

The UCCE Master Gardeners of El Dorado County Welcome You!



All About Lavender

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UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources

UC Master Gardener Program
El Dorado County



Growing Lavender

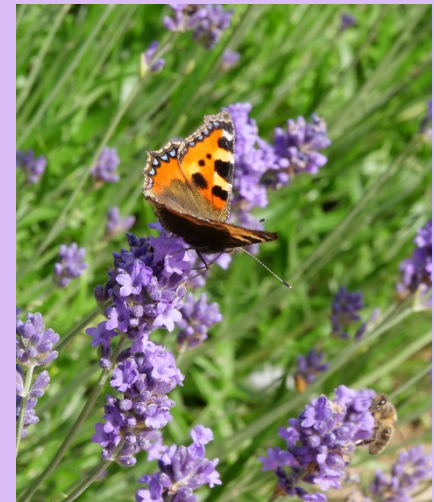


“Each Lavender has a different personality,
much like wine.”

Lavender at Stonegate Farm

Lavender – What's not to love?

- It displays a profusion of gorgeous flowers over a long blooming season (spring through fall). Its foliage provides an attractive contrast and adds interesting texture in the garden.
- The flowers, and often the foliage, are wonderfully aromatic.
- It attracts a variety of pollinators to the garden.



Lavender – What's not to love?

- Once established, it's very drought tolerant.
- It's deer and pest resistant.
- There are a wide variety of plants of different sizes, flower color, and leaf color and shape to select from.
- It's evergreen, easy to grow, and can look great all year with a minimum of work.



A plant with a lengthy history and many uses

- Lavender can be traced back at least 2500 years and is native to Europe, East Africa, Southwest Asia, and India.
- It was used by the Egyptians as part of the mummification process.
- The ancient Romans believed it had healing and anti-septic properties – they spread the wonders of the plant throughout their empire.
- In Elizabethan England, lavender was used to perfume clothing and bed linens to mask the fact that most people did not bathe regularly.



Lavender Fun Facts

- Lavender was first brought to the US by the Pilgrims in the 1600s.
- *Lavandula x. intermedia* 'Provence' is mostly used for essential oils – from sweet oils for fragrance to bold, camphoric oils used to scent detergent.
- Lavender's complex oil has 180 different constituents that are unduplicated by any other plant.
- From an aromatherapy perspective, the University of Chicago Research Foundation revealed that the fragrance that most aroused male subjects was a combination of Lavender and Pumpkin.



Did you know?

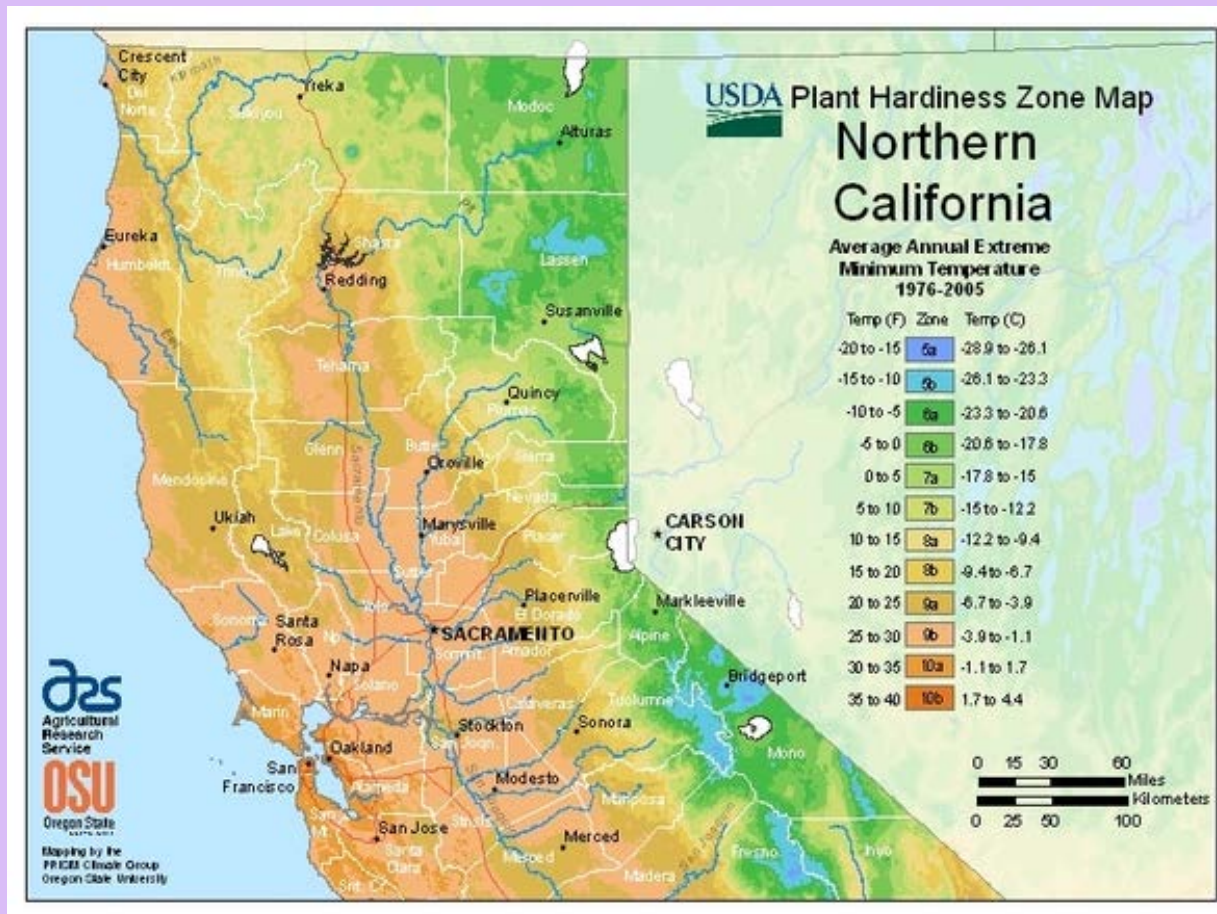


- Lavender is a member of the Mint Family; Genus *Lavandula* is a botanical group with square stems and remarkable fragrances.
- It's a multi-use plant grown for landscaping beauty, fragrance, and culinary uses.
- Lavender can be used to make a refreshing facial tonic by combining 5 drops lavender essential oil to 5 ounces distilled water and stored in a spritzer bottle.



Lavender thrives in zones with Mediterranean-like climates

USDA Zones 5-9



Zone tolerance can vary by plant species.

Sunset Climate Zones



L. angustifolia (English Lavenders) – Zones 2-24

L. x. intermedia/Lavandins (Hybrids) – Zones 4-24

L. stoechas (Spanish Lavenders) – Zone 4-24

L. dentata (French Lavender) – Zones 8, 9, 12-24

Again, climate zone tolerance can vary by lavender species.

Welcome to the Lavender Family

Major lavender classifications

- *Lavandula angustifolia* - Classic English lavender is known for its wonderful blooms and sweet fragrance; it is also prized for its oil. Plants are usually smaller at under 2 feet and have narrower leaves.



**‘Thumbelina Leigh’
Dwarf English lavender**

The Lavender Family

Major lavender classifications

- *Lavandula x. intermedia*/Lavandin –
These newer hybrids (often simply referred to as “**Hybrids**”) are crosses between English lavender and broader leaved varieties (*L. latifolia*). They have wonderful flowers and fragrance on taller plants (up to 3 feet) and are better at adapting to common garden soil.



‘Provence’

The Lavender Family

Major lavender classifications

- *Lavandula stoechas* - Spanish lavender falls into this category. These are early blooming varieties on plants from 18" to 3' with grey/green foliage. Flowers are chubby, shaped like a squared off pineapple with showy bracts that look like rabbit ears.



‘Anouk’

The Lavender Family

Major lavender classifications

- *Lavandula dentata* - French lavender is also known as fringed lavender because of its deeply serrated leaves. The entire plant is strongly aromatic and most cultivars have grey/green foliage with a light wooly texture. It can reach up to 3 feet and has a long bloom time starting in the late spring.



L. dentata

Location, location, location!

Lavender requires **FULL SUN** - 6+ hours a day.



Too little sun can

- hinder flower production
- cause the plant to become leggy
- contribute to plant stress and increase susceptibility to disease

Best Soil Conditions

- Lavender prefers gritty soil or sandy loam.
- Soil pH should be between pH 6.5 and 7.5.
- Adjust the pH level by adding lime to raise it or sulfur to lower it.
- Soil **MUST** drain well.
- Lavender cannot tolerate “wet feet”.



Drainage, drainage, drainage!

How to test your soil's drainage

- Dig a hole 1 foot deep.
- Fill with water and allow to drain.
- Refill with water and keep track of how fast it drains.

If the hole drains less than 2 inches per hour, the drainage is poor.



Addressing drainage problems

- Sand and organic matter can be added to the planting hole to improve drainage.
- Plant high in the hole so water will drain away from the plant's base.
- For heavier/clay-based soils, grow on mounds created above the soil line or in raised beds.
- Try container planting.



Raised planters



Mounded plantings

Other possibilities



Good Planting Strategies

- Good air circulation and proper plant spacing is essential for disease prevention.
- The amount of space left between plants depends on plant size; carefully read the plant's tag for recommendations.
- Plant high in the hole so the crown is at least one inch above the soil line.

Tips for Planting Lavender

- Prepare a planting hole three times the size of the plant's root area.
- Use native soil to backfill the hole when possible.
- Augment with soil amendments as needed based on the condition of your soil. Consider lime or sulfur for pH, well-aged compost, pumice for drainage.
- Spring and fall are ideal times for planting.



Lime



Pumice



Compost

Use Companion Plants with Similar Requirements

- The UC Davis Arboretum All-star Plant Database offers 100 outstanding performers for our area.



Cape balsam



**'Marie Simon'
ceanothus**



**'Concha'
ceanothus**



Snow-in-summer



California fuchsia

- WUCOLS IV (Water Use Classification of Landscape Species) – Enables plant searches by location, plant type, and water needs.

Final Planting Step – Apply Mulch

Why Mulch?

- It helps reduce water loss through evaporation.
- Soil temperature is moderated, which reduces root stress and increases biological activity.
- Water runoff is minimized, which prevents soil crusting.
- Soil texture is improved over time.
- There will be fewer weeds in the garden.
- The amount of dust is lessened, which is beneficial in drip irrigated landscapes.



Soil crusting

Best Mulch Choices for Lavender

- Pea gravel, decomposed granite, or sand (rather than organic materials) are ideal materials to use as a soil cover/protector.
- Apply 2-3 inches of mulch, being sure to leave 6 inches of bare soil around the stems of the plant.



Decomposed granite



Pea gravel

Water...

But not too much!



- New plants or transplants require more water – provide water regularly until the plant is established.
- Adequate water minimizes plant stress.
- Excessive watering can leave plants susceptible to root rot and other fungal and bacterial diseases.
- Lavender is quite drought tolerant once established.

Best Watering Practices

- Avoid overhead watering which wets the foliage; apply water to the base of the plant.
- Drip irrigation is the best choice.
- Allow soil to dry out before watering.
- Water deeply at less frequent intervals once plants are established.
- Adjust your watering schedule as the seasons change.



Problems caused by water/poor drainage



**Overwatering/
Wet roots**



Root rot



Crown rot



Best Uses of Fertilizer

- Excessive nitrogen encourages soft, succulent growth that is low in oil.
- Lavender plants can break apart in the center with heavy fertilization.
- If fertilizer is needed, use a balanced time release organic fertilizer at half strength mixed well with backfill soil at planting time, or substitute well-aged compost or worm castings as excellent alternatives.
- Mature plants will **NOT** need fertilizer.

CAUTION

Too much fertilizer
can be dangerous to your
lavender's health!



Planting Lavender in Containers

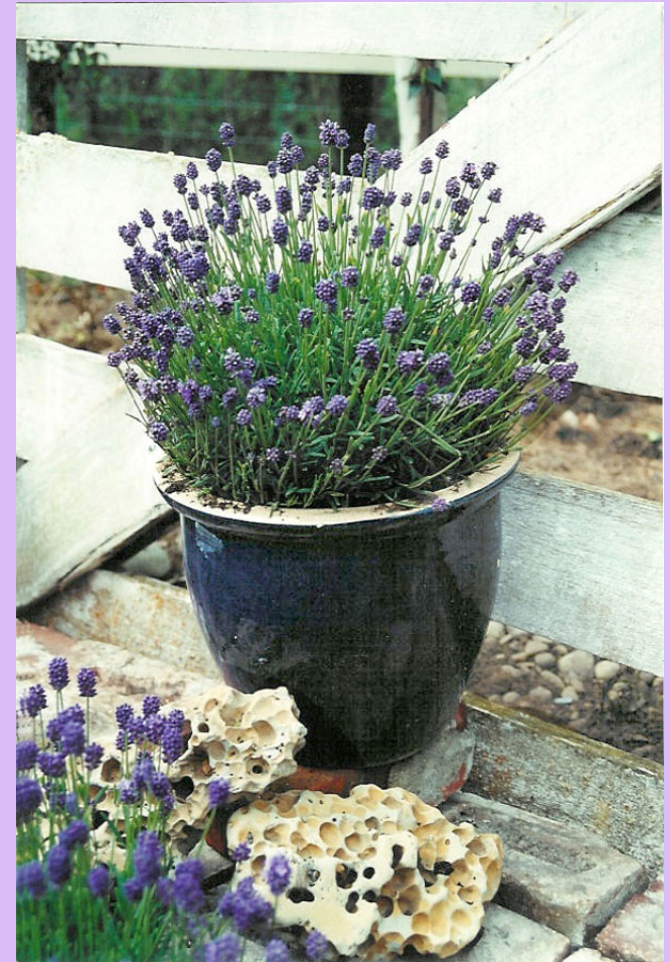
Selecting the right pot

- Select a pot that is several inches larger than the root area.
- Terra cotta dries out quickly. Metal heats the soil and could damage roots.
- Glazed ceramic, wood, or composite won't heat up as much or dry out as fast.
- Think wind! Light weight containers are more prone to tipping over. Tall, narrow containers of any material can be top heavy.
- The container **MUST** have a hole in the bottom. It's a good idea to set the pot on "feet" to raise it off of hot surfaces.



Planting Lavender in Containers

- Potting mix: Avoid using soil with moisture beads or pellets. Some suggest using a succulent mix to improve drainage.
- Plant the lavender crown 1 inch above the soil.
- Water when the soil is dry and drench until water comes out the bottom. Containers plants will need more frequent watering.
- Cut off spent flowers and about 1/3 of the foliage after bloom.



Lavenders for container planting

Consider planting dwarf or compact types recommended by Sunset Magazine. Most are *Lavandula angustifolia* (English) and under 2' tall – 8"-14" when not in bloom.

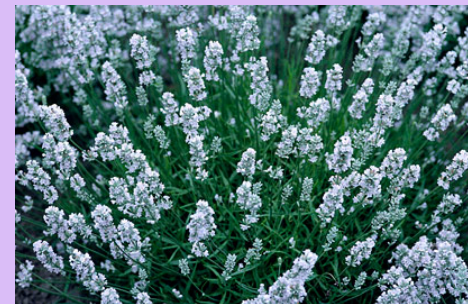
- **‘Compacta’** – light purple flowers
- **‘Hidcote’** – dark violet flowers
- **‘Irene Doyle’** – light purple flowers with green/grey foliage
- **‘Lodden Blue’** – dark violet flowers
- **‘Martha Roderick’** – light purple flowers/grey foliage
- **‘Nana Alba’** – white flowers; just 1' tall



‘Hidcote’



‘Irene Doyle’



‘Nana Alba’

Try the right plant for the right space

Compact Lavenders

- **‘Rosea’** (**‘Jean Davis’**) – whitish/pink buds; pale lilac flowers
- **‘Sarah’** – purple flowers with grey/green foliage
- **‘Silver Frost’** – deep lavender flowers with silvery white foliage; 15” tall



‘Rosea’



‘Sarah’

Spanish lavenders – *Lavandula stoechas*

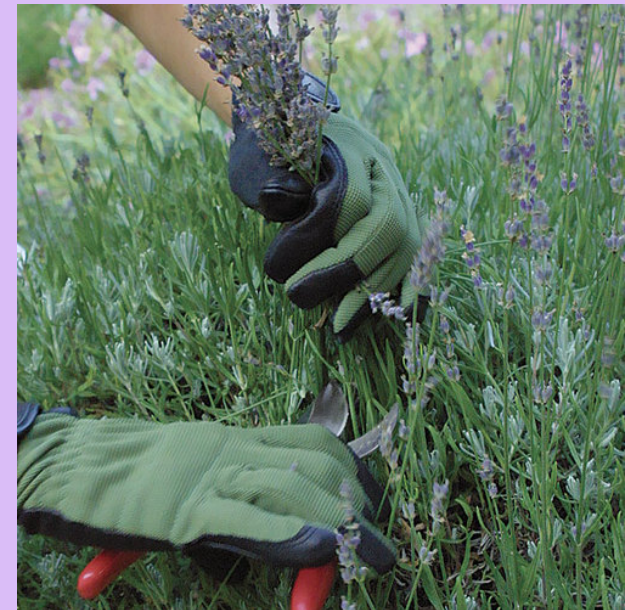
- **‘Dwarf’** – rosy purple flowers
- **‘Fairy Wings’** – long lilac-pink bracts
- **‘Ron Lutsko’s Dwarf’** – medium purple flowers



‘Fairy Wings’

Pruning Lavender - An essential step!

- Proper pruning keeps the plant healthy, compact and neat, and promotes growth, branching, and blooming.
- Lavender blooms on new growth – pruning early or late in the season is beneficial.
- Start pruning young plants in the second year after planting and repeat annually.



Why We Prune

Pruning is also essential to discourage the woody undergrowth that can develop as the plant grows older.



If you like a neat, tidy plant...3 steps

1. Lightly prune new growth in early spring to gently shape and control plant size before budding.

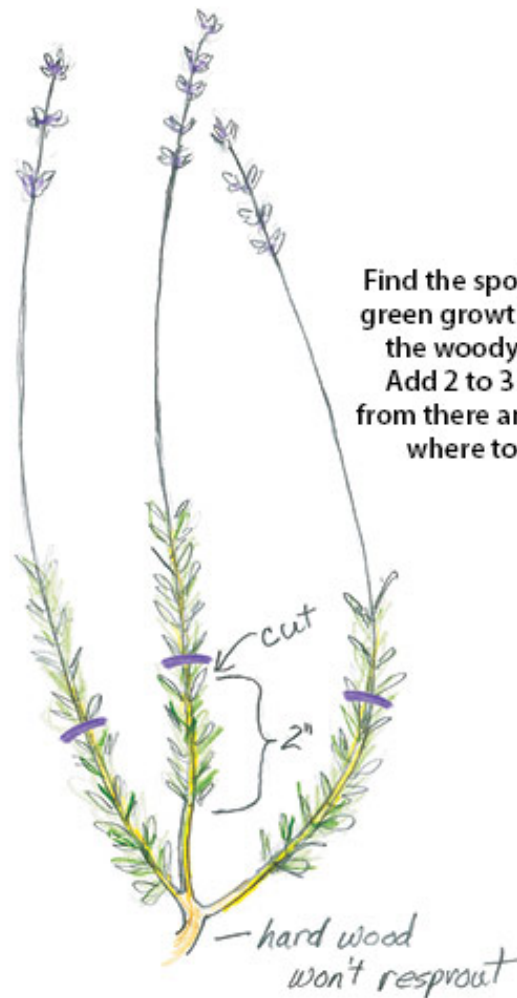
2. Do a mid season cleanup after the first bloom/harvest to encourage a potential second bloom. Shape the plant and remove any dead growth.



3. Make deeper cuts during the final pruning in the fall after the final round of blooms – remove green plant growth by $\frac{1}{3}$ to $\frac{1}{2}$ (depending on variety) to shape a tidy mound for winter. Leave at least two nodes of plant material above the woody stems.



After blooms fade, shape the plant into a mound as you prune.



Find the spot where green growth meets the woody base. Add 2 to 3 in. up from there and that's where to cut.

It's **VERY** Important

- **NEVER** prune into the woody stem of a lavender.
- New growth will be generated **ONLY** from the green plant material left above the stem after pruning.
- The woody stems at the base of the plant will **NOT** generate new growth.



Pruning Non-English Lavenders - Spanish and French Lavender

- These are the least hardy of the lavenders and need a more gentle touch.
- Give them a trim after the first flush of flowers fades. Deadhead for the rest of the season.
- Do not cut them back hard as with the other lavenders – it can kill them.
- Shape foliage into a mounded form in late summer.



L. stoechas
‘Otto Quast’
Spanish lavender



L. dentata
French lavender

Propagation

- Most lavenders are started from cuttings taken from mother plants.
- Lavender seed is slow to germinate and the resulting plant may not resemble the mother plant. These plants also have a shorter life expectancy
- Propagation through cuttings is simple, inexpensive, and produces a plant that is an exact replica of the mother plant in less time.



Taking a Cutting

- Use a sharp knife to cut a straight piece of stem with no flower buds on it.
- Cuttings should be at least 4 inches long with a minimum of four nodes present.
- Remove all green growth from the bottom 2 inches.



Planting the Cuttings

- Dip the cutting in rooting hormone to encourage root growth.
- Use a soilless medium such as coarse sand, perlite, or vermiculite.
- Poke a hole at least 2 inches deep and place the cutting with two nodes below the medium (the bare stem portion) and two nodes above (with the remaining green growth), lightly packed so it stands up straight on its own.



Just Add Some Humidity

- Provide humidity by covering the cuttings with an upside down plastic Ziploc bag or plastic dome.
- Place cuttings in a location with filtered sun and water when the soil feels dry.
- Plastic can be removed to allow soil to dry if needed.
- Roots should develop within 4-6 weeks.



Additional Tips for Propagating Cuttings

- Cuttings can be planted directly in the garden once they are hardened off.
- Softwood cuttings can be taken in the spring; semi-hardwood cuttings can be taken in the fall from new flushes of new growth after blooming is finished.
- Semi-hardwood cuttings may take longer to root during cool weather months.

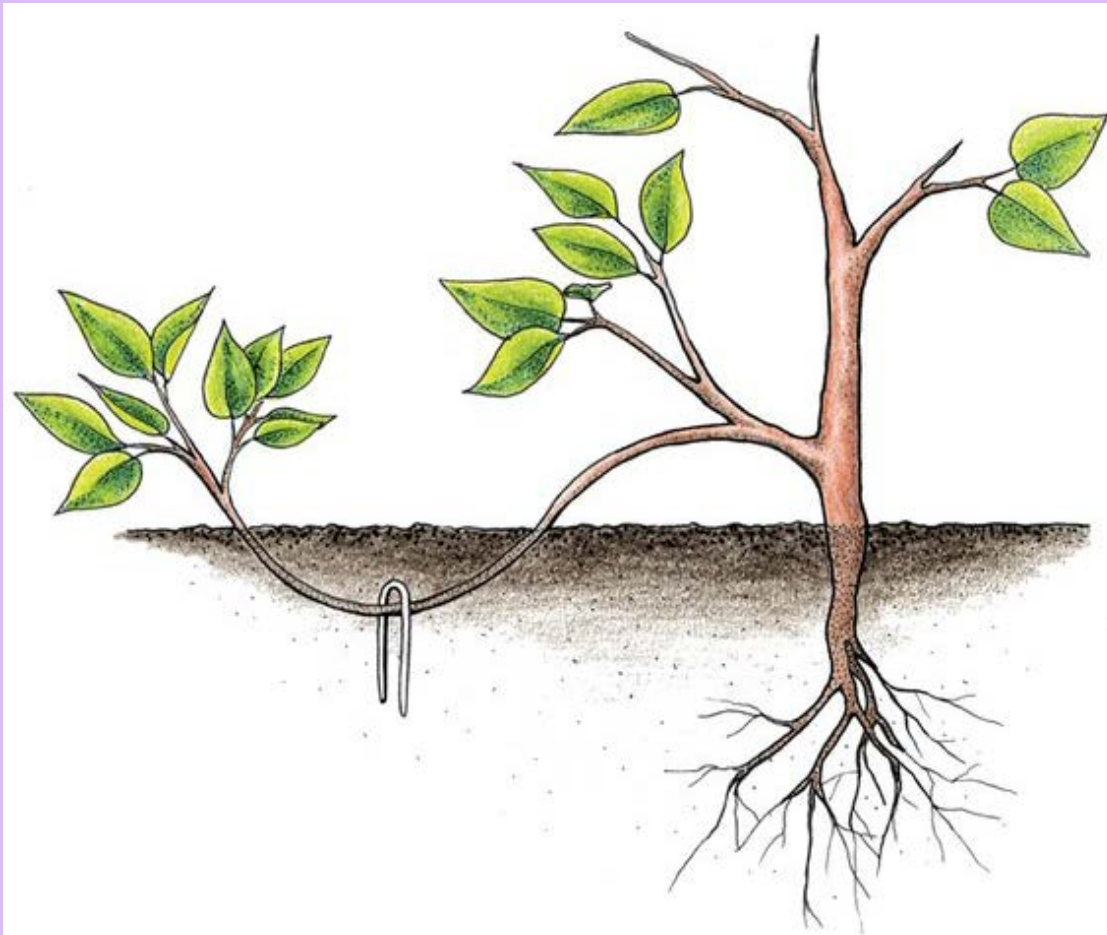


Propagation By Layering

- Use this method in the summer with a variety that has long flexible shoots growing close to the ground.
- Layer young, ripe shoots into a prepared trench next to the mother plant, amended with peat or compost and fine grit to aid drainage.
- Strip off any leaves along the length of stem that is to be placed in the trench. Make a bend in the shoot a few inches from the growing tip, nick the stem lightly at this bend, pin the shoot a few inches of stem and growing tip above soil down, cover with soil and keep well-moistened.

Propagation By Layering

- Roots can develop at the bend as soon as 3-4 weeks or up to 2-3 months . New growth will appear on shoot once rooting has occurred.
- Sever the shoot from the mother plant in autumn and allow the new plant to develop in place for up to a year, or move it if growth and roots are well advanced.



Propagation by Reseeding

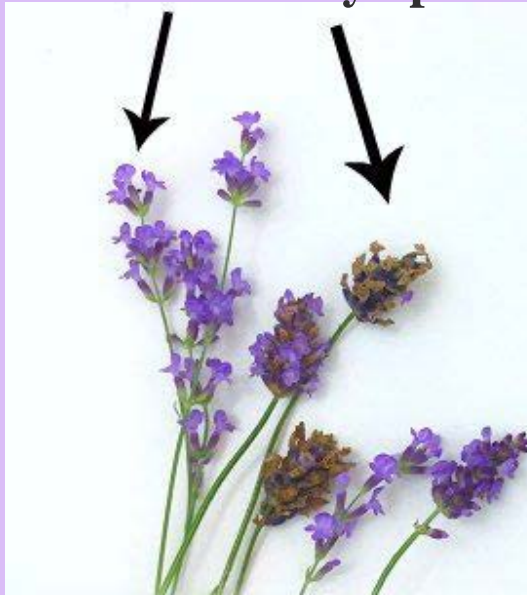
- Spanish lavender is known for reseeding itself, with small plants popping up near the mother plant.
- These young plants can be gently removed and potted.



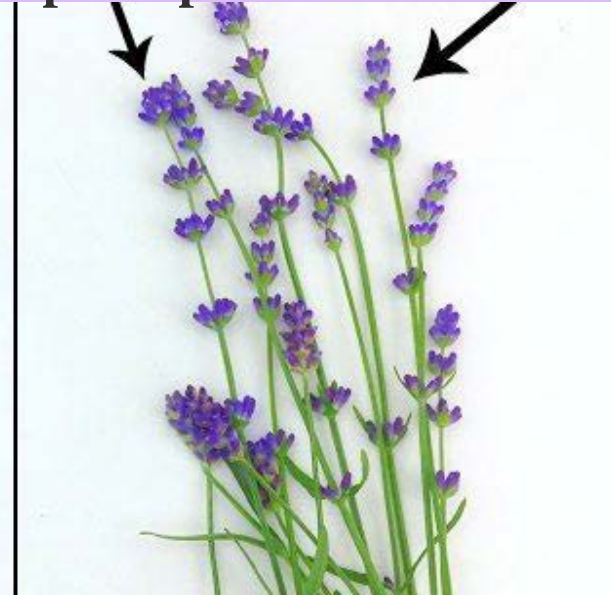
Harvesting Lavender

- Harvest when flower buds have formed but are not yet fully opened; they will come off the stem more rapidly when dry and retain fragrance and color.
- When harvesting for drying – 25% of the flowers should be open.

**Lavender buds
are fully open**

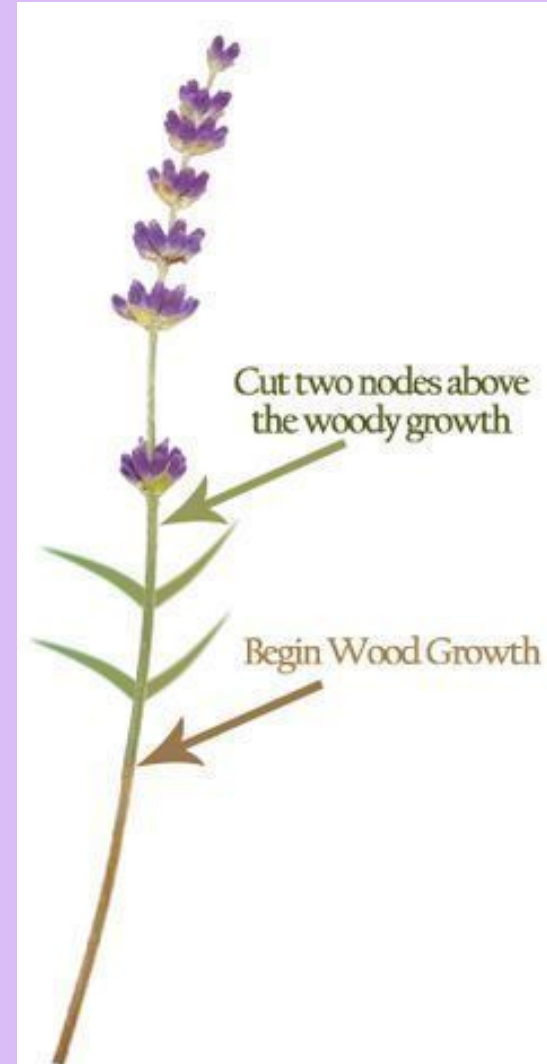


**Lavender buds are partially
open – perfect for harvesting**



Removing Lavender From the Plant

- Harvest the stem with a cut just below the first set of leaves.
- Harvest during the cool of the morning after the dew has evaporated on a sunny, dry day. Lavender loses its oil to the heat of the day; harvesting before 10 AM means lavender will have a higher oil content.



Harvesting Lavender



- Bundle stems and tie with twine.
- Dry lavender by hanging the bunches upside down in a dry place with low light and good air circulation. Use a fan, if needed.
- Lavender can also be spread on a screen and dried out of direct sunlight.
- After 2-4 weeks, the lavender has fully dried. It can be stripped, shaken, or gently rubbed into a tray or bowl. Store in a lidded jar in a cool, dark place.

PEST AND DISEASE PROBLEMS

- Lavender is relatively pest-free due to its aromatic properties.
- Its biggest problems are caused by too much water and poor drainage leading to fungal diseases that cause crown and root rot.
- Be sure to use drip irrigation and allow the plant to dry out before irrigating again. Make sure the soil drains well.
- If container planting, make sure the pot has a hole and elevate it on pot feet for best drainage.



Lavender is deer resistant, but...

- New young plants are often a target.
- Young deer often have confusion about what is edible.
- There can also be problems during the driest parts of the summer and fall when food is in short supply.
- Be sure to provide protection.



Recommended Lavenders For Your Garden



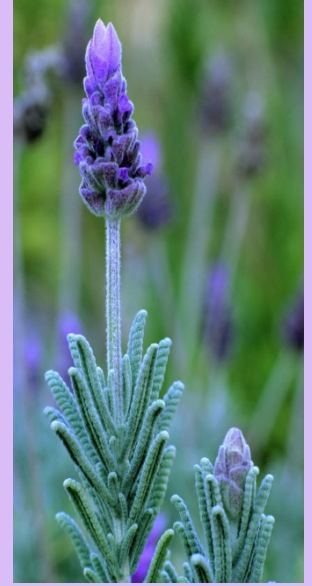
English lavender
L. angustifolia



Lavender hybrids
L. x. intermedia



Spanish lavender
L. stoechas



French lavender
L. dentata

All will do well in your Sierra Foothill garden.



English Lavender

L. angustifolia

Description

- hardiest of all lavenders
- fruity, spicy delicate scent
- most are under 2 feet tall
- broadest color range of all the species
- mostly grey-green, narrow leaves
- good for culinary uses with a sweet flavor
- great pollinator plants



‘Hidcote’

English Lavender - *L. angustifolia*

‘Alba’- 1’ tall by 1’-2’ wide

- white to pink flowers
- strong fragrance
- compact, dwarf plant
- good for drying
- medicinal and culinary uses



‘Hidcote’ – 1’-2’ tall and wide

- dark purple flowers
- small blue-green leaves
- long lasting scent
- holds color when dried
- used for its essential oils and culinary purposes



English Lavender - *L. angustifolia*

‘Irene Doyle’ – 1 ½’ by 2 ½’ tall and wide

- light blue flowers
- heavy rebloomer (also called ‘Two Seasons’)
- excellent fragrance
- also suitable for containers



‘Jean Davis’/ ‘Rosea’ – 1’ to 1 ½’ tall and wide

- pale lavender/mauve pink flowers
- one of the best lavenders for culinary use
- dwarf plant
- likes afternoon shade in hot areas
- also good for containers



English Lavender - *L. angustifolia*

‘Munstead’ – 1’-2’ tall by 2’-3’ wide

- medium blue
- very fragrant
- excellent for drying; retains color
- compact; suitable for containers
- one of the hardiest lavenders



‘Royal Velvet’ – 2’-3’ tall and wide

- dark navy blue flowers 3-4” long
- rapid grower
- long lasting blooms
- dries well and keeps its color





English Lavender - *L. angustifolia*

‘Thumbelina Leigh’ – 1’ to 1 ½’ tall by 1’ wide

- one of the best compact dwarfs
- robust grower
- profuse bloomer
- aromatic
- also good for container planting





Lavender Hybrids/Lavandins

L. x. intermedia

Description

- up to 3' tall
- also known as hedge lavender
- adjusts well to common garden soil
- abundance of flowers on longer stems
- bushy habit
- retains fragrance for many years once dried
- tolerates a more diverse climate
- seed is sterile – propagated through cuttings
- good for culinary uses
- attractive to pollinators



Grosso

Lavender Hybrids/Lavandins

‘Fred Boutin’ – 2’-3’ tall by 2 ½’-3 ½’ wide

- violet blue flowers
- silver-grey foliage
- tall stems
- sweet fragrance
- mid-late summer bloomer



‘Grosso’ – 2’-3’ tall and wide

- very large dark purple flowers
- the world’s largest oil producing plant
- mid-late summer bloom
- one of most fragrant lavenders
- retains fragrance when dried
- used for dried arrangements and wands;
dried flowers stay on the stem



Lavender Hybrids/Lavandins

‘Hidcote Giant’ – 2’-2 ½’ tall by 3’-3 ½’ wide

- dark blue flowers 2-4” spikes
- vigorous grower
- very fragrant
- heat tolerant



‘Provence’ – 2 ½’- 3’ tall by 2’-3’ wide

- large lavender blue flowers, 3” long
- prolific bloomer
- famed for scent
- important source of oil
- popular for culinary, perfumes
potpourris, sachets; buds release easily



Spanish Lavender

L. stoechas

Description

- grows 18+” tall
- strong aroma that is lost when dried
- excellent garden specimen plants
- long blooming period, flowering spring thru summer
- has a barrel shaped flower, topped by colorful bracts
- should not be ingested
- reseeds easily
- a favorite of pollinators



Spanish Lavender - *L. stoechas*

'Alba' – 2' tall and wide

- white flowering form w/ vertical green stripes
- blooms spring through fall
- compact plant



'Kew Red' – 1'-2' tall and wide

- ruby red flowers w/ pink ears
- aromatic silver foliage
- flower stems shorter than most varieties
- early bloomer



Spanish Lavender – *L. stoechas*

‘Otto Quast’ – 1’-2’ tall by 2’-3’ wide

- large purple flower heads w/dark purple ears
- profuse bloomer most of the year
- fragrant
- UC Davis Arboretum All-Star Plant



‘Winter Bee’ – 10”-1 ½’ tall by 1 ½’-2’ wide

- heavy bloomer
- blooms spring-fall
- takes heat, cold, wet
- one of earliest spring bloomers
- very fragrant
- also does well in containers



French lavender – *L. dentata*

Description

- also called fringed lavender
- leaves have toothed/scalloped edges and slight wooly texture
- foliage has greyish tone
- 3'-4' tall and 4'-6' wide
- midseason bloomer
- robust grower – can reach full size in one season
- good for topiary



‘Goodwin Creek Grey’

Lavandula ginginsii

Description

- a French lavender hybrid
- very fragrant
- blooms early summer to fall
- best known for silver foliage with finely toothed leaves
- large flower spikes on plant 2’-3’ tall by 2’-2 ½’ wide
- heat tolerant
- many uses – beds, rock garden, containers
- a UC Davis Arboretum All-Star Plant



Visit the Lavenders at Sherwood Demonstration Garden

Butterfly Garden

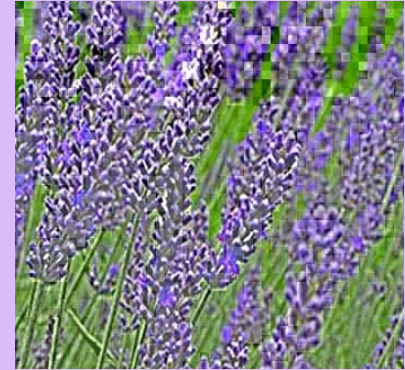
Cottage Garden



L. angustifolia
'Platinum Blonde'



L. x. intermedia
'Grosso'



L. angustifolia **'Munstead'**



L. x. intermedia
'Provence'



L. Stoechas
'Dedication'



L. angustifolia **'Victorian Amethyst'**

Visit the Lavenders at Sherwood Demonstration Garden

Mediterranean Garden



L. angustifolia 'Edelweiss'



L. dentata – French Lavender

Rock Garden



L. angustifolia 'Thumbelina Leigh'

Local Lavender Farms

- Araceli Farms

7389 Pitt School Road, Dixon

<https://www.aracelifarms.com/>

- Bluestone Meadow

2025 Carson Road, Placerville

<http://www.bluestonemeadow.com/>

- South River Lavender

6021 Dean Road, Mount Aukum

<https://www.southriverlavender.com/>

Resources

1. “Compact Lavenders”. *Sunset Magazine*.

<https://www.sunset.com/garden/flowers-plants/compact-lavenders>

2. Geisel, Pamela and Carolyn Unruh. “Lavenders for California Gardens”. University of California Division of Natural Resources Publication 8135.

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Resources

3. Simon, Marlene. “The Plant Lady: There’s plenty to love about lavender, but choose the right kind”. *Sacramento Bee*. 4/6/2020.

<https://www.sacbee.com/entertainment/living/home-garden/article241802641.html>

4. Van Havelingen, Andy. “The Allure of Lavender”. *Fine Gardening Magazine*.

<https://www.finegardening.com/article/the-allure-of-lavender>

Resources

5. UC Davis Arboretum All-Star Database – 100 outstanding performers for our area.

<https://arboretum.ucdavis.edu/plant-database>

6. WUCOLS IV (Water Use Classification of Landscape Species) – Enables plant searches by location and water needs.

<https://ucanr.edu/sites/WUCOLS/>

Resources

For additional information, search the University of California Agriculture and Natural Resources sites:

UCANR - growing lavender



The UCCE Master Gardeners of El Dorado County

THANK YOU FOR JOINING US TODAY



UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources

UC Master Gardener Program
El Dorado County