GROWING & KNOWING LAVENDERDER WRITTEN BY JOHN MASON

essed to a la

CONTENTS

CHAPTER 1 DIVERSITY AND CLASSIFICATION	8
The lavender family	9
Lavandula angustifolia syn. L.vera, L.spica, L.officinalis (English lavender)	
Lavandula stoechas ssp. stoechas (Spanish/Italian lavender)	11
Lavandula stoechas ssp. stoechas 'Alba'	11
Lavandula stoechas ssp. pendunculata - syn. L. stoechas ssp. canariensis	11
Lavandula viridis	
Lavandula dentata var. candicans	11
Lavandula canariensis	
Lavandula pubescens	12
Lavandula abrotanoides	
Lavandula bipinnata	
Lavandula gibsonii	12
Lavandula subnuda	
Lavandula macra	12
Lavandula aristibracteata	
Tim Upson's Classification	
Lavandula angustifolia	13
Lavandula lanata	
Lavandula latifolia	13
Lavandula dentata var. dentata	
Lavandula dentata var. candicans	
Lavandula stoechas subsp. stoechas	13
Lavandula stoechas subsp. pedunculata	13
Lavandula stoechas subsp. sampaiana	13
Lavandula stoechas subsp. lusitanica	
Lavandula stoechas subsp. luisieri	13
Lavandula stoechas subsp. atlantica	13
Lavandula stoechas subsp. maderensis	13
Lavandula stoechas subsp. cariensis	
Lavandula viridis	

Lavandula canariensis13Lavandula pinnata13Lavandula buchii13Lavandula minutolii13Lavandula minutolii13Lavandula maroccana13Lavandula tenuisecta13Lavandula mairei13Lavandula antineae13Lavandula coronopifolia (syn. L. stricta)13Lavandula coronopifolia (syn. L. stricta)13Lavandula citriodora13Lavandula subnuda13Lavandula macra13Lavandula macra13Lavandula setifera13Lavandula sitbracteata13Lavandula somaliensis13Lavandula gibsonii13Lavandula bipinnate13Lavandula erythreae13Lavandula erythreae13Lavandula erythreae13Lavandula erythreae13Lavandula erythreae13Lavandula erythreae13Lavandula erythreae13Lavandula erythreae13Lavandula erythreae14	Lavandula multifida	13
Lavandula buchii13Lavandula minutolii13Lavandula maroccana13Lavandula tenuisecta13Lavandula tenuisecta13Lavandula antineae13Lavandula antineae13Lavandula coronopifolia (syn. L. stricta)13Lavandula pubescens13Lavandula subnuda13Lavandula marca13Lavandula dhofarensis13Lavandula setifera13Lavandula setifera13Lavandula setifora13Lavandula jalgalloensis13Lavandula setifora13Lavandula setifora13Lavandula setifora13Lavandula setifora13Lavandula bipinnate13Lavandula bipinnate13Lavandula basikensis13Lavandula atriplicifolia13Lavandula atriplicifolia13Lavandula erythreae13	Lavandula canariensis	
Lavandula minutolii13Lavandula maroccana13Lavandula tenuisecta13Lavandula tenuisecta13Lavandula antineae13Lavandula coronopifolia (syn. L. stricta)13Lavandula citriodora13Lavandula citriodora13Lavandula subnuda13Lavandula hofarensis13Lavandula setifera13Lavandula setifera13Lavandula galgalloensis13Lavandula somaliensis13Lavandula somaliensis13Lavandula somaliensis13Lavandula somaliensis13Lavandula somaliensis13Lavandula bipinnate13Lavandula bipinnate13Lavandula atriplicifolia13Lavandula erythreae13	Lavandula pinnata	13
Lavandula maroccana13Lavandula tenuisecta13Lavandula mairei13Lavandula antineae13Lavandula coronopifolia (syn. L. stricta)13Lavandula pubescens13Lavandula citriodora13Lavandula subnuda13Lavandula macra13Lavandula dhofarensis13Lavandula setifera13Lavandula galgalloensis13Lavandula somaliensis13Lavandula somaliensis13Lavandula somaliensis13Lavandula somaliensis13Lavandula gibsonii13Lavandula bipinnate13Lavandula atriplicifolia13Lavandula atriplicifolia13Lavandula erythreae13	Lavandula buchii	
Lavandula tenuisecta13Lavandula mairei13Lavandula antineae13Lavandula coronopifolia (syn. L. stricta)13Lavandula pubescens13Lavandula pubescens13Lavandula citriodora13Lavandula subnuda13Lavandula macra13Lavandula dhofarensis13Lavandula setifera13Lavandula setifera13Lavandula galgalloensis13Lavandula gibsonii13Lavandula somaliensis13Lavandula bipinnate13Lavandula bipinnate13Lavandula atriplicifolia13Lavandula atriplicifolia13Lavandula erythreae13	Lavandula minutolii	13
Lavandula mairei13Lavandula antineae13Lavandula coronopifolia (syn. L. stricta)13Lavandula pubescens13Lavandula citriodora13Lavandula subnuda13Lavandula macra13Lavandula dhofarensis13Lavandula setifera13Lavandula galgalloensis13Lavandula aristibracteata13Lavandula somaliensis13Lavandula bipinnate13Lavandula bipinnate13Lavandula atriplicifolia13Lavandula atriplicifolia13Lavandula erythreae13	Lavandula maroccana	13
Lavandula antineae13Lavandula coronopifolia (syn. L. stricta)13Lavandula pubescens13Lavandula citriodora13Lavandula subnuda13Lavandula macra13Lavandula dhofarensis13Lavandula setifera13Lavandula galgalloensis13Lavandula aristibracteata13Lavandula bipinnate13Lavandula bipinnate13Lavandula bipinnate13Lavandula ariplicifolia13Lavandula ariplicifolia13Lavandula erythreae13	Lavandula tenuisecta	13
Lavandula coronopifolia (syn. L. stricta)13Lavandula pubescens13Lavandula citriodora13Lavandula subnuda13Lavandula macra13Lavandula dhofarensis13Lavandula setifera13Lavandula setifera13Lavandula galgalloensis13Lavandula somaliensis13Lavandula somaliensis13Lavandula somaliensis13Lavandula bipinnate13Lavandula bipinnate13Lavandula artiplicifolia13Lavandula erythreae13	Lavandula mairei	
Lavandula pubescens13Lavandula citriodora13Lavandula subnuda13Lavandula macra13Lavandula macra13Lavandula dhofarensis13Lavandula setifera13Lavandula setifera13Lavandula galgalloensis13Lavandula aristibracteata13Lavandula somaliensis13Lavandula bipinnate13Lavandula bipinnate13Lavandula aristibricifolia13Lavandula ariplicifolia13Lavandula erythreae13	Lavandula antineae	
Lavandula citriodora13Lavandula subnuda13Lavandula macra13Lavandula macra13Lavandula dhofarensis13Lavandula setifera13Lavandula setifera13Lavandula nimmoi13Lavandula galgalloensis13Lavandula aristibracteata13Lavandula somaliensis13Lavandula bipinnate13Lavandula bipinnate13Lavandula atriplicifolia13Lavandula atriplicifolia13Lavandula erythreae13	Lavandula coronopifolia (syn. L. stricta)	13
Lavandula subnuda13Lavandula macra13Lavandula dhofarensis13Lavandula setifera13Lavandula setifera13Lavandula nimmoi13Lavandula galgalloensis13Lavandula aristibracteata13Lavandula somaliensis13Lavandula gibsonii13Lavandula bipinnate13Lavandula bipinnate13Lavandula aristibricifolia13	Lavandula pubescens	
Lavandula macra13Lavandula dhofarensis13Lavandula setifera13Lavandula setifera13Lavandula nimmoi13Lavandula galgalloensis13Lavandula aristibracteata13Lavandula somaliensis13Lavandula gibsonii13Lavandula bipinnate13Lavandula basikensis13Lavandula atriplicifolia13Lavandula atriplicifolia13Lavandula erythreae13	Lavandula citriodora	
Lavandula dhofarensis13Lavandula setifera13Lavandula nimmoi13Lavandula galgalloensis13Lavandula galgalloensis13Lavandula aristibracteata13Lavandula somaliensis13Lavandula gibsonii13Lavandula bipinnate13Lavandula bipinnate13Lavandula atriplicifolia13Lavandula atriplicifolia13Lavandula erythreae13	Lavandula subnuda	
Lavandula setifera13Lavandula nimmoi13Lavandula galgalloensis13Lavandula aristibracteata13Lavandula somaliensis13Lavandula gibsonii13Lavandula bipinnate13Lavandula bipinnate13Lavandula bipinnate13Lavandula atriplicifolia13Lavandula atriplicifolia13Lavandula erythreae13	Lavandula macra	
Lavandula nimmoi13Lavandula galgalloensis13Lavandula aristibracteata13Lavandula somaliensis13Lavandula gibsonii13Lavandula bipinnate13Lavandula bipinnate13Lavandula basikensis13Lavandula atriplicifolia13Lavandula erythreae13	Lavandula dhofarensis	
Lavandula galgalloensis13Lavandula aristibracteata13Lavandula somaliensis13Lavandula gibsonii13Lavandula bipinnate13Lavandula basikensis13Lavandula basikensis13Lavandula atriplicifolia13Lavandula erythreae13	Lavandula setifera	
Lavandula aristibracteata13Lavandula somaliensis13Lavandula gibsonii13Lavandula bipinnate13Lavandula basikensis13Lavandula atriplicifolia13Lavandula erythreae13	Lavandula nimmoi	13
Lavandula somaliensis13Lavandula gibsonii13Lavandula bipinnate13Lavandula basikensis13Lavandula atriplicifolia13Lavandula erythreae13	Lavandula galgalloensis	
Lavandula gibsonii13Lavandula bipinnate13Lavandula basikensis13Lavandula atriplicifolia13Lavandula erythreae13	Lavandula aristibracteata	13
Lavandula bipinnate13Lavandula basikensis13Lavandula atriplicifolia13Lavandula erythreae13	Lavandula somaliensis	
Lavandula bipinnate13Lavandula basikensis13Lavandula atriplicifolia13Lavandula erythreae13	Lavandula gibsonii	13
Lavandula atriplicifolia13 Lavandula erythreae13		
Lavandula erythreae13	Lavandula basikensis	
	Lavandula atriplicifolia	
McNaughton's Classification14	Lavandula erythreae	
	McNaughton's Classification	14

CHAPTER 2 GROWING LAVENDER 16

Growing conditions	16
Cultural controls	19
Considering flower quality and quantity	21
Propagation	22
Buying lavender plants	26
Summary for lavender	26

CHAPTER 3 LAVENDER SPECIES	27
Lavandula abrotanoides	
Lavandula alba	
Lavandula angustifolia	
Lavandula aristibracteata	29
Lavandula bipinnata	29
Lavandula buchii	29
Lavandula canariensis	
Lavandula chaytoriae	
Lavandula coronopifolia	
Lavandula delphinensis	
Lavandula dentata	32
Lavandula gibsonii	35
Lavandula x intermedia	
Lavandula lanata	
Lavandula latifolia	36
Lavandula maroccana	
Lavandula minutolii	
Lavandula multifida	
Lavandula nana	
Lavandula officinalis	
Lavandula pedemontan	
Lavandula pedunculata	
Lavandula pinnata	38
Lavandula praecox	40
Lavandula pubescens	
Lavandula pyrenaica	
Lavandula rotundifolia	
Lavandula serrata	
Lavandula spica	
Lavandula stoechas	41
Lavandula subnuda	
Lavandula viridis	

CHAPTER 4 CULTIVARS_____43

Lavandula angustifolia cultivars	43
Lavandula angustifolia 'Arctic Snow'	
Lavandula angustifolia 'Ashdown Forest'	
Lavandula angustifolia 'Backhouse Purple'	45
Lavandula angustifolia 'Betty's Blue'	
Lavandula angustifolia 'Blue Ice'	47
Lavandula angustifolia 'Cedar Blue'	
Lavandula angustifolia 'Clarmo'	
Lavandula angustifolia 'Foveaux Storm'	50
Lavandula angustifolia 'Hidcote'	<u>5</u> 1
Lavandula angustifolia 'Hidcote Pink'	
Lavandula angustifolia 'Imperial Gem'	<u>5</u> 3
Lavandula angustifolia 'Lady Ann'	
Lavandula angustifolia 'Lady Laverna'	
Lavandula angustifolia 'Melissa Lilac'	
Lavandula angustifolia 'Miss Dawnderry'	
Lavandula angustifolia 'Miss Katherine'	60
Lavandula angustifolia 'Munstead'	61
Lavandula angustifolia 'Nana Atropurpurea'	
Lavandula angustifolia 'Peter Pan'	
Lavandula angustifolia 'Princess Blue'	
Lavandula angustifolia 'Rosea'	
Lavandula stoechas cultivars	
Lavandula stoechas 'Avonview'	
Lavandula stoechas 'Ballerina'	
Lavandula stoechas ssp. pedunculata 'Butterfly'	
Lavandula stoechas 'Bella Purple'	
Lavandula stoechas 'Devonshire Compact'	
Lavandula stoechas subsp. stoechas f. rosea 'Kew Red'	
Lavandula stoechas 'Madrid Purple'	
Lavandula stoechas ssp. lusitanica 'Lusi Pink'	
Lavandula stoechas 'Marshwood'	
Lavandula stoechas ssp. pedunculata 'Pukehou'	

Lavandula 'Willowbridge Calico'	
Lavandula stoechas 'With Love'	
Lavandula X Intermedia Cultivars (Lavandins)	
Lavandula x 'Christiana'	
Lavandula x intermedia 'Grosso'	
Lavandula x intermedia 'Edelweiss'	
Lavandula x intermedia 'Gros Bleu'	
Lavandula x intermedia 'Heavenly Scent'	
Lavandula x intermedia 'Provence'	
Lavandula x intermedia 'Sussex'	
Lavandula x intermedia 'Walberton's Silver Edge' = 'Walvera'	91

CHAPTER 5 USING LAVENDER	9	2
--------------------------	---	---

Lavender oil	
Lavender crafts	
Culinary use	
Medicinal uses	00
Cosmetics	100
Cleaning	
Landscaping with lavender	102

CHAPTER 6 LAVENDER BUSINESS OPPORTUNITIES ______109

Types of Lavender products	112
APPENDIX	114
Distance learning and online courses	
E-books by John Mason and ACS Staff include	
Printed books by John Mason	
Useful contacts	
ACS global partners	
Social media	117

CREDITS

© Copyright: John Mason

Written by

John L. Mason Dip.Hort.Sc., Sup'n Cert., Adv.Cert.App.Mgt. FIOH, FPLA, FAIH,

Photos:

John Mason Leonie Mason

Layout: Stephen Mason

Editorial Assistants:

Marie Beerman B. Sc., M.Hort. Dip. Bus. Cert. Ldscp. Gavin Cole B.Sc., Cert.Garden Design Adriana Fraser Cert.Hort., Adv.Cert.App. Mgt., Adv.Dip.Hort.

Published by

ACS Distance Education

P.O. Box 2092, Nerang MDC, Queensland, Australia, 4211 admin@acs.edu.au www.acsbookshop.com

P.O. Box 4171, Stourbridge, DY8 2WZ, United Kingdom admin@acsedu.co.uk www.acsebooks.com

ISBN: 978-0-9925878-0-2

The information in this book is derived from a broad cross section of resources (research, reference materials and personal experience) from the authors and editorial assistants in the academic department of ACS Distance Education. It is, to the best of our knowledge, composed as an accurate representation of what is accepted and appropriate information about the subject, at the time of publication.

The authors fully recognise that knowledge is continually changing, and awareness in all areas of study is constantly evolving. As such, we encourage the reader to recognise that nothing they read should ever be considered to be set in stone. They should alway strive to broaden their perspective and deepen their understanding of a subject, and before acting upon any information or advice, should always seek to confirm the currency of that information, and the appropriateness to the situation in which they find themselves.

As such, the publisher and author do not accept any liability for actions taken by the reader based upon their reading of this book.

CHAPTER 1 DIVERSITY AND CLASSIFICATION

Lavender is perhaps one of the most popular herbs grown worldwide. Thousands of acres of lavender are grown commercially, particularly in Europe, for lavender oil which is mainly used in cosmetics and soaps. The plants are ideal for hedges, garden shrubs and topiary. Dried flowers are used in potpourri, sachets, and other crafts. Dried flowers are also sometimes used in cooking (e.g. to flavour bread or biscuits).



Lavenders require a well-drained soil and plenty of sunlight. They prefer lighter soils, however will adapt to most soil types. Lavenders are usually propagated by cuttings. Lavender can be easy to grow in the right climate; but achieving a high quality lavender crop, may be far more involved. There are many different types of lavenders; and they do vary in their cultural requirements and their ability to produce flowers (both quality and quantity).

The Lavender Family

Lavender belongs to the mint family, along with rosemary and thyme. The scientific name of this family was Labiatae but is now more commonly listed as Lamiaceae. You may find either name used in references you encounter.

The Lamiaceae family contains about 180 different genera with more than 3,500 species of mainly herbs and shrubs. They are found throughout the world, with the majority in the Mediterranean region. The family is characterised by having stems that are squarish in cross section. The flowers of lavenders are very difficult to describe precisely. The following description attempts to draw together some of the more usual characteristics. "The flowers are irregular and appear in cymes in the axils of opposite bracts or leaves which form false whorls arranged in a simple or compound inflorescence."

This tells us that the flowers emerge from where the leaves join the stems and are borne in clusters of many flowers (cymes). These flower heads are usually referred to as spikes. They may be arranged in whorl-like clusters (arising from one point) or singly. The individual flowers within each inflorescence also have some notable characteristics. The calyx (outermost part where the sepals are fused to form a tube) has 4-5 lobes or is 2-lipped. The corolla (innermost part comprising of the fused petals) is 4-6 lobed and usually 2-lipped. The upper lip is 2-lobed and the lower lip is 3-lobed, with the lobes being ovate in shape and equal sized. The corolla is blue, violet or purple, rarely white or pink, and the tube is longer than the calyx.

The male flower parts consist of 4 stamens in two pairs with often just 2 fertile anthers. The female parts consist of a superior ovary with two deeply lobed carpels, a single style from a central depression of lobes, and a stigma which is almost 2-lobed.

The fruits are 4 glabourous (hairless), one-seeded nutlets. Many of the species in this family are widely grown as ornamentals or as herbs for both medicinal and culinary purposes.

Other commonly grown gena in the family are *Ajuga*, *Coleus*, *Hemiandra*, *Hyssopus* (Hyssop), *Melissa* (Balms), *Monarda*, *Ocimum* (Basils), *Origanum* (Oregano, Marjoram), *Phlomis*, *Plectranthus*, *Prostanthera*, *Rosmarinus* (Rosemary), *Stachys*, *Teucrium*, *Thymus* (Thyme) and *Westringia*.

The genus *Lavandula* has leaves that are simple with no stipules (basal appendages). The are entire or dissected, opposite and scented.



A multitude of different cultivars on display at Hampton Court Flower Show in July 2013. As always, lavenders draw a huge amount of interest.

Classification



Lavenders attract insects

The common name is lavender (spelled with "e"), and the scientific (genus) name is *Lavandula* (spelled with an "a"). The genus consists of small shrubs and herbs which are native to a widespread region including Mediterranean countries, the Middle East, India, North Africa, the Canary Islands and the Cape Verde Islands.

The classification of lavender can be confusing to many people. Listing the species is difficult as they have frequently crossed with each other in the wild and their common names differ from country to country. Even the botanists don't always agree on classification of lavenders; and "scientific" classification by taxonomic bodies is often updated. You may well read two very authoritative accounts, published ten years apart, which could present very different ways of classifying some lavender.

At the end of the day, it is important to not be too rigid and pedantic in how you approach plant naming. See it for what it is: a tool for understanding differences between the different types of lavender that we grow, but also a system devised by man, and having all the imperfections that man has.

Twenty to Forty Species

Experts vary how many species of *Lavandula* exist. Some authorities suggest around 20 species and others as many as 40 species. A number of authorities agree on around 28 as the number of species.

There are also hundreds, if not thousands of varieties (genotypes).

In an attempt to describe the different specicies, the genus is commonly divided into subgroups in different ways by different authorities, for example:

Hardy and Tender Species

There are seven subgroups as follows:

- English lavenders have slender flower spikes
- Spanish lavenders (Stoechas) have fatter flower spikes and a tuft of purple bracts atop each flower spike
- Pterostoechas have pinnate divided leaves (small leaflets are arranged opposite one another on a central stalk)
- French lavenders (*Dentata*)