student:*

- composts waste plant and/or soil material

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- recycles soil and/or soilless mix

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- uses timers for lighting

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- performs mulching to conserve water

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- considers weather conditions (e.g., wind, temperature, precipitation) when establishing schedules for cultivation

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**PACKAGING PLANT MATERIAL**

*The student:*

- selects appropriate packaging based on:
  - weather conditions
  - size of plant
  - container style

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- assembles and prepares packaging materials

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- packages plant material as required

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**STANDARD IS 2 EACH APPLICABLE AREA OF PLANT PRODUCTION AND 3 IN THE SAFE USE OF EQUIPMENT AND SUPPLIES**

**Rating Scale**

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence. Quality and productivity are consistent and exceed standards. Leads others to contribute to team goals. Analyzes and provides effective client/customer services beyond expectations.
  - 3 meets defined outcomes. Plans and solves problems in a self-directed manner. Tools, materials and/or processes are selected and used efficiently and effectively. Quality and productivity are consistent. Works cooperatively and contributes ideas and suggestions that enhance team effort. Analyzes and provides effective client/customer services.
  - 2 meets defined outcomes. Plans and solves problems with limited assistance. Tools, materials and/or processes are selected and used appropriately. Quality and productivity are reasonably consistent. Works cooperatively to achieve team goals. Identifies and provides customer/client services.
  - 1 meets defined outcomes. Follows a guided plan of action. A limited range of tools, materials and/or processes are used appropriately. Quality and productivity are reasonable consistent. Works cooperatively. Provides a limited range of customer/client services.
  - 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.
- N/A Not applicable

**REFLECTIONS/COMMENTS**