

Rose rosette virus (RRV) has been making an unwelcome appearance in landscapes around Texas and in the DFW area. Rose rosette disease was first detected in California, Wyoming, and Manitoba Canada in 1941. By 1994 it had spread to Tennessee and has since made its way to Texas. The pathogen that causes this disease was just recently identified as a virus. It most likely spread across the United States through wild rose populations, such as *Rosa multiflora*.

Other organisms called vectors often spread viruses. The primary vector of this virus is an eriophyid mite. Eriophyid mites can be found on tender new growth of buds and between stem and leaf petioles. Mites carrying the virus pass it from plant to plant as they feed on the plant sap of tender stems. Humans can also vector the virus through grafting and pruning. The virus does not stay in one place on the plant. Once a plant is infected the virus moves throughout the entire plant, including the roots and shoots.

How do you recognize rose rosette disease in the landscape?

Early detection of the disease is crucial to keep other nearby roses healthy. However, early detection can be difficult because symptoms such as witch's brooms and misshapen leaves mimic damage typically caused by herbicides. Roses should be inspected for symptoms in the spring when new growth starts to appear. The appearance of these symptoms will increase as the growing season progresses. Symptoms may vary by rose species or cultivar. Some common symptoms of rose rosette disease are listed below.

- Shoots and foliage have an abnormal red color
- Stems appear thick and succulent
- Rapidly elongating shoots
- Shoots with shortened internodes
- Stems with an overabundance of pliable thorns
- New growth may have many branches that create a witch's broom
- Distorted or dwarfed leaves Deformed buds and flowers
- Abnormal flower color
- Lack of winter hardiness
- Spiral cane growth



Why is rose rosette disease showing up on disease-resistant roses such as Knockout roses?

The Knockout rose has become a staple in the landscape. When introduced to the market in 2000 it was named the All-American Rose Selection Winner. They were marketed as low-maintenance, drought tolerant, self-cleaning roses that were resistant to powdery mildew and black spot. It is no surprise that this new rose took the market by storm, with record-breaking sales for a new rose and becoming the most widely sold rose in North America. Since then, Knockout roses have been used in mass plantings in multiple landscapes. Having many plants of one variety planted close together makes it easy for insects and diseases to spread, and that is particularly true for this disease.

What do I do if my roses are already showing signs of infection?

Unfortunately infected plants are not curable. So, it is best to remove any diseased plants from the landscape. This virus is systemic and will move throughout all parts of the plant including the roots, and cannot be pruned out of the plant. Pruners used on infected roses should be disinfected before use on other roses to prevent spreading the virus. Remove and bag any plant material (including roots) in the landscape to prevent spreading it to healthy roses. Be aware that roots left in the ground are still infected and could re-sprout. If this happens, cut and remove the shoots.

Will my plants live? If not, how long will it be before they die?

Plants infected with the *Rose rosette virus* cannot be cured. These infected plants should be removed. If diseased plants are left in the landscape they will most likely die in a couple of years, all the while allowing the virus to spread to other nearby roses.

Are my other plant species susceptible to this virus?

The good news is that the rose rosette virus is host specific and only roses are susceptible to this disease. The bad news is that most rose species and cultivars are considered susceptible to this virus.

How long will it be before I can replant the area?

The area can be replanted with a non-rose species immediately. It is not recommended to plant rose species in this area until all remaining roots from the diseased roses are removed.