***Here is the complete text from Helen & William’s feature in the Spring 2019 Newsletter***

**No-dig Experiments at Lenthall Road**

Helen and William Beinart

Over the last few years, since taking on a full plot on Lenthall road allotments, we have experimented with ‘no-dig’ practices. Initially, these ideas were inspired by permaculture, such as straw-bale potatoes and the lasagne method (basically layering brown and green organic matter on your beds). More recently we discovered Charles Dowding’s system, or methods, but we have not followed him rigorously. He has a very useful website and many you-tube films that explain the methods in detail. The methods are simple and energy efficient and respect the basic soil structure and micro-organisms without interfering too much with nature. We are hesitant to call what we do a system, because it is still a bit haphazard and experimental.

These ideas seemed attractive because we read reports about high yields with limited labour! They also seemed valuable because much of the plot was covered in couch grass and perennial weed, and the soil was a heavy clay that was difficult to dig, particularly in wet weather. The availability of large quantities of manure, through Paul, has also been essential. For the first winter we covered the soil with black tarpaulin.

The core idea is to cultivate largely above the ground. First, we put down a layer of cardboard (easy to find particularly on blue bin days!) This suppresses the weeds, to some extent. The cardboard is moistened and covered with a mound of manure, compost and soil across the width of the allotment, with paths in between so it is easy to reach. We have not worked out proportions in any scientific way. Cattle manure from Paul probably accounts for over 60 per cent of the content of our mounds. Most of the rest is compost, which we make ourselves, and which includes a good deal of soil. We also use purchased compost or recycled council brown bin waste. Dowding uses largely home-made compost but you need to make a very large quantity of this to produce mounds on the scale required. We don’t see it as feasible, and suspect that the manure produces better results.

To this mix we add other bits and pieces – one year we tried bags of leaves; we scrape additional soil from neighbouring, used mounds. We have added a little chicken manure and recently gained access to a supply of pigeon dung. It apparently has about 6 times the nitrogen content of cattle manure so has to be used sparingly. Straw is also part of the mix, some obtained from Paul in large bales and some found elsewhere (see below).

The mounds are roughly convex, about a metre wide and about 50 cm at their peak. While the system does not involve digging, it does require moving and shaping a large quantity of manure and compost. We have also covered the pathways in between with cardboard and woodchip.

Planting is then done above ground in the mounds. Some plants seem to do particularly well in the first season of planting. We have planted potatoes in two ways. The most effective method has been to rest them on the soil, or push them in so they are just covered and then to cover them with a thick layer (6 inches/15 cm) of straw. In turn this can be covered with a layer of fleece. This allows very early planting, protected against frost. Although the potatoes root and form downwards, there is the danger of some going green through exposure, so we have to ensure that the straw remains in place, or is supplemented by another layer of straw (at the time that one would usually ‘earth up’), or extra soil added to cover exposed potatoes. Slugs can be a problem. We have also planted potatoes deeper in the mounds, and they can do well, but the best results for early new potatoes have come from the straw method which also seems to hold in moisture. Yields have been large and the potatoes come out ‘clean’.

Other plants that do particularly well in a first planting are all kinds of pumpkins, squashes and courgettes, as well as beans and greens such as lettuces, rocket and endive.

The value of this system is that it can sustain two or three plantings without any need to dig or add further compost. If new potatoes are planted in mid-March, for example, they are largely ready by the end of June. The mound has subsided somewhat, so that it will be about 10-20 cm above ground level. The cardboard largely disappears by this time so that there is no barrier with the soil below the mound. Second plantings do very well – e.g. squash, pumpkins, spinach and chard, salads of all kinds, winter greens, fennel, brassicas, herbs and also root crops. Except for the latter, we start most of these in trays and pots so the late planting is less of a problem. In fact we tend to start the great majority of plants in trays and pots because they seem less vulnerable to weather and slugs. The roots can penetrate downwards into the soil. By this time too, the straw has partly decomposed into the mound. Some of these plants will be ready by late summer/autumn although some stay in for part or all of winter, such as parsnips, leeks and brassicas.

Then in October/ November or in the next March, broad beans and aliums can be planted without digging or adding to the mound. By this time, the mound is more or less level, and alliums prefer the manure to be absorbed. But the soil still seems rich enough to produce onions, garlic and shallots of a size we have not been able to do before through other methods. The autumn plantings of onions, garlic and shallots have been especially successful, despite the fact that the plot is at the top of the allotments and quite exposed to frost.

The cycle then starts again, with variations, because we try a very wide variety of plants. We don’t start all mounds with potatoes! If aliums are planted the row will not be ready in time for rebuilding the mound in March/April. We have followed a rough rotation method although we are not sure this is entirely necessary because so much fresh manure and compost is introduced.

On part of the plot we also have some raised beds which have been well fed. Both methods are doing well, but perhaps overall we have achieved better yields and size with the no dig method. Over a few seasons, the soil under the mounds seems to have improved greatly and is now easier to work. The pathways too, absorbing the decomposed chippings, seem to improve and we can move the location and width of the mounds. The raised beds are also getting richer and are easier to weed – so that the difference is not great and some of the more sensitive plants are better and easier to manage in the beds where the soil is now finer. We have experimented with a ‘warm’ bed, heavily manured and surrounded by straw bales. Although grass sprouted from the bales, we managed to control the growth by covering and had by far the best outdoor crop of green peppers and aubergines that we have ever achieved. Some of the peppers even went orange. This could have been down to the hot summer so we will need another year to experiment further.

Although these methods save on digging, there is some effort involved in the initial preparation of the mound but it can be used three times without further composting and the results are good. We have been delighted with the yields and the length of the season. We have continued to harvest a wide range of veg and salad including lettuce, endive, spinach, chard, rocket, parsley, coriander, fennel, cabbage, romanesco caulis, and root crops well into December. No doubt still a lot to learn.