

## New Disease on Knockout Roses

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For years, it has seemed like “Knockout Roses” were invincible, not any longer. It is still true that most Knockout roses are producing blemish free bushes full of red, white, peach or pink blooms, but some Knockouts (and other selections of roses) are being infected by a virus disease called, “Rose Rosette Disease”. The disease symptoms include:

- blooms that do not open;
- rogue stems loaded with thorns growing up above the main plant;
- foliage that is more red than normal;
- rosettes of reddish miniaturized stem clusters (witch’s brooms); and
- the eventual death of the plant as if from an errant herbicide application.

If you have roses showing all or some of the symptoms described, they are probably infected by RRD.

RRD is spread by a tiny mite, *Phyllocoptes fructiphilus*, that is half as wide as a hair, so it cannot be seen with the naked eye. Mites can be partially controlled by carbaryl (Sevin), bifenthrin, abemectin, and or endosulfan. In practical terms however, the only way to achieve reasonable control of the disease is to remove infected plants immediately when the virus is diagnosed. Prune them at ground level, dig out the roots and bag up the removed plant parts for disposal in the garbage collection. Collect the remnant leaves and plant parts on the soil but do not clean the area with a blower. The blower potentially will spread the mites in the air by 300 feet. The mites will only survive for 8 hours separated from a rose plant but if they land on new plants they can lay one egg per day during an 8-day life cycle which may result in a new rose infected in 30 to 145 days.

After removing and discarding the diseased rose, spray the remaining roses in the vicinity with dormant oil and one of the miticides listed.

Most of the attention from RRD is from its impact on the Knockout roses but it will affect other rose varieties as well. The wild multiflora roses seem to be the most susceptible and seem to be responsible for maintaining the reservoir of *P. fructiphilus* mites and the virus organisms that attack the plants. In addition to spreading in the wind and by the movement of infected plants, the disease carrying mites hitch rides on insects from infected plants to new victims.

**Dr. Jerry Parsons has taken special interest in researching and combating RRD.**

**Here are some more of his management suggestions.**

- **Before planting your rose garden, eliminate RRD infected roses (cultivated and wild) from within 100 meters of your garden.**
- **Only plant roses that are free of RRD.**
- **Monitor your garden on a weekly basis and eliminate any**

**symptomatic plant as soon as it is identified. Experience in Tennessee in an area with high RRD pressure indicates that the disease can be managed with the replacement of two to four percent of the roses per year.**

- If you find RRD in your garden, continue to scout the area for source plants. It is likely that a nearby source is continuing to contaminate your landscape.**
- Consider planting roses with several feet of space in between plants to reduce mite movement. Planting non-Rosa shrubs in-between roses may reduce mite movement because the species that spreads RRD is unique to roses.**
- When infected plants or debris are removed from the garden, bag it to prevent the mites from spreading.**
- Do not use a blower to clean the debris out of a rose garden as this will likely spread mites, they are small and spread by floating in the air.**
- Mites can also travel on your clothing so do not go from a highly infested garden to another garden as it is likely you are carrying mites and may spread the disease. Mites are thought to survive only about eight hours apart from a host rose. Therefore, if equipment, gloves and tools are free of rose debris, they can be reused the next day.**
- Prune your roses heavily in late winter to remove the overwintering mites. The prunings should be removed intact so mites do not spread. Apply dormant oil and a miticide after pruning. Summer oil can be applied throughout the season as needed.**