

Wanda wonders about Composting...

"Nature sure looks after its own wastes... the leaves fall to the forest floor, rot and provide nutrients for the trees to grow!"

We are all part of the environment.

We are the air that we breathe, the water that we drink and the food that we eat.

Protecting the health of our earth protects our health too!

Meet Wanda

Wanda is a curious young girl who wants to live in a way that supports the earth and all its creatures. She knows if she wants the earth to support her, she must live in a way that supports the earth. Wanda notices how nature looks after its own wastes. Nothing in nature is ever wasted. Waste for one organism is food for another.

THE NATURAL DECOMPOSITION CYCLE

Wanda has a backyard composter. Do you?

Her grandparents have always had a compost heap at the farm.

Her grandmother told her that a compost heap encourages the breakdown of organic waste such as food, manure and yard waste. Organics come from living things (plants and animals). After being composted, what was once waste becomes a rich, dark soil that can be used in the garden to grow vegetables.

Her grandfather layers food waste, yard waste, manure and soil. On occasion he turns the pile to add oxygen.

There are all sorts of bugs and worms, fungi and bacteria that eat the organic waste, digest it and create their waste which in turn makes soil. Those bugs and bacteria need oxygen to live. When the pile is not turned, it can get pretty smelly. Grandad says that if there is too much grass in the pile, it smells like ammonia and he adds brown leaves and food waste. If there is too much food waste it can smell like rotten eggs and he will turn the pile to add oxygen and he adds some wood chips to provide space for oxygen to get into the pile.

Plants love compost. It helps them grow.

Wanda knows that in her town, kitchen and yard wastes are picked up at the curb and she wonders what happens to them.



www.EARTH1st.ca



www.walkerind.com

Commit ■ Create ■ Participate

By using less natural resources, reducing the impacts we have, we are helping our Earth.

So, What Does Go On After Curbside Pickup?

THE PROCESS OF MAKING COMPOST ON A LARGE SCALE

A well-operated compost site creates an environment perfect for oxygen loving micro-organisms and an earthy, forest-floor type smell. The perfect amount of oxygen by turning, the perfect amount of moisture by adding water or liquid food wastes, the perfect mix of carbon and nitrogen materials.

air + water + organic waste + bugs + micro organisms = finished compost

The incoming wastes are immediately placed into windrows. The windrows are kept small and are turned regularly. Oxygen is added to windrows by turning the piles. Sometimes a front-end loader is used. Sometimes a special windrow turner is used. Without oxygen the pile can turn anaerobic. Anaerobic means 'without oxygen'. Without oxygen, the oxygen loving micro-organisms die. The pile then becomes populated with anaerobic bacteria. When they eat, grow and multiply they create gases that smell like rotten eggs and ammonia. If a windrow is smelly it is immediately covered with finished compost which acts as a filter, keeping the odours from travelling off-site. Like us, micro-organisms use carbon for energy. Carbon is their food. It helps them multiply. Carbon is provided from dried leaves, straw, wood, paper and bark. The micro-organisms need nitrogen to grow. Sources of nitrogen include fresh grass, fresh vegetable material and manure.



Composting encourages the Natural Decomposition Process

The organics/feedstock gets put through a big grinder, which breaks down materials, adds oxygen and speeds up the process of making compost.

Thanks to the work of bugs, bacteria and fungi, these piles heat up to over 55 degrees C.

The perfect amount of: water; oxygen; carbon (leaves, wood, straw, paper and bark); nitrogen (fresh grass, vegetable material and manure); lime, as well as cured compost; added at just the right time and just the right temperature makes compost.

It begins in your home or business by collecting your organic waste.

I wonder how a large compost site works?



The piles must be cured to allow them to stabilize and cool off!

You can improve the quality of the finished compost by using paper or biodegradable bags. Plastic bags do not breakdown.

What you can do to reduce the amount of organic waste that needs composting:

- only buy what you need
- eat everything on your plate
- eat leftovers
- don't create grass clippings, mulch them back into your lawn as you mow
- use leaves in your garden, they protect plants from the cold; they are a natural fertilizer; they help to control weed growth naturally
- mow leaves into your lawn to fertilize and control weeds, in the fall
- keep the cycle going – use compost in your garden!



Reducing organic waste

- reduces the fuel required to transport and process the waste
- reduces greenhouse gas emissions from burning the fuel used in transport and processing



www.EARTH1st.ca



www.walkerind.com

Commit • Create • Participate.

Can you think of ways to use less water, less energy, less raw materials, and create less waste? By using less natural resources, reducing the impacts we have, we are helping our Earth.

printed on Enviro100 text - 100% post-consumer recycled materials

© Walker Industries, 2010