

Cowboy Classic 2013
Agricultural Technology and Mechanical Systems
Team Activity: Gardening Scenario

Event Format:

- A. Equipment Provided:
 - 1. No. 2 pencils.
 - 2. Calculator – participants will be allowed to provide their own.
 - 3. Scratch paper for problem solving.

- B. Objective:

The team activity evaluates the ability of team members to work together while using decision-making and problem analysis skills by applying concepts taught in horticulture and plant sciences.

- 1. Members of a team work together cooperatively to complete this section.
- 2. Sixty (60) minutes are allowed for completion of the team activity. At the end of the activity, each team submits the completed documents to be scored.
- 3. The team activity involves the use of construction skills and the resource information.
- 4. The team activity has a maximum value of 400 points per team and is only included in the team score
- 5. All team members must be involved in the team activity to receive credit. If a team has two or less participants no credit will be allowed in the team portion of the event.

Directions:

Work as a group to complete parts A, B, and C. While you are working you will be evaluated by an observer on your ability to work as a team. You have 1 hour to compile your answers in either a Microsoft Word or Excel Document. Your document must include a cover page, a description of the activity, a description of each team member's role, calculations, justification about how you reached your answer, as well as proper formatting.

Scenario:

Your school was recently given a plot of land. To enhance your Greenhand FFA degree, your chapter decided to use this land for a gardening plot. In addition to enhancing your FFA program your chapter also plans to sell the produce you grow to help in building your chapter's bank account. Through extensive research about plants that can be grown in your area, as well as your research on public demand of produce your chapter has decided to grow 5 varieties of plants (Tomato, Lettuce, Spinach, Peas and Green Beans). Use this information to complete the following problems.

Part A (Calculations work= 30pts/Calculations justified =20pts):

Now that you have decided what plants to grow, you will need to design a garden plot large enough to support growth for all of your plants. You know that each plant type has different spacing requirements. Using the seed packets provided, determine how many square feet your garden plot will need to be. We have listed below the number of each type of plants that you will be planting in this space. Please provide your answer, as well as calculations for this question.

Tomato	25
Lettuce	16
Spinach	10
Peas	60
Green Beans	10

Part B (Calculations work= 25pts/Calculations justified =25pts):

While you were looking at the seed packets to determine seed spacing requirements, you noticed that each plant has a different maturity rate. In order to ensure that your plants are ready for harvest before first frost (which in our area is September 11) and are ready around the same time for your chapter sale, you need to plan out when each plant variety needs to be planted. Using the seed packets as well as the calendar provided determine when each plant must be planted to ensure a successful harvest.

Part C (Calculations work= 20pts/Calculations justified =20pts):

A member of your community is having weed problems in their garden, you run into them in town and they ask you for advice on how to naturally get rid of the weeds that have overtaken their garden. You remember that in class you learned about using a vinegar mixture as a natural weed killer. The recipe for it is as follows:

Cider vinegar	2 cups
Lemon juice concentrate	3 tablespoons
Rubbing alcohol	1 ounce
Dish soap	2 teaspoons
Water	50/50 diluted mix

*Each batch will cover 3.25 square feet.

The garden area to be sprayed is 93 square feet. How many whole batches will he need to make to take care of his garden, and how much of each ingredient will be needed? For ease of making you will need to convert each measurement into larger units(a conversion table has been included) . Keep in mind that the total amount may not be an exact cup, so other measurement units may still be applicable. Example: 24 cups and 3 teaspoons.