



## MULCHING IN VEGETABLE CROPS

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### Mulching of crop:

Any material used (spread) at surface or vertically in soil to assist soil and water conservation and soil productivity is called mulch. To achieve optimum advantage from the mulch the mulch should be applied immediately after germination of crop @5 ton/ ha (organic mulch). The practice of applying mulches to soil is possibly as old as agriculture itself. Mulches are used for various reasons but water conservation and erosion control are the most important objects in agriculture in dry regions. Mulches when properly managed definitely aid wind and water soil erosion. Other reason for high mulching is followed includes soil temperature modification, soil conservation, nutrient addition, improvement in soil structure, weeds control and crop quality control. Mulching reduces the deterioration of soil by way of preventing the runoff and soil loss, minimizes the weed infestation and checks the water evaporation. Thus, it facilitates for more retention of soil moisture and helps in control of temperature fluctuations, improves physical, chemical and biological properties of soil, as it adds nutrients to the soil and ultimately enhances the growth and yield of crops.

Types of mulches: Materials used for mulches are crop residues, levees clippings, bark manure, paper, plastic films, petroleum products, gravels etc.

1. Plastic films: Plastic films are more widely used as mulch. They help in maintaining higher water content in soil resulted from reduced evaporation, induced infiltration, reduced transpiration from weeds or combination of all these factors. They are relatively expensive and difficult to manage under large scale field conditions for low value crops. (Polythene, polyvinyl).
2. Petroleum products: These are less expensive than plastic films and more readily applicable materials e.g. petroleum and asphalt sprays, resins etc.
3. Crop residues or stubble mulch: ( Crop residues and other plant waste products (Straw, cloves, leaves, corn, and sawdust) are widely used as mulch. These materials are cheap and often readily available. They permit water to enter in the soil easily, when maintain at adequate level. These materials result in increased water content and reduced evaporation. Use of mulch @ 5 tons / ha is found to be most effective in dry farming area. The mulch should be applied immediately after crop emergence to get optimum advantage. When these mulches are used the other crop operations like