



## **University of New Mexico Environmental Services Soil Preparation Standards**

Proper preparation of the soil prior to the installation of any landscape components is critical to the sustainability and survivability of the plant materials. Ignoring or minimizing soil preparation will quickly outpace any initial cost savings from insufficient soil preparation practices. Improper soil preparation increases long-term water usage, fertilizer cost, pesticide cost and labor maintenance costs.

The following guidelines are the minimum requirements for soil preparation for any landscape project on the Universities Campus.

1. Prior to the installation of any landscape material or any irrigation system components, proper soil preparation must be performed.
2. Compaction reduction will occur throughout all landscaped areas to a depth of 14-24 inches.
3. Compaction reduction can be accomplished through roto-tilling, disking or ripping. In the case of small planter areas, the soil may need to be removed and reinstalled loosely to obtain required compaction reduction. Compaction levels in landscaped areas shall not exceed 80%.
4. After initial compaction reduction procedures are performed, soil amendments will be added. Soil amendments may include, inorganic material such as sand, silt or clay, which help improve soil texture. Organic material such as compost will be used to improve soil structure. Other amendments such as fertilizer improve nutrient content and sulfur adjusts the soil PH level. Sulfur shall be incorporated at the rate of one pound of flaked sulfur per 100 square feet. All amendments should be mixed thoroughly with existing soil. The ideal soil mix would be approximately 45% sand, 40% silt, 10% clay and 5% organic material with a PH level near seven.
5. All amendments will be mixed thoroughly with existing soil to a depth of 14-24 inches.
6. During the remainder of the landscape installation, various areas of the site may be re-compacted due to the use of equipment and vehicles. This compaction is typically limited to the upper 4-6" of the soil. Prior to the installation of plant material in these areas, the compaction shall be reduced to 80% or less using previously described methods.