

3
The first UK
allotment trial
of **E**ffective
Micro-organisms

Hot beds and



*Andrew Seall
gets stuck into
some practical
projects on the EM plot.*

This is the season when all gardeners look forward with optimism and excitement, and I am especially excited this year about my EM or 'effective-micro-organisms' trial. As I explained last month, the aim is to create a well-balanced micro-organism system in the soil; I hope this will make my vegetable and fruit plants healthier, but for now we'll have to wait and see.

Before I get into new experiences and adventures I have to deal with one or two other jobs on the allotment.

I have had to re-stake my new 'Bramley's Seedling' apple tree. It arrived in December, all neat and tidy, and I planted it right away with a tree support I found in my shed. That was the mistake as I later had to replace

Kitchen waste treated with EM goes into a hot bed trench.

with a new stake positioned at 45 degrees to the trunk, supporting it against the prevailing southwest wind, which is a big problem on this allotment.

This year I am building a bean wheel to reduce the wind damage. First, to form the wheel's centre, I tied two 2.4m (8ft) canes together in four places and pushed them 45cm (18in) into the ground. Then, for the spokes, I tied one end of eight 1.8m (6ft) canes to the central canes at 1.8m (6ft) above the ground. The other



PICTURES: ANDREW SEALL

of EM. My hot beds, although late in the season, have been treated with my EM so the nutrient will be made available to the beans when they need it. The EM soil trial has now officially started!

Making EM

I say *my* EM because I made it myself, just as you can if you want, by using a garden 'yogurt-making' kit and following the instructions. The kit consists of a small fermenter with a 'starter' bottle of liquid EM and some molasses. I mixed the EM and molasses as instructed, plugged in the fermenter and a week later I had a litre of activated EM.

I diluted this with five litres of water. I sprayed one litre onto selected areas of the plot at the rate of one litre to 100 square metres. The remaining four litres I put into old lemonade bottles, screwed the lids down tight and have stored them in the shed. I now have about three months in which to use this first batch.

The whole process was very easy. EM has a pleasant smell, is organic, non-toxic and harmless to adults, children, pets, wildlife and livestock. It won't do any harm if you spill some on your hand or clothes.

While I was spraying I was thinking about the types of soil treatment my plot had seen over the years. According to the county archivists the surrounding area of my allotment has been inhabited and used since the Iron Age, and probably even earlier.

The Romans were here with one of the largest commercial vineyards in Britain. In medieval times, during the plague, people survived here. In the time of the civil war the area must have been fortified because Ron, my allotment neighbour, has found round shot in his soil, and he assures me it wasn't him in a previous life!

The allotments came into

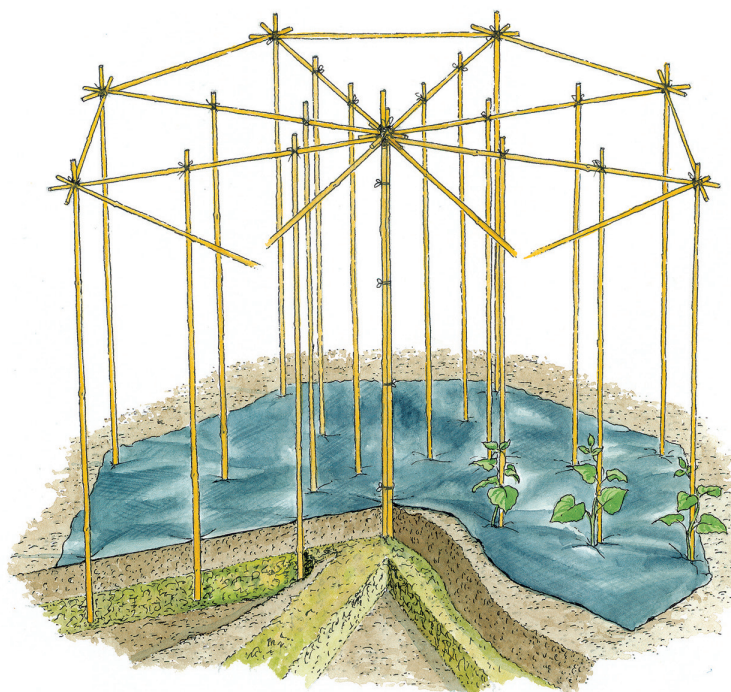
ends were tied to eight upright canes pushed into the ground to form the circle. The spokes are 6ft 6in high, so I can comfortably get into the back without bashing my head. Lastly I tied in three support canes per spoke. I will plant 48 beans (two per upright) because I always plant double, and if both take, I will train each away from the other and tie in more support strings.

Hot beds

You might have noticed the picture of the hot bed trench (above). I got the idea from Percy Thrower who favoured them as a method of sowing early crops under a frame in January, and then following on with cucumbers and marrows. The tradition of forcing in this way goes back hundreds of years, at least to the 16th century and maybe back to Roman times.

Hot beds were usually made from compost, manure or leaves. Mine, however, are made from normal kitchen vegetable waste collected in an EM bucket and then buried in trenches where the runner beans will be planted. The natural fermentation process, induced by micro-organisms, creates heat, which I am going to trap under a covering of weed-control fabric.

It was only recently that the interaction of the micro-organisms in this process was identified, and a similar interaction is the successful basis



Andrew's bean wheel made from canes tied together. The beans will grow in 'hot beds' covered with weed-suppressing fabric.