episode three: Journey to the Center of the Dirt

Billy, Owen and Dirtrude (their rubber chicken) accidentally slip into an underground world in this episode, and see firsthand what’s really doing on in that mysterious realm. Soil is alive with living organisms, organic matter, minerals, air space, and the occasional bizarre creature. The Garden Wise Guys demonstrate how knowing your soil type can lead you to better plant choices and more efficient irrigation practices. While looking for their lost chicken, Billy encounters Ed France and learns about composting, worm boxes and how nutrients can be added to the soil with homemade fertilizers. All of the great tips in this episode will enable you to manage your soil at home for maximum results. And, yes, the boys and Dirtrude make it home safely.

Key concepts

1. Learn about your soil

- Clay soil holds water longer, but needs to be watered gradually since it absorbs slowly.
- Sandy soil drains quickly, and will need to be watered more frequently and stay well mulched
- Loam Soil is ideal, a mixture of both clay and sand that is high in organic matter.

Top soil: the top 18 inches, contains living organisms, roots, nutrients, mulch etc. This is where most of the water is needed.

Humus is the key to hearty plants. It is created by organisms in the soil and helps to open up pore space and in heavy clay soils for better water absorption and air circulation.

Mycorrhizal fungi forms a symbiotic relationship with the roots of certain plants that help the plants better absorb nutrients and water.
2. Start Composting

(Now! You can finish that snack later. Go!) The easiest approach to composting is to simply maintain a pile in an out-of-the-way part of your yard. Heap trimmings, leaves, some types of food waste etc. and let it break down slowly. Or, create a good mix of food waste and green waste. Keep the pile moist and turn it often for rapid results. Vermicomposting involves using red worms in a container to convert your fruit and vegetable peelings into a nitrogen-rich compost product that is perfect for house plants and planter-boxes and reduces trash in landfills.

For more information on composting:
http://www.compostguide.com/
http://www.howtocompost.org/default.asp

3. Mulch!

Bare soil dries out quickly and is an invitation to weeds. Using mulch:

- Increases the soil's organic content - That's GOOD!
- Reduces water usage by minimizing evaporation
- Controls soil erosion
- Suppresses weed growth
- Provides nutrients
- Builds vigorous root structures.
- Reduces waste in landfills

Use leaf litter as mulch. Autumn leaves can be removed from lawns and flower beds and used as mulch under shrubs and larger plants.

Mulching mowers are designed to grind up lawn clippings and scatter them back on the lawn. The clippings degrade quickly and return nutrients to the soil.
Cathie’s Irrigation Tip

Adjust water schedules to accommodate the root zones of different plants.

- Lawns have broad shallow roots and drown when over watered. Give brief but frequent water applications.
- Shrubs and trees have deeper roots and need deep, less frequent soaks.

For more information visit the following websites:
http://www.greendifference.org/Default.htm
http://www.santabarbaraca.gov/SolidWaste/
http://www.lessismore.org/