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The cultivation, harvesting and drying of herbs and medicinal plants

Jana Bolčič, Zavod GO







What type of soil is required?

- The soil has to be well- drained, fine-grained, aerated and warm.
- We should maintain the level of humus in the soil by adding compost or regularly planting white clover.
- It is very important to establish a good plant rotation scheme.
- The soil has to be limy and well-drained.
Rosemary, lavender, thyme, sage and laurel have to be planted in a sunny but sheltered spot.
- It is very important to regularly clear weeds and hoe the soil as loose soil will absorb moisture more rapidly.







Soil nutrients

- Mint, chive, balm and other herbs require soil that is rich in nutrients.
- Herbs and medicinal plants grow on soil which is slightly alkaline.
- We should fertilize exclusively with organic fertilizer and only if required. By doing so we maintain a suitable soil structure.







Plant propagation

- The propagation of the plants can be achieved through seeds, cutting or division of plant parts.
- The seeds have to be planted when the soil is warmed up.
- We should irrigate the planted seeds by sprinkling and cover them with plastic foil in order to protect them and allow them to germinate.



Planting

- **Annual plants:** basilica, anise, fennel, camomille, coriander, marjoram, calendula, savory
- **Biennial plants:** cumina, parsley, celery
- **Perennial plants:** oregano, chive, camomille, fennel, lovage, marjoram, mallow, sage



Vegetative propagation

- Marjoram, tarragon, rosemary, lavender, thyme and sage can be propagated through cutting or division.
- The cuttings can be green, semi-lignificated or entirely lignificated.
- Green cuttings are cut in early spring or late summer, after the blooming is finished.
- Semi-lignificated cuttings are cut from mid-summer to mid-fall (for ex. lavender, rosemary).



- Lignificated cuttings are cut from mid-summer to late fall.
- The cuttings should be soaked in a nutrient rich substrate to up to one third of their length.



The division of plants

- We can divide the plants by simply removing the old stems and divide them into new plants. Each new plant should have its roots and a few leaves.
- The plants should then be transplanted, cultivated and carefully watered until they take root.



Plants which are suitable for propagation through division

- Tarragon, thyme, primrose, violet, marjoram, balm, lovage, camomille, chive etc.
- Root division is the simplest method of plant propagation for plants with adventitious roots.
- In spring and summer we pick the root parts with growing buds and plant them 2.5 cm deep in flowerpots filled with compost.



The protection of plants during winter

- We can protect the roots of grown perennial shrubs such as sage, rosemary and lavender by covering them with an extra layer of soil, peat or straw.
- Annual plants can grow a few months longer if they are put in flowerpots and kept in a glasshouse.
- If there are extended periods of cold and snow we should keep the plants inside.
- Hedges protect the plants from wind and low temperatures.



Sunlight and temperature requirements

- Some herbs require at least 6 hours of sunlight per day: thyme, oregano, sage, marjoram, lavender, ...
- Tarragon and balm can grow also in a shaded spot.
- Most herbs and medicinal plants grow well if the daily temperature is between 15 and 21° C, whereas the lowest night temperature shouldn't be under 5° C.
- Wind has a negative impact on the well-being of the plants.



Plant irrigation

- The herbs that are grown in flowerpots should be watered more frequently as they tend to dry quickly.
- During the fall it is necessary to irrigate only if the soil is dry.
- In the morning we should irrigate with lukewarm water.



Plant harvesting

- The leaves of perennial culinary herbs can be harvested during the whole year, for ex. rosemary, sage, thyme, savory, laurel, ...
- Whole plants should be harvested right before the flowers bloom.
- The flowers should be picked at midday, when the weather is dry. The flowers should be picked when they are fully-open.
- The seeds should be picked in warm weather, when they are fully-ripened.



Plant harvesting

Taproots should be picked during the fall, when the upper parts start to wither. During the fall the taproots have the highest amount of active substance.

Annual plants should be dug out when they complete their growing cycle.

The taproots of perennials should be picked during the second or third year, when they develop active substances.

The bark tends to peel off in a humid environment and it should be picked from young branches and stems.



The drying of herbs and medicinal plants - leaves and flowers

- The drying of leaves: during the first 24 hours the ideal temp. is of 32° C, afterwards it can be lower (24-26° C). The process is completed in 4 days, if the temperatures are lower it can take up to 2 weeks.
- The leaves should be kept in a clay pot or a dark glass container in a dark space.
- The process of flower-drying is similar. If the flowers are dried correctly, they preserve the colour. The drying lasts from 1 to 3 weeks.



The drying of herbs and medicinal plants - the taproots

- The taproots should first be cleaned and cut into half or even smaller slices in order to speed up the drying process. The taproots should be dried at 60°C. We can dry them in the oven, but we have to keep in mind that it is necessary to frequently turn them over. When the taproots are dry they are very brittle.
- When the taproots are dry they should be kept in hermetically sealed dark containers.





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