

## USES and BENEFITS of COMPOSTING



### 1. Compost allows plants to grow healthier, stronger and bigger.

Plants that are composted have richer soil that helps them grow bigger, stronger and fuller. They can survive better in our changing climate with its increased periods of drought interspersed with heavy downpours.



### 2. Compost keeps the soil from eroding and polluting rivers and lakes.

It prevents erosion because: It absorbs more water to keep soil from running off; it causes vegetation to grow faster and thicker so soil is not lost to run off; it makes the soil less compact so water is absorbed.



### 3. Compost addresses the pressing issue of our time – eroded cropland.

During the last 40 years nearly 1/3 of the world's cropland has been abandoned because of soil erosion and degradation. Agricultural scientists are alarmed by the 99 million acres of cropland (2 billion tons of top soil a year) that is eroded and question our future ability to grow food on infertile land devoid of top soil. 3 billion tons of compost is needed to replace 1/2 inch of top soil.



### 4. Compost removes carbon dioxide from the air and stores it as organic matter in the ground.

Carbon storage in the soil lessens the climate change effects of carbon release. CO<sub>2</sub> absorbed by grasses through photosynthesis is stored in the roots and soil. Each blade of grass or leaf is like a tiny vacuum sucking carbon out of the air. The bigger the plants and plant roots, the more carbon is stored.

\*In 2008 Marin California ranchers started a carbon project. They spread 1/2 inch of compost on their grassland soil. Today 90 % of that material remains on the surface acting as a slow release fertilizer and building soil organic matter. And the underlying soil has gained a metric ton more of carbon every year than the areas nearby that were left alone. The study suggests that a single application of compost could lead to significant carbon storage for up to 30 years. If true, spreading compost on half the California range land every three decades could offset greenhouse gas emissions from all California commercial and residential use. (Source - USDA Natural Resources Conservation Service and Marin agricultural land trust)



### 5. Compost eliminates or lowers the need for fossil fuel-based pesticides and herbicides.

Less pesticide/herbicide use means less pollutants running into the rivers and lakes and less phosphate and nitrate contamination.



### 6. Compost can clean contaminated soil.

Scientists can produce compost with specially made microorganisms to consume and digest specific contaminants in soil or water and then turn them into humus, carbon dioxide and other harmless nutrients. Such engineered compost can neutralize contaminants in the soil such as petroleum products, chlorinated and nonchlorinated hydrocarbons, wood preservatives, solvents, heavy metals, pesticides and explosives.



### 7. Composting keeps food waste out of the landfill.

According to the EPA, we throw away more than 25% of the food we prepare which amounts to 96 billion pounds of food waste a year. This includes uneaten food and food preparation scraps. Fifty per cent of waste in schools is compostable.



8. Composting lessens methane production in landfills. Organic waste in landfill becomes very compacted and breaks down in the absence of oxygen (anaerobically), creating methane which is 25 times more potent than carbon dioxide in its global warming strength.

According to the EPA, only about 5 % of food scraps generated each year in the U.S. is converted to compost. The rest wastes away in landfills and decomposes in an oxygen-free environment to produce methane.



### 9. Composting lowers the mess and cost of trash disposal.

Organic waste is the heaviest and most expensive part of trash. Recycling organics can reduce the amount of trash by 30 to 40 %.

**We do not inherit the earth from our ancestors**



**We BORROW it from our CHILDREN!!!**

*-Haida Proverb*