



## Growing Herbs

One of the first things we notice when we look around at nature is that the flora (plants specific origin) is very much determined by the environment. One of the factors of the environment is soil type. We will find a totally different variety of plants growing on chalky soil, example, the North and South Downs, than on a heavy clay or on a sandy soil. So the type of soil you have available in which to grow your herbs rather determines the varieties you can grow. However, with a little bit of ingenuity, and a little expense and common sense, most soils can be adapted to our purpose. For instance, to take as an example a well-known herb like valerian (*Valeriana officinalis*), from which we only use the roots, it would be a waste of time to grow it on a heavy clay soil because during harvesting we would lose most of the rootlets and, after cleaning the rhizomes, we would probably only have 50-60% of our crop left. On the other hand, plants use to growing in very wet soils would never succeed in a light sandy soil. The ideal soil for growing herbs is either a sandy loam or a light loam. When you have a heavy soil, the best thing to do is to order a load of sand or to buy some well-prepared compost or a few bales of peat and either dig or rotovate this in. The very light soil can be improved, especially as far as its water holding capacity is concerned, with the application of some bales of peat.

The use of artificial fertilizers should be avoided especially now that organic fertilizers are readily available. However, you do not need a very rich or highly fertilized soil to grow herbs. The general rule is that leaf crops (and this is equally valid for vegetables) need a rather rich and fertile soil, while flowers and seeds will do well in a light soil; root crops, tubers and rhizomes are happy in a moist, medium to light soil. Herbs are, from a grower's point of view, divided into annuals, bi-annuals and perennials.



## Harvesting Herbs

One general rule which applies to every herb or whatever part of the herb is harvested is that you must harvest on a dry day, preferably a sunny day, in general between mid-morning and noon, after all dew is off of plants. From most herbs we use only special parts and it is seldom that the complete plant is used. There are herbs of which we use only the aerial parts (the part that grows above the soil) and these are usually harvested at the time of flowering.

The scientific name to indicate that we deal with the whole aerial part is "herba". Usually, the plants are cut off with a sharp knife or with a pair of garden scissors. If only the leaves are required, it is still possible to cut the aerial part and later on, in a convenient spot, to strip the leaves from the stem instead of picking the leaves one by one. Quite often, the leaves are harvested when the plant is in flower, but there are many exceptions to this rule. To indicate that we have only the leaves, we use the name "folia", or abbreviated, "fol". From some herbs we gather only the flowers and these are usually harvested at a time when they are in full bloom. It is especially advisable when harvesting flowers not to pick them in too large quantities at any one time, nor to keep them too long in baskets, because the metabolic process in the flowers are such that the temperature will rise rapidly and might spoil the quality of your product. The scientific name for this part of the herb is "flores", abbreviated to either "flor", or "flos".

The fruits, scientific name "fructus", abbreviated to "fruct", are quite often berries, like juniper, bearberries, etc., which are harvested when ripe.

When harvesting seeds, you not only want to collect them for medicinal purposes, but also for the propagation of your annuals and bi-annuals, and always make sure they are completely ripened. Precautions have to be taken though because quite often the ripe seed will drop off the plant before you can collect it. The scientific name for seed is "semen".

Roots are collected at various times. The general rule, but with many exceptions, is to collect the root in autumn when the aerial part of the plant has died off. They have to be lifted or dug out and always cleaned from any soil particles. The scientific name for root is "radix", abbreviated to "rad". However, not all underground parts of the plant are named radix; we have, for instance, tubers (like potato), rhizomes, such as couch grass (*Agropyron repens*), bulbs, e.g. onion (*Allium sepa*). Furthermore, we sometimes harvest the bark but this usually pertains to shrubs and trees and these you will not usually grow in a herb garden, e.g. oak bark (*Quercus robur*) and the bark of witch hazel (*Hamamelis virginiana*). The scientific name for bark is "cortex", abbreviated to "cort".

## Drying Herbs

Much of the quality of your product will depend on drying. Often people spend a considerable amount of time growing first-class produce and then lose out on the quality with poor drying. An important rule in drying is that the time between harvesting and drying should be as short as possible, because the sooner the product becomes dry, the less chance there is for the process of life, which goes on in a plant or part of a plant after picking, to break down some of the constituents we want to preserve. Another rule is that when you dry without artificial heat, never dry in direct sunlight, but always in the shade, either in an airy shed or in the open as long as shadow is provided. The herbs should be spread out in a thin layer on trays or, as is often seen, by tying them up in small bundles to hang in the air. It is always advisable to have free air flow around the plants. When artificial heat is applied, as in an airing cupboard or in a specially built drying cabinet, the temperature should never rise over 95-100 F. as it could cause the oils to evaporate and scorch the herbs.

For large roots, it is advisable to cut them up into small pieces or even slice them; the same goes for tubers and bulbs. Always spread products like flowers, leaves and fruits out in single layers. Seeds, if used for propagation, should not be dried with artificial heat because it could cause them to lose their ability to germinate. Just one or two days in a thin layer indoors will probably be sufficient. Without the use of artificial heat and with adverse weather conditions, the drying time of your herbal products may take as long as one or two weeks, and you will find that the leaves of herbs such as peppermint (*Mentha piperita*), balm (*Melissa officinalis*) and plantain (*Plantago major*) may turn black due to enzymatic action within the leaf and so lose its quality. For such herbs rapid drying is essential in a drying cupboard: drying must be achieved in 24-48 hours.

## Storing Herbs

It is, of course, of utmost importance when one has achieved a product of high quality by carefully growing, harvesting and drying not to spoil everything by inadequate storing. Two factors are essential:

- a. Herbs should be stored in the dark because light, especially direct sunlight, has a bleaching action and might, by the nature of this action (oxidation), destroy some of the most important agents in our herbal product.
- b. The second condition is that you should keep the herb in as dry a condition as possible. Remember that almost all-chemical reactions always take place in an aqueous environment, and the less water is in your product the less breakdowns can take place, apart from preventing the growth of unwanted fungi and bacteria.

Ideal are tins sealed with cello tape or glass jars, stoppered, corked or with a tight-fitting screw lid, kept in the dark; paper bags will quite often do but plastic bags are not advised, as condensation can cause herb to mold.

For herbs which contain volatile oils, such as peppermint and lavender (*Lavendula officinalis*), airtight jars are advised, otherwise too much of the oil will evaporate.

In general, it will be advisable to use your dried herbs within one year so there is no point in growing large amounts if only small quantities are needed. Experience will be your best adviser.

