

# BRIGHTS HYBRID PEACH X ALMOND

## Performance summary

Bright's Hybrid was among the top seven highest performing rootstocks in terms of cumulative yield. Results are specific to the soil characteristics and management practices applied to this trial site. Early canopy growth produced yields that were similar to Nemaguard and steadily increased each year. Bright's Hybrid had a significant delay in nut maturity where only 53% of nuts had reached stage 3 hull split by 25<sup>th</sup> January 2021 where all other rootstocks had reached 100% by the same day. Of the top seven rootstocks Brights Hybrid is one that is commercially available as a grafted tree in Australia.

## Key observations

### Tree Habit

Using trunk circumference as an indicator of tree growth, Nonpareil trees grown on Brights Hybrid (560.4mm) were not significantly larger than Nemaguard (549.8mm) in 2020.

In 2020, Brights Hybrid produced tree canopies that were 5.74m wide and 4.93m tall, and significantly higher than Nemaguard (4.65m) but not significantly higher than the spare Nemaguard (4.83m).

Canopy areas and light interception were higher for Brights Hybrid than Krymsk 86 but not significantly different than other rootstocks. These differences were lost by 8th leaf.

The lower canopy had quite dense growth with sparse limb growth into the upper canopy (Figure 38).

### Production

Bright's Hybrid showed a steady increase in average seasonal yield over time unlike many other rootstocks where the average annual yield in 2020 and / or 2021 declined below 2019 levels.

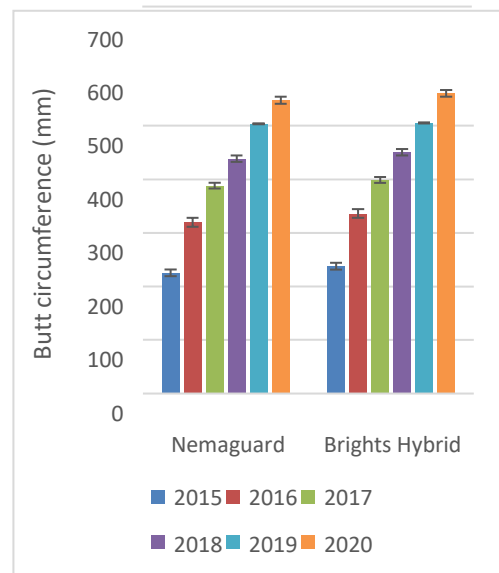


Figure 35. Average trunk circumference.

Table 14. Average annual yields (kg/ha)

Rootstock	2016	2017	2018	2019	2020	2021	Cumulative
Bright's Hybrid	469	1,156	1,826	2,840	3,314	3,914	13,519
Nemaguard	508	731	1,831	2,919	3,377	2,373	11,738

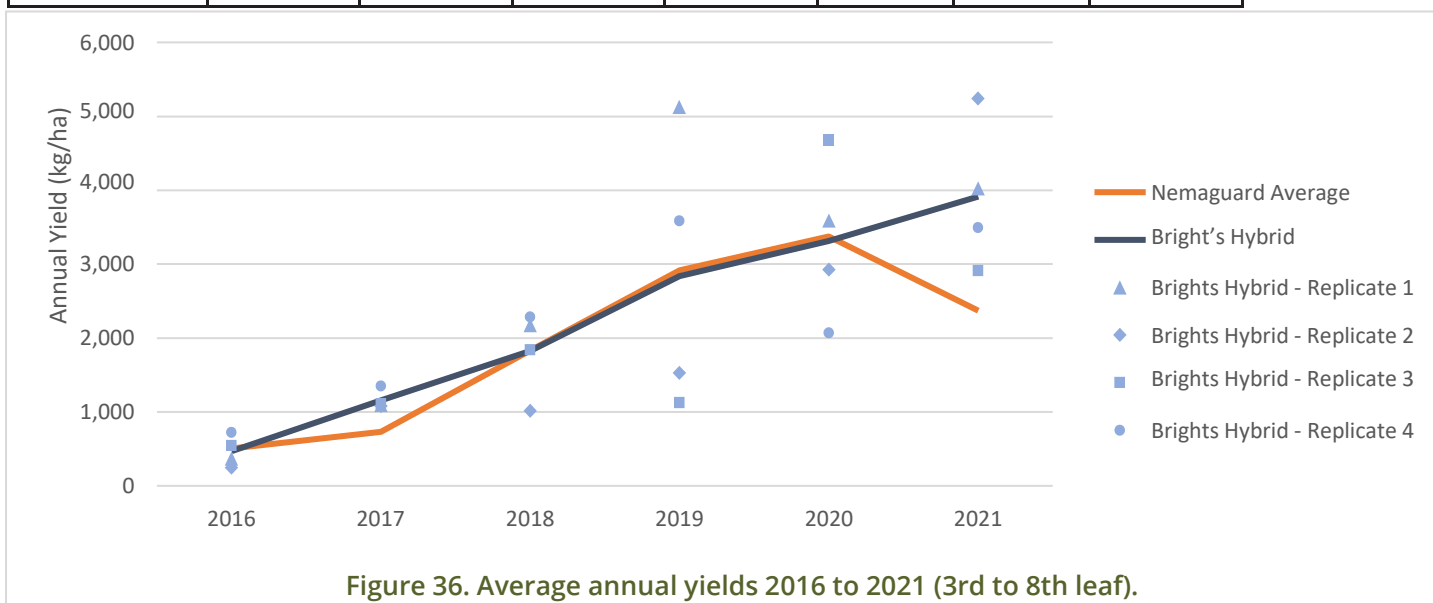


Figure 36. Average annual yields 2016 to 2021 (3rd to 8th leaf).

## Rootstock characteristics

Bright's Hybrid had a significant delay in nut maturity where only 53% of nuts had reached stage 3 hull split by 25<sup>th</sup> January 2021 where all other rootstocks had reached 100% by the same day. This delay was not evident in progressing to stage 6 where all rootstocks had reached 100% stage 6 by 18<sup>th</sup> February.



Table 15. Rootstock characteristics.

Root knot Nematode	Lesion Nematode	Ring Nematode	Crown Gall	Armillaria	Phytophthora	Salt exclusion	Chlorosis	Vigour	Propagation by cuttings
High resistance	More Tolerant than Nemaguard	Susceptible	Susceptible	Susceptible	Susceptible	Tolerant/ Excluder	Tolerant	High	Poor



Figure 37. Juvenile tree - 2017.



Figure 38. Mature tree - 2021.



Figure 39. Graft union - 2021.