

The Dirt on Soil!

Soil is comprised of these basic ingredients: clay, sand, silt and organic matter. In the Charlotte area, we can all attest to the fact that clay is the predominant ingredient and while many of us bemoan our clay soil, clay in and of itself is not a bad thing.

Lots of clay makes for a heavy and dense soil where the spaces between soil particles are very tiny. As many of you know, when clay soil is dry, it's almost as hard as concrete! Plant roots can't push through it. No air can get in from the surface. Most bacteria and other soil organisms that need oxygen can't breathe. This does not provide an environment conducive to growing much of anything, so we need to examine how to make our soil work for us.

The correct soil composition varies depending on your usage; for example, filling a deep hole in your backyard takes an entirely different type of soil than building a raised garden bed! "Fill dirt" is appropriate when you need soil to be compacted down to fill a deep hole. Fill dirt is the ground below the top layer of soil (called topsoil!); around here, it is pretty much straight clay and is going to be your least expensive dirt. It works very well in certain situations, but its use is limited. Because it comes straight from the ground, it's going to have debris like roots and rocks in it; when you try to spread this dirt out in a relatively thin layer, it's very difficult to work with – visualize trying to wheelbarrow and spread chunks of clay containing large debris and you'll understand! Since fill dirt comes from farther down in the ground, it is not suited for growing plants either.

When you need to fill in smaller holes or slightly build up your yard, a product called "screened fill dirt" is a good choice. At Blue Max Materials, we take the clay fill dirt discussed above and run it through a screening machine that breaks up the dirt and removes all of the debris larger than ½" or so. This makes the dirt much easier to work with and spread! Grass will grow in screened fill dirt, but since it is still primarily clay, over time it will clump back together and you'll end up with soil that's as hard as a rock again!



At Blue Max Materials, a screening machine is used to remove debris & break up clumps in soil. Clean soil comes out in one pile & rejected soil full of debris in another.

When you want to use your soil to grow grass or plants, you need to be working with topsoil. Think of topsoil as a thin living skin that covers the land. This is the layer that should be loose enough to allow oxygen and moisture to reach plants' roots and should contain organic matter to feed your plants. Many of the homes in this area, especially new construction homes, have little or no topsoil left on their yards. Even if there is some topsoil, it is most likely heavily clay-based, so you'll still want to amend it to give your plants' roots an easy place to stretch out and grow.

For growing grass in the Charlotte area, mixing coarse sand with our clay topsoil is a great solution. You can roto-till sand into your existing topsoil (if you actually have any topsoil) or you can allow Blue Max Materials do the hard work for you – we start with a true topsoil, run it through our screening machine to remove debris and loosen it up, and then blend in the correct proportion of sand. This blend results in our Lawn Max, a proven winner for growing grass and for use under sod.



Blue Max Materials mixes its own soil blends to meet the planting needs of the Charlotte area.

When you're working on a garden bed, you'll need to amend your topsoil. The do-it-yourselfer can get out his roto-tiller and till in some coarse sand to help loosen up the clay and allow for better drainage, and then mix in organic material, such as compost, to provide plants with the nutrients they need for healthy growth.

Finding the right combination of these components is important and varies based on the composition of the topsoil in your yard. Simple soil tests that can be purchased at garden supply stores or obtained from the Mecklenburg County Extension Agency will tell you what you need to do to amend your specific soil.

For those who prefer to take the guesswork out of soil amendment, Blue Max Materials has developed Garden Max – a blended topsoil that has been researched to provide the right mixture of topsoil, sand and compost for growing conditions in the Charlotte region. One product incorporates all the necessary ingredients in the right proportions! Garden Max has been given the seal of approval of everyone from the City of Charlotte to local contractors and Master Gardeners.



Garden Max from Blue Max Materials is a proven winner for flower and vegetable gardens.

Whenever you add a product like Lawn Max or Garden Max to your yard, you want to make sure you're doing the proper preparation work first. Loosen the existing soil with a spade or roto-tiller and then mix in the new blended soil at least a few inches down. If you skip this step, you will be creating a bowl effect – your plants' roots will love the new soil and will follow the path of least resistance by staying in the new soil instead of going deeper. Water will also stay in that top layer because the ground below it will still be too hard to absorb anything. This may not sound like a bad thing, but your plants won't develop the healthy root systems they need to survive varying weather conditions. **A few minutes of prep work can save a world of time, headaches and money in the long run!**