

Problem Solving: Pests of Food Crops and Ornamental Plants Knowledge Check **KEY**

In the GBL Learning Library - Core Preparation Sessions
this is Section 4.3a in Module 4: Problem Solving

1. What are the ABCD's of submitting samples to the Plant Disease and Insect Diagnostic Labs, for accurate and timely results? (From Test Don't Guess Brochure: Cornell University Plant Disease Diagnostic Clinic)

Ask questions prior to submitting a sample

- Review this brochure, refer to our websites or call ahead to determine what type of material should be included in the sample
- Check with staff to determine if holidays may interfere with the receipt of samples

Be observant

- look around the area of concern
- note characteristics of the damage
- stand back and consider the big picture, then note

the damage to the entire site, on individual plants and on individual plant parts

Collect a quality, representative sample

- Gather material with a broad range of symptoms including early to late stages of symptom expression
- collect material prior to any pesticide applications

Details should be provided with the sample material

1. Fill out the submission form carefully and completely
2. Describe the situation with details about when it first occurred, the plant(s) affected and level of damage
3. include the location and date of collection
4. Always include all your contact information so the diagnostician can contact you with questions and provide you with answers efficiently shipping of material for analysis

2. What are best methods and tips for shipping materials for analysis?

(From Test Don't Guess Brochure: Cornell University Plant Disease Diagnostic Clinic)

- Send material using the fastest means possible
- Ship early in the week to avoid your sample spending the weekend in a post office or warehouse
- If you can't send material immediately, keep it refrigerated until you can

3. Dead plant samples are as good as live samples for proper diagnosis. True or False

Select specimens that display a range of symptoms. Try to include plants that show early examples of the problem and those with increasing levels of damage. Do not include what appears to be dead material; this material may no longer include the primary source of the problem. (From Test Don't Guess Brochure: Cornell University Plant Disease Diagnostic Clinic)

4. Avoid using railroad ties, telephone poles, pressure-treated wood and some painted wood, because they contain chemicals that can get into vegetable garden soil. **True** or **False**

Avoid treated wood, railroad ties, telephone poles, pressure-treated wood and some painted wood contain chemicals that can get into soil. (From What Gardeners Can Do: 10 Best Practices for Healthy Gardening from <http://cwmi.css.cornell.edu/healthysouls.htm>)

5. What are the steps to help guide your observations and fact collection when making conclusions for vegetable and fruit problems?

(From Plant Diagnostics: What is "wrong" with my plant?)

1. Know what is normal to determine if a 'REAL' problem exists.
2. Check for symptoms. Symptoms can be categorized as:
 - a. Underdevelopment of tissues or organs.
 - b. Overdevelopment of tissues or organs.
 - c. Necrosis or death of plant parts.
 - d. Alteration of normal appearance. Examples include mosaic patterns of light and dark
3. Check for signs.
4. Ask lots of questions.
5. Final Diagnosis

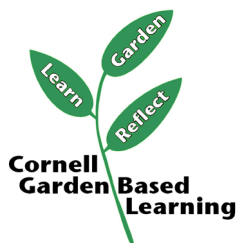
Laboratory Tests

Refer to local county Diagnostic Labs and Cornell Resources:

Insect Diagnostic Laboratory - <http://idl.entomology.cornell.edu/>

Plant Disease Diagnostic Clinic - <http://plantclinic.cornell.edu/>

Cornell soil test guidance - <http://cwmi.css.cornell.edu/GuidanceSoilTesting.pdf>



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