

Pondering Rust By Verna Berger

What exactly is Rust? We all know and recognize the orange coloured spore clusters that form on the underside of fuchsia leaves that spread rather quickly, and cause the alarm buttons to go off. The Microsoft Dictionary defines Rust as a “parasitic fungus: a fungus that lives as a parasite on many plants, causing reddish brown spots on the plant parts”.

Our very warm Fall temperatures, colder nights with dew setting on the lush, bushy foliage of our fuchsias; somewhat restricting air circulation caused my thoughts to turn to Rust and how to protect our fuchsias from coming in contact with it.

Now, I am not a Botanist nor a Horticulturist, in fact, no one has ever accused me of having a scientific mind, but I do know that insects and parasites have a life cycle. I started researching and found Rust also has a life cycle, with up to five spore stages and two different hosts to complete that cycle. According to Dr. Robert L. Wick, Dept. of Plant Pathology, University of Massachusetts in March 1992, *Pucciniastrum epilobii*, the cause of Fuchsia Rust requires both fir (not all varieties, and Jay Siegel used to say not to worry about Douglas Fir)) and Fireweed to complete its cycle. Surprisingly, fuchsias are related to Fireweed, so according to Dr. Wick, are a host to Rust.

<http://extension.usmass.edu/floriculture/fact-sheets/fuchisa-rust> (Check this website if you are interested in learning all the different stages of Rust life cycle.)

It is the final spore stage that appears to infect the Fuchsia, and can re-infect both fireweed and fuchsias repeatedly. When it comes to gardening, I love to reap the most benefits with the least amount of work, so the first thing that comes to mind is “prevention”. That just must be less work than dealing with the actual disease.

I also found that Rust spores also love to attach themselves to one of Fuchsias most aggravating pest “whitefly”, giving them a free ride from plant to plant. As if gentle breezes are not enough! Gardens Alive, you can find them on the internet, has a product that sounds very good for prevention “Pyola and Soap Shield Combo” will not only kill the Rust plant, but also the spores, and it is effective against whitefly as well. “Pyola” is canola oil with pyrethrums and is effective against whitefly, aphids and other soft bodied pests. It is mildly persistent, and will kill beneficial insects as well, so I guess you have to “pick your poison”, so to speak. Spraying with this as a preventative may keep your fuchsias free of Rust prior to going into your winter storage area, especially if they are not completely defoliated.

Some other non-toxic recipes effective against Rust are:

° “Copper” products.

° 3 – 4 tsp. baking soda, 3 – 4 tsp. vegetable oil, to 1 gallon water. Combine with insecticidal soap and spray weekly.

° 3% Hydrogen Peroxide. Spray the plant prior to removing leaves. This will kill any spores released when you defoliate the plant. You may also mist the plant with the peroxide and allow the plant to defoliate itself.

° ½ cup Chlorine Bleach mixed with 1 Gal. water, kill the Rust plant, as well as other fungi.

° 1 Tbsp. Vinegar, 1 Tbsp. Ammonia, 1 Tbsp. Sugar, Few drops of liquid detergent. Mix into 5 quarts water. Use as required. This mixture will keep.

You may wonder why I have not mentioned ‘sulphur’ based products. I remember something Jay Siegel mentioned years ago about sulphur perhaps increasing the acidity of the potting soil. Since fuchsias prefer alkaline to acid, I didn’t include it, but if you have used

it in the past with no negative side effects, do what works best for you. Like I mentioned at the beginning. I am no plant scientist; these opinions are just my thoughts.

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