



# HOW TO GROW A STRAW BALE GARDEN

By Kent Rogers



Kent Rogers, a Wake County Deputy Sheriff from Wake Forest, has successfully cultivated a vegetable garden in bales of straw. Carolina Country's report on his idea last year drew attention from gardeners and others across the state. Kent points out that the method produces good-looking, healthy plants without weeds, and is especially convenient for people who don't have a large plot of ground to till, or who are physically unable to do a lot of kneeling, bending, raking and hoeing.

He is shown above with some of his 2006 okra plants. Kent is a member of Wake Electric, a Touchstone Energy cooperative. You can contact him by mail at 13028 Powell Rd, Wake Forest, NC 27587, and by e-mail at [kent.rogers@earthlink.net](mailto:kent.rogers@earthlink.net)

**Y**ou can start your garden with seeds if you use some potting mix on top of the bales, but I transplanted all of my vegetables from flats and trays purchased from local nurseries.

My first year I used 20 bales of wheat straw and 10 bales of oat straw. Last year I used 55 bales of wheat straw. (Pine straw won't work.)

I recommend getting bales that have been tightly baled. The oat straw bales I bought were lighter and baled looser than the wheat straw, and I learned that they don't hold as much water. I paid \$3 for each bale.

Use bales that have synthetic twine if you can find them. The twine won't rot and it will hold the bales together longer. If the bales use regular twine, that's no problem. You may have to put a stake at the end of the bales. The bales I used had regular twine, and they started to rot and break, but I arranged 10 in each row, so the bales tend to hold each other together.

I oriented my bales with the strings off the ground, straw facing up. You can do it either way, but I like the twine off the ground. The transplanting seemed easier with the bales oriented with the strings off the ground.

If you make more than one row of bales, put them wide enough apart so your lawnmower can get between them. And because you'll be watering them, I recommend placing the bales where the water will drain away from your house or away from where you'll be walking.

## PREPARING FOR PLANTING

You'll want to set your plants after all danger of frost has passed, and it takes at least 10 days to prepare your bales for the plants. I will report here what I did to prepare my bales. But note that you also can also prepare your bales by just keeping them damp for about 3–4 weeks prior to transplanting, instead of going to all this work.

**DAYS 1–3:** Water the bales thoroughly and keep them damp. Once the bales are wet they are very heavy and hard to move, so make sure you're happy with their location.

**DAYS 4–6:** Sprinkle the bales with ½ cup of ammonium nitrate (34-0-0) per bale per day, and water it well into the bales. I didn't have any trouble finding ammonium nitrate from my local ag-supply store. They sold it in 50-pound bags. I have heard, however, that some people have had difficulty finding it in more urban settings. Ask around. You can substitute blood meal for the nitrate. Just use about 1 cup per bale every other day for Days 4–9.

**DAYS 7–9:** Cut back to ¼ cup of ammonium nitrate per bale per day, and continue to water it in well.

**DAY 10:** No more ammonium nitrate, but continue to keep the bales damp.

**DAY 11:** Transplant your plants into the bales after all danger of frost has passed. Use your hands or a spatula to make a crack in the bale for each plant. Place the plant down to its first leaf, and gently close the crack back together as best you can. After two years of experimenting, I recommend adding a little commercial potting mix around each plant. Do not use soil from your yard! It could spread diseases, bacteria and weeds to the bales.



**Top left:** Tomatoes on a concrete wire trellis, with the vines running in and out of the wire, plus some stretch ties to secure the plants to the trellis. **Top right:** Pepper plants. **Bottom left:** Collards. **Bottom right:** Tomatoes on concrete wire made into an arch. The arch collapsed after a strong rain, so I had to shore up the arch with wood.

## HOW MANY PLANTS PER BALE?

Try 2–3 tomato plants per bale, 3 peppers, 2 squash, 2 sets of cucumbers, 3–4 sets of okra.

Be prepared to stake everything but the cucumbers and squash. I recommend using a trellis system for the tomatoes if you plant a row of any length; otherwise you'll need stakes at least 6 feet tall. I used tobacco sticks the first year, but they are too short. My tomatoes grew way over the tobacco sticks and the vines broke badly.

I planted okra last year and they grew well over 9 feet tall. You'll definitely have to stake them.

I don't think corn will work too well with this method.

I recommend using a commercial, stretch tie that comes in rolls for tying up all of your plants.

I water the bales each day after sunset. You can't over-water because any excess will just run out of the bales. Soaker hoses will work. The main thing is not to let the bales get dried out between watering.

## FINAL TIPS

I used Liquid Miracle Gro twice a week. Use a watering can or get an applicator that waters the plants and fertilizes at the same time. It's almost impossible to over-fertilize with Miracle Gro, but be careful with granular fertilizer like 10-10-10.

The bales will start to sprout wheat or oat straw, but that is no problem. If the grass gets too much for you, just whack it off with a knife. I give my bales a "haircut" every so often with a steak knife. It takes no time at all.

Over the past two years, I used pesticides only once on my plants. I had to use some Liquid Sevin on my okra against Japanese beetles. The rest of my plants were pest-free. I also had a good crop of ladybugs, which is a good thing. Maybe it has something to do with the plants being off the ground.

Be prepared to use new bales each year. You may get two years of service out of the bales, but I like starting with fresh bales. This year I'm using the old bales to see how potatoes grow in them.

I highly recommend visiting the Vegetable Garden section at [www.davesgarden.com](http://www.davesgarden.com). I started a very popular forum on straw bale gardening with other bale gardeners from all over the U.S. and Canada. You'll find a lot of photos and a tremendous amount of information on this subject. ☺