KRYMSK 86
PEACH X PLUM

Performance summary

Krymsk 86 was the lowest performing rootstocks within the trial producing trees with similar trunk circumference, height and canopy area to Nemaguard however yields were significantly lower than Nemaguard and all other rootstocks. These results are specific to the soil characteristics and management practices applied to this trial site. Leaf analysis showed low levels of Ca and Mg and high levels of leaf sodium may have contributed to low yield performance. Krysmk 86 brought forward the start of flowering (0.5 days) and reduced flowering periods by 3.5 days compared to Nemaguard. Fruit on Krymsk 86 reached stage 3 hull split earlier than Nemaguard.

Key observations

Tree Habit

Using trunk circumference as an indicator of tree growth, Nonpareil trees grown on Krymsk 86 (568.8mm) had similar growth compared to Nemaguard (549.8mm) and spare Nemaguard (556.3mm) but was significantly smaller than Hansen 536 (619.6mm).

In 2020, Krymsk 86 produced small trees with height (4.87m) similar toNemaguard (4.65m) and Cornerstone (12 months younger) and significantly smaller than all other rootstocks.

Canopy area measures in 2018 indicated that Krymsk 86 had a significantly smaller canopy area than most rootstocks but not significantly different from Nemaguard, GF557 and Felinem. Strong apical limb growth was observed for some limbs with much of the available spacebetween trees remaining in 2021 (Figure 63).

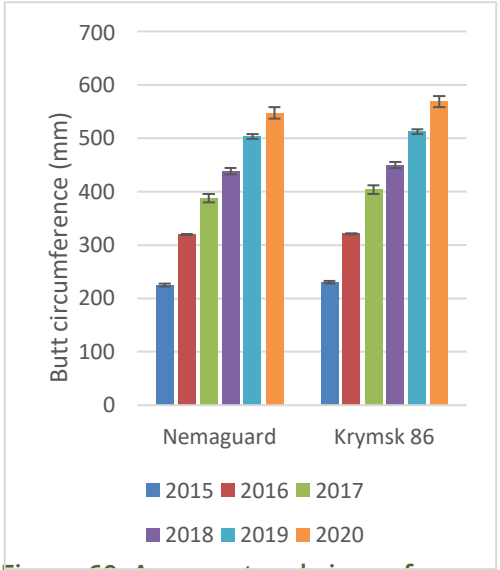

Figure 60. Average trunkcircumference.

Production

Average annual yields for Krymsk 86 were consistently less than Nemaguard resulting in a cumulative yield significantly lower than Nemaguard and all other rootstocks (Table 24).

Table 24. Average annual yields (kg/ha).

Rootstock	2016	2017	2018	2019	2020	2021	Cumulative
Krymsk 86	370	651	1,299	2,403	2,392	2,089	9,204
Nemaguard	508	731	1,831	2,919	3,377	2,373	11,738

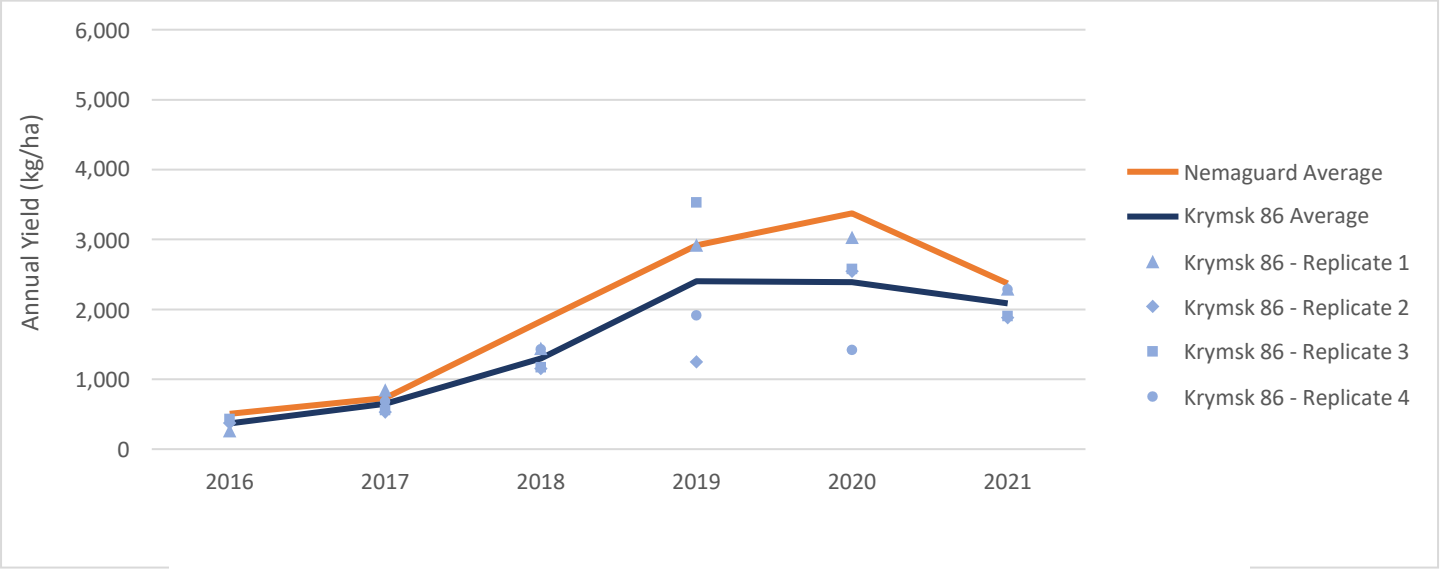

Figure 61. Average annual yields 2016 to 2021 (3rd to 8th leaf).

PO Box 1507 | 1801 Bookpurnong Road, Loxton SA 5333 | T +61 8 8584 7053 | E communications@australianalmonds.com.au | W growing.australianalmonds.com.au

Rootstock characteristics

In 2021 leaf analysis indicated a significant correlation between yield and leaf Ca and Mg levels with trees grown on Krymsk 86 and Nemaguard having the lowest leaf Ca and Mg levels. Similarly, there was a significant correlation between yield and leaf sodium with high sodium levels correlating with low yields. The highest levels were observed in Krymsk 86 and Nemaguard. Both Krymsk 86 and Nemaguard have been found to be poor excluders of sodium and chloride and may have contributed to low yield performance even when soil salinities were below the level considered to affect yield (1.5dS/m).

Moderate level of Ring Nematode were observed in the soil around Krymsk 86. Ring Nematode is known to increase the susceptibility to bacterial cankers and will require monitoring to determine if the nematode population increases and its effect on tree growth and yield.

Fruit on Krymsk 86 reached stage 3 hull split earlier than Nemaguard with 98% of the fruit reaching stage 3 by January 18 compared to Nemaguard having only 74% of fruit reaching stage 3 on the same date.

Krymsk brought flowering forward by half a day and reduced the flowering period to 22.5 days compared with Nemaguard's average flowering period of 26 days.

Table 25. Rootstock characteristics

Root knot Nematode	Lesion Nematode	Ring Nematode	Crown Gall	Armillaria	Phytophthora	Salt exclusion	Chlorosis	Vigour	Propagation by cuttings
Susceptible	Medium	Susceptible	Medium	Unknown	Tolerant	Sensitive	Medium	Medium	Good

Figure 62. Juvenile tree - 2017.

Figure 63. Mature tree - 2021.

PO Box 1507 | 1801 Bookpurnong Road, Loxton SA 5333 | T +61 8 8584 7053 | E communications@australianalmonds.com.au | W growing.australianalmonds.com.au