1. MULCHES

What is a mulch?
A mulch is a thick layer of material – either organic or inorganic – that is spread over the surface of the soil around and between plants.

Why use a mulch?
Mulches help to conserve precious water by preventing evaporation from the surface of the soil. They also regulate soil temperature, helping to keep the surface of the soil slightly cooler in summer and warmer in winter. Mulches also help to prevent run-off from baked soil in heavy rains. All mulches to some extent reduce the germination of weeds – and where weeds do appear, they are a bit easier to pull out.

What is an organic mulch?
Shredded garden waste and prunings, chipped bark, cocoa bean shells, cotton or hemp waste, the residue from wine presses or almost any other material of vegetable origin. Some mulches (for example chipped bark) are available commercially; others (such as shredded prunings) are produced by the gardener. In some regions municipal authorities make shredded green waste available to private gardeners. Organic mulches improve the structure of the soil as they are gradually broken down by soil micro-organisms.

What is an inorganic mulch?
Gravel, pebbles or stone chippings or commercially marketed geotextile.
Inorganic mulches of mineral origin help improve drainage and prevent water from puddling around the crowns of the plants.

What sort of mulch should I use in a mediterranean climate?
This depends on what sort of plants you grow.
In mediterranean gardens inorganic mulches are particularly suitable. Remember that many dry-climate plants hate sitting around in damp conditions. In their natural habitat, mediterranean plants such as, for example, rosemary, lavender and cistus grow in poor, rocky soil; they thus do not need the extra nutrients gradually supplied as an organic mulch breaks down – indeed, too rich a soil encourages lush growth of the foliage at the expense of the roots, shortening the life of the plant and making it less drought-tolerant. Mediterranean-climate plants also dislike the humidity at ground level associated with thick organic mulches. They do best with a gravel mulch.
Organic mulches are best for plants that need rich soil and for parts of the garden that are watered regularly, for example the vegetable garden.
The best rule of thumb is to look, if you can, at the conditions in which your plants grow in the wild and to try to mimic them as closely as possible in the garden.

How thick should my layer of mulch be?
An inorganic mulch should be about 10 cm thick for best moisture management, though even half this depth or less helps and gives reasonable weed suppression.
An organic mulch should, if possible, begin by being about 20 cm thick.
Both kinds of mulch will gradually settle so that the initial thickness is reduced. It is because organic mulches are progressively broken down and absorbed into the soil that they need to be applied in a thicker layer.
If geotextile is used to reduce evaporation from the soil surface and limit weed growth, it should be covered for aesthetic reasons with a layer of organic or inorganic mulch; however, in this case the layer will not need to be so thick since its purpose is mainly to disguise the geotextile.

When should I apply a mulch?
When you first plant your garden or at any time. Replenish your mulch when you see that it has worn thin.

What should I avoid?
- Avoid smothering the crowns of plants with mulch, particularly organic mulch, as this will provide the hot, moist conditions that favour the development of fungal diseases.
- If you have created a watering basin around your plants, keep this clear of mulch, especially during the plants' first year or two.
- Avoid using fresh sawdust as a mulch. Commercially produced timber is treated with highly toxic preservatives.

2. COMPOST

What is compost?
Compost is a natural organic fertiliser which adds nutrients to the soil and improves soil structure. It is the product of the natural recycling, through decomposition, of organic waste from the kitchen and garden.

What can I make it from?
Dry leaves and grasses, withered flowers, annual weeds, finely chopped or shredded prunings from the garden (and grass cuttings from the lawn mower if you have a lawn), as well as fruit and vegetable peel of all kinds, coffee grounds and tea leaves from the kitchen and wood ash from the fireplace. Paper and cardboard can also be composted; in the mediterranean climate it is best to shred and moisten these before adding them. 'Brown material' – i.e. shredded prunings – and 'green material' – i.e. vegetable peel or lawn cuttings – need to be evenly mixed.

What should I not put on the compost pile?
Cooked food containing meat, fats or oil; the excrement of dogs and cats.

Can compost be made in a hot, dry climate?
Yes, although you will need to remember to keep it moist during the summer. It is a good idea to cover your compost (with, for example, a tarpaulin, a thick layer of damp newspaper or a bit of old carpet) to conserve moisture in summer and to prevent it from becoming waterlogged in winter.

Where do I make compost?
Compost can be made in well-drained pits about one metre deep, in boxes at least one metre square made of wooden slats or boards, or in one of the many types of compost bin available on the market. You may also use four wooden posts and chicken wire to make your compost container. In all cases, the front should be easily removable, both to facilitate regular turning of the compost and to enable you to take it out when it is ready.

Do not make your compost on a concrete slab: not only does this prevent good drainage but it also prevents access by beneficial earthworms and soil micro-organisms.
Whereas in temperate climates compost containers usually ensure good aeration by having air holes or spaces between the slats, in the mediterranean climate these tend to cause the outer layers of the compost to dry out too much. In hot, dry climates it is a good idea to line the sides of the compost container with cardboard from old cartons or thick layers of newspaper as you build up the material: this helps to retain moisture and the internal heat necessary for decomposition.
It is a good idea to have at least two pits or bins, so that you are adding material to the second while the first is in the process of decomposing into a rich, crumbly, brown, odour-free 'soil'.

Flies and grubs

- To avoid attracting flies, it is a good idea when you add kitchen waste to the compost to cover it at once with a layer of shredded prunings or garden weeds.
- In some Mediterranean countries, the larvae of the rose chafer beetle are often found in compost (large, fat, unattractive pinkish-white grubs). These are harmful to plants as they eat roots and should be removed and destroyed before the compost is used. The addition of plentiful wood ash to the compost helps prevent the appearance of these larvae.

To decompose properly, compost needs:

- Oxygen: The maturing compost must be aerated by regular turning, about once a month, with e.g. a pitchfork. Some commercially available compost bins are set on an axis and can be 'tumbled' to aerate them.
- Water: in hot dry summers the compost needs to be kept moist (though not sodden). If you make your compost in a pit, you must make sure that it is well drained.
- Nitrogen: nitrogen is present in the plant material being composted. However, a little rotted manure can be added to start the decomposition process. Urine is also a good source of nitrogen (easier for male gardeners to supply than for females).
- Compost accelerators: the leaves of seaweed, nettle, dandelion, borage or comfrey, or the liquid produced by soaking these leaves for two weeks in a bucket of water, make good compost accelerators. Commercial compost accelerators are available.

How long will it take?

About three months if there is a good mix of materials, turned once a month and kept moist (not too dry and not too soggy). With a correct balance of material but with no turning it will take from six months to a year. With a poor mix of materials and no intervention it will take longer. The more finely shredded the material is and the better mixed, the faster its decomposition.

How do I use it?

Compost can be dug into the soil before planting. It can also be mixed with garden soil to form a potting medium.

Mediterranean Gardening Association – Portugal

Who are we ? We are a group of people who have an interest in Mediterranean horticulture. We are also part of wider network of likeminded people from around the world - www.mediterraneangardeninginternational.org

What can you do? Promote and share knowledge and interest in Mediterranean plants and gardening. This includes aspects of education and research with environmentally friendly ethics as a major objective.

Events include garden visits, tours, educational visits, demonstrations, lectures & social events.

Portugal regional contacts:
Lisbon – Ben Weijers, Tel: 219 291 841
Email: quintadocorvo@yahoo.com
Minho – Chloe Parrott Tel, tel. 966 971 275
Email: chloe@meo.pt
Beira – Marion ter Horst, Tel: 235 721 193
Email: s.m.terhorst@gmail.com
Algarve - Rosie Peddle, Tel. 289 791 869
Email: rosie@thebtf.net

ASSOCIAÇÃO DE PLANTAS E JARDINS EM CLIMAS MEDITERRÂNICOS
Mediterranean Gardening Association – Portugal
www.mediterraneangardeningportugal.org

GARDENING IN A MEDITERRANEAN CLIMATE:

MULCHES AND COMPOST



"To promote Mediterranean plants and gardens, through education, culture, conservation and recognition of their community, environmental and economic importance in our everyday lives."

APEJECM