MULCH AND INTER CROPPING

Why mulch your crop?

Mulching

- Smothers weeds, thus reducing weed pressure.
- Improves water infiltration leading to reduced runoff and reduced soil erosion.
- Reduces moisture loss through evaporation.
- Reduces soil temperature.
- improves soil structure when the mulch decays.
- There are two types of mulch, namely dead mulch and live mulch:
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Dead mulch

- Refers to the use of dead plant materials such as crop residues, leaf litter and grasses for mulching.
- Collect and store the grass or old crop residues as early as possible before being destroyed by animals or burnt.
- Mulch before planting, at planting or soon after emergence to get maximum benefits.

Crop mulched using dead mulch

Live mulch

- Live mulching involves planting a crop such as cowpeas or pumpkin between the rows of the main crop.
- Use of live mulch enables a farmer to harvest 2 crops from the same piece of land in one season.
- Live mulch also creates an environment conducive for natural predators such as wasps, ants, spiders and beetles which help farmers to control pests and diseases.
- Where live mulch is used, populations of the main crop must be reduced in order to reduce competition for moisture, light and nutrients.
- Plant the mulching crop and cereal crops in alternate lines (intercropping).
- The mulch crop must be planted after emergence of the cereal crop (check the recommended planting dates in Module 1).
- A farmer can also plant 5 – 10 rows of a live mulch alternating with 5 – 10 rows of the cereal crop (strip cropping).

Sorghum/Cow pea /Groundnut intercrop.

ROTATIONS

Why rotate crops on the same piece of land?

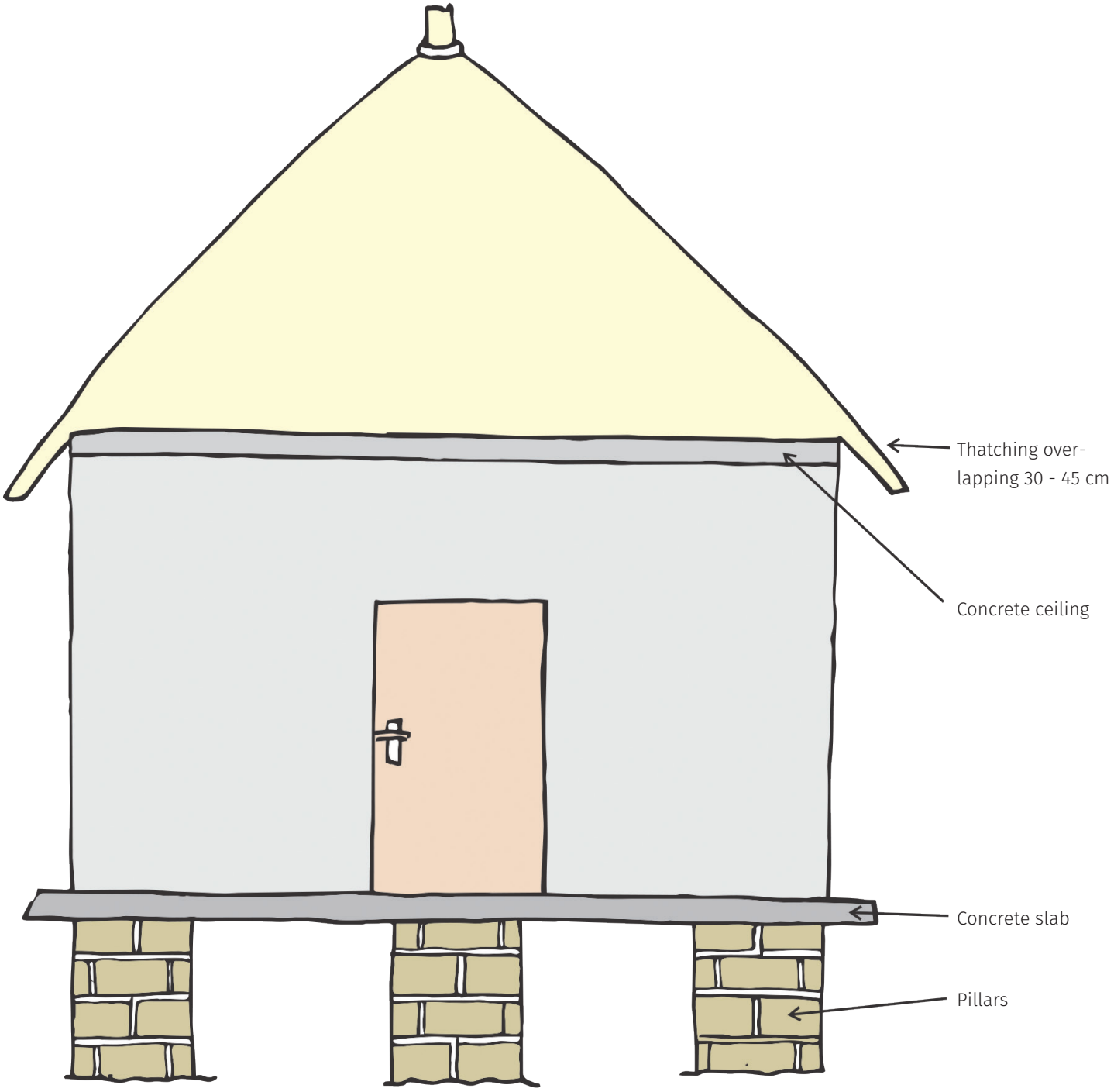
- Crop rotations increase soil fertility and soil organic matter.
- Rotations allow for tapping of soil nutrients from different soil depths.
- Rotations break insect, nematode, weed and disease cycles.

Harvesting and post-harvest handling

- Harvest crops when they are mature and process the crops with minimum damage.
- Harvest early to reduce attack by insect pests in the field.
- Separate insect or disease damaged crop from healthy grain.
- Separate trash, stones and weeds from the grain.
- Grain must be properly dried to reduce damage by diseases.
- Store grain in secure, and insect, disease and rodent free containers or facilities.
- Treat grain against weevils using registered and approved insecticides.

See diagram of a proper storage structure on the next page.

A proper storage structure.



NB: Consult your nearest extension agent if you need additional information on mulching, intercropping, crop rotations, harvesting and post-harvest handling.