

2011 Floriculture CDE
Problem Solving Component

Team Number _____

Score _____

Each problem is worth 20 points

Show all work for each problem

FFA CDE Team Event (Floriculture Scenario):

You are a wholesale greenhouse grower specializing in annual bedding plants and pot crops. Answer the following questions pertaining to this situation.

Problem 1: (10 point value)

You are growing geraniums on 25 benches that are 4' wide x 10' long. How many total square feet of bench space do you have devoted to growing these geraniums?

- a. 40
- b. 400
- c. 1000
- d. 4000

Problem 1a: (10 point value)

Also if each geranium needs $\frac{1}{2}$ square foot of growing space, how many geraniums are you growing in the total square space?

Problem 2: (10 point value)

If each 2.8 cubic foot bag of potting media fills (50) 6 inch pots, how many bags of potting media will be needed to plant the geranium crop?

- a. 10
- b. 5
- c. 40
- d. 100

Problem 2a: (10 point value)

If each bag cost \$11.00 what is the total cost of potting soil needed?

Problem 3: (20 point value)

Excel 15-5-15 Cal-Mag is a water soluble fertilizer that is applied to a geranium and greenhouse crops to promote root development and maintain canopy growth? You should use 8 oz of fertilizer in one gallon of concentrate through a fertilizer injector and use 2 gallons of concentrate a week. The geranium crop will take 8 weeks to finish and a bag of fertilizer cost \$31.00 per 25 pound bag. What is the total cost of fertilizer used to grow this geranium crop? (1 Pound = 16 oz)

- a. \$13.60
- b. \$8.16
- c. \$9.92
- d. \$4.49

Problem 4: (20 point value)

If each geranium cost \$2.00 in total production costs and you want your net profit on the entire crop to be \$1000, what would you need to sell each geranium for?

Problem 5: (20 point value)

The geranium crop will be watered from a drip irrigation system. Each emitter provides $\frac{1}{2}$ gallon of water per hour. The system will run 30 minutes, 3 days a week. How much water will be used during the 8 week production cycle?

- a. 3000 gallons
- b. 1500 gallons
- c. 12000 gallons
- d. 1000 gallons