

# Solarize Soil

An effective way to kill or suppress many fungi, nematodes, bacteria, weeds, and insects is to moisten and heat the soil. One procedure, known as “solarizing” the soil, consists of placing a transparent plastic tarp on the soil surface. The plastic tarp uses the heat of the sun to raise the soil temperature.



## Solarizing soil

1. Level the soil
2. Remove weeds, plants, crop debris
3. Break up large clods
4. Wet the soil



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5. Anchor plastic on soil 4 to 6 weeks in full summer sun

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- Ideal tarp thickness—1 mil
- If wind is problem—1.5 to 2 mil
- Avoid 4- to 6-mil tarps



Solarizing is most effective when done for four to six weeks during the hottest parts of the year. Because you cannot solarize soil when a crop is growing, consider solarizing separate portions of your garden at different times—either in late spring before you plant a late crop or in midsummer to late summer in areas of the garden where you harvested an early crop.

To solarize soil in vegetable gardens or planting beds, begin by leveling the soil. Remove weeds, plants, and crop debris, and break up large clods of soil. Then wet the soil, because moisture helps the heat to penetrate the ground and makes pests more sensitive to high temperatures.

If you are covering a small area in a garden, wet the soil before putting down the tarp. If you are covering a large area, it may be more practical to wet the soil after putting down the tarp. Insert a hose under one end of the tarp, or use trickle irrigation, in which water seeps out from the sides of specially designed hoses.

Place the plastic tarp on the soil, eliminating air pockets. To anchor the tarp, bury the edges with soil. Leave the plastic in place for four to six weeks in full summer sun. If you leave the plastic in place any longer, the tarp may become brittle, may tear, and may be difficult to remove.

The tarp should be transparent because black or colored tarps will not heat the soil sufficiently. The ideal thickness for the tarp is 1 mil, although a tarp this thin can sometimes tear easily, especially in high wind. If wind is a problem, use tarps that are 1.5 to 2 mils thick, but avoid 4- to 6-mil tarps.

When solarizing small areas, you may find it easier to cover only the planting beds with strips of plastic, leaving between-row or between-bed furrows uncovered. If you solarize with strips of plastic, it is most effective if the planting beds are 48 to 60 inches wide and oriented north to south.