

Anyone Beating Canker with Wood Vinegar?

By **AI Chomica** March 2020

Some of you may recall an article from Feb 2018 called “Anyone Growing Canker”, where canker was discovered to be running rampant on our fruit trees. This is a continuation of that article and showcases the wood vinegar trials that we have been conducting to combat the canker, especially on our prized almond tree. We are also trying the wood vinegar to combat rust on garlic and raspberries, as well as an Allium disease, called White Rot, that eats all our garlic every year.

For those who do not know, here in Nanoose Bay we can easily get about 40 inches of rain in January and into February. Humidity is always around 90 to 99% so nothing ever dries out and consequently conditions are perfect for fungal diseases to reign supreme. Wooden things built from 2x4s only last about 7 or 8 years before they disintegrate.

Three years ago, our healthy almond tree picked up an oozing canker wound at the base. The thick bark just turned to mush and rotted away. Then two years ago the tree lost a lot of living branches and was diminished in size. It didn't flower in March like it did in the past. I tried cutting the bark back deeper and applied something called Biodynamic tree paste, to no avail.



The almond had no signs of life last spring and was still devoid of any leaves or buds by late July. I was going to cut it down except for the fact a productive female fuzzy kiwi was climbing up into the dead branches, so I left it as a vertical trellis for the kiwi.

Then last August I discovered a local product made by BC BioCarbon called wood vinegar. Wood vinegar is also known as pyroligneous acid and is a by-product of the biochar industry that burns waste and turns it into horticultural charcoal. BC BioCarbon does not yet sell wood vinegar to the public, but one can buy the vinegar online from Midwest Biochar in the USA

Under the tutelage of a regenerative farmer in Australia I started off a weekly soil drench and a bi-weekly bark spray. Normally one would do a soil drench when it rains and a foliar spray when it is dry. There were no leaves to do a foliar spray, so the bark was drenched until it dripped.



After two weeks small buds started to swell on the main trunk. They all started to grow and by the end of September these sprouts grew into large branches over 5 feet long! At the end of October when every other plant was losing leaves and getting ready for winter, the almond had grown 8-foot- long branches and remained as green as if it was springtime. It was quite unbelievable really. Something had unleashed the life force within the tree allowing it to grow huge dark green leaves. It grew as if it was on a mission. Then winter came...

In early March this year, I discovered that those one-year whips had flower buds and one of them was even open and waiting for those big queen bumblebees and hoverflies to wake up. I didn't think flower buds could form on one-year wood, but I guess I was wrong. I dug out my pollinating brush and started to pretend to be a bee.

These are preliminary findings but several of my other infected trees have now stopped losing their branches and are showing cambium growth with the bark closing the gaping wounds caused by this nasty tree cancer over the last two years.

I had even bought a new apple tree to replace my severely infected Cox's Orange Pippin but the Orange Pippin is now making a comeback as well. The wood vinegar, must be the reason for this comeback because the wet winter we just have had certainly promotes the growth of fungal diseases. Yet the canker is disappearing as the trees heal. In previous years it has sadly just run rampant.

The two images below show the same branch of our apple tree. The first image shows the start of a canker lesion in February 2018. The second image was taken on March 22, 2020 after seven months of wood vinegar applications. You be the judge...

