

Advanced Crop Science

Curriculum Guide: *Advanced Crop Science*

Unit: V. Safety, Environment, and Legal Issues

Unit Objective:

Students will demonstrate an understanding of the importance of safety and environmental and legal responsibility in agriculture by identifying and explaining a relevant current safety, environmental, or legal issue in a written report.

Show-Me Standards: 2.1, SC8

References:

Advanced Crop Science. University of Missouri-Columbia, Instructional Materials Laboratory, 2000.

Agricultural Safety. National Safety Council. Accessed November 11, 2003, from <http://www.nsc.org/issues/agrisafe.htm>.

Chemical Application Information. University of Georgia College of Agricultural and Environmental Sciences. Accessed November 11, 2003, from <http://www.cpes.peachnet.edu/spray/>.

Guide Sheets. University of Missouri Outreach & Extension. Accessed October 27, 2003, from http://www.fse.missouri.edu/ruralsafety/guide_sheets.htm.

National Ag Safety Database, Accessed October 27, 2003, from <http://www.cdc.gov/nasd/index.html>.

Pesticide Applicator Training. University of Missouri-Columbia. Accessed October 28, 2003, from <http://ipm.missouri.edu/pat/index.asp>.

Smart Communities Network. U. S. Department of Energy. Accessed November 11, 2003, from <http://www.sustainable.doe.gov/>.

Students may use additional outside sources to complete this activity.

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Instructional Strategies/Activities:

- Students will engage in study questions in lessons 1 through 3.
- Students will complete AS 1.1, Farm Safety Survey; and AS 3.1, Legal Land Descriptions.
- Additional activities that relate to the unit objective can be found under the heading “Other Activities” in the following locations: p. V-15 (1, 2) and p. V-26 (2).

Performance-Based Assessment:

Each student will identify a current safety, environmental, or legal issue and explain how that issue affects crop producers and crop production in a written report. Students should include appropriate visual elements, such as illustrations, graphs, or charts, to make the report interesting and support the information in the report.

Assessment will be based on the overall content and presentation of the report.

**Unit V—Safety, Environment, and Legal Issues
Instructor Guide**

The instructor should assign the performance-based assessment activity at the beginning of the unit. Students will work toward completing the activity as they progress through the unit lessons. The assessment activity will be due at the completion of the unit.

1. Lead the class in a discussion to identify current safety, environmental, and legal issues in agriculture and make a list of topics on the board. Sample topics could include the following:
 - Potential dangers and necessary safeguards associated with farm equipment
 - Requirements for private and commercial pesticide applicator training
 - Effective soil management practices
 - Importance of waste management
 - Legal liabilities for mishandling chemicals
2. Have students choose a topic and explain how that issue affects crop producers and crop production in a written report.
3. Students may use material found in the unit or discussed in class as well as additional outside material to complete their report.
 - a. Students may not use the source material word for word and must provide a complete bibliography of their sources along with their report.
 - b. Students should include appropriate visual elements, such as illustrations, graphs, or charts, to make the report interesting and support the information in the report.
4. The final assessment score will be based on the overall content and presentation of the report.
5. ADDITIONAL ACTIVITIES:
 - a. Suggest that students receive private pesticide applicator certification. Information regarding certification is available from the University of Missouri-Columbia at Pesticide Applicator Training, accessed October 28, 2003, from <http://ipm.missouri.edu/pat/index.asp>.
 - b. Invite one or more experts to discuss specific safety, environmental, or legal issues in agriculture. Have students prepare questions for the speaker.

**Unit V—Safety, Environment, and Legal Issues
Student Handout**

1. Choose a current safety, environmental, or legal issue related to agriculture.
2. Explain in a written report how your chosen issue affects crop producers and crop production.
3. You may use material found in the unit or discussed in class as well as additional outside material to complete your report.
4. You may not use the source material word for word and must provide a complete bibliography of your sources along with your report.
5. Include appropriate visual elements, such as illustrations, graphs, or charts, to make the report interesting and support the information in the report.
6. Your final assessment score will be based on the overall content and presentation of your report.

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Unit V—Safety, Environment, and Legal Issues Scoring Guide

Name _____

Assessment Area	Criteria	0 Points	1 Point	2 Points	3 Points	4 Points	Weight	Total
Thoroughness	Information is complete; report provides a thorough overview of the topic	Failed	Poor	Fair	Good	Excellent	X 8.75	
Accuracy	Facts are accurate	Failed	Poor	Fair	Good	Excellent	X 8.75	
Presentation	Report is clear and well organized	Failed	Poor	Fair	Good	Excellent	X 2.5	
Supporting Materials	Supporting materials emphasize key points	Failed	Poor	Fair	Good	Excellent	X 2.5	
Technical Considerations	Spelling, grammar, and punctuation are correct	Failed	Poor	Fair	Good	Excellent	X 2.5	
TOTAL								

Final Assessment Total _____/100 pts.

Comments:

