Propagation By Grafting

- To establish seed orchards and produce greater genetic gain from interbreeding of superior individuals than from simple selection and cutting propagation.
- Very slow, waiting for trees to begin flowering and then to become large enough to produce useful quantities of seed.
- Incompatibility issues.
E. Quadrangulata Orchard

300 ramets of 28 clones planted spring 2016.
After cyclone Debbie…
E. Globoidea Archive

Around 130 ramets of 30 clones planted spring 2016 for further multiplication.
E. Bosistoana Orchard

Around 170 ramets of 16 clones planted spring 2015, filling about half of available orchard positions. Infill is on hold pending new assessment of DFI trials.
Propagation By Cuttings

- For rapid multiplication and deployment of superior selections.
- Technically difficult, particularly with older material.
Narromine Nursery
First Proseed Settings

Summer 2015/2016 around 750 cuttings were rooted, taken from a range of *E. bosistoana* seedlings grown at Harewood.
Stool Bed Establishment

A hydroponic batch system was constructed for a stool establishment trial. 250 cuttings from 18 clones were planted mid-June.
Stool Bed Establishment

End October
19 weeks
Smoking!
Deficiency and Environment Issues
Nutrient Flow Solution (NFS)
Levels Over Time

Micronutrient Levels

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Solution Age (Days)
Root Development
K & L Nurseries: Rose Growers
Batch System Mk II
Woodville Programme – Stage One

5 - 6 rooted cuttings each from 1000 – 2000 E. bosistoana growth strain selections (from first of two trials)

~18 rooted cuttings each of a selection subset for clonal trials.
Propagation Facility
Logistics

• Selected ortets labelled on site.
• Two collections: late February and late March.
• Labelled cutting material put into plastic bags, sprayed with fungicide, packed into polystyrene fish boxes and chilled.
• Boxes transported overnight by refrigerated truck.
• Material set within 4-5 days
Settings

- 693 clones collected
- 11342 cuttings set
- Average 16 cuttings/clone
- Clonal settings split between two bench locations.
Woodville Programme – Stage Two

Make good shortfall on stage one setting targets.
Set material from additional selections in second E.bosistoana trial
Programme Timing

Eucalypt Cutting Strike on Season and Treatment

- **Hormone**
- **No Hormone**

Strike

- 15/10/2016
- 22/10/2016
- 29/10/2016
- 05/11/2016
- 12/11/2016
- 19/11/2016
- 26/11/2016
- 03/12/2016
- 10/12/2016
- 17/12/2016
- 24/12/2016
- 31/12/2016
- 07/01/2017
- 14/01/2017
- 21/01/2017
- 28/01/2017
- 04/02/2017
- 11/02/2017
- 18/02/2017
- 25/02/2017
- 04/03/2017
- 11/03/2017
Stool Development
(Cut back early September)
Setting System