

The 2nd C: Cultivate Carefully

Try to dig as little as possible. It disturbs the structure of our soils.

As gardeners, we have been doing a lot of digging. We have been turning the soil over every spring to manage weeds. We have been digging our compost into our soil. Generally, we have not hesitated to dig and then break up any clumps of soil in order to create a nice even planting bed.

Unfortunately, we have not really been aware of what all this disturbance does to our soils. Each time we dig, we destroy the soil's structure and disrupt the many intricate networks that hold our soils together. Digging also releases carbon stored in the soil (it goes back into the atmosphere as CO₂) and collapses the spaces where the soil critters live.

We now understand that we have to be gentler and more careful when we cultivate our soils. We need to develop better, more careful gardening habits. Let's always remember that soils are living ecosystems, teeming with tiny critters, mostly invisible, who support plant growth and health.

A frequently disturbed soil is an unhealthy soil. It becomes compacted, with few spaces for air and water and nowhere safe for the critters to live. On the other hand, a healthy soil is like a sponge, full of spaces that can store air and water. These spaces provide safe homes for our underground friends.

So what happens when your soil becomes compacted?

- rainfall runs off the surface of your soil, instead of seeping into it, or just forms puddles that later evaporate in the sun
- your helpful underground critters shrivel up and disappear
- you will have to keep adding more and more water, fertilizer and pesticides, just to replace the benefits your workforce would have provided free of charge.

Of course, in most gardens there will need to be some disturbance, such as digging a small hole to plant a seedling. But try to keep any such disturbance to a minimum.

Here are some tips for how to practice **no-dig gardening**.

- **Whatever you do, don't turn the soil over! Disturb the soil as little as possible when you weed, seed, or plant.** In many cases, you can spread seed on the surface then cover with compost or soil to the desired depth. With seedlings, just make a hole big enough for the roots, put the seedling in the hole, then backfill with compost and/or soil.
- **Don't pull your garden weeds**, just cut them off at soil level, then repeat as they grow back; they will eventually run out of energy and die, leaving their roots to enrich the soil.
- **Better yet, use mulches to prevent weed growth:** organic mulches (e.g., compost, straw, cardboard, wood chips) will break down gradually and feed the soil organisms; inorganic mulches (e.g., crushed rock) will not break down, but will still protect the soil (see the 4th C).

The 6 Cs of Soil Health: Tackling Climate Change with your Lawn and Garden



Cultivate Carefully ... one of the 6Cs for Healthy Soil