A Soil Healthy Lawn to Garden -Method

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Smothering Method

Converting your lawn from turf to a garden improves soil health, water infiltration to restore groundwater supplies, and adds wildlife and insect habitat. Nowhere are these things needed more than in the urban and suburban landscape.

There are many ways to convert turf or lawn into a garden. In the interest of soil health, one method stands out as a clear favorite: smothering.

What is Smothering?

Smothering requires covering an area with a barrier that blocks sunlight and plant growth. This will kill all cardboard, and many layers of newspaper can all smother plants.

living plants below. Materials like black plastic, wood,

Figure 1: Image Credit: A Farmish Kind of Life

Why Smother?

There are many reasons why smothering is a more acceptable approach for soil health. First, smothering for months or even a year can insure the termination of all plants including ones with extensive root

> systems like Quackgrass or Canada Thistle. Other methods cannot guarantee this. Second, all organic matter (grass, weeds, and their roots) will decompose. This keeps in place the organic material and nutrients you will need for

your garden. Third, the soil microbiome and structure will remain intact. Tilling or removing sod can disturb soil biology. Furthermore, it is the easiest and safest method.

Disadvantages of Smothering

The main disadvantage of smothering is the time it takes. Anywhere from eight weeks to one year or more may be needed. Variables affecting this are the season, temperature, and types of plants. This is not the best method if you desire a quick turnaround.

Furthermore, like tilling, pesticide applications, and sod removal, this method will not kill existing seeds in the soil. In fact, those methods may stir weed growth. Another method, solarization, can kill weed seeds but is difficult as it does not get hot enough for long enough in Indiana to be consistently effective.

Basic Instructions

- Source a smothering barrier like wood or black plastic. Some people have used billboard signs made of vinyl (though, we do not recommend using vinyl). The most effective materials are impervious to light and water.
- 2) Place the barrier in the area desired.
- 3) Secure the edges that are "light-tight". In other words, insure that no light or water can enter through the sides or cracks. You may dig a trench around the area you are converting, place the plastic in that trench, and then bury the edges or use garden staples, bricks, etc. to do the job.
- 4) Weigh down the material as needed to protect from wind-rip.
- 5) Periodically check on the status of your turf. You know you are done when every weed and blade of grass is dead or decomposed. The debris must be brown or decomposed. If the plants are white or light green you will need to continue to smother.
- 6) Once all grass and weeds are terminated, lift the barrier, and leave the area exposed for two more weeks. During this time, seeds will germinate. It's at this time you may pull those weeds, flame them, or use other methods in terminating them. If using a tiller, till only within the first two inches of the soil as dormant seeds may be brought to the surface.
- 7) After step 6, you will have a remarkably clean bed to begin your garden.

Weeds that Present Issues

Some weeds can present a challenge to terminating. Usually, weeds that produce proliferous amounts of seed, have adapted to pesticides, spread by rhizome, or have extensive root systems, are difficult to manage. In Hamilton County, the four below are very persistent:

- 1) Quackgrass
- 2) Canada Thistle
- 3) <u>Henbit</u>
- 4) Field Bindweed
- 5) Bermuda Grass