



## Compost to improve soil

Southern Nevada gardeners face many challenges. In addition to the lack of water, intense sunlight, fierce winds and baking temperatures, many problems can be traced back to the soils that we must use in our landscapes.

All around the country there are places with difficult growing conditions such as poor drainage, or rocky soils, or excessively sandy soils, but very few have all of them, and often in very close proximity!

We only grow a relatively limited number of desert plants in our home landscapes, although our wild lands really demonstrate how well adapted desert plants must be to survive and grow here. They are the plants growing in dry, windy, bright heat. They can also deal with our highly alkaline soils, which interfere with plants' uptake and utilization of iron, zinc and manganese, all essential nutrients. Desert natives can tolerate boron levels so high that they can damage other, non-adapted plants. Desert plants grow despite extremely low fertility levels and often do so by growing slowly, which is not what home gardeners generally want.

Many popular landscape and food plants do not thrive under harsh Mojave conditions. In fact, many of them suffer. While irrigation and fertilizers can help with their survival, more is necessary in order to improve overall growing conditions. To help these plants thrive, a gardener needs to improve the growing environment. A gardener needs to make the soil a more hospitable place for our landscape and garden plants. Planning a fall garden should include planning to improve the soil.

What exactly does that mean? Make the soil more fertile and make it easier for roots to penetrate and grow.

It usually means adding organic matter – compost. A “good” garden soil is approximately 5% organic matter. Southern Nevada soils frequently have less than 0.1%. Organic matter, compost, is a rich source of nutrients that gradually become available to a growing plant. The material itself helps condition soil, so that it drains excess water and allows roots to grow through it. It also helps to lower the pH, making several minerals more available for proper growth and development.

There are many variations on organic matter – from bat guano to soil conditioners purchased from a nursery or garden center. A gardener can compost grass clippings, coffee grounds, leftover salad and shredded newspaper, but the process takes a few months.

Whatever the source of compost, incorporating it into the soil before planting will make a great difference. Mix it with the existing soil into the planting bed or hole.

If plants are already established, there are two ways of using compost that will not damage roots. One is to make a slurry – mix it in water and pour that on the soil around the plants. Another is to apply the compost to the soil surface and cover with mulch. As the plants are watered, parts of the compost leach gradually into the root zone.



*Community member loads free mulch  
at the Research Center &  
Demonstration Orchard*

No matter how it is used, compost will help our landscape plants survive our challenging environment.

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