Organic Waste Management Guide - Complete Composting Manual

UNDERSTANDING ORGANIC WASTE

Organic waste comprises biodegradable materials from plant and animal sources. This includes food scraps, yard waste, paper products, and other naturally decomposing materials. Effective organic waste management reduces methane emissions from landfills and creates valuable compost for soil enrichment.

COMPOSTING METHODS AND TECHNIQUES

BACKYARD COMPOSTING: Simple pile or bin system for home use. VERMICOMPOSTING: Using worms to break down organic matter. COMMUNITY COMPOSTING: Large-scale facilities serving multiple households. INDUSTRIAL COMPOSTING: Commercial operations processing tons of organic waste daily.

STEP-BY-STEP COMPOSTING PROCESS

1. SELECT LOCATION: Choose well-drained, accessible area. 2. BUILD STRUCTURE: Use bins, piles, or tumblers. 3. ADD MATERIALS: Layer greens and browns alternately. 4. MAINTAIN CONDITIONS: Keep moist and aerated. 5. TURN REGULARLY: Mix every 1-2 weeks. 6. HARVEST: Collect finished compost after 2-6 months.

GREEN VS BROWN MATERIALS BALANCE

GREEN MATERIALS (Nitrogen-rich): Fruit/vegetable scraps, coffee grounds, fresh grass clippings, manure. BROWN MATERIALS (Carbon-rich): Dry leaves, straw, cardboard, newspaper. IDEAL RATIO: 50% green to 50% brown materials. MONITOR: Adjust based on compost smell and appearance.

COMPOSTING ENVIRONMENTAL BENEFITS

• Reduces methane emissions by 70-90% compared to landfilling • Creates nutrient-rich soil amendment • Decreases reliance on chemical fertilizers • Improves soil structure and water retention • Supports sustainable agriculture • Reduces waste volume significantly

TROUBLESHOOTING COMMON ISSUES

BAD ODOR: Add more brown materials and turn pile. SLOW DECOMPOSITION: Increase moisture and aeration. PEST ATTRACTION: Bury food scraps and use proper bin. TOO DRY: Add water and mix thoroughly. TOO WET: Add brown materials and turn pile.

IMPLEMENTATION IN ESTATES

COLLECTION SYSTEMS: Designated organic waste bins. PROCESSING FACILITIES: On-site or community composting. RESIDENT EDUCATION: Training on what can be composted. QUALITY CONTROL: Monitoring compost quality. END USE: Gardens, landscaping, agriculture.