

Hügelkultur: A German Permaculture Technique for Oklahoma

What is Hügelkultur?

The German word hügelkultur (pronounced “hoo-gull-cool-tyoor”), means “mound” or “hill culture”. Published and promoted first in a German gardening brochure in 1962 by avid German gardener Hermann Andrä, this permaculture construction utilizes decaying wood and logs, garden debris, plant material, compost and soil to form a long, narrow, raised, layered garden bed.

Why Hügelkultur?

Like composting, hügelkultur simulates the normally slow, natural process of vegetative decomposition. Fungi, bacteria, insects and worms join forces with air and water to use these materials and produce a rich, organic matter as a result. Constructing a traditional raised bed, or a hügelkultur mound, may offer a solution for those with poor or compacted soil. Problem areas where erosion is a concern (hillsides or slopes), could benefit from carefully placed mounds to catch and retain water runoff.

With hügelkultur, the bed is constructed prior to planting and the decomposition process continues, offering nutrients to the plants on the surface. The buried, decaying “nurse” logs act as sponges and retain and release water continually - a welcome bonus for any Oklahoma gardener. Also, the environmentally-friendly ability to incorporate and use rougher garden waste - prunings and brush - into a “no-till” composition reduces haul-off work and expense, and saves the effort of yearly garden bed preparation.

How to Construct Your Hügelkultur Mound

1. Dig a trench approximately three feet wide and ten inches deep. The length is up to you.
 - TIP: Save the soil to apply later.
2. Place heavier logs in trench as a support for the subsequent layers.
 - TIP: Use dry or decaying logs; green logs may sprout (especially willow). Maple, cottonwood and oak are good, while cedar, locust and walnut give off toxins that may affect plant growth.
3. Now add smaller woody materials like limbs or twigs.
4. Continue adding composting materials like grass clippings, leaves, hay and manure.
 - TIP: Push these materials into the gaps and open spaces to even out the surface. Since wood is carbon and will rob the soil of nitrogen, adding manure or compost will add nitrogen to facilitate decomposition
5. Top with the reserved soil from digging the trench, adding more to completely cover.
6. Dig a small trench on the uphill side of the mound to help channel water.
7. Plant cover crops and maintain.

Care and Feeding of Your Hügelkultur Mound

Plant [cover crops](#) as soon as possible to combat erosion and weeds, feed the microorganisms and develop the soil. Crimson clover is a great cover crop because it is drought tolerant and “fixes” nitrogen (pulls atmospheric nitrogen and stores in roots). This is helpful because decomposition will use up the nitrogen, making it unavailable for plantings. When cover crops die, the nitrogen stored in their roots is made available for use. Watering the upper surface of the mound may be needed, although less frequently, to ensure the roots of cover crops and plantings reach the moisture of the decaying logs.

Texas A&M AgriLife Extension Service horticulturist Dr. Joe Masabni recommends that when harvesting flowers and vegetables at the end of their season, just cut back the plant and leave the roots to improve and support the soil structure. Simply plant the next crop without disturbing the soil.

Hügelkultur Review

Advantages: Efficient use of garden and woody debris (limiting haul-off expense), better water retention, improved soil quality resulting from decomposition, self-composting, no-till bed constructed once and benefits can continue for years.

Disadvantages/Expectations: Decomposition is not an overnight process, appearance not as neat and tidy as traditional raised beds, may require some water and cover crop work, weeds can be problematic if no mulch or cover crops are utilized, bed will settle over time, therefore possibly limiting the plant selection (e.g. trees, shrubs).

If you’re curious about hügelkultur, the Oklahoma Cooperative Extension Service provides sound information on getting started; follow the [links at the end of this article](#) to learn more.

Hügelkultur Resources

[Oklahoma Gardening Video: Bau Einen Hügelkultur](#)

[Oklahoma Gardening: Hügelkultur Cover Crops](#)

[HLA-6436: Healthy Garden Soils](#)

[Texas A&M AgriLife Extension: Hügelkultur Mound Method for Home Gardeners](#)