



New Start Community Garden
Garden Curriculum

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NEW START COMMUNITY GARDEN

GARDEN CURRICULUM

The purpose of this curriculum is to provide educational materials to support student and community visitors to the New Start Community Garden, aka the Shark Garden. It is designed for ages 10 and up and many lessons and activities can be used at home as well as in the garden. Our goal is to create inclusive curriculum that encourages sustainable organic gardening, environmental stewardship, and multicultural appreciation for food. For more information about the Shark Garden, contact info@sharkgarden.org

Table of Contents

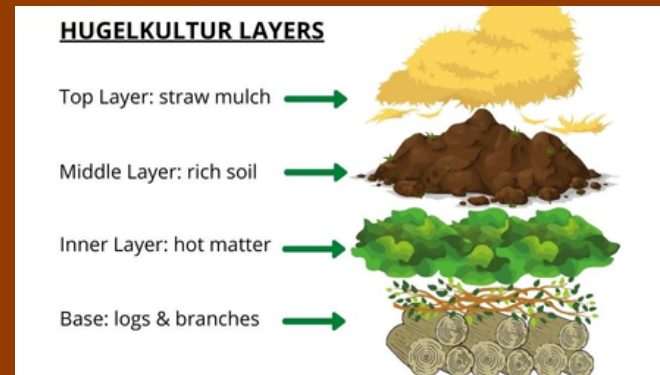
Hugelkultur Pages 4-9

- Benefits of Hugelkultur
- Layers of a Hugelkultur Bed
- Compost Special Ingredients
- Test Your Knowledge: Hugelkultur
- Source Page

Hügelkultur



(Rozie)



(Angelo)

Hügelkultur, meaning “hill culture” or “mound culture” in German, is an old European system of composting logs, branches and other woody material by covering them with compostable plant materials and then covering the whole lot with a thin layer of soil to create a mound which can be planted up as a form of mounded raised garden bed.

The way this system works is quite simple. It’s basically a slow composting of woody material. When the buried wood rots down, it slowly releases the nutrients contained within it to the plants growing on or near the hügelkultur bed. In addition, warmth generated by the composting process assists plant growth.

The Hügelkultur technique can be used to create a fertile garden bed where the soil is compacted or very poor, and it can also be used to improve soil quality and water retention in reasonably good soils too.

How does it do this? All composting processes improve the soil by creating humus. Humus is decomposed organic matter, whose presence in the soil increases soil fertility and water retention. When woody material breaks down in the soil, it creates a very stable humus because carbon compounds called lignin's in the wood resist breakdown, providing the benefits to the soil for a very long time.

This technique of hügelkultur, which is hundreds of years old was popularized and developed further by Sepp Holzer, an Austrian Permaculturist, leading to renewed interest in hügelkultur amongst Permaculture practitioners.

Benefits of Hugelkultur



(Rozie)

In the first few years, the heat-producing composting process warms the soil in a hügelbed, providing a somewhat longer growing season. The decaying woody matter is a source of long-term, slow-release nutrients and helps to keep excess nutrients from filtering into groundwater.

The wood, acting like a sponge, stores rainwater to release during drier times. Hügelbed soil is self-tilling over time. As woody material breaks down, tiny air pockets open in the crumbling soil, allowing air to reach plant roots. In time, you can plant into the topmost layer of soil/compost, which becomes rich with beneficial microorganisms.

The rotting wood hosts beneficial fungi, bacteria, insects, worms, and microbial growth that create nutrients your plants can use. Over time the mound will shrink as the wood rots but you can always add more soil or compost to the top. You will have created an ecosystem in which the beneficial organisms will thrive.

Hügelkultur is popular with gardeners who have struggled with heavy clay and poor or compacted soil. It is a good way to build up a planting bed and turn woody debris into a garden.

The gradual decay of wood is a consistent source of long-term nutrients for the plants. A large bed might give out a constant supply of nutrients for 20 years (or even longer if you use only hardwoods). The composting wood also generates heat which should extend the growing season. Soil aeration increases as those branches and logs break down... meaning the bed will be no till, long term.

The logs and branches act like a sponge. Rainwater is stored and then released during drier times. Actually, you may never need to water your hugel bed again after the first year (except during long term droughts). Adds large amounts of nutrient-dense carbon into the soil.

Layers of a Hugelkultur Bed

Final Product:



(Mgsooc.)

Top Layer:
Cover with a layer of
soil about 1' thick.



(Mgsooc.)



(Mgsooc.)

Third Layer:
Sprinkle thin layer of
compost over pile



(Mgsooc.)

Second layer:
Cover with compostable
materials-mulched
green prunings, grass
clippings, sod, straw



(Mgsooc.)



Bottom Layer: Branches
& brushy pruning's such
as dead wood logs, piled
30-60cm (1'-2') high
above or below ground

Test Your Knowledge: Hugelkultur

Now that we've learned all about the benefits and purpose of vermicomposting, it's time to build our own Hugelkultur bed!

Activity: Build a Hugel Kultur Mound

Purpose:

Students will be tested on their knowledge gained to create their own hugelkultur garden bed.

Estimated time: 1 Hour & 30 Minutes (1 Hour Practice & 30 Minute Discussion)

Materials Needed:

- Woody material,
- Sticks
- Leaves
- Mulch
- Soil

Method of Preparation:

The basic steps for making a highly productive hugelkultur mound are :

- Dig a trench (it can be any size, depending on what you desire in your garden)
- Fill and pile up with woody matter (mulch, brush, logs, leaves, sticks, etc.)
- Pour dirt on top of this woody pile and maybe more mulch
- Plant it



Sustainability Definition:

Using safe, ecological resources now that prevent our world from going extinct.



Test Your Knowledge: Hugelkultur

Discussion Questions

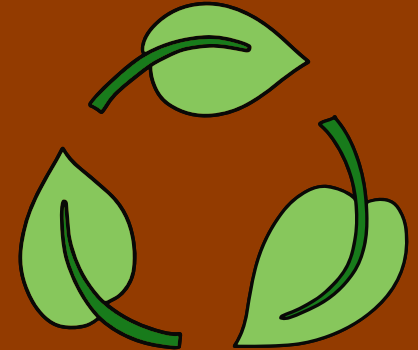
What do you think are some of the benefits of using the Hugelkultur method?

Out of all the methods we discussed for sustainable gardening, which do you think is best for the environment?

What does sustainability mean to you?

What are some resources that we can use at home to promote sustainability and a long-lasting world?

How can an at home garden help with the sustainability of our world and food system?



Sources

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