



Straw Bale Gardening

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www.strawbalegardens.com

www.facebook.com/LearnToGrowAStrawBaleGarden



What would an “ideal” vegetable garden be like?

- No weed seeds
- No heavy work, no double digging, no tilling
- Not too wet, not too dry
- Avoid problem deer, rabbits, raccoons
- Prevention of “bugs”
- Deter spread of disease
- Less possibility of frost
- Lower cost
- Less tied down
- Predictability = Productivity



Why not replace the soil with planting mix?

- Weed free
- Good particle size
- Well drained
- Retains moisture
- Air spaces
- Fertile
- Stable
- Light weight

It would cost a fortune!!!! \$5-6 per cubic foot.
and in a few years it would transition back to regular soil with the same problems.



How can a Straw Bale Garden be a solution?

- What are we really doing with Straw Bales?
 - Container gardening
 - Composting quickly
 - Results are terrific growing media
- Raised bed allows access
- Flexible, movable, available
- Relatively inexpensive \$.35 vs \$5 per cu ft
- Additional benefits of SBG method



What is straw?

- Stalk portion of small grain crops
 - Wheat
 - Oats
 - Flax
 - Barley
- Do not confuse straw and hay
 - Hay is grass based
 - Hay is a legume
 - Takes much longer to decay
 - Not as desirable for gardening



Why straw bales?

- Compression, density allows faster action
- Even content and composition
- Predictable, straw is always straw
- Well drained
- Holds moisture
- Decays quickly
- Weed “free”
- Easy to find
- Inexpensive
- 15-50 lbs, easy to transport



Strings are important

- Nylon (very good)
- Twine (acceptable)

Good Bales are Like Whales!

- Big, floppy, heavy, wet and gray
- Bring your own rope or straps
- Heavy (wet) bales = cheap straw
- Normally animal bedding
- Best bales can be the hardest to move



Finding straw bales

- Farmer – wet bales left outside, perfect
- Garden center – last Halloween
- Church – Christmas display last winter
- CraigsList.com – “straw bales” search
- www.strawbalegardens.com



Locating your SBG

ANYWHERE! - well almost anywhere

- Soil underneath is irrelevant
- On concrete
- On asphalt
- Near water source
- SUNNY! 6-8 hours minimum full sun
 - Less sun will limit crop selection
 - Morning sun over late day sun



Positioning bales

- End to end works well, “cut” side up
- 6-7’ post or stake at each end
- North to south is best, but not essential
- Strings go to the sides not up and down
- Far enough apart to mow between rows
- Landscape fabric, old carpeting or straw
- Far enough apart to avoid crop shading
- Two rows side by side, but not three rows
- No more than five bales in a row between posts



Espalier wires

- 14-16 gauge electric fencing wire
- Fasten at both ends
- Twin bottom wires 10-12" above bales
- Other wires 10" apart to the top
- Support for vines, climbers
- Other uses that will become clear soon



Set up water system

- Soaker hose UV resistant
- Regular heavy duty hose
- Faucet timer on batteries

Easy to install

- Stake hose 3x on top of bales, hangers
- Regular hose from faucet to soaker
- Bury the regular hose 2" deep to avoid difficulty mowing or grass "snaking"



Prepare to plant by “conditioning” bales

- Allow 10-12 days for the process (temperature will play a role) temp will rise then fall
- Starts nitrogen “sink” reversal – hyperdecay
- Begin process by adding food NITROGEN
- Bacterium and microorganisms (little bugs)
- Reproduction is the goal, this happens quickly
- Decomposition process produces heat, 145 max
- Worms will thrive, castings are gardener’s gold
- Mushroom blooms WILL occur, it’s a good thing!
- Results are lovely nitrogen rich MEDIA



“Conditioning” recipe

- Day 1, sprinkle evenly $\frac{1}{2}$ cup per bale Ammonium Nitrate (34-0-0) fertilizer (or ANY equivalent) then water until it gets worked in
- Day 2, water
- Day 3, $\frac{1}{2}$ cup (34-0-0) evenly per bale + water
- Day 4, water
- Day 5, $\frac{1}{2}$ cup (34-0-0) evenly per bale + water
- Day 6, water
- Days 7-9, $\frac{1}{4}$ cup (34-0-0) per bale + water
- Day 10, 1 cup (10-10-10) per bale + water



Day 11 or 12 – Planting

- Use started plugs for warm season crops
 - Mid May to avoid frost, or cover each night
 - Plant when temp falls under 105 degrees
 - Use a trowel to open a crack in the bale
 - Plant to depth of first leaf
 - Seal up crack and water in plugs
- Direct seed cool season crops
 - Add 1-2” potting soil on top of bales
 - 1 cubic foot per bale
 - Make even depth rows with a long board
 - Protect tender seedbed -rain-frost-critters
 - Seed tray covers or tent



Decaying creates heat

- Decaying of bale will create heat below
- Bottom heat promotes rapid root growth
- Bottom heat improves seed germination
- Cool tops prevent disease growth
- Cool nights offset with additional heat
- 150 degrees inside bales is possible
- May 15th seems like June 15th soil temps



Liquid fertilizer

- Two weeks after planting or sprouting
- Mix up a watering can following directions
- Apply over the top, s-l-o-w-l-y
- Rinse leaves with clear water
- Every two or three weeks
- Don't water late in the day, time to dry
- Moisture on leaves help diseases flourish





What to plant?

- Easier to identify what NOT to plant
 - Sweet corn, too tall, falls over, one per bale
 - Rhubarb, asparagus, strawberries, perennials
- Vegetables
- Root-crops
- Vine-crops
- Herbs
- Flowers



VEGETABLES

- My ideas to start with

- Beans
- Peas
- Beets
- Broccoli
- Cauliflower
- Cabbage
- Carrots
- Leaf lettuce
- Onions
- Peppers
- Melons
- Squash
- Tomatoes
- Pumpkins
- Cucumbers
- Watermelon
- Radish
- Potatoes (in or under bale)

Try whatever crops are
your favorites!
Predictable performance
helps.



Herbs and Flowers

- Herbs (top or side)

- Basil
- Thyme
- Parsley
- Chives
- Bay
- Fennel
- Oregano
- Cilantro

- Flowers (side of bale)

- Marigold pesticide
- Begonia
- Impatiens
- Snapdragon
- Zinnia
- Coleus
- Poppy
- Pansy
- Petunia

Nothing too tall,
otherwise try anything



Plants per bale?

- Same spacing as regular garden soil
 - Bale is usually 38-48” long and 14-18” wide/tall.
 - 3 peppers, 3 potatoes, 24 gr beans, 24 peas, 48 carrots, etc.
- Intra-planting works well
 - Early maturing warm season crops
 - Leaf lettuce
 - Radish
 - Plant between late maturing cool season crop
 - Tomatoes
 - Cabbage
 - Vine-crops
- Extra cage may be needed for Tomato plants



Maintenance of SBG

- Oats, wheat or weed seeds may sprout
 - Quality straw will have very few seeds
 - Chia pet effect
- Seeds will give up when cut back
- Very few weeds, but pull or cut those
- No need to spray herbicide
- Liquid fertilizer every 2-3 weeks
- Automatic water and/or finger check daily
 - Try an indicator plant, (impatiens)



Why will you love your Straw Bale Garden?

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Ornamental design

































