

Soil – More Than Just Dirt!

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Soil is more than just dirt – it is the Giver of Life! Soil provides a natural environment for efficient plant growth. It is a complex menagerie of minerals, organic matter and organisms. The function of soil is from simply providing a medium that anchors and supports plants, all the while protecting their root system and retaining moisture for the plants to use. Soil also contains a complex source of microorganisms and minerals that supply nutrients and promote plant growth. But this information should be no surprise to experienced farmers like you! As we plan and prepare our gardens for the spring planting this is helpful reminder that we can amend & restore the soil in our gardens to be more productive.

There are four basic soil types: clay, silt, sand and loam. These types can vary depending on certain landforms and areas of our countries. One type of soil can take up a fairly large area or there can be several types located in an area the size of a parking lot. Whatever your soil, it is essential that you know what you have to do to maximize your gardening successes and minimize your gardening frustrations.

Clay soils have very fine particles, which have the ability to hold on to water. One of the easiest ways to see if you have a clay soil composition is to walk on it when it is wet. If it takes your shoe off, chances are you have clay soil. Another test is if you can make a ball with it and it does not crumble, you have clay soil. Because of these soil particles have a tendency to bind together, clay soil prevents essential elements such as water and oxygen from being absorbed by the plant. This kind of soil can be quite difficult to cultivate but it is a very good type to start with. By adding organic matter in the form of composts and mulches, incorporating certain minerals and even adding a little sand, you can change the soil structure to make clay soil open up to better water and air penetration for plant root systems.

Silt soils are much like clays and they are very common, as they are found widespread throughout areas where water once flowed. Even though this type of soil can lump together like clay, it has better water and air penetration than clay soil. Silty soils make excellent starting points for garden soil and respond quickly to the addition of copious amounts of organic matter in the form of composted manures, backyard composts and organic mulches.

Sandy soils have a very large particle size compared to clays and silts and because of this, air and water easily passes through the soil by starving roots. This is one reason why folks who use water-soluble chemical plant foods have trouble in sandy soils keeping their plants fed. Sandy soils can cause gardeners to give up trying to grow thirsty vegetables in favour of more drought-tolerant plant species. By adding organic matter to this soil type and mulching your gardens, there will be an increase in moisture retention and nutrient-holding capacity of the soil enough to sustain a healthy garden of any kind.

Loams, which have a high concentration of organic matter, are considered the best kind of soil to grow plants. They have the best physical characteristics of the other soil types. They will ball up when squeezed, like clays and silts but crumble easily when the pressure of your hand is released. Loams often have a black or dark brown colour and have a rich musty odour. This type of soil is a gardeners' dream-growing medium, as it is very fertile.

Once you have identified your garden soil type or types and remember you could have a multitude of combinations of these types, you can make the proper decisions in regards to soil amendments, fertilizers and water management. It is important to know that soil is the Giver of Life in your garden and that it is essential to feed the soil not the plants to have a healthy successful garden.