

Selection of walnut cultivars for import, winter 2009

NZWIG research committee discussion/decision at meeting held 15 June 2009

Background

- NZWIG members voted to import 3 new walnut cultivars into NZ in winter 2009.
- All the cultivars considered for import scored at least as well as Rex and Meyric in the Lincoln University taste test.
- Cultivars have been selected from those available in Tasmania because (1) the climate is very similar to our own, (2) it eliminates the 6 month seasonal difference, (3) it minimises pest/disease risk, (4) it keeps the cost down.

Research committee selection

The research committee considered and discussed the characteristics of the potential cultivars, and **selected Lara, Howard and Tulare for import**. The cultivar Fernette was also on our shortlist, after members at the Special Information Meeting suggested it on the basis of its high score in the Lincoln University taste test. Chandler was considered earlier in the process but was removed from the shortlist prior to the vote in accordance with feedback from members at Special Information Meeting. The following summarises the cultivar characteristics on which the research committee decision is based.

Howard and Lara

- General support from members for these cultivars.
- Both highly recommended by Tasmanian growers/propagators.
- Scored well in taste test: Howard 3.2 and Lara 3.3 on a 5 point scale, compared to Rex 3.1 and Meyric 2.8.
- Both late flowering, reducing frost risk: expected to be at least 2–3 weeks later than Rex to flower, and at least 1–2 weeks later than Meyric. Lara is a few days later than Howard.
- Should be able to pollinate them with Rex and/or Franquette.
- Shell seal/strength in Lincoln University tests: Howard 15 and Lara 13 (out of 20), compared to Rex 19 and Meyric 12. Meyric is at the weak end of the desirable range of shell strength.
- Both varieties had crackout over 50%, compared to Rex 43% and Meyric also over 50%.

Tulare vs Fernette

- A decision was made between these two cultivars for our third cultivar to import.
- Fernette had the highest score in the Lincoln University taste test, at 3.5 on the 5 point scale. We did not import Tulare for the taste test.
- Tulare flowering appears to be between that of Howard and Lara, so it should also have lower frost risk than Rex and Meyric. Californian researchers say it is self-pollinating.
- Fernette is extremely late to flower, probably some 4 weeks after Rex (possibly similar timing to G026 at the Lincoln University trial block). While this extreme lateness would reduce frost risk, it would also shorten the growing season. The major concern is that we do not have a pollinator for it; probably only G026 would cover part of its flowering period.
- Our contacts with orchards in Tasmania and New South Wales say they only use Fernette as a pollinator for Lara rather than as a commercial variety. They find Fernette late to come into bearing. They highly recommend Tulare.
- Fernette came out about 2001 from a major breeding programme in France, but it does not appear to be widely planted in France.
- Fernette is more unusual/unique which could be used as a marketing advantage.
- Californian researchers tell us that Tulare performs well there, though it is too vigorous for their fast growth and tight hedgerow plantings. Tulare's vigour is probably an advantage for us in our cool, slow-growing conditions, leading to earlier production.
- Fernette scored only 9 out of 20 in shell strength/seal (compared to 12 for Meyric).

Chandler

- Not favoured by members.
- Recommended by Tasmanian and Californian growers.
- Very widely planted so no uniqueness value.
- Came out well in Lincoln University taste test (3.2)
- Very low shell seal in Lincoln University test – only 3 on the 20 point scale. Seems strange as the nut is clearly robust enough in Californian conditions for rough mechanical harvesting.
- Late flowering similar to Lara.