Straw Bale Gardening

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Zilker Botanical Garden
Wildlife Austin
Community Gardens

Zilker Botanical Garden
Austin Area Garden Center
Rather than planting in the soil, plant directly into the bale.

Benefits:
- Compacted, contaminated, or lack of soil
- Less weeding, insects, disease, watering, & resources (soil) to build bed
- Raised Height

Credit: homegrown.org
Other benefits:

- Extended Planting season
- Produces heat- great for greenhouses
- Builds fertility- nutrient rich mulch
- Ease of root vegetable harvest

The physical requirements to maintain a soil garden can become limiting.

With the raised height of the bales, there is less of a need to bend over.

Once the bales are positioned, the physical part of the straw bale garden is complete.
Straw, not hay

Straw is hollow and comes from cereal grains
Hay comes from grasses
Barley, Oats, Rye, & Wheat

Historic and Modern Uses:
- Animal Feed
- Basketry- bee skeps
- Crafts
- Corn Dollies
- Erosion Control
- Hats
- Packaging
- Paper
- Rope
- Shoes- Korea, Germany
- Targets
- Thatching

• Construction material- bind clay and concrete in cob, straw bale houses, composite lumber, Enviroboard, etc.
• Biogas (Aarhus University, Denmark) & Biofuels (briquettes)
• Biomass- mulch & biomass power plants in EU
• Bedding- human & animal)
• Horticulture- mulch, strawberries, protect trees in Japan, ponds to control algae, mushroom cultivation, etc.
Materials:
• Straw Bales (not sprayed)
• Two T-posts per row
• Wire & Twine
• Optional 2”x6”x length
• Nitrogen Source
• Arrange in location and set in place for good- bales will triple in weight once watered
• Can place in a raised bed or on pallets to facilitate access and/or stability
• Place bales upside down with cut side facing up

Credit: www.mirror.co.uk
Conditioning your bales:

- 12-18 day process
- Intended to begin decomposition of internal structure
- Apply and work in organic nitrogen rich source such as coffee grounds, aquatic plants, compost, bloodmeal, etc. and water heavily
DAY 5
Add 1/2 cup fertilizer to each bale. Water.

DAY 6
Water.

DAY 7-9
Use 1/4 cup of fertilizer each day. Water. The bale should be heating up 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!
Ready to plant once below 100 degrees F

Credit (TL): preparednessmama.com
Credit (TR): bonnieplants.com
Credit (B): mynortherngarden.com
Rapidly growing and diüriding bacteria in the straw heats up the bale.

While temperatures are too hot to plant for roughly 12 days, the residual warmth means gardeners can plant earlier in the season.

The extra boost of heat can lead to much faster root development, earlier flowering and fruit set, earlier fruit set, and ripened crops weeks before a traditional soil.

Fewer location limitations

Straw bale gardens can thrive on asphalt and concrete, which means you can plant in a driveway or on a rooftop.
Cohesion allows a dry bale of straw to absorb and hold 3 to 5 gallons of water.

The moisture trapped in the bale provides a steady supply of water for the tiny developing root hairs.

Once fully saturated, the bale won’t hold another drop and cannot be overwatered.

Straw bales contain many air spaces between particles and inside stalks, which allows air exchange for roots.

A tall trellis encourages vines and climbers to crawl vertically above the bales which results in:

- Better sun exposure
- Better air circulation
- Drier leaves
Bibliography:

See our article in the Statesman:

Visit our Straw Bale Garden in the Vegetable Garden at Zilker Botanical Garden
Thank you!

Questions?

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