After many years of watching with dread for the appearance of spider mites, I have finally come to the point where I no longer view them as the devastating pest I once did.

There is no doubt that most rosarians and gardeners deal with spider mites occasionally or on a fairly regular basis. In years past they were a constant problem in our garden and having to treat for them meant that a tight work schedule would be interrupted in order to prevent severe damage.

They Are Not Insects............

Spider mites are arachnids, or in simple terms, spiders. As most of us know, we are unable to kill spiders around our homes with traditional insecticides. They require different modes of action than that of the insect family. The same is true for the spider mites on our rose bushes. Some products are labeled for both spider mite and insect treatment. They will be clearly marked on the label as both an insecticide and a miticide. If you do not see the word miticide specifically listed, then that product will not work to either kill or control spider mites on your roses.

The culprit we must deal with in Florida is the Twospotted spider mite. There are many articles describing them in detail. One of the best is a publication from the University of Florida: EENY150/IN307: Twospotted Spider Mite. Read this document to learn all about the physical characteristics and other important information specific to this garden pest. However, our intention here is to provide information on a practical approach to spider mite control that has worked well in our Florida rose garden.

Reaching a Good Management Program

Our approach to spider mite control includes the following:

1. Limit the use of insecticides, which usually kill beneficial insects
2. Observe roses and learn to identify the earliest stages of a mite infestation
3. Select specific cultivars to use as “Scouts”. These are roses more prone to damage and will be the first to show presence of this pest.
4. Once present, treat mites early and regularly until the population is, as much as possible, eliminated.
5. Continue to be observant of your roses. Early detection is the key to limited damage and good control.

The Importance of Limiting Pesticide Use

In past years we have made regular use of various insecticides to control thrips, aphids, caterpillars and so on. Almost all insecticides have a negative effect on beneficial insects. Beneficial insects eat thrips, spider mites and aphids, just to mention a few. After repeated use of insecticides you will have killed many beneficials, allowing damaging insects and mites to reproduce on an even larger scale. Most of us have faced the onslaught of spider mites after spraying with Orthene. Our solution was to reduce the use of insecticides.
Since we are not avid exhibitors, we are able to accept limited damage from thrips. However, when late spring brings huge numbers of thrips from the trees and certain flowering bushes (such as Spirea) we are forced to spray with insecticides to reduce the population. We are prepared to deal with the spider mite population when it arrives, and arrive it will! For the most part, the only insects we treat exclusively with insecticides are thrips. Caterpillars, beetles and aphids are dealt with using a forceful spray of water or by removing manually.

I am confident that limiting the use of insecticides has greatly reduced the spider mite population in our garden over the past two years.

Identify Early Using “Scouts”

I have visited gardens where certain rose bushes were so infested with spider mites, that there was no green (chlorophyll) remaining in the foliage. After many years, I now find it extremely easy to spot the earliest stages of spider mite damage. True, at its earliest stages this damage can look much like a nutrient deficiency, but a quick feel of the underside of the leaves will determine which is present.

It has been my experience that spider mites are most problematic on roses with small, dense leaves, such as miniatures, MiniFloras and polyanthas. If you do not grow these classes, rest assured, spider mites will attack whatever roses you do grow. Many rosarians believe that the Knock Out rose is especially prone to attack by spider mites.

In order to maintain best control in our garden, I have learned to look first to certain classes, such as those previously mentioned. If I am able to stop the spread where it first begins, damage is limited and time is saved.

More specifically, I have observed that spider mites seem to prefer the following rose characteristics:

- Small leaves
- Dense foliage
- Matt as opposed to glossy foliage
- Roses with lighter rather than darker green foliage
- Thin delicate leaves as opposed to thick firm leaves
- Wrinkled rather than smooth leaf structure

Yes, they will attack others, but when the above options are available, they seem to start with roses having these characteristics.

In our garden there are two roses that I use as “Scouts” to alert me that spider mites are present. The first is Blue Mist. It is a miniature that has very dense light green foliage. The leaves are extremely thin, somewhat wrinkled and have a delicate matt finish. Spider mite heaven. The second is a polyantha, Gabriella Prevat. This rose has darker green and slightly thicker leaves than Blue Mist, but always reveals spider mite damage sooner than other roses in the same area.

If you grow a limited number of roses, then Scouts are probably of no benefit. However, if you grow a larger number, and they are generally divided into different classes, you should be able to identify those roses that will exhibit mite damage earlier than others, and alert you to start treatment.
Treat The Damage Early

Most articles on spider mites show only photos of the most severe damage, a large infestation and presence of webbing. At this point, it is probably too late to salvage the foliage on your rose and limit spread of the infestation. The photos included here are intended to display the earlier stages of spider mite damage and allow you to slow or stop the spread, before severe damage has been done.

Notice on the first photo, that there is a lighter yellowish area on either side of the midrib of the leaf. Spider mites usually begin at this area on the leaves and “suck” their way to the outer edges. I think of it as a mite “halo”. If I see even hints of the “halo” on a bush, I gently rub the underside of the leaf. If there is a “gritty” feel (similar to fine grains of sand or black pepper), I am certain we are dealing with spider mites. If you remove some leaves and examine the underside, you will be able to observe that the chlorophyll has been sucked out by the mites, leaving a spotty yellowish appearance.

In each photo the leaf on the left is “face up” and on right is “face down”.

Very early signs of damage.

Progression of damage.

Worsening damage, to be followed by webbing and leaf drop.

Nutrient deficiencies (iron, nitrogen, magnesium) have a distinctly different appearance than the damage done by spider mites as noted in these photos.

Nitrogen and Magnesium deficiency photos by Carol Green
Our first and primary method of dealing with spider mites is with the use of a water wand. There are specially designed Spider Mite Wands on the market, but I have tried them and find that they do not work as well in our garden as the simple and very inexpensive tool I have used for the past several years.

Spider mites do their damage (almost exclusively) on the underside of the leaves. A strong spray of water is necessary in order to dislodge the mites and hopefully, most of the eggs. If mites are found, it is necessary to use the water wand every third day for at least 9 days, in order to knock off any newly hatched eggs. This repetition is essential.

The photo below shows a 36” x ½” threaded gray piece of PVC that is available at most Lowe’s or Home Depot in the irrigation department. To that, I attach a 360° x 15’ (full circle) shrub head and a hose-end recepticle. The total cost is around $10.00.

This produces a simple, inexpensive tool that can get inside and under the leaves of the plant without soaking the gardener. This shrub head provides a strong, but not damaging, spray that effectively knocks off spider mites and eggs. I have tried heads with 180° or 90° (half or quarter circle) coverage, but decided that the full circle was more effective and benefited the plant in other ways. One of the other benefits is breaking down organics that have been applied to the bush and remain on the surface of the ground or pot. Another, is well-hydrating the bush, since this pest presents itself most aggressively during hot, dry weather.

All of our potted roses are hand watered daily. We have over 200. Simply by using a water wand occasionally during regular hand watering, we have prevented the development and spread of a spider mite infestation.

**In Closing**

I am not opposed to the use of chemicals. They are necessary and I shudder to think what our roses would look like without them. I have not had to resort to any chemical control of spider mites recently. If necessary, the products I would use, and have used in the past, are Floramite, TetraSan, and Saf-T-Side oil. Floramite and TetraSan are very expensive, but are effective. Saf-T-Side is an excellent and relatively inexpensive product, but, as with all oils, you must be careful of spraying in hot weather, or spray burn may occur.

I encourage readers to spend a little more time examining their roses and give control by water a try. It can, and will, allow you to take control of spider mites in your garden, if you are diligent and observant. In these difficult economic times it may be prudent or even necessary to implement this cost effective mode of pest control.

In truth, if one’s thumb can handle it (and you don’t mind getting a little wet) the old “thumb on the hose” is perhaps the quickest and best way to control spider mites in your garden.