

The Art and Science of Making a Hugelkultur Bed – Transforming Woody Debris Into a Garden Resource

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Wooden debris will decompose faster, (and be transformed into a resource) when hugelkultur techniques are employed.

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Used for centuries in Eastern Europe and Germany, *hugelkultur* (in German *hugelkultur* translates roughly as “mound culture”) is a gardening and farming technique whereby woody debris (fallen branches and/or logs) are used as a resource.

Often employed in permaculture systems, *hugelkultur* allows gardeners and farmers to mimic the nutrient cycling found in a natural woodland to realize several benefits. Woody debris (and other detritus) that falls to the forest floor can readily become sponge like, soaking up rainfall and releasing it slowly into the surrounding soil, thus making this moisture available to nearby plants.

Hugelkultur garden beds (and hugelkultur ditches and swales) using the same principle to:

- Help retain moisture on site
- Build soil fertility
- Improve drainage
- Use woody debris that is unsuitable for other use

Applicable on a variety of sites, hugelkultur is particularly well suited for areas that present a challenge to gardeners. Urban lots with compacted soils, areas with poor drainage, limited moisture, etc., can be significantly improved using a hugelkultur technique, as hugelkultur beds are, essentially, large, layered compost piles covered with a growing medium into which a garden is planted.

Creating a hugelkultur garden bed is a relatively simple process:

1. Select an area with approximately these dimensions: 6 feet by 3 feet
2. Gather materials for the project:
 - Fallen logs, branches, twigs, fallen leaves (the “under utilized” biomass from the site). Avoid using cedar, walnut or other tree species deemed allelopathic.
 - Nitrogen rich material (manure or kitchen waste work well and will help to maintain a proper carbon to nitrogen ratio in the decomposing mass within the hugelkultur bed).
 - Top soil (enough to cover the other layers of the bed with a depth of 1 – 2”) and some mulching material (straw works well).
3. Lay the logs (the largest of the biomass debris) down as the first layer of the hugelkultur bed. Next, add a layer of branches, then a layer of small sticks and twigs. Hugelkultur beds work best when they are roughly 3 feet high (though this method is forgiving, and there is no fixed rule as to the size of the bed. That is where the “art” comes in!)
4. Water these layers well
5. Begin filling in spaces between the logs, twigs and branches with leaf litter and manure of kitchen scraps.
6. Finally, top off the bed with 1 – 2” of top soil and a layer of mulch.

The hugelkultur bed will benefit from “curing” a bit, so it is best to prepare the bed several months prior to planting time (prepare the bed in the fall for a spring planting, for example, in temperate northern climates), but hugelkultur beds can be planted immediately. Plant seeds or transplants into the hugelkultur bed as you would any other garden bed. Happy hugelkulturing!

