## **PROBLEMS WITH MISDIAGNOSIS**

**ARC:** Margery, how much do you hate guessing what is wrong with a plant? I still remember having growers call me when I worked at the University of Florida research center in Apopka in the early 1980s. They would describe the "disease" as having brown spots and want to know what it was and how to control it. I even had one lady refuse to bring in a leaf sample because of her high level of attachment to her entire plant. **MLD:** I've had some very funny calls where a grower I've never met describes his fertilizer program, pot sizes and fungicide treatments in detail, and all the symptoms on the crop — in a taking-no-breaths monologue — but doesn't mention what the crop is. When they eventually take a breath, I ask because as you know, what diseases are likely is completely driven by what crop you grow. If you are sick of downy mildew, grow begonias. What else do you want to know besides the crop? **ARC:** I always feel like I am asking for big secrets, but I want to know what they have been doing to fix a problem. This is sometimes the clue needed to confirm what I think may be phytotoxicity and not a disease symptom. It is usually hard information to come by and I think that is because almost nobody actually likes to keep records. I have always wondered where the questions come from on sample submission sheets. I wanted to know the same things for a sample submission when we were running our diagnostic lab too. For instance, why do diagnostics ask how long it has been a problem or the percent of the crop with symptoms or even how bad the problem is?



**ARC:** I am often confronted with a situation where the grower has gotten a diagnosis (or guessed) and been treating with something that might work but not the most effective products. They are understandably frustrated. Even when the diagnosis is correct, deciding the best things to do may be tough. That is why I always want to know what they have done already. I hate to suggest something they have tried that isn't working, or something impractical for the specific situation.

**MLD:** Maybe forms that ask "how long it has been a problem" so the diagnostician has some leverage when the submitter wants an answer in eight hours but has been looking at the problem for two months! But, I do like the "percent showing" question: I work with some growers who are perfectionists, and some who don't call until the sky has already fallen, so it's helpful to know if this is one runty plant or a true production disaster brewing. "How bad is the problem?" seems an absurd question — that's what we are going to be figuring out for them by identifying it. My favorite on forms are the pattern questions, although these are usually better carried out in a conversation with the grower. I really do want to know if the problem is throughout, in one cultivar, only in the plants potted in the new mix, only next to the vent, only in the ones sprayed with "x" fungicide last week.

**MLD:** It can be hard to change a grower's mind when he/she has already decided to a) blame the supplier or b) blame themselves. The quickest route to misdiagnosis is jumping to conclusions. Growers can blame a contagious disease when there has been a spray injury, or blame a spray injury when there is a nutrient deficiency or INSV problem. The trick is often for them to realize when they need help — an outside unbiased opinion of what factors are most likely to blame. Sometimes it also takes a plant disease diagnostic lab or a nutrient analysis lab to provide some data to substantiate one of the swirling speculations!

**ARC:** It is pretty hard to find a control strategy with the wrong diagnosis. Start by keeping records of what you are doing and changes made in how the crop is being grown. Finally, consider sending a sample to a lab. Often the shortest way to solve a problem is to admit you don't know what is wrong right away and involve an expert or two.



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