

## Preparing the ground

If you are converting a field, or any area that has not been gardened recently, you are faced with deciding how to get rid of the grass and probably some perennial weeds. Make sure you know what weeds you have on the site and be careful not to allow them to spread.

A common method is to **rotovate** the area. This has the advantage of being quick but does have several important disadvantages.

- Perennial weeds such as creeping thistle, dock and dandelion will just be spread throughout the area, as they can grow from quite small pieces of root.
- If you have heavy or clay soil, rotovating can form a hardpan (smooth compacted surface) just below the depth of soil that has been rotovated. This often prevents plant roots from penetrating into the subsoil and can lead to water logging.
- Your soil biology will be badly affected as you will be changing the depth and exposure to light and air of the soil profile. It may take some time for your soil biology to recover.

If you have a large area to convert, you might consider **ploughing**. If the ploughing turns the turf over it can help eradicate creeping thistle. However, repeated ploughing can again lead to hardpan formation and compaction of the soil and will affect the soil biology.

**Turf removal** using a sharp bladed spade is very effective but takes a lot of labour. You can stack the turf upside down and leave it to rot down. Once the all the grass is dead, you can spread it over your beds.

**Sheet mulching** is a very effective method and large areas can be covered using relatively little labour. However, you need to be patient. In summer you should wait 3 months, in winter 6 months and then the grass should be gone. If you have perennial weeds like creeping thistle, dock and dandelion, these will probably not be dead but the soil should be loose and so you can dig them out more easily. Thick sheets of cardboard and/or 10-15 layers of newspaper should be laid on the ground making sure to overlap the sheets well and leave no gaps. The

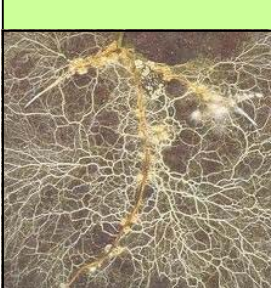
area should then be covered in a thick layer of mulch. Any organic matter will do (except perennial weeds), such as manure, grass clippings, straw, compost, autumn leaves. All of this will rot down over several months and greatly enrich your soil, as well as improving the soil biology enormously.



You can also mulch areas using **Mypex** or **black plastic**. This is an effective method and can kill perennial weeds over time. However, it can be expensive to buy, does not enrich the soil and is not good for the soil biology.

## Soil Biology

Did you know that soil has one of the most complex and biodiverse ecosystems on earth? Healthy soil is home to literally millions of organisms, including bacteria, fungi, nematodes, springtails, mites, woodlice, earthworms, beetles, centipedes, slugs, snails, ants, and harvestmen.



It is now known that almost all plants have symbiotic relationships with the mycorrhizal fungi that grow around and into their roots. The soil bacteria and mycorrhizal fungi are largely responsible for the nutrient uptake of plants.

A healthy soil also helps protect plants from disease.

To keep your soil healthy:

- Use no dig gardening methods
- Never tread on it or compact it
- Keep organic matter levels high.



# home grown - community owned information sheet



## community garden design



## Decide what elements you want to include.

For example, one of our groups decided they wanted to:

- grow soft fruit and vegetables for themselves
- develop an educational resource, e.g. for local school
- make the garden open to the public
- sell excess produce, if possible.

Other elements you may wish to consider:

- orchard
- area for socialising
- building for storing tools/produce, washing produce, collecting rainwater/shelter
- rainwater tank/s
- polytunnel/greenhouse
- water feature
- livestock areas
- wildlife area
- children's play area
- toilet facilities
- herb garden
- flower beds
- shelter belt
- fences
- trellises
- access gates
- paths.

Don't try to include everything, but if you miss something out at the design stage, it can be hard to fit it in once the garden is built.

## You need a basic map of your site.

Sometimes this will be available from site plans or ordnance survey maps (1:1250 scale are best). Try Bing Maps' OS map option - [www.bing.com/maps/](http://www.bing.com/maps/). Often, however, it is quicker and cheaper to make your own.

If you have a site with 4 straight sides it will be very easy. However, do not assume it will be a rectangle! Measure the length of each of the sides and one diagonal. Draw line AB to scale and then use a pair of compasses to mark where points C and D are.

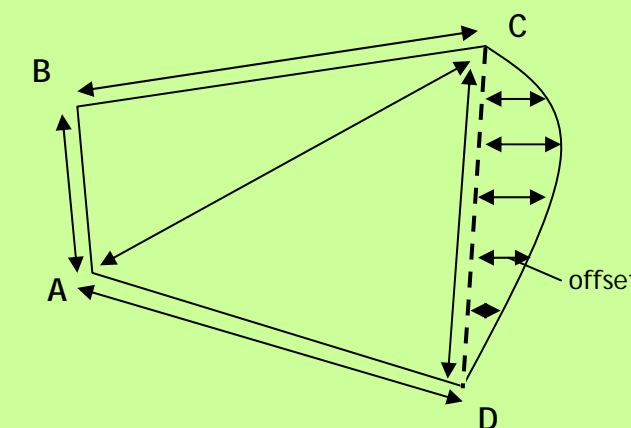
If you have a boundary that is not straight, you will need to measure offsets perpendicularly from a known line (CD below).

Make sure you mark permanent objects that are already on site, such as buildings and large trees. Again, use the offset method from a known straight line. Estimate the diameter of tree canopy and draw as a circle, unless it is a very different shape.

Mark North on your map. To make this accurate you should use a compass if possible.

You will also need an idea of the slope of your land. Unless you have a very steep slope that will need retaining walls, you do not have to measure this accurately. If your site slopes evenly, just show an arrow pointing downhill. If it is more complex than this, draw some rough contours, making it clear where the lowest and highest points are.

It is often a good idea to indicate whether there are objects, such as buildings or large trees outside your boundary, that will cast shade onto your site.



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Buildings

Some sort of building is essential, for shelter when the weather is unfriendly, if nothing else. Pole barns can be quite easily constructed, sometimes with poles from locally sourced trees. Building a pole barn can be a great community activity, and an opportunity for your group members to work together and get to know each other better. Make sure at least one person is experienced in this type of building - HogCO can help you find someone.

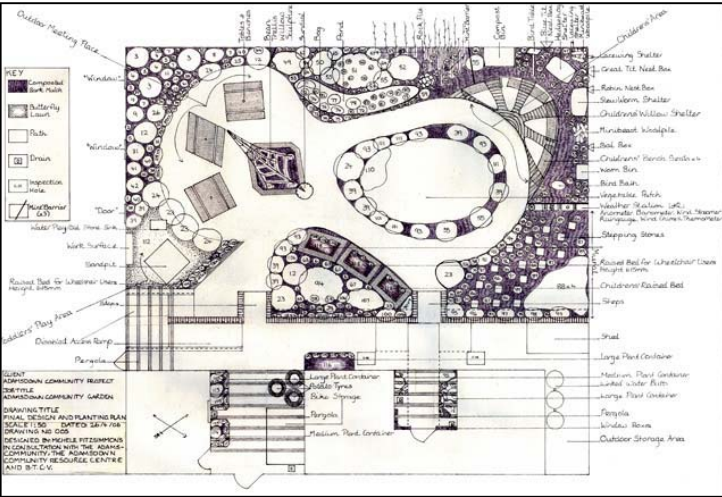
A basic pole barn consists of vertical poles with horizontal beams at the top, and trusses to support the roofing material. Bury the vertical poles at least 3 ft deep and then ram the earth back around pole base - there is no need to use concrete or gravel. Use a steel bar with a rounded end to tamp the soil down hard. Second hand corrugated iron is cheap as a roofing material and can look quite good.

If you make the basic barn quite big, you can then use different parts of it for different purposes. For quite a large community garden, you might build a barn that was 30 x 40 ft. You would usually add a wall to the prevailing wind side and separate lock up areas (for tools, food storage, etc.), as well as having an open space for communal activities that need shelter, such as a vegetable processing area. Ideally it would have washing facilities (for hands and vegetables). Make sure you collect rainwater from the roof, either for the garden or washing.

**More information:**

Practical Pole Building Construction: With Plans for Barns, Cabins, & Outbuildings, L. Seddon, 1985.

Download the Pole Barn Design from HogCO's website.



Where to put what

- Put buildings or compost heaps in shady areas, keep sunny spots for the vegetable beds.
- If you can, put compost heaps and storage areas at the top of the site, so that it is downhill when you want to distribute things.
- Place polytunnels where they will be less visible to neighbours. Alternatively, consider screening them with trellises or small trees. Remember they do need as much light as possible.
- Put beds that will grow veg that need lots of attention near the entrance/shed, so that people will see what needs doing.
- Put perennials and veg that take a lot of space (Potatoes, squash) further away, as they need visiting less often.
- Don't put tall things (fruit trees, vines on high trellises, fences) to the south of garden beds, because they will shade your sun-loving vegies.
- Put the communal socialising area either in the middle, or near the entrance. Make sure it is quick and easy to get to for everyone.
- If you have a waterlogged or boggy area, this would be a good spot for your pond or wildlife area. If not, put the wildlife area as far away from most of the gardening activity as you can.
- Keep compost toilets away from water courses, to prevent contamination.
- Plant fast-growing shrubs or trees to create shelter from prevailing winds (usually from the south-west).
- Windbreak trees should be useful too, e.g. willow (for cane and rooting hormones), alder (nitrogen fixer), hazel (nuts and stakes), ash (animal fodder and fuel).



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Garden beds

Raised beds have the advantages of:

- allowing soil to drain
- Increasing the depth of top soil
- keeping soil warmer in summer
- preventing people from walking on beds
- making the paths very clear.

They are often edged with timber, however this is quite expensive and the timber frames act as refuges for slugs and snails. Taller thicker frames can, however, be very useful if you have volunteers who use wheelchairs or people who cannot bend easily.

Alternatively, raised beds can be made by just pulling the soil up from each side of the bed using a Spanish mattock or small digging hoe. Then just flatten off the top of the bed. The paths can be used to grow green manure, which can later be slashed and spread as mulch, or they can be covered by cardboard, straw or wood chips.

These should run along contour (i.e. perpendicular to the slope of the land) to minimise soil loss when it rains. They can be created as part of large beds which are surrounded by grassy paths. Edge the large beds with a sharp spade, to prevent invasion by couch, creeping buttercup etc.

