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The Real Dirt on Austin Area Soils

by Skip Richter, Travis County Extension Director

Some folks seem to have a green thumb. Everything they stick in the ground just seems to grow. In fact you get the idea that if they accidentally dropped a pencil out in the garden it would root and start producing leaves. Well, here is a little secret to their success: "It all starts with great soil."

Start with a poor soil, and the best varieties, most nutrient rich fertilizers and greenest of thumbs will not a good garden make. Start with super soil and you're more than halfway home to that beautiful, productive garden most folks only dream of.

Black clay soils are common in our area. In the hill country west of IH35 they are also often quite rocky.

The Austin area is home to several different Types of soil. The black clays of Pflugerville and many hillsides west of Interstate 35 are dense soils that pack tightly into a heavy mass. They absorb water very slowly and have little interior air space making it a tough go for plant roots trying to get a foothold.

To the west there is often very little soil over the limestone outcroppings. These thin soil layers leave plants susceptible to summer drought when the root zone can quickly deplete the soil's limited moisture reserves. Along the river bottoms and the broad plains to the southeast of town the soils are often deep loams. They absorb water well and drain well, too, providing a great foundation for growing plants. But these soils, like all soils in our area, are usually low in organic matter content.

Many of our central Texas sites have only a thin layer of soil over limestone rock.

If you want to be successful at growing things here in central Texas some soil improvement is needed. The two key things most often needed are compost to improve the quality of soil and more soil depth to support a strong, extensive and resilient root system. A soil depth of 6" is minimal for lawn grasses but more is better. Turf on shallower soils will be weak and require constant watering just to keep it alive. Flowers and vegetables also need 6-12" inches of soil to do well. Building up raised planting beds can turn a shallow rocky soil into a beautiful garden spot.

Loam soil from the Colorado River bottom.

Our central Texas soils are usually high in pH levels making them well suited to our western native plants and ill adapted to acid-loving plants of the southeast like azaleas and blueberries. Our soils typically have high levels of phosphorus and potassium but may need some additions of nutrients for optimum plant growth. The best way to tell what your soil needs is to have it tested.

The Travis County Extension Office has soil testing forms available to area residents. These provide instructions on how to take a soil test and how to have it analyzed. Before fertilizing your lawn or garden this year, start with a soil test. You will likely discover that the fertilizer blend you have been using may not be the best for your particular soil's nutrient needs. Misapplication of fertilizer wastes money, contributes to pollution in our streams and aquifers, and results in less than desired results in our lawns and gardens.