

A technique with growing potential

Exploring the advantages of sap flow pruning

Winter activities in the vineyard are underway and interest in sap flow pruning is increasing as growers investigate the benefits offered by this method, as **Simone Madden-Grey** writes.

Sap flow pruning is an historic technique known variously as Poussard method, vascular flow or soft pruning. Designed around promoting and protecting sap flow, pruning decisions are guided by the creation of structural elements rather than aesthetic or geometric designs. There are nuances in the implementation of this technique but in general terms, smaller cuts are made on one side of the vine away from live wood. This is to manage desiccation and preserve the flow of sap on the other side of the vine. Global consultants François Dal and Simonit & Sirch have been instrumental in the promotion of this technique.

Benefits

Designed primarily for grapevine trunk disease management, additional benefits of sap flow pruning include long-term productivity, yield and quality consistency, disease and weather event resilience and greater labour force engagement.

At Clos Henri in Marlborough, Damien Yvon, originally from France, says he is amazed at how few dead vines he sees in the valley. Nonetheless, a proactive approach combined with a visit in 2007 from renowned practitioner François Dal, saw existing vines converted to,



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and new vines pruned using the sap flow method. This approach forms a key part of the long-term vision for Clos Henri. Yvon says the ultimate goal is vine longevity in order to benefit from the inherent quality and complexity older vines offer wine. For Yvon, the region's long-term reputation will be strengthened through the preservation of older vines, which can be achieved with quality pruning.

The goal at Place of Changing Winds, Macedon, is healthy 60-year-old vines capable of producing good wine. Robert Walters and Rémi Jacquemain see significant value in sap flow pruning due to the accumulation of living wood. The preservation of functional vascular tissue helps increase carbohydrate storage. As a result vine resilience is increased, vine mortality reduced and quality and yield in old vines improved.

At Black Estate, Waipara, Nicholas Brown says sap flow pruning was chosen for work with their old, low vigour vines. Four years later the entire vineyard is pruned using this technique. Brown says each year has presented thicker, more fruitful canes and stronger canes in the critical position on the underside of the spur.

Crew engagement is necessarily higher when the method relies on reading cues from individual vines. Manual force is reduced because pruning is done using secateurs rather than loppers and saws. For Brown, the initial investment was quick to pay off, "by the end of the season pruning was a similar speed to previous years but to a much higher quality with more long-term benefits". Pruning costs have also come down as efficiency has increased, fewer cuts are made and saws and pruning paste are no longer used.

At Craggy Range, Martinborough, the standardisation of pruning is an invaluable tool for Fabiano Frangi. Previous employment during the implementation of sap flow pruning techniques at Clos Henri means Frangi has worked with this technique for more than a decade. He describes the method as a mathematical process for pruners, "you have a spur on each side of the plant carrying two buds each, one for the cane, the other for next year's spur. It is easy to stick to this system and it is always three cuts on one side of the plant, three cuts on the other side. You always angle the tools the same way to prune on each side." In Frangi's experience it generally takes two to three days for pruning speed to increase after initial training.

Resources

Researching sap flow pruning methods has until recently been limited to a few publications, fewer still if English is the required language. Fortunately, the library of resources is growing.

Place of Changing Winds have been working on a translation of the original Poussard book by René Lafon. This is due to be released in English and French in the second half of the year through the Ex Vinum imprint. Ex Vinum is also the distributor for the Simonit & Sirch guides in Australia, including the Guyot Methodology guide in English, which is available now.

From June until August 2022 Mia Fischer of Simonit & Sirch will return to New Zealand and Australia, hosting a series of workshops and client visits. In collaboration with Farmlands New Zealand, Fischer will visit growers in Hawkes Bay, Marlborough and Central Otago. The aim, she says, is to understand the methodology being used in each region and where support from Simonit & Sirch might be beneficial.

In Australia, Fischer is working with AWRI and Dr Mark Sosnowski, senior research scientist at the South Australian Research and Development Institute (SARDI), to present full-day workshops across Australia in July and August. The latest vine health and pruning techniques research will be presented together with interactive field demonstrations and specific regional advice.

Fischer says increased publications linking trunk disease and pruning have

raised industry engagement with soft pruning techniques. Despite postponements caused by COVID, Fischer is keen to progress discussions about the importance of minimising trunk disease risk, increasing vineyard longevity and the role pruning has to play in this.

In France, as part of his work in Centre Loire at Interprofessional Service for Agronomic Advice, Vinification and Analysis of the Centre (SICAVAC), François Dal has published several books since 2008, sharing research and expanding on the original work of Poussard. Subsequent editions have included guidance for Guyot, Guyot-Poussard, Gobelet and Cordon Royat systems. The latest edition includes a section on establishing new vines using sap flow pruning and is due for release in August 2022. Dal also holds an annual week-long workshop for practical experience. The aim is to train industry members who can then share what they have learned. This is in part, he tells me, to manage the increase in demand for his skills locally and internationally.

Labour

Changing a pruning method is not without challenges, particularly when closures and enforced quarantine for international workers have exacerbated labour shortages. The result has been a reduction in the number of experienced crews available and an immediate premium on vineyard wages. To manage this, some growers have limited contract work to stripping, wrapping and clean-up while spending more time shadowing workers in the vineyard. This is in addition to whiteboard sessions, practical demonstrations and self-written manuals.

At Clos Henri, Georges von der Decken tells me this is the first year the team will allocate part of the cutting work to contractors, preferring a team with no prior vine pruning experience. He says this has two benefits, “They are a blank canvas so we can teach them from scratch and they may also return to work with us the next year, bringing the return on our investment back to us.”

This year’s team at Place of Changing Winds has been drawn from applicants who responded to a call-out over social media. The response was good says Jacquemain, with people keen to learn more about this particular pruning method. Increased interest in sap flow pruning has also helped source labour at Black Estate. Brown says that previous applicants wanted experience in organic and biodynamic viticulture, now that has expanded to include learning this specific pruning technique. The hope is that when international travellers return, labour shortages will ease.

At Clos Henri, Yvon says another challenge is a culture of undervaluing pruning work, viewing it merely as a stepping-stone to another role. “In reality,” he says, “it is a skilled and important job that is fundamental to quality wine production”. Von der Decken agrees, “the importance of pruning should not be underestimated because that is how you set your vineyard up for the whole lifecycle of the wine”. At Black Estate, Brown tells me he was drawn to sap flow pruning because it emphasised pruning as a craft with significant value when done to a high level.

The increased number of growers using sap flow pruning

suggests there is a place for this historic technique as part of long-term investment in vine quality, resilience and productivity.

Simone Madden-Grey is a writer based in Melbourne, Australia writing about the people, places and stories she has discovered on her travels. Her portfolio can be found at happywinewoman.com including articles on climate and sustainability in the wine industry and travel covering the wine, regions and gourmet destinations of Australia and her home country, New Zealand.

Further information

AWRI workshops July – August 2022: www.awri.com.au/events/pruning-and-vine-health-for-vineyard-longevity-mclaren-vale/

François Dal, SICAVAC publications and workshops: www.vins-centre-loire.com/fr/1/67/sicavac.html / <https://www.vins-centre-loire.com/fr/1/82/Manuel-des-pratiques-viticoles/1.html>

Simonit & Sirch: <https://simonitesirch.com/simonitesirch-pruning-method/>

References

‘Pruning for Sap Flow: Extending Vineyard Life & Improving Output’, Sarah Bray, GuildSomm, Published 8 October 2021. www.guildsomm.com/public_content/features/articles/b/sarah-bray/posts/pruning-for-sap-flow

Video: ‘Sap Flow Pruning: Country Calendar New Zealand, episode 1’, Hannah Lewis, Published 17 August 2021. www.youtube.com/watch?v=VOvimL_tFos

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