Know your woodfibre and best cultural practices

Peat is very difficult to ‘replace’ because it is such a unique and successful material for growing plants. The discovery and development of alternatives to peat may be compared to peat and its properties and performance but in the end, new materials like woodfibre will need to be judged on their own merits and managed based on their unique properties, which may be different than those growers are used to with traditional mixes.

For example, peat free growing media require extra attention in terms of nutrition and water management as these materials have significantly lower buffering and nutrient holding capacity – key characteristics of peat. Differences in chemical and physical characteristics of these non-peat materials create a new ‘type’ of substrate that requires growers to adopt different cultural practices.
Know your woodfibre and best cultural practices

Thus, from a grower’s perspective it is very important to know the specific type of woodfibre in the mix and to be fully aware of its specific needs for successful crops. It is also advisable not to base crop management strategies on the reported success of a colleague or fellow grower, but instead to seek production information and crop production guidelines/recommendations from the growing media manufacturer/supplier. One of the biggest challenges of woodfibre incorporation in the growing media mixes is the N-fixation.

"seek production information and crop production guidelines/recommendations from the growing media manufacturer"

At ICL, we have developed unique formulated slow release fertilisers such as Osmocote CalMag, for use with soft irrigation water, which offers nitrogen, calcium and magnesium, and Osmocote N - which offers supply of nitrogen and some potassium for longer-term crops such as nursery stock. Osmoform High N is suited to short term crops, such as bedding and pot plants. These three products provide a comprehensive solution to compensate for nutrient losses over the whole crop. Your ICL technical areas sales managers can offer advice and recommendations specific to your needs and it’s always recommended to conduct small trials at your growing operation before completely switching growing mixes.
What growers need to consider

BY STUART GAMMAGE
ICL TECHNICAL AREA SALES MANAGER FOR EAST OF ENGLAND

Stuart Gammage, ICL technical area sales manager for East Anglia, looks at what growers need to consider when woodfibre is included in the growing media mix.

Woodfibre is one of a few products that can help us all reduce peat usage in some growing media mixes with great result. Incorporated well and evenly through the growing media mix – and with the correct nitrogen adjustment to suit the crop – woodfibre enables us to reduce peat usage without any major issue to crop growth. However, as with all growing media it is important to remember to look at topping up feeds – through irrigation or topdress – once the original feed has come to the end of its life. Peat reduced mixes have lower nutrient buffering capacity levels than 100% peat media, so it is important to check the fertilizer levels.

We know that having the correct AFP (Air Filled Porosity) is very important for promoting a healthy root system. Woodfibre can be particularly helpful for optimising the AFP of mixes. However, we need to remain mindful that adding too much of just one peat alternative can sometimes cause challenges within the growing media overtime. For example, it is important to consider how long the crop will be in the pot on the nursery, as over time a high percentage of woodfibre can cause slumping in the pots.

Watering also needs to be monitored and adjusted to suit peat reduced growing media mixes, as these tend to react differently compared to peat only mixes. H2Gro is our unique blend of surfactants formulated in to the most advanced wetting agent designed specifically for growing media to maximise water holding capacity and improve wetting up, spreadability and re wetting. While aiding water management in the crop, it also helps to optimise water usage by reducing waste.

H2Gro vastly improves water uptake and management in all growing media mixes, including peat-reduced mixes that contain woodfibre. H2Gro granules can be incorporated in to your Levington mix during its manufacture at our Nutberry site, while the liquid formation can also be applied later through your irrigation system in order to further enhance product performance.

Overall, with the correct nutrition and water management, woodfibre has helped ICL produce high performance mixes that have produced great root systems leading to strong plants. All in all a good start to cutting down peat usage in the industry.

*Dr Eleni Siasou – ICL’s Product Development and Quality Manager for Growing Media – Dr Brian Jackson – Associate Professor in Horticulture Substrates in the Department of Horticultural Science at North Carolina State University, USA – and Dorus Rijkers – ICL’s International Technical Manager for Plant Nutrition.