

Which materials should be used?

The more diverse and fresh the material the better the compost quality. If you don't have all material groups compost making is still possible but the dry/moist situation as well as aeration will need extra attention.

Brown input material group:

Straw, woodchips, dry materials

Green input material group:

Fresh leaves, grasses, crop residuals, food/fruit waste !!! No municipal waste, slurry or meat !!!

Manure input material group:

Cow, chicken, sheep or horse manure
!!! No pig manure !!!

Conditioning input material group:

Old compost, clay, trace elements, minerals, suitable aerobe microbes

At which ratio should the material groups be used?

The ideal composition ratio would be:

Brown/dry materials: 40%

Manures materials: 20%

Green/fresh materials: 30%

Conditioning materials: 10%

How to build a compost pile?

Compost is built in layers. Always start with the lightest/roughest material e.g. branches, straw, followed by green/fresh material, then manure and last a bit of conditioning material. Always put heaviest/wettest material last. Repeat this sequence until a height of about 1.25-1.5 meters is reached. During building the pile the material should be compressed by e.g. "walking" on the pile. The size should not exceed a ground width of 2-3 meters. A length of at least 4 meters would be ideal.

Depending on how wet or dry the material is, add about 50 litres of water per 1 m³ of input material between every material cycle. If available, replace some of the water with compost starter and add it 1-2 times. It should be neither soaked nor dry. (Info material on how to make compost starter is available)

When the pile is finished it needs to be covered. Depending on what is available a small layer of soil, banana/palm leaves or a breathable fabric can be used. !!! Don't use plastic !!! It will lead to anaerobic conditions and therefore the unwanted type of microorganisms.

When to turn?

After a few hours or days the pile will develop some heat. After the core temperature (in the middle of the pile) has reached 65 °C or more for 3 days it is time to turn the compost. It can be turned manually, with a wheel loader or compost turner. It is important to ensure that the inside material is now on the outside and vice versa. In case no thermometer is available a core temperature of 65 °C can be verified by putting a hand inside the compost at different places. If it is too hot to keep the hand inside longer than a few seconds, the right temperature is reached. Turn again after 2 weeks and a third time after 6 weeks.

If the compost does not develop any heat after a few days the composting has not started. Check first whether the material is too dry and add water if necessary. But be careful not to soak the compost pile!

If the moist level appears fine there are following options:

- Try to aeriate by loosening the pile, using e.g. a pitchfork
- Add manure or other microbial material into the center of the pile
- Prepare microbial material by soaking straw in a water – molasse mix (ratio of 1 L molasse: 0.5 cbm straw) and keep covered for one day. Then add straw-molasse mix to center of the pile.

When is the compost finished?

Depending on material and climate condition (cold winter would not be the right time to start with compost) the compost is finished after 8 – 12 weeks. It can be verified by monitoring the temperature, smell and texture. When the temperature has decreased to ambient conditions and the compost feels and smells earthy, the compost is ready to be used.

What else to consider?

- The minimum amount of compost that needs to be applied is 5 t/ha at least every two years. If not enough compost is available to cover all fields it is better to use it on less fields but with a sufficient amount.
- Compost can be stored, but must be protected from rain and heat.
- If applying compost is not an option consider using compost tea.