Objective 1. Diagnosis of latent infection on foliage of strawberry propagation materials
Results

Samples were identified as positive when pathogen DNA amplified in both the sample and duplicate run, the difference between the two runs is less than 3 cycle threshold (Cts) and that both amplifications appear to have logarithmic growth. In sample set one (n=73), 61.64% of the strawberry tips were positive for *Colletotrichum* spp. and the plug plants (n=69) were 98.55% indicating a secondary spread during plug production stage. Set two tips (n=74) had 66.22% positive and the plugs (n=24) were 87.50% positive. Set three tips (n=60), had 15.00% positive and plugs (n=60), 96.67%. Set four tips (n=60) were 68.33% positive and plugs (n=60) 95.00%. Set five tips (n=25) resulted in 72.00% positive and plugs (n=64), 96.88%.

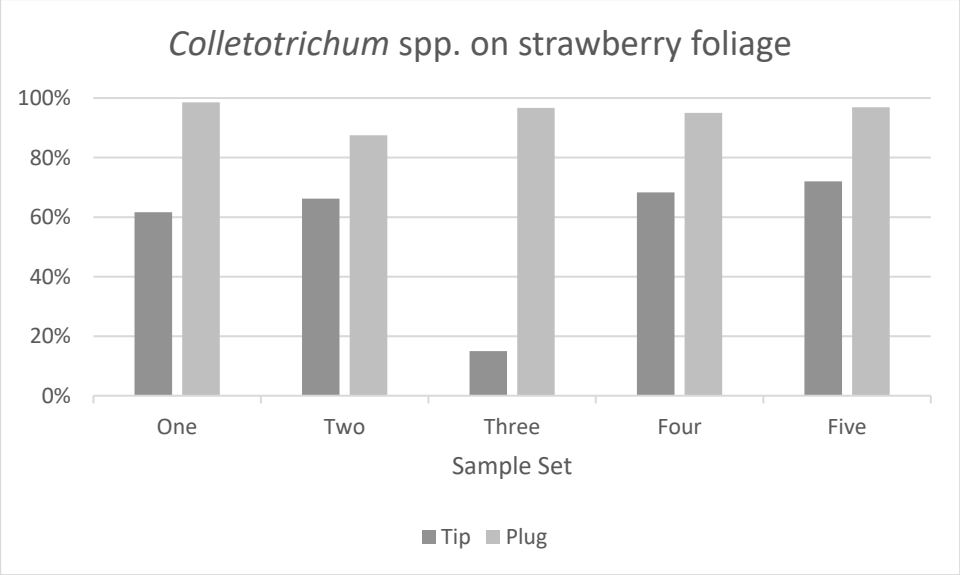

Figure 1. Percent of strawberry tips and plugs tested positive for *Colletotrichum* spp.

It is clear from the above graph that detection rate of Colletotrichum has gone up from tips to plug plants significantly. This information of positivity rate is important for the plug plant growers to justify fungicide applications during plug production stage. However, fungicide application especially from FRAC group 11 is highly discouraged due to the risk of resistance development when fruit producers will have to use products from the same group in fruiting field. This is based on perceived risk that needs to be investigated. By working with plug producers, we share the data with them and ask them to take best measures.