

HAY BALE VEGETABLES: SOIL BUILDING FROM THE TOP DOWN

Hay bale gardening is inspired laziness, and makes the closest thing I know to an instant garden. Here, we really let nature take over. Simply put, hay bales become both the compost pile and the growing medium for vegetables. The bulk of the bale is reduced to plant food by a slow decomposition that feeds the hungry searching roots of the crop. In the end, you have loamy compost, the legacy of the bale, and a tasty crop.

Bale gardening was developed in Europe as an alternative to the use of chemicals in greenhouses. Instead of sterilizing the soil with steam or toxic methyl bromide, the whole greenhouse is swept clean after each crop and scrubbed with bleach or a mild fungicide. Then fresh bales of straw are brought in to grow the next crop on. Cycles of pests and diseases are broken and the used bales, mostly rotted, go to the fields as mulch or compost, adding valuable organic matter.

Hay bale culture is an experiment in composting dynamics. Most decomposing processes are not "hot," with disease-killing temperatures of 140° to 160° F. The forest floor, a rich litter of organic material, does not produce noticeable heat as it decomposes nor does it limit root growth. The limited amount of heat generated by a decomposing hay bale actually stimulates root growth. Roots that get too close to the heat in the center of the bale may die, but that only causes more feeder roots to branch out higher up on the root system.

A lot of bales are needed: an expensive proposition if it were not for unpredictable weather and hapless farmers and horse owners. The weather is always sneaking up on some unprotected hay pile, soaking it with rain and making some of the bales useless to the farmer. Almost every area has stables or farms that will give away or sell very cheaply soggy bales of straw or hay.

In a way, the older and wetter the hay is, the better, since more seeds will have sprouted. But the fresher and greener the bale, the more nourishing it will be for your plants. You pay more for oat and vetch hay or alfalfa, but they are worth more to you because their higher feed value translates to more nitrogen for your plants. (See Appendix 5.) They are not as easy to find—you may have to look more persistently or haggle more intensely, so improve your scrounging techniques and skills. Straw bales work well also, but you have to add nitrogen in some form to compensate for their higher carbon content.

The Bale Recipe

The idea of hay bale gardening is to save effort, but bales, especially wet ones, are very heavy. A

wet bale can destroy your back more readily than digging does. Plan ahead—find dry bales to bring home during the summer. To move heavy bales, I roll them on and off my pickup truck on a 2-inch-by-6-inch ramp, with the help of a friend.

Add Gopher Protection . . .

If you have gophers, cover the area first with overlapped lengths of half-inch galvanized aviary netting. Whether you start with netting or not, place each bale with the end grain up; that is, leave the baling wire or twine exposed around the perimeter of the bale (see Fig. 7.9). Cluster the bales together three or four bales wide—this arrangement makes the vegetables easiest to reach from the outside edge. Grouping them also helps reduce watering by limiting excessive evaporation from the exposed perimeter. Use as many bales as you need for the length of your garden. If the bales are dry, soak them thoroughly and let them drain until very moist.

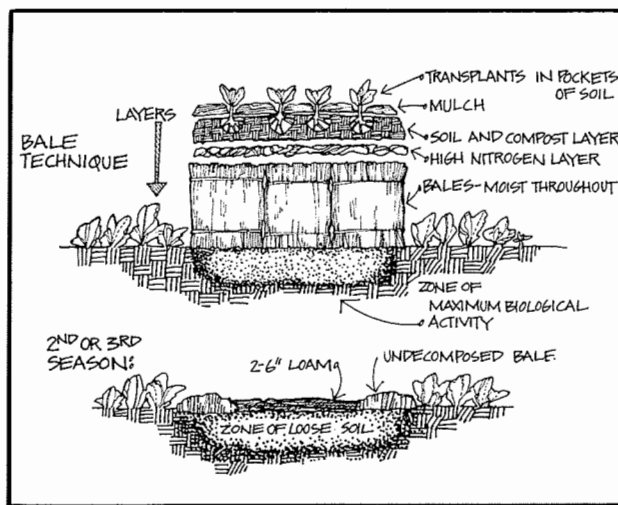


Figure 7.9 In a hay bale garden, decomposing bales improve the soil underneath while growing crops on top.

. . . fertilizer

To start the composting process in the bales, you must apply a high-nitrogen fertilizer to their tops (see Appendix 5). Use a thick layer of fresh chicken manure (12 to 50 pounds of chicken manure per bale, depending on how fresh it is). Options include 5 to 10 pounds of turkey manure, 10 to 20 pounds of rabbit manure, or 3½ pounds of blood meal mixed with 2 pounds of bone meal. To each of the above, add ¼ pound of sulfate of potash as a source of potassium. Do not hesitate to add your own urine—it's readily available (especially if you drink lots of coffee), high in nitrogen, and, if used fresh,