

Bug Season Already?

By Charlie Mosse, March 2022

In the good old days, we had freezing nights every year. The difference from year to year was how long it was below freezing and just how low the temperatures were. Freezing nights of decent duration helped to control some insect populations. We do not see that anymore. Our current freeze situation is just a bit of frost in some select areas. Temperatures at or around freezing for an hour or two is not a freeze. It may do a tiny bit of damage to tender plants but it does little to kill off eggs etc.

What we see today is cool temperatures at night, not cold or freezing. Now let's add in daytime temperatures that are overall milder with more heat waves/spikes. The duration of the mild daytime temperatures is longer and the nighttime chill is of shorter duration. This scenario is a boon for insects. More generations per season can and do occur during the growing season and, if the mild weather continues into winter, we can see insects in December through February when in the past we would not see them.

Since we do not monitor insects with traps and calculate degree days, our job is to keep an eye out for insects. Since weather is milder these days, we need to watch out for insects pretty much 12 months a year. We do know or can easily find out which insects live on which plants, weather conditions that trigger us to look for certain insects and past trouble one has had.

A couple of good examples are spider mites on Shimpaku Junipers when the weather gets warm and dry for a long enough period of time, or white fly on Ficus in the warmer months. Due to milder winters, we can get outbreaks in the middle of our "winter" because we get these warm periods from the Santa Ana's like we saw this year. Case in point is that there is a 1-gallon Ficus microcarpa 'Tiger Bark' in the growing area at the Japanese Friendship Garden. Three different insects were observed on it at the end of January...mealy bugs, white fly egg masses and black scale. Fortunately, the insect populations were small but all were active. The white fly egg masses were not thick but were on every leaf! Fortunately, the eggs had not hatched yet but with the warm weather that started on February 6th and lasted for 2+ weeks, there would have been a significant hatching of eggs. The insects were controlled with an insecticidal soap and in the case of the hard scale, those were also physically removed. So, we do need to keep a watchful eye due to longer periods of milder and hotter weather, and also seriously consider a winter dormant spray even for evergreens.

Tidbit....This brings up the principle of "degree days". Using good weather data and knowing a particular insect's degree day threshold, one can figure about when to expect eggs to hatch and when to watch out for the insect. Professional container and field growers use this tool to determine when to lookout for insects and weeds. They also use insect traps, for a particular insect, to give them an idea of the insect population and how fast it is growing. This assists in knowing when to spray or deploy natural predators and biological control, if any of these are needed at all. We do not use degree days so we rely on inspecting our plants by eyesight, using a magnifier, and using common sense, which is that when the weather warms for a long enough period of time, say 2-3 weeks, then insects may be hatching or emerging.

The link below is from the University of California Ag and Natural Resources site. Again, we do not bother with this but it is informative and is a tool used by professional growers. Knowing an insect's life

cycle and triggers will help one reduce the time, expense and exposure to chemicals. Since we do not deal too many different insects and diseases, we learn over time how to keep them under control.

<http://ipm.ucanr.edu/WEATHER/ddconcepts.html>

We do have access to traps for common insects, if you are so inclined. There are also reliable sources for natural predators for insects and disease controls. One in particular is Arbico Organics. Arbico Organics has a fascinating site. They offer a very wide and deep selection of natural controls for pest and disease, and also offer growing supplies like fertilizers. Bonsai Mirai uses their products as do several of our members. It is a very interesting, eye opening and educational site to look through.

<https://www.arbico-organics.com/>

Tidbit...many insects of visible to the eye or under low magnification, some are not so apparent until the infestation is causing harm in some way. Spider mites are a chronic problem, particularly on junipers. In the case of mites, hold a piece of paper or your hand under a branch and firmly tap it several times. This will knock mites out of the branch where they are more visible. If the tiny dot moves, it is most likely a spider mite. Then you start your control of mites by washing the mites off with a strong fan spray of water. Wait for the plant to dry and then start your spray regimen with your preferred mite spray, per the label instructions. If the infestation is minor, you may be able to get away with just spraying off the foliage several times per week. Hose off in the morning so the tree can dry off before evening to help prevent the spread of disease like juniper tip blight. Also keeping the juniper open, that is not dense, then spraying off and the drying will be more effective.

If you have any questions about insects, their identification and control, please use the SDBC FaceBook site to post the question. The question and solution can be shared with many, or you can email the club. You will get a meaningful response because we have so many members with decades of experience growing bonsai.