



GrowFibre

Sustainable Wood Fibre Substrate

The future of potting mix in Australia



AGS

The future of sustainable substrates

Australian Growing Solutions (AGS) have developed Australia's first GrowFibre facility, designed to significantly improve the sustainability and environmental footprint of Australian growing media production.

The production of GrowFibre consists of the thermal and mechanical defibration of local, ethically sourced Australian softwood chips, to create a sustainable wood fibre substrate. This process generates temperatures that can exceed 100°C, thereby making a sterilised and safe material that can be used as an ingredient in growing media. The physical and structural properties of GrowFibre can be adjusted very precisely within the process, which results in a consistent high-quality substrate which is ideal for use in conjunction with other high-quality substrates produced by AGS. In European markets, wood fibre substrates typically make up around 30% (by volume) of container substrates and have been growing in market usage over the past 20 years. It's taken a while, but Australian growers can now access GrowFibre in their toolkit for nursery production.

Having an alternative sustainable material like GrowFibre, with the same high porosity and good aeration of coir, whilst avoiding the negatives of requiring flushing with clean water and calcium nitrate to remove harmful sodium and chloride levels, means a better environmental outcome for growers in the Australian Nursery Market.

GrowFibre is less hydrophobic than peat, making it easier to wet up when dry and has excellent hydration characteristics as a result of the material's fibrous nature. This means water can move both laterally and vertically within the substrate, resulting in fewer dry patches forming. Pots containing GrowFibre also have optimized drainage leading to a reduced likelihood of root disease and a reduction in surface growth of algae and liverwort.

Wood fibre has a pH of between 4.5 to 5.5, and typically around 5. It also has less nutrient buffering capacity than peat, so if substrates are not prepared correctly, pH changes can be more rapid than in other substrates. Wood fibre has low-salt content and EC levels relative to other raw materials, which means we can consider wood fibre as inert, providing a blank canvas on which to create your growing substrate.

Wood fibre substrates have been known in the past to "subside" in volume in the pot over time. However due to its unique manufacturing process, GrowFibre creates a lower proportion of finer particles, therefore eliminating this issue, delivering a long term structurally stable growing substrate.

Nitrogen drawdown necessitates careful management of growing substrates with high wood fibre content. AGS are attuned to these requirements, supplying the correct amount of nitrogen to compensate, as is already done for other timber-based substrates. Moreover, the physical structure created by incorporating GrowFibre into your growing medium creates an environment that encourages good root development and growth, leading to better nutrient uptake and superior plant development to current options.

Another significant benefit of GrowFibre over coir and peat is the fact that it is produced using Victorian wood chips. This reduces the carbon footprint of the material in shipping and transport, and importantly, supports the local horticulture and forestry industries.

Among our customers are pine plantation nurseries. We provide them with potting mix which they use to grow radiata pine seedlings that then go out into plantations. Once fully grown the trees are felled and we receive the bark and woodchips to make more potting mix and so the cycle continues. It's a true example of "closing the loop".

There are so many reasons why GrowFibre will become a major ingredient in the growing media of Australian nurseries for years to come.





Here are some of the ways *GrowFibre* can enhance your growing media...



***GrowFibre* can be typically characterised as a substrate that has low bulk density, high total porosity and very high air content. It makes it an exciting alternative to current substrate additives such as coir fibre, peat and sawdust.**

pH Range	4.5 - 5.5
Bulk Density	100 - 150 kg/m ³
Air-filled Porosity	30 - 35%
Water Holding Capacity	20 - 25%

*Talk to your AGS representative about how you can take advantage of these benefits and have *GrowFibre* incorporated into your growing substrate.*



GrowFibre

Sustainable Wood Fibre Substrate

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We create the environment for growth