

Greenhouse Technology class

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Do your work on your own paper.

Day 1

Recently you decided to start a greenhouse operation to propagate new plants. You will nurture them until they reach the size to be sold for a profit.

Task: List 3 methods of plant propagation that could be used in your operation. Explain the pros and cons of using each method.

Day 2

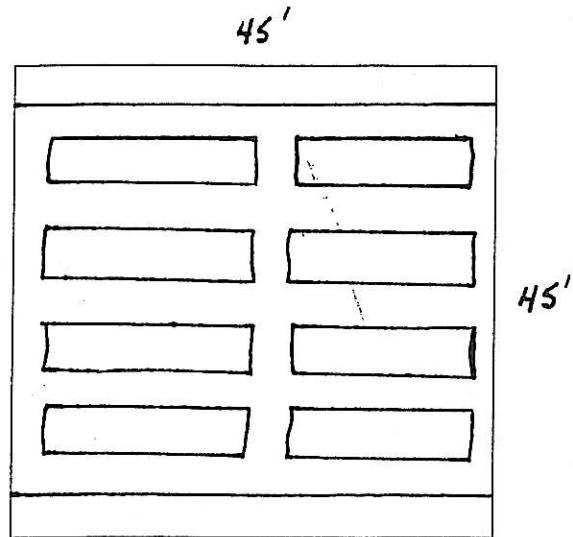
Ms. Jones has a home greenhouse where she grows 10 Boston Ferns. She waters her ferns by drip irrigation using pressure compensating emitters. The emitters deliver 1.0 gph (gallons per hour) at 15 to 30 psi. Each fern will be watered 3 times a week for 10 minutes using 2 emitters per plant. How many gallons of water is needed per week for all the ferns if the pressure is 35 psi. (Round up to the nearest whole gallon)

Day 3

You have been employed by a local greenhouse operation as a part time employee. One of your duties while watering is to inspect the mum crop for insects. You have noticed an infestation of aphids on the plants that are ready to ship to a florist. Therefore, you know you need to treat the plants with a pesticide.

Task: Identify three safe handling procedures you would follow prior to applying a pesticide and two safe handling practices you would follow post application. Explain the importance of each safe handling practice.

Day 4



Given: Long back benches are 2.5' X 45'

Smaller benches are 4'X16'

1. What is the area of the greenhouse?
2. What is the area of the benchtops?
3. If each pot needs a space of 6" X 5," how many pots will fit on the benches?

Day 5

Given:

Injector Ratio	100 ppm Nitrogen	150 ppm Nitrogen	200 ppm Nitrogen	400 ppm Nitrogen	Nitrogen Strength
Ounces of fertilizer per gallon of concentrate					
1:16	2.1	3.2	4.3	8.5	10%
1:50	6.67	10.0	13.33	26.66	10%
1:100	13.3	20.0	26.7	53.3	10%
1:200	26.7	40.0	53.3		10%
1:16	1.4	2.1	2.8	5.7	15%
1:50	4.5	6.75	9.0	18.0	15%
1:100	9.0	13.5	18.0	36.0	15%
1:200	18.0	27.0	36.0		15%
1:16	1.1	1.6	2.1	4.3	20%
1:50	3.4	5.1	6.8	13.5	20%
1:100	6.8	10.2	13.5	27.0	20%
1:200	13.5	20.3	27.0	54.0	20%

Fertilizer recommendations for Zonal Geraniums calls for 350 ppm Nitrogen once per week. How many ounces of water soluble fertilizer (20-10-20) would be needed while using an injector ratio of 1:100?