

Straw Bale Gardening

Alexandria Straight, WVU Extension Agent – Agriculture and Natural Resources
WVU Extension Service Doddridge and Ritchie Counties

In straw bale gardening (SBG), the straw bale is placed on the ground, and plants are placed inside the bale. Weeding and harvesting can be done easily from a chair, and the straw keeps plants cool and holds water well. Straw bale gardening also has fewer pest problems due to it being off the ground.

Who Is SBG for?

Straw bale gardening is a great option for people who have limited mobility, poor soil quality, or limited space.

What You Need to Get Started

You need only a few items to get started. The bare necessities are: straw bales (hay can be used but will sprout grass weeds); a hand trowel to place plants into the straw bales; fertilizer, nitrogen, blood meal, or bone meal to condition the bales; water to water-in the fertilizer; and soil or compost if you are directly planting seeds.



Before

You may also consider a soaker hose to put directly on the bales for easy watering.

Bale Placement

Deciding on the placement of your garden first is important because once you start watering your bales you will not be able to move them. Use any artistic expression you desire. Bales can be placed in many shapes to fit just about any space. Just keep in mind that taller plants will need to be on the north end of the straw bale garden.



After

Use newspaper under the bales before you place the bales on the ground. This will prevent grass and weeds from growing around the bales and keep weeding to a minimum. It will also help slow down the deterioration of the twine around the bale.

Conditioning the Bales

The next step is to condition the bales. This process takes a few weeks, so you will want to plan ahead and do this before you plant. Bales held over from the year before will not need to go through this step.

To start the process, keep the straw bales wet for three to four weeks before planting. If you would like to speed up the process, here is a recipe that works well.

Days 1-3: Water the bales thoroughly and keep them damp.

Days 4-6: Sprinkle each bale with ½ cup urea (46-0-0) and water well into bales. You can substitute bone meal, fish meal, or compost for a more organic approach.

What is conditioning?

When you get the bales wet, they will begin a natural composting process where they start to decompose. During this process, they will get hot. If plants are planted during this time, they may be damaged.

Days 7-9: Cut back to ¼ cup urea or substitute per bale per day; continue to water well.

Day 10: No more fertilizer, but continue to keep bales damp.

Day 11: Stick your hand into the bales to see if they are still warm. If they have cooled to less than your body heat, you may safely begin planting after all danger of frost has passed.

Planting

After your bales have been placed and conditioned, it is time to plant! You can grow almost anything in a straw bale that you can grow in the ground; you may find some plants are easier than others. Root vegetables like carrots, potatoes, and onions can be grown but have some difficulty. Plants like corn tend to be too top heavy.

Seedlings

Plant seedlings just like you would if they were in the ground. If it says to plant 18 inches apart, then that is the same for the bale. Take a sharp trowel and separate the straw. Place the plant down to the first leaf and let the straw fill in around it. Be careful not to cut the twine while planting.

Seeds

If you want to plant seeds, like beans, place a small layer of compost mixed with soil on the top of the bale, like icing on a cake, and plant the seeds directly into the soil. Cover the seeds with a light dusting of soil or peat moss and water in well.

Tomatoes

When planting tomatoes, you will want to stake them with a 6-foot stake because cages do not work well to support the plant.

Feeding and Watering

Since the straw bale contains no soil, your plants will require more fertilizer than if planted in a garden. To provide the plants nutrition, feed them a compost tea or liquid fish emulsion once every other week when plants are seedlings, increasing the feedings to once a week as plant grows.

Water the straw bales as needed or put a soaker hose around the plants on the bales.

Some plants that are popular for straw bale gardening:

Plants	Tomatoes	Peppers	Cucumber	Squash
How Many per Bale	2-3	4	4-6	2-4
Plants	Zucchini	Lettuce	Strawberries	Beans
How Many per Bale	2-3	Per package directions	3-4	Per package directions

For More Information

Contact John Jett, WVU Extension Service Extension Specialist - Horticulture at john.jett@mail.wvu.edu or Alexandria Straight, WVU Extension Service Agent - Agriculture and Natural Resources at alexandria.straight@mail.wvu.edu.

www.ext.wvu.edu

Created: January 2012

Programs and activities offered by the West Virginia University Extension Service are available to all persons without regard to race, color, sex, disability, religion, age, veteran status, political beliefs, sexual orientation, national origin, and marital or family status. Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Director, Cooperative Extension Service, West Virginia University. West Virginia University is governed by the Board of Trustees of the University System of West Virginia.