SUSTAINING WAY

COMPOSTING & SOIL

COMPOST IS ORGANIC MATERIAL THAT CAN BE ADDED TO SOIL TO IMPROVE SOIL'S QUALITY AND HELP PLANTS GROW.

3 BASIC INGREDIENTS

1. **BROWNS**: carbon-rich materials, such as dead leaves, branches, and twigs.
2. **GREENS**: nitrogen-rich materials, such as grass clippings, vegetable waste, fruit scraps, and coffee grounds.
3. **WATER**: keep compost moist to help break down the organic matter

WHAT TO COMPOST

- Fruits and vegetables
- Eggshells
- Coffee grounds and filters
- Tea bags
- Nut shells
- Shredded newspaper
- Cardboard
- Paper
- Yard trimmings
- Dryer and vacuum cleaner lint
- Hay and straw
- Leaves
- Sawdust
- Wood chips
- Cotton and Wool Rag
- Hair and fur
- Fireplace ashes
- Houseplants
- Grass clippings

WHAT NOT TO COMPOST

- Black walnut tree leaves or twigs
- Coal or charcoal ash—
- Dairy products (e.g., butter, milk, sour cream, yogurt) and eggs
- Diseased or insect-ridden plants
- Fats, grease, lard, or oils
- Meat or fish bones and scraps
- Pet wastes (e.g., dog or cat feces, soiled cat litter)
- Yard trimmings treated with chemical pesticides

Source: https://www.epa.gov/recycle/composting-home

COMPOSTING AT HOME

BACKYARD COMPOSTING

- Select a dry, shady spot near a water source for your compost pile or bin.
- Add brown and green materials as they are collected, making sure larger pieces are chopped or shredded.
- Moisten dry materials as they are added.
- Once your compost pile is established, mix grass clippings and green waste into the pile and bury fruit and vegetable waste under 10 inches of compost material.

INDOOR COMPOSTING

- A closed-composting system will work best for indoors.
- A properly managed indoor compost bin will not attract pests or rodents and will not smell bad. Your compost should be ready in two to five weeks.

Source: https://www.epa.gov/recycle/composting-home

PRIMARY MACRONUTRIENTS USED BY PLANTS

NPK

NITROGEN(N): plant development
PHOSPHORUS (P): root development
POTASSIUM (K): resistance to disease

NITROGEN (N)

Found in chlorophyll, nucleic acids and amino acids; component of protein and enzymes.

PHOSPHORUS (P)

An essential component of DNA, RNA, and phospholipids, which play critical roles in cell membranes; also plays a major role in the energy system (ATP) of plants.

POTASSIUM (K)

Plays a major role in the metabolism of the plant, and is involved in photosynthesis, drought tolerance, improved winter hardiness and protein synthesis.

Source: https://nrcca.cals.cornell.edu/soilFertilityCA/CA1/CA1_print.html

SOIL LOW IN NITROGEN

Action: plant a nitrogen-fixing crop, such as a legume (e.g., beans, peanuts, peas, white clover)

Note: if planting an edible crop (e.g., peanuts) consider green mulching after harvesting. This involves placing the crop on the ground and letting it decompose. No more work required.

SOIL LOW IN PHOSPHORUS

Action: use animal manures; e.g., chicken, pig, horse

Note: Bury it in the ground and wait at least 120 days before planting in the area. Avoid planting vegetables planned to be eaten raw in areas where pig manure is placed.

SOIL LOW IN POTASSIUM

Action: Make a fertilizer or compost tea from banana, leafy greens (cooked from fresh) onions, potato, sweet potato.

BENEFITS

- Enriches soil, helping retain moisture and suppress plant diseases and pests.
- Reduces the need for chemical fertilizers.
- Encourages the production of beneficial bacteria and fungi that break down organic matter to create humus, a rich nutrient-filled material.
- Reduces methane emissions from landfills and lowers your carbon footprint.

Source: