**IAA ADVANCE TRAINING: INSECT AND MITE PESTS**

**CLASS PROJECT: PLANT HEALTH CARE MANAGEMENT PLAN**

**Fall, 2023**

**This final project assignment will be due no later than 20 December 2023 and can be sent electronically to Fredric Miller (**[**fmento84@gmail.com**](mailto:fmento84@gmail.com)**). PLEASE SEND THE DOCUMENT IN WORD OR AS A PDF SO I CAN OPEN AND READ IT.** Thank you!

**ASSIGNMENT:** This final class project is designed to provide an opportunity for you to use your professional experience and knowledge gained in this IAA Advanced Training course and the workplace to develop a comprehensive Plant Health Care )PHC) management plan based on the scenario provided below. **Please note: There is no right or wrong approach, unless you decide to “nuke” the entire property with pesticides which will require me to flunk you** 😊. I encourage you to think outside the box, but at the same time make sure to meet your client’s expectations and be professional in your decision making. Have fun!

**SCENARIO:** It is late May (DD50 = 300 according to The Morton Arboretum PHC Newsletter), and you have just received a call from a residential client seeking your professional services in managing their landscape. You arrive at the site, meet the client, and ascertain they have a reasonable tolerance for pests and diseases. In other words, they do not feel their plants have to look perfect, but they do have a desire for their landscape to look presentable and the plants be healthy.

As you walk the property, you observe it is fairly diverse (a good thing) with a variety of woody plants and some mature trees, mostly oaks. The property is on a gentle slope in the front , but levels off in the back yard where it is basically flat with some depressed areas. The landscape beds are edged and mulched, but there are no mulch rings around the trees (i.e. turf is growing right up to the trunk). The viburnums appear to have some leaf-feeding going on. The leaves appear to look like window panes with most of the undersides of the leaves eaten. You look closer and see small yellowish larvae feeding on the undersides of the leaves. As you move on, you spot a magnolia with large flesh colored “bumps” on the twigs and branches. The leaves have a shiny look to them and when you touch them, they are sticky. There are about 4-5 of these “bumps” for about every 6-8 inches of twig length. The magnolias look a bit sparse and stunted. Your client then mentions that the oak trees in the backyard do not “look too good”. As you look up at these mature oaks, you notice stag-horning and dieback in the crown, sparse canopies (you can see daylight through the foliage) and the white oaks appear to be somewhat chlorotic. The turf around the base of the trees is really wet and even spongy with water coming to the surface where you step. This is quite puzzling, as there has not been a good rain for several weeks. A few small branches are laying on the ground from a recent wind storm and you see 1/8-inch diameter, “D-shaped” emergence holes up and down the branch. As you peel away the bark, you find very fine meandering galleries in the cambium and a few cream-colored larvae.

**PLANT HEALTH CARE (PHC) MANAGEMENT PLAN**

Using your professional knowledge and experience develop a comprehensive PHC management plan including, but not limited to the following:

* Properly ID all three of the plant issues described above
* Determine if any of the pests are serious and do they require management
* Using DDs, determine if the pests are in a vulnerable life stage for effective management
* Develop a list of PHC tactics that you could employ to manage the insect pests, if required,
* Going forward propose to your client future plant management steps to help the plants recover from their maladies and thrive
* Explain to your client your PHC management plan and why are you are taking these steps