



LASAGNA BEDS



Alaska Seeds of Change
Anangookwe Wolf



WHAT IS A LASAGNA BED?



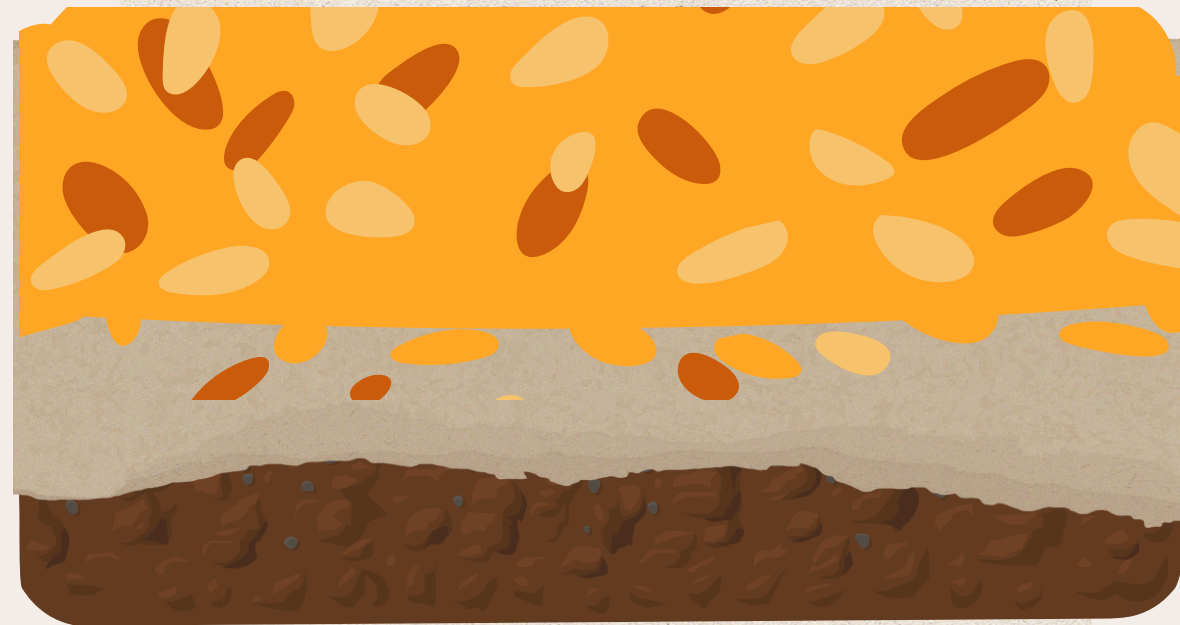
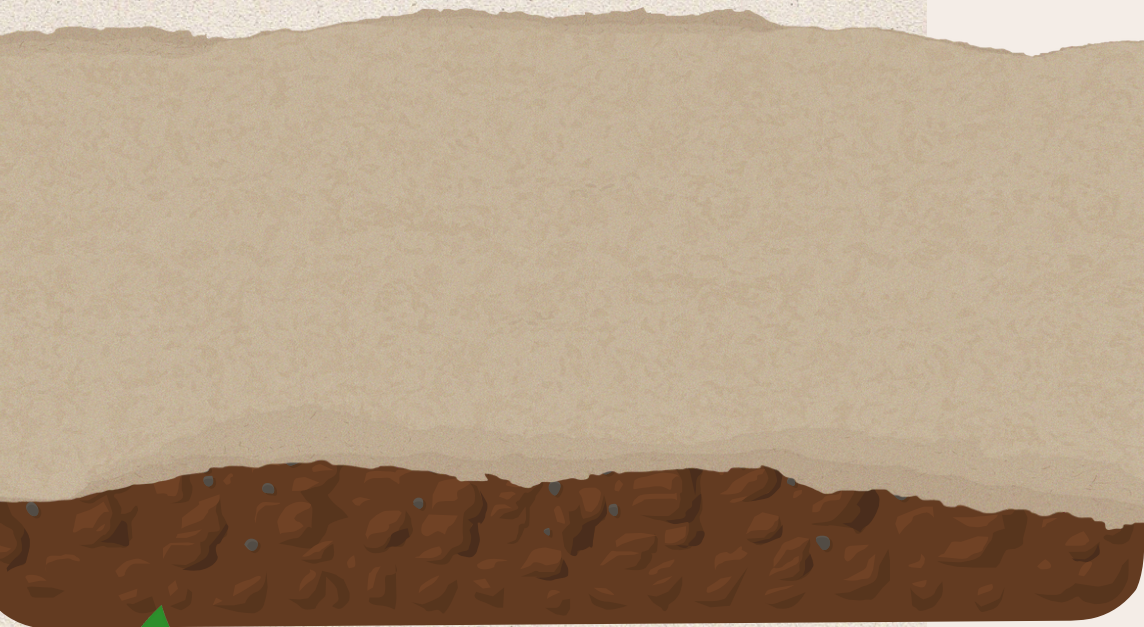
Perfect for the urban farmer, or any farmer, that wants to grow on compromised ground, as it requires no tilling or digging.

Lasagna Beds are created by layering organic material that will eventually decompose over time, leaving healthy, nutrient-rich soil



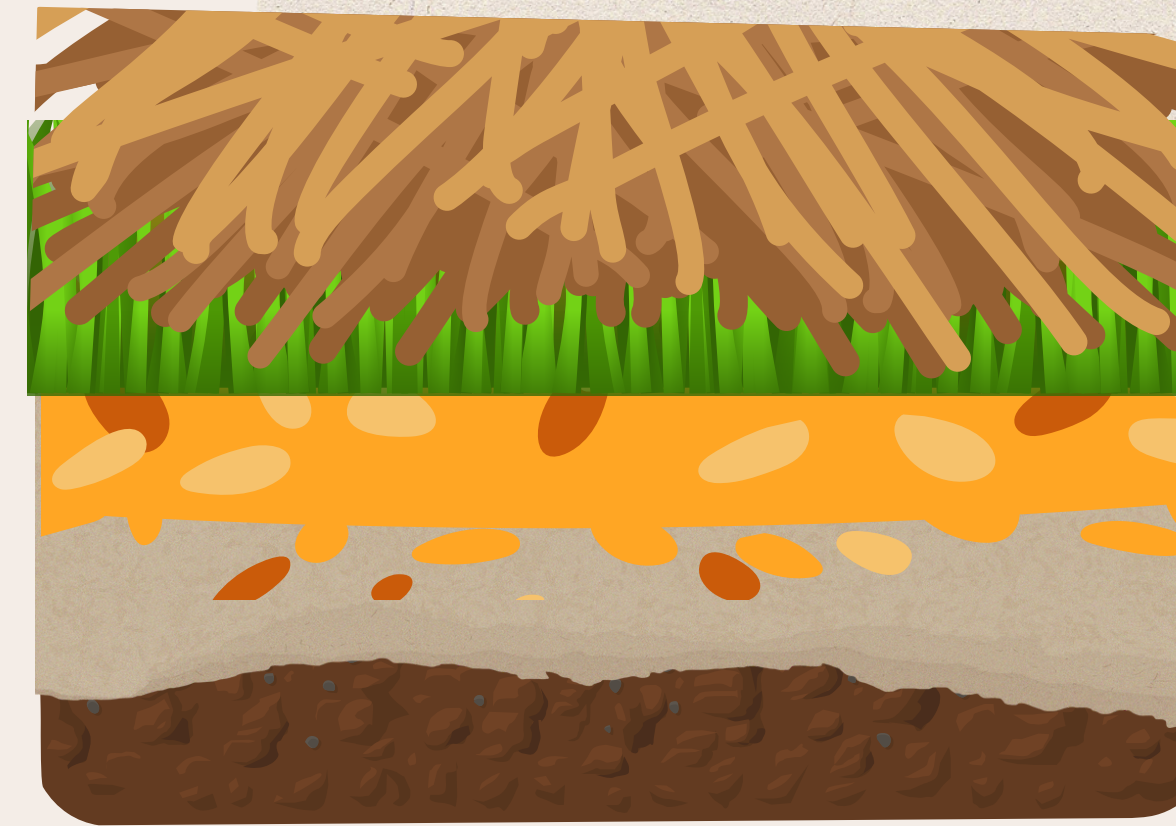
Step-by-Step

Lay non-treated, de-tapped cardboard on top of soil



Spread an even layer of leaves on top of cardboard

Add grass clippings & top it with straw & thoroughly water surface until damp





Top with compost and continue to repeat the previous steps until the depth of the bed is between 6 " to 12"

Generously water garden bed and let rest before planting



Sourcing your materials!



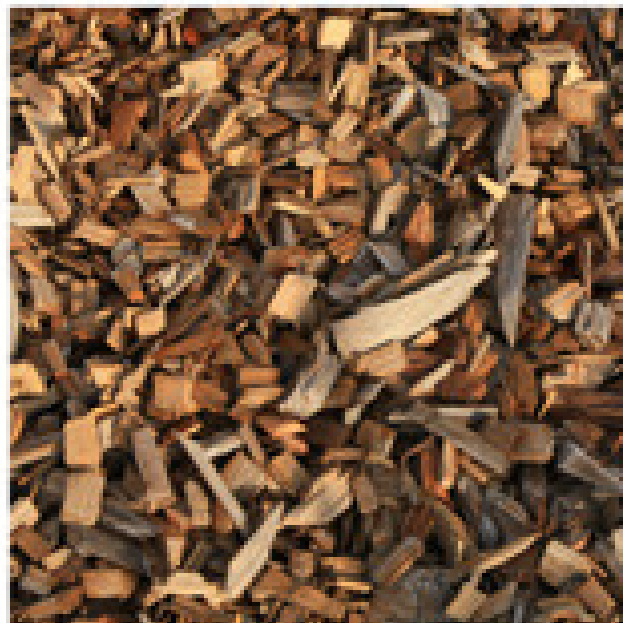
Take a moment to write down potential places you can source each layer needed to create a lasagna bed!



Different Types of Mulch & Benefits

Overall Benefits:

- Acts as an insulator, keeping your soil cool during the summer and warm during the winter
- Keeps your weeds down
- Reduce water loss



Pine Bark



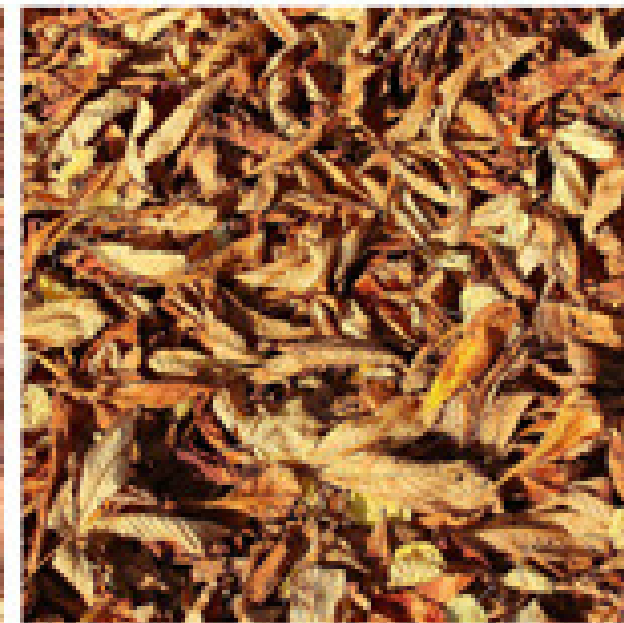
Pine Needles



Straw



Cedar



Leaves

Leaf Mulch

Pros:

- Adds organic matter to the soil
- Increases water retention
- Increases available nutrients and minerals



Nutrient Concentration in Leaves

Nutrient	Average Concentration (%)	Range (%)
Carbon	47	36-52
Nitrogen	1	0.66-1.62
Potassium (K ₂ O)	0.38	0.09-0.88
Phosphorous (P ₂ O ₅)	0.38	0.02-0.29
Calcium	1.64	0.13-3.04
Magnesium	0.24	0.02-0.46
Sulfur	0.11	0.01-0.21

Nutrients and minerals are released through decomposition

Decomposition can be as little as a month to 6 months

Seaweed Mulch

- Enriches soil as it is a broad-spectrum fertilizer
 - Low in cellulose, breaks down easily
- Boosts lethargic plants
 - contains an abundance of ready-to-use micro-nutrients which can be readily absorbed by the plant



Image credit: Rising Tide Farm & Earth Easy



Evergreen Needles

- Lightweight and fluffy, easy to spread and remove, as opposed to wood chips
- Rich in nitrogen

Note: It is a common misconception that evergreen needles affect the pH of the soil, making it more acidic. That is false!



Different Types of Fertilizers & Benefits

Organic:

- Bonemeal: High in phosphorous, encouraging strong roots
- Fish Emulsion: Contains nitrogen, phosphorous, & potassium
- Worm Castings: Humus in castings increase soil retention, improve soil aeration, enhance seed germination



Why is fertilizer necessary?

- Contains nutrients that are essential to plant growth throughout the growing season
- Increases harvest yields
- An efficient source of nutrients: nitrogen, potassium, phosphorous
 - Nitrogen: Enables the plant to photosynthesize, plays a critical role in ensuring the plant has access to energy. Also a major component of amino acids, the building blocks of protein
 - Potassium: Associated with the movement of water, nutrients, carbohydrates in plant tissue
 - Phosphorous: Key in capturing, storing, and converting the sun's energy into biomolecules, such as adenosine triphosphate (ATP), that drive biochemical reactions (e.g., photosynthesis) from germination through the formation of grain to maturity.





Haw'aa

Quyana

Quyanaqpak

Chian'an

Gunalchéesh

Mahsi Cho

Tsiin'aen

