

PRACTICE ABSTRACT n° 8

Mulching

Mulching entails covering topsoil with materials such as leaves, grass, twigs, crop residues, straw, biodegradable films, etc. Mulching has several advantages. It protects soil from erosion and protects organisms such as earthworms which contribute to the formation of holes within the soil structure through which rainwater can easily infiltrate. Mulching also helps to keep the soil moist by reducing evaporation and in prevention of weeds. Organic mulch material is an excellent food for soil organisms and helps improve soil fertility.

Selection of mulching material

It is advisable to choose hardy materials that degrade slowly and thus cover the soil for a longer period. Some of the materials suitable for use for mulching include:

- Weeds or cover crops e.g. pumpkin as cover crop in maize
- Crop residues such as maize stovers and banana waste leaves
- Grasses such as papyrus
- Pruning material from trees, cuttings from hedges and wood shavings
- Biodegradable films

Application of mulch



Figure 1: Mulched vegetable garden

If feasible, apply the mulch before or at the start of the rainy season, when the soil is most fragile. If the mulch layer is not excessively thick, seeds or seedlings can be sown or planted directly in between the mulching material. On vegetable plots, apply mulch only after the young plants have become slightly hardier, as the results of decomposition from fresh mulch material may damage them. If mulch is put prior to sowing or planting, it should not be too thick so that seedlings can penetrate it. Mulch can also be put to existing crops; however, it is best done immediately after digging the soil. It can be applied between the rows, directly around single plants (especially for tree crops) or evenly spread on the field. During application of mulch, care should be taken not to cover the leaves of the plant as observed in Figure 1.

Promoting breakdown of mulch

To accelerate the breakdown of the mulch, organic manures such as animal dung can be sprinkled on top of it, increasing the nitrogen concentration. This increases nutrient release into the soil.

Precautions to be taken in mulched gardens

Materials from plants affected by diseases and pests should not be used for mulching. To avoid mulch serving as harborage for insect pests like ants, termites and snails, limit mulch thickness to 2-3 inches, turnover the mulch regularly, plant repellent plants such as rosemary, mint and lemon grass around the garden.