

Agricultural Structures

Curriculum Guide: *Agricultural Structures*

Unit: II. Home and Farmstead Planning

Unit Objective:

Students will apply principles of farm and homestead planning by devising a farmstead plan and explaining their design decisions in paragraph form.

Show-Me Standards: 1.8, CA6

References:

Agricultural Structures. University of Missouri-Columbia, Instructional Materials Laboratory, 1999.

Agriculture Publications. MU Extension. University of Missouri-Columbia. Accessed August 25, 2003, from <http://muextension.missouri.edu/explore/agguides/>.

Cook, J. B., & Nickolaus, G. F. *Basic Procedures in Administration of Zoning Regulations: Appeals*. MU Extension. University of Missouri-Columbia. Accessed December 2, 2003, from <http://muextension.missouri.edu/explore/commdm/dm7613.htm>.

Cook, J. B., & Nickolaus, G. F. *Basic Procedures in Administration of Zoning Regulations: Making Applications*. MU Extension. University of Missouri-Columbia. Accessed December 2, 2003, from <http://muextension.missouri.edu/explore/commdm/dm7612.htm>.

Local regulatory agencies, such as the planning and development department, public works department, and county board of commissioners

Missouri Cooperative Soil Survey. Accessed March 22, 2004, from <http://soils.missouri.edu/>.

NASCO On-Line Catalogs. Accessed August 25, 2003, from <http://www.nascofa.com/prod/Home>.

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Instructional Strategies/Activities:

- Students will engage in study questions in lessons 1 through 3.
- Students will complete AS 1.1, Evaluating Home Sites; AS 1.1, Farmstead Planning; AS 1.2, Planning a Farmstead; and AS 3.1, Resources for Manure Management.
- Additional activities that relate to the unit objective can be found under the heading “Other Activities” in the following locations: p. II-7, p. II-18, and p. II-30.

Performance-Based Assessment:

Students will design a farmstead plan and explain their design decisions on separate paper in paragraph form. Students must explain how they designed their farm in relation to topography, wind, natural resources, type and size of business, service and utilities, home, neighbors, and how regulatory agencies would view the plan.

Assessment will be based on the overall content and presentation of the farmstead plan and explanations. Spelling, grammar, and punctuation also will be factors in the assessment.

**Unit II—Home and Farmstead Planning
Instructor Guide**

The instructor should distribute the student handouts and assign the performance-based assessment activity in conjunction with the relevant lesson material as indicated in the instructor guide. The activity will be due at the completion of the lesson.

1. Emphasize the importance of following local building codes and zoning laws when planning a farmstead. Discuss relevant building codes and zoning laws.
 - a. Information regarding building codes and zoning laws is available from local regulatory agencies, such as the planning and development department, public works department, and county board of commissioners.
 - b. General information about Missouri building codes and zoning laws is also available from the MU Extension, University of Missouri-Columbia, accessed December 3, 2003, from <http://muextension.missouri.edu/explore/agguides/>.
2. Use AS 1.2, Planning a Farmstead, to assess student competency at preparing a farmstead plan. Students will sketch the layout for their ideal farmstead and explain how their plan addresses the factors covered in the study questions for lesson 2. (The activity sheets Farmstead Planning and Planning a Farmstead are labeled AS 1.1 and AS 1.2, respectively, but are located in lesson 2.)
 - a. Have students design their farm plan as an aerial view to include all the facilities and indicate where they are located in relation to each other.
 - b. For a complete description of the activity, see AS 1.2, p. II-25.
 - c. Answers for this activity will vary.
 - d. If desired, have students present their farm plans on a poster instead of the activity sheet. Display completed posters in class.
 - e. If desired, have students design their farm plan using collage or presentation software. Have students present their plan to the class as an oral report. Adjust the student handout and scoring guide as needed.
3. The final assessment score will be based on the overall content and presentation of the farmstead plan and explanations. Spelling, grammar, and punctuation also will be factors in the assessment.
4. ADDITIONAL ACTIVITY: Have students research a particular code or regulation that affects farmstead planning in their area. What is the regulation designed to protect? How does it affect farmstead planning? Lead a class

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discussion in which students present their findings or have students explain their assigned regulation in a brief oral report.

**Unit II—Home and Farmstead Planning
Student Handout**

1. Using the activity sheet Planning a Farmstead, design your ideal farm. Draw your plan as an aerial-view map to include all the facilities and indicate where they are located in relation to each other. See the activity sheet for a complete list of instructions.
2. Explain, on separate paper in paragraph form, how your design addresses each of the considerations below.
 - ☐ Topography
 - ☐ Wind
 - ☐ Natural resources
 - ☐ Type and size of business
 - ☐ Services and utilities
 - ☐ Location of the home
 - ☐ Location of neighbors
 - ☐ How government agencies would view the plan
3. Your final assessment score will be based on the overall content and presentation of the farmstead plan and explanations. Spelling, grammar, and punctuation also will be factors in the assessment.

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Unit II—Home and Farmstead Planning Scoring Guide

Name _____

Assessment Area	Criteria	0 Points	1 Point	2 Points	3 Points	4 Points	Weight	Total
Farm Plan Design	Plan addresses all discussion question topics and represents a good, workable design	Failed	Poor	Fair	Good	Excellent	X 8.75	
Written Explanation of Plan Design	Responses are complete and facts are accurate	Failed	Poor	Fair	Good	Excellent	X 8.75	
Presentation	Plan 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	
TOTAL								

Final Assessment Total _____/100 pts.

Comments:

