

Version:1.0 StartHTML:0000000181 EndHTML:0000004203 StartFragment:0000002615
EndFragment:0000004167

SourceURL:file:///localhost/Users/computer/Desktop/obits/barefootfarmer.doc Plowing is one of nature's mysteries. I plow to fluff up the soil in the springs, but plowing destroys soil structure. This irony is hard to explain but easy to experience. I'll try to explain my experience. Over the winter the ground gets packed down. A cover crop of crimson clover and turnips, or rye and watch, or wheat and peas, helps to alleviate the affect of heavy rainfall. But it needs to be turned under so we can plant garden crops. The root growth of the cover crop is what actually builds soil structure, not the plowing it in. a grass and clover sad is the best cover crop, and is best plowed in the fall with a moldboard plow. The mystery is moderation. Like many things in life, tillage is necessary but too much is detrimental. I want to pulverize the soil just to the extent that what's growing there dies and decays, but still leaves the soil structure, created by the cover crop roots, intact. I started farming with my dad's equipment, a plow and a disc. After plowing I disced the field. It still had clods. So I disced again and it looked a little better. Another few passes with the disc and the ground was powder. I thought this was good soil structure. Then it rained. The clay powder and water formed a big brick the size of my garden. I was starting to learn something. I'd seen the same phenomenon after rototilling; a fine seed bed turned into cement after a hard rain. An old timer gave me the clue.

Version:1.0 StartHTML:0000000181 EndHTML:0000005173 StartFragment:0000002614
EndFragment:0000005137

SourceURL:file:///localhost/Users/computer/Desktop/obits/barefootfarmer.doc

"Plow, and then lightly harrow, but don't over work the soil". I threw the disc and tiller away, and got a chisel plow and harrow. My dad's land was a sandy loan where the disc and tiller aren't destructive like they are on a clay loam. I learned a little tillage goes a long way. The soil has a life of its own, and when we run over it with equipment and through it with iron, this life suffers. We need to plow gently, slowly, and as little as possible. And we must take care to reinvest in the soil biology. Time is on our side. After I mow the cover crop, I run the chisel plow, also called a re breaker, length wise through the field. The shanks are a foot up ant and dig in about a foot deep. This tillage disturbs the cover crop, but certainly doesn't kill it. My next chore is spreading compost, which has the life in it. Microbes in the compost feed on the decaying organic matter from the cover crop and in the soil. Then I'm back over the field with the chisel plow, but this time I go crosswise, so now the soil is cut two ways and the cover crop gives up trying to re grow. At this point I have a desire to go over the soil several times, completely pulverizing it and making a fine seed bed. But I have learned not to do this, because I want a garden and not a cement sidewalk. I will be cultivating the soil during summer, and this subsequent tillage will remove grass clumps and clods while the garden crop is growing. It doesn't need to be done all at once before planting. The third and final pass with the chisel plow happens in a week or two, with a section harrow chained behind. The ground still looks rough afterward, but the cover crop is gone, the compost is incorporated, and it's ready to make rows and plant. The finer the seed bed, the more of a crust will form, so I try to keep it rough. The life in the soil will soften it up in a way the tractor and tillage equipment can never do. We do make finer seed beds for crops with, tine seeds, such as carrots, lettuce and beets. But these crops get extra compst and much more intensive hoeing and tending. We are constantly breaking up the crust around them. Nature teaches us give and take, moderation, and tender loving care. We have to plow and loosen the soil, but not so much as to lose the precious structure that

holds it together. Life in the soil gives us good tilth, that nice crumbly structure. We can learn nature's mysterious ways, I just wish sometimes that it didn't take so long.