Living with Lavender

by Ann Petroni-McMullen

This paper explores two different species of Lavender (*Lavandula*), *Lavandula angustifolia* and *Lavandula* x *intermedia* (known as Lavandin, a hybrid of *L. angustifolia* x *L. Latifolia*). These are the types that are grown at my small lavender farm (about 700 plants) in Teton Valley, Idaho. We grow ten varieties of *L. angustifolia* (Hidcote Pink, Melissa, Miss Katherine, True Hidcote Blue, Hidcote Blue, Royal Velvet, Buena Vista, Purple Elegance, Munstead, and Maillette) and two varieties of *L.* x *intermedia* (Grosso and Provence).

The aromatic herb lavender (*Lavandula*) has been used therapeutically for thousands of years. It was known to many ancient civilizations, including those of India, China, Egypt, Greece, and Rome.

The word lavender is derived from the Latin “lavare,” which means to wash. Lavender (*Lavandula*) was very popular in the baths of ancient Greece and Rome. It was used as a perfume and as a medicinal treatment for complaints that ranged from headaches, wounds, pains, and respiratory ailments to digestive problems. It remains a powerful herb used to treat many ailments today.

René Maurice Gattefossé first introduced the term aromatherapy in in 1937 book, *Aromathérapie: Les Huiles essentielles harmones végétales*. Dr. Gattefossé became interested in the medicinal properties of essential oils after an accident in his lab in which he burned his hands. He applied lavender (*L. angustifolia*) essential oil and found that his hands began healing the next day. [Dechen, 15]

Lavender (*Lavandula*) is a member of the mint family, Lamiaceae (Labiatae). The two primary constituents of lavender essential oil (*L. angustifolia* and *L.* x *intermedia*) are linalyl acetate (from 22-39%) and linalol (from 18-35%). [achs 27] These components contribute significantly to the sweet, fresh, floral, citrus, and spice attributes associated with the fragrance of the lavender aroma. Other chemical constituents include lavandulol, camphor, 1,8-cineole, terpinen-4-ol, borneol, and lavandulyl acetate. [Lemmars, 3]

Lavender (*L. angustifolia*) hybridizes easily, so it is best to propagate it from cuttings to yield a true cultivar. Plants can also be hard to establish from seed. *L.* x *intermedia* cultivars are hybrids and have sterile seeds so plants must be propagated by cuttings. [McNaughton, 107] *L.* x *intermedia* cultivars generally flower about a month later than *L. angustifolia* cultivars. They tend to have a stronger aroma and less sweet fragrance than *L. angustifolia* cultivars.

Lavender (*L. angustifolia* and *L.* x *intermedia*) grows best in well-drained soil with full sun. It is drought resistant, although the soil must be kept moist the first two years. Plants require pruning at least once a year to avoid getting woody. They may be trimmed in the early spring, after harvest, or in the fall. Lavender (*L. angustifolia* and *L.* x *intermedia*) that grows in colder climates goes dormant during the winter. Snow provides insulation if the temperatures do not get too cold. In colder temperatures, the plants benefit from using a frost cover.

In warm climates, lavender can bloom up to three times a year, although twice a year is more common. In colder climates, the plants will bloom only once a year. This is why high altitude lavender (*L. angustifolia* and *L.* x *intermedia*) often seems more concentrated and generates such aromatic plants and oils. The plants put all their work into the single bloom time. Our plants are considered high altitude lavender (*Lavandula*) growing at 6,500 feet.

Practices that affect lavender (*Lavandula*) essential oil include altitude/location of plants, soil amendments, choice of the cultivar, method of distillation, harvest, and when distillation after harvest occurs. Many factors influence the resultant essential oil and each harvest will likely have its own unique signature. Different cultivars may combined to produce *L. angustifolia* essential oil, because many more flowers are required to produce the oil than to produce the *L.* x *intermedia* oil. Our farm is certified organic.

Distillation

Lavender (*Lavandula*) essential oil is typically obtained using a steam distillation process. Flowers and their stalks are cut from the plant and packed into a pot. The plants may be on top of a grate with water underneath, or they may be in a pot separate from the water. In either case, the pot is sealed with a tube on top for the steam to escape. The water is set to boil under the pot or in a separate pot with a tube that moves the steam through the plant material. The steam rises to the top of the pot with the flowers and moves through a tube or cooling coil (condenser) where it begins to cool. The steaming process causes the oil to be released from the plant material. As the steam cools, it condenses and drips into a flask where the oil collects on top with water underneath (because the oil has a lower specific gravity than the water).

The resulting oil is the essential oil and the water left is the hydrosol. The distilling pots may be made of different materials, such as stainless steel, copper, or glass. The same is true of the tubes. These choices will impart different characteristics to the distilled oil and hydrosol. About five large true lavender plants (*L. angustifolia*) can yield 10 milliliters of essential oil while five Lavandin plants (*L.* x *intermedia*) can yield four to ten times as much essential oil as *L. angustifolia*.

Uses and Benefits

Lavandin (*L.* x *intermedia*) have significantly more camphor (4-12%) than true lavenders (*L. angustifolia*) (1-3%). [achs 27] The camphor contributes to the diffusiveness, warmth, and camphoraceous scent, and minty profile of the oil. [Lemmars, 3] The traditional scent many people associate with lavender is often that of the Lavandin (*L.* x *intermedia*). It is more pronounced and heady compared to the lighter, sweeter tones of the true lavenders (*L. angustifolia*). Lavandin (*L.* x *intermedia*) is often used in perfumes, soaps, and cleansers because of the potent, intense aroma and longevity. Both are best used topically with a carrier oil.

Both *L. angustifolia* and *L.* x *intermedia* essential oils have beneficial applications in aromatherapy. They are anti-inflammatory, antiseptic, analgesic, antidepressant, cicatrisant, decongestant, nervine, sedative, and vulnerary. [Lemmars, 4] Both essential oils are also middle notes.

Applications of *L. angustifolia* and *L.* x *intermedia* essential oils overlap in many applications. Both are useful in relieving aches, pains, stiffness, headaches, stress, and congestion. However, because of the higher camphor content in the Lavandin (*L.* x *intermedia*), this oil should **not** be used to treat burns. It is effective in reducing scarring and treating acne but should only be used with a carrier oil. It may be advisable to use less *L.* x *intermedia* essential oil than *L. angustifolia* in similar treatments. [www.organicfacts.net]

Another area of difference between the *L. angustifolia* and *L.* x *intermedia* essential oils lies in the effect on the nervous system. Both are antidepressants that are calming and uplifting but *L. angustifolia* tends to be more relaxing while *L.* x *intermedia* tends to be more stimulating and focusing. (I like to call *L.* x *intermedia* the “happy” lavender and *L. angustifolia* the peaceful, serene lavender.) *L. angustifolia* is particularly useful in treating insomnia. Even spraying lavender hydrosol on a pillow can successfully help one fall asleep.

L. angustifolia is a wonderful oil to use to treat burns. Although it can be applied directly to a closed burn, it should be used in moderation. For sunburn, it should be used in a carrier oil. After time, anyone can develop a sensitivity to an essential oil, even lavender (*Lavendula*). Once the sensitivity is activated, it will not go away and the essential oil cannot be used any longer. [Lemmars, 7]

L. angustifolia is safe to use topically during pregnancy and with children in moderation and low dilution (0.5-1% or less). [Dechen, 91] *L.* x *intermedia* should not be used during pregnancy or with children. [Lemmars, 7]

Lavender (*L. angustifolia* and *L.* x *intermedia*) is an extraordinary herb to live and work with. It requires weeding and trimming but it is so beautiful that it is always a pleasure. Even before the flowers bloom, the plants are aromatic and the leaves smell almost as good as the flowers! Mosquitoes do seem to stay away from the

plants. Although they are plentiful in other areas of the farm (feeding the blue birds) they do not bother us in the field. *L. angustifolia* bloom earlier in the summer (throughout July) while *L.* x *intermedia* bloom throughout August. There is a breathtaking overlap late July and early August. Honeybees and local bees abound when the flowers bloom, as do butterflies, including monarchs. Harvesting the lavender, the bees move on to other plants and do not sting (unless one is inadvertently grabbed).

~Working with lavender is truly a joy and a privilege!

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