

**A follow up to
An observation and experiment by John Deeprise 2020 / 2021
at Humber Allotments.**

In June of this year 2021 I documented my attempts to improve the fertility of my soil with the hoped for consequence of reduced weeding and watering. To do this I adopted the no-dig principle, as far as I could, according to Charles Dowding, and many others that I have found on You Tube.

【See a list of You Tube channels at the end that I have found useful】

At the end of the main growing season I felt it worthwhile to update those that earlier showed an interest in my experiment and to pass on what I have learned so far. I hope it may be of interest to some others and any feedback is always welcome.

I also decided this year to experiment with my potatoes.

To avoid digging, in what I regarded as the conventional way of growing potatoes, I utilised the advantage of the no-dig method but with a twist. I only grow second earlies (Charlottes) but the method would be good for any variety I suspect.

☑ Potatoes.

I decided to grow all my potatoes this year using a different approach. I grew five rows of Charlottes each row of approx 15'. One row was planted using last years crop and four rows were planted with seed potatoes bought on-line from Marshalls .

▶ Row 1.

I built a 12" deep line of compost and covered it with black plastic. I planted through a hole in the plastic and pushed the seed potato down to the soil level. This row was not watered and I did get a bit of scab. I know this is a very old method of growing potatoes and I had been meaning to try this for many years

having seen others doing it. The potatoes tasted fine and the total crop from 11 planted potatoes was 17.6 Kg

▶ Row 2. Last years crop

I built another 12 “ deep line of compost and covered it with cheap weed matting. The seed potatoes were again pushed through holes down to the ground. The weed Matting rotted and blew away. I did do a little bit of watering to keep the compost moist. These seeds were from last years crop and the haulm was noticeably less than the purchased seeds from Marshalls. The potatoes tasted fine and the total crop from 11 planted potatoes was 16.5 Kg.

▶ Row 3.

I simply laid out a line of seed potatoes and covered them with approx 4-6” of grass cuttings.

The potatoes tasted fine, were very clean and the total crop from 11 planted potatoes was 18Kg. I had quite a few green potatoes due to me not putting enough grass cuttings down. I should have added more once the shoots appeared but it was an experiment and I have learned from it.

▶ Row 4.

I laid out a line of seed potatoes and covered them with approx 4-6” of straw. The potatoes tasted fine and the total crop from 11 planted potatoes was 16.3 kg.

▶ Row 5.

I laid out a line of seed potatoes and covered them with approx 4-6” of hay. The potatoes tasted fine and the total crop from 11 planted potatoes was 13.2Kg.

I balanced out my seeds so that each row had approx equivalent size /weight of seeds with eleven spread evenly along a 15’ row. I did water a little bit when the haulm was in full growth (old habits). Sadly this seems to have encouraged more slugs under the straw and hay although I cant be sure they wouldn’t have been there anyway. The slugs didn’t seem to like being under the grass cuttings and there were even less slugs in the compost grown potatoes.



All of the above methods produced potatoes without the need for any trenching/earthing up and consequent digging. It was easy to harvest the potatoes and hopefully I haven't left any volunteers to be a nuisance next year. They all came out very cleanly and the waste mulch was added into my compost or used as part of my no-dig mulch for next years beds.

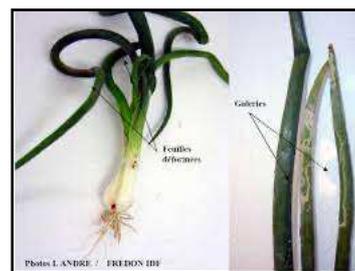
Looking at the results I will use hay, straw or grass cuttings next year depending on what I have available. However the depth of covering needs to be at least 12" to avoid green potatoes. I will ensure the ground is well watered prior to "planting".

Lessons I have learned.



Allium Leaf Miner

This year, like some other plot holders at Humber, I have lost most of my onions and leeks to [Allium Leaf Miner](#).



Allium Leaf Miner

Next year, and this, I will need to cover my alliums in March / April and September / October, if not permanently, to avoid the egg laying season of the [Allium Leaf Miner](#). Treating alliums now like carrots (to avoid the carrot root fly), seems the best way to avoid the flies laying their eggs in any allium crop. It seems sowing carrots in May and harvesting in July is the best way to avoid carrot root fly without netting and a similar approach may now be needed for alliums? It also appears that crop rotation for these two crops is advisable since carrot root fly and Allium leaf miner eggs can remain in the soil ready to hatch under any covering you may have installed.



Monterey Garden Insect Spray- SPINOSAD Concentrate 30ml in squeeze bottle.

NOTE.

I did find this pesticide on EBAY to treat Allium leaf miner but it seems quite expensive although it is organic apparently. The 30ml container will make 2 litres of spray. I haven't tried it so I can vouch for it.

<https://www.ebay.co.uk/itm/184682389806?hash=item2affeda12e:g:NAAAAOSwwn-RgY2Mf>

- My tomatoes suffered with early blight. I did plant them very close together (12") to maximise my reward, and this may have contributed to the onset of blight, although others have lost their crops regardless. The blight resistant varieties seem to be the answer although of course blight doesn't occur very year. I have also read that flavour may be compromised with such varieties. If anyone can recommend a blight resistant variety with good flavour I would be pleased to hear from them.
- Starting off as many plants as possible in modules also seems a good way to give your crops a good start. It takes more time but I feel its well worth the effort. Transplanting the healthiest seedlings seems to avoid the weaklings and thus maximises the crop. This year I only sowed carrots, some beetroot and parsnips direct. All other crops were germinated in modules or plugs.
- Using fleece for the first time this year also enabled me to grow some very nice early crops whilst keeping the weather and insects at bay. I can highly recommend it if you haven't tried it! I know its not a new concept but I had always chose to ignore the stuff thinking it was just a gimmick. I used the 30 gsm grade which seems robust enough to withstand some strong winds.

✓ **Watering.**

My watering has been minimal due to the effect of mulching. Even during the long dry periods I was not watering my crops. My young seedlings and transplants were looked after of course to give them a good start. Tap water is no substitute for rainwater so watering was only to prevent absolute failure. The soil underneath the mulch of compost stays moist and draws the roots down. I have realised that watering too little on un-mulched ground can cause more problems than it solves. To get enough water deep enough into the ground has been irksome to say the least in the past. Particularly with soil that has crusted or has become compacted, watering is a waste of time and effort. Hoeing to break up the crust and relieve the compaction means more weeds will grow.

✓ **Weeding.**

I am spending way less than 10 minutes per week on my weeding. Most of the weeds I have had were clover. These have come from the horse manure I used as my main ingredient for my compost. It pulls out easily and is no problem however. Trying to get the compost pile hot enough to kill the weed seeds is a challenge and simply stacking it up is not the best method. However, it hasn't really been a serious problem and unless I build a multi partitioned compost facility I can't see an alternative to my current composting technique.

✓ **Soil Fertility.**

I am not sure how I could measure fertility but my crops have been good and strong so I am confident that I don't have a problem. Measuring soil fertility seems to be a science but healthy strong plants will be my indicator. Put back what you take out is a reasonable approach in my book. Charles Dowding talks about Mycorrhiza and the benefits to the plants. This topic is way over my head but leaving the soil alone is the best way to encourage such things it appears. Plants obviously need more than just water, and fertilisers are not always the answer as they can be easily washed out without giving any benefit. Plants also need much more than just fertilisers to grow properly. I have realised the science of plant growth is way beyond my understanding.

✘ Problems - summary

The usual problem pests and diseases this year of flea beetle, black fly, onion white rot, grey field slugs, large red slugs and early blight.

Alium leaf miner (new to me)

Pigeons continue to break my black currant bushes by sitting in them and of course Cabbage Whites have found a way past my netting.

Moles seem to be a regular visitor to my plots and providing they don't dig up my plants I can live with them. Not that I have a choice really !

For your interest and comments.

What's not to like ?

- ✓ Less weeding.
- ✓ Less watering.
- ✓ Improved soil fertility.



<https://www.youtube.com/channel/UCB1J6siDdmhwah7q0O2WJBg>

<https://www.youtube.com/user/HuwsNursery>

<https://www.youtube.com/channel/UC-bU0T-JKZ3kVpO77Nt1hMA>

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