Composting is a natural biological process, any organic material will decompose with little or no help from man. However, you can greatly decrease the time it takes the material to breakdown and also deactivate unwanted seeds in the material by building a compost pile. If you encourage the thermophiles (heat loving bacteria) to dominate your compost pile, the time it takes to break down will be decreased and the heat generated will kill weed seeds and disease-causing organisms.

**Container:** A container for a compost pile should be located on fairly level ground, preferably in the sun to facilitate heating the pile. It should be constructed of material that does not restrict air flow, such as mesh wire or louvered boards.

**Structure:** If you have lots of material to start with, try to build your pile in many layers. Alternate “green” layers of fresh vegetable matter with “dry” layers of weathered material; “absorbent” layers with “wet” layers. In order to ensure aerobic decomposition, it is a good idea to drive vent stacks into the center of the pile; these can be bundles of cornstalks, perforated pipe, or tubes of wire mesh.

Almost any organic matter can be composted. Since the decomposition of the material is a surface area phenomenon, the material should be reduced to as small as particles as possible. Running the material through a “chipper-shredder” is ideal. However, if one is not available, yard waste can be spread on the ground and run through a rotary lawn mower several times. Kitchen wastes can be chopped up in a food processor. Large or bulky material can be chopped with a machete. The ideal carbon to nitrogen ratio for a compost pile is around 25/1. If it is much higher than this, the decomposition will be very slow, and nitrogen should be added in some form. In general, materials that are not green, such as sawdust, straw, and dried leaves will need a nitrogen addition. Good sources of nitrogen are manure, fertilizer, meat scraps, and bone meal. Adding two to three pounds of nitrogen supplement to every one hundred pounds of highly carbonaceous raw material will usually bring the C/N ratio down to within a reasonable range.

**Moisture:** Water content is fairly critical, if it is much higher than 60% you run the risk of having an anaerobic pile, if it is much lower than 40% organic matter will not decompose rapidly enough. The pile should always have the consistency of a “wring-out sponge.” Foul odors are a sign that there is too much water and anaerobic conditions exist. Ants swarming the pile are a symptom of too little water.

**Turning:** Turning the pile greatly decreases the decomposition time. To maintain a thermophilic pile it should be turned every three to four days, or when the temperature drops below 104 degrees Fahrenheit. However, if you are satisfied with a mesophilic pile, it can be turned as infrequently as every six weeks.