



# Making Natural Fertilizer from Organic Waste

Presented by Shelter International e.V.



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# Balcony Composting

## Essential Equipment

01 A **20-liter bucket** is crucial for compost collection.

02 A **hand drill** creates ventilation holes for aeration.

03 A **tray** catches the liquid for easy disposal.



# Green Materials

## Fresh Kitchen Scraps

Incorporating Nitrogen-Rich **fresh fruit and vegetable scraps** into your compost adds vital nitrogen, promoting decomposition and enriching your compost with essential nutrients for healthier plants.

Fresh fruit and vegetable scraps  
Coffee grounds and filters  
Fresh grass clippings (if available)  
Tea bags and leaves  
Fresh plant trimmings  
Ratio: 30% of total volume



# Brown Materials

## Carbon-Rich Ingredients

Incorporating **carbon-rich ingredients** is essential for successful composting. Dry leaves and shredded paper provide the necessary structure and balance for effective decomposition in your balcony compost.

Dry leaves (collect in autumn)  
Shredded paper and cardboard  
Paper towels and napkins  
Cardboard egg cartons (torn up)  
Dry plant stems  
Ratio: 70% of total volume



# Key Elements of Layering System

1. Start with 10cm layer of brown materials
2. Add 5cm layer of green materials
3. Sprinkle handful of soil or finished compost (adds microorganisms)
4. Add small amount of water if dry
5. Repeat layers until bucket full
6. Cover with brown materials to reduce odors



## Brown Layer

Start with a **10cm** layer of brown materials.



## Green Layer

Add a **5cm** layer of green materials next.



## Sprinkle Soil

Top with a handful of soil to introduce microbes.

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# Maintenance Schedule

**Daily**



Add kitchen scraps daily, incorporating browns for balanced compost.

**Weekly**



Stir contents gently each week to promote aeration and decomposition.

**Bi-Weekly**



Check moisture levels every two weeks, ensuring they feel like a wrung-out sponge.

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# Common Composting Issues

Solutions for a successful compost

## Bad Smell

A bad smell typically indicates excess moisture or too many green materials. To remedy this, add dry browns and aerate the compost to improve airflow and balance.

## No Decomposition

If compost is not decomposing, it may be too dry. Gradually add water while mixing to reach the right moisture level, ensuring a healthy composting process.

## Fruit Flies

Fruit flies can be a nuisance in compost bins. Cover fresh greens with browns to deter them and ensure the lid fits securely to minimize access for flies.

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# Odor Control Tips

To prevent odors in your compost, regularly add a balanced mix of greens and browns, cover fresh scraps with browns, and maintain moisture levels. Ensure proper aeration by turning the pile to promote decomposition and keep pests at bay.



# Liquid Fertilizers

## Weed and Plant Fertilizer:

Ferment dandelions/nasturtiums for 2-3 weeks

1. Collect dandelions, nettles, comfrey, grass clippings
2. Chop finely and pack in bucket
3. Cover with water, weigh down with stone
4. Stir daily, ferment 2-3 weeks
5. Strain and dilute 1:10-1:20 before use
6. Very high in nitrogen

## Basic Compost Tea:

1. Fill container 1/3 with finished compost
2. Add water to fill container
3. Stir daily for 3-5 days
4. Strain liquid through cloth
5. Dilute 1:10 for use
6. Apply to soil around plants

## Coffee Ground Fertilizer:

1. Mix used coffee grounds with water (1:5 ratio)
2. Let steep 24-48 hours
3. Strain liquid
4. Use undiluted for acid-loving plants
5. Or dilute 1:1 for general use
6. Provides nitrogen and slight acidity

## Banana Peel Potassium Fertilizer:

1. Save banana peels for 1 week in freezer
2. Boil peels in water for 15 minutes
3. Let cool, blend peels with cooking water
4. Strain liquid
5. Dilute 1:5 for potassium-rich fertilizer
6. Excellent for flowering and fruiting plants

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# Eggshell Fertilizer

Boost your plants' calcium levels

## Calcium Source

Crushed eggshells provide an excellent **source of calcium**, essential for strong plant cell walls and preventing blossom end rot, especially in tomatoes and peppers.

## Preparation Method

To prepare, simply rinse the eggshells, **dry thoroughly**, and crush them into a fine powder. Soak the powder in water for 24 hours before applying to soil.

## Application Tips

Incorporate the liquid eggshell fertilizer into your **watering routine** to ensure that calcium reaches the roots effectively. Use it every few weeks for optimal results.

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# Animal Manure Use

## CHICKEN MANURE

Nutrient-rich source



## COW MANURE

Well-balanced nutrients



## RABBIT MANURE

High nitrogen content



# Animal Manure Safety

## Composting Essential

Composting animal manure is crucial for reducing pathogens and ensuring safety for plants and human health.

## Dangerous Types

Avoid using fresh manure from pets or pigs, as they pose disease risks and can harm your garden.

## Important Safety Notes:

- Never use fresh manure directly on plants
- Always compost manure before use
- Avoid cat, dog, or pig manure (disease risk)
- Wait 120 days after application before harvesting root crops
- Wash all vegetables thoroughly before eating

# Composting Animal Manure

## Materials Ratios:

- 1 part fresh manure
- 3 parts carbon materials (straw, leaves, paper)
- Proper moisture (50-60%)

## Process:

1. Layer manure with carbon materials
2. Build pile 1-1.5m high for proper heating
3. Monitor temperature (should reach 55-65°C)
4. Turn pile every 2 weeks
5. Compost ready in 3-6 months when dark, crumbly, earthy smell
6. Use as soil amendment: 1:3 ratio with regular potting mix



[Watch video on YouTube](#)

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# Using Manure for Healthy Plants



## Nutrient Source

Composted manure enriches soil with essential nutrients.



## Soil Amendment

Mix manure in a 1:3 ratio with potting mix.



## Healthy Growth

Plants flourish with the right balance of nutrients.

# Liquid Manure Fertilizer

Creating a potent **liquid manure fertilizer** involves mixing aged manure with green leaves and other organic materials. This nutrient-rich concoction, when properly fermented, supports plant growth while ensuring safety for your garden ecosystem. Follow the recipe closely for best results.



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# Liquid Manure Fertilizer (Safe Method)

## Complete Method (Best Results):

3 pails fresh green leaves (nitrogen source)  
1 pail aged animal manure (6+ months old)  
1 pail wood ash  
1 pail maize husks or straw (carbon)  
Local beer or yeast solution (fermentation starter)

## Instructions:

1. Mix all solid materials in large container
  2. Add water until 3/4 full
  3. Add fermentation starter
  4. Cover (not airtight - allow gas escape)
  5. Stir daily for first week
  6. Continue weekly stirring for 3 weeks
  7. Strain liquid before use
  8. Dilute 1:1 or 1:2 depending on strength
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# Lets create OWN fertilisers!

Start your balcony composting journey  
and grow healthier plants sustainably!



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