

Straw Bale Gardening

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Benefits of straw bale gardening:

- Virtually weed free
- No soil-borne diseases - pristine beginnings
- Heat of bales jumpstarts spring growth
- No digging in rocky soils
- Elevated gardening saves backs
- No one trampling on your beds
- Cost saving
- Great for renters, or others not wanting to invest a lot of money into lumber or other permanent fixtures
- Conversation starter



Sourcing Bales:

- Note that hay is not straw
- Can sometimes buy from feed stores
- Bales can be wheat, oat, rye, barley or rice straw
- Can also get off of Craigslist - ok if they are “old” Pricing varies - check your sources
- As little as \$4 per bale or as high as \$11
Difficult to find “organic” straw.



Hay Bales are seedy:



Site Selection:

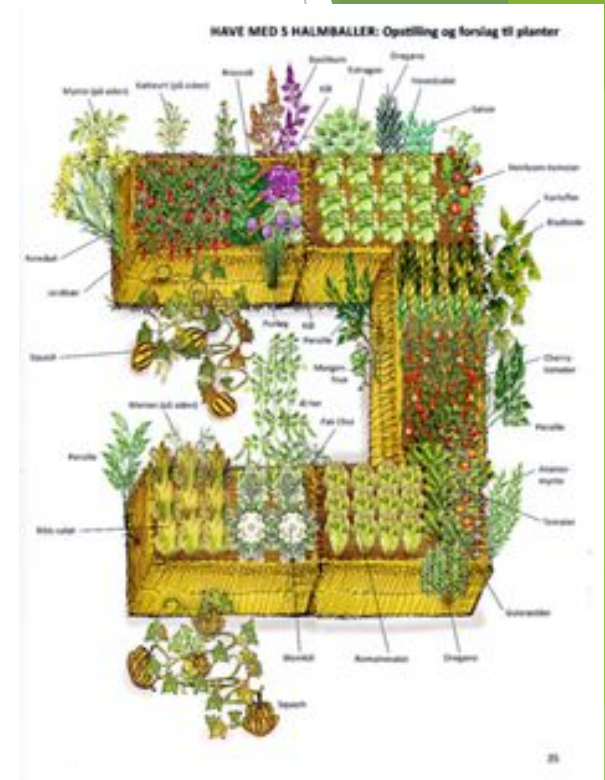
- Choose site with as much sun as possible
- Bales allow for flexibility because you can put them on concrete, asphalt, gravel, or in the middle of your lawn
- Be careful of putting them on a wooden deck, as the bales will be continuously wet and may permanently stain
- Ensure you have a convenient water source
- Flat surface is best, but you can stake them into position on a slope or place bricks or concrete blocks under to level them
- To prevent weeds from growing around bales, put landscape fabric underneath if growing on dirt





Plan your layout:

- Can fit into an existing garden, interspersed with beds or containers
- You can stack the bales to allow vining plants to tumble out of them onto the ground
- You can place bales on their flat sides or their tall sides
- Any geometric arrangement will do, even circles and semicircles.
- Place them far enough apart so that you can get in between them as plants grow large and start vining on to the ground





Cut Side

String Side



Cut ends up



String sides up
(lower, wider bed)



Mix & Match



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Fertilizer requirements:

1. High Nitrogen at first a. Nitrogen needed to “break down” bales first 10 days
 - Ammonium sulfate or nitrate (34-0-0)
 - Fish Meal or Blood Meal is good organic option
1. Balanced, all-purpose to start off growing season
2. All-purpose liquid or compost tea required throughout growing season



Bale Conditioning:

Day 1: Sprinkle the top of each bale with 1/2 cup of a high nitrogen fertilizer, then water the bale.

Day 2: Water the bale again.

Day 3: Add 1/2 cup fertilizer to the bale and water.

Day 4: Water. It should take less water to fully saturate the bale at this point.

Day 5: Add 1/2 cup fertilizer to the bale and water.

Day 6: Water

Days 7-9: Use 1/4 cup of fertilizer each day. Water. The bale should be heating up by now.

Day 10: Sprinkle each bale with 1 cup of a balanced fertilizer and water.

Day 11: Leave bales alone.

Day 12: Ready to plant!



Planting the bale:

Large plants can be put directly in planting hole in bale with a bit of soil.



Planting the bale:

For smaller or direct seeded plants, add potting soil to surface. Can add a frame to hold more soil on top.



Planting the bale:

Direct sow at a depth that is about the diameter of the seed



Number of plants per bale:

2 Tomatoes - seedlings only, not seeds

3 Peppers - ditto

3 Eggplants - ditto

40 (or so) Beets - sow them 1" apart and thin as desired

80 (or so Carrots) - ditto

6 Cucumbers - directly sown is preferred (sow 3 seeds per hole & thin down to strongest one)

2 Summer Squash (Zucchini, PattyPan, Crookneck) - sow 3 seeds per hole, thin to strongest one

4 Winter Squash (Pumpkin, Acorn, Butternut, Blue Hubbard, Delicata, Kabocha) - sow 3 seeds per hole & thin down to strongest one

6 Bush Beans - sow 3 seeds per hole spaced 3 on each side of bale, thin down to strongest one

10 Pole Beans - sow in a straight line down middle of bale 30 seeds, thinning to 10 strongest ones.

Add irrigation:

Not essential, but will save a lot of time throughout growing season.

Recommended: 6" emitter soaker line from Scotts Valley Sprinkler or Dripworks.com, non-emitter $\frac{1}{4}$ " spaghetti tubing to get from bale to $\frac{3}{4}$ " mainline, 30 psi pressure regulator and filter from hosebib attached to $\frac{3}{4}$ " mainline.

Can add timer as well.



Trellissing and Staking:

- Pole beans and tomatoes definitely with something beefy and tall, such as t-posts and twine or hortinetting
- Bush beans, peppers & eggplants with small tomato cages
- Squash, melons, cukes let sprawl
- Fruits that touch the ground may be infested with bugs
- Be areful of creating shade with trellised plants



Supplemental Fertilizer:

- Plants will need additional fertilizer, particularly if yellowing
- Best fertilizer: Worm casting or compost tea
 - Big handful of castings or compost in a 5 gallon bucket of water, let sit for two days to “steep”, stir and water each bale with 1 to 3 gallons each week.
- Alternatively use all-purpose liquid organic. Mix according to directions, and apply at same rate to each bale immediately. No “steeping” for two days needed.
- Can also use Miracle Grow and feeder

End of season:

- May be able to get 2 years per bale
- Bales decompose largely into good organic matter.
- Slip off strings, break up bales with spade fork.
- Spread on top of other beds or around herb or perennial plants (including ornamentals) winter.
- Can also use straw as carbon layer in compost piles.

