

C9-P

SERENADE, *BACILLUS SUBTILIS* (STRAIN QST 713) BIOFUNGICIDE FOR MANAGEMENT OF SCLEROTINIA DISEASES IN LEAFY VEGETABLES

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Lettuce leaf drop (*Sclerotinia minor* and *S. sclerotium*) and celery pink rot (*S. sclerotium*) are serious, widespread diseases of these crops in California and Arizona. *S. minor* is limited to coastal California, the major production area for these crops. Both organisms attack stems and lower leaves of plants, but *S. sclerotium* has an aerial spore that attacks upper leaves as well. Control is typically accomplished with fungicide applications to the base of plants and surrounding soil after thinning. Further fungicide applications at appropriate intervals are required until conditions for disease development have subsided. Serenade works via multiple modes of action, on both causal agents, with virtually no non-target effects. Serenade is ideally suited for IPM programs that employ an array of tools for disease management. Thus, it has been widely adopted in both conventional and organic systems. Beyond disease control, it provides growers attractive options with respect to both re-entry intervals (REI) and pre-harvest intervals (PHI). Serenade is an effective tool that can be used to reduce reliance on synthetic chemistry.