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Strategies to manage *Plum Pox Virus* transmission in peach orchards in the Niagara region of Canada

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Plum pox virus (PPV) is the most devastating viral disease of stone fruit (*Prunus* spp.) worldwide. The disease is a member of the genus Potyvirus and family Potyviridae. PPV is spread both vegetatively and transmitted in a non-persistent manner by aphids. The Dideron strain (PPV-D), first detected in Canada in Ontario and Nova Scotia, led to the implementation of an eradication program in 2000 by the Canadian Food Inspection Agency (CFIA). Laboratory and field studies of the transmission of PPV by the green peach aphid, *Myzus persicae* (Sulzer), were carried out using foliar applications of horticultural mineral oils (HMO) and other novel insecticides. The residual activity of the HMO's on green peach aphid ability to transmit PPV was measured. Changes in aphids probing and feeding behaviors induced by HMO and antifeedant insecticide applications were also monitored using an electrical penetration graph (EPG) system.