

No-Till Gardening for Life: The Cardboard Method

As practiced at Seeds of Solidarity Farm, Ricky Baruc and Deb Habib

To build local food self-reliance, we need accessible, affordable and fun practices that mimic nature, help decentralize food production and engage more people in cultivating the earth in order to Grow Food Everywhere. At Seeds of Solidarity, we place cardboard on land to foster worms, microbes and mycorrhizal fungi that decompose the cardboard and build a fertile soil ecosystem. In addition to an increase in worm reproduction and fertile castings (worm poop), using cardboard as mulch helps balance moisture, keep weeds down, and create no-till carbon sinks that retain rather than release CO₂ into the atmosphere. Cardboard- a waste product available in most communities-- is key to growing gardens on lawns, lots, schoolyards, and municipal buildings for opening up and improving plots of land.

How Can We Create Self-Sustaining Gardens That...

Eliminate machinery and fossil fuel use, reduce labor of weeding, conserve water, and minimize need for additional fertilizers? The Self-Sustaining Cardboard Garden is one solution.

You can put down cardboard anytime of the year. Worms and microbes decompose cardboard year round, leaving well-aerated and worm-casting rich soil in its place. If you put cardboard on a new area or existing garden at the end of the season in the fall, it will be largely decomposed by the time spring comes, easy to dibble through or dig holes in for seedlings. One can also put down cardboard in early or late spring for the:

Insta Garden Approach for Seedlings

- 1) Lay large pieces of cardboard (sheets or well flattened boxes) down to create a nice size, 16 x 16 or so is good for an abundant garden yet manageable. Cover with mulch hay, or well-rotted leaves, to cover and hold down cardboard. If a windy season, water the cardboard well to make it heavy and stay in place.
- 2) When ready to plant seedlings, use a utility knife to cut holes in the cardboard spaced appropriately for whatever you are planting (e.g., broccoli can be 18" apart while tomatoes 3' apart). Make each hole about 6" to 1' in diameter, again, depending on size of plant. A clothesline strung between pieces of rebar pounded into the ground helps make your holes fall in a nice line.
- 3) Shovel out existing soil in each hole and replace with, or mix with good quality, fully decomposed, rich compost (we like chicken compost).
- 4) Put a transplant in each hole, and water in. You can always plant part of your garden with cool weather crops (kales, broccoli, chard) in late spring, then make holes for and add hot weather crops in early June.

This same technique can be followed if you put down cardboard in the fall; it will simply be easier to make holes as in step 2—use a shovel or your hands instead of a knife. You may need to add more cardboard around your holes and mulch with more straw to keep garden weed free all summer.

To sow and grow greens using Insta Garden approach:

Lay cardboard down to make a bed approximately 3 feet wide and as long as you wish. Cover cardboard with at least 6-8" of well composted soil. To conserve high quality compost, use lesser quality soil/compost on the bottom 3-4 ", then finer quality for the top 3-4 ". Gently rake the top of your bed smooth. Water the bed. Scatter sow greens seeds (your choice of Asian greens, spinach, lettuce, arugula, etc...). Gently water seeds. Cover with light layer of compost. Water again. This approach will require careful attention to watering while plants are growing due to the cardboard barrier (Until the cardboard layer is decomposed). You can add protection to your greens bed in early spring or late fall using a floating row cover sometimes called "Remay," available in various grades, which lets light and rain in, but keeps bugs like flea beetles out, and also keeps greens warmer in cool weather.

In your second year after an Insta-Garden:

The sod has broken down your soil is more fertile and alive with worm castings, and just some tape remains from the boxes. Then, you can make raised beds and plant, and also continue to put cardboard on beds for a self-sustaining garden.

There are other great, no-till methods that we use on our farm, and many others do as well. These include cover crops (that die and return to the soil, or can be covered with a tarp to do so) and the use of heavy silage tarps (or used billboard covers if you can find them) to return plant material to the soil. Some also use a thick mulch of compost in no-till methods to suppress weeds.

A good, new resource is the Organic No-Till Farming Revolution by Andrew Mefferd. Seeds of Solidarity is featured in one chapter.