

Assessing the quality of media for organic vegetable transplants

The availability of high quality growing media is essential to producing healthy vigorous plants, but the organic standards restrict the choice of products available and many growers feel they have insufficient information on which to base their choices. To address this issue, growers were supplied with samples of certified products, as described in the table below, and were asked to test them on range of crops. In addition, scientifically robust trials were carried out by a plant raising specialist on cabbage leek and lettuce.

Product	Base	Additives
Bulrush Horticulture Ltd	Peat	DCM; Lime/ Dolodust
Fertile Fibre Seed mix	Coir	MB1 (Nitrogen source including hoof and horn); Vermiculite
Klasmann Bio Tray	Peat	N, P , K Mg
West Riding Organics Bio pak 10	Moorland Gold Peat	Vermiculite; Coir; Lime; Sugar beet based fertiliser; Basalt minerals
Development product * (Formal Trials only)	Peat & green waste	DCM; Dolomite lime; Zeolite

* *This is not a certified product. It was included to investigate the potential for green waste based products to be developed for organic plant raising.*

The quality of media was assessed against various aspects of plant performance and an analysis of their physical properties and nutrient levels.

Bulrush delivered a high proportion of usable plants of reasonable quality, although some cabbage and lettuce plants were starting to show signs of stress towards the end. This was probably related to low N levels. It did particularly well in leeks and this may be because of a slower rate of release of nutrients, which minimises losses through leaching. This was also reflected by the growers' experience.

Fertile Fibre produced lettuce plants of reasonable quality in the formal trials, although the leaves were quite tough and veined. However, there were problems with cabbage and leeks, which were small and weak and suffered from tip burn in the case of cabbage. It is unlikely they would have been robust enough to pass through a planter. However, growers did not appear to experience similar problems. Subsequent laboratory analysis suggested that the difficulties were probably due to mixing problems and/ or storage conditions.

Klasmann had a tendency to 'run out steam' in both the formal and the grower trials, especially in leeks and cabbage. Many plants were small and stressed and would not have been strong enough to pass through a planter. This was probably due to low nutrient levels compared to many other products, and it is possible that early mineralisation of N leading to leaching may have contributed to this

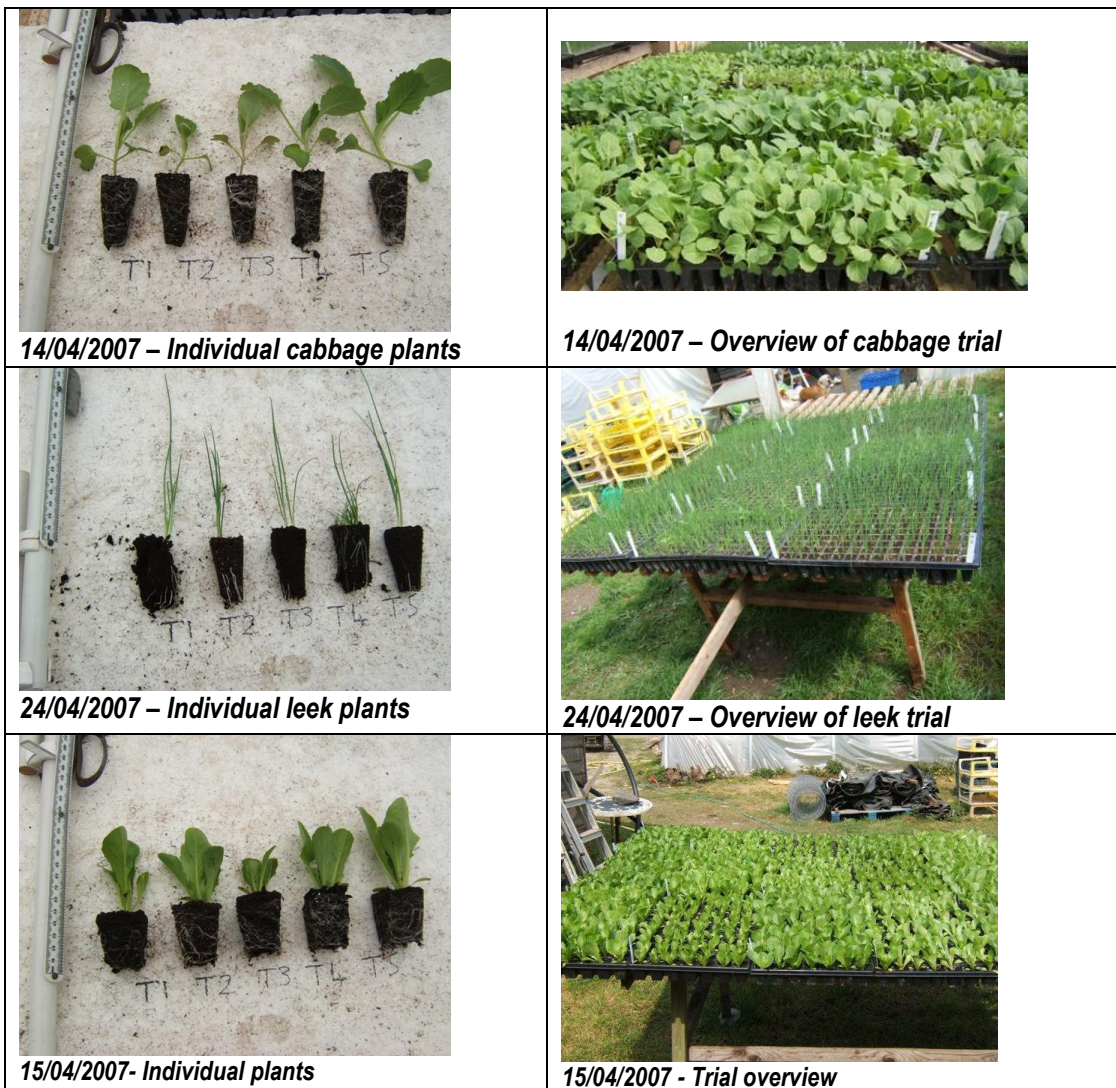
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West Riding Organic had problems with weeds, and the weed susceptible crops such as leeks were completely smothered. This is unfortunate because in all other respects it appeared to perform very well. However, the problem carries through to the field phase – growers don't like planting out weeds!

The **development product** (tested only in the formal trials) raised large, healthy plants for all crops with no significant problems and few visible signs of stress. These results indicate that green-waste based products could have a role to play in the organic sector in the future, but there is more work needed to commercialise and certify them for use in organic systems.



T1 = Bulrush; T2 = Fertile Fibre; T3 = Klasmann; T4= W. Riding; T5 = Development

For more information and a copy of the full report contact Tony Little on the details below.

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