

## **Soil: The Key to Great Garden Beds**

*Soil is the most important aspect of gardening.* The success or failure of gardening depends heavily on how gardeners prepare their soil. Understanding your soil will greatly help with watering & the growth as well as health of your plant. A few are blessed with naturally good soil, however most soils in West Texas need MUCH improvement. The best investment a gardener can make to ensure hardy plants, luscious blooms, & abundant fruits & vegetables, is improving the health of the soil. With time and effort, you can improve the texture & condition of your soil, but keep in mind, improving the soil is an ongoing process.

### **Reasons to Analyze Soil**

A simple soil test provides a starting place for a soil improvement program for the home gardener. Unless you know the exact problems in your garden soil, you are only guessing when you apply fertilizer. For soil testing information, we recommend contacting a nearby Texas A&M Agrilife Extension Center.

- Learn what type of soil composition you have (clay, caliche, sandy etc.)
- Find out what your soil is lacking (nutrients, micronutrients, etc.)
- Pinpoint soil pH (alkaline or acid)
- Bring your results to Panhandle Greenhouses & we will help you determine how to amend your soil for the best results.

### **Organic Matter**

Adding several inches of organic matter to the soil each year helps the soil in several ways by:

- Loosening tight clay soils to improve drainage and aeration, as well as make fertilizers more readily available.
- Helping sandy soils hold moisture & nutrients to protect against erosion.
- Providing some of the nitrogen needed for plants & reducing the soils alkalinity.
- Increasing populations of beneficial soil organisms.

The addition of organic matter to the soil does not reduce infestation of weeds, diminish plant diseases, nor protect crops from insect attack. Nor does it have any marked influence on the vitamin content of crops grown in the soil.

### **Activate**

Activate is essentially very old compost. It helps speed up mother-natures process of decomposing the grass clippings & thatch as well as lowering the acidity in soil. Over time, this helps break up our clay soil and allows plants to pull the available nutrients from the soil. Another added attribute is Activate helps improve the growth of beneficial micro-organisms which are crucial to a healthy lawn & garden.

Flower Beds & Vegetable Gardens: 1 to 1 1/2 lbs per 100 sq. ft. before planting.

### **Back to Earth Composted Cotton Burrs**

Back to Earth is ideal general-purpose mulch for amending clay or sandy soils. Cotton Burr compost can quickly start improvement of such soils, since it begins to function immediately restoring vital organic matter & humus to soils, regardless of soil conditions. This product contains no chemicals, weeds, insects, or harmful pathogens.

Flower Beds & Vegetable Gardens – Spread Back to Earth 2"-3" thick over entire area to be planted. Turn or till to a depth of 4"-8", mixing it thoroughly with the existing soil. Then plant & water adequately to keep ground moist but not wet.

Trees & Shrubs – Prepare a hole 1/3 to 1/2 larger than the root ball of the plant or tree. Mix 25% to 50% Cotton Burr or Soil Mix (Half Cotton Burr/Half Topsoil) with existing soil. Backfill hole with prepared mixture making sure root ball is level with ground. Water well, taking care that no air pockets are left around the roots. \*Always add root stimulator every two weeks for the first two months.

## Expanded Shale

Soil Mender Expanded Shale is a great way to loosen & aerate clay soils as well as improve moisture retention in sandy soils. Thousands of tiny pores in expanded shale quickly absorb moisture to slowly release it into your soil. Expanded Shale should not be used in place of an organic matter, such as Cotton Burr, but should be added if you have a lot of clay in your soil.

Application – mix 1 - 3 inches of Expanded Shale into the top 6 to 8 inches of soil.

# Bed Preparation and Planting

- Remove existing grass and weeds.
- Dig the hole twice the width of the root ball or container; or prepare the entire bed area.
- Prepare the soil with Soil Mix which is 50% Cotton Burr Compost & 50% Topsoil.
- Add a 3" layer of Expanded Shale for heavy clay soils.
- Plants should be planted with the top of their root system level or slightly higher than the surrounding soil.
- Backfill the hole with Soil Mix.
- For vegetable gardens, add Activate & Soil Mender Yum Yum Mix to the hole or on top.
- Pack the soil firmly around the root ball to eliminate air pockets.
- Slowly water the plants immediately after planting until the soil is saturated. Later in the day, water a second time using Fertilome Root Stimulator on trees, shrubs, and perennial plants to stimulate root growth.

Note: Adding mulch to the prepared area will allow the area to not only add curb appeal but will hold moisture in the heat of the summer.

\*All of these products can be found at Panhandle Greenhouses.

# **Raised Bed Recommendations**

## **Standard Raised Bed**

4' x 8' x 1'

8- Raised Bed Mix (Top Layer)

1-Wheatstraw Bale (Middle Layer 2" Slabs)

6-Enriched Mulch (Bottom Layer)

Weed Barrier 6'X10' (Lay on the ground)