

The Edible Outdoor Classroom

Matt Willer shares how he set up an allotment for his students, creating an inspiring, abundant outdoor classroom

t was on a cold February morning in 2015 that I, and two willing sixth form volunteers, embarked on something that we had never done before – we built an allotment site, from virtually nothing, for our school and college.

What we achieved, and experienced along the way, was not only unprecedented for us as a team, but it now means that a small area of our school playing field serves to teach and introduce children of all ages to growing their food in a sustainable way.

Now in May 2016, 16 months from when we started, Reepham High School and College's allotment site, now coined 'The Allotment Project', continues to grow, quite literally, in every way possible and is slowly becoming part of the ethos of our school and college.

When we started we had absolutely no idea that what we would create would successfully engage many young people, though at the very least, we hoped we would be planting seeds in young minds, that producing food in this way is better for the planet.

I personally became inspired to live sustainably and to grow my own food from time spent in rural Uganda, where buying groceries from the local supermarket is not an option, and Cuba, where in the 1990s, oil based artificial fertilizers and harmful pesticides suddenly became unavailable due the rapid depletion of oil following the collapse of the Soviet Union. The Cuban people, rather than endure harvest failures, and possible starvation, started to grow their own food on roof tops and on small scale organic farms. What happened to Cuba is, without a doubt, something that will happen to the rest of us and must be the future path that we have to follow. This is why we must inspire our young people to grow their own food!

THE BEDS

The soil underneath our school playing field is, unfortunately for us, mostly clay, and so drainage is a major problem. It was quickly decided that raised beds would be necessary if we were to be successful in growing any food. At the beginning of the project, we had no funds to help us, and so we had to find a cheap but sound way of making some raised beds. I had seen an article in PM about using wooden pallets to make raised beds and I followed the instructions and guidance to the letter. We produced eight strong, but simple, raised beds. The wooden pallets were given to us, along with a hoard of Wellington boots, by nearby turkey business, Bernard Matthews. Drainage was vital and the article recommended using hessian sacks filled with a mixture of gravel and top soil. I approached, using the education card, a local tea and coffee merchant in Norwich, who generously donated piles of old coffee sacks. I also obtained strong rubble sacks to line the sides of our raised beds. We then had to work out a way to obtain good soil to grow our crops in, and again, we struck lucky.

Subsequent raised beds have been made from using old wooden railway sleepers donated by a nearby railway museum. These have also been lined with plastic as a precaution, to protect the soil from any creosote that could bleed out. Recently, we came across some fly-tipped car tyres and we 'upcycled' them into little beds for herbs and spinach.

THE SOIL

Seeing that our soil would prove very difficult to grow food in, we had to make new soil to fill our raised beds. With virtually no money, we could not buy it in and nothing had been composted because what we were doing was unprecedented. Again, using the education card, I approached Norse, who work with Norfolk County Council, and enquired about 'soil enhancer' (mainly produced from public garden waste) that they produce and provide to farmers needing to improve the structure and fertility of their soil. A couple of phone calls and emails later, a truck as big as a house delivered 4 tonnes of 10mm soil enhancer. We mixed the soil enhancer with some top soil (using a 50:50 ratio) that was being dug out of the ground by building contractors doing work at our school (again, very luckily for us).

THE WATER

This remains an on-going project for us as we still have no running water. However, as an early solution, I built a rainwater harvester which, aesthetically, looks very Heath Robinson,[†] but nonetheless, it really works! Using a sheet of corrugated steel, some guttering found on a rubbish heap, a plastic tree guard that had blown away, and a disused garden trestle, we were able to collect rainwater.

As The Allotment Project has grown in size, the water provided by the 'Heath Robinson water catcher' is simply not enough. We are currently working on catching water at ground level by digging below the water table in a nearby boggy area that is kept wet by surface run-off from the school playing field. We plan to syphon our captured surface run-off water with a solar powered pump into the allotment area and up into water butts on stilts to then be gravity fed to the entire allotment.

In early June we dug an experimental hole, $2m^2 \times 1m$ deep, near to the allotment site, well below the water table, and this appears to be working well. A great deal of water is now finding its way into our irrigation hole naturally as surface runoff when it rains. The next stage is to recycle this rainwater and get it back up to the more elevated allotment site.

THE FRUIT CAGE

We built a very rudimentary fruit cage using old fire doors, pallets, chicken wire, and ancient netting that I found deep in a shed at my previous allotment. I pinched a door from a collapsed shed at the old caretakers house and used a collection of unused wooden posts and planks, of all different sizes, to stand and hold everything together. It will never win any architecture awards, but again, it really works: the strawberries and raspberries (donated by staff members) are growing extremely well!

THE COMPOST

With the soil enhancer all used up by September 2015, we decided that it was more sustainable and environmentally friendly to produce our own compost. We asked our site team to Recently, we came across some fly-tipped car tyres and we 'upcycled' them into little beds for herbs and spinach

Previous page: Onions, sweetcorn, potatoes and squash are just some of what grows on the allotment.

Facing page, top: Students maintaining the school allotment.

Facing page, bottom: Rainwater being collected from the irrigation well.

Next page: Produce for sale to parents.



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sweep up all the leaves in and around the high school and college. We added these leaves to some of our raised beds at the end of autumn and, by early spring, this layer of leaf mould had turned into an amazing layer of humus which has proved useful for our potato crop. But again, this leaf mould would not be enough for all our beds and, in the long term, we needed well rotted organic matter in bulk. We approached the canteen staff, also run by Norse, and arranged to collect their fruit and vegetable scraps. We have also asked staff to deposit their food waste and tea bags (our staff drink an incredible amount of tea) into little compost bins that are dotted around key staff areas. Children collect these bins to go on the compost heap once a week.

THE PEOPLE

The potatoes, runner beans, broad beans, onions, spinach, radishes, rhubarb, pumpkins, squash, raspberries, strawberries, and some very little carrots, could not have been grown without the young people at Reepham High.

It is the young people of this world who chiefly inspired me to want to help build a school allotment in the first place. It was the young people at our school and college who built (and continue to build) the allotment site; it is the young people who continue to use the allotment site, nearly a year and a half on, on a regular basis, and it is in our young people that the future is held.

We must inspire our young people, and get them to inspire others, to learn how to grow their own food in a sustainable and environmentally friendly way, not for our sake, but for the sake of their children, and their children's children. It is in young people that all attention must be directed; we must show an incentive and set a sound example that our current methods of producing food and behaviour towards eating it (and certainly wasting it) simply has to change.

Matt Willer is a humanities teacher at Reepham High School and College in rural Norfolk.

This year, The Allotment Project was placed in the top five Green Sustainability projects, out of 3,500 schools, in the Community Education Awards.

* William Heath Robinson was an English cartoonist and illustrator best known for drawings of ridiculously complicated machines for achieving simple objectives.

