

 **Project 3.3.4 What Makes a Home?****Purpose**

When you woke up this morning, you may have stumbled out of bed and gotten dressed. Then you walked down the hall to the bathroom, brushed your teeth, and took your vitamins. As you walked out the door for school, you grabbed a fruit smoothie for breakfast and your lunch bag. This may seem routine to you, yet all your basic needs were met. You had shelter, food, and even preventative care. Do you have a plan to provide those necessities to the animals you produce?

As a future animal producer, you need to be prepared to provide shelter and the facilities for providing feed and care for animals. In this project, you will create a plan for facilities and develop the next portion of your *Producer's Management Guide*.

Materials**Per student:**

- Computer with Internet access and spreadsheet software
- 1 sheet blueprint paper
- Model facility building materials – to be chosen and provided by the student
- Graph paper
- Ruler
- Pencil
- *Agriscience Notebook*

Procedure

For this project, you will be creating a floor plan for the facilities for your animals. You will need to provide areas for their living, shelter, feeding, and health care needs. In this situation, you have a minimum of 25 head. You may opt to have a larger operation if you choose.

Part One – Facility Design

Many types of facilities and facility plans are used in producing livestock. As you develop a floor plan, keep in mind the stages of production of the animal and the seasonal differences of the region you researched in *Activity 3.3.1 Animal Needs*. Some considerations to be aware of throughout the design process are as follows.

- The type of building material you plan to use
 - Provisions for shelter to prevent heat and cold stress
 - Feeding area and access to clean, fresh water
 - Special needs for birthing – for instance lambing pens, nest boxes, farrowing crates
 - Area and equipment for safe handling and health care practices
 - Sanitation concerns and manure management
1. After reviewing the types of animal facilities commonly used in your industry, select a style that will work best for you. Refer to your research from *Activity 3.3.1 Animal Needs* for guidance.

2. Using the space requirements you researched in *Activity 3.3.1 Animal Needs*, begin laying out the plan for your facility. You may have more than one building site to your plan, for instance a group of pastures, pens, corrals, and working equipment.
3. Determine an appropriate scale for your drawing.
4. On graph paper, prepare a rough draft of the floor plan. Label the dimensions and main features.
5. Review the plan with your teacher and make any corrections necessary.
6. Prepare your final floor plan on the blueprint paper. You need to include the scale, dimensions, and a key.
7. Refer to *Project 3.3.4 Evaluation Rubric* for your reference.

Part Two – Construction

HOMEWORK: Build a scale model of your facilities. You may use whatever construction material you choose, as long as you can represent the components of your facility plan with it.

Include all features of the structure, such as handling equipment, flooring, and roofing. All roofing should be retractable to allow inspection of the building.

Model guidelines:

- Size – large enough to easily see and distinguish features, small enough to be easily portable.
- Scale – proportionate to drawing and actual dimensions.

Materials – creative, demonstrate the features of the design.

Conclusion

1. What other production-based knowledge would have been beneficial in the design process of the facilities?
2. What challenges did you encounter when transferring your design from a blueprint to a model?
3. If you were given more time, what would you change or add to your production facility design?