Langhorne Creek Wine Region

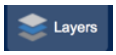
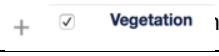
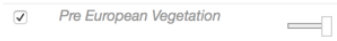
Native plant community lists

Information compiled by Dr Mary Retallack, April 2023

This 'quick guide' can help get you started on your property planning project. It provides details of the major pre-European plant communities found in the Langhorne Creek Wine Region and tools to assist you in determining your local plant community types.

NatureMaps

NatureMaps is an online program that can be used to source a range of information including pre-European plant communities for individual properties located in South Australia.

Step #	Instruction
Step 1	To get started open the following link https://data.environment.sa.gov.au/NatureMaps/Pages/default.aspx
Step 2	Select the 'start' button  and wait for the program to load
Step 3	Type your details in the 'find your address or location' bar 
Step 4	Select the best fit from the ALVS tab  and the map will zoom to your address
Step 5	Use the zoom 'in or out' buttons to navigate around the map (toggle out so you can see the region) 
Step 6	Select the 'layers' button at the bottom of the screen 
Step 7	Select the 'vegetation' layer  nd then select the + button to open the drop down menu.
Step 8	Select 'Pre-European Vegetation' from the drop-down menu 
Step 9	Slide the bar to change the transparency of the layer selected 
Step 10	Place your cursor over a coloured area on the map to get more information about the selected layer. Then select 'view additional details' in the white summary box to access further details.
Step 11	Once you have identified the name of your local plant community you can search and download a list of plants here https://www.landscape.sa.gov.au/hf/our-priorities/nature/native-plants-animals-and-biodiversity/native-plants-and-animals/native-plants/native-plant-species-lists

For further info see https://data.environment.sa.gov.au/NatureMaps/Documents/NatureMaps%20Help%20Guide.pdf

Please refer to the plant community lists below (which relate the location of the EcoVineyards demonstration sites) or enter your details into NatureMaps and follow the process above to access a plant list for your local area.

Background information

The pre-European plant communities and associated plant lists below have been refined to include plants that are likely to be available via local plant nurseries (enquire with your local nursery and pre-order in winter for pick up in May/June the following year), insectary benefits, and potential suitability for use either in or around vineyards.

If you are unsure where to start, ask the nursery to select a tray of mixed species and observe how they grow adjacent to the vineyard in the first year.

If you wish to trial the use of plants, we suggest you start with a small area and focus your efforts on shrubs that either grow or can be trimmed to less than 2.5 metres tall if being planted near the vineyard (adjacent to strainer posts) and/or ground covers that are less than 30 cm tall if you are planting them in the undervine area. Plant a diversity of plants to achieve optimal functional biodiversity benefits.

Plants are presented in alphabetical order by genus in each plant habit category. Native plant communities have been identified for each EcoGrower demonstration site along with useful links to local service providers (native plant nurseries, suppliers of native seeds and sowing services).

This info has been summarised from https://www.landscape.sa.gov.au/hf/our-priorities/nature/native-plants-animals-and-biodiversity/native-plants-and-animals/native-plants/native-plant-species-lists https://www.stateflora.sa.gov.au/ and http://plantselector.botanicgardens.sa.gov.au.

Please use the plant information provided as a guide only and seek input from local practitioners and experts when selecting your plants, appropriate planting positions, spacing etc.

To find out more about insectary plants please visit https://ecovineyards.com.au/fact-sheets/

More information?

If you would like to find out more information about individual plants. Visit the Botanic Gardens of SA 'Plant Selector' http://plantselector.botanicgardens.sa.gov.au. Enter your postcode and press search. View the results and export data to retain a copy. The Excel spreadsheet contains detailed notes about each plant and its suggested uses.

Langhorne Creek Wine Region

Red gum, *Eucalyptus camaldulensis* var. camaldulensis woodland (H12)

Description: *Eucalyptus camaldulensis* var. camaldulensis woodland over an open understorey of sedges, rushes, grasses, and herbs

EcoVineyards sites: Kimbolton Vineyard, Burleigh Street, Langhorne Creek; Bleasdale Vineyard, Langhorne Creek Road, Langhorne Creek; Windsong Wines, Clements Road, Langhorne Creek SA

Habit	Family	*Genus*	*Species*	Common name	Floral resource		Height (m)	Width (m)	Tolerance to frost	Flower colour		Flowering time
					Pollen	Nectar						
Tree	Fabaceae	*Acacia*	*melanoxylon*^	blackwood	yes	[1]yes	7 to 20	4 to 10	resistant	yellow		winter to spring
	Fabaceae	*Acacia*	*pycnantha*^	golden wattle	yes	[1]yes	4 to 6	2 to 6	moderately sensitive	yellow		winter to spring
	Fabaceae	*Acacia*	*retinodes* var. retinodes^	swamp wattle	yes	[1]yes	5 to 8	3 to 7	moderately sensitive	yellow		winter to spring
	Myrtaceae	*Callistemon*	*sieberi*	river bottlebrush	yes	yes	2 to 4	2 to 3	moderately sensitive	cream		spring
	Myrtaceae	*Eucalyptus*	*camaldulensis* ssp. camaldulensis^	river red gum	yes	yes	20 to 30	10 to 15	resistant	white		summer
	Myrtaceae	*Eucalyptus*	*dalrympleana* ssp. dalrympleana	candlebark gum	yes	yes	15 to 35	11 to 15	resistant	white		spring to summer
	Myrtaceae	*Eucalyptus*	*leucoxylon* ssp. leucoxylon^	SA blue gum	yes	yes	8 to 30	8 to 25	moderately sensitive	cream	pink	autumn to winter
	Myrtaceae	*Eucalyptus*	*viminalis* ssp. cygnetensis^	rough-bark manna gum	yes	yes	6 to 20	8 to 20	moderately sensitive	white		spring to autumn

Red gum, *Eucalyptus camaldulensis* var. camaldulensis woodland

Habit	Family	*Genus*	*Species*	Common name	Floral resource		Height (m)	Width (m)	Tolerance to frost	Flower colour	Flowering time
					Pollen	Nectar					
Shrub	Fabaceae	*Acacia*	*acinacea*^	gold dust wattle	yes	yes	1 to 2	1 to 2	resistant	yellow	winter to spring
	Pittosporaceae	*Bursaria*	*spinosa* ssp. spinosa^	sweet bursaria	yes	yes	2 to 4	1 to 3	resistant	white	late spring to late summer
	Fabaceae	*Cullen*	*australasicum*	tall scurf-pea	yes	yes	0.5 to 2.5	1 to 2	moderately sensitive	pink	spring
	Amaranthaceae	*Enchylaena*	*tomentosa* var. tomentosa^	ruby saltbush	yes		0.3 to 1	0.5 to 1.5	resistant	insignificant	spring to summer
	Goodeniaceae	*Goodenia*	*amplexans*^	clasping goodenia	yes	yes	0.5 to 1.2	0.5 to 1	moderately sensitive	yellow	spring to summer
	Myrtaceae	*Leptospermum*	*continentale*^	prickly tea-tree	yes	yes	0.5 to 2	1 to 2	resistant	white	spring to summer
	Myrtaceae	*Leptospermum*	*lanigerum*^	woolly tea-tree	yes	yes	2 to 5	1.5 to 4	resistant	cream	spring to summer
	Fabaceae	*Pultenaea*	*largiflorens*^	twiggy bush-pea	yes	yes	1 to 1.5	0.5 to 1.5	moderately sensitive	yellow / orange	winter to spring
	Asteraceae	*Senecio*	*pinnatifolius*^	variable groundsel	yes	yes	0.5 to 1.2		resistant	yellow	spring to summer
Ground cover	Poaceae	*Austrostipa*	*elegantissima*^*	feather spear-grass	yes	no	1	1	resistant	green / brown	winter to spring
	Poaceae	*Austrostipa*	*scabra*^*	rough spear-grass	yes	no	0.3 to 0.6	0.5	resistant	green / brown	winter to spring
	Poaceae	*Chloris*	*truncata*^*	windmill grass	yes	no	0.3 to 0.5	0.2 to 0.5	resistant	cream	spring to summer
	Goodeniaceae	*Goodenia*	*pinnatifida*^	cut-leaf goodenia	yes	yes	0.4	0.1	moderately sensitive	yellow	spring to summer
	Campanulaceae	*Lobelia*	*anceps*^	angled lobelia	yes		0.1 to 0.3	0.3 to 2	moderately sensitive	purple	spring to summer
	Poaceae	*Microlaena*	*stipoides* var. stipoides^*	weeping rice-grass	yes	no	0.1 to 0.7	0.2 to 1	moderately sensitive	cream	spring to summer
	Poaceae	*Rytidosperma*	*auriculatum*^*	lobed wallaby grass	yes	no	0.2 to 0.7	0.1 to 0.2	resistant	cream	spring
	Poaceae	*Rytidosperma*	*caespitosum*^*	common wallaby grass	yes	no	0.2 to 0.8	0.1 to 0.3	resistant	cream	spring
	Poaceae	*Rytidosperma*	*setaceum*^*	small-flowered wallaby grass	yes	no	0.2 to 0.6	0.1 to 0.3	resistant	cream	spring to summer
	Poaceae	*Themeda*	*triandra*^*	kangaroo grass	yes	no	0.4 to 1	0.5 to 1	resistant	brown	frequent
	Campanulaceae	*Wahlenbergia*	*stricta* ssp. stricta^	tall bluebell	yes	yes	0.3 to 0.6	0.5 to 1	moderately sensitive	blue	frequent

Red gum, *Eucalyptus camaldulensis* var. camaldulensis woodland

Habit	Family	*Genus*	*Species*	Common name	Floral resource		Height (m)	Width (m)	Tolerance to frost	Flower colour	Flowering time
					Pollen	Nectar					
Strap leaved	Xanthorrhoeaceae	*Xanthorrhoea*	*semiplana* ssp. semiplana^	grass tree	yes	yes	1 to 3	1 to 2	moderately sensitive	cream	winter to spring
Sedges and rushes	Poales	*Bolboschoenus*	*caldwellii*^	salt club-rush	yes		0.3 to 1.2		resistant	brown	spring to summer
	Cyperaceae	*Carex*	*tereticaulis*^	rush sedge	yes	yes	0.6 to 1.2	0.6 to 1	resistant	brown	spring to summer
	Cyperaceae	*Cyperus*	*gymnocaulos*^	spiny flat-sedge	yes		0.2 to 0.7	0.5 to 1	resistant	brown	winter to summer
	Cyperaceae	*Cyperus*	*vaginatus*^	stiff flat-sedge	yes		0.3 to 1.5	0.5 to 2	resistant	brown	spring to autumn
	Poales	*Juncus*	*kraussii*^	sea rush	yes		0.5 to 1	0.5 to 1	resistant	brown	frequent
	Poales	*Juncus*	*pallidus*^	pale rush	yes		0.5 to 2	0.5 to 2	resistant	brown	spring to summer
	Poales	*Juncus*	*pauciflorus*^	loose-flower rush	yes		0.5 to 1	0.5 to 1	resistant	brown	summer
Bulbs and lilies	Asphodelaceae	*Dianella*	*revoluta* var. revoluta^	black-anther flax-lily	[2]buzz pollinated	yes	0.3 to 1	0.5 to 2	resistant	blue	spring to summer
Climber (outside vineyard)	Fabaceae	*Hardenbergia*	*violacea*^	native lilac	yes	yes	climber	3 to 4	moderately sensitive	purple	winter to spring

^ plants available commercially

* seed available commercially

[1]*Acacia* flowers do not produce nectar. However, the leaf and phyllode glands do secrete a nectar or sugary substance which bees, butterflies and other insects have been observed feeding on.

[2] **Buzz pollination:** Some native bees use a special pollination technique called 'buzz pollination' (sonication) i.e., the blue-banded bee, bangs its head on the flower's anthers 350 times a second to release the pollen. Plants from the Solanaceae (nightshade) family (tomatoes, capsicums, and eggplants) and many Australian native plants including *Hibbertia* ssp. and *Dianella* ssp. are buzz pollinated. These plants have the capacity to boost biodiversity and support populations of native bees, but their pollen resources may not be readily available to predatory arthropods.

Growers are encouraged to explore the use of *Bursaria spinosa*, *Leptospermum* ssp. and *Rytidosperma* ssp. as insectary plants in proximity grapevines (Retallack et al., 2019). It is anticipated a broader suite of native insectary plants could extend the richness and abundance of predatory arthropods in and around vineyards.

Langhorne Creek Wine Region

SA blue gum, *Eucalyptus leucoxylon* ssp. leucoxylon woodland (H10) (AP0003PE) (SE0008PE)

Description: Eucalyptus *leucoxylon* ssp. leucoxylon woodland over a grassy and herbaceous understorey and sparse cover of shrubs (eg. *Cheilanthes austrotenuifolia*, *Themeda triandra*, *Lomandra multiflora* ssp dura, *Dodonaea viscosa* ssp. spathulata, *Acacia paradoxa*, and *Gonocarpus elatus*)

EcoVineyards site: Kimbolton Vineyard, Burleigh Street, Langhorne Creek, SA

Habit	Family	*Genus*	*Species*	Common name	Floral resource		Height (m)	Width (m)	Tolerance to frost	Flower colour		Flowering time
					Pollen	Nectar						
Tree	Fabaceae	*Acacia*	*pycnantha*^	golden wattle	yes	[1]yes	4 to 6	2 to 6	moderately sensitive	yellow		winter to spring
	Casuarinaceae	*Allocasuarina*	*verticillata*^	drooping sheoak	yes	no	5 to 8	4 to 6	resistant	red		autumn to winter
	Proteaceae	*Banksia*	*marginata*^	silver banksia	yes	yes	2 to 8	1 to 5	resistant	yellow		spring to autumn
	Myrtaceae	*Eucalyptus*	*camaldulensis* ssp. camaldulensis^	river red gum	yes	yes	20 to 30	10 to 15	resistant	white		summer
	Myrtaceae	*Eucalyptus*	*fasciculosa*^	pink gum	yes	yes	5 to 18	5 to 12	moderately sensitive	cream		summer to autumn
	Myrtaceae	*Eucalyptus*	*leucoxylon* ssp. leucoxylon^	SA blue gum	yes	yes	8 to 30	8 to 25	moderately sensitive	cream	pink	autumn to winter
	Myrtaceae	*Eucalyptus*	*microcarpa*^	grey box	yes	yes	6 to 20	8 to 20	resistant	cream		summer to winter
	Myrtaceae	*Eucalyptus*	*viminalis* ssp. cygnetensis^	rough barked manna gum	yes	yes	6 to 20	8 to 20	moderately sensitive	white		summer to autumn

SA blue gum, *Eucalyptus leucoxylon* ssp. leucoxylon woodland

Habit	Family	*Genus*	*Species*	Common name	Floral resource		Height (m)	Width (m)	Tolerance to frost	Flower colour	Flowering time
					Pollen	Nectar					
Shrub	Fabaceae	*Acacia*	*acinacea*^	wreath wattle	yes	yes	1 to 2	1 to 2	resistant	yellow	winter to spring
	Fabaceae	*Acacia*	*cupularis*^	coastal umbrella bush	yes	yes	2 to 3	2 to 3	moderately sensitive	yellow	spring
	Fabaceae	*Acacia*	*paradoxa*^	prickly wattle	yes	yes	2 to 4	3 to 4	moderately sensitive	yellow	spring
	Pittosporaceae	*Bursaria*	*spinosa*^	sweet bursaria	yes	yes	2 to 4	1 to 3	resistant	white	late spring to late summer
	Fabaceae	*Daviesia*	*leptophylla*^	narrow-leaf bitter-pea	yes	yes	1 to 2.5	1 to 2	moderately sensitive	red / orange	spring
	Sapindaceae	*Dodonaea*	*viscosa* ssp. spatulata^	sticky hop bush	yes	no	2 to 4	2 to 4	resistant	insignificant	spring to autumn
	Fabaceae	*Eutaxia*	microphylla^	mallee bush-pea	yes	yes	0.5 to 2	2 to 2	moderately sensitive	brown / yellow	spring
	Goodeniaceae	*Goodenia*	*amplexans*^	clasping goodenia	yes	yes	0.5 to 1.2	0.5 to 1	moderately sensitive	yellow	spring to summer
	Proteaceae	*Grevillea*	*lavandulacea* ssp. lavandulacea^	heath grevillea	yes	yes	1 to 1.5	2 to 3	resistant	red	winter to spring
	Proteaceae	*Hakea*	*carinata*^	erect hakea	yes	yes	1.5 to 3	1 to 2.5	moderately sensitive	white	spring
	Proteaceae	*Hakea*	*rugosa*^	dwarf hakea	yes	yes	1 to 2	1 to 2	moderately sensitive	white	winter to spring
	Dilleniaceae	*Hibbertia*	*riparia*^	bristly guinea flower	[2]buzz pollinated	yes	0.1 to 0.5	0.3 to 0.8	moderately sensitive	yellow	spring
	Myrtaceae	*Leptospermum*	*myrsinoides*^	silky tea-tree	yes	yes	1 to 4	1 to 4	resistant	white	spring
	Asteraceae	*Olearia*	*ramulosa*^	twiggy daisy-bush	yes	yes	1 to 1.15	1 to 2	resistant	white / pink	spring to summer
	Fabaceae	*Pultenaea*	*largiflorens*^	twiggy bush-pea	yes	yes	1 to 1.5	0.5 to 1.5	moderately sensitive	white	winter to spring
	Malvaceae	*Thomasia*	*petalocalyx*^	paper flower	[2]buzz pollinated	yes	0.6	0.6 to 1	moderately sensitive	pink / purple	spring to summer

SA blue gum, *Eucalyptus leucoxylon* ssp. leucoxylon woodland

Habit	Family	*Genus*	*Species*	Common name	Floral resource		Height (m)	Width (m)	Tolerance to frost	Flower colour		Flowering time
					Pollen	Nectar						
Ground cover	Poaceae	*Aristida*	*behriana^*	brush wire-grass	yes	no	0.15 to 0.3	0.2 to 0.3	resistant	cream		spring to summer
	Poaceae	*Austrostipa*	*elegantissima^**	elegant spear grass	yes	no	1	1	resistant	green	brown	spring to summer
	Poaceae	*Austrostipa*	*nodosa^**	tall spear grass	yes	no	0.5 to 1	0.5 to 1	resistant	green	brown	spring to summer
	Poaceae	*Chloris*	*truncata^**	windmill grass	yes	no	0.3 to 0.5	0.2 to 0.5	resistant	cream		spring to summer
	Goodeniaceae	*Goodenia*	*blackiana^*	native primrose	yes	yes	0.1 to 0.2	0.2 to 0.5	moderately sensitive	yellow		winter to spring
	Goodeniaceae	*Goodenia*	*pinnatifida^*	cut-leaf goodenia	yes	yes	0.4	0.1	moderately sensitive	yellow		spring to summer
	Fabaceae	*Kennedia*	*prostrata^*	scarlet runner or running postman	yes	yes	0.1	1.5 to 4	moderately sensitive	red		winter to spring
	Poaceae	*Microlaena*	*stipoides* var. stipoides^*	weeping rice-grass	yes	no	0.1 to 0.7	0.2 to 1	moderately sensitive	cream		spring to summer
	Poaceae	*Poa*	labillardieri^	common tussock-grass	yes	no	0.5 to 1	< 0.5	resistant	green		spring to summer
	Fabaceae	*Pultenaea*	*pedunculata^*	matted bush-pea	yes	yes	0.1	1 to 3	moderately sensitive	yellow	orange	winter to spring
	Poaceae	*Rytidosperma*	*auriculatum^**	lobed wallaby grass	yes	no	0.2 to 0.7	0.1 to 0.2	resistant	cream		spring
	Poaceae	*Rytidosperma*	*caespitosum^**	common wallaby grass	yes	no	0.2 to 0.8	0.1 to 0.3	resistant	cream		spring
	Poaceae	*Rytidosperma*	*setaceum^**	small-flowered wallaby grass	yes	no	0.2 to 0.6	0.1 to 0.3	resistant	cream		spring to summer
	Goodeniaceae	*Scaevola*	*albida^*	pale fan flower	yes	yes	0.3 to 0.6	0.6 to 1	resistant	white		all year
	Poaceae	*Themeda*	*triandra^**	kangaroo grass	yes	no	0.4 to 1	0.5 to 1	resistant	brown		frequent

SA blue gum, *Eucalyptus leucoxylon* ssp. leucoxylon woodland

Habit	Family	*Genus*	*Species*	Common name	Floral resource		Height (m)	Width (m)	Tolerance to frost	Flower colour	Flowering time
					Pollen	Nectar					
Strap leaved	Asparagaceae	*Lomandra*	*densiflora*^	pointed mat-rush	yes	yes	0.2 to 0.6	0.2 to 0.6	resistant	green	winter to summer
	Asparagaceae	*Lomandra*	*micrantha*^	small-flower mat-rush	yes	yes	0.2 to 0.8	0.2 to 0.9	resistant	white	autumn to spring
	Asparagaceae	*Lomandra*	*multiflora* ssp. dura^	hard mat-rush	yes	yes	0.2 to 0.8	0.75	resistant	cream	winter to summer
	Xanthorrhoeaceae	*Xanthorrhoea*	*quadrangulata*^	Mount Loftyt grass tree	yes	yes	1 to 2.5	0.5 to 1.5	resistant	cream	autumn to winter
	Xanthorrhoeaceae	*Xanthorrhoea*	*semiplana* ssp. semiplana^	grass tree	yes	yes	1 to 3	1 to 2	moderately sensitive	cream	winter to spring
Sedges and rushes	Poales	*Juncus*	*pauciflorus*	loose-flower rush	yes	no	0.5 to 1	0.5 to 1	resistant	brown	summer
Bulbs and lilies	Asphodelaceae	*Dianella*	*longifolia*^	pale flax-lilly	[2]buzz pollinated	yes	0.5 to 0.8	0.5 to 1	resistant	blue	spring to summer
	Asphodelaceae	*Dianella*	*revoluta* var. revoluta^	black-anther flax-lily	[2]buzz pollinated	yes	0.3 to 1	0.5 to 2	resistant	blue	spring to summer
Climber (outside vineyard)	Fabaceae	*Hardenbergia*	*violacea*^	native lilac	yes	yes	climber	3 to 4	moderately sensitive	purple	winter to spring

^ plants available commercially

* seed available commercially

[1]*Acacia* flowers do not produce nectar. However, the leaf and phyllode glands do secrete a nectar or sugary substance which bees, butterflies and other insects have been observed feeding on.

[2] **Buzz pollination:** Some native bees use a special pollination technique called 'buzz pollination' (sonication) i.e., the blue-banded bee, bangs its head on the flower's anthers 350 times a second to release the pollen. Plants from the Solanaceae (nightshade) family (tomatoes, capsicums, and eggplants) and many Australian native plants including *Hibbertia* ssp. and *Dianella* ssp. are buzz pollinated. These plants have the capacity to boost biodiversity and support populations of native bees, but their pollen resources may not be readily available to predatory arthropods.

Growers are encouraged to explore the use of *Bursaria spinosa*, *Leptospermum* ssp. and *Rytidosperma* ssp. as insectary plants in proximity grapevines (Retallack et al., 2019). It is anticipated a broader suite of native insectary plants could extend the richness and abundance of predatory arthropods in and around vineyards.

Langhorne Creek Wine Region

Drooping sheoak, *Allocasuarina verticillata* low woodland (H22)

Description: *Allocasuarina verticillata* low woodland over an open grassy and herbaceous understorey. Typical understorey plants include *Lomandra multiflora* ssp. dura, *L. effusa*, *Rytidosperma* spp., *Austrostipa* spp.

EcoVineyards sites: Lake Breeze Vineyard, Karanto Road, Langhorne Creek; Glenrowan Vineyard, Step Road, Langhorne Creek and Kilpuruna Vineyard, Taverner Road, Lake Plains; Karanto Vineyars, Karanto Road, Langhorne Creek; Tolderol Vineyards, Sheoak Road, Tolderol, SA

Habit	Family	*Genus*	*Species*	Common name	Floral resource		Height (m)	Width (m)	Tolerance to frost	Flower colour	Flowering time
					Pollen	Nectar					
Tree	Fabaceae	*Acacia*	*pycnantha*^	golden wattle	yes	[1]yes	4 to 6	2 to 6	moderately sensitive	yellow	winter to spring
	Fabaceae	*Acacia*	retinodes *var. retinodes*^	swamp wattle	yes	[1]yes	5 to 8	3 to 7	moderately sensitive	yellow	winter to spring
	Casuarinaceae	*Allocasuarina*	*verticillata*^	drooping sheoak	yes	no	5 to 8	4 to 6	resistant	red	autumn to winter
	Myrtaceae	*Eucalyptus*	*fasciculosa*^	pink gum	yes	yes	5 to 18	5 to 12	moderately sensitive	cream	summer to autumn
	Myrtaceae	*Eucalyptus*	*microcarpa*^	grey box	yes	yes	6 to 20	8 to 20	resistant	cream	summer to winter
	Myrtaceae	*Eucalyptus*	*porosa*^	mallee box	yes	yes	5 to 14	5 to 12	moderately sensitive	white	spring
	Myrtaceae	*Melaleuca*	*lanceolata*^	dryland tea-tree	yes	yes	3 to 8	3 to 5	resistant	cream	spring to summer
Shrub	Fabaceae	*Acacia*	*acinacea*^	wreath wattle	yes	yes	1 to 2	1 to 2	resistant	yellow	winter to spring
	Fabaceae	*Acacia*	*myrtifolia*^	myrtle wattle	yes	yes	1 to 2	1 to 2	moderately sensitive	yellow	spring
	Fabaceae	*Acacia*	*paradoxa*^	prickly wattle	yes	yes	2 to 4	3 to 4	moderately sensitive	yellow	spring
	Pittosporaceae	*Bursaria*	*spinosa*^	sweet bursaria	yes	yes	2 to 4	1 to 3	resistant	white	spring to summer
	Sapindaceae	*Dodonaea*	*viscosa* ssp. spatulata^	sticky hop bush	yes		2 to 4	2 to 4	resistant	insignificant	spring to autumn
	Proteaceae	*Hakea*	*rugosa*^	dwarf hakea	yes	yes	1 to 2	1 to 2	moderately sensitive	white	winter to spring
	Dilleniaceae	*Hibbertia*	*exutiacies*^	prickly guinea flower	[2]buzz pollinated	yes	0.3 to 0.5	0.5 to 1	moderately sensitive	yellow	spring
	Asteraceae	*Olearia*	*ramulosa*^	twiggy daisy-bush	yes	yes	1 to 1.5	1 to 2	resistant	white / pink	spring to summer
	Fabaceae	*Pultenaea*	*largiflorens*^	twiggy bush-pea	yes	yes	1 to 1.5	0.5 to 1.5	moderately sensitive	white	winter to spring

Drooping sheoak, *Allocasuarina verticillata* low woodland

Habit	Family	*Genus*	*Species*	Common name	Floral resource		Height (m)	Width (m)	Tolerance to frost	Flower colour	Flowering time
					Pollen	Nectar					
Ground cover	Poaceae	*Aristida*	*behriana*^	brush wire-grass	yes	no	0.2 to 0.3	0.2 to 0.3	resistant	cream	spring to summer
	Poaceae	*Austrostipa*	*elegantissima*^*	elegant spear grass	yes	no	1	1	resistant	green / brown	spring to summer
	Aizoaceae	*Carpobrotus*	*rossii*^	native pigface	yes	yes	0.1	2 to 3	resistant	pink	winter to summer
	Poaceae	*Cymbopogon*	*ambiguus*^*	lemon-scented grass	yes		0.3 to 1	0.1 to 0.5	resistant	cream	winter to spring
	Poaceae	*Chloris*	*truncata*^*	windmill grass	yes	no	0.3 to 0.5	0.1 to 0.3	resistant	cream	spring to summer
	Amaranthaceae	*Einadia*	*nutans*^*	climbing saltbush	yes		0.5	1	resistant	insignificant	spring
	Poaceae	*Elymus*	*scaber* var. scaber^*	native wheat grass	yes	no	0.2	1	resistant	cream	winter to spring
	Goodeniaceae	*Goodenia*	*blackiana*^	native primrose	yes	yes	0.1 to 0.2	0.2 to 0.5	moderately sensitive	yellow	winter to spring
	Goodeniaceae	*Goodenia*	*pinnatifida*^	cut-leaf goodenia	yes	yes	0.4	0.1	moderately sensitive	yellow	spring to summer
	Poaceae	*Microlaena*	*stipoides* var. stipoides^*	weeping rice-grass	yes	no	0.1 to 0.7	0.2 to 1	moderately sensitive	cream	spring to summer
	Fabaceae	*Pultenaea*	*pedunculata*^	matted bush-pea	yes	yes	0.1	1 to 3	moderately sensitive	yellow / orange	winter to spring
	Poaceae	*Rytidosperma*	*caespitosum*^*	common wallaby grass	yes	no	0.2 to 0.8	0.1 to 0.3	resistant	cream	spring
	Poaceae	*Rytidosperma*	*pilosum*^*	velvet wallaby grass	yes	no	0.2 to 0.9	0.4	resistant	cream	spring to summer
	Poaceae	*Rytidosperma*	*setaceum*^*	small-flowered wallaby grass	yes	no	0.2 to 0.6	0.1 to 0.3	resistant	cream	spring to summer
	Goodeniaceae	*Scaevola*	*albida*^	pale fan flower	yes	yes	0.3 to 0.6	0.6 to 1	resistant	white	all year
	Poaceae	*Themeda*	*triandra*^*	kangaroo grass	yes	no	0.4 to 1	0.5 to 1	resistant	brown	frequent

Drooping sheoak, *Allocasuarina verticillata* low woodland

Habit	Family	*Genus*	*Species*	Common name	Floral resource		Height (m)	Width (m)	Tolerance to frost	Flower colour		Flowering time
					Pollen	Nectar						
Strap leaved	Xanthorrhoeaceae	*Xanthorrhoea*	*semiplana* ssp. semiplana^	grass tree	yes	yes	1 to 3	1 to 2	moderately sensitive	cream		winter to spring
	Asparagaceae	*Lomandra*	*densiflora*^	pointed mat-rush	yes	yes	0.2 to 0.6	0.2 to 0.6	resistant	green		winter to summer
	Asparagaceae	*Lomandra*	*effusa*^	scented mat-rush	yes	yes	0.2 to 0.5	0.2 to 0.5	moderately sensitive	cream	yellow	winter to spring
	Asparagaceae	*Lomandra*	*multiflora* ssp. dura^	hard mat-rush	yes	yes	0.2 to 0.8	0.75	resistant	cream		winter to summer
Bulbs and lilies	Asphodelaceae	*Dianella*	*revoluta* var. revoluta^	black-anther flax-lily	[2]buzz pollinated	yes	0.3 to 1	0.5 to 2	resistant	blue		spring to summer

^ plants available commercially

* seed available commercially

[1]*Acacia* flowers do not produce nectar. However, the leaf and phyllode glands do secrete a nectar or sugary substance which bees, butterflies and other insects have been observed feeding on.

[2] **Buzz pollination:** Some native bees use a special pollination technique called 'buzz pollination' (sonication) i.e., the blue-banded bee, bangs its head on the flower's anthers 350 times a second to release the pollen. Plants from the Solanaceae (nightshade) family (tomatoes, capsicums, and eggplants) and many Australian native plants including *Hibbertia* ssp. and *Dianella* ssp. are buzz pollinated. These plants have the capacity to boost biodiversity and support populations of native bees, but their pollen resources may not be readily available to predatory arthropods.

Growers are encouraged to explore the use of *Bursaria spinosa*, *Leptospermum* ssp. and *Rytidosperma* ssp. as insectary plants in proximity grapevines (Retallack et al., 2019). It is anticipated a broader suite of native insectary plants could extend the richness and abundance of predatory arthropods in and around vineyards.

Langhorne Creek Wine Region

Scented mat-rush, *Lomandra effusa*, spear-grass, *Austrostipa* spp. and wallaby-grass, *Rytidosperma* spp. tussock grassland (H46) (WM1301PE)

EcoVineyards site: Windsong Wines, Clements Road, Langhorne Creek SA

Habit	*Genus*	*Species*	Common name	Floral resource		Height (m)	Width (m)	Tolerance to frost	Flower colour		Flowering time
				Pollen	Nectar						
Shrub	*Bursaria*	*spinosa*^	sweet bursaria	yes	yes	2 to 4	1 to 3	resistant	white		late spring to late summer
	Enchylaena	tomentosa *var. tomentosa*^	ruby saltbush	yes		0.3 to 1	0.5 to 1.5	resistant	white		frequent
	Maireana	*brevifolia*^	short-leaf bluebush	yes	yes	0.5 to 1	0.5 to 1.5	resistant	insignificant		
Ground cover	Aristida	behriana^*	brush wire-grass	yes	no	0.15 to 0.3	0.2 to 0.3	resistant	cream		spring to summer
	Austrostipa	*elegantissima*^*	elegant spear grass	yes	no	1	1	resistant	green	brown	spring to summer
	Austrostipa	*nodosa*^*	tall spear grass	yes	no	0.5 to 1	0.5 to 1	resistant	green	brown	spring to summer
	Austrostipa	*scabra*^*	rough spear-grass	yes	no	0.3 to 0.6	0.5	resistant	green	brown	winter to spring
	Enneapogon	*nigricans*^*	black-head grass	yes	no	0.2 to 0.5	0.5	resistant	brown		spring to summer
	Goodenia	*pinnatifida*^	cut-leaf goodenia	yes	yes	0.4	0.1	moderately sensitive	yellow		spring to summer
	Rytidosperma	*auriculatum*^*	lobed wallaby grass	yes	no	0.2 to 0.7	0.1 to 0.2	resistant	cream		spring
	Rytidosperma	*caespitosum*^*	common wallaby grass	yes	no	0.2 to 0.8	0.1 to 0.3	resistant	cream		spring
	Rytidosperma	*setaceum*^*	small-flowered wallaby grass	yes	no	0.2 to 0.6	0.1 to 0.3	resistant	cream		spring to summer
	Themeda	*triandra*^*	kangaroo grass	yes	no	0.4 to 1	0.5 to 1	resistant	brown		frequent
	Vittadinia	*cuneata*^*	fuzzy New Holland daisy	yes	yes	0.1 to 0.4	0.3	resistant	blue	mauve	all year
Strap leaved	*Lomandra*	*effusa*^	scented mat-rush	yes	yes	0.2 to 0.5	0.2 to 0.5	moderately sensitive	cream	yellow	winter to spring
	Lomandra	*multiflora* ssp. dura^	hard mat-rush	yes	yes	0.2 to 0.8	0.75	resistant	cream		winter to summer

Native insectary plants (general)

It is reported that the longevity of parasitoid wasps which predominantly feed on nectar are significantly enhanced by Australian native plants including sweet bursaria, *Bursaria spinosa*, crimson bottlebrush, *Callistemon* sp., Hakea, *Hakea* sp., prickly tea-tree, *Leptospermum continentale,* woolly tea-tree, *Leptospermum lanigerum*, austral trefoil, *Lotus australis*, creeping mint, *Mentha satureioides*, dryland tea tree, *Melaleuca lanceolata*, creeping boobialla, *Myoporum parvifolium*, sticky boobialla, *Myoporum petiolatum*, and wallaby grasses, *Rytidosperma* ssp.

In addition, a recent desktop review of plants native to South Australia identified a broader suite of locally adapted native plants which are regarded as having the capacity to provide insectary benefits and may hold widespread appeal. They include wild rosemary, *Dampiera rosmarinifolia*, clasping goodenia, *Goodenia amplexans*, hop goodenia, *Goodenia ovata*, cut-leaf goodenia, *Goodenia pinnatifida*, boobialla, *Myoporum insulare*, long-leaved bush-pea, *Pultenaea daphnoides,* twiggy bush-pea, *Pultenaea largiflorens*, blue-rod, *Stemodia florulenta*, fairy fan-flower*, Scaevola aemula*, as well as species of *Acacia* ssp., *Eucalyptus* ssp., and *Lomandra* ssp. that may be suited to a particular site. Other plants previously identified for their insectary benefits in vineyards include straw wallaby grass, *Rytidosperma richardsonii*, windmill grass, *Chloris truncata*, and creeping saltbush, *Atriplex semibacca*

Continue your search for useful information here:

- Australian National Botanic Gardens https://www.anbg.gov.au/search/index.html
- Australian Plants Society native plants selector http://users.on.net/~hjharvey/APSquery.html
- Botanic Gardens of SA plant selector http://plantselector.botanicgardens.sa.gov.au
- Butterfly Conservation South Australia Inc. https://butterflyconservationsa.net.au/butterflies/attract/find-plants/
- Kersbrook Landcare Group 'Focus on Flora' book http://kersbrook.landcaregroup.org.au/articles/about_book.html and pictures of available plants https://my-site-105083-109812.square.site/shop/15
- Natural Resources Adelaide and Mount Lofty Ranges Native grasses: A regional guide https://cdn.environment.sa.gov.au/landscape/docs/hf/native-grasses-2017.pdf
- Seeds of South Australia https://spapps.environment.sa.gov.au/SeedsOfSA/scientificsearch.html
- State Flora catalogue https://www.stateflora.sa.gov.au/buy-plants/how-to-order/catalogue
- Trees for Life Tree scheme zone and species lists https://treesforlife.org.au/tree-scheme-zones
- Wheen Bee Foundation https://www.wheenbeefoundation.org.au/our-work/projects/powerful-pollinators/

Local plant nurseries and seed suppliers

Native plant nurseries				
Company	**Contact**	**Address**	**Contact details**	**Website**
Goolwa to Wellington Local Action Planning Association	Ben Simon	Kessell Rd (next to council depot), Goolwa, SA	M: 0418 828 949 E: ben.simon@gwlap.org.au	http://www.gwlap.org.au/what-we-do/alexandrina- community-nursery/
Barossa Bushgardens		635 Research Rd, Nuriootpa, SA	M: 0448 676 348 (Tues or Thurs) T: (08) 8563 8330 (Tues or Thurs) E: bushgardens@barossa.sa.gov.au	https://barossabushgardens.com.au/community-nursery
Clayton Bay Nursery and Environmental Group	Carole Richardson	6A Alexandrina Ave, Clayton Bay, SA	M: 0459 707 876 E: claytonbayneg@gmail.com	https://www.communitywebs.org/cbneg/contact.php
Future Generation Natives	Kate Constable	Mount Torrens, SA	M: 0418 844 240 E: kate@futurenatives.com.au	www.futurenatives.com.au
Kersbrook Landcare Nursery	Heidi Pitman	176 South Para Rd Williamstown, SA	M: 0431 989 397 E: klg@landcaregroup.org.au	www.kersbrook.landcare group.org.au
State Flora Murray Bridge		Bremer Rd, Murray Bridge, SA	T: (08) 8539 2105 E: dewnrstateflora@sa.gov.au	www.stateflora.sa.gov.au
Trees for Life Westwood Nursery		5-7 May Terrace, Brooklyn Park, SA	T: (08) 8406 0500 E: info@treesforlife.org.au	https://treesforlife.org.au
Suppliers of native seeds and/or sowing services				
Blackwood Seeds	Phil Druce	Inman Valley, SA	M: 0427 588 288 E: bwseeds@activ8.net.au	https://www.blackwoodseeds.com.au
Native Seeds Pty Ltd	Darren Vincent	Great Alpine Rd Eurobin, Vic	T: 1300 473 337 E: enquiries@nativeseeds.com.au	www.nativeseeds.com.au
Seeding Natives Incorporated	Andrew Fairney	Mount Pleasant, SA	M: 0477 307 577 E: andrew@seedingnatives.org.au	www.seedingnatives.org.au

Please contact the EcoVineyards team admin@ecovineyards.com.au if you would like us to add your company details. This is a living document, and it is updated as new information becomes available.

You can find a local native plant grower from this native plant nurseries list https://cdn.environment.sa.gov.au/landscape/docs/hf/190722-native-nursery-list.pdf

Further reading

Articles on functional biodiversity enhancement

Retallack, M. (2011) **Vineyard biodiversity and insect interactions.** Grape and Wine Research and Development Corporation, Adelaide. http://www.viti.com.au/pdf/Rmjr0811VineyardBiodiversityandInsectInteractionsBookletFINAL.pdf

Retallack, M. (2012) **Enhancing biodiversity in the vineyard.** Adelaide and Mount Lofty Ranges Natural Resources Management Board, Adelaide. http://www.viti.com.au/pdf/Enhancing%20Biodiversity%20in%20the%20Vineyard%20%20Workshop%20Notes.pdf

Retallack, M.J. (2018) **The importance of biodiversity and ecosystem services in production landscapes**. The Australian and New Zealand Grapegrower and Winemaker. Oct (657), 36 - 43. https://winetitles.com.au/gwm/articles/october-657/the-importance-of-biodiversity-and-ecosystem-services-in-production-landscapes/

Retallack, M.J. (2018) **The role of native insectary plants and their contribution to conservation biological control in vineyards**. The Australian and New Zealand Grapegrower and Winemaker. Nov (658). https://winetitles.com.au/gwm/articles/november-658/the-role-of-native-insectary-plants-and-their-contribution-to-conservation-biological-control-in-vineyards/

Retallack, M.J. (2018) **Practical examples of ways to establish native insectary plants in and around vineyards**. The Australian and New Zealand Grapegrower and Winemaker. Dec (659), 38-41. https://winetitles.com.au/gwm/articles/december-659/practical-examples-of-ways-to-establish-native-insectary-plants-in-and-around-vineyards/

Retallack, M.J. (2019) **The functional diversity of predator arthropods in vineyards**. The Australian and New Zealand Grapegrower and Winemaker. Jan (660), 23-26. https://winetitles.com.au/gwm/articles/january-660/the-functional-diversity-of-predator-arthropods-in-vineyards/

Retallack, M.J. (2019) **Ways to monitor arthropod activity on native insectary plants**. The Australian and New Zealand Grapegrower and Winemaker. Feb (661), 40-43. https://winetitles.com.au/gwm/articles/february-661/ways-to-monitor-arthropod-activity-on-native-insectary-plants/

Retallack, M.J., Thomson, L.J, and Keller, M.A. (2019) **Native insectary plants support populations of predatory arthropods for Australian vineyards.** 42nd Congress of Vine and Wine, International Organisation of Vine and Wine (OIV), Geneva, Switzerland. https://www.bio-conferences.org/articles/bioconf/abs/2019/04/bioconf-oiv2019_01004/bioconf-oiv2019_01004.html

Copies of these publications can also be found here https://ecovineyards.com.au/articles/

Fact sheets and case studies

National EcoVineyards Program fact sheets can be downloaded here https://ecovineyards.com.au/fact-sheets/

EcoVineyards case studies can be downloaded here https://ecovineyards.com.au/casestudies/

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Acknowledgement of country

The EcoVineyards project acknowledges Aboriginal people as the First Peoples and Nations of the lands and waters we live and work upon and we pay our respects to their Elders past, present, and emerging. We acknowledge and respect the deep spiritual connection and the relationship that Aboriginal and Torres Strait Islander people have to Country.

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