

GARDEN VEG PLOT

This write up is a bit off piste to my usual engineering activities. With present social distancing in place because of CoronaVirus and the resulting shortages of some fresh vegetable foods in the shops it has never been a better time to grow your own.

For a number of years I have cultivated a veg plot and it is now quite mature. Along the way it has become formalised and as a result it rolls along from year to year without really needing much thinking about. The only problem in recent years is we are quite often in France when produce reaches peak availability. Our house sitters therefore reap most of the benefit.

Raised Bed Structure

The plot consists of 7 raised beds each measuring 3.6m x 1.2m using 38mm x 150mm board. The reason for this is that UK sources of timber often come in 4.8m lengths and so each length provides a 'side' and an 'end'. The 3.6m length also fits with the width of the plot and allows a walkway across the ends of the beds. The bed width at 1.2m allows a comfortable reach for weeding from either side from a 0.6m wide gravel pathway between each bed. This width allows wheelbarrow access.



The bed boarding is held in place by 8 stakes and these together with the boarding have been replaced once since the beds were installed in 2008 as they had succumbed to rot. Each autumn I pile up the earth in each bed into a central mound to expose the inside of the side boarding. This allows the boarding to dry out and receive a coat of preservative ready for the next season. I think at the next replacement date I will try to find some recycled plastic boarding.

One thing to note I did the calculations on bed area to walkway areas and they are not far off being equal so raised beds may not be the most efficient usage of the ground area but are essential for convenient access and management.

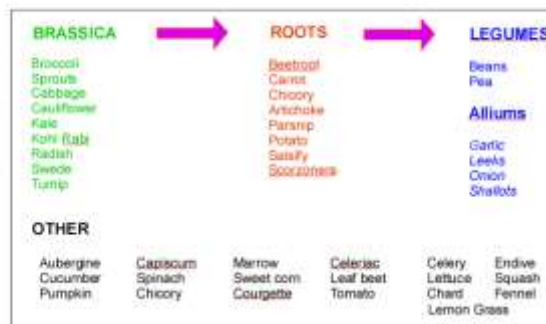
Crop Rotation

A crop rotation plan of sorts is in place to cycle the cropping on each bed. I made this a bit more formal a couple years ago and here are the details.



	2024	2018	2019	2020	2021	2022	2023
Bed 1	Greens	Roots	Pots	Beans	Misc	Pots	Alliums
Bed 2	Alliums	Greens	Roots	Pots	Beans	Misc	Pots
Bed 3	Pots	Alliums	Greens	Roots	Pots	Beans	Misc
Bed 4	Misc	Pots	Alliums	Beans	Roots	Pots	Beans
Bed 5	Beans	Misc	Pots	Alliums	Greens	Roots	Pots
Bed 6	Pots	Beans	Misc	Pots	Alliums	Greens	Roots
Bed 7	Roots	Pots	Beans	Misc	Pots	Alliums	Greens

Lettuce sow in Sweetcorn and Brassica as early cropping before growth



Plant Protection

The common size of the beds (except bed #4) means that each year I can install the same protective netting structure to protect the brassica crop. These cover a whole bed and use a mix of aluminium poles and plastic mesh with 3D printed corner joints. I tried the green ball universal joints as offered by various suppliers but they degrade and lose their tightness on the aluminium.

I also have a number of mini cloches that can be moved around to protect the planting either from frost or pests. These smaller ones have a 1.2m x 1.2m base frame with a plastic curved support on an aluminium upper framework. The curved plastic is a standard 1m length of 15mm water cistern overflow pipe from the UK B&Q hardware store. This just curves nicely across the 1.2m span. These are covered in either plastic sheeting or netting depending on time of year and needs. The latest generation uses 3D printed coupling components for the structure.



Irrigation

I have an automated watering system in place using timers. There are two timers, one for the bed system and one for the greenhouse. The bed timer feeds a tripod with a wave sprinkler that just covers the whole bed system. The greenhouse system uses the same style of timer to feed spay and dribble nozzles. Both systems are fed from an underground 3000 litre rainwater storage tank that is fed from the house roof run off. I have a wireless connected monitor of the tank water level. At the moment there is no feedback to inhibit irrigation if there is sufficient moisture in the soil.



Conclusion

There is nothing special in the setup I have created but it does deliver an abundance of produce that keeps us fed throughout the spring and summer periods with a carry over into autumn and winter with parsnip, leeks and greens etc.

Maintenance of the growing area is made very easy with the bed system with defined areas for planning planting and the 'joy' of weeding. The automated irrigation allows us to keep things watered while we are away.

Growing veg is quite satisfying and there is definitely a different quality to freshly picked produce against shop supplied. First priority however is always going to be the workshop.