Single tier ready for planting

Building a No-Dig straw bale garden

As we start to approach the cooler months of the year it is a good idea to think about making a raised, no dig, garden bed. If you site and build the bed correctly it will allow you to produce some of the frost prone vegetables that you normally wouldn't think of planting in your area. If possible choose a level space that gets at least 5 hours of full sun per day. So north or north west situation. Now you can improve your chances of success with winter salad crops if you can also locate the raised bed near to or against a solid north facing wall. The wall absorbs the sun's heat during the daytime and releases it during the night time, helping to prevent frost from burning your tender crops.

There are many materials which you can use for constructing the walls of your no dig garden, such as corrugated galvanised iron, reclaimed railway sleepers or other reclaimed timber but my personal choice would be straw bales. Straw bales give the roots of the plants you are growing in your raised bed 35 to 50cm of insulation from the cold air at night and absorb warm air during the day. Straw bales are a natural organic product that will, over time break down to become part of the growing area of the bed. If, after a few seasons, they become too untidy it is a simple task at the end of a growing season to pull the bed apart and re-use the straw as part of a new bed. The well composted material that has been supporting your plants can then become the top planting layer of your new beds.

Materials you will need to construct your raised bed will depend upon how big you intend to make it. I would suggest that for the first one you build don't get too enthusiastic, it's much better to build and manage a smaller raised bed the first year and learn how it works before building huge beds. Something three bales long by one bale wide is a reasonable bed. Remember when it comes to filling this sized bed that you will need almost one cubic metre of materials for the single tier bed and one and a quarter metres for a two tier bed
If you are building your bed against a solid wall then it needs to have a growing width of not more that 90cm because when you add in the width of the straw bales it becomes a long stretch to the back of the bed. It is important if your bed is to be two bales high that you stack them in a brickwork pattern, so, half of the top bale overlapping half of each of the underneath bales, this makes a more stable structure.

If your raised bed is situated on concrete or very hard clay it is a good idea to make a couple of small drainage channels for run-off from the bed, if you don't have drainage channels in these situations it is possible for you bed to become waterlogged. Once your drainage is done lay down a weed barrier of newspaper or cardboard, this needs to be about 2 to 3 cm deep so don't think you can just put down a couple of sheets of paper or you will end up with the best weed patch in the neighbourhood. Once the weed barrier is in place it needs to be dampened well to settle it in.

Now you can place the first tier of your straw bales in place, for a 2.7metre long bed you will need to place 3 straw bales end to end along the wall (if you are using the wall method)to form the back of your bed and then place one bale at right angles in front of each end bale to form the end walls, then add the three front bales. Bales are usually about 90cm long by 50 cm wide by 35cm deep. If you are only doing a single tier bed then I suggest you tip the bales on to their 35cm edge so that your finished bed height is about 50cm. If you intend to do two tier then lay the bales flat so that they are each 35cm high, that way you have a 70cm deep bed that will allow for growing the deeper rooted things like Burdock etc.
Once the first tier of bales are in place we are ready to start adding the bulk materials to our bed. Now because we are building this bed to grow a winter crop we want to give ourselves all the help we can get so the first layer we will put in is about 7cm of FRESH animal manure. The fresh animal manure is going to give us some bottom heat as it starts to compost. After the fresh animal manure we would add a 5 cm layer of green materials such as finely chopped garden waste, comfrey and borage leaves etcetera then a 5 cm layer of brown materials such as Autumn leaves, there should be plenty of these available soon, pea straw, aged compost or well rotted manures and even shredded newspaper. Each layer needs to be moistened before we add the next layer

For a single tier bed, keep adding 5 cm layers in alternating order until you get to about 10 cm from the top of your bed finishing with a layer of aged animal manure, If you are doing a two tier bed continue layering until you are level with the top of the first bale, now you can place the second row of bales in position and continue with the layering process until you get to about 10 cm from the top of your bed finishing with a layer of aged animal manure. At this stage I like to leave the bed to settle for 2 to three weeks and then top up with more layers if needed before I add the planting layer.
The planting layer should be compost mixed with a good garden soil or, if you don’t have good garden soil then a purchased soil mix, some people will tell you to just put handfuls of soil in the areas where you will be planting, others will say 5cm over the top of the last brown layer, my personal choice is to use about 7 cm of soil mix to give my seeds or seedlings the best start and a strong anchor point against the winds in my area.
Now you can plant it out. Once the seedlings are tall enough mulch the bed with a 5 cm layer of straw.

You can increase your planting area by digging out small areas of the straw bales and filling those holes with planting soil, these can then be planted out to hardier things like chives or radishes.

At the end of each growing season it is an easy job to restore the height of the bed, which will have dropped as it has composted down. Just add alternate layers of compost and aged manures then lightly fork them into the old loosened top layers and then re-plant. Don’t forget to add a straw mulch layer again once your new plantings are tall enough.

For those people who want or need a little more protection it is an easy job to erect a cloche, or raised covering on the bed using electrical conduit and plastic sheeting. Or, if you can get hold of them, some old window sashes from your local recycling centre.
Give this project a try and let me know how it goes for you.