

# Advanced Crop Science

**Curriculum Guide:** *Advanced Crop Science*

**Unit:** VIII. Wheat and Small Grain Production

**Unit Objective:**

Students will apply basic principles of wheat and small grain production by devising a calendar that follows a variety of wheat or small grain from field preparation through marketing.

**Show-Me Standards:** 1.8, SC8

**References:**

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

Grains. MU Extension. University of Missouri-Columbia. Accessed October 31, 2003, from <http://muextension.missouri.edu/explore/agguides/crops/#Grains>.

Small Grains. Minnesota Association of Wheat Growers. Accessed November 11, 2003, from <http://www.smallgrains.org/>.

University of Missouri Small Grain Production Page. Accessed October 31, 2003, from <http://www.psu.missouri.edu/cropsys/Wheat/>.

Students may use additional outside sources to complete this activity.

**Instructional Strategies/Activities:**

- Students will engage in study questions in lessons 1 through 8.
- Students will complete AS 2.3, Wheat and Small Grain Diseases; AS 3.1, Making Planting Decisions; AS 5.1, Determining the Corrective Action; and AS 6.1, Determining Grain Loss and Moisture.
- Additional activities that relate to the unit objective can be found under the heading "Other Activities" in the following locations: p. VIII-5 (1) and p. VIII-20.

## **Advanced Crop Science**

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### **Performance-Based Assessment:**

The instructor will randomly assign each student a variety of wheat or small grain discussed in the unit. Students will devise a calendar that follows their assigned grain from the planning stages through marketing. The calendar should include the appropriate time and a brief description of the student's management strategy for each of the following: planning the crop, tillage and planting method, pest control, scouting and maintenance, harvesting, marketing, and figuring costs. Students will present their calendar on a poster or in another format, as determined by the instructor.

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

**Unit VIII—Wheat and Small Grain Production  
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. Randomly assign each student a variety of wheat or small grain discussed in the unit. If preferred, divide students into groups and assign each group a type of wheat or small grain.
2. Have students design a yearlong calendar that follows their assigned grain from the planning stages through marketing. The calendar should include the appropriate time and a brief description of the student's management strategy for each of the following:
  - Planning the crop
  - Tillage and planting method
  - Pest control
  - Scouting and maintenance
  - Harvesting
  - Marketing
  - Figuring costs
3. Have students present their calendar on a poster, which will be displayed in class. If preferred, have students make their calendar using presentation software. Tell students what format is preferable. Adjust the student handout and scoring guide accordingly as needed.
4. Have students incorporate other elements, such as illustrations, as needed to make their calendar interesting and informative.
5. Students may use material found in the unit or discussed in class as well as additional outside material to complete their calendar.
6. Students may not use the source material word for word and must provide a complete bibliography of their sources along with their calendar.
7. Display completed posters in class.
8. The final assessment score will be based on the overall content and presentation of the production calendar.



**Unit VIII—Wheat and Small Grain Production  
Student Handout**

1. The instructor will assign you a variety of wheat or small grain.
2. Design a yearlong calendar that follows your assigned grain from the planning stages through marketing. The calendar should include the appropriate time and a brief description of your management strategy for each of the following:
  - Planning the crop
  - Tillage and planting method
  - Pest control
  - Scouting and maintenance
  - Harvesting
  - Marketing
  - Figuring costs
3. Present your calendar as directed by the instructor.
4. Include other elements, such as illustrations, as needed to make your calendar 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 calendar.
6. You may not use the source material word for word and must provide the instructor with a complete bibliography of your sources along with your calendar.
7. Your final assessment score will be based on the overall content and presentation of your production calendar.



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### Unit VIII—Wheat and Small Grain Production Scoring Guide

Name \_\_\_\_\_

Assessment Area	Criteria	0 Points	1 Point	2 Points	3 Points	4 Points	Weight	Total
Thoroughness	Calendar addresses all key topics and provides a thorough overview of crop production from planning through marketing	Failed	Poor	Fair	Good	Excellent	X 10	
Accuracy	Information is accurate	Failed	Poor	Fair	Good	Excellent	X 7.5	
Presentation	Calendar is well organized and eye-appealing	Failed	Poor	Fair	Good	Excellent	X 5	
Technical Considerations	Spelling, grammar, and punctuation are correct	Failed	Poor	Fair	Good	Excellent	X 2.5	
<b>TOTAL</b>								

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Final Assessment Total \_\_\_\_\_/100 pts.

Comments:

