OPTIMUM TIMING OF FUNGICIDES FOR CONTROL OF ONION WHITE ROT (*SCLEROTIUM CEPIVORUM*)

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Onion white rot caused by *Sclerotium cepivorum* continues to be a major fungal disease of onions in New Zealand. The onset of the disease in the Pukekohe area can be predicted by the use of cumulative average daily soil temperatures above a base temperature (white rot degree days). This prediction model was used to determine the optimal timing for fungicide application. Analysis of data from trials on timing of fungicide applications conducted between 1989-2007 showed a correlation between the efficacy of fungicide programme and accumulated degree days, with later start times in relation to disease onset equating to a consistent drop in efficacy. The disease normally occurs when white rot degree days reach 250. Fungicide programmes commenced above this value achieved relatively poor control. Spray programmes should start before the disease is observed in the field, with start times between 100 and 200 white rot degree days achieving the best control.

VINE DEATH OF HORT16A IN CHILE CAUSED BY *VERTICILLIUM ALBO-ATRUM*

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ZESPRI™ GOLD kiwifruit, *Actinidia chinensis* 'Hort 16A', is being grown under licence in Chile as part of the ZESPRI global supply strategy for the cultivar. The first plantings were made in 2003. Vines started dying within 2 years and by May 2007 up to 50% of vines had died in the older orchards. The problem is continuing. The disease is caused by *Verticillium albo-atrum*, a soil-borne pathogen that infects the roots, subsequently invading the whole plant. Apparently healthy plants suddenly develop necrotic patches on leaves and the whole plant wilts and dies. Other symptoms include cracking of the bark, brown discoloration of vascular tissues, and profuse growth of watershoots from the rootstock and lower scion. This is the first record of this fungus causing a serious disease in kiwifruit. A number of remedies including soil and trunk injections with fungicide and soil fumigation for replant sites are being evaluated.