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Gorgeous Gardens From Garbage: How to Build a Sheet Mulch



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One of the first projects for anyone who wants to garden is building a garden bed. There are some pretty cost effective means for making a fast, aerated and high nutrient garden bed with no digging! This particular method I'd like to share with you has been practiced and written about by many, it is called 'sheet mulching', and it is a very valuable tool.



Here's what you will need:

- Cardboard or newspaper
- Manure, compost or other nitrogen-rich material (i.e. fresh lawn or plant clippings)
- Straw, mulch, dried leaves, wood chips or other carbon-rich material
- Topsoil
- Optional: other additives you might like to put into the mix to improve your soil composition such as glacial rock dust, organic fertilizer, bone meal, lime or worm castings.

Note:

Step 1: Site plus cardboard

If you are putting any large plants directly into this garden bed, plant them in the ground first and build the sheet mulch up around it. Don't worry if the plant is slightly buried as the sheet mulch will compact quickly over time.

Sheet mulching begins with picking a suitable site. In the photos on this post the site was under an old apple tree where we were going to begin a 'guild'. The outline of our bed was roughly based on the drip line of the tree. However, we changed its shape using 'keyholes' to make sure that we could reach all aspects of the garden bed from all angles for harvesting and maintenance.

Add any soil additives you might be using under where your garden bed will be. A thin sprinkle of your additive will be enough (unless you know your soil is severely lacking in a specific nutrient).

We created the shape of our garden bed using cardboard. A few layers of newspaper can serve the same purpose. The Cardboard's primary function is to kill the grass underneath and to prevent it from growing up into your garden bed. It will also attract oodles of worms.



It is important to thoroughly wet down or soak the cardboard with water before moving onto the next step.



Manure on cardboard

Step 2: Nitrogen (manure, compost, dead green things)

Nitrogen is the key component in fertilizers but is easy to get naturally.

On top of your cardboard goes your nitrogen source in a 1-2 inch depth. Depending on your resources this might be manure, compost, worm castings or fresh clippings.

We have a friend who keeps horses and invited us to come muck out one of the stalls. We noticed there was a very high hay content in her manure so we added a bit of nitrogen-rich blood meal to help balance out the carbon to nitrogen ratio. In general if you know or put an ad out for anyone who keeps livestock it will be pretty easy to find some manure. The fresher it is the more nitrogen it has. If you're very far from livestock try asking for fresh grass clippings or other fresh green trimmings.

Step 3: Carbon (spoilt hay, straw, leaves, dead brown things)

Carbon will break down quickly and provide an ideal 'humus' layer for your plants. Carbon is what you need the most of in a sheet mulch. In fact you could do a mulch

So now add a large pile of your carbon material at least eight inches thick on top of the manure and cardboard. Other carbon sources might include: seaweed, dry leaves, finely ground bark, or wood shavings.



Leaves and straw on thick manure

Now water this carbon layer until it is very wet and heavy.

Step 4: Compost or good soil

On top of your straw goes a nice 1-2 inch layer of finished compost if you have it. We did not in this case so we used top soil from a building site on the property. This might be the most expensive layer if you aren't making your compost at home but it is also the most important layer.

This is the layer your seeds and seedlings will grow in initially until the layers below are penetrated by roots and broken down. You can mine soil from elsewhere on your property, just try to keep out grass roots (they're one of the reasons why this whole sheet mulch got started in the first place).



Step 5: Carbon icing on your manure cake

Finally cover your precious, vulnerable dirt or compost with 1-2 inches of carbon: straw, leaves, sawdust etc. This layer of mulch will help lock in moisture and

protect the sun from taking any nutrients out of your precious planting layer underneath. The mulch will also deter the sprouting of unwanted plants and allow you to favor and establish those you desire in the garden



Step 6: Water, water, water

Okay, now water your whole sheet mulch down until you are satisfied it is thoroughly soaked. This will activate the decomposition process, attract the worms and help all of your layers get to know one another more intimately through nutrient exchange.

Step 7 (optional): Cover crop

Because I am an overprotective mother to my prime garden space we also decided to cover crop this sheet mulch with a 'green manure' or nitrogen fixing crop. We threw a 1/4 brown bag full of clover seed all over this new garden area. The clover sprouted within two days and will now happily help break down the material in the bed and continue to fix nitrogen until we are ready to cut it down and plant over it in a couple of weeks.

Note: It is best to let a sheet mulch sit at least a few weeks before you plant it or even a winter season if you can. Sheet mulch will be a lot more productive in the second and third year than in the first. Never be afraid to cover crop your sheet

other plants. But don't worry if a little bit sneaks in; it won't be able to compete with all the other good stuff.

