



Unleash™ Treatment of a Grapevine Leafroll Disease Afflicted Vineyard

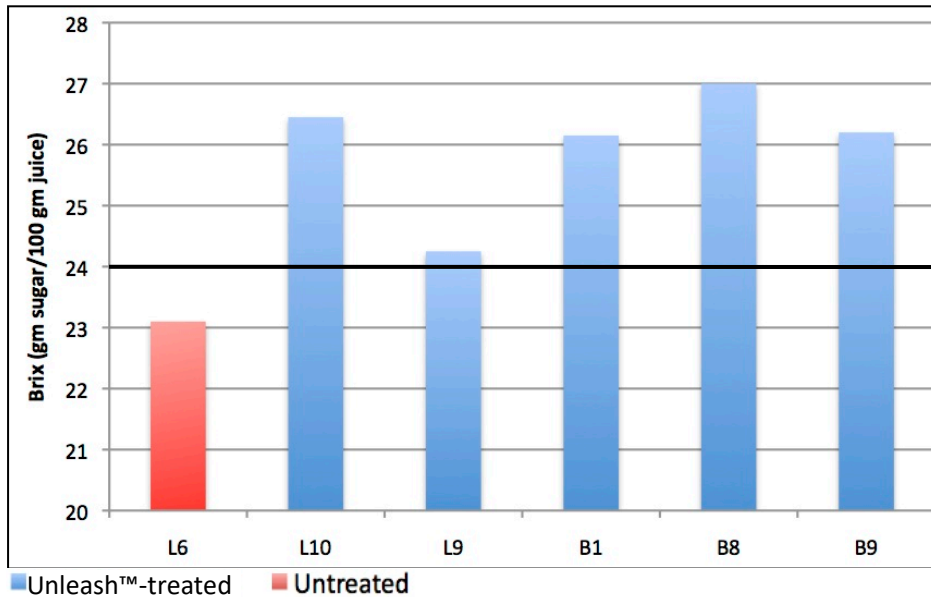


Joe Martinez of Charles Krug Family Vineyards in front of an ailing 22-year-old vineyard.

- Product User: Charles Krug Family Vineyards, St. Helena, CA, USA
- Issue: A 37 acre, 22-year old vineyard suffering from Grapevine Leafroll Disease, resulting in reduced yield and reduced Brix content. If normal yield and brix levels are not restored, this vineyard will need to be replanted at substantial cost, losing an estimated 10 or more years of productive harvests on the existing grapevines.
- Treatment: Standard 1 Liter per acre Unleash™ application.
- Treatment Result: After treatment, vineyard test area produced fruit with an average Brix content of 26, well above the target threshold of 24 required for wine production.**
- Incremental Benefits: Petioles on treated vines showed an increase in potassium levels from 2.7% to 3.5%. No significant pH change was seen between treated and untreated areas.

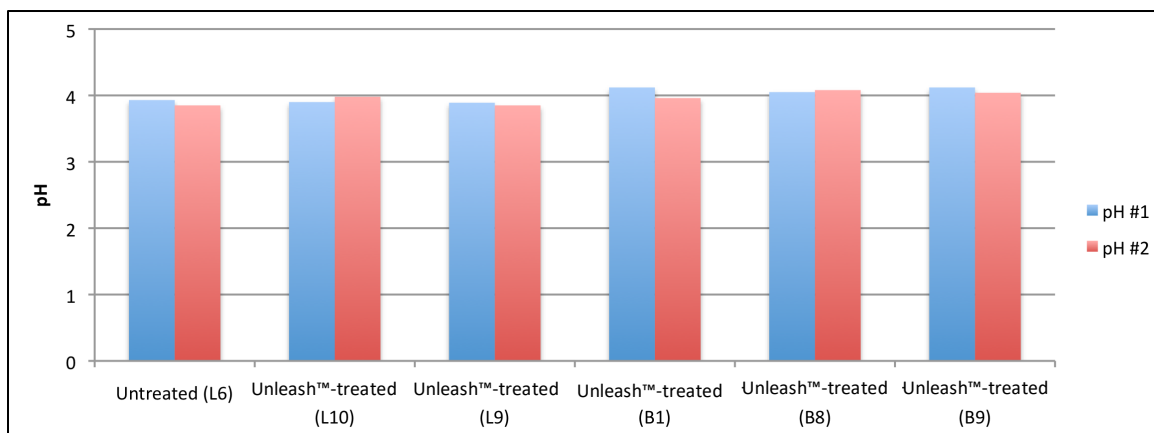
Results:

Table 1 Brix content of juice from Unleash™- and untreated grapevines.



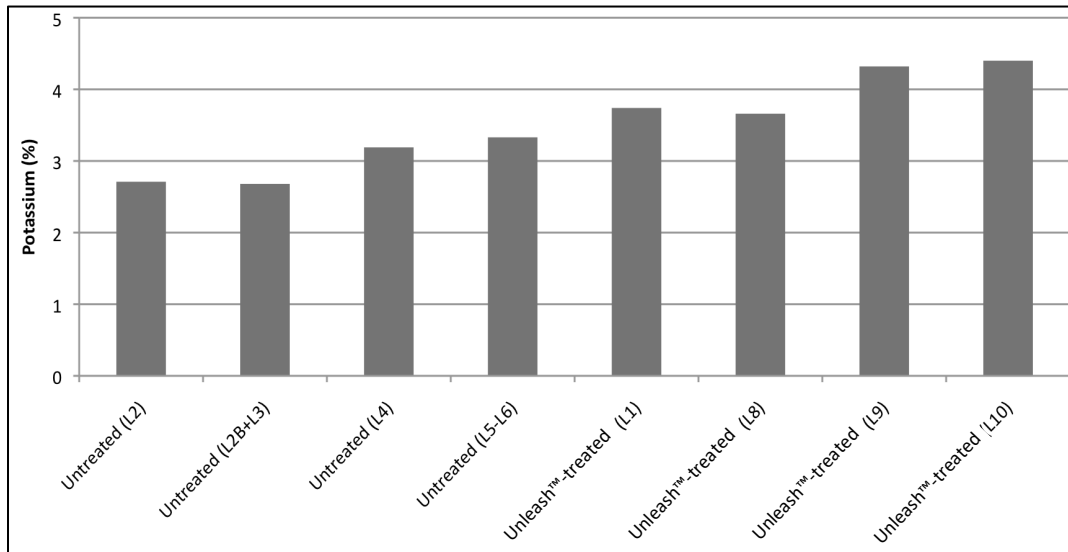
Brix content test results from an untreated control plot and from five separate Unleash™-treated plots.

Table 2 pH of juice from untreated and Unleash™-treated grapevines.



pH levels from untreated and Unleash™-treated plots with repeat testing shown by the blue and red bars.

Table 3 Potassium in Unleash™-treated and untreated grape petioles.



Potassium levels from untreated and Unleash™-treated plots.

Conclusions:

The ailing plot that was treated with Unleash™ had Grapevine Leafroll Disease (GLD), a common symptom of which is low Brix.

- Unleash™ treatment resulted in restoring the Brix content to an average of 26, well above the target threshold of 24 required for wine production.
- In addition to the increased Brix content, the evidence that Unleash™ helped prevent grapevine damage from GLD included visual indicators. **According to Joe Martinez, a vineyard manager with Charles Krug – Peter Mondavi Sr. Family Vineyards, “On the plots where I had the Unleash™ I did not see any red spots on the leaves that exist in the other plots which is a great benefit for us”.**

All data used for this report were provided by Charles Krug – Peter Mondavi Sr. Family Vineyards.