

## 2007 Floriculture Practicum Identifying and Controlling Plant Disorders

Scenario: The judge is a greenhouse grower who needs help. The plant specimens are brought in to determine the problem. If treatment is necessary, the student will describe the preparation and application of the treatment.

**Judges ask these questions; each question is worth 10 points. Maximum correct score is 100 points. Participants should not touch the plants.**

**1. What type of plant is this?**

*Impatiens, a bedding plant crop*

**2. Why are these plants growing differently?**

*The correct answer is improper watering, over watering, or drought stress.*

*Commercial answer: Irrigation has been incorrectly applied. One pot has been grown too dry and one was appropriately watered.*

**3. What can I do about the problem?**

*Cultural control: Apply irrigation to the plants when needed in a volume that allows the pots to drain from the bottom.*

*Commercial answer: Apply irrigation evenly to the crop when pots reach 30-40% water holding capacity based on weight.*

**4. If I look on the undersides of the leaves, I see dark splotches. Are these related to the diagnosed problem?**

*No, these are consistent for both plants and therefore not related to the drought stress.*

*Commercial answer: No, these are consistent for both plants and likely a characteristic of the impatiens cultivar being grown.*

**5. If I look at these yellow cards, I see some insects attached to them. What are the circled insects?**

*These are fungus gnats.*

**6. Should I be concerned about these insects in this crop?**

*Fungus gnats are a pest in most greenhouse crops, are easily controlled with cultural and chemical tools, and therefore likely not an issue in this crop.*

*Commercial answer: Fungus gnats are a pest in most greenhouse crops; however when there are high populations of the pest or young plants this pest can cause significant damage to crop roots. This reduces crop growth and quality. As such, most greenhouses manage this pest with cultural or chemical measures.*

**7. How are these yellow cards used in a greenhouse?**

*Yellow sticky cards are used to monitor flying greenhouse pests, such as fungus gnats. Growers can then determine what insects are present and decide if the pest needs to be managed.*

**8. Why are these cards colored yellow?**

*Yellow is attractive to most flying insects and therefore lures the insects toward the sticky area where they are trapped.*

**9. What are these small yellowish spheres on the soil surface?**

*These are granules of a slow release fertilizer such as Osmocote.*

**10. How will these yellow spheres impact this crop?**

*This fertilizer will provide the nutrients needed for the crop to properly develop.*