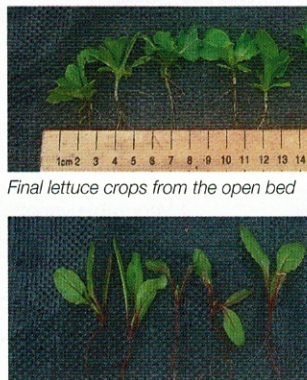


Sown seeds trial success: Lettuce (direct)

Lettuce 'Winter Density' x 12 seeds (sown direct)	Hotbed Harvest date: 30/04/2018	Open-ground bed Harvest date: 30/04/2018
Seeds germinated (% success)	12 (100% success)	8 (66% success)
Vegetables of harvestable quality (% success)	12 (100% success)	7 (58.3% success) Slug damage?



Final lettuce crops from the hotbed



Final lettuce crops from the open bed



Final beetroot crops from the hotbed



Final beetroot crops from the open bed

Sown seeds trial success: Beetroot (direct)

Beetroot 'Boltardy' x 24 seeds (sown direct)	Hotbed Harvest date: 30/04/2018	Open-ground bed Harvest date: 30/04/2018
Seeds germinated (% success)	20 (83.3% success)	7 (29.1% success)
Vegetables of harvestable quality (% success)	20 (83.3% success)	5 (20.8% success)



Vegetable harvest for the open ground bed at the end of the trial



Vegetable harvest for the hotbed at the end of the trial

Conclusion

The small-scale growers' hotbed definitely proved advantageous in the trial, with many crops performing exceptionally well compared with the same seeds sown in the open ground bed. The hotbed provided a protected, enhanced temperature environment for growing at arguably little investment in time and resources for the grower.

The concept of sowing vegetable seeds both in trays above the growing medium and directly into the growing medium itself worked well, offering advantages over the use of heated propagation mats or cables, as the hotbed did not rely on an external artificial power source. The successful use of the hotbed outside, without the shelter of a greenhouse or polytunnel was another beneficial factor, with possibilities for allotment or garden use.

A range of issues such as weather including frost and snow and pest and disease were successfully countered by the protective hotbed structure, although minor issues with rodents and sciarid flies did occur but with no serious ill effect. The open ground bed favoured poorly in comparison, with 'minus' soil temperatures, excessively wet growing conditions, deer and slug damage all being noted. The capability of the hotbed to extend the growing season was illustrated by the rapid germination and time taken to reach harvestable quality of many of the vegetable seeds, in strong contrast with those in the open ground bed.

In summary, I personally found that the hotbed concept was really beneficial in the

growing of vegetables, with the results of the comparison with growing in the open ground really showing its worth. Additionally, the unit was enjoyable to build and use, while it certainly gave me something interesting to get on with during the late winter / early spring when I would normally be waiting for conditions to improve.

Why not give it a go yourself, the results may surprise you!

Tom very kindly wrote this article based on the research he carried out for his dissertation as part of his M.Hort (RHS) qualification that he completed last year. This is the Royal Horticultural Society's premier qualification and is aimed at professional horticulturalists. It takes a number of years of both study and practical work to achieve and is widely recognised within the horticultural industry. Tom is currently employed as Head Gardener at Lockerley Hall in Hampshire.

Tom has also said that he has a longer PowerPoint presentation that he is happy to present to societies as a talk which I think will be very interesting. He can be contacted at [tommaskell@sky.com](mailto:tommaskell@sky.com)