

A photograph of a dirt path winding through an orchard with rows of trees on either side.

Native Species in Orchards

Fruit Growers Victoria Infosheet #7

Selecting native species to plant in your orchard will depend on various factors such as; micro-climate, soil type, topography, irrigation, weed species, and farm management practices. Here we list what to consider when planting native species.

Consider

- What is the **purpose**? (example: drought tolerance)
- Which species is **suited** to your orchard conditions? (think environmental factors, cultural practices)

Potential Benefits

- Suited to local area and **weather conditions** including possible resilience to extremes
- Attract local **insects**

Potential Challenges

- Availability of Seed
- Cost of Seed
- Sowing - (fluffy seed)
- Difficulties in establishment (e.g. slow)
- Due to limited research it is hard to know how species will work in orchards



Figure: Native species mix selected for trial site. Too much plant material made it impossible to use with seeder. Ensure seed is processed if planning to use seeder, and look into mixing it with blending agents (such as vermiculite/sand), or can consider getting it pelletised.

Learnings on Native Species:

- Start preparing 12-18 months in advance (soil test, identify weed seedbank in soil, spray weeds/shallow cultivate) Probably need to spray or cultivate multiple times.
- Native species will come up when conditions are right, there may be staggered germination
- Native species are slow growing - need to be patient and have a maintenance plan ready to target weeds (slashing, spot spraying, or spraying selective herbicides based on species sown)
- The species we selected only needed to be surface sown and then using a roller for soil contact
- Species selection is critical: less than 30cm/prostrate, shade tolerant, etc



Native grass planted from tubestock to test growth in orchard soils with higher nutrient load than what is generally recommended for natives. Transplanted August, photo October.

Tips for starting

- Inform yourself and start small
- Chat with locals, landcare and with staff at nurseries and see what grows well in your area
- Keep away from yellow flowering plants. Yellow attracts Dimple Bug.
- Ideal plants to attract beneficial insects are those that have small white or red/pink/purple flowers.
- Trial on small areas of orchard - possibly use tubestock first then try seeds. Make sure you can identify the species.
- Monitor (photos, notes) and record what does well, what doesn't work



Wallaby grass germinated - highlighted in yellow to show the fine blades of grass in comparison to other grasses and broadleaves which also grow faster.

Native Species in Orchards | Fruit Growers Victoria

Below is a list of Native species that can be grown in Goulburn Valley with research carried out demonstrating potential benefits in various horticulture systems. Further information can be found at the end of infosheet

Native Species	Details	Considerations
<p>Wallaby Grass <i>(Rytidosperma geniculata)</i></p>	<ul style="list-style-type: none"> • Short height (<30cm), perennial, drought resilient • Habitat for diversity of predators: brown lacewing, wolf spider, parasitoid and predatory wasps • Flowering late spring- early summer • Dense fibrous root systems - depth of around 15cm 	<ul style="list-style-type: none"> • Slow to establish - weed control critical. • Sparse cover on its own, consider diversity of species
<p>Weeping Grass <i>(Microlaena stipoides)</i></p>	<ul style="list-style-type: none"> • Short/weeping habit (30-70cm), perennial, competitive • Tolerates: shade, waterlogging, acid soils • High frost tolerance, high drought tolerance • Flowering summer - autumn • Cover for ground-dwelling reptiles, attracts butterflies 	<p>Growth can be impacted negatively by exposure to heat</p>
<p>Prickly Tea tree <i>(Leptospermum continentale)</i></p>	<ul style="list-style-type: none"> • White flowers (early spring-late summer) attract predatory and parasitic wasps and flies, lacewings, spiders. • Nectar and seed-eating birds also attracted. • Hardy once established. 	<ul style="list-style-type: none"> • Shrub size - 0.5-2m high x 1-2m wide. • Can be pruned to preferred shape
<p>Native Mint <i>(Mentha satureioides)</i></p>	<ul style="list-style-type: none"> • Perennial herb, forms mat, rhizomatous • Flowers pink/white throughout year - attract bees and wasps • Can grow in sandy-clay to clay rich soils • Can grow in shade, tolerates waterlogging 	<p>May not tolerate very hot conditions</p>
<p>Running postman <i>(Kennedia prostrata)</i></p>	<ul style="list-style-type: none"> • Legume (Nitrogen-fixing) • Can tolerate: drought, fire, moderate frost • Good ground cover (prostrate, low growing) • Red Flower (winter-spring) nectar for insects including butterflies 	<ul style="list-style-type: none"> • Seed needs hot water treatment for germination • Not suited to waterlogging
<p>Native rosemary <i>(Dampiera rosmarinifolia)</i></p>	<ul style="list-style-type: none"> • Masses of violet-blue flowers (spring- summer) • Attracts bees, and other insects • Frost tolerant and drought tolerant once established 	<ul style="list-style-type: none"> • Low growing shrub (70cm) • Not suited to waterlogged conditions • Needs full sun
<p>Creeping saltbush <i>(Atriplex semibaccata)</i></p>	<ul style="list-style-type: none"> • Can outcompete weeds • Habitat for beneficial arthropods including predators of LBAM eggs • Prostrate habit, good ground cover, protect soil surface from heat 	<ul style="list-style-type: none"> • Germinate on soil surface (exposure to light) • Adapted to grow in low-fertility soils

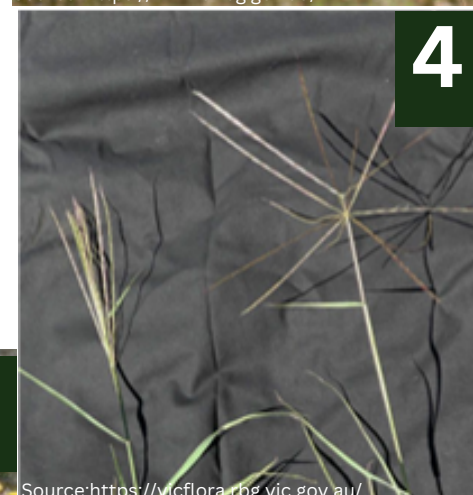
FOR THIS PROJECT - Local Native Species for riverplain environments selected (Advised by Euroa Arboretum & Native Seeds)

1. Red Grass (*Bothriochloa macra*)
2. Weeping Grass (*Microlaena stipoides*)
3. Kangaroo Grass (*Themeda triandra*)
4. Curly Windmill Grass (*Enteropogon acicularis*)
5. Wallaby Grass (*Rytidosperma geniculata*)
6. Drumsticks (*Pycnosorus globosus*)
7. Running Postman (*Kennedia prostrata*)
8. Clustered Everlasting (*Chrysocephalum semipapposum*)
9. Lemon Beauty Heads (*Calocephalus citreus*)



3

Source: <https://www.anbg.gov.au/>



4

Source: <https://vicflora.rbg.vic.gov.au/>



7

Source: <https://anpsa.org.au/>



8

Source: <http://euroaarboretum.com.au/>



6

Source: <http://euroaarboretum.com.au/>

Further Information

- **Australia National Botanic Gardens (Native Species information)** - <https://www.anbg.gov.au/gnp/index.html>
- **Euroa Arboretum** - <http://euroaarboretum.com.au/>
- **Ecovineyards Factsheet Introduction to Native Insectary Plants** - <https://www.wgcsa.com.au/ecovineyards-factsheets.html>
- **Native Seeds supplier and information** - <https://nativeseeds.com.au/grasses-2/>
- **Native species nursery in Mornington Peninsula** - <https://www.conservationcollective.shop/>
- **Helpful images of native species at different growth stages** - <https://treeproject.org.au/>
- **Goulburn Broken Catchment Management Authority Species List for Plains Woodland** - <https://www.gbcma.vic.gov.au/revegetation/zones/victorian-riverina/plains-and-sand-ridges-species.html>

Acknowledgement



This project received funding from the Australian Government's Future Drought Fund.