## Hügelkultur-An Ancient Way to Garden





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#### What is **Hügelkultur**?



HÜGELKULTUR, PRONOUNCED HOO-GUL-CULTURE, IS A GERMAN WORD MEANING "MOUND OR "HILL CULTURE."

THIS ANCIENT GARDENING STYLE ORIGINATED IN EASTERN EUROPE AND HAS BEEN PRACTICED FOR CENTURIES.





A traditional hügelkultur is a sloped and raised planting bed filled with topsoil, wood, and organic materials.



#### The method:

- The Hügelkultur method is creating raised hill beds made of compostable materials on a bed of large logs. This gardening technique mimics how soil deep in the forest becomes rich with nutrients.
- Since the mounds create nutrients and retain moisture, it's an efficient, sustainable gardening method that is also cost-effective because most of the supplies can be collected at home.
- Additionally, these mounds are so nutrient-rich that they sometimes eliminate the need to amend the soil with compost and/or commercial fertilizers.





#### Benefits of a Hügelkultur bed:

- Low maintenance, however, it will still need weeding.
- Once established it's drought resistant, however, it will still need watering from time to time.
- Improves soil fertility, however, always get a soil sample to make sure you are getting the proper soil composition for the types of crops you plan to grow.
- Cost effective- saves money on soil and compost because they last a long time.
- Great way recycle. branches, small logs, wood chips, scrap lumber, and virtually any other woody material you have.
- Brings beneficial organisms to your garden.
- This organic decomposition also generates heat, which can extend the growing season and potentially offer protection against frost.





• Raised gardens are easier on joints and backs.

Depending on the materials used and size, Hügelkultur beds can last for decades.





hugelkultur garden bed after one month

hugelkultur garden bed after one year

hugelkultur garden bed

after twenty years



images courtesy Paul Wheaton / RichSoil.com



## Placement is key!

- Before you begin construction, decide where you want to place your hügelkultur and remember they will last for decades so choose wisely!
- As with any garden bed, they'll do best in a bright, sunny location.
- In extremely hot climates beds may perform better where they can receive afternoon shade.
- You can also plant fruit trees or bushes along the side of your bed to act as a windbreak.



Stone path

Different kinds of bulky organic material

(tree trunks, branches, roots, shrubs etc)

Fruit trees as

an additional

windbreak



• For beds on slopes make sure to level and place perpendicularly to catch water runoff and near a spigot for watering by hand or with a drip system.







## THE FOUNDATION:

- When building a traditional hügelkultur mound you'll dig a **1-2 foot trench** to use as the foundation. Collect the soil/sod that you take out as it will come in handy later on when it's time to amend.
- The deeper your trench or container, the more wood it can hold, and therefore, more nutrients will be added to the soil and more water can be retained.
- If you have compacted soil or space is an issue you can build one in a raised garden bed or container.
- You can make the container as large or small as you like, just create the same layers as a traditional freestanding mound.









#### THE BASE:

Begin by lining the trench or container with large logs.

- Your log layer should measure roughly 1 to 2 feet deep.
- Rotted wood that is a few of years old is optimal because the decomposition process has already started.
- Best options for logs and thick branches include: Maple, Birch, Oak, Alder, Beech, Poplar, Willow, Cottonwood, Apple, and Pear.
- Softwoods like **pines** and **Spruce**, can be used around the outside because they will break down easier than hardwoods.





# **WOODS TO AVOID:**

•ALLELOPATHIC TREES THAT PRODUCE SUBSTANCES THAT KILL SURROUNDING PLANTS, SUCH AS **BLACK LOCUST**, **BLACK WALNUT** AND **PECAN**.

•CEDAR AND JUNIPER, WHICH TAKE TOO LONG TO BREAK DOWN.

•WALNUT, SYCAMORE, RED OAK, BLACK LOCUST, AMERICAN ELM, AND EUCALYPTUS TREES, WHICH SECRETE CHEMICALS THAT INHIBIT VEGETABLE AND PLANT GROWTH.

•CUT GREEN TREES THAT SPROUT EASILY SUCH AS WILLOWS OR WOOD WITH ANTIFUNGAL AND ANTIMICROBIAL PROPERTIES, SUCH AS **RAILROAD TIES** AND **PAINTED LUMBER**.

### THE SECOND LAYER:

- Layer smaller branches, untreated rotting lumber and decomposing logs.
- This layer of wood acts as a natural weed preventative, which will conserve nutrients for the plants in your garden so make sure to fill in any spaces.









### THE THIRD LAYER:

- Twigs, leaves, and garden debris, forcefully compressed will also add a bit of space between layers which will allow for better drainage, while also improving oxygen circulation, and promoting better decomposition.
- At this point tamp down the layers before adding additional materials.





## THE FOURTH LAYER:

- Nitrogen is a critical element in composting since it fuels the growth of microorganisms responsible for breaking down organic matter.
- Use nitrogen rich materials such as manure, straw, coffee grounds and wood chips to fill gaps.
- This is a good time to use the pieces of grass/sod you may have removed earlier. Be sure to put the grass/sod side down to discourage growth.





#### THE TOP LAYER:

- The top layer is composed of nitrogen rich compost with a thick layer of mulch to lock in moisture.
- These materials fertilize the soil as they break down, and help protect the mound from moisture loss.
- Your mulch layer should be anywhere from 1 to 3 inches thick. This will also help prevent weeds from popping up, saving you from additional labor.





## WATER AND LET IT REST.

- A new hügel bed will need watering to get the decomposition process started.
- Eventually the deteriorating logs will eventually hold water like a sponge, making the bed drought resistant.
- The completed bed will do best if you prepare it in the fall and let it rest until spring planting, usually by mid April to early May, depending on the weather. This allows the mound to settle and the decomposition process to begin.
- As the materials decompose and age, more beneficial fungi, insects, worms, and microbes will have time to create a thriving, nutrient-rich environment that will require less fertilizer over time.





## Cover Crops Add Nitrogen

- Now that your raised garden beds are prepped and ready, you can begin planting cover crops and covering with mulch.
- Legumes like peas can be a harvested crop or used as a cover crop for a few seasons to add nitrogen to the soil without the need to add additional fertilizer.







### NOTES:

Whether you water by hand or use a drip irrigation system be sure and water the entire bed periodically to ensure uniform moisture.

Use a tamper to compact the pile after each layer is added to improve decomposition and reduce voids that can cause safety issues or air pockets.

Hügelkultur beds also can be planted immediately, however note that that the hügelkultur method is a dynamic process where the wood and organic materials biodegrade and thus sink over time so compost will need to be added before each planting season.







#### Planted in April, still going strong!









#### Our next presentation:



Walton County Master Gardeners invite you to

#### Free Fall 2024 Gardening Talks

Mondays 2:00-3:00 p.m. O'Kelly Memorial Library 363 Conyers Road, Loganville GA

Sept 9: Exploring Succulents Sept 16: Putting the Garden to Bed for the Winter

Sept 23: Fall is the Best Time to Plant! Sept 30: Hügelkultur—An Ancient Way to Garden

Oct 7: Powerhouse Sun Perennials



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Walton County Master Gardeners invite you to

#### Free Fall 2024 Gardening Talks

Tuesdays 4:00-5:00 p.m. W.H. Stanton Memorial Library 407 W. Hightower Trail, Social Circle GA

Sept 10: Exploring Succulents Sept 17: Putting the Garden to Bed for the Winter

Sept 24: Fall is the Best Time to Plant!

- Oct 1: Hügelkultur—An Ancient Way to Garden
- Oct 8: Powerhouse Sun Perennials









Walton County Master Gardeners invite you to

Free Fall 2024 Gardening Talks

Wednesdays 2:00-3:00 p.m. New UGA Extension Office 1258 Criswell Rd SE, Monroe GA

Sept 11: Exploring Succulents Sept 18: Putting the Garden to Bed for the Winter

Sept 25: Fall is the Best Time to Plant!

Oct 2: Hügelkultur—An Ancient Way to Garden

Oct 9: Powerhouse Sun Perennials

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#### Have More Questions? Need Help?



Contact us at waltonmg@uga.edu 770-267-1324

Walton County Extension 1258 Criswell Rd, SE Monroe, GA 30655

Office hours: Monday - Friday 8:00 am-Noon & 1:00-5:00 pm

> MG Help Desk hours: Tuesdays 1:00-4:00



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