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Spatiotemporal spread of grapevine red blotch-associated virus in a California vineyard

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ABSTRACT

Grapevine red blotch-associated virus (GRBaV), the causative agent of red blotch disease, is a member of the genus *Grabovirus*, in the family *Geminiviridae* and the first known geminivirus of *Vitis* spp. Limited information is available on the epidemiology of red blotch disease. A 2-hectare *Vitis vinifera* cv. ‘Cabernet franc’ vineyard in Napa County, California, USA was selected for monitoring GRBaV spread over a three-year period (2014-2016) based on an initially low disease incidence and an aggregation of symptomatic vines at the edge of the vineyard proximal to a wooded riparian area. The incidence of diseased plants increased by 1-2% annually. Spatial analysis of diseased plants in each year using ordinary runs analysis within

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