



## Importance of Mulching in Agriculture

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A mulch is a layer of material applied to the surface of soil. Reasons for applying mulch include conservation of soil moisture, improving fertility and health of the soil, reducing weed growth and enhancing the visual appeal of the area.

### Benefits of Mulching

#### 1. Conserves Soil Moisture

Mulching reduces the evaporation of water from soil and thereby conserves Soil moisture. Altogether it ultimately saves your valuable irrigation water by reducing Irrigation frequency.

#### 2. Controls the growth of Weed

Mulch prevents the sunlight from directly reaching the soil and therefore checks weed growth.

#### 3. Maintains favorable root zone temperature

The cover upon the soil acts as an insulator which maintains the favorable root temperature. So, it helps to increase the soil microbial activity by regulating temperature. In fact, it slightly increases the temperature during cold days and reduces the same during hot days.

#### 4. Prevents soil Erosion

The protective cover also prevents the harmful impact of direct raindrops on bare soil and hence helps in reducing soil erosion.

#### 5. Improves soil structure

Mulch improves soil structure by reducing unwanted soil compaction by weed growth and other physical forces. Moreover, organic mulch adds organic matter to soil which increases aeration and water holding capacity of soil.



## 6. Prevents soil borne diseases

The mulch layer obstructs the direct contact of fruits and leaves with the soil and prevents the transfer of some soil borne diseases. This technique is beneficial in case of low growing vegetables and fruits such as tomato, Brinjal etc.

### Types of Mulching Materials

A mulching material can be of both organic and Inorganic origin.

#### 1. Organic Mulches

These mulches decompose in the field itself after some time. Some of commonly used organic Mulches are:

**Ex:** Straws, Bark chips, Leaf cover, Grass Clippings, Compost Manure, Saw dust, Nut Hulls, Weeds and Seaweed.

#### 2. Inorganic Mulches

##### Plastic Mulches:

The plastic colours known today are mainly, Black, white, green, brown, red, silver, and blue. These colours are formulated with their role in light absorption and crop physiology. The impact of these coloured plastic mulches is quantified by many researchers in different crops. Plastic has established itself as a popular mulching material nowadays. Longevity and durability are the reasons which attracts farmers towards the plastic mulch. A layer of plastic is spread upon the seed bed and holes are made on it for plant growth.



**Plastic Mulches are generally of Two types: -**

#### **Opaque or Black Plastic Mulch**

Black polythene mulch is a popular choice which helps to regulate soil temperature among other benefits.



## **Transparent plastic mulch**

Transparent plastics are also used as mulch in colder regions and traps more heat than black plastics.

Mulch is applied three times in a growth stage but varies with each crop. Commonly applied before sowing, after sowing and even at the later growing stages of the plant.

### **How to apply mulch:**

#### **1. Clear your seed bed / bed**

Before going for applying a Mulch you need to clear your field and make it free from leftover mulches, twigs and other.

#### **2. Weeding up**

It is necessary to weed in initial stage or apply the mulch just few days after ploughing when weeds have not emerged.

#### **3. Spread the Mulch**

Now just spread the Mulch by manual, or mechanical process. Make sure that the mulch is only about 2-4 inches thick not less than more than it.

## **Conclusion**

Mulching is an important Agricultural process with immense benefits. This method has been used since ancient times and is also a vital part of modern Agriculture. Mulching ultimately gives a good harvest and conserves total time spent in caring crops.

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