**Agriculture in Society**

**Unit 2:** Animal and Livestock Production in Agriculture

**Lesson 1:** Animal Agriculture

**Lesson 1.8:** Feeding Livestock

State Orientation to Agriculture in Society Standards:

**OAS 3.05** Describe and practice feeding strategies for livestock animals in Oklahoma

National AFNR Standards:

**AS.03** Design and provide proper animal nutrition to achieve desired outcomes for performance, development, reproduction, and/or economic production

Student Learning Objectives:

1. Students will describe feeding strategies for at least 1 major species of livestock in Oklahoma
2. Students will utilize a Pearson square to create a desirable feed ration

Outside Resources

1. Ag in the Classroom
   1. [They Don't Just Eat Grass](https://cdn.agclassroom.org/ok/lessons/beef/grass.pdf)
      1. **Lesson Plan and Activity-** Students will read about healthy feeding programs for farm animals. Students determine the best graphing method for information about animal nutrition and plot numbers provided. Students will relate information about balance in animal diets to balance in their own diets and mix their own balanced “rations.”
   2. [The Mystery Ration](https://oregonaitc.org/wp-content/uploads/2020/02/The-Mystery-Ration.pdf)
      1. **Lesson Plan and activity-** Students will discover the nutrient requirements od dairy cattle through a series of escape boxes. They will be tasked with calculating rations.
2. Food and Drug Administration
   1. [Animal Feed Lesson Plan: See, Touch, and Do](https://www.fda.gov/animal-veterinary/animal-health-literacy/animal-feed-lesson-plan-see-touch-and-do)
      1. **Lesson Plan, PowerPoint, Activities-** This lesson plan teaches students about a career as a livestock nutritionist, and has students create a feed ration using different kinds of cereal.
3. Ohio State University
   1. [Nutrition Lessons - OH](https://ohio4h.org/livestock/animal-sciences-lesson-plans)
      1. **Lesson Plans, Activities-** This resource provides a wide variety of resources under the “Nutrition” section that can be used to or adapted to align with the standard. The “what do dairy cows eat?” lesson, “Feed Labels,” and “5 basic nutrients are the best resources to accomplishing the standard.
4. OER Commons
   1. [Meeting the Nutritional Needs of Animals](https://oercommons.org/courseware/lesson/100375/overview)
      1. **Lesson Plan, Activity-** This lesson helps students learn about the functions of feed, identify various feed types, and explain how animals are fed.
5. Colorado State University
   1. [Formulating Rations With the Pearson Square](https://extension.colostate.edu/topic-areas/agriculture/formulating-rations-with-the-pearson-square-1-618/)
      1. **Resource-** This resources is good to put on the projector/board and have students take notes as you explain how to formulate a ration with the Pearson Square
6. TechEd Resources
   1. [Pearson Square Problems](https://www.teched-resources.org/WORK_STATIONS/SCIENCE/HIGH-SCHOOL/Agricultural-Education-OR-Career-Tech/LESSON-4-Pearson-Square-Worksheet.pdf)
      1. **Worksheet-** This worksheet provides 4 questions where students will utilize a Pearson square to formulate a feed ration
7. North Carolina State University
   1. [Feed Rations Lab](https://edgecombe.ces.ncsu.edu/wp-content/uploads/2020/04/Feed-Rations-Lab.pdf?fwd=no)
      1. **Lesson, Activity-** This lesson is pretty similar to the lesson by the FDA, provides more information regarding feed requirements.
      2. **Lesson Plans, Slideshows, Activities, Exams-** This resource provides a variety of lesson plans and curriculum resources that could be used to encourage personal SAE development and record keeping
8. Grow Next Gen
   1. [Animal Nutrition](https://grownextgen.org/curriculum/animal-nutrition)
      1. **Library of Resources –** This resource provides a wide variety of different subjects and ways to teach them, including reading feed labels and formulating rations.