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Text: John Mason Dip.Hort.Sc. FIOH, FAIH, FPLA

Photography: John and Leonie Mason

Editorial Assistants: Marie Beerman

Published by ACS Distance Education P.O. Box 2092, Nerang MDC, Queensland, Australia. P.O. Box 4171, Stourbridge, DY8 2WZ, UK.

admin@acs.edu.au

ISBN: 978-0-9872647-1-8

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#### **ABOUT THE AUTHOR**



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Mr Mason has had over 35 years experience in the fields of Horticulture, Recreation, Education and Journalism. He has extensive experience both as a public servant, and as a small business owner. John has held positions ranging from Director of Parks and Recreation (City of Essendon) to magazine editor.

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#### CHAPTER 1 INTRODUCING HERBS

Herbs have a history almost as old as man himself. Used as much for medicines and foods as their colours and scents, herbs have a practical charm unmatched in the world of plants. No garden is complete without them and no kitchen could be considered fully stocked.

The scientific definition of a herb is a plant which has no persistent stem above the ground; that is, the leaves and stem die back to the roots after a period of growth. By this definition, strictly speaking, you would call plants such as daffodils and dahlias herbs along with plants such as mint and garlic. The more popular definition of a herb is any plant whose roots, stems, leaves or flowers are used for culinary flavouring, medicinal or perfumery purposes. Herbs then, are essentially plants which are grown because of the beneficial characteristics of the oils or other chemical components to be found in their tissues.

Herbs have been gathered or grown and used in all parts of the world for thousands of years. They are some of the easiest, hardiest and fastest garden plants to grow and there is generally little cost involved in growing them, apart from your own labour. These factors, coupled with a growing preference today for natural alternatives to chemicals, have resulted in a revival of interest in the use of herbs.

Herbs have long been associated, in many different cultures, with things magical or supernatural, perhaps due to the seemingly miraculous healing power of some herbs.

The ancient Egyptians, Greeks and Romans all used herbs as did most other early civilisations but most of the herbs we commonly use today were developed by European herbalists during the Middle Ages and the Renaissance. By the mid 16thcentury, most European households grew at least 50 different varieties of herbs in the garden.

Many medicinal uses of herbs have been thoroughly tested over the centuries and their credibility firmly established. In recent years there has been considerable interest from scientists and enthusiastic amateurs in determining just what effects herbs produce and what components of herbs cause these effects. Much effort is also being spent in introducing new herbs into widespread cultivation.

#### **GROWING HEALTHY HERBS**

Herbs are among the easiest of plants to look after, but that doesn't mean you should plant them and forget them. There is no one ideal set of growing conditions for herbs. They come from many different plant families which have adapted to different types of environments all over the world – consequently they all require different growing conditions. One of the things they do have in common however is that they generally have a scent, and in most cases a sunny position is needed to fully develop the oils or chemicals which give herbs their characteristic scent or taste.

The ideal growing conditions for most herbs are similar to those required by vegetables, namely raised beds, moist but well drained and mulched soil, full sun for at least part of the day but not too exposed to frost and wind, and generally fertile, weed-free soil. Some herbs, however, do prefer soils that are not over-fertile.

#### WHERE HERBS CAN BE GROWN

Herbs are quite versatile and can be grown in a variety of situations. These include:

- Formal herb gardens.
- Informal herb beds in the garden such as in may cottage gardens.
- In containers such as baskets, herb pots, tubs and window boxes.
- Amongst other plants such as in a vegetable garden as companion plants for insect control or as an additional crop.

#### **GETTING YOUR PLANTS**

Your herb garden can be grown from seed or cuttings or else purchased in pots. They can be readily purchased in three inch tubes or larger pots, however most herbs grow so fast that tube stock is generally the most economical means of buying them. Large pots are usually better for the slower growing woody herbs such as rosemary, lavender, bay tree and so on.

When purchasing your plants make sure the foliage is lush and healthy and that there is no sign of pest or disease attack.



#### CHAPTER 2 CULTIVATING HERBS

#### **IMPROVING YOUR SOIL**

Generally most soils can be improved in some way and nearly all soils, except for highly organic soils such as peats, can be improved by the addition of organic matter. This can be achieved by incorporating into the soil such materials as well decomposed compost, aged sawdust and aged manures, or by using them as mulches.

Heavy soils with poor drainage and aeration can be improved by the addition of coarse material such as sand and by the addition of organic matter.

Soils that drain too readily can be improved by the addition of moisture retaining materials, particularly well decomposed compost.

Compacted or poorly structured soils can be improved by the incorporation of coarse material, organic matter and a dressing of lime. Compacted sodic clay soils will benefit from the addition of gypsum or commercial soil conditioners such as "Clay Breaker".



#### SOIL PH

This is a measure of soil's acidity. It is measured on a scale of 1 to 14 with 7 being neutral. Any number below 7 means the soil is acid with an increase in acidity as the number decreases. Any number above 7 - means that the soil is alkaline, with increasing alkalinity as the number increases. Most plants prefer a pH of 6 to 7, however many plants thrive in soils outside this pH range.

The majority of herbs prefer neutral to slightly alkaline soils. For acid soils an addition of calcium carbonate may be required. Quantities should be in the order of a half to one kilogram per square meter where the pH is 6.0 and double this if it is 5.0. Simple pH kits can easily determine your soil's acidity or alkalinity. In extremely alkaline soils and for those herbs that prefer acid conditions, the addition of an acidic fertilizer such as sulphate of ammonia will prove beneficial.

# WHAT HERBS TO GROW IN WHAT SOILS

Though most herbs are very adaptable to a wide range of soils, the following are particularly suited to the soil types listed.

#### **Alkaline Soils**

Catnip, hyssop, juniper, lavender, marjoram, rosemary, salad burnet and summer savory.

#### **Sandy Soils**

Anise, borage, chamomile (Roman), coriander, cumin, evening primrose, fennel, lavender, marjoram, tarragon, thyme, winter savory.

#### **Loam Soils**

Basil, bay, betony, caraway, catnip, chervil, chives, coriander, dill, fennel, lovage, parsley, rosemary, rue, sage, scented geraniums, tansy, thyme.

#### Clay Soils

Bergamot, comfrey, mint, wormwood.

#### COMPOSTING

A ready source of well-decomposed organic matter (for adding to your soil or for use as mulch) can be obtained by composting waste organic materials such as lawn clippings, household waste, animal manures, sawdust, leaf mould, and plant clippings. Such material can be quickly decomposed by providing the right conditions. Composting will occur best when the moisture content of the material is between 40-60%, ideally around 50-55%. If you squeeze your compost it should have about as much moisture as a squeezed out sponge. The temperature should be between 40-60°C, and ideally around 50°C. To achieve this level, and to provide for good aeration as well, the heap should be turned over and mixed every two to three weeks. Under the right conditions the compost should be ready in about twelve weeks.

#### **MULCHING**

Mulching your plants will do five things:

- 1. Keep the soil from drying out quickly. It insulates the soil surface from rapid evaporation.
- 2. Reduce weed growth by smothering weeds below.
- 3. Stop the soil getting too hot in warm weather. Mulch insulates the roots from the sun.
- 4. Stop the soil getting too cold on cold nights, and reduce the chances of frost damage. Compost not only provides and insulation layer, but organic mulches will raise the temperature slightly around the plant through heat generated by decomposing bacteria.
- 5. Organic mulches will improve soil nutrition and structure as they decompose on the soil surface.

A variety of substances may be used as mulch including wood shavings, bark, shredded newspaper, coconut fibres, grass clippings, straw and compost.

It is sometimes necessary to give plants surrounded by mulch a little extra fertilizer to offset the nutrients being lost to decomposing bacteria.



### PLANTING

There are various ways to plant. This is just one method:

- Dig a hole one and a half times the depth of the plant's root ball.
- Check the soil drainage ability by filling it the hole with water and checking to see if it drains well. You may need to improve the drainage.
- Improve the soil with some compost mixed into the existing soil at this stage you can also add some blood and bone but make sure it is mixed well into the soil to prevent root burn.
- Remove the plant from the pot and loosen the roots.
- Place the plant in the hole and fill in around it with soil.
- Add a volume of water equivalent to the size of the hole you have dug.
- Mulch around the base and stake the plant if required.

#### MAKING A NO-DIG HERB GARDEN

- Prepare the herb bed where it receives maximum sunlight, removing as many weeds as possible first.
- Cover the soil with a layer of newspaper (20-40 sheets thick).
- Cover the newspaper with a layer of organic material such as straw, wood shavings (old) or hay (10 to 15 cm thick).
- Spread a thin (2-4 cm thick) layer of well-decomposed animal manure to completely cover the surface.
- Spread a layer of Lucerne hay over the surface (to 4 cm thick).
- Finish with a layer of organic compost. Make sure the compost is free of weed seeds and is of an open texture.
- Herb seeds can be directly sown into the top layer of compost.

The heat generated by the various layers composting assists in the germination of the seeds and root growth of new plants while the open texture and layers of newspaper retards the growth of weeds.

Water with appropriate fertilizer such as a mix of fish emulsion and seaweed and you have a very low maintenance herb garden!

NB: If using hay be sure it is free of grass or weed seeds.

#### **FEEDING HERBS**

Most herbs are rapid growers and as such need fertile conditions if they are to perform to their best. The will respond very well to regular feeding during their growing season, though fertilizers will be wasted if applied when they are dormant. They do not however need high nitrogen fertilisers as this encourages sappy growth that is not as flavourful as plants that are grown with a low nitrogen fertiliser.

## THERE ARE THREE MAIN TYPES OF PLANT FOODS:

#### Slow Release Fertilizers

These have a store of concentrated fertilizer which is released gradually over a period of weeks or months. The rate of release will vary, usually depending on moisture and temperature (i.e. in wet and warm conditions, the fertilizer can be released into the soil very quickly. The fertilizer lasts longer if temperatures are mild and the soil is not over-watered).

Examples: Manures, Blood and Bone, Dynamic Lifter (pelleted manure), Osmocote etc.

#### **Quick Acting Fertilizers**

These dissolve readily in water and are available to the plant as soon as applied. They give quick results but can be washed away by water moving through the soil if not used up within a few days or weeks. They feed the plant but do not have any beneficial effect on the soil.

**Examples: Thrive, Aquasol.** 

#### Fertilizer/Tonics

These contain a lot of the more obscure things which affect plant growth and they are not found in the mainstream fertilizers. They usually contain minor nutrients (which are only needed in tiny quantities, but when they occasionally go missing in the soil, the plant growth can be seriously affected). These fertilizers often include plant hormones which stimulate plant growth. This type of fertilizer is important to sustain a balanced chemical regime in the soil.

Example: Seasol.

#### **WATERING HERBS**

This is of greater importance to herbs grown in pots than those cultivated in the open ground. In hot weather the soil needs to be kept moist, but not wet. Scratch down to a depth of 2.5 cm and if the soil is dry then the herb should be watered. At the height of the growing season some herbs may require watering every day e.g. chervil, parsley, basil. Others grow very well in dry conditions e.g. rosemary, thyme, lavender.

Where the herbs are in pots the pot may be stood in a bowl of water until the soil surface is damp. Never allow the plants to dry out completely or they will be damaged when you water them. Herbs in hanging baskets may be watered with a fine aerosol in hot weather but the soil must not be allowed to become caked. Take the basket down once a week to give it a thorough soak and allow it to drain before rehanging.

#### **PLANT PROTECTION**

Many herbs are susceptible to damage by wind, sun burn, frost or overheating. These problems can be overcome in the following ways:

- Protecting against wind staking, tree guards, windbreaks, choosing a protected position near a building or large tree.
- Protecting against sun burn tree guards, erect shade cloth cover in summer, plant under deciduous trees but beware of competing roots, avoid places where heat will be reflected. Surfaces such as concrete and brick or galvanised iron can reflect heat onto the plant mulch or other surrounding plants have a cooling effect.
- Protecting against frost -tree guards, plant near a wall or fence, mulching. The heat generated by decomposition of mulch is often enough to ward the frost off.

#### **Frost Hardy Herbs**

Rose, wormwood, mugwort, rosemary, southernwood, juniper.

#### **Herbs Suitable For Seaside Planting**

Juniper, catmint, scented geranium, rosemary, hot (Vietnamese) mint, lamb's ears, viola, southernwood, wormwood, mugwort, feverfew, curry plant, campion (weedy in some areas), santolina, lavender, Jerusalem sage, chamomile, jasmine, sage.

#### Herbs suitable for the shade

Bugle (Ajuga), aquilegia, bee balm (Monarda), lemon balm, cranesbill (geranium), evening primrose, forget-me-not, foxglove (Digitalis), hellebore, lamb's ears, meadowsweet, mints (most), sorrel, stinging nettle, violet.



#### **PRUNING**

Many herbs benefit from periodic pruning in a number of ways.

- Regular cutting promotes young, lush growth which is higher in oil content.
- Spent flower heads can be removed before seeding. Some herbs are prolific seeders and will end up becoming a weed problem if the flowers are left on the plant.
- Dead growth from perennial herbs which die down during winter should be removed to keep a neat appearance in the garden and reduce the likelihood of disease build up.
- Remove spent flowers regularly to promote new growth/ flowers.
- Avoid cutting into old, woody growth on shrub/tree herbs. Some woody herbs won't recover from heavy pruning and frequent light trimming is a better way of keeping the plant growing vigorously.