

Mulch

Bare soil rarely occurs in nature. Soils are covered by a thin layer of debris comprising dead leaves and twigs, with small amounts of various manures. This surface layer protects and nourishes the soil beneath. Gardeners may add a layer of mulch to the surface of the garden to achieve the same purpose. To be effective, mulches should be 5cm or more deep, with coarser materials needing to be applied at a greater thickness than finer ones. A no-dig garden uses a deep mulch, 15cm or more, as a growing medium.

Benefits of mulch

- Reduces water evaporation resulting from protection from wind and sun
- Adds organic matter and nutrients, improving fertility, structure and water retention
- Increases biological activity within the soil
- Maintains soil surface condition, eliminating problems of crusting and non-wetting
- Eliminates dirt splash and associated disease attack
- Preserves soil structure
- Reduces weeds by smothering and limiting germination
- Harbours beneficial predators such as spiders and centipedes
- Reduces erosion by slowing the movement of surface water
- Buffers extremes of soil temperature, particularly in the hot summer weather.

Disadvantages of mulch

- Harbours pests such as slugs, snails, earwigs
- Some types of grassy weeds grow in mulch
- Soil warming is slower in spring.

Mulch materials

Non-organic mulches: The use of plastic as mulch is not recommended. Plastic will not break down and will become a nuisance later. Although plastic, used with other materials, provides an effective weed smother, many invasive and persistent weeds grow through the plastic, which obstructs the gardener when trying to clear these weeds. Gravel makes an attractive mulch, which contributes many of the advantages of an organic mulch, without the benefits of adding organic matter. Scoria is popular with landscape gardeners. It can be tricky using garden tools to weed through gravel.

Straw and hay: Any straw or hay is suitable. Avoid material with seeds. Shake the hay before adding it to the garden if you suspect it contains seeds. Lucerne hay is the best mulch material as it contains a range of essential elements. Pea straw has reasonable nitrogen content, but is very light and breaks down quickly.

Bark/woodchip/sawdust: These woody materials form a long-term attractive colour, especially suitable for landscaping and ornamental gardens. Sawdust is good on pathways.

Leaves: Fresh leaves should be shredded or mixed with other materials before being used as mulch or they will form a matted waterproof layer. Some leaves, such as eucalypt, walnut, and pine (acidic) have an adverse affect on soil life. Leaf mould, made by allowing a pile of leaves to completely decompose, is a good mulch.

Shredded mulch: An excellent coarse mixture of wood chip and leaf. Home shredders can turn prunings into mulch. Large quantities may be purchased from garden supply depots. Avoid eucalypt, olive (which may contain seeds), or pine-based shredded mulch.

Newspaper: Use under other materials to smother weeds. Wet well before use. Do not leave paper uncovered or it will get blown about and create a mess. Glossy coloured paper is toxic and must not be used.

Seagrass: Long lasting cover that breaks down very slowly. Collect after rain to avoid salt, or water it down before applying.

Lawn clippings: Do not apply lawn clippings too thickly or they will go slimy. They tend not to last long and break down quickly. They may contain couch or kikuyu pieces, which can regrow. The properties of a lawn clipping mulch depend upon the type of lawn. Clover provides a higher nitrogen content, whereas kikuyu is fibrous with a higher proportion of carbon. Lawn clippings are best used on top of other, more open, mulch materials.

Weeds: Provided they are harvested before seeds set, non-invasive weeds make an excellent mulch.

Poultry litter: Any of the above materials may be left in a chook yard for a while before using as mulch. Chooks will clean out any weed seeds and add manure to the mulch.

Manure: Do not apply raw manures directly to the soil unless they are mixed with and covered by a large bulk of other materials. Failure to follow this rule will result in an unhealthy and smelly garden environment. Manures that have aged or been composted can be used directly.

Living mulches: Ground covering plants can be grown beneath other crops as 'living mulches'.