

E. MULCH APPLICATION

1. In applying mulch, begin with the following:
 - a) What do I want to achieve by mulching?
 - Weed control
 - Moisture retention
 - Soil improvement
 - Aesthetic
 - b) How large is the area to be mulched?
 - c) What is the volume of mulch that I will need?

Mulch is measured in cubic feet (ft³) or cubic meter (m³). For example if you have an area 10 x 10 ft and you wish to apply 2 inches (depth) of mulch, you would need 16.6 ft³.

Usually, the recommended mulching depth, depending on the materials selected is 2 to 2.5 inches. At this depth, most mulches will accommodate the primary objectives of weed control, soil moisture conservation and temperature modification.

2. Determine what material to use in order to accumulate what you need, depending on the availability of mulch materials in the area.

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MULCHING



Environmental and Productivity Management of Marginal Soils (EPMMA)

A Technical Cooperation Project
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Water Management and the Japan
International Cooperation Agency



A. DEFINITIONS

Mulching is one of the simplest and most beneficial practice that can be used in the farm. Mulch is simply a protective layer of material that is spread on top of the soil.



B. BENEFIT THAT CAN BE DERIVED FROM MULCH

1. Protects the soil from erosion.
2. Reduces compaction from the impact of raindrops.
3. Conserves moisture, thus, reducing the need for frequent watering.
4. Maintains a more even soil temperature.
5. Prevents weed growth.

Mulches can either be used in the farm, backyard or in the garden. It can either be organic—such as grass clippings, straws, crop residues, bark chips and similar materials—or inorganic—such as bark chips, stones and plastic (usually used in backyard or garden).

Organic mulches improve the condition of the soil. As these mulches slowly decompose, they provide organic matter which loosen the soil. This improves root growth, increases infiltration of water and improves water holding capacity of the soil. Organic matter is a source of plant nutrients which provides an ideal environment for beneficial soil organism.

While inorganic mulches have their place in certain landscapes and because of their permanence, they are usually used in garden. Therefore, this tip sheet is limited to the use of organic mulches.

C. EFFECTS OF ORGANIC MULCHES

1. Organic mulches, derived from plant materials decomposed in time, enrich and improve the soil.
2. It will increase aeration of silt or clay loam soil and added water holding capacity of sandy loam soil.
3. It improves and stabilizes soil structure by reducing compaction.
4. The pH of soil (acidity or alkalinity) can be changed depending on the mulch selected. Most composts will be slightly alkaline (pH >7) and excellent for use in acidic region.
5. Organic mulch contain both major and minor essential elements for plant growth but should not be considered as substitutes for fertilizer.

D. WHEN TO APPLY MULCH

Time of application depends on what you want to achieve by mulching. Mulches, by providing an insulating barrier between the soil and air, moderate the soil temperature. A mulched soil in summer will be cooler than an adjacent unmulched soil. It is better to apply mulch until the soil has warmed up completely.



Some recommended mulch materials: crop residues, leaves, grass clippings