



Improving Soil

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Overview

Fixing Soil Structure

Fertilization

Mulch

Clay Soils

Need to loosen soil

Need to allow drainage

Clay Soils

Compost

Compost

More Compost

Expanded Shale

Perlite / Vermiculite

Sandy Soils

Need to tighten soil

Need to hold moisture

Sandy Soils

Compost

Compost

More Compost

Other Organic material

Compost

Make or Buy?

Cost

\$95-\$100 per cubic yard + delivery

\$155-\$160 per cubic yard if bagged

Precautions

- Consider tetanus booster.
- Cover cuts / wounds.
- Wear gloves



- Sprinkle compost with water before handling
- Mold allergy? Wear a good quality mask.
- Scrub hands

Making Compost

- Most often written by authors who do not live in the desert. Sometimes their advice is not appropriate for desert dwellers.
- Big Country Master Gardeners on YouTube
- https://www.youtube.com/watch?v=1z9ykx9EoJY

Be Aware

- Broadleaf herbicides in animal feed will pass thru animals still intact. The herbicide in manures or on plants will persist thru the composting process. This has been called "killer compost".
- It takes 3 years to biodegrade in the environment.
- Broadleaf herbicides: Imprelis, Picrolam, Aminopyralid, Clopyralid

See summary information at nmcomposters.org - at bottom of the home page.

Hot Composting

 Process: 3 - 6 months depending on management.

Often organized in a 2 - 3 bin system.

 A cold curing phase for 2 - 4 weeks after the hot.

Pile will decrease to about ½ original volume

Bins for desert composting:







Cover the top of bin.

Soil amending with compost

Topical application, mulch after

Digging in

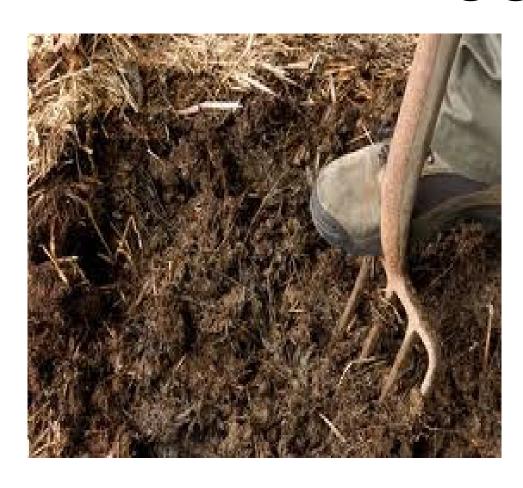
Compost plugs

Compost tea

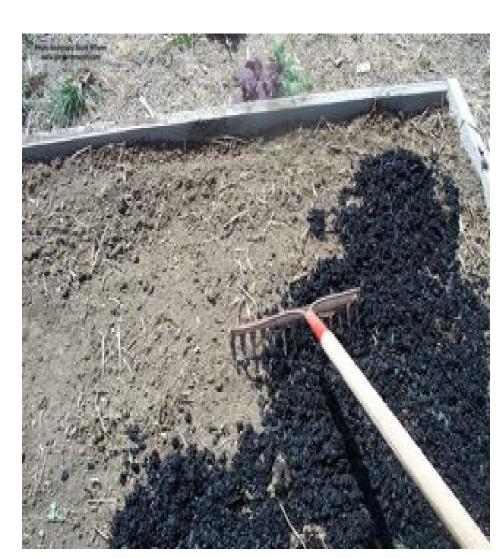




Amending garden soil



1 cu. ft. of compost will cover 12 sq. ft. to a depth of 1"



Fertilization

Organic or non-organic?

Based on Soil Test results

Compost is about a 1-1-1 fertilizer per inch

Fertilization

- Numbers listed on bag is % by weight
- Thus a 50 lb bag of 10-10-10 fertilizer contains:
 - 5 lbs of Nitrogen
 - 5 lbs of Phosphorus
 - 5 lbs of Potassium

Always follow directions on the product

Fertilization

- Say a 4,000 sqft lawn results say it needs:
 - 10# of nitrogen/1,000sqft
 - 0# of Phosphorus/1,000sqft
 - 1# of Potassium/1,000sqft
- Using a 28-0-3 fertilizer (40# bags)
 - 0.28*40 = 11.2 # of Nitrogen / bag
 - 0.03*40 = 1.2# of Potassium / bag

Fertilization Calculators

http://soiltesting.tamu.edu/webpages/calculator.html

Mulch

Organic or in-organic?

Chipped or Shredded

Type of wood

4"-6" deep

Mulch

Break down into plant nutrients

Increases water absorbing capacity

Increases water holding capacity

Reduces water evaporation

Mulch

Reduces erosion

Helps control weeds

Moderates soil temperature

QUESTIONS?

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Big Country Master Gardeners on Facebook Big Country Master Gardeners on YouTube



