

Advanced Crop Science

Curriculum Guide: *Advanced Crop Science*

Unit: I. Overview

Unit Objective:

Students will demonstrate an understanding of how governmental policies and current trends influence agriculture by explaining, in an oral presentation, how a particular policy or trend has affected agriculture in their state.

Show-Me Standards: 1.8, CA6

References:

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

MDC Private Land Assistance. Missouri Department of Conservation. Accessed March 11, 2004, from <http://www.conservation.state.mo.us/landown/>.

Missouri Cattlemen's Association. Accessed October 7, 2003, from <http://www.mocattle.org/>.

National Association of Conservation Districts. Accessed March 8, 2004, from <http://www.nacdnet.org/>.

National Pork Board. Accessed October 7, 2003, from <http://www.porkboard.org/Home/default.asp>.

Progressive Farmer.com. Accessed October 3, 2003, from <http://www.progressivefarmer.com/farmer/>.

Soil and Water Conservation Program. Missouri Department of Natural Resources. Accessed March 12, 2004, from <http://www.dnr.state.mo.us/wpscd/swcp/service1.htm>.

Successful Farming Online. Accessed October 3, 2003, from <http://www.agriculture.com/sfonline/index.html>.

Advanced Crop Science

United States Department of Agriculture. Accessed March 8, 2004, from <http://www.usda.gov/>.

Students may use additional outside sources to complete this activity.

Instructional Strategies/Activities:

- Students will engage in study questions in lessons 1 through 4.
- Students will complete AS 2.1, Missouri Cropland; and AS 4.1, The World Trade Organization (WTO).
- Additional activities that relate to the unit objective can be found under the heading "Other Activities" in the following locations: p. I-6 (3), p. I-32 (1), and p. I-45.

Performance-Based Assessment:

Students will be divided into groups. Each group will develop an oral report that explains how a governmental program or agreement, such as the North American Free Trade Agreement, or a current trend in agriculture, such as precision farming, has affected agriculture within the state. 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 I—Overview
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. Prior to assigning the investigative portion of this assessment activity, lead a class discussion about governmental programs, trade agreements, and trends currently affecting agriculture. See Lesson 4, Government Influence and Current Trends, for study questions and topics.
2. Have students brainstorm about programs and trends affecting agriculture in their state and make a list of topics on the board. Sample topics could include the following:
 - Trade agreements, such as the North American Free Trade Agreement
 - Farming techniques, such as precision farming
 - Bioengineered products, such as Bt corn
 - Soil and water conservation programs, such as the Agricultural Nonpoint Source Special Area Land Treatment (AgNPS SALT) program
 - Organizations or groups, such as the Midwest Area Rivers Coalition 2000, could also be considered, if desired
3. Divide the class into groups.
4. Assign each group one of the topics or have groups choose their topic, as desired.
5. Have each group develop an oral report that explains how its assigned topic has affected agriculture within the state.
6. Have students incorporate appropriate visual elements into their report, such as illustrations, graphs, or charts, to make the report interesting and support the information in the report. Students could also use presentation software to give their report, if desired.
7. Students may use material found in the unit or discussed in class as well as additional outside material to complete their report.
8. Students may not use the source material word for word and must provide a complete bibliography of their sources following their report.

Advanced Crop Science

9. Students should be prepared to answer questions about their topic.
10. The final assessment score will be based on the overall content and presentation of the report.
11. **ADDITIONAL ACTIVITY:** Invite a guest speaker who is involved in a program such as the AgNPS SALT program to talk to the class about his or her experience. Have students prepare questions for the speaker.

**Unit I—Overview
Student Handout**

1. The instructor will divide the class into groups and assign each group a program, trend, or agreement that is currently making an impact on agricultural production.
2. Develop an oral report that explains how your topic affects agriculture in your state and present the report to the class.
3. Be prepared to answer questions from the instructor and your classmates about your topic.
4. Include appropriate visuals in your report, such as illustrations, graphs, or charts, to make your report interesting and informative.
5. You may use material found in the unit or discussed in class as well as additional outside material to complete your report.
6. You may not use the source material word for word and must provide the instructor with a complete bibliography of your sources following your report.
7. Your final assessment score will be based on the overall content and presentation of your report.

Advanced Crop Science

Unit I—Overview Scoring Guide

Name _____

◆ Page 7 ◆

Assessment Area	Criteria	0 Points	1 Point	2 Points	3 Points	4 Points	Weight	Total
Information and Content of Report	<ul style="list-style-type: none"> <input type="checkbox"/> Information is complete <input type="checkbox"/> Facts are accurate <input type="checkbox"/> Well organized <input type="checkbox"/> Supporting materials emphasize and clarify key points <input type="checkbox"/> Answers questions from the instructor or students correctly 	0 criteria met	1-2 criteria met	3 criteria met	4 criteria met	All 5 criteria met	X 20	
Presentation of Report	<ul style="list-style-type: none"> <input type="checkbox"/> Holds audience interest <input type="checkbox"/> Speaks clearly and uses correct grammar <input type="checkbox"/> Maintains good posture <input type="checkbox"/> Needs little or no prompting from the instructor 	0 criteria met	1 criterion met	2 criteria met	3 criteria met	All 4 criteria met	X 5	
TOTAL								

Final Assessment Total _____/100 pts.

Comments:

