



# LADBROOKE



## SoilBlockers

...a practical, flexible and cost-effective system of propagation



Using a Multi 12

Once again, it was Eliot Coleman who alerted us to the potential of soil blocks. In his book, *The New Organic Grower*, he introduces his chapter on soil blocks by saying "It is always satisfying to find a technique that is simpler, more effective and less expensive than what existed before."

We could not agree more. From the first it seemed like a novel idea. Now it is the established way in which we grow most of our vegetables – and the flowers we grow from seed. It took quite a search to find Ladbroke 98 Ltd, and we were surprised and pleased to learn that they are a small 'cottage industry' in the English Midlands, supplying these unique tools to many parts of the world. It seems that most UK gardeners have missed this outstanding home-grown innovation.

So, how do soil blocks work? They are simply blocks made out of compressed potting mixture, with no 'pot' or other container – the surrounding air spaces are the 'walls'! The young roots grow out to the edges and just wait, instead of circling round. This can give a useful period of 'suspended animation', when the young plants seem to slow right down. If soil or weather conditions are not quite right for planting out, they can be kept in the soil block for a few more days with little or no harm. Plant them out, and they soon 'get away' vigorously with no 'check'.

So, what about the potting mixture? You could try any potting mix that will hold together when well moistened and squeezed in your hand, but many modern mixes have little or no soil or loam and may crumble too easily. Eliot Coleman gives different recipes in the two editions of *The New Organic Grower*, but here are two which I have adapted from his ideas and used for several years. The soil and compost give some of the nutrients and most of the 'binding power' to the coir fibre (or peat) and sand:–

**Soil Block Recipe** (for all except Micro 20 blocks) 30 parts coir fibre (or brown peat),  $\frac{1}{8}$  part lime, 20 parts coarse sand (and/or vermiculite),  $\frac{3}{4}$  part blood, fish & bone meal, 10 parts soil, 20 parts sieved compost. All 'parts' are by volume. If you don't want to use blood, fish & bone meal, there are now 'non-animal product' alternatives available – please ask us for details.

**Micro 20 Block Recipe** A different blend is needed for germinating seeds in the Micro 20 blocks. Seeds germinate better in a "low-octane" mix, without any blood, fish and bone meal added. The coir fibre (or peat) and compost are finely screened through a  $\frac{1}{4}$  -inch mesh before mixing the ingredients.

16 parts coir fibre (or brown peat),  $\frac{1}{4}$  part fine bone meal, 4 parts compost (well decomposed).

For mixing in large quantities, I use an old concrete mixer! Obviously smaller quantities can be mixed in buckets.

### Should I Sterilise the Mix?

Eliot Coleman advises against sterilising potting soils, and I have followed his advice. He says: "In more than 20 years of using homemade mixes, I have never sterilised them. And I have not had problems. I realised early on that damping-off and similar seedling problems, which are usually blamed on unsterilised soil, are actually a function of cultural mistakes like over-watering, a lack of air movement, not enough sun, over-fertilisation, and so forth. Good, fertile garden soil and well-prepared

compost contain many organisms that benefit seedling growth. If you “sterilise” these ingredients you lose the benefits of a live mix without gaining the advantages that are achieved through proper seedling management. Recent university studies agree and emphasise the specific value of finished compost as a disease-suppressing ingredient in growing mixes.”

The starting point for most vegetables (except direct-sown ones like carrots) is to sow individual seeds in the Micro 20 blocks. I find that a sharpened plastic seed label, moistened with saliva, picks up individual seeds and deposits them easily and quickly in the slight depression on the top of the block. Some (e.g. the whole cabbage family (*Brassicae*)) do better if covered with a thin sprinkling of the blocking mix, and/or some paper over them to exclude the light. Most others seem to do better when they are exposed to the light.

When these seedlings have germinated and are showing 2 seed leaves, I normally move these Micro 20 blocks into 50mm blocks which have the right size hole in them, made by fitting Cube Inserts to the Mini 4 or the Multi 12. In turn, these blocks can be ‘potted on’ into Maxi 1 blocks if more protected growing time is needed, but most can be planted out direct in the 50mm blocks, which is simply done using a ‘Dagger Trowel’, a Right Angle Trowel (‘Plant Hand’) or a similar small trowel. Alternatively, you could move the Micro 20 blocks straight into Multi 6 blocks, which have Cube Inserts ready fitted to make holes for the Micro 20 blocks.

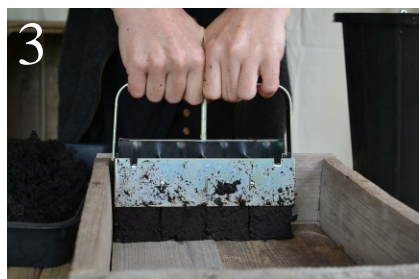
Making the blocks follows much the same process whatever the size of block. The little Micro 20 Block maker can easily be used on a table top, as can the Mini 4 and Mini 5, but the Multi 12, Multi 20 and Multi 6 are made with a long shaft so that block making is done at floor level while the operator is standing, as in the picture overleaf. Here are some pictures of the Mini 5 at work:–



**1) Fill the Blocker.** Have the blocking mix rather wetter than you would expect for normal potting. It should be wet enough for you to be able to squeeze water out of it easily by hand. (Having the mix too dry is the commonest cause of failure.) Put it in a non-metallic container. Press the blocker firmly into the mix 2 or 3 times to fill the block chambers.



**2) Level off the mix** in the blocker by scraping the excess off on the side of the mixing tub, (or use a small trowel).



**3) Press out the blocks on a level surface** by pushing down the plunger, at the same time lifting the block chambers up so that the blocks stay on the surface.



**4) Result,** your first soil blocks, ready for use!

In practice, you will probably form the blocks directly into seed trays, ready for seed sowing or ‘potting on’. You will need to ensure that they are kept damp but not saturated.

Regular misting or use of capillary matting may be useful here. If you need to keep the seedlings in blocks for a longer time, consider applying a little liquid fertiliser if appropriate.

### Points to Consider

Using soil blocks is labour-intensive. You need to mix up the potting soil (or maybe buy it ready-made), make the blocks, sow the seeds, give good germinating conditions and ‘pot on’ the seedlings to the larger blocks. All this demands commitment of time and some organisation.

On the positive side, you use much less seed, reduce the space needed for seedlings in their early stages and have good robust young plants ready to plant out with little prospect of failure. You can also use the ground for the previous crop until just before the new plants are ready to plant out. If planting out must be delayed, the young plants will ‘hold’ for several days without ill effect.

Any questions? Get in touch and we will try to help.

Dave Taylor

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This leaflet is also available online at: <http://www.blackberrylane.co.uk/PDFs/SoilBlockers.pdf>

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