

Rose Rosette Virus



Above left: John Hartman, University of Kentucky, Bugwood.org

Background

Rose rosette virus (RRV) is a virus in the order Bunyavirales and genus *Emaravirus*, and is the causal agent of rose rosette disease (RRD). Described for the first time in the US and Canada in the 1940s, it has since spread throughout those countries. In 2017, the virus was found in India, the first record outside North America. RRV is transmitted by the mite *Phyllocoptes fructiphilus* which can be transported by the wind, by insects during pollination and by contact with clothes or gardening tools. Current control methods include the eradication of infected plants.

The symptoms of RRD include those given below and eventually plant death. Symptoms of RRD are variable and depend on the species or cultivar of rose affected; a diseased plant may exhibit few of the below symptoms, especially in the early stages of the disease.

Symptoms

Main symptoms of the presence of the virus:



Reddening of rose stems



Malformation



Symptoms often appear just in one area of the plant



Rosetting or witches' broom



Distorted and strap-like leaves (in squares) compared to normal leaves



Excess thorn production and thicker stems (left) compared to normal stem



Reduced flower size



Rosetting or witches' broom in a dying rose stem