

What is hugelkultur?



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QUESTION: I have been reading about different types of raised gardening beds and came across the term “hugelkultur.” Would you give me some more details about this?

ANSWER: Hugelkultur, a gardening technique that originated in Germany, is a method of creating raised garden beds by layering logs, branches, leaves, grass clippings and other organic materials. Proponents claim that the decay process of the materials buried in these mounds create a nutrient-rich soil that promotes healthy plant growth and reduces the need for irrigation and fertilization.

The word “hugelkultur” translates to “hill culture” in English, which refers to the long, tunnel-shaped mounds of soil created by the layering of organic materials. These mounds can range in height from a few inches to several feet, depending on the amount of organic material available and the desired size of the garden bed. Regardless of size, due to decomposition, the mound will shrink over time.

According to proponents of hugelkultur, one of the most significant benefits is its ability to retain moisture. The organic materials used in the construction of the garden bed act as a sponge, soaking up rainwater and storing it for later use by the plants. This means that hugelkultur gardens require much less watering than traditional gardens.

Another benefit of hugelkultur gardening is that as the logs and branches decompose, they release nitrogen, phosphorus and other essential nutrients into the soil, providing a steady source of food for the plants. This eliminates the need for chemical fertilizers.

hugelkultur gardening also promotes biodiversity by creating a habitat for beneficial insects and microorganisms. The layers of organic materials provide a home for earthworms which help to aerate the soil and break down organic matter into nutrients that can be absorbed by the plants. The decomposing materials also attract beneficial



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bacteria and fungi which help break down dead plant matter and create a healthy soil ecosystem.

To create a hugelkultur garden bed, start by selecting a location that receives plenty of sunlight and has good drainage. Next, gather your organic materials, such as logs (burnt logs if available), branches, leaves and grass clippings. Most types of wood are suitable, but do not use eucalyptus, walnut, cedar, black cherry or treated wood materials because they contain chemicals that will slow down plant growth or the decomposition process.

Digging a trench is ideal because it provides a base to hold the logs and branches. Use stakes or string to outline the area before you start digging. Dig out soil 1-3 feet deep, piling it nearby. Begin by laying down a layer of logs or large branches at the bottom of the bed. If you don’t want to dig, then use stakes to maintain the desired dimensions while you start to pile logs and then branches.

Regardless of whether you dig or not, add a layer of smaller branches and twigs on top of the logs. This layer will help to create a more porous structure that will allow

air and water to circulate through the bed. You can also add a layer of leaves or other organic matter at this point which will help to retain moisture and provide nutrients for the plants.

Continue layering your organic materials, alternating between logs, branches, leaves and grass clippings, until the bed is the desired height. Once you have finished layering, cover the bed with a layer of compostable, nitrogen rich materials such as chicken manure, leaves, grass clippings, garden and kitchen waste, plus the dirt that you dug out at the beginning of the project.

To finish, cover the soil with 2-3 inches of mulch. Water the mound really well. This will help to speed up the decomposition process and provide a fertile growing environment for your plants.

Finally, plant your garden bed with your desired crops. Since these mounds eventually collapse, it is



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For a Hugelkultur garden bed, start by selecting a location that receives plenty of sunlight and has good drainage.

not a good idea to plant fruit trees or bushes in them.

I think gardeners in general tend to be curious people with a desire to learn about current trends and gardening techniques. So I’m thinking that your question may stem from curiosity.

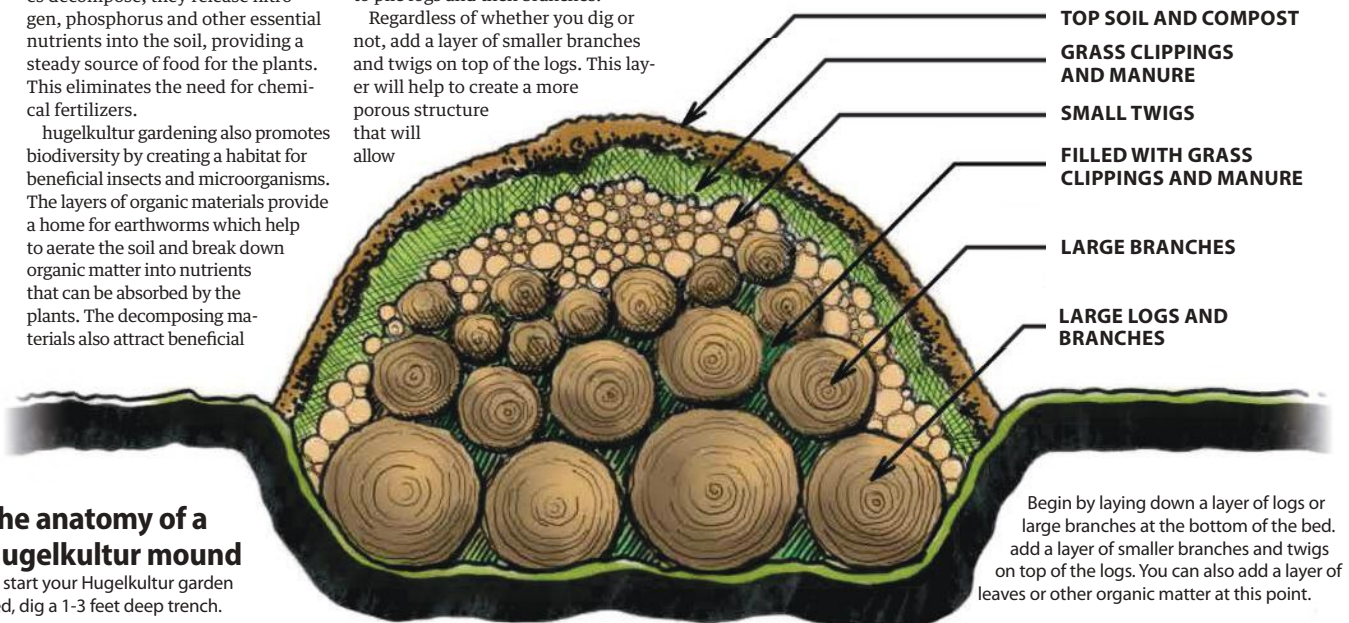
However, if you are interested in building your own hugelkultur and want to read more about this subject, Washington State University Extension Office has published an excellent article about the science behind hugelkultur. You can download this article at tinyurl.com/6t7pfjtj.

Do you have a gardening or insect question? Contact the Douglas County Master Gardeners at douglasmg@oregonstate.edu or 541-672-4461 or visit 1134 S E Douglas Ave., Roseburg. Douglas County Master Gardeners are trained volunteers who help the OSU Extension Service serve the people of Douglas County.

- TOP SOIL AND COMPOST
- GRASS CLIPPINGS AND MANURE
- SMALL TWIGS
- FILLED WITH GRASS CLIPPINGS AND MANURE
- LARGE BRANCHES
- LARGE LOGS AND BRANCHES

The anatomy of a Hugelkultur mound

To start your Hugelkultur garden bed, dig a 1-3 feet deep trench.



Begin by laying down a layer of logs or large branches at the bottom of the bed. add a layer of smaller branches and twigs on top of the logs. You can also add a layer of leaves or other organic matter at this point.