

**Plants suitable for effluent fields**

Plants are an important feature of the yard of any house. However, if you live in an unsewered area, a proportion of your yard will include a wastewater treatment system or septic tank and an effluent disposal area.

There are two main methods of effluent disposal for domestic wastewater treatment systems. These are absorption trenches most commonly associated with standard septic tanks and sub-surface irrigation normally used with aerated wastewater treatment systems (AWTS).

Effluent disposal areas are often in remote areas of the garden or yard and may be forgotten or neglected. However, damaged or blocked trenches or irrigation lines, can cause effluent to pool on the surface or pool in the backyard **creating health risks to you, your family, and pets**. Neglected effluent distribution areas can also cause odour problems for your household and your immediate neighbours. Left unchecked they may ultimately require messy and expensive repairs.

Non-woody perennials, small ornamental grasses and wildflowers are fine to plant between the lines of septic absorption trenches because they have shallow root systems that won’t invade the pipes. In fact, these plants are actually helpful as they stabilize the soil’s surface and don’t disturb soil transpiration. You should avoid large ornamental grasses like bamboo or pampas.

Trees on top or even near absorption trenches **must be avoided**. Actual septic trench-to-tree distance depends on the type of tree and its range of root growth. Typically, the distance should be equal to the expected height of a tree at its maturity, plus 20%. So a mature 5 metre tree should be kept 6 metres away from a septic absorption trenches.

A wider range of plants can be used in and around an absorption field using subsurface irrigation as penetration of the system by plant roots is much less of a problem. However, as a general rule irrigation pipes should be kept at least 1 metre from the base of trees.

Food crops should be avoided as the produce is not considered safe to eat. Most fruit trees are deciduous they do not transpire during winter and shade the effluent area in summer thus reducing its efficiency. Only effluent from advanced wastewater treatment systems is suitable for the irrigation of a limited range of food producing plants such as grape vines. It must however not come into contact with the edible part of the plant.

For more information on the use of advanced treated effluent for the irrigation of food plants or any other aspect of the management of your effluent disposal area please Contact the Health Protection Unit at the Colac Otway Shire on 52329400 or visit the website <https://www.colacotway.vic.gov.au>

**Planting tips!**

If you plan to plant out areas with absorption trenches, ensure plants are placed in between trenches and not directly on top to avoid future blockage by roots.

Care should be taken to protect vegetation growing in between soil absorption trenches as these plants, together with factors such as wind and sun intensity, play a vital role in the disposal of effluent through evapotranspiration.

***IMPORTANT NOTE:***

*Plant tolerance to wastewater irrigation depends on a range of factors. Existing soil type, drainage, nutrient levels and pH are some. The amount of wastewater distributed over the given area and the quality of the water will be the main factors that influence the final outcome. Plants have a limited tolerance to some of the nutrients and salts that can come through a system. Phosphorus, Boron and various Sodium salts are common nutrients that may come through a system and accumulate in the soil to problem levels.*

This list of indigenous plants and grasses (although not exhaustive), is included as a guide to species that have been found to be suitable for planting in and around wastewater disposal areas. These will tolerate wet conditions and have a high evapotranspiration capacity. These plants are known to occur in the Colac Otway Shire.

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| **Botanical Name** | **Common Name** | **Soil Types** | **Height**  **(Mature Plant)** |
| **Trees & Shrubs** | | | |
| *Acacia melanoxylon* | Black Wood | Most wet soils | To 12m |
| *Leptospermum lanigerum* | Woolly Tea-tree | Most wet soils | To 6m |
| *Melaleuca squarrosa* | Scented Paperbark | Most wet soils | To 3m |
| *Goodenia ovata* | Hop Goodenia | Most soils | To 2m |
| *Leptospermum continentale* | Prickly Tea-tree | Most wet soils | To 2m |
| *Correa alba* | White Correa | Light, free draining | To 1.5m |
| *Atriplex cinerea* | Coast Saltbush | Light, free draining | To 1.8m |
| *Atriplex paludosa* | Marsh Saltbush | Light, free draining | To 1.6m |
| *Indigofera australis* | Austral Indigo | Most soils | To 1.5m |
| *Leptospermum myrsinoides* | Heath Tea-tree | Most soils | To 1.5m |
| *Stackhousia monogyna* | Creamy Candles | Light, free draining | To 70cm |
| *Atriplex semibaccata* | Creeping Saltbush | Light, free draining | To 40cm |
| **Grasses, Sedges,**  **Rushes and Lilies** | | | |
| *Poa labillardierei* | Tussock Grass | Most soils | To 60cm |
| *Lepidosperma longitudinale* | Common Sword-sedge | Light, free draining | To 2m |
| *Eleocharis sphacelata* | Tall Spike-rush | Heavy, wet soils | To 2m |
| *Gahnia clarkei* | Tall Saw-sedge | Most wet soils | To 1.5-4m |
| *Juncus procerus* | Tall Rush | Most wet soils | To 1.8m |
| *Carex appressa* | Tall sedge | Most soils | To 1.5m |
| *Dianella longifolia* | Pale Flax-lily | Most soils | To 1.3m |
| *Juncus kraussii* | Sea Rush | Most wet soils | To 1.2m |
| *Lepidosperma filiforme* | Common Rapier-sedge | Light, free draining | To 1m |
| *Isolepis nodosa* | Knobby Club-rush | Most wet soils | To 1m |
| *Gahnia filum* | Saw-sedge | Most wet soils | To 1m |
| *Lomandra longifolia* | Spiny-headed Mat-rush | Light, free draining | To 1m |
| *Dianella tasmanica* | Tasman Flax-lily | Most soils | To 1m |
| *Dianell revoluta* | Black-anther Flax-lilly | Most soils | To 80cm |
| *Lepidosperma semiteres* | Wire Rapier-sedge | Light, free draining | To 1m |
| *Schoenus brevifolius* | Zig-zag Bog-rush | Most wet soils | To 80cm |
| *Eleocharis acuta* | Common Spike-rush | Heavy, wet soils | To 60cm |
| *Patersonia fragilis* | Short Purple-flag | Most wet soils | To 60cm |
| *Baumea acuta* | Pale Twig-sedge | Most soils | To 50cm |
| *Schoenus lepidosperma* | Slender Bog-rush | Most wet soils | To 45cm |
| Schoenus tesquorum | Soft Bog-rush | Most wet soils | To 45cm |
| Isolepis inundata | Swamp Club-sedge | Most wet soils | To 40cm |
| Carex breviculmis | Common Grass-sedge | Most soils | To 30cm |
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***Note****: Colac Otway Shire Council and its employees do not guarantee that the reference list is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaim all liability for any error, loss or other consequence which may arise from you relying on any information in this reference list.*