SOIL COMPACTION

When soil is compacted, plant roots can’t penetrate below the hard pan layer that forms from soil that has been driven over with vehicles or plowed and walked on many times. When it rains, the water goes to the hard layer and doesn’t go through it. We want the water to go down, but we also want the water from below to come up. Also, we want oxygen to be in the soil, but compaction squeezes these tiny spaces and forces out the oxygen. What happens then is that anaerobic bacteria are the most abundant instead of the aerobic ones. Anaerobic bacteria can be a problem when there is an overpopulation of them. They tend to assist in causing problems for many plants, so it is important to address the compaction issue.

We can find out if there is compaction by digging down to find out if there is a hard layer, and it usually will be 12-16 inches down. In an old farm field, you will find most often there is a hard pan down there. It’s hard to dig through if you want to plant a tree! If you dig in the woods, you won’t find this layer at all.

The very best way to improve soil compaction is to make sure it doesn’t happen in the first place. Avoid tilling your soil when it is too wet or too dry. Also, don’t till your soil more than once a year and, if you can, avoid tilling your soil at all. Keep foot and vehicle traffic to a minimum- walk only on your paths and try not to walk in the beds.

I like checking out what others have already said about this subject so follow these links.   
  
<https://www.canr.msu.edu/news/what_to_do_about_compacted_soil>

Read more at Gardening Know How: Improving Compacted Soil – What to Do When Soil Is Too Compact <https://www.gardeningknowhow.com/garden-how-to/soil-fertilizers/improving-compacted-soil.htm>