

# Nomenclature of Aromatic Plants

- System of naming using Latin binomials
- Binomial = Genus + species
- Provides precise, universal identification
- More accurate than common names
- Internationally recognized









 A subspecies is a taxonomic rank between species and variety. It represents a distinct population within a species that has evolved to be noticeably different from other populations, often due to geographical or ecological isolation.

#### • Key characteristics:

- Evolved to be noticeably different from other populations
- Often due to geographical or ecological isolation
- Can interbreed with other subspecies but usually don't
- Naming convention:
  - Denoted with "subsp." or "ssp." in scientific names
- Importance: Highlights evolutionary divergence within a species
- **Examples:** Lavandula stoechas subsp. luisieri, Lavandula stoechas subsp. stoechas



• A naturally occurring variation within a plant species. A variety is a form of a species that is slightly different than the "regular" species but not different enough to warrant a new species. Varieties are often found in nature, as opposed to being created by plant breeders.

#### **Key characteristics:**

- Develops in nature, often as environmental adaptations
- Reproduces true-to-type from seed
- Can interbreed freely with other members of the same species

#### Naming convention:

- Denoted with "var." followed by a lowercase italicized name
- Example: Lavandula spica var. latifolia
- Important note: Represents natural diversity within a species



• A plant selected, bred, or created through human intervention

#### Key characteristics:

- Result of hybridization or naturally occurring mutations ('sports')
- Must be propagated vegetatively (cuttings, grafting, tissue culture)
- Seeds often don't produce identical plants

#### Naming convention:

- Denoted with single quotation marks and capitalized names
- Example: Lavandula angustifolia 'Hidcote' or 'Munstead'
- There are over 40 different cultivars of lavender
- Legal considerations: Special rules may apply for propagation



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- Result of cross-pollinating two different plant varieties
- Offspring of this mix with selected traits from both parents
- Hybrid seeds may not grow "true" to parent plants
- Hybridization occurs in nature, but most commercial hybrids are man-made

**Example:** Lavandula x intermedia = Lavandula angustifolia + Lavandula latifolia



# LAVENDER LAVANDULA ANGUSTIFOLIA



## FINE LAVENDER

Lavandula angustifolia syn. L. vera syn. L. officinalis

- Also known as "True Lavender" or "Population Lavender"
- Grows wild and cultivated in warm, arid climates
- Altitude: 800-1800 meters (2,624-5,905 feet)
- Identifiable by small, fuzzy leaves and pink to dark blue flowers
- Annual bloom: July to August
- True Fine Lavender is costly: Source price approaching 300 euros per liter

## WILD LAVENDER / HIGH ALT LAVENDER

Lavandula angustifolia syn. Lavandula vera

- Highly prized in aromatherapy
- Notable properties:
  - Calming
  - Healing
  - Antiseptic
  - Promotes relaxation and sleep
- Hand-harvested during peak bloom (July)
- Processed using innovative lowtemperature distillation



## CULTIVATED LAVENDER -FIELDS OF PROVENCE

Lavandula angustifolia syn. Lavandula vera

- More slender than wild variety
- Widely used in aromatherapy and perfumery
- Prized for refined aromas
- Vast fields create iconic Provençal landscapes

LAVANDULA ANGUST	TFOLIA SYN. LAVANDULA /ERA	
France	England	
Bulgaria	South Africa	
Greece	USA	
India	China	



## AROMATIC CHEMISTRY

Lavandula angustifolia syn. Lavandula vera

- Seventy-seven+ components make up 97.3% of
- the essential oil of Lavandula angustifolia.
- The core components include linalool (25-38%) and linalyl acetate (25-45%).

High Alt. Lavender will have lower linalool (18-20%) content and a higher linalyl acetate (41%) content when distilled at altitude. And a terpinene-4-ol content of 11%.

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S OF LAVENDER ESSENTIAL OIL
Analgesic, antinociceptive
cell regenerative (cytophylactic), vulnerary, tissue healing
hypotensive
antidepressant, <b>antistress</b> , <b>anxiolytic</b> , nervine, <b>sedative</b>
anti-inflammatory, antiseptic, antispasmodic, antiviral, antinociceptive



## Lavender

Lavandula angustifolia syn. L. vera syn. L. officinalis

#### **System Affinities**

**Nervous system:** restlessness, insomnia, stress, shock, headaches, migraines, neuralgia, nausea, stressrelated disorders (O+++, I+++, C+++, D++)

**Skin:** burns (recommend using Lavandula latifolia instead or in conjunction with), scrapes, abscesses, acne, athlete's foot, eczema, inflamed skin conditions, psoriasis (as an anti-inflammatory), sunburn, relieves itching, insect bites, hives, open wounds or sores, poorly healing wounds, allergy (expressed on the skin), razor burn, stretch marks (C+++)

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The Commission E approved the internal use of lavender for restlessness or insomnia and nervous stomach irritations, Roehmheld's syndrome, meteorism, and nervous intestinal discomfort. For balneotherapy: Treatment of functional circulatory disorders.

The German Standard License for lavender tea lists it for restlessness, sleeplessness, lack of appetite, nervous irritable stomach, meteorism, and nervous disorders of the intestines. Lavender preparations are traditionally used to treat symptoms of neurotonic disorders, especially minor sleeplessness.

**Essential oil:** 1-4 drops (approximately 20-80 mg), e.g., on a sugar cube. Note: Combinations with other sedative or carminative herbs may be beneficial.

**External:** Bath additive: 20-100 g for a 20 liter bath.

http://cms.herbalgram.org/expandedE/Lavenderflower.html



# SPIKE LAVENDER LAVANDULA LATIFOLIA



## Lavender

#### Spike

- - Thrives in Mediterranean climates and calcareous soils
  - Cultivated in Spain
  - Taller than Lavender Vera
  - Distinctive features:
    - Large leaves
    - Short ears
    - Pale purple flowers
  - Blooms from June-July



## AROMATIC CHEMISTRY

Lavandula latifolia

- Thirty three+ components make up 95% of the essential oil of Lavandula latifolia.
- The core components include 1,8 cineole (27+%), linalool (40+%) and camphor (10+%).

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### Lavender

### Spike

Lavandula latifolia Characteristics and Uses

- Strong cineole aroma
- Key compound: 1,8 cineole

#### Primary benefits:

- Anti-infectious
- Analgesic
- Anti-inflammatory
- Ideal for skin applications (insect bites, irritations, burns)
- Tissue healing



## Lavender

## Spike

Lavandula latifolia

#### **Therapeutic Applications**

- Underrated antiviral and mucolytic agent
- Skin-friendly and well-tolerated
- Effective for:
  - Flu symptoms
  - Sinus and pulmonary congestion
  - Recent burns
  - Wasp and jellyfish stings
- Pairs well with Thyme ct. thujanol for respiratory issues (OSA)

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## Spanish Lavender

Lavandula stoechas

- Also known as French, Spanish, or Butterfly Lavender
- Distinctive butterfly-like flowers
- Less cold and heat tolerant than Lavender Vera
- Habitat: Milder climates, Coastal areas (e.g., Portugal, Hyères islands in France)
- Flowering: Starts in early spring, Earlier than other *Lavandula* species

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## AROMATIC CHEMISTRY

Lavandula stoechas

- Forty six+ components make up 94% of the essential oil of *Lavandula stoechas*.
- Rich in Fenchone (upwards of 35%), supported by 1,8 cineole (17+%) and camphor (15+%), small amount of linalool (5%)







# FEENCEHONE Additional References Formari, N., Balahbib, A., Bakrim, S., Benali, T., Ullah, R., Alotaibi, A., Naceiri FI Mrabti, H., Goh, B., Ong, S. K., Ming, L. C., & Bouyahya, A. (2023). Fenchone and camphor: Main natural compounds from Lavandula stoechas L., expediting multiple in vitrobiological activities. Heiyon, 9(1), e21222. https://doi.org/10.1016/j.heliyon.2023.e21222 Hachlafi, N., Benkhaira, N., Al-Mijali, S. H., Mrabti, H. N., Abdnim, R., Abdallah, E. M., Jeddi, M., Bouham, M., Lee, L. H., Ardianto, C., Ming, L. C., Bouyahya, A., & Fikri-Benbrahim, K. (2023). Pytochemical analysis and evaluation of antimicrobial, antioxidant, and antidiabetic activities of essential oils from Moroccan medicinal plants: Mentha suaveoleus, Lavandula stoechas, and Ami visnaga. Biomedicine & pharmacotherapy = Biomedecine & pharmacotherapie, 164, 14937. https://doi.org/10.016/j.biopha.2023.114937













The main commercial use for lavandin is essential oil production. Lavandin produces significantly more essential oil than English lavender - about 3 times as much oil per acre of plants. This higher yield is the main reason lavandin dominates the lavender oil market.

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# LAVANDIN GROSSO

#### LAVANDULA X INTERMEDIA 'GROSSO'

When in the 1920s farmers noticed that Lavandin plants had a pleasant fragrance and a much higher yield than Fine Lavender a new industry was born. According to Stefan Arctander, Lavandin EO is one of the most successful oils ever. L. Grosso is distilled from clippings of the original plant, selected in the early 1920s by a certain Monsieur Grosso and propagated and continuously replanted ever since. (OSA)



# LAVANDIN ABRIAL

#### LAVANDULA HYBRID VAR. ABRIALIS

- Effective mucolytic and
- expectorant due to cineole content
- Antibacterial
- Gentler than Spike Lavender

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# LAVANDIN SUPER

#### LAVANDULA HYBRID VAR. SUPER OR LAVANDULA X BURNATI

Cultivated in France and Spain

Similar in chemistry to Lavender but with a hint of cineole and camphor

A hybrid variety, from the crossing between Fine and Spike Lavenders. (Florihana)



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Difference in chemical composition between L. x intermedia abrial, grosso, and super hybrids				
Chemical	Lavandula x intermedia abrial	Lavandula x intermedia grosso	Lavandula x intermedia super	
1,8 cineole	6-11%	4-7%	1.86-10.88%	
cis-ocimene	1.5-4%	not fixed		
trans-ocimene	3-7%	not fixed		
linalool	30-38%	25-35%	23.55-47.88%	
camphor	7-11%	6-8%	5.03-14.79%	
borneol	2-4%	1.5-3%	1.	
lavandulol	0.5-1.5%	0.3-0.5%	0.20-1.04%	
terpinen-4-ol	<1.0%	2-4%		
linalyl acetate	20-30%	28-38%	32.53-52.20%	
A CONTRACT OF	-	1-2%	1.5-3%	

Studies

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THERAPEUTIC ACTIONS OF LAVANDIN ESSENTIAL OILS		
Musculoskeletal System	Analgesic, antinociceptive	
Skin	cell regenerative (cytophylactic), vulnerary, tissue healing	
Cardiovascular system	hypotensive	
Respiratory system	Effective mucolytic and expectorant (Abrial)	
Nervous system; Psyche/emotion	anxiolytic, nervine, sedative	
General	antibacterial, anti-inflammatory, antiseptic, antispasmodic, antiviral, antinociceptive	

