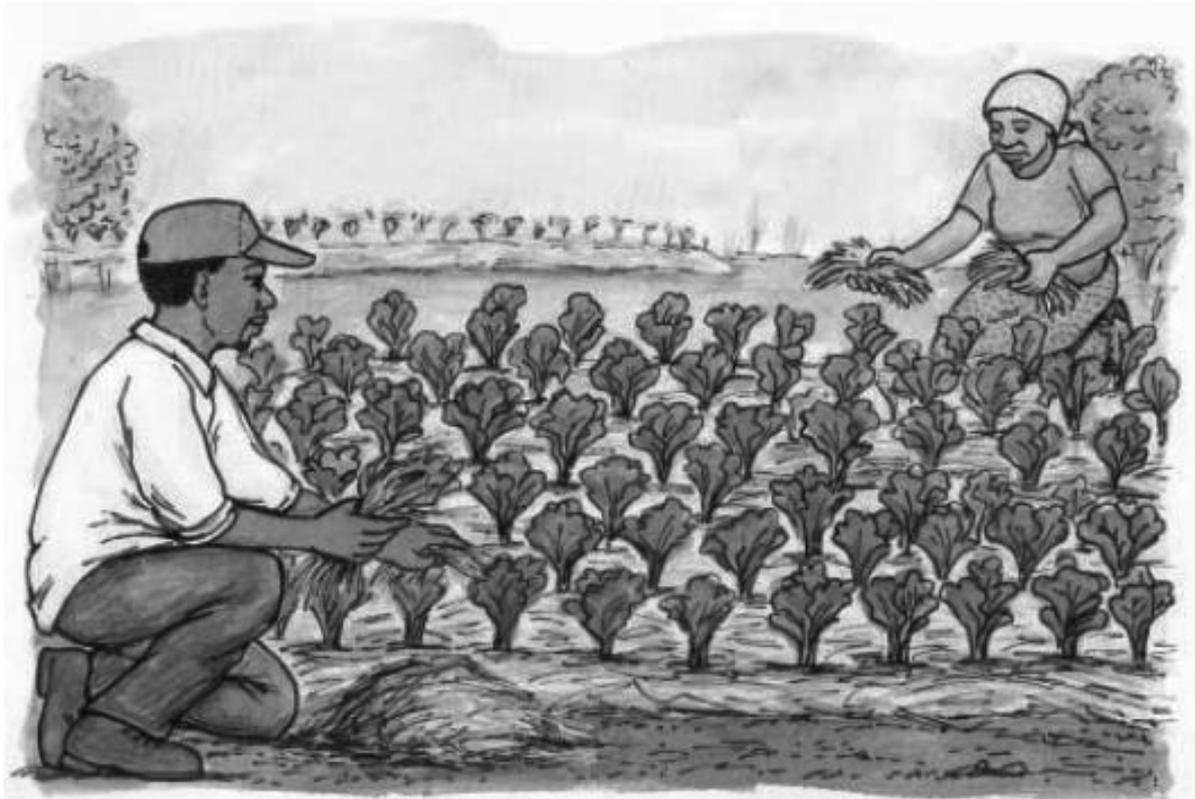


2. Mulching



Mulching is the spreading of a layer of material over the surface of the soil. It covers the soil and keeps it moist and cool in summer. It keeps the soil warm in winter.

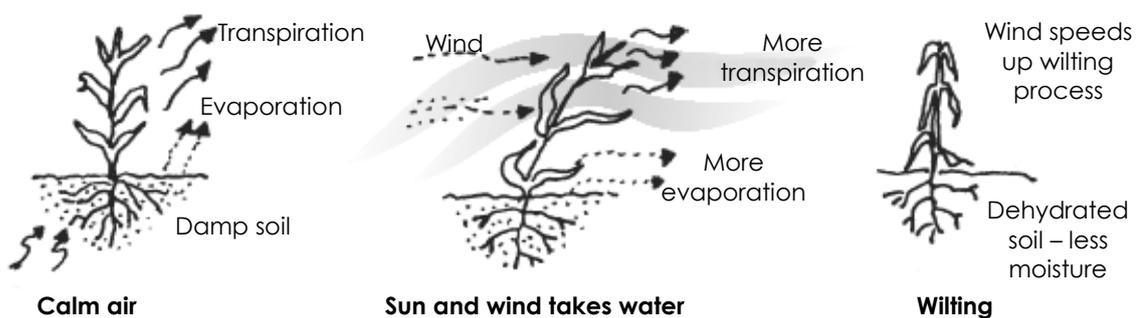
Why mulch?

Mulching has two main effects:

- ❖ It saves water, because it will stop the sun and wind from drying out the soil. That means that you will need to give less water to your plants, because it is not lost through the effects of sun and wind.

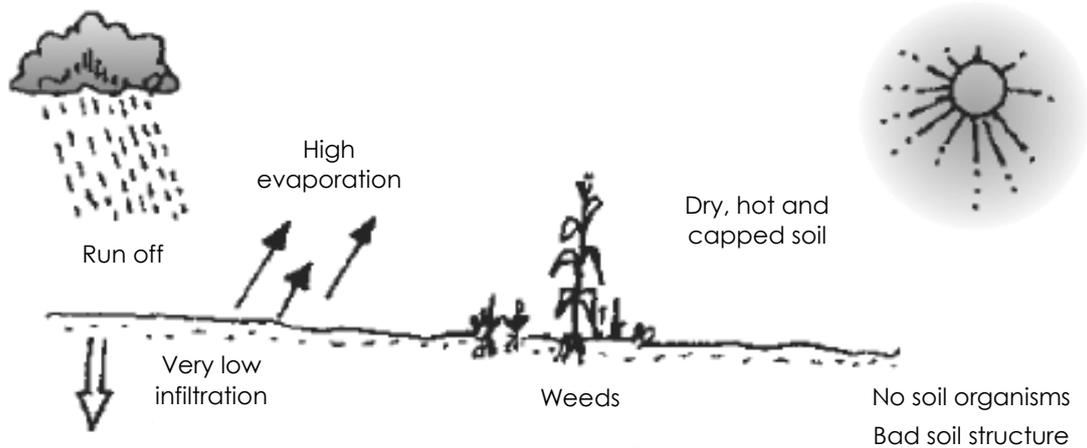
The effect of sun and wind on bare soil

From: Production without Destruction. Natural Farming Network, Zimbabwe

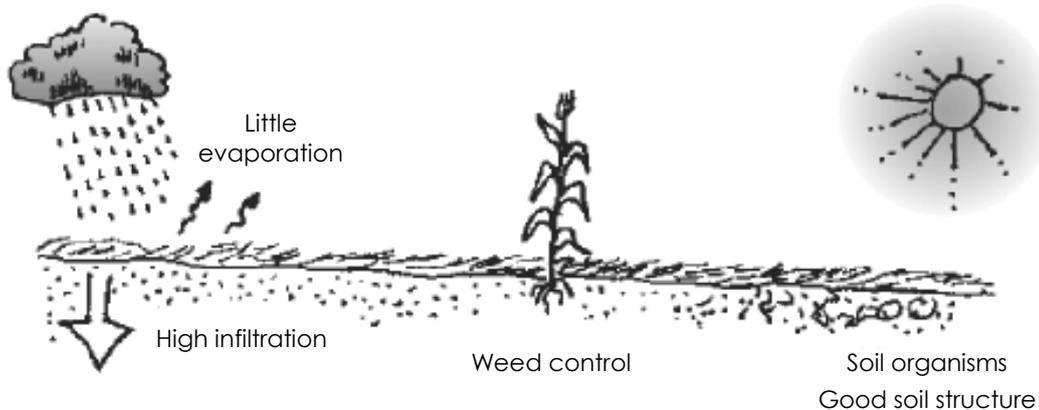


- ❖ It keeps the soil temperature more even. Mulching reduces too much heating and too much cooling of the soil. This makes it easier for plants to grow.

Bare soil



Mulched soil



From: Production without Destruction. Natural Farming Network, Zimbabwe

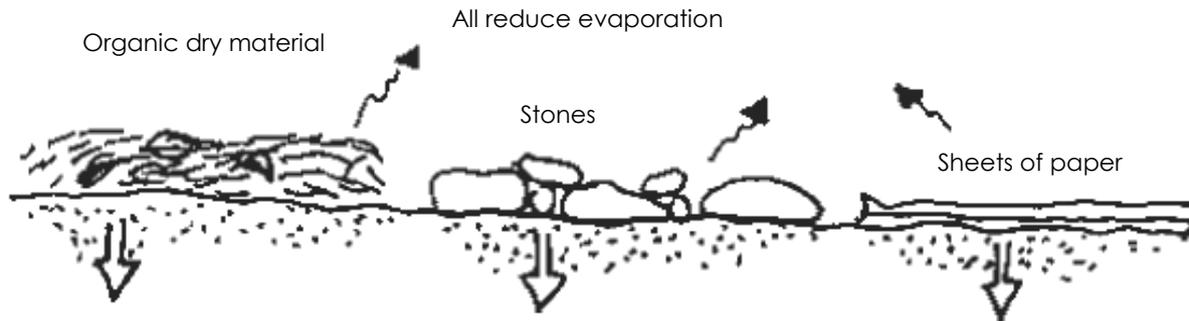
More effects of mulching

Negative	Positive
<ul style="list-style-type: none"> ❖ It is sometimes hard to find enough material to mulch with ❖ Sometimes mulching on seed beds can affect the growth of carrot seedlings. They can become spindly and weak ❖ Some people think it looks untidy ❖ Mulch can encourage slugs and snails 	<ul style="list-style-type: none"> ❖ It stops loss of minerals/nutrients from the soil ❖ It encourages soil organisms ❖ It reduces weed growth ❖ It prevents capping: that is the formation of a hard layer of soil on the surface. ❖ A stronger root system develops closer to the soil surface. This makes more nutrients and air available to the roots ❖ Break down of mulch will add to soil fertility ❖ Breaks the impact of heavy rains and

	splashing of soil on plants - that can spread diseases
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From: Production without Destruction. Natural Farming Network, Zimbabwe

What to use as mulch?



Usually we use:

- ❖ Crop residues (stalks and leaves of harvested crops). NEVER use diseased crop residue. You will infect the soil and your new crops!
- ❖ Weeds that have been pulled out and left to dry out
- ❖ Grasses from the veld. Make sure to use DRY grass. GREEN grass will take nutrients from your soil and your crops will have fewer nutrients.
- ❖ Flat stones. These will cover but will not add nutrients. They are good around larger plants and fruit trees.
- ❖ Newspaper. This will cover and add a little bit of nutrients/ plant food to the soil. Wet the newspaper when you put it on the soil, so that it does not blow away.
- ❖ Manure; use DRY or OLD manure for this.
- ❖ Leaves collected under trees.
- ❖ Old thatch grass.
- ❖ Black plastic sheeting.

How do we mulch?

- ❖ It is best to chop up your mulching material (weeds and grass) to be about the length of your hand (10-20 centimetres)
- ❖ Use a thin layer of mulch for seedlings and small plants – about one finger width deep (1.5 cm)
- ❖ For larger plants use much thicker mulch – about 2-3 finger widths (3-4 cm)
- ❖ For trees, a really thick layer, one whole hand or more (10-20 cm) can be added



One hand =
10 – 20 cm



One finger =
1.5 cm



Two fingers =
3 – 4 cm

When the mulch has broken down, you need to add more! You will be amazed how quickly this happens. Usually mulch is added at least once a season, or once every 3 months. In areas with extremely cold winters, it may be an idea to make sure your mulch is compact or squashed down once the frosts are heavy and the ground starts to freeze. Loose mulch can make the effects of frost more severe.

Experimentation

Remember to use your experimentation plan for every new thing that you try.



Small scale experiment plan

- ❖ What is the problem?
- ❖ What is the possible solution?
- ❖ Why will this solution solve the problem?
- ❖ How will I test this solution step by step?
- ❖ How will I check my results? What will I look for?
- ❖ How else will I check my results? What will I measure?
- ❖ How will I measure the results or outcomes?
- ❖ How will I compare my experiment to my usual way of farming?
- ❖ Make a drawing of the experimentation in the field.

Here are some questions that you can use to experiment with adding mulch

- ❖ Did you use mulch on all of your plants, or only some?
- ❖ Were the plants that you mulched bigger and better than the ones that had no mulch?
- ❖ Did you use less water on the plants that were mulched?
- ❖ What did you use for mulch? Was it good? What will you use for mulch in future?