

Focus Orchard Trial: Can fumigation improve young tree growth in replant soil?

Orchard: Cunial Orchard

Orchardist: Michael Cunial

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Trial details

Variety: Buckeye Gala apples on M26 rootstock

Tree spacing: 3.5 X 1.2 m = 2,380 tree/ha

Replant situation

- 2 years fallow, grass cover grown
- Good soil preparation
- Dolomite applied

Previously young trees planted have not grown as well as expected in the initial year. Aim of trial was to see if first year growth could be improved with fumigation.

Metham sodium was used at 500 litres /ha, applied in planting strips.

Fertiliser was spread on the surface, but very little rain occurred to wash it into soil in spring.

Some key irrigations may have been missed in heat waves as cropping trees main priority

Powdery mildew occurred on growing points of some trees (Gala are prone).

Observations

- Fumigation successful at initially controlling weeds, and presumably nematodes. Grass and weeds did develop in fumigated areas after rain late in the season .
- Level of tree growth was low on fumigated and unfumigated blocks. No differences seen in growth between the two treatments.

- Overall growth was low, with leader extension averaging just 161 mm and lateral extension a lot less. Very few new laterals initiated.
- In seasons that are unfavourable for vegetative growth all pieces of the jigsaw have to be right; weed control, nematode control, nutrition, watering and disease control.
- The starting point for producing a good canopy is matching the rootstock - variety – soil type – planting distances, which was done correctly here.



