Closing up Shop for Your Summer Garden

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Are you battling with your crops to keep them insect and disease-free in this wet weather? Are you taking a vacation and don't know what to do with the garden while you are gone? Soil solarization is a good alternative during the summer if you want to clean up your beds without the worry. This article will guide you through how to do soil solarization for managing your pests.

My spring crops are about to be pulled and I have some summer crops like okra, sweet potato, and Seminole pumpkin planted, but I know that I have some beds with nematodes, microscopic plant-parasitic worms. This was evident from the knotted roots on my eggplant and peppers last year. Although I rotated my crops and didn't plant the same plants there this year, I seriously doubt that the nematodes are gone. Soil solarization is an effective method of managing nematodes, at least for a season.

Soil solarization is used to manage weeds, nematodes, diseases, and insects in the soil. The soil is covered with clear plastic, allowing sunlight to pass through and heat the soil to temperatures that kill the pests in the top 6 inches of soil. If it is effective, you can reduce your pest levels for 3-4 months or longer.

You would do soil solarization on any gardens that are in open, unshaded areas. These could be gardens that are in raised beds, mounded rows, or directly in the ground. The best time to solarize is during the summer months (June, July, and August) because these months have the hottest temperatures.

The area should be cleared of weeds and debris like sticks and old roots that may poke holes in the plastic. You can also till the site to increase penetration of heat into the top 6 inches of soil. If you do square foot gardening and have more permanent grids, you would need to remove the grid. The plastic needs to directly touch the soil. You also need to remove any irrigation tubes.

The process works better if there is some water to help conduct heat, so apply the plastic after it has rained or been irrigated. The soil should be moist but not heavy or muddy, or the plastic will get dirty and the light won't penetrate.

You can normally find the clear plastic (not whitish, translucent, black or reflective) at a box store or purchase it online. Cut the piece a little larger than the area you are trying to cover so you can seal the edges. Stretch the plastic tight over the area and seal the edges by burying or placing bricks on them. If you don't, the heat will leak out and it will not get hot enough.

The plastic should be left for at least six weeks. Remove the plastic after that. It normally cannot be reused because the sunlight degrades the plastic often making it brittle. Don't plant until the plastic is removed or you are likely to fry your plant. Also don't wait too long to remove the plastic or you will be sifting through the soil to remove plastic pieces.

The most common reason for failure is that there is an extended period of cloudy weather, causing it to not heat up enough. If you see a lot of weeds growing under it and not dying, you should pull off the plastic, remove the weeds, and start over, if possible. If small holes get poked in the plastic, you can cover it with duct tape.

If everything works well, then you should have a more pest-free season and healthier crops in the fall. Good luck with your summer garden and hopefully you can get some time off. For more helpful tips on soil solarization, visit http://edis.ifas.ufl.edu/in856.