



528 91st Ave NE, Ste A, Lake Stevens, WA 98258 - Phone 425-335-5634, ext 4
www.snohomishcd.org

Topic: Hugelkulturs and Composting

Confessions and Catnip

By Lois Ruskell, Information & Education Coordinator, Snohomish Conservation District

Most people who know me (I believe) would not consider me a lazy or sedentary person. My cat probably wishes I would sit still long enough so she had a lap to sit in, and my kids swear I can't sit through an entire movie. So why do I find myself cruising the Web looking for books with titles like 'lazy gardener' and 'easy garden fixes'?

A Crazy Year

Maybe it's because in the past twelve months my life has included ten airline trips, eleven hospitalizations of family members, two funerals to plan, a trip to China, and becoming the sole caregiver for a blind, deaf parent 1,200 miles away.

My yard has suffered and my cat shredded my carpet in protest of my frequent disappearances. (For cat lovers out there, she did have daily care and human contact, just not this human.) To add insult to injury, this winter was particularly hard on my plants. I now have more dead shrubs and fallen branches than I know what to do with. We won't even talk about what's fallen into my neighbor's yards from MY trees!

Truth Comes Out

So, here's the confession part. I finally broke down and ordered a yard waste bin. I had always been able to compost my yard waste and reuse it as any good recycler/conservationist would. But wait, it gets worse. I not only filled up my waste bin with branches and twigs last week, I filled up my neighbor's too while they were on vacation (with their permission of course). I still have many more dead shrubs and fallen branches, so I finally went to the Internet in search of some 'new technique' or 'quick fix' to deal with this abundance of high-carbon yard waste. (Surfing the web gives my sore pruning arms time to rest!)

What I found was a way to recycle branches, produce an edible crop, and capture and slowly release water and nutrients to those plants. It's called 'Hugelkultur', a German word meaning mound culture. And it's actually a very old technique; similar in nature to the way my late brother used to plant pumpkin and gourd seeds on top of his compost pile every spring. Pumpkins, gourds and squash use a lot of nutrients and water to produce those large leaves and fruit. My brother swore it reduced his compost pile by as much as 50 percent over the summer, plus he got a great crop of pumpkins!



The bed on top is a normal garden bed, planted with the same seeds as the hugelkultur below, but two weeks earlier. The hugelkultur had burlap on top of sod, pine cones, pine bark, fresh-cut branches, manure and leaves.

The Hugelkultur Technique

According to Toby Hemenway, author of *Gaia's Garden: A Guide to Home-scale Permaculture--* Hugelkultur is a central European technique of piling up rotting wood and brush, stomping it down, adding some compostable material (such as sod, straw or grass clippings) on top, and then topping it off with compost and an inch of soil. As the woody brush on the bottom decomposes, it releases nutrients slowly.

The rotting wood and brush also acts like a sponge, holding and releasing water slowly as well. This means you don't need to water or fertilize a hugelkultur very often. As an added bonus, this protects the watershed by storing and releasing both water and nutrients slowly, preventing nutrient flushes downstream that can harm aquatic life.

Benefits

Paul Wheaton, curator of websites for permaculturalists and hugelkultur states "This makes for raised beds loaded with organic material, nutrients, and air pockets for the roots of whatever you plant. As the years pass, the deep soil of your bed becomes incredibly rich and loaded with soil life. As the wood shrinks, it makes more tiny air pockets - so your hugelkultur becomes sort of self-tilling."

Wheaton says that during the first few years, “the composting process will slightly warm your soil, giving you a slightly longer growing season. The woody matter helps to keep nutrient excess from passing into the ground water, and re-feeds it to your garden plants later.” Some folks report being able to plant potatoes in these mounds a month earlier than in a regular bed.

Wood Choices Matter

According to Wheaton, selecting the right rotting trees for your hugelkultur is important. Cedar would not be a good choice because it is loaded with natural pesticides and herbicides, that is why it lasts so long. This is probably not a good mix for tomatoes or melons. Black locust won't rot – likely because it is so dense; black walnut is very toxic to most plants; and cherry is toxic to animals, but it might be okay when it rots. Pine and fir will have some levels of tannins in them, but Wheaton believes most of that will be gone once the wood has been dead for a few years.

Carbon and Nitrogen

Another thing to keep in mind is that wood is high in carbon and will consume nitrogen during the compost process. This could prevent nitrogen use by your garden crop. That's why well-rotted wood is a better choice. Also, adding green material such as grass clippings or other green compost to the mound before capping with soil gives your crop a quick-releasing nitrogen source. Both potatoes and melon-type crops (in the cucurbitaceae family, which includes gourds, watermelon and pumpkins) would be suitable for a hugelkultur. The beds can be outlined with rock or blocks to look a little more ‘civilized’, or you can consider them your ‘wild composter’.

Another option for composting brush is to dig a trench and fill it with brush, rotten firewood and woody trunks. Permaculturalist Tom Ward digs trenches about 18 inches deep, adds brush and soil, then plants blueberries on top. I had an old buried woodpile on my property and the plants that did the best there were evergreen huckleberries. This acts similar to a bog or pond, with the rotting wood giving the plants moisture during drought times.

If I can find the time, a hugelkultur may very well be in my future. Although I would love to have lots of pumpkins this fall, maybe I could make it up to Abby, my cat, by planting catnip in my hugelkultur – what a crop we'd have!

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**Every unit of carbon  
incorporated into  
soil can hold  
four units of water!**  
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See photos on next two pages

Author: Lois Ruskell
lois@snohomishcd.org

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Here is the bed with branches laid out. At this point, you can add quick composting items such as sod, leaves, rotten straw, and vegetable scraps before the soil is dumped on top.



The first of many loads of soil and compost are added.



Here is the finished hugelkultur bed. It can be bordered with rocks, bricks or tree trunks for a more civilized look. Then plant from the list below, and watch it grow!

Credits –

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Pg 2 photos used with permission by Saponaria from the 'Worts and All' blog: <http://saponaria-wortsandall.blogspot.com/search/label/hugelkultur>.