

THE QUALITY OF LAVENDER

by Bill Popin, Director of Quality Assurance/Quality Control

The historical record of lavender dates back over 1,000 years and includes tales of driving away evil spirits, calming the emotions and soothing the psyche. The Abbess Hildegard (1098-1179) and the early Herbals (written by Gerard in 1636 and Culpepper in 1653) mention the power of lavender for restoring well-being.¹ Traditional use and folklore references to lavender provide one layer of information to support today's use of lavender.

The quality of lavender is based on fundamental criteria including: traditional use and historical information; current literature including clinical research; botanical characterization; chemical identification and standardization; and biological measurements including safety and efficacy studies. Only those essential oils that meet key quality requirements can be classified as therapeutic-grade.

Current Research Literature:

Young Living Essential Oils has entered into an agreement with the American Botanical Council to provide independent, third party, peer reviewed research information on the therapeutic effects of botanicals, including essential oils. All distributors can access this information. Recent publications have reported lavender's favorable impact on mood, happiness² and positive psychomotor responses.³ Continuing research on the anticancer activity of lavender compounds is under investigation.⁴

Botany: Several lavender species of varying quality and therapeutic activity are available through many sources. Lavender (also called true lavender) is derived from floral parts of *Lavandula angustifolia*. An allied hybrid of different quality is lavandin (a hybrid of *L. angustifolia* and spike lavender, *L. latifolia*)⁵. Other related commercial species include Spanish

¹ Hart S. Lis-Balchin M., "Pharmacology of Lavandula essential oils and extracts In vitro and in vivo," *The Genus Lavendula*, pgs. 140-154. Ed by Lis-Balchin M. Taylor and Frances, London and New York, 2002

² Vernet-Maurey E., Alaoui-Ismaili, O, Dittmar, A Delhomme, G, Chanel J, "Basic emotions induced by odorants: A new approach based on autonomic pattern results," *Journal of Autonomic Nervous System* 75 (2-3) 176-83, February 15, 1999.

³ Holmes C. Hopkins V. Hensford C. MacLaughlin V. Wilkinson, D. Rosenvinge H, "Lavender oil as a treatment for agitated behavior in severe dementia: A placebo controlled study," *International Journal of Geriatric Psychiatry*, 17: 305-308, 2002.

⁴ Kelloff GJ, Boone CW, Crowell JA, "New Agents for cancer chemoprevention," *Journal of Cellular Biochemistry* 265: 1-28, 1996

⁵ Lis-Balchin M, "Lavender," *The Genus Lavendula*, Ed. By Lis-Balchin M. Taylor and Frances, London and New York, 2002

lavender and French lavender.⁶ Linking the correct species to proper good agricultural practices (GAPs and organic processes), distillation, manufacturing controls (GMPs, or good manufacturing practices) supports the quality of lavender. Important concerns with the botanical source of lavender oil are sustainability and viability. Unfortunately, commercial lavender supplies from France are being threatened. Young Living Essential Oils controls the source and quality of its lavender oil through cultivation in farms located in the Simian Valley in France; St. Maries, Idaho; and Whispering Springs-Mona, Utah.

Chemistry: The saying “more is not always better,” applies to lavender oil. Yields of lavandin oil (7-9%) are two to three times greater than those from true lavender oil (2-5%). However, true lavender is regarded as the highest quality lavender based on therapeutic measurements⁷ Lavandin is also higher in camphor content compared to true lavender oil, and the higher camphor content is considered a negative indicator of quality (higher camphor content is inversely related to quality lavender). True lavender is reported to represent the highest quality lavender oil based on the presence of linalyl acetate (found in highest concentrations in true lavender, lower in allied species).

Biological assay: Does lavender oil really work? The key to the quality of lavender oil efficacy is the measurement of activity in biological assays (also referred to as in-vivo of occurring in the living body of an animal). An example of a biological assay is the use of Kirlian imaging (performed at the Young Life Research Clinic) to measure the emotional impact of lavender. Single or multiple case surveys as well as blinded, well-designed tests can be utilized to measure bioactivity of lavender oil.

Taken altogether, the criteria used to develop quality lavender oil contributes to an integrated, holistic approach to therapeutic-grade essential oils. The Young Living Essential Oil vision incorporates the linking of traditional knowledge with ancient traditions and modern science to promote health and longevity through the development of therapeutic-grade essential oils.

Reprinted with permission of Young Living,
Lehi, UT 84043 U.S.A.

⁶ Ibid

⁷ Piccaglia R, “Aromatic Plants: A world of flavoring compounds,” *Agro Food Industry Hi-Tech* 93, 12-15, 2002.