



OREGANO CULTIVATION

General Information

Oregano is a rustic, herbaceous plant. Its growth is perennial, the first planting lasting approximately four years. It is a bushy shrub, growing to a height of 35-45cm.

Oregano originates from Mediterranean Europe. The main producers in Latin America are Mexico, Brazil, Chile and Costa Rica. (The principal oregano-producing counties of Peru are Tacna, followed by Moquegua, Ancash and Arequipa.)

Oregano is resistant to the cold, although temperatures below 5°C stunt growth and burn the leaf edges.

The crop is suitable in any soil type that is not over-saline, although it will flourish best in Franco-sandy and Franco soils.

Oregano is a species with very high tolerance in terms of altitude and temperature. However, the majority of essential oils come from colder zones.



Figure 1: Oregano. Photo: Practical Action / Neil Noble.

Preparing the ground

Choosing the site

Plantations are best situated on flat or mildly undulating land. If the ground is sloping, terraces or platforms must be built.

Fallow or thrash irrigation (watering)

This is done three days before ploughing. Turn the earth two or three times in order to allow the manure to decompose, to prevent weeds growing, and to eliminate grubs and soil blights.

Fallow / Ploughing

Deep ploughing is required. The previous crop must be very thoroughly cleared, and the earth turned at least twice to prevent weeds and to renew the ground. In order to improve the texture and fertility of the soil, it is a good idea to integrate ten metric tons of manure per hectare during preparation of the land.

Planting

The correct season

For agro-climatic mountain conditions, the best time to plant [in the Southern Hemisphere] is September to December, when temperatures are favourable and the rains are beginning.

A good choice of cuttings

The choice and preparation of good cuttings is an essential part of the process. The branches or cuttings that you choose must have the following characteristics:

- 20-30cm long
- Thick stalks, darkish red in colour
- Wide leaves of deep green

Mother plants should be just beginning to flower, with healthy flowering buds. When cuttings from mature flowers are used, branching and yield will be delayed.

Taking cuttings

Once you have chosen the cuttings to be taken and planted, cut them with secateurs. Every so often, disinfect the secateurs with soapy or bleachy water in order to avoid transmitting diseases. Cutting is recommended at sunrise, and planting the same day. Keep the cuttings cool, in the shade, to stop them from drying out.

Furrows

Having levelled the ground, you must lay out furrows and channels in a way which facilitates the flow of irrigation water, whilst also avoiding any formation of pools which will drown plant roots and kill them.

Density of planting

This will vary between 70 000 and 90 000 trios of cuttings per hectare, equivalent to 600-660 kilos. It is very important to work out how many cuttings must be planted in order to avoid a surplus of cuttings and thus the risk of their failing. Furrows should be 35-45cm apart, and plants 30-35cm apart.

Planting

Take three or four cuttings in one go, planting them 5-10cm deep, in an L-shape, on the flank of the furrow. Before doing this, carefully pluck the leaves from the lower 10cm of each cutting: this will help it to establish roots.

Watering

Immediately after planting, water lightly. Water again two more times, 3-4 and 6-8 days (respectively) after planting - depending on the soil type. This will keep the crop moist and ensure that it takes root. The next two waterings should follow five to seven days apart, these intervals depending on the circumstances.

Maintaining the crop

Weeding

For good quality oregano it is essential to keep your small-hold free of weeds. This avoids competition for nutrients in the soil, which will cause plant stems to become thin and weak, and to turn light green in colour.

Cutting the tips

This first 'apex' cut is performed once the plants have taken firm root, approximately 30-45 days after planting. It is time to cut when flowering has fully matured.

Cut stem and flower in a manner that encourages branching out on the lower part of the plant and helps it to become more full-bodied. It is a good idea to use disinfected secateurs to avoid the spread of disease or blight.

Amass the cut flowers and leaves in a sheet or bag, to be dried or sold.

At this point it is advisable to apply both a fungicide and a leaf fertiliser: the first to prevent leaf rusting, the latter to accelerate the growth of new shoots.

Heaping / Piling

This should be done from time to time, when deemed necessary. Mount up the earth around the plant, to protect it and to encourage it to take firm root, as well as exacerbating shoot formation and avoiding rotted roots and fungal attack. Perform this task after cutting, at the same time as applying the fertiliser.

By the third or fourth cutting, each plant should be established at the ridge of its furrow.

The ecological conditions for oregano production

Soil

The oregano plant can grow in a variety of soils, ranging from dry to moderately moist. Nevertheless, it grows best in soils that are: loose, clayey, Franco, permeable and rich in organic matter.

The plant prefers Franco-sandy soil, which can produce good oregano for up to fourteen years. In contrast, clayey soils will reduce lifespan to five years.

Altitude

Growing is possible between 50 and 3400 metres, ie. almost from sea level up to high mountain zones. The majority of essential oils are produced in regions of colder temperature.

Temperature

Oregano is resistant to the cold, although temperatures below 5°C stunt growth and burn leaf edges.

Water sources

Initially, the irrigation supply for watering should be constant. Watering can then be reduced to twice weekly, and from the first month onwards, once weekly.

Propagation of oregano

This can be done via

- seeding
- layering
- splitting bushes
- shoot cuttings

Fertilising

As is previously mentioned, it is necessary to integrate a substantial quantity of manure – preferably decomposed – as part of the ground preparation process. The recommended amount is ten metric tons per hectare.

There are different methods of using fertilisation. Analysis of soils has shown that the main combinations used are as follows:

What to use?

farmyard manure + island guano
 island guano + 'lombrihumus' (wormy humus)
 island guano + ammonium nitrate
 triple calcium super-phosphate + farmyard manure

How much to use?

Amounts are resultant of soil analysis. As a point of reference, the following quantities are suggested, *per hectare*:

300kg of island guano and 150kg of humus
 450kg of island guano and 150kg of compost
 9 metric tons of farmyard manure and 300kg of triple calcium super-phosphate.

When and how to apply it?

Fertiliser should be used when the ground is moist.
 Lay the first dose when ploughing the ground, the day before planting, and again exactly a year later. Do this by making holes between the plants. Use a hoe or pick-axe.

Pests and blights

A wide range of insects cause damage to oregano, destroying the leaves: plant lice, woodworm, leaf-cutting worms and citrus red mites (*Panonychus citri*).

Plant lice

These species drink the vital fluids (ie. the sap) of the plant, as well as spreading disease. They breed rapidly, their onset generally occurring in winter months (May-July in the Southern Hemisphere).

The pest is controlled using tobacco-based insecticides. Ash and other home-made substances work very well.

Tobacco insecticide:

Blight	Ingredients	Preparation	Application
Plant lice (aphids)	50grams of strong tobacco 15 litres of water	In a pan, boil the tobacco with 2 litres of water. Mix this into a large bucket containing the remaining 13 litres. Leave the mixture to sit for a day, stirring occasionally. Lastly, strain it.	Spray the tobacco mixture from a fumigation pump.

Recommendations:

- Avoid skin contact with the tobacco mixture: use gloves or plastic bags. Do not inhale
- Do not apply the pesticide less than three days before cutting.
- To improve the effect of the pesticide, add 300ml and 150g of detergent.

Citrus Red Mites

This pest appears in times of drought, when the oregano plant's leaves grow tender. The plant becomes covered in a very fine thread, within which the mites (or tiny spiders) can be found. They restrict the plant's ability to photosynthesise. As a result the leaves turn yellow and drop off and stalks dry out. Large numbers of plants will die if this is not controlled.

If the crop is not seriously affected, frequent watering is advisable. If the affliction is severe, use insecticide (such as C-Omite Acarin, Omite) in the dosage suggested on the label. Only do this having watered first. In order to conserve quality oregano, do not apply insecticide less than thirty days before harvesting.

Further information

Links: http://www.herbs2000.com/herbs/herbs_oregano.htm

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technical brief