



# Lavender

(Genus: *Lavandula*)

Completed by Debbie Notaro Master Gardener Class of 2003 WS Ver., Sept. 2003

"This is so well known, being an inhabitant in almost every garden, that it needeth no description." By Culpeper, 1652 ad

## HISTORY AND FOLKLORE:

**What's in a name?** Let me tell you! There is no shortage of information on Lavender. So great is its use, either in product names, in the perfuming or flower industries that if you type the word lavender on any search engine you will find approximately 80,000 sites using the word. Just in comparison, type in Thyme, Sage, Oregano, Jasmine or Basil and they will trail far behind. Only roses trump lavender sources on the internet.

We derive the modern name from the Latin: lavare; to wash or bathe and livendula; livid or bluish, and officinalis; medicinal, hence, the binominal nomenclature, *Lavandula officinalis*.

**Lavender** has been in recorded history for over 2500 years and therefore is rich in history, folklore and superstition ...so let's start at the beginning.

The story of how lavender was to have acquired its scent goes something like this: Adam and Eve were said to have taken lavender from the Garden of Eden. At that time it was without a scent. Legend has it that it remained that way until one day Mary laid the clothes of baby Jesus on one of the bushes to dry. Miraculously, when she removed the garments lavender is said to have been left with its intoxicating scent. I am not sure if this story is true, but I thought it was a nice story and a nice way to begin to tell you about the history and folklore of this herb.

It is in Mesopotamia, the current country of Iraq, where it is said civilization itself began, that Lavender is believed to be native. The Arabians were the first to domesticate it. History shows that lavender was thought to have been introduced to France through the Greek Islands of Hyeres sometime around 600AD and to England and the United States sometime between 16<sup>th</sup> and 17<sup>th</sup> centuries. A strict sect of Shakers introduced lavender to the US and Canada. They developed herb farms upon their arrival from England, and were the first to grow it commercially.

In antiquity, herbs in general were highly sought after mostly for their medicinal uses. Usually the power held by those who claimed to have the knowledge of their magical healing effects was very great. Many herbalists of old were connected with the spiritual world, both of a deity of the time and the superstitious, which sometimes led to witchcraft and sorcery.

Lavender is referred to as the “good witches” herb, as it was useful in averting the “evil eye”. It is claimed to make ‘the evil spirits quake at the scent of it’. Christians believed that if you stuffed keyholes with lavender it would keep ghosts from entering your home.

Plant remedies represent the most continuous form of treatment for human and animal medical needs. Folk medicine, Holistic or the household use of simple herbal remedies is based on word of mouth tradition that is probably from as far back as prehistoric time. In fact, very early trade routes to the Middle and Far East were established in great part for traders and explorers in search of herbs and spices.

The Egyptians and Phoenicians used the herb in their mummification practices. They used the oils to preserve the skin and intestines and the flower for masking the odor of decay. The Egyptians and Chinese were among the first to invent the still and perfected the technique of distilling the essential oils.

From the time of ancient Greeks and Romans until about the twentieth century, it was widely used to fend away or cure a huge variety of ailments... In 60AD the Greeks harvested *Lavandula stoechas* to be used as a laxative and stimulant suitable for chest complaints. Romans treated upset stomachs, kidney disorders, dropsy, dressed wounds, jaundice, and insect bites with it. The Greeks and Romans began the practice of scenting their baths and soaps with lavender.

For centuries, lavender was used as a ‘strewing herb’ as it was tossed onto floors of castles and hospitals for its use as a deodorizer and disinfectant. It was placed between clothes and linens as a fragrant repellent of moths and mosquitoes.

Other uses in later centuries were for headaches, hysteria, nervous palpitations, hoarseness, palsy, toothaches, sore joints, colic as well as coughs. Hildegard of Bingen, a German nun who lived from 1098-1179, had this remedy for migraines: “Lavender water, a concoction of vodka, gin or brandy mixed with lavender works wonders.” ... Well, I am not sure about the lavender, but if you had enough of the other ingredients I’m pretty sure they would take care of just about any headache!

During 1630 the Great Plague swept through Toulouse, France. Four thieves ransacked the city without contracting the disease; when finally caught, a judge decided to commute their death sentences, if they revealed the secret ingredients to the mysterious decoction that gave them immunity from the disease. The formula now known as the “The 4 Thieves Vinegar” was a combination of thyme, lavender, rosemary and sage steeped in vinegar. One hundred years later the disease struck again in Marseilles. Herbalists then added garlic as the fifth ingredient. In the 19<sup>th</sup> century a French distiller of vinegar patented the formula and marketed this elixir to nuns, priests and doctors. “Drink some on an empty stomach in the morning, rub your temples with it and go out in tranquility to visit the sick.”

By the 20<sup>th</sup> century scientists favored the idea of the chemistry of herbs and began the process of refining crude decoctions into pure chemical molecules. The decoctions of the past eras have led us right up to the doorstep of the incredible strides of the last 25 years or so of genetic engineering. For most of the 20<sup>th</sup> century lavender lost its place in the healing world, but continued to keep its stature and gain importance as a main ingredient in the perfume, craft, potpourri and the aroma therapy industries... This leads us right to romance...

It is said that Cleopatra used 'this overwhelming and bewitching scent to seduce Julius Caesar and Mark Antony'. Now, I know that if you are a serious history buff you are asking yourself, if the scent was given to the plant at the time of Jesus, how could she have used it? Well, that is why they call it folklore! Roman superstition suggests that the asp made his nest in lavender bushes... Only those who knew how to avoid the asp's venomous strike could harvest the plant. It was widely reported the asp that killed Cleopatra was actually found under one of her lavender plants. Crafty growers at the time used this 'superstition' to mystify the herb and it only served to drive up the price!



## THE SCENT OF LAVENDER

By the early 19th century doctors would use lavender to treat loss of memory, dimness of sight, melancholy, swooning fits, acne and barrenness in women. The treating of barren women with this herb makes my next ditty rather interesting... It is a fact that your sense of smell is 10,000 times greater than the sense of taste. It is the only one of the senses that has an unblocked pathway to the emotional center of the brain, completely bypassing the intellect. Here's the best part... Lavender is currently being studied in its uses for impotence. The scents of pumpkin pie and lavender rank the highest in what men find most arousing. Need I go further on how it helped in the barrenness problem ... No wonder the perfume industry is so popular!

In the area of romance lavender has enjoyed a rich past. In the Middle Ages it was considered a great aphrodisiac *and* to the contrary; "A sprinkle of lavender onto the head of a loved one, would keep the wearer chaste." Of course, this was such a *smart* herb that if you *thought it*, it could have the opposite effect. "Under the bed of newlyweds, it would ensure passion".

**Lavender** was widely used as a natural antiseptic and deodorizer. Its pleasant aroma was used to mask body odor, therefore, women would tie small bunches of it to their under garments. It was very popular with ladies during the Victorian era to hold "tussie-mussies" under their noses as they walk down the streets. It helped to keep away the awful odors of open sewage and animal waste so common to the day.

Victorians said the use of lavender in a bouquet would symbolize devotion, luck and trust. Many communities have discouraged the use of throwing rice after a wedding ceremony and have taken up tossing bird seed, not very romantic. Recently some have begun tossing lavender buds instead ... *very romantic*, and if we consider the Victorian meaning a very nice sentiment.

Royals have had a long history of using the herb for their own indulgences. Queen Elizabeth I of England required lavender flowers available every day of the year, an incredible feat for the royal gardener of the era. Considering they had no grow-lights, etc., and the climate in England was not helpful! Queen Victoria's love of lavender made it a very popular scent; years later it was considered "an olde ladies scent" and fell out of fashion.

**Lavender** has the most complex of all essential oils. The molecules are very small and therefore have the fullest and most complex bouquet. The main elements responsible for the scent are Linalool and Linalyl acetate. Jars of lavender oil should be kept tightly closed to avoid rapid evaporation.

Recently lavender seems to be the flavor of choice. It is said to mix very well with fats and oils, especially that of milk fats. The use of it in ice cream and bakery goods is becoming a favorite ingredient in boutique bakeries and creameries. Lavender buds from *L. intermedia* 'Grosso' and 'Provence' are the sweetest and are best used for culinary purposes. Using it as a savory herb is also very popular, blending it with rosemary, sage, mint and cinnamon in meat and cheese dishes.

I believe the different uses of lavender stemmed from a natural progression of homeopathic applications to the eventual home craft accents, was due to the evolution of modern deodorizers and medicines.

Today lavender is a common commercial plant widely grown in France, Spain, Italy, England, Australia, New Zealand, Japan, and The United States. It is widely tested for its numerous uses around the world.

Throughout time *Lavandula* symbolized love, affection, cleanliness, purity, chastity, protection, longevity, acknowledgement, perseverance and peace.



## GROWING LAVANDULA

There are two main ingredients to successfully growing lavender: full sun and good soil drainage.

### SOIL

A PH of 6-8 is the best. In France, lavender grows best in well-drained calcareous (limestone derived) and stony ground. However, any range of light, well drained soil is quite suitable for growth. If you have heavy clay soil it is recommended that you plant on a mound of good draining soil. Lavender will tolerate wet feet for a short period of time provided the soil is adequately drained.

### CLIMATE

**Lavandula angustifolia** is the most widely cultivated species. *L. angustifolia* and *x intermedia* are the hardiest among the lavender. English lavenders, *L. angustifolia* thrive in hot, dry climates and do not do as well in hot and humid areas. *L. x intermedia*, *Lavandins* thrive as far south as Florida. Both species are reasonably tolerant of cold weather, wind, rain and snow, if grown in good draining soil. *Lavandula stoechas* (Spanish Lavender) will tolerate hot and dry conditions, but perform much better when adequate moisture is provided. It will tolerate frosts even snow fall so long as it doesn't stay on the plant for too long.

### FERTILIZER

**Lavenders** are naturally lime loving. Therefore they grow best when adequate levels of calcium are in the soil. Lime may be added in the soil in the autumn or before planting. However, for the home gardener, well balanced compost and some lime\* will benefit the plants, especially the older plants, *if* the soil is poor. Lavender will grow without any soil additives. Avoid using excessive amounts of fertilizers including nitrogen based types and never use strong manures, i.e. pig or chicken.

\*Add lime *only* if pH is low



## CONTAINER GARDENING

Smaller growing varieties, i.e. *L. angustifolia*, 'Jean Davis', 'Irene Doyle', 'Munstead' and *L. x intermedia*, 'Twickel Purple', 'Silver Edge' and 'Fred Boutin' are a few of the most suitable for containers. *L. angustifolia*, 'Hidcote' can be grown in containers for about two years then usually grow too large and need to be moved into the garden.



All potted lavenders require sufficient space to allow for the spikes and peduncles spreading habit. They require well drained soils and good drainage in pots at the base. A slow release fertilizer is recommended. Annual repotting is necessary. Adequate watering during growing season is important so that the plants do not desiccate or dry out. During winter months keep water to a minimum and always avoid over watering at anytime.

## IN YOUR GARDEN

**Lavender** generally transplants well, especially if moved in the fall, winter (if your winters are very mild) and early spring. Water the plant well before and after transplanting. Plant may not flower the first season after moving it, but regular flower production will be restored in following seasons.

The distance between plants largely depends on the effect you are trying to create in your garden. If your intention is to create a border or a hedge along a driveway or to surround a rose or herb garden then you would want to plant fairly close together. As a general rule, the plants in this instance should be spaced apart at about  $\frac{3}{4}$  to the full size of the expected width of a mature plant. So in other words, if a plant is expected to reach a width of 36" at maturity, then the plants should be spaced at about 28-36" apart. If your intention is to grow en masse or as a specimen plant then you would want to space each lavender well away from one another to achieve the desired affect. It is important to know the expected size of the cultivar you are using. Lavender also does well as a companion plant in a bed with other flowers that have similar light and moisture needs.

## PRUNING

Each fall, lavender should be pruned back anywhere from 1/3-1/2 of the plant. Pruning your plants is the single most important thing you can do to keep your plant shapely and in good health. *Lavandula stoechas* should be pruned back hard after flowering and in the fall. This will prevent the plants from becoming too large and woody, which will cause the plant to split open and become unsightly. Depending on your climate your lavender may bloom a second time, if lightly pruned after initial flowering.



## WATER

**Lavender** likes a very well drained soil. It also likes a fairly dry soil. In Contra Costa County, during the summer and early fall, you will most likely need to water your plant at about a rate of 1 gallon to 1 ½ gallons per week. A grower in Sonoma has found 1 ½ gallons per week, during the summer months, to be the optimal amount in their area.

If possible, water lavender with drip irrigation. Watering from the top, especially while flowering could damage the flowers and eventually, if continuously top watered, will split the plant in two. This will

leave an unsightly hole in the center of the plant. Once a lavender plant splits it will need to be replaced.

Under and over watering will stress younger and older plants the most. Research shows drought stress is directly related to the quality and quantity of spike and oil production. In general, lavenders develop optimally with 33 inches of rain annually, and will tolerate a range from 12-54 inches of rain per year.

## HARVESTING

The end use of your flowers will determine, in large part, when to best harvest. Opinion varies on this subject, but I will try to give you an overall sense of when and how to harvest your crop. Use this information as a guide. Experimenting with your own varieties will be the best judge.

HARVESTING THE FLOWERS: Look closely at your lavender plant. You will notice that the stem has three distinct colors. The top is darker green, near the bottom of the stem it will be a lighter green, and the bottom of the stem will be brown. Cut *just above* the lighter green area. Do not cut into the brown area. This is where new growth originates and if damaged or cut out will not regenerate.



THE FRESH FLOWER MARKET: My research has suggested anywhere from 25% open flower bud all the way to 60% open flower buds. If the end use is a floral display in your home, I would suggest harvesting whenever your eye tells you it's time. The commercial industry suggests optimal time at around 25-33% of open flowers. All research suggests that fresh cut flowers should be stored in a cool place and the fresh flowers last longer when the water is changed daily.

THE DRIED FLOWER MARKET: It is suggested that harvesting anywhere from when the first two flowers to 25% of the bud is open is the proper time to cut for dried flowers. In either case harvest while at least 75% of the flower is still closed.

THE OIL MARKET: The best time to cut for oil depends on the cultivar, but generally when 25% to 50% of the flower is open and withered.

BUNCHING: In all research sources, the term bunching is described as a "handful". Tie ends of the stems together tightly with a rubber band. Rubber bands allow for shrinkage, as the moisture evaporates from the flowers and stems.

THE DRYING PROCESS: Dry lavender in a dark, well ventilated area. Bunches should be hung upside down from a nail or hook by the rubber band. If you have the ability to heat a well ventilated area to 115F the drying process may take as little as a few days. However, without the correct and constant conditions described above, drying should be completed in 2-3 weeks. Once dried, the lavender can be left hanging or placed in a breathable container, such as a cardboard box. Dried Lavender should be stored in a cool and dark area.

## PROPAGATION

SEEDS: Again, there is a wide variety of opinion on this subject. All research indicates seed propagation is slow, unreliable and unless you have isolated the parent plants from all others, you will have a variety not the actual cultivar you are trying to duplicate.

STEM CUTTINGS: The easiest way to propagate is with stem cuttings. Cut the flower head and any leaves off of a long stem. Cut the stem into 4-6" lengths. Prepare a tray of slushy perlite. Dip one

end of the stem into a rooting hormone and stick that end of the stem into the perlite tray. Keep the moisture level slushy, but not saturated. A light feeding every two days will help. The optimal temperature should be between 75-80 degrees. The tray should be kept in filtered sunlight. In about 3 weeks, check for root development. This method is said to have about a 60% success rate. Transfer rooted stems into 2 ½” pots with a mixture of perlite and potting soil. Keep moist, feed lightly and pinch tip of plant. In about three weeks, when the regenerant grows to 3-6,” transfer into the garden or into a 4” pot.

**LAYERING:** Layering is easy, but the least efficient method if your goal is to propagate a large number of regenerants per plant. If you look close enough, your plant may have already completed this process on its own, as many woody herbs do naturally.

To propagate by layering, locate a long flexible stem and remove 4-6” of foliage at the base of the stem and leave 4-6” at the tip. Mound 2-3” of bark or mulch under the stem. Make a shallow indentation and cover the bare section with a mixture of moist soil or sphagnum moss and perlite. Use a ‘U’ shaped piece of wire to secure in place. Keep moist. Roots should develop sometime between 2-8 weeks. Once rooted, cut the new plant from the parent and transfer to individual pot or the garden.

## PATHOGENS

In Contra Costa County Lavender grows with very little trouble from pests or infection, if you water properly, by drip irrigation. The most common disease problem is wilt. Vascular wilt can be prevented by proper irrigation techniques, a clean environment, and a minimal use of mulch. If your area has a good deal of humidity it may be a good idea to use sand or pea gravel as a mulch rather than wood products. Good air circulation is very important. If your plant symptoms include rapid wilting, browning and dying back of leaves, the best thing to do is remove the plant and surrounding plant debris and discard.

## FINDING JUST THE RIGHT ONE

Finding lavender at your local nurseries is not a problem. Every flower center has at least a few of the more common cultivars and some nurseries have a wide selection...but if you are looking for *just the right one*, either for color, texture or you happen to be a collector, this is a list of the varieties that are currently being cultivated by local growers. If your favorite nursery does not stock a variety you are looking for, ask them to order it in for you. Most garden centers are very willing to do so. HAPPY GARDENING!

GENUS	SPECIES	VARIETY	FLOWER COLOR
<i>English Lavenders</i>			
Lavandula	angustifolia	‘Hidcote’	Very dark purple
Lavandula	angustifolia	‘Irene Doyle’	Dk. Aster violet
Lavandula	angustifolia	‘Lavender Lady’	Lt.-med. purple
Lavandula	angustifolia	‘Munstead’	Light purple
Lavandula	angustifolia	‘Jean Davis’	Light Pink
Lavandula	angustifolia	‘Goodwin Creek’	Deep lavender violet
Lavandula	angustifolia	‘Martha Roderick’	Bright lavender
<i>Lavandins</i>			
Lavandula	intermedia	‘du Provence’	Light-med purple
Lavandula	intermedia	‘Dutch Mill’	Rich deep purple
Lavandula	intermedia	‘Fred Boutin’	Medium violet
Lavandula	intermedia	‘Grosso’	Dark purple

GENUS	SPECIES	VARIETY	FLOWER COLOR
Lavandula	intermedia	'Silver Edge'	Creamy edged leaves/Lt. violet
Lavandula	intermedia	'Twickel Purple'	Dk. Violet purple
Lavandula	intermedia	'White'	White
Lavandula	intermedia	'Richard Grey'	Purple
Lavandula	intermedia	'Alba'	White
<i>Spanish Lavender</i>			
Lavandula	stoechas	'Otto Quast'	Medium purple
Lavandula	stoechas	'Dedication'	Bluish
Lavandula	stoechas	'Fairy Wings'	Purple
Lavandula	stoechas	'Madrid'	Blue, purple, pink or white
Lavandula	stoechas	'White'	White
Lavandula	stoechas	'Wings of Night'	Dark purple
Lavandula	lanata	'Lisa Marie'	Bright purple

## GENERALLY SPEAKING

The hardiest plants are the English Lavenders (*L. angustifolia*) and Lavandins (*L.x intermedia*). English Lavenders have the sweetest scent of all lavender and grow poorly in the hot humid areas, while Lavandins can grow and thrive as far south as Florida. Lavandins are smaller plants, but often are larger than *L. angustifolia* when in bloom. Best used for crafts and oil after flower has bloomed and withered.

In general, darker flowered plants are less resistant to disease than the pale-flowered varieties.

## Lavendula Study Bibliography

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**Family:** Labiatae (Lamiaceae) Contains square or rectangular stems.

**Genus:** Lavandula

**Species:** Consists of over 30 small shrubs or herbs, 200-300 varieties

**Sections:** 1. **Lavandula** (fmr. Spica) Mediterranean, France

2. **Stoechas** – Mediterranean Area

3. **Dentata** – Mediterranean , Macronesian Islands, and Arabian Areas

4. **Pterostoechas** – No. Africa and Macronesian Islands

5. **Chaetostachys** - India

6. **Subnuda** – South Arabia to tropical Africa

1. **Lavandula** cultivars in this section are shrubs usually growing to 36” or better, with some dwarf varieties. Former name spica refers to the spike-like nature of the flower. *L. angustifolia* is commonly referred to as ‘English Lavender’. *Lavandins*, *L. intermedia* is commonly referred to as “Hedge Lavender”. *L. angustifolia* and *intermedia* only two species recommended for culinary purposes. Most commonly grown in the Western hemisphere.
2. **Stoechas** consists of shrubs to about 36”. *Stoechas* derived from the Greek name for a group of islands *Stoechades* just off the coast of France and now called *Iles De Hyeres*. The sterile bracts are enlarged forming what are commonly known as “rabbit ears”. Fertile bracts are broad and round. Plant is commonly referred to as “Spanish Lavender”.
3. **Dentata**, toothed leaf margin and an inflorescence that has reduced sterile bracts compared with *stoechas*. Spikes are elongated and sterile bracts appear about  $\frac{1}{4}$  -  $\frac{1}{2}$  of the way down the spike. Commonly referred to as “French Lavender”.
4. **Pterostoechas** means “winged spike”. Consists of herbs and shrubs with heavily branched stems. Spike is compact and usually has no stem. Not common in the west.
5. **Chaetostachys** consists of herbaceous plants with branched peduncles and spikes. Stems and leaves are thick and not ‘lavender’ looking. This plant is rare in cultivation.
6. **Subnuda** is also rare in cultivation. Herbaceous plant with alternate or spiral arrangement of the fertile bracts. Leaves may be almost entirely absent in an adult plant.



Lavandula stoechas  
'Otto Quast'





Lavandula stoechas  
'Helmsdale'



Lavandula sto  
'Helmsdale'



Lavandula intermedia  
'Provence'



Lavandula intermedia  
'Provence'



Lavandula angustifolia  
'Munstead Dwarf'





