Evaluation of strawberry host plant resistance to powdery mildew in 38 genotypes under greenhouse conditions, winter 2026

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Thirty-eight strawberry genotypes from seven breeding programs were evaluated for powdery mildew susceptibility in a greenhouse trial at the Cal Poly Strawberry Center. Bareroot transplants were planted directly in a greenhouse on 22 January 2026 where powdery mildew-infected strawberry plants were present with high levels of sporulation. Transplants were planted in 1-gal. plastic nursery pots and were replicated four times, with each replicate consisting of three plants (one plant/pot) arranged in a randomized complete block design on greenhouse benches. Disease severity was based on the percentage of the upper and lower leaf surfaces covered by visible mycelial growth of each fully emerged trifoliate leaf. First symptoms of powdery mildew were detected 16 days after exposure to diseased plants in the greenhouse.



Figure 1. Visual comparison of disease severity. From left to right: 100% severity, 60% severity, 30% severity, 5% severity.

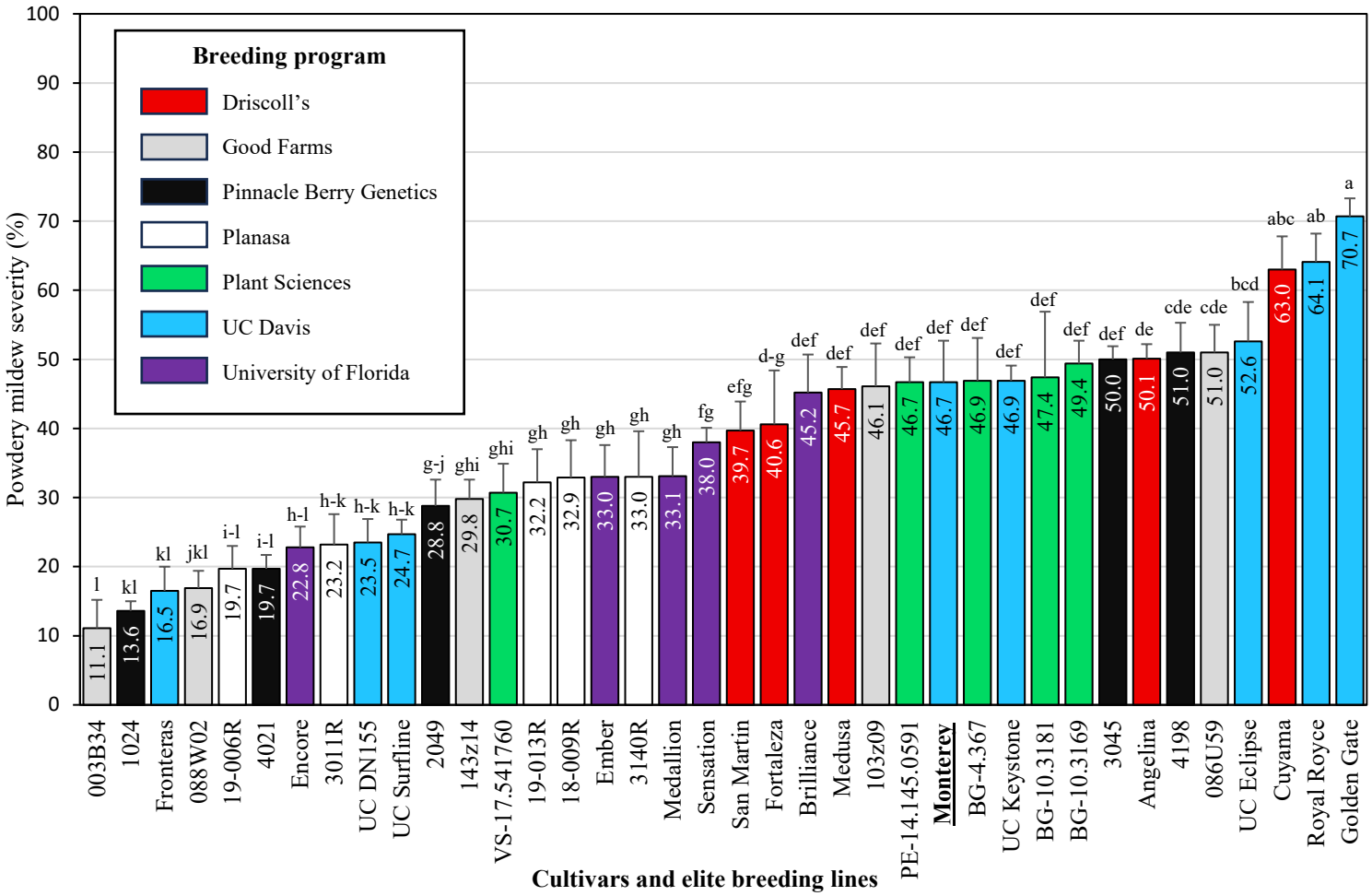


Figure 2. Average powdery mildew disease severity for each of 38 cultivars. Data were analyzed using ANOVA followed by Fisher's LSD mean separation test. Error bars represent the standard error of the mean. Means that do not share the same letter are significantly different ($\alpha = 0.05$).