



**GREAT PLAINS**  
Center for Agricultural Health

## ***FarmSafe* in the Classroom: Model Farm Project Description**

**Visit [gpcah.org](http://gpcah.org) to find additional health and  
safety resources for Ag Educators**

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## **Model Farm Project for FarmSafe in the Classroom**

Assignments for *FarmSafe in the Classroom* also include guidance for how to integrate episodes into assignments that fit into a larger project we call “**Model Farm**”. These activities will support a multi-week / full term project that has students “designing” and “working” on a model farm. Students will be given assignments from the **FarmSafe Podcast** episodes to apply to this “Model Farm”.

To make this a long-term project, we suggest that a class be assigned to design/work in a specific farm for the period of a term or at least multiple weeks. This “farm” needs to be defined (size, location, as much detail as the instructor wants to give) so that a team of students is working with this same space over many week (such as the full semester.) In this design, there should be a specific “land” determined (real or otherwise): depending on the class, this can be selected by either the students or the instructor. For example, pick a plot of land using plat information or a real estate listing for a farm for sale. Or, use a community farm (educational, other) on which to base the semester’s project (see example in Attachment A). Then, the students will need to determine production, equipment, and placement of buildings, equipment, storage, and livestock, which will be based on concepts learned in class *and* across multiple **FarmSafe Podcasts**.

The “**Model Farm Project**” set of assignments helps instructors address the core competency in Common Core WSL10, which ask to write routinely over extended time frames that allows for time and reflection, resulting in a project that suggests and justifies multiple best practices to be integrated into the layout and design of a farm based on topics covered in **FarmSafe Podcasts** (and which could also include other aspects included in the regular curriculum).

The following episodes are useful to integrate into a **Model Farm Project**. Bolded items have activities already developed. See the materials in full by visiting the Episode file’s classroom activity page:

- **Tractor Safety (S3E3)**  
Assignment Option #5: Build a shopping cart of high-visibility tools to improve tractor visibility
- **Grain Bin Safety (S3E5)**  
Assignment Option #3: Lockout-tagout system design
- **Overhead Power Lines (S3E15)**  
Assignment Option #3: Design equipment storage and use with overhead lines in mind
- **Emergency Preparedness (S3E11)**  
Assignment Option #5: Mapping Model Farm for Emergency Preparedness

Additional assignments are in production for the following episodes:

- March Mudness (S2 E8):  
Pre-planning response to deal with vehicles trapped in mud
- Manure Gas Safety (S1 E21):  
Tips for preventing asphyxiation in manure handling operations
- Falls on Ice (S1 E11):  
Considerations to minimize surfaces to prevent winter falls on ice

## Example Farms

To perform the full Model Farm project, a “farm” needs to be selected to apply lessons to throughout a period of time.

The class will want to identify on maps of this farm include:

- Address, GPS coordinates, and phone numbers
- Structures, by type,
  - o Including where tractors and implements are stored, maintained, and drive.
  - o Grain loading/unloading areas
  - o Manure storage areas
  - o Animal buildings
- Power: power poles at roadway, above and below ground lines to buildings
- Slopes: Is the ground flat or is there elevation?

Visit [Farm Mapper](#) for examples of using ICONS to identify demonstrating how to identify hazards and resources on the farm.

To follow are two “farm options”, but use google maps with satellite view to get overhead of your “model farm”.

Then, there are the short descriptions of activities to include over the semester/quarter that map activities to FarmSafe podcast episodes. (This will be updated with additional episodes over time.)

Option 1 (note power lines are on the RIGHT side of the road, below; another property is down the road going to the RIGHT of the image)



Option 2: Livestock buildings separated from homestead. (Power lines on the south side of the 580<sup>th</sup> St.)



## **Activities by *FarmSafe* Podcast Episode**

### **For Grain Bin Episode (S3E5):**

Identify equipment and procedures to lockout critical grain bin energy sources prior to allowing a grain bin entry. Look up devices and signs and prepare an equipment list for such a program.

Critical components should:

- Restrict access until all energy is removed (lock the access doors and post signs)
- Turn off all energy sources that allow grain to flow (augers off) and sweeping mechanisms
- Identify switch-lock (internet) to ensure no one can turn on energy during entry

### **For Overhead Power Lines Episode (S3E15):**

Identify hazards and solutions to prevent contact with overhead power lines. These include:

- Power lines near grain bins: Identify where to load/unload grain relative to these power lines
- Prohibit storing items under power lines (consider things that can blow (bale covers) or flip (irrigation pipe) and connect with power lines
- Opening equipment (e.g., sprayers, planters) that could contact power lines: specify locations where it is SAFE to open these implements and determine where/how equipment should be stored to minimize the risks?

### **For Tractor Episode (S3E3):**

Build a shopping cart for high-visibility tools to improve visibility of EACH tractor and implement that might travel on public roadways. This includes:

- Conduct inventory of vehicles and implements
- Lights (there are magnetic flashing lights) – Amber flashing; red solid
- Retroreflective tape (Red and orange for widest parts; yellow to mark sides)

### **For Emergency Preparedness (S3E11):**

Identify relevant items to include on emergency preparedness map (generate initial list from podcast). Then, annotate the Model Farm map to include a map of all information needed to prepare for emergencies (shelter-in-place, evacuation, or medical) that could occur on the farm.

- Resulting product is a map that would be integrated into an emergency plan
- This reinforces where to locate supplies and where hazards exist to warn responders to avoid