

Rose Rosette in the Landscape

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THE PROBLEM

- Rose Rosette Disease has reached epidemic proportions in North Texas.
- We have a huge reservoir of infected rose plants in our commercial, municipal and private gardens.
- These infected roses spew their infected mites into the winds to blow across our cities and infect new clean roses.

WHAT CAN WE DO

- From a practical standpoint we will never completely eliminate RRD.
- But, we must quickly and drastically reduce the numbers of infected rose plants.
- Not until we significantly reduce the numbers of infected plants can we hope to successfully implement any management techniques.

WHERE ARE THE PROBLEMS?

- There are three types of gardens suffering with Rose Rosette.
- Homeowner maintained private gardens
- Commercial and large or small private gardens maintained by Professional Landscape Contractors.
- Municipal Gardens
- We will address each of these separately. The infected roses are the same, the techniques in dealing with RRD will vary.

FIRST LET'S REVIEW THE FACTS ABOUT RRD

THE ERIOPHYID MITE

- Non-infected eriophyid mites are harmless and common on all roses.
- The mite is so small it cannot be seen with the naked eye.
- The mite cannot fly and can only crawl about one meter.
- The mite travels by blowing randomly in the wind and by hitchhiking on clothing or insects.
- Rose Rosette Virus (RRV) can live and multiply in the mite
- Rose Rosette Virus (RRV) is vectored (carried) by the mite to any rose it feeds on.
- The mite is host specific and feeds only on roses.
- The mite overwinters on the rose plant and can survive very low temperatures.
- Overwintering females emerge from under bud scales and other protected sites to lay eggs and feed on new foliage when buds begin to break in the spring.
- This is the best time for insecticide (miticide) applications.
- Reproduction is continuous, with generations completed every 2-3 weeks; overlapping generations are present.

THE ROSES

- There is no variety of rose that is proven to be resistant to RRD.
- If an RRV infected mite feeds on a rose, the rose plant will become infected with the virus.
- Eriophyid mites feed deep within the plant tissues (meristematic region), sucking out plant juices with their stylet like mouthparts and transferring a substance or toxin (plus the virus), which causes deformation of plant growth.
- The infected roses then becomes a source of the virus to infect new "clean" mites.
- The virus will spread throughout the entire rose plant, including the root system.
- There is no proven way to protect a rose plant from getting RRD.
- There is no known way to kill the virus in an infected rose plant.
- Roses infected with RRD will eventually die, but not very quickly.
- The virus in an infected plant will die when the plant dies.
- The mite will quickly flee from a dead or dying rose plant looking for a new rose plant.
- Space rose plants in garden so they do not touch each other.
- The mite will die if it cannot feed on a live rose within a week or so.

THE ONLY WAY TO KILL THE VIRUS IS TO KILL THE INFECTED ROSE PLANT

Note: I DID NOT SAY, "KILL ALL ROSES"

Although in some cases that might be the best course of action!
THE SUREST WAY TO KILL THE MITE IS TO PREVENT IT FROM FINDING A LIVE ROSE PLANT

- We don't know how long a plant may be infected before it shows symptoms!
- This is where a judgment call will have to be made. If there is one "clean" looking rose plant in the midst of many infected plants, it is likely also infected... just not yet showing symptoms.

DEALING WITH RRD IN A PRIVATE GARDEN MAINTAINED BY OWNER

- Bag it
First put a trash bag or paper recycle bag over the rose.
- Dig It
Cut plant off at Ground, then dig out the root system and put it in the bag. Be observant and remove any regrowth from roots.
- Trash it
Or, recycle it (check with your city on their policy for trashing and/or recycling RRD roses).

HOMEOWNERS—DISPOSAL OPTIONS

- The cities of Allen, Frisco, McKinney, Plano and Richardson send their yard debris collections to the Texas Pure Products Grind Site which will process RRD rose.
- However each individual city may have city ordinances as to what they will pick up as trash or recyclable yard debris.
- Do NOT put RRD rose plants in your home compost pile.
- Call your city to determine how to dispose of your roses.**

LANDSCAPE PROFESSIONALS

- Bag it first if possible
Still the best practice, but not practical with large roses, or large volumes of roses.
If not bagging, don't remove roses on a windy day
- Dig It
Dig or pull plants, whichever will remove the most roots and quickly take roses to truck or trailer.
- Cover trailer completely with tarp before transporting to dump site.

DISPOSAL OPTIONS FOR LANDSCAPERS

- It should be safe to dispose of removed RRD roses in either a Landfill, a Composting Facility or a Mulch producer that ages the materials for a minimum of two weeks
- Remember: the virus dies when the rose dies, and the mite dies in less than two weeks if not feeding on a live rose.
- There is little danger of spreading the virus in commercially made compost or aged mulch.

DISPOSAL SITES ACCEPTING RRD ROSES

- Texas Pure Products
Custer Road Transfer Station

THE SOIL

- There is no contamination of the soil from the virus or the mite.
- The empty hole can be replanted immediately with a non-rose.
- The empty hole can be replanted after a week with a new rose.

CHEMICALS CONTROLS FOR RRD

- There is no available product to kill or control the virus.
- There are miticides that are labeled to control eriophyid mites.
- Horticultural soaps and oils
Apply dormant weight horticultural oils 7-10 days before bud break and again at bud break.
During the summer soaps and summer weight oils offer mite control or suppression.
- There is no research that proves that the use of a miticide or dormant oil will help control RRD.
- But, there is also no research that proves that it will not help control RRD.
- Most "serious" rosarians spray routinely for spider mites anyway. Many use a miticide that is labeled for both spider mites and eriophyid mites. These miticides are expensive and usually not a viable option for large gardens.
- Contrary to popular thinking, research proves that the chances of spreading the virus on pruners is very low.

MUNICIPAL GARDENS

- Municipal Gardens in the area are responding with actions of various degrees.
- Many are choosing to remove all roses from their gardens and public areas. A radical approach but not without merit. The object at this time is to get rid of infected roses.
- Operation of a municipal garden to continue growing roses will take extreme vigilance to find and remove infected roses immediately upon their becoming symptomatic.
- The City of Farmers Branch has committed to continuing to grow LOTS of ROSES in their gardens and are effectively managing the losses from RRD.
- I recommend that any city wanting to continue to grow some roses contact Pam Smith, Director of Landscapes for the City of Farmers Branch TX. She can give you great advise on how they manage RRD.

The City of Plano's Texas Pure Products Grind Site and Retail store located at 9901 Custer Road, / Transfer Station on the corner of Custer Road and Ridgeview in Plano will accept Yard Debris containing removed RRD roses for Composting, production of aged Mulch and Single Ground Fresh Mulch. This decision was reached upon collaboration with Rose Rosette Eradication Alliance, Collin County Extension Office, Claude Graves, and based upon research provided by Yannis Tzanetakis, Associate Professor at U. of Arkansas plant pathology department. Dr. Tzanetakis discovered and named the Rose Rosette Virus. Dr. Tzanetakis states there should be no problem in using RRD roses to make mulch - providing a holding time from digging the rose to it being hauled to a jobsite as mulch would be greater than one week and up to two weeks. Dr. Windham at the University of Tennessee uses this measure as waiting time before replanting a new rose in a hole remaining from a diseased rose. Dr. Tzanetakis states the virus dies with the plant. Because of the composition of the virions once the host dies the virus goes with it. Mites cannot survive without feeding on a live rose.