Mid Area temperate nut experimental orchard

Department of Jobs, Precincts and Regions

Loxton - October 30, 2019

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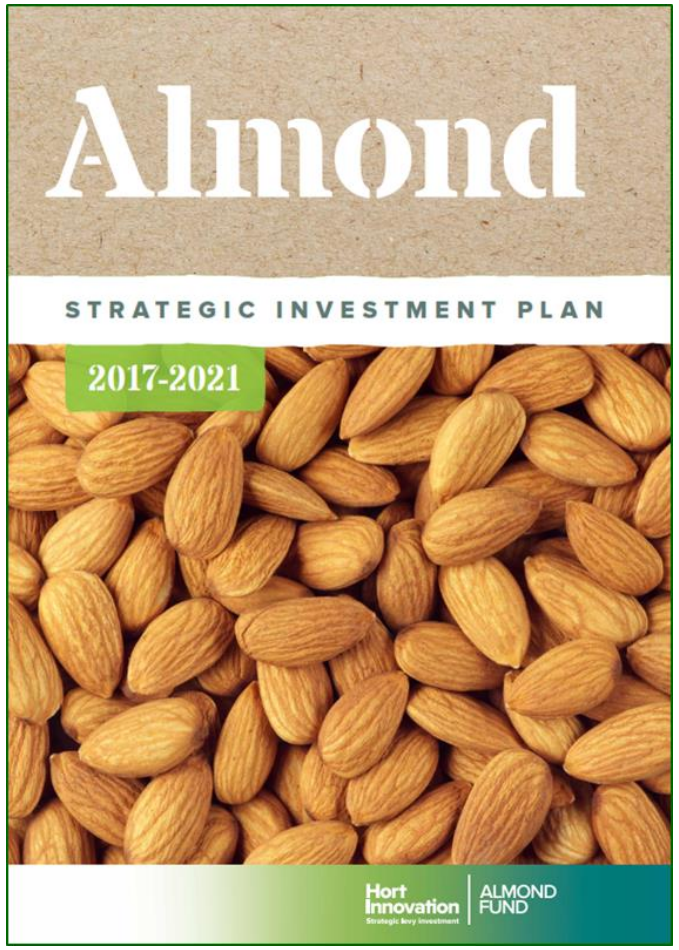
ST16001

H1	scion rootstock resource
H2 – H3	scion rootstock density
Tree training	scion rootstock density training
"Light-X"	direct light
Natural tree architecture	variety
Other temperate nuts	density

… further efficiencies in H1 orchards

… development of H3 orchards



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Australian Government Department of Agriculture and Water Resources

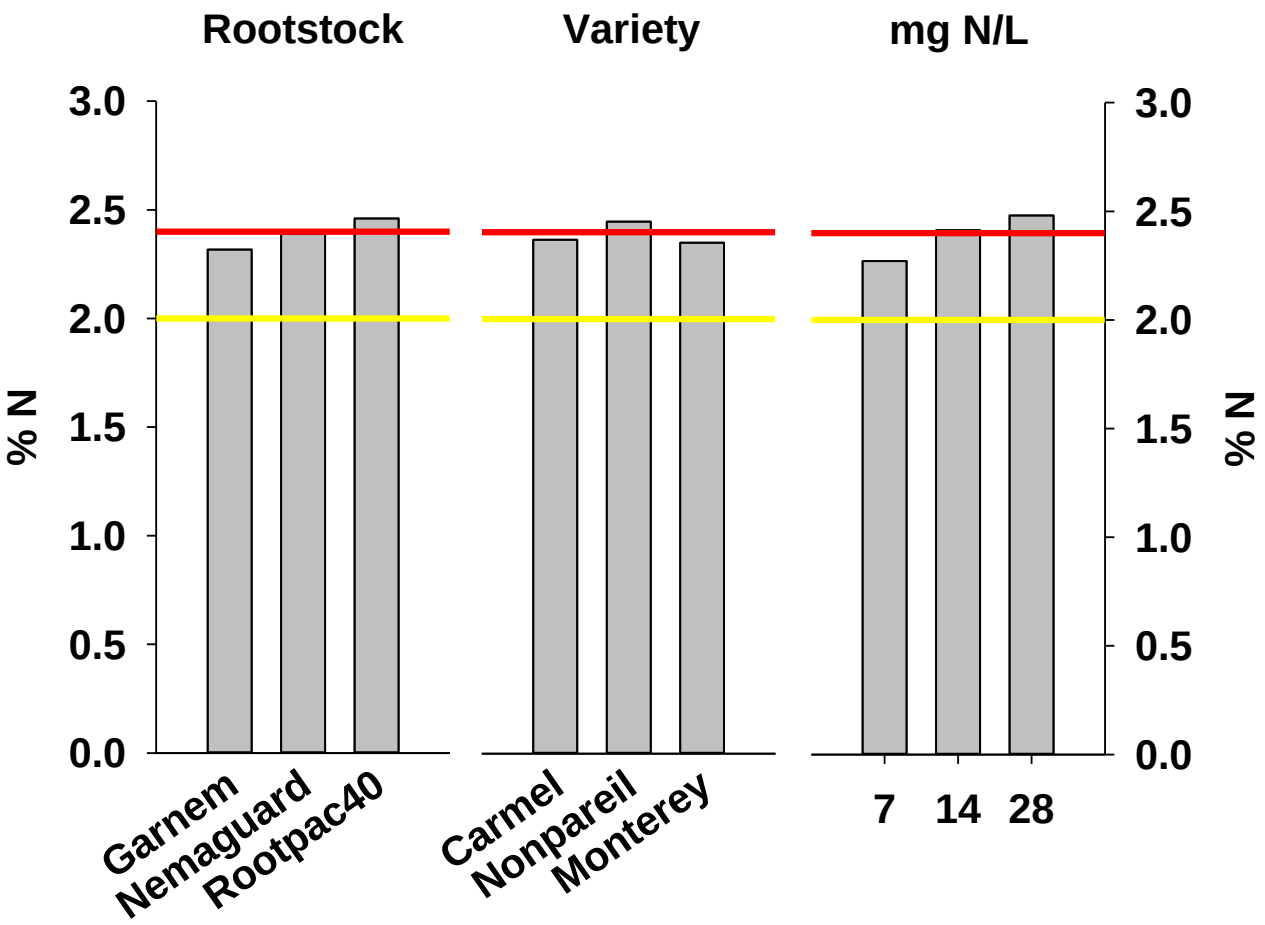
ALMOND BOARD OF AUSTRALIA

NSW Primary Industries

SARDI

Horticulture Innovation Australia

H1 fertiliser management for better tree establishment & early bearing



- *dwarfing/vigour*
- *resource use efficiency*
- *remote sensing "platform"*

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H2-H3 new varieties, dwarfing rootstocks & tree density

scion		rootstock		trees/ha	
Vela Rhea A21	×	Garnem Nemaguard Rootpac®40 Rootpac®20	×	500 1,000 2,000	6.5 ha

- *tree architecture*
  - *desirable branching?*
- *dwarfing/vigour balance*
- *reproductive behaviour*
  - *spur dynamics*
- *precociousness*

- *autonomous irrigation*

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Training

new varieties, dwarfing rootstocks, density & leaders

- *rootstocks/architecture*
- *physiology*
  - *wound responses*
  - *apical dominance*
- *reproductive behaviour*
  - *spur dynamics*
- *precociousness*

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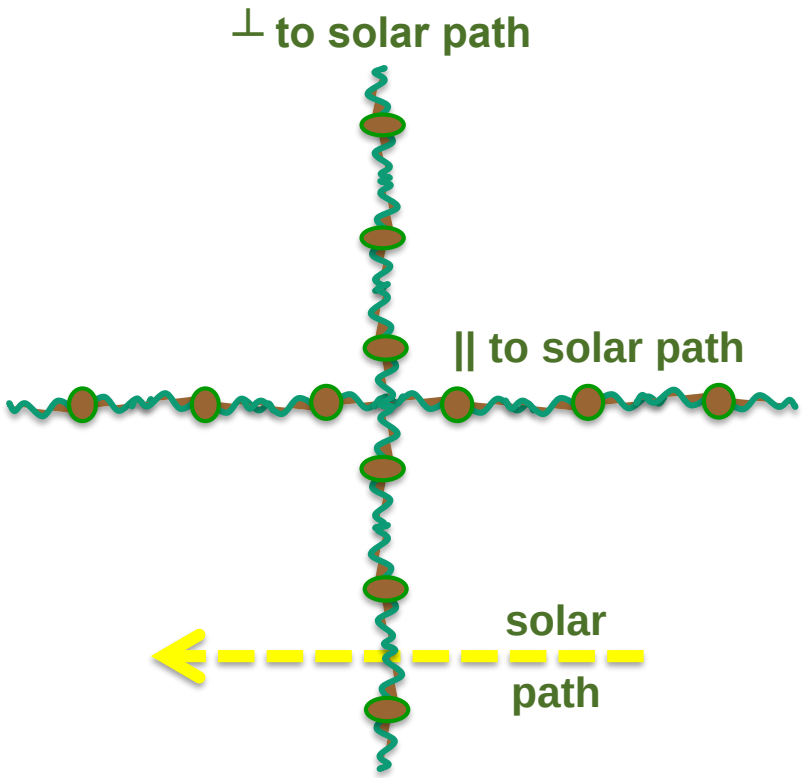
“Light X” floral bud initiation & direct light exposure



- *light receipts* vs *spur fertility*

- *orchard design specifications*
- *PhD training*

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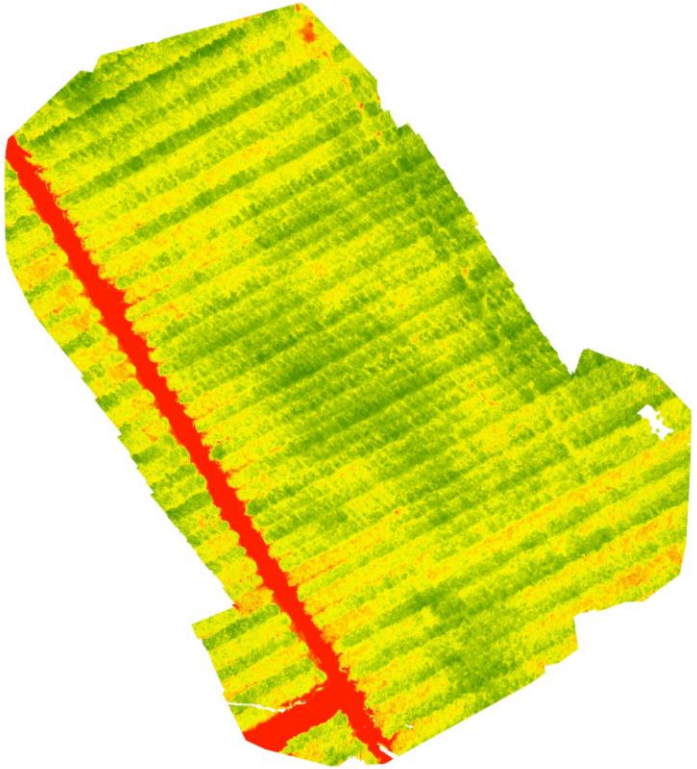
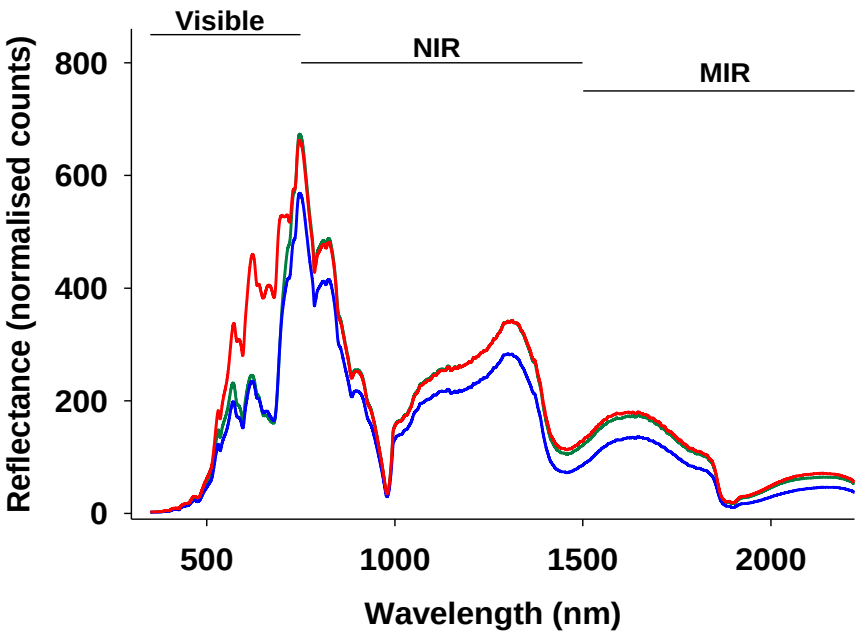
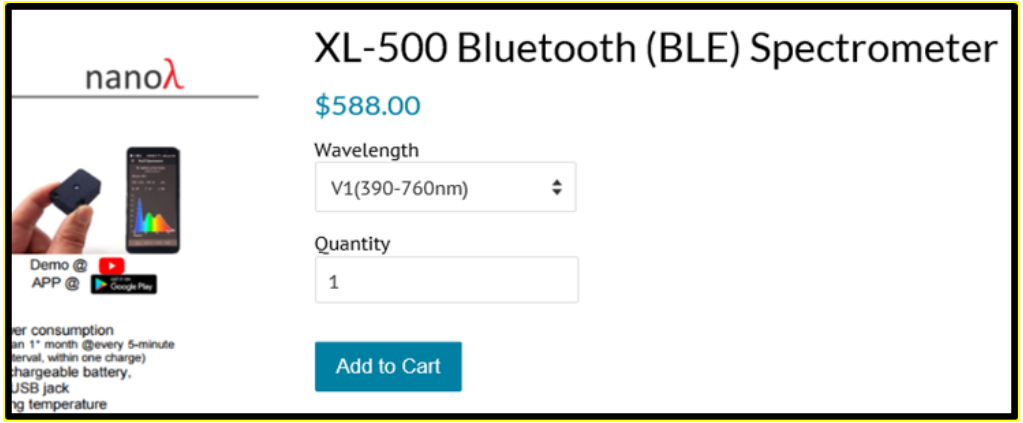
Management tools: proximate & remote sensing







https://nanolambda.myshopify.com/products/lido?variant=20547771629638

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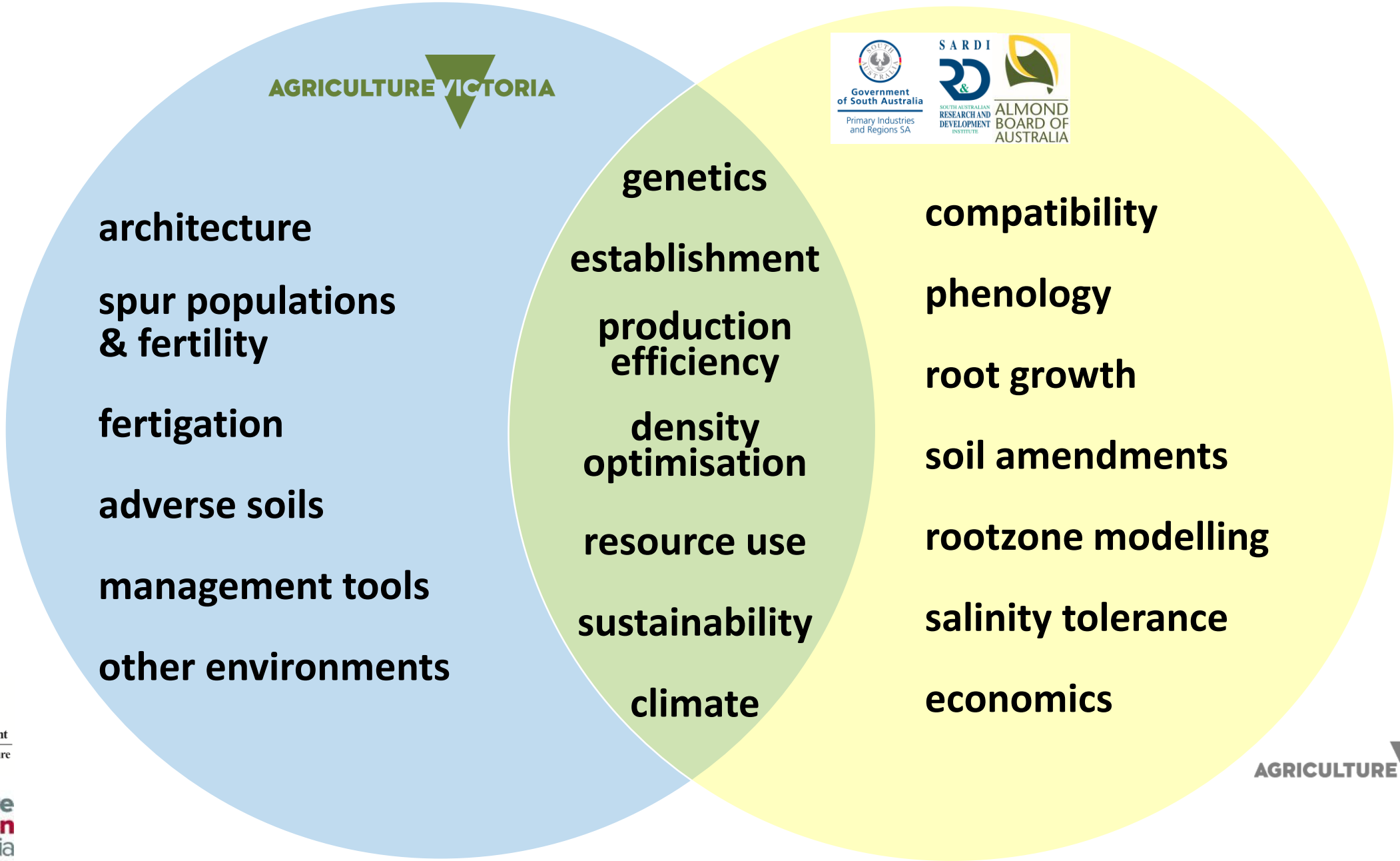

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