

# Does Green Waste Compost make a Reliable Alternative Substrate to Peat?

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## Introduction

- Main ingredient in SCRI standard compost mix.
- Popular as a growing medium since 1960's.
- Has been used at the SCRI since early 1970's.
- Current annual UK consumption of 2.5 million cubic metres.
- SCRI uses approx 200 cubic meters a year.



## Procedures

- A selection of the most commonly grown plant species were trialled.
- Grown in Standard Mix (Control), 20% and 40% GWC replacement with Peat.
- Normal plant production procedures were followed.
- Harvested when plants in Standard Mix were at the size they would normally be when used for scientific experimentation.
- Trial plants were exposed to three different growing conditions.



## Plants trialled

*Nicotiana benthamiana*  
*Nicotiana clevelandii*  
*Nicotiana xanthi* (N/N)  
*Nicotiana glauca* (N/N)  
*Nicotiana glutinosa*  
*Chenopodium amaranticolor*  
*Chenopodium quinoa*  
Tomato 'Moneymaker'  
Turnip 'Purpletop'  
Blackcurrant 'Ben Lomond'  
Petunia 'Multiflora'  
Potato 'Maris Piper'  
Cucumber 'Venlo Pickling'  
Barley 'Golden Promise'  
Oil Seed Rape 'Mascot'  
Spinach mediana

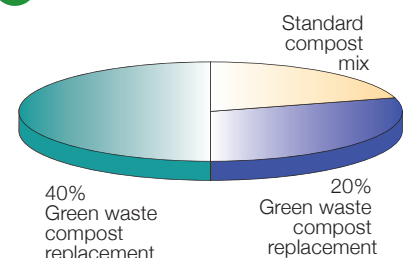


## Findings / Observations

- No trend for any one of the three compost mixes trialled to grow significantly better or poorer quality plants.
- More than double germination failure rate in the 40% GWC than in Standard Mix.
- However, actual numbers were low.
- Seedlings were observed as taking longer to recover after being pricked out into 40% GWC.
- The growing environment caused a greater difference in growth than the compost.



## Did not grow?



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