

**B. Belladonna flowers**  
 JH Biotech, Inc., Agronomy Department

**Powdery mildew: *Sphaerotheca fuliginea***

This trial was conducted at Pleasant Valley Nurseries fields at Oxnard, California to test the efficacy of GC-3 under field conditions compared to commercial product (Rubigan EC) for the control of powdery mildew. Three beds, each composed of two 100 foot long rows were used. A completely randomized design was employed with three treatments and six replicates of 100 plants. Twenty plants were examined for powdery mildew symptoms. Data was collected for pretreatment and post treatment infection levels using the University of California pathogenically rating scale (0-5) on a weekly basis.

Treatments included a control, GC-3 at 2 % and Rubigan EC at (5-oz./ 100 gallon of water) per acre, GC-3 at a 2 % solution. Applications were made with hand powered back sprayer and applied to the point of run-off, approximately 50 gallons per acre. Applications were applied in the morning when air temperatures were below 90° F biweekly for four consecutive weeks. Statistical analysis was performed and means separated using Duncan's Multiple Range test.

After four weeks, powdery mildew infection was relatively low in treatment blocks when compared to the control. Both of these treatments were significantly lower in infection percentage compared to the control. Ranking was as follows: GC-3 2 % > Rubigan EC > Control. No phytotoxicity was observed in any of the treatment blocks. Spider mite population was also affected by the treatment. GC-3 has a positive effect of suppressing the spider mite population. GC-3 exhibited significant levels of control at 2% level. GC-3 showed better control compared to Rubigan EC in this trial. These results are encouraging and further testing should be done to compare GC-3 to other chemical fungicides as well as interaction efficacy. Better results may be achieved with GC-3 using high pressure, high volume application equipment.

