

The Ridge to Reef Watershed Project (R2RW) is a five year (with an optional sixth year) activity contributing to the achievement of USAID/Jamaica's SO2 – "improved quality of key natural resources in areas that are both environmentally and economically significant". R2RW comprises three Components contributing to the achievement of the results under SO2. Component 1 assists targeted organizations identify and promote sustainable environmental management practices by resource users. Component 2 focuses on identifying and supporting solutions to improve the enforcement of targeted existing environmental regulations, primarily in the Great River and Rio Grande watersheds. Component 3 provides assistance to key organizations to support, coordinate, and expand watershed management efforts in Jamaica. For more information about R2RW, please contact one of the following organizations:



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# Composting



### What is Composting

The aerobic decomposition of organic compounds into a stable product called humus or organic matter.

This process is brought about by the action of microscopic organisms such as bacteria, fungi and actinomycetes. These organisms attack and break down various types of organic materials in our environment making it safer to live in.

### Stages in Composting

There are four stages involved:

#### **Stage 1**

Organisms actively break down organic material and the temperature rises to 50-55°C within 2 days.

#### **Stage 2**

The micro organism population increases and the temperature begins to rise to the maximum of 70°C.

#### **Stage 3**

Cooling begins towards the second stage and the microbial population decreases.

#### **Stage 4**

This is maturation stage when the compost is almost ready and the microbial population gradually dies off with organic material totally broken down.

### Factors Affecting Composting

1. Surface area; smaller materials decompose faster



2. Moisture content
3. Oxygen concentration
4. Temperature

### Composting Methods

#### **Either**

1. Pile
2. Stack
3. Pit

#### **Or**

1. Clothes bins; plastic (with air holes)

### Uses of Compost

1. Contains npk and is beneficial for crop production as an organic fertilizer.
2. Acts as a soil conditioner by removing toxic substances that are damaging to crop plants.
3. Convert the nutrients so that they are released gradually for plant absorption, thus reducing leaching.
4. Contains trace elements, which are essential for plant growth and development.
5. Improves soil texture and structure and increase the moisture content of the soil.
6. Composting also reduces solid waste volume by approximately 75%.

