

MS Ag Education: Level 2 (2025)

Ag Systems

Animal Science

- 1 Analyze the role and importance of different livestock production systems (beef, dairy, pork, equine, and small ruminant.) **OB1**
- 2 Differentiate 4-5 major animal breeds per species (beef, dairy, swine, poultry, equine, companion.) **OB2**
- 3 Identify the major components and functions of animal digestive systems (ruminant and non-ruminant.) **OB3**

Plant Science

- 4 Explain the requirements necessary for photosynthesis to occur. **OB4**
- 5 Identify the products and byproducts of photosynthesis. **OB5**
- 6 Explain the structure and function of the reproductive parts of a plant. **OB6**
- 7 Explore the areas of horticulture and crop production (floriculture, nursery/landscape, orchards/gardens, row crops, forages.) **OB7**

Natural Resources

- 9 Describe renewable and non-renewable natural resources and energy sources. **OB9**
- 8 Discuss how agricultural practices positively and negatively impact the environment and natural resources (cover crops, no-till, timber management, manure management, fish stocking.) **OB8**
- 9 Describe renewable and non-renewable natural resources and energy sources. **OB9**
- 10 Assess ecosystems in terms of sustainable habitat management. **OB10**

Agricultural Power, Structural, and Technical Systems

- 11 Perform basic measurements using a tape measure or ruler. **OB11**
- 12 Identify and safely operate basic hand tools (saw, level, screwdriver, hand tools, etc.) **OB12**
- 13 Identify common safety signs and terminology. **OB13**

Consumerism

Consumerism

Analyze the impact and changes throughout the history of American agriculture. [OB14](#)

14 Analyze the impact and changes throughout the history of American agriculture. [OB14](#)

Describe agricultural practices that ensure a safe and reliable food supply. [OB15](#)

15 Describe agricultural practices that ensure a safe and reliable food supply. [OB15](#)

Investigate and differentiate food labels (nutritional facts, health claims, production practices) [OB16](#)

16 Investigate and differentiate food labels (nutritional facts, health claims, production practices) [OB16](#)

Demonstrate safe methods for food handling, preparation, and storage in the home. [OB17](#)

17 Demonstrate safe methods for food handling, preparation, and storage in the home. [OB17](#)

Explain how factors such as culture, convenience, access, and marketing affect food choices. [OB18](#)

18 Explain how factors such as culture, convenience, access, and marketing affect food choices. [OB18](#)

Careers

Careers

Demonstrate ability to wear appropriate PPE for the career site. [OB19](#)

19 Demonstrate ability to wear appropriate PPE for the career site. [OB19](#)

Design and carry out a Supervised Agricultural Experience (SAE) program based on career goals and industry needs for each individual. [OB20](#)

20 Design and carry out a Supervised Agricultural Experience (SAE) program based on career goals and industry needs for each individual. [OB20](#)

Exhibit critical thinking and problem-solving skills to locate, analyze, and apply information in real-world situations. [OB21](#)

21 Exhibit critical thinking and problem-solving skills to locate, analyze, and apply information in real-world situations. [OB21](#)

Leadership

Develop goals related to leadership, personal growth, and career success. **OB22**

Effectively communicate and collaborate with peers through reading, writing, and speaking. **OB23**

Seek and capitalize on self-improvement opportunities through school and community groups including the National FFA Organization. **OB24**

Leadership

22 Develop goals related to leadership, personal growth, and career success. **OB22**

23 Effectively communicate and collaborate with peers through reading, writing, and speaking. **OB23**

24 Seek and capitalize on self-improvement opportunities through school and community groups including the National FFA Organization. **OB24**