CASE STUDY:
Alternative pruning methods for Sauvignon Blanc – Spur Pruning

Consultant & Researcher: Mark Allen, Allen Vineyard Advisory and Fraser Brown.

The following case study illustrates various alternative pruning options developed by Allen Vineyard Advisory for Sauvignon Blanc. Winegrowers should consider a pruning option that best meets their requirements. The winegrowers involved in this case study pruned to Option 5- Full Monty. The costs provided in the following options were specific to this case study and grower.

OBJECTIVE
Develop an alternative pruning method for SB that reduces the time and cost associated with 3 and 4-cane VSP pruning, without significantly reducing yield.

METHOD
Mechanised barrel pruning followed by manual removal of excess shoots and spur pruning to either 2 or 4 budded spurs.

Pruning Options

OPTION 1: Mothball
- Barrel prune 80mm above the top fruiting wire = 10c/vine
- Manual tidy up around the posts and remove barrel pruning trash and rachis = 25c/vine
- **Total Cost = 35c/vine**

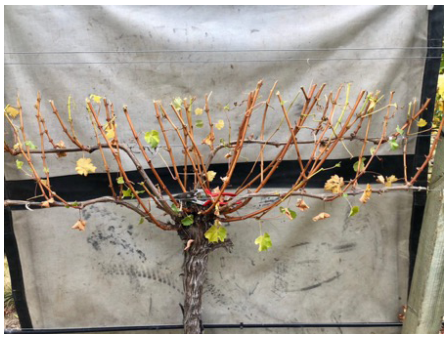

Image 1: Barrel pruned vine.

OPTION 2: Head declutter
- Barrel prune to 250mm above the top fruiting wire = 10c/vine
- Manual tidy up around the posts and remove barrel pruning trash and rachis = 25c/vine
- Manual declutter of the head and 2 short spurs cut = 20c/vine
- **Total Cost = 55c/vine**

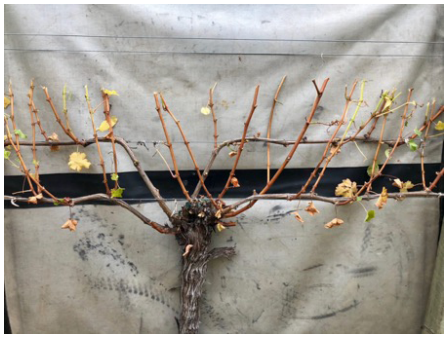

Image 2: Barrel prune to 250mm, plus head declutter and cut 2 short spurs.

OPTION 3: Remove Doubles
- Barrel prune to 250mm above the top fruiting wire = 10c/vine
- Manual tidy up around the posts and remove barrel pruning trash and rachis = 25c/vine
- Manual declutter of the head and 2 short spurs cut = 20c/vine
- Manual cut out doubles = 10c/vine
- **Total Cost = 65c/vine**

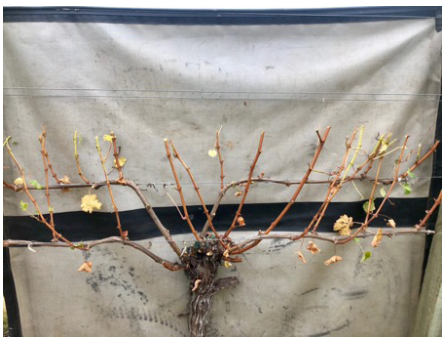

Image 3: Barrel prune to 250mm, head declutter, cut 2 short spurs and double shoots removed.

OPTION 4: Remove unders
- Barrel prune to 250mm above the top fruiting wire = 10c/vine
- Manual tidy up around the posts and remove barrel pruning trash and rachis = 25c/vine
- Manual declutter of the head and 2 short spurs cut = 20c/vine
- Manual cut out doubles = 10c/vine
- Manual remove under = 20c/vine
- **Total Cost = 85c/vine**

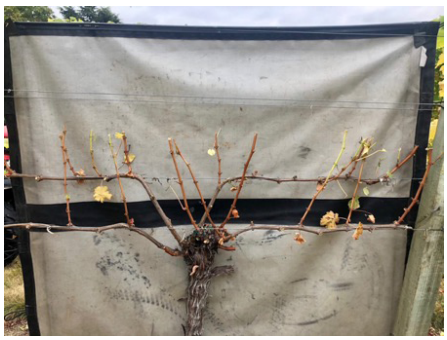

Image 4: Barrel prune to 250mm, head declutter, cut 2 short spurs, double and under shoots removed.

OPTION 5: Full Monty

- Barrel prune to 250mm above the top fruiting wire = 10c/vine
- Manual tidy up around the posts and remove barrel pruning trash and rachis = 25c/vine
- Manual declutter of the head and 2 short spurs cut = 10c/vine
- Manual cut out doubles = 10c/vine
- Manual remove unders = 20c/vine
- Manual trim of thin or un-lignified shoots to 1 or 2 buds, 2 long spurs retained in the head, end shoots trimmed to 2 buds to reduce congestion and remaining shoots trimmed to 4 buds (can also trim to 2 buds) = 0.25c/vine

Total Cost = $1.05 – $1.15/vine

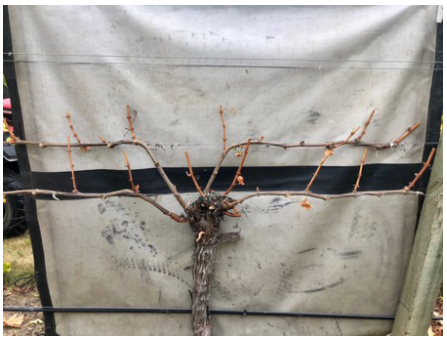

Image 5: Barrel prune to 250mm, head declutter, cut 2 short spurs, double and under shoots removed, thin or un-lignified shoots cut back to 1 or 2 buds, 2 long spurs retained in the head, end shoots trimmed to 2 buds to reduce congestion and remaining shoots trimmed to 4 buds (can also trim to 2 buds). Intermittent spacing of shoots between the bottom and top cordon is vital to reduce congestion.

Spacing and number of spurs

- Intermittent spacing of shoots between the bottom and top cordon is necessary to reduce congestion. See Image 5.
- 170mm spacing between spurs.
- A maximum of 4 x 4 bud spurs per cordon.
- 2 x 4 bud spurs plus 2 x 2 bud spurs in the head.

Wires

The foliage wires could be left in place eliminating the need to drop of lift the wires. The spurs create upward pointing shoots, most of which will grow up between the wires. There may be a need for an in and out tuck, estimated saving of 20c/vine.

Canopy Management

Producing vineyards adopting Option 1: Mothball, should expect a dense canopy. Consider shoot thinning or heavy mechanical thin combined with multiple leaf plucking and trimming passes.

Single Pass

Spur pruning is a single pass procedure. No wrapping and leap frogging of wrappers. Safer social distancing.

Yield and Profitability

Trials have shown between 10 and 15% reduction in yield. A trial block this year produced 16.0 t/ha on 4-cane VSP and 14.5 t/ha on 4 cordon spurs.

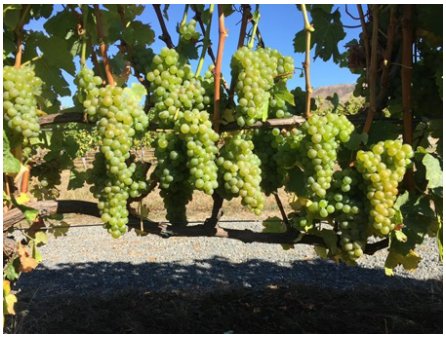

Image 6: Awatere Valley March 2020. Vine was pruned to Option 5: Full Monty in the winter of 2019. 4 x 4 bud spurs per cordon and no shoot thinning in the spring.

ACKNOWLEDGEMENTS

Thank you to Mark Allen, Allen Vineyard Advisory, and his colleague Fraser Brown; Plant and Food Research; and the Vineyard Ecosystems Programme team.

MORE INFORMATION

nzwine.com members

- 07-217 Final report 1 Influence of training systems and vine management on Pinot noir grapevines
- 07-217 Final report 2 Converting grapevines from cane to spur pruning — impacts on yield and fruit maturity
- 07-217 Final report 3 Influence of pruning time on yield, fruit composition and vine phenology
- 08-212 Final report 4 Previous season pruning and yield effects on current season yield of Sauvignon blanc
- 07-217 Annual report 4 Influence of training systems on Sauvignon blanc grapevine performance 2004-08-annotated
- 17-109 Final report Dormancy spraying Spray protocols to quantify and optimise spray deposits applied to dormant grapevines
- F11-01 Fact sheet Marlborough pruning
- Presentation Influence of pruning time on grapevine phenology and yield
- F19-01 Fact sheet Spray application to protect pruning wounds on dormant vines
- Fact sheet Mothballing
- Fact sheet Eutypa & Botryospheria Dieback in Vineyards