A Soil Building Project

by Priscilla Logan

The idea of reclaiming playground soil, hardpacked by years of little feet, might seem daunting to the average gardener. But sheet mulching is an easy alternative to hard labor with pick and shovel. Priscilla Logan's fifth and sixth graders decided to try it.

When my class found out that one-third of all topsoil of the United States croplands has been lost in the last 200 years, we decided to reclaim a part of our playground soil for a garden through sheet mulching. You can repeat our project by adapting the directions below.

Our layering (sheet mulching) and ditch digging took about two hours. Our only costs were for worms and straw. The students made charts explaining how to sheet mulch and taught the rest of the school through classroom visits. They asked other students to help by donating compost and staying off the straw.

Sheet Mulching Materials for an 8 x 11 Foot Site

- five sacks old manure
- compostables (optional)
- redworms*
- newspapers (remove pages with colored ink)
- brown cardboard boxes (remove tape)
- 12 straw bales (moldy bales are okay)
- loose straw (enough to cover site to an 8-12" depth)**

You will also need shovels, gardening forks, and a hose. A camera and a student-designed *"Soil Making Project"* sign are optional.

*Worms may be purchased from Wiggle Worm, Box 898, Flora Vista, NM 87415. In September 1990, 1000 worms cost $7.50. VERY IMPORTANT: Make sure someone is home to receive the worms when they arrive, especially in warm weather. Worms have a short shelf-life....

**Other mulches, such as dry leaves, or dry weed and grass clippings can be used.

Step 1: Choose the site. The site needs sun, water, protection from wind, protection from too much child traffic, and high visibility to deter vandalism. If the site is below a downspout from a roof, you can divert runoff to the project. In our case, the children dug a shallow channel from a downspout to the project.

Step 2: Water the site. Moisten each layer as you mulch.

Step 3: Add manure. Spread the five sacks old manure on the plot. Old manure is best since fresh manure can burn plants. Water.

Step 4: Add composting materials. Home and cafeteria scraps from fresh vegetables and fruit, brown paper towels, green leaves and lawn clippings are all good additions. (If you don't have these on hand, don't worry. You can add them at any time, or not at all.)

Step 5: Add worms. The book, *Earthworms, Dirt, and Rotten Leaves* , by Molly McLaughlin, gives information and lessons that will help students learn more of the worms' important role in soil making.

Step 6: Add newspapers. Spread the newspaper over the surface. Water.

Step 7: Add cardboard. (Optional.) Cover site with a layer of brown cardboard boxes. Don't use white cardboard as it contains bleaches and toxic chemicals. Water.

Step 8: Add straw. Cover everything with a thick (8 to 12 inches) layer of straw and place bales around the outside. Moldy bales can be used. Water.

Maintenance: Periodically check the project for moisture. Keep track of rain or snow and use the hose when there's not enough moisture.

During warm weather, feed compost under the paper level as much as the worms like. In cold weather, little or none is needed since the worms curl up to stay warm. It's fine to add it anyway.

If you sheet mulch in spring in preparation for a garden the following year, be sure to feed and water the worms occasionally during the summer or they will go to greener pastures.

Alvord students reclaim their corner of the earth.

Photo courtesy of Priscilla Logan