

GARDEN SPOT NURSERY

Fun with Compost

Succulents are excellent plants for the beginning gardener or houseplant enthusiast. Many can be indoor-outdoor plants, making planter design attractive and versatile. A popular design style has emerged which uses a smaller pot within the main planter to create an illusion of a second design. This style can be utilized in many ways to reuse broken or vintage materials, create a wall hanging or table display.

What is Soil?

- There are rock components, organic components, and biological components
- Soil organisms break down rocks and organic waste
- Nutrients are trapped in the bodies of soil microbes
- An active soil food web includes predators which will eat fungi and bacteria
- The waste from these predators includes nutrients that are now accessible to plants

Soil Food Web Allies

Shredders

- Pill Bugs
- Millipedes
- Beetles
- Earwigs

Decomposers

- Bacteria
- Fungi

Predators

- Centipedes
- Spiders
- Lady Bugs
- Green Lacewings

Soil Predators

- Protozoa
- Earthworms
- Nematodes

How Do Plants Eat?

- Plants photosynthesize and produce sugars
- They push sugars out of their roots
- Bacteria and fungi eat root sugars
- Predators deposit nutrients close to plant roots

How are Chemicals Affecting our Plants and Soil?

- Inorganic fertilizers are salts that dehydrate microbes
- Plants need 17 different nutrients
- A blast of three nutrients creates watery, unhealthy growth
- Pests love unhealthy plants
- Pesticides kill pests and their predators
- The only solution is more fertilizers and pesticides

Succession – Bacterially Dominated Soils vs. Fungally Dominated Soils

- Weedy annual plants make temporary associations with bacteria
- Trees and shrubs make permanent associations with fungi
- Annuals need nitrogen in NO_3 form
- Trees and shrubs need nitrogen in NH_4 form

Weeds – They’re Just

Trying to Help!

- Dandelions – too acidic
- Morning Glory – hardpan
- Buttercup – too clay
- Horsetail – too wet
- Chicory – too dry

Mulching

- Great way to suppress weeds
- Keep optimum moisture levels
- Feeds soil food web and keeps organisms moving, aerating the soil, and depositing nutrients

Composting

- The right mix of air, water, greens and browns
- Cut things into small pieces to break down faster
- 1:1 ratio of greens to browns
- Greens: grass clippings, plant waste, food scraps
- Browns: sticks, wood chips, dry leaves

Hot Compost

- Great for large amounts of yard waste all at once
- Labor intensive
- Quickly produces large amounts of high quality compost

Cold Compost

- You can constantly add to the pile
- Low labor
- Slow process, weeds and pathogens might still be present

Worm Compost

- You can constantly add food scraps
- Highest quality compost
- Great for small spaces
- Low labor
- No yard waste
- Difficult to harvest

Compost Tea

- Easy to brew
- Easy to spread
- Excellent for disease prevention and fast feeding
- Fast way to inoculate poor soil with beneficial microbes