

Straw Bale Gardening

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Gardening even without good soil

You've all heard, "Hay is for horses," and some people think that it is also great for growing plants. It isn't. Technically, the bales to garden with are straw bales, such as wheat or barley, with little or no seed heads inside. Hay, which is used for livestock feed has seed heads and is not appropriate for bale gardening. Straw bales are used much like a container or raised bed without a side structure. This gardening practice has become very popular with those without access to good garden soil or lack of suitable garden space. The bales can be placed on any flat surface, even a concrete driveway.

The greatest advantage is the ability to place the bales in the best place to take advantage of the sun. Although there is some basic preparation, it is far less labor intensive than traditional gardening, as there is no need for digging and weeding, and due to its height, there is less bending involved.

It is also less expensive, as the bales usually cost from \$5 - \$10 per bale at local feed, hardware stores or local farms. Make sure your straw bales of wheat or barley are free of herbicides and are organically sourced. Choose bales that are in good condition with no mold or seed heads and wrapped tightly with twine. The average weight of a straw bale is 40-50 pounds.

The basics of getting started are as follows:

Once you have your bales ideally located in a place that gets 6-8 hours of sunlight a day along with a source for water, place them on their sides with the twine going around the sides and horizontal to the ground. Do not water the bales before placing where you want them, as once wet they become very heavy.

The whole idea of straw bale gardening is that you are basically starting with a sterile medium (the straw) and then preparing it to start the decomposition process. This process takes approximately two weeks.

There are a couple of different methods to this process; each involves simply adding water and nitrogen to the bale. The nitrogen source can be ammonia sulfate, 26-0-0 (1 cup per bale), urea, 46-0-0 (½ cup per bale) or fish fertilizer, 5-1-1 (1 cup per bale). The first method is to spread a high nitrogen fertilizer on the bale and water the bale until you see water coming out the sides. Continue this process for six days or so.



When you don't have room for a raised bed or large garden, it's relatively easy to grow vegetables in a straw bale. *Photo by Nancy Crowell / WSU Skagit County Extension Master Gardeners.*

The second popular method is to water the bales thoroughly for three days then add a high nitrogen fertilizer to the top of the bale on the third, fifth, and seventh day. Make sure you continue to water the bale. By the sixth day or so you should feel the bale heat up inside. You can use a soil or compost thermometer to test the heat in the bale as it can often reach over 100 degrees. After the seventh day stop applying the fertilizer but continue watering.

When the bale pulls slightly apart and is warm to the touch (60 to 70 degrees Fahrenheit), it is time to plant. Just pull the hay apart on the top of the bale and insert your plant's roots inside. It is also possible to grow plants from seed as well. The easiest are beans, cucumbers, and squash. Cover the top with good organic garden or potting soil.

As the bales tend to dry out quickly, watering regularly throughout the season is necessary. A soaker hose is ideal to use for this purpose as it saves time, waters at the base of the plant, not the leaves, and gives an even distribution of water to the bale. Heavy watering tends to wash out plant nutrients fairly quickly, so it is essential to replace plant nutrients periodically by adding a balanced (5-5-5) fertilizer, which doesn't contain a pre-emergent weed killer.

After the season is over, the bale makes perfect compost or topping material for your garden. Some gardeners have planted garlic in the bales after the season is over in the fall for a summer harvest the following year.

Some of the drawbacks to growing with straw bales are that the bales can look unsightly as they decompose. Grass can grow if there are seed heads in the bale. Growing tall plants can be difficult as the decomposing bale may not hold up to the weight. It can also be difficult to know whether the straw bale contains an herbicide that could be toxic to your plants. Success depends on regular watering and fertilizing.

Although there are some drawbacks, many gardeners are finding that straw bale gardening creates an opportunity to garden even without good soil. They can be placed to get the most sun and have less risk of soil-borne disease. It is relatively easy, inexpensive and fun, with the rewards well worth it. So, hey! Why not try something new, fun and rewarding?



This is the same straw bale a few months after being planted. *Photo by Nancy Crowell / WSU Skagit County Extension Master Gardeners.*

RESOURCES:

- “Growing Vegetables in Straw Bales.” Lehoullier, Craig. March 14,2019.
- “Straw Bale Gardening.” Karsten, Joel. Updated March. 26,2019.
- WSU Extension Fact Sheet. Benton County Extension. 2013.

