

Rose Rosette Disease

The most recently described virus disease on roses across the United States is rose rosette disease (RRD). Specific virus diseases have been described since the 1960s as technical methods to identify and differentiate the viruses improved. RRD was first found in 1941 in Manitoba, California, Nebraska and Wyoming. It was first found in California in commercial rose production in 2017. It is currently found mainly East of the Rockies, especially where wild *R. multiflora* can act as a reservoir for both the mite and the virus it transmits.

SYMPTOMS

Symptoms include: abnormal, late-season, lateral growth, red coloration, witches' broom and excessive thorniness. It is sometimes confused with symptoms created herbicide drift. Symptoms can take 2 months to develop after infection but as the progress of disease appears much longer the virus may be in the plant but not producing any symptoms for up to two years or more - this is not uncommon for viruses in animals or plants - the scientific data is not clear at this time. Studies in Maryland showed it could take a year for symptoms to develop and spread naturally from 10% incidence to 50% took a year with no eradication steps

CULTURAL CONTROL

The only real control is to remove and discard any rose with RRD-like symptoms. RRD does not transmit mechanically - such as through sap but does transmit via grafting and budding and cuttings from infected plants. It is believed to



be systemic so even areas of an infected plant without symptoms may be infected and transmit the RRD virus.

The virus is vectored solely by an eriophyid

mite - *Phyllocoptes fructiphilus*. This mite is specific to roses and has a slow acquisition (at least five days) but a rapid transmission. Mite management using miticides has not been proven effective in limiting RRD movement. However, the following miticides have been suggested for eriophyid mites.

Product	Active ingredient	IRAC group
Akari	fenpyroximate	21A
Avid	abamectin	6
Cygon	dimethoate	1B
Judo	spiromesifen	23
Kontos	spirotetramat	23
TetraSan	etoxazole	10B
Ultiflora	milbemectin	6