

### **OUR MISSION STATEMENT:**

To provide technical resource information and methods of land use to private land owners and to promote and support the stewardship of natural resources.



# COMPOSTING

Nature's way of recycling, called "composting" is the natural process of organic matter being decomposed by microbes. Organic materials (such as leaves, grass trimmings, and vegetable food waste) can be broken down to produce a nutrient-rich amendment to soil which improves fertility for plants. In fact, plants can thrive on no additional fertilizer if there is a consistent source of compost available.

Today in the United States, yard waste and plantbased food scraps make up more than 28% of what goes into our trash. Backyard composting can help keep waste out of the landfill (saving trips to the landfill also reduces the use of fossil fuels and helps improve air quality) while providing us with a free source of amendments for your garden and house plants.

## Three Basic Types of Composting:

- Aerobic uses oxygen and bacteria to replicate natural decomposition.
- Anaerobic uses no oxygen in decomposition and usually takes place over years.
- Vermicomposting can be used for composting food waste. It simulates a natural ecosystem where decomposition takes place by worm and bacterial activity.

Here in the Discovery Garden composting has been taking place since 2018. Partnering with volunteers from a nearby church, we actively build and turn compost piles to produce nutrient-rich soil which we add to vegetable and flower beds throughout the year. The Garden utilizes a multibin system where one bin is filled with all fresh compost ingredients then watered periodically and left to decompose. The second bin has contents that were started several weeks prior and are further along in the decomposition process. Once that bin has fully decomposed, it gets moved one more time into a third bin where it is ready to be integrated into the garden. (Note: compost piles, when handled properly, do not smell bad.) By using compost, we have no need for chemical fertilizers or other amendments. The use of compost helps establish and maintain a healthy ecosystem in our garden by feeding micro-organisms which in turn feed food and flower producing plants. In the hoop house we are utilizing vermicomposting.

Many people use the terms dirt, soil, and compost interchangeably. But there is a difference!

Dirt is dead; it is made up of sand, silt, and clay and sometimes rocks. It has no nutrients or living organisms. Needless to say, planting a garden in dirt is not going to be very productive.



Soil is alive with living organisms such as worms, insects, and microbiology. Soil supports life and can produce healthy and productive plants, though sometimes soil can become depleted in one nutrient or another, or it may be heavy in some element that is not ideal for growing



Compost is a mix of decayed and decaying organic materials such as vegetable food scraps, grass clippings, tree limbs, leaves and twigs. These items break down into compost - or rich soil which is used to refresh depleted soil or balance and enhance existing soil.



Healthy, robust soil is teeming with rich microorganisms, insects, and worms and is a vital key to growing healthy plants that are disease free and drought tolerant. Utilizing compost is a building block to developing healthy soil and making compost in your own yard not only gives you free fertilizer, but also helps your plants grow and keeps unnecessary waste out of the landfill.

# RESOURCES

#### **WEBSITES TO REFERENCE**

Types of Composting:

https://www.youtube.com/watch?v=eO4HdrIXnVU

How to Start Your Own Composting:

https://www.finegardening.com/collection/everything-you-need-to-know-about-composting

https://www.epa.gov/recycle/composting-home#basics

How to Build a Compost Bin:

https://www.tenthacrefarm.com/building-the-right-compost-bin/

#### **VIDEOS TO REFERENCE**

How to start and maintain your own composting:

https://www.youtube.com/watch?v=wJ0qDEBwkZE

https://www.youtube.com/watch?v=KyAKrvxx8x0

https://www.youtube.com/watch?v=aN6jXUkGbAw

How to build a compost bin:

https://www.google.com/search?q=how%20to%20build%20a%20compost%

20bin&cad=h#kpvalbx= deeRX 6yFuLMytMPu4m6wA019

https://www.youtube.com/watch?v=XxT-rWMalqM

#### LIBRARY TITLES FROM THE MCPLD COLLECTION

- 1) Composting by Bob Flowerdew
- 2) Composting by Liz Ball
- 3) Composting for a new generation: latest techniques for the bin and beyond
- 4) Let it rot!: the gardener's guide to composting
- 5) Composting: nature's recyclers
- 6) Composting: expert advice made easy
- 7) Composting basics: all the skills and tools you need to get started
- 8) The complete idiot's guide to composting

### CHILDREN'S TITLES FROM THE MCPLD COLLECTION

- 1) Garbage helps our garden grow: a compost story
- 2) Compost stew: an A to Z recipe for the earth
- 3) Garden wigglers: earthworms in your backyard
- 4) Charlie's dirt day
- 5) Leaf litter critters
- 6) E-I-E-I-O by Judy Sierra

To Learn more about the Mesa Conservation District & the Discovery Garden, please visit MesaCD.com



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