

Hügelkultur

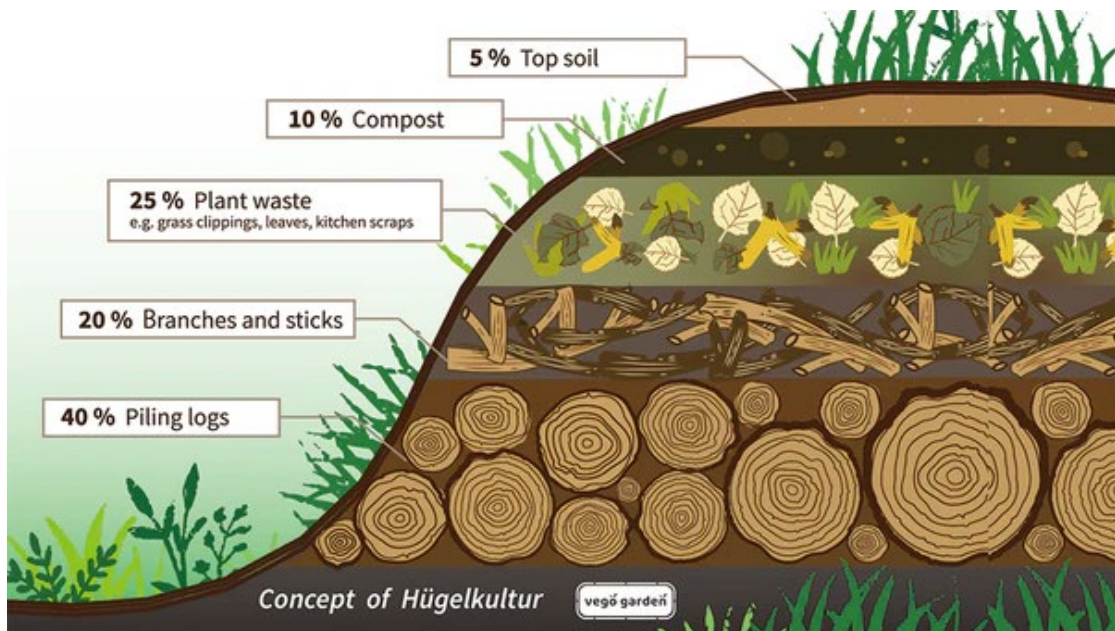
The word Hügelkultur or Huegelkultur literally means mound bed or mound culture in German. It is a term used to describe a horticultural technique where a mound is created using decaying wood debris and other plant materials to create a raised bed. The technique is intended to improve soil quality, water retention and soil warming, as well as to eliminate the need to water while naturally providing nutrients to plants.

While there are currently no peer reviewed studies, Oklahoma State University and Linda Chalker Scott of Washington State University have written about the concept. See references on page 4.

The basic concept is to layer materials in an area where you would normally place your garden. If you're using a mound for long term soil creation and not planting, you may want it out of sight. If you want the mound to act as a water cachement, align it perpendicular to natural flow of runoff.

Building the Mound

Start with larger logs of birch, maple, oak, or spruce. Avoid Black walnut, cedar, redwood, Black locust, pine, willow, sequoia, acacia, cypress, and Black cherry. Next layer smaller branches or twigs and top that with plant waste that you would include in a compost pile (food scraps, grass cuttings, manure, straw, eggshells, coffee grounds, shredded cardboard, wood chips, etc.) Top that with a layer of compost and then topsoil. You can then plant your crops in the soil at the top of the mound. As the lower levels decompose, they generate heat, which warms the soil which in turn extends the growing season in colder climates.



Courtesy of Vegogardens.com

Composition

- A Hügelkultur mound is typically 3 to 4 ft wide and 5 to 6 ft high.
- The deeper in the ground, the better the moisture retention. After year 2 a mound may not need ANY watering!
- The rotting wood hosts beneficial fungi, bacteria, insects, worms, and microbial growth that create nutrients your plants can use.
- The topsoil-compost layer should be about 15% of the mound – 10% compost and 5% RICH topsoil

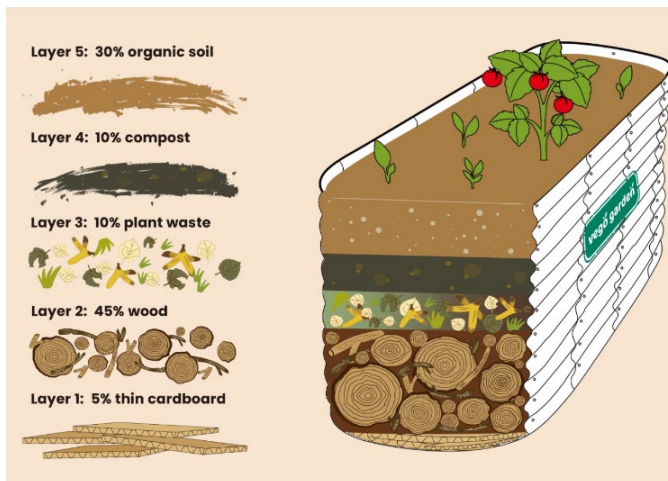
Tips and Challenges

- The most difficult part of a Hügelkultur growing mound is creating it.
- Expect the Hügelkultur mound to shrink over time.
- Rotting logs are perfect for the bottom layer.
- Do not use railroad ties or other treated lumber.
- 2-3 inches of cardboard can be placed on the bottom before the logs to suppress weeds.
- Use grass clippings and leaves to fill in gaps between the logs and sticks – the more compact the better!
- The best time to start a Hügelkultur is in the fall.
- Many using this technique only plant a cover crop the 1st year or just let it lay fallow and cook.
- Plants that grow especially well in hügelbeds are sprawlers and vines, such as cucumbers, legumes, melons, potatoes, and squashes.
- Make your beds easy to work from each side. Never walk on any part of the bed!

Types of Hügelkultur Beds

In addition to the freestanding option discussed, there are several other options.

Assemble in containers



Courtesy of Vegogardens.com



Courtesy of J.Rogers

Flush with ground (requires substantial amount of digging)

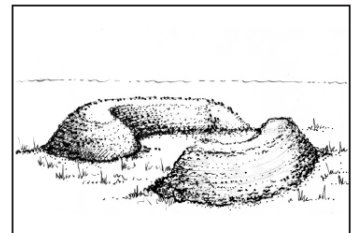
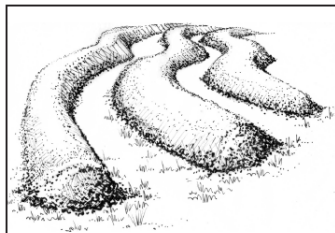
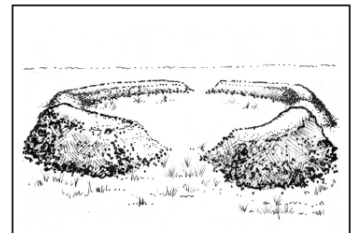
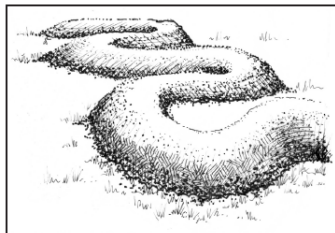


Courtesy of thedruidsgarden.com

Many Shapes



Courtesy of Openhandweb.org



Courtesy of Oklahoma Cooperative Extension Services

Cautions

- Use mulch on the top of the mound to control weeds.
- As the woody materials break down the pile diminishes and must be rebuilt.
- While the literature touts the concept that the pile does not need to be irrigated, some irrigation may be necessary in our dry desert environment.
- **Hügelkultur** is not recommended as being science-based but is rather an interesting concept that is gaining in popularity for gardeners who are looking for new gardening methods.

Additional Resources

Hugelkultur 101: Benefits, Variations, Bed Construction

<https://whyfarmit.com/hugelkultur-101/>

Sustainable Landscapes: Creating a Hugelkultur for Gardening with Stormwater Management Benefits <https://extension.okstate.edu/fact-sheets/sustainable-landscapes-creating-a-hugelkultur-for-gardening-with-stormwater-management-benefits.html>

Hugelkultur: What is it, and should it be used in home gardens? Linda Chalker-Scott; <https://pubs.extension.wsu.edu/hugelkultur-what-is-it-and-should-it-be-used-in-home-gardens>

What Are The 7 Hugelkultur Layers And What Do They Do?

<https://wildyards.com/hugelkultur-layers/>

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Yavapai County Master Gardeners