Background

Non-commercial growers, commercial crop producers and lawn/landscape professionals require accurate diagnosis of their crops’ disease and abiotic problems (e.g. chemical injury, environmental stress, cultural problems) in order to implement appropriate pest management tactics. Commercial growers also must avoid crop loss and poor crop quality to ensure profitability. Accurate plant diagnosis is the foundation for healthy lawns, landscape and crop production and for development of an integrated pest management program, which aligns with the Virginia Tech College of Agriculture and Life Sciences’ Agricultural and Environment Sustainability initiative.

In 2012 the Plant Disease Clinic, a service lab to Virginia Cooperative Extension offices, received 1,553 samples and diagnosed 1704 plant problems. Twenty-one percent of samples were from commercial growers. Additionally, 103 phone and 106 email inquiries were answered and 87 digital diagnoses were made.

The Plant Disease Clinic electronically surveys clientele for whom they have email addresses annually in November. A limitation of this survey method is that we do not have email addresses for all growers and not all growers, particularly those in rural areas where many of our commercial growers live, use email. We rely on grower email addresses that are included on the diagnostic form and encourage Extension agents, staff and clientele to include a grower email address on the Plant Disease Diagnostic form when applicable. (Note: There is a box for the grower email address on the most current Plant Disease Diagnostic form.)

Results of the Plant Disease Clinic Post-season Grower Survey

In 2012 we had a response rate of 31% from non-commercial growers surveyed (123 respondents) and a 30% response rate from commercial growers surveyed (21 respondents). The results of both surveys are posted separately in chart format below:
2012 Commercial Grower Survey Results

Figure 1. Select one production area that best describes your operation:

- vegetables for processing: 43%
- greenhouse: 0%
- field crops: 13%
- other: 6%
- nursery: 31%
- vegetables/herbs for fresh market: 14%
- Christmas tree: 0%

Figure 2. Select one production method that best describes your operation:

- conventional production: 52%
- sustainable production: 29%
- organic production: 14%
- other: 5%
- no answer: 0%
Figure 3. By what means do you generally receive your Plant Disease Clinic diagnostic report(s) [check all that apply]:

- Electronically: [90%]
- Hardcopy through postal service: [10%]
- Results are communicated via telephone call: [20%]
- Other: [5%]

Figure 4. My experience using the Plant Disease Clinic (check all that apply):

- I understood the diagnostic report: [70%]
- My Extension agent discussed diagnostic results and recommendations with me: [40%]
- My Extension office provided additional information to me to supplement the diagnostic report: [30%]
- None of the above apply to my Plant Disease Clinic results: [10%]
Figure 5. In general, do you think the Plant Disease Clinic diagnostic services (check all that apply):

- Ensure accurate diagnosis
- Allow you to develop a more strategic integrated pest management approach in your operation
- Increase the quality of your crop
- Increase profitability
- Ensure pesticides are only used when a clear benefit will result
- Reduce pesticide inputs
- None of the above apply

Percent
Figure 6. In general, do the Plant Disease Clinic services increase your knowledge of (check all that apply):

- Pest/disease and abiotic problems (non-living problems, such as improper soil pH, chemical injury, environmental stress)
- Pesticide control options
- Alternative pest/disease control options (those other than pesticides)
- None of the above

Figure 7. I value the services provided by the Plant Disease Clinic.
2012 Non-commercial Grower Survey Results

**Figure 1.** By what means do you receive your Plant Disease Clinic diagnostic reports? (check all that apply):

- Electronically
- A hardcopy through the postal service
- They are communicated via a telephone call.
- Other

**Figure 2.** Do you or would you use (check all that apply):

- Synthetic pesticides
- Organic pesticides and/or biologicals
- Other
Figure 3. Check all that apply:

- I understood the diagnostic report.
- My Extension agent discussed the diagnostic results and recommendations with me.
- Supplemental material (other than the diagnostic report) was provided to me.
- Other
- I did not understand the diagnostic report.

Figure 4. The Plant Disease Clinic services (check all that apply):

- Help me identify plant problems accurately
- Increase my understanding of plant disease and/or abiotic problems (non-living problems, such as nutritional deficiency, chemical injury, environmental stress)
- Increase my knowledge of alternative control tactics (those other than pesticides, such as removing leaf litter, pruning out dead wood, avoiding overhead irrigation)
- None of the above
Figure 6. I value the services provided by the Plant Disease Clinic.