

NAHA  The National Association for Holistic Aromatherapy

Aromatherapy Journal

The Lemon Issue

- **Citrus Hydrosols in the Limelight!**
- **Summer Lemon and Lavender**
- **Mad About Melissa**
- **Growing Lemon Verbena**
- **Citrus Essential Oil Safety**
- **Pollution and Pollinators**
- **Crazy for Catnip**

Aromatherapy E-Journal
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Cover Image and Above: Melissa (*Melissa officinalis* L.)

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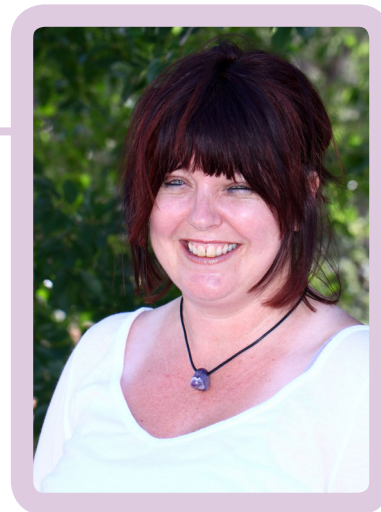
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Editor's Note



Summer 2021: Lemon

I was not always a big advocate of lemon. It seemed too tart, too fresh, too *clean-like*, and well, just too *yellow*. But, over the years, “I’ve mellowed to the yellow.” Lemon is not just one shade of color. And lemon is also not just one note of scent. Lemon, like its signature color, comes in a melody of beautiful notes. From tart and tangy, to soft and subtle, you might be surprised to find an elusive note of lemon in many of your favorite scents!

So, we’ve dedicated the summer issue of the *NAHA Aromatherapy Journal* to lemon to celebrate this versatile aroma. Lemon conjures up visions that are uplifting and refreshing, and which inspire confidence and motivation. Use lemon (*Citrus × limon*) essential oil in a blend to give little ones confidence in school, or to create a social spark at family gatherings.

In this issue we look at adding some true lemon zest to your summer recipes with the combination of lemon (*Citrus × limon*) and lavender (*Lavandula angustifolia*) and you can learn how to formulate *properly* with citrus essential oils. Crazy for catnip? I’m sure your feline friends will appreciate this profile on their favorite garden herb!

If you’re looking for something less well, *lemon-like*, try melissa (*Melissa officinalis*), lemon verbena (*Aloysia citrodora*), or lime (*Citrus aurantifolia*), or take a look at some of the lemon oils to be found from Australasia, all of which are featured in this issue. If you’re an advocate for our pollinators (and who isn’t?) of the plants from which we extract our lemon scents, don’t miss the article *Pollution and Pollinators*.

Struggling with online sales in the “new normal?” Then, take a look at our article on *How to Sell Successfully at Online Pop-ups*. And a refresher is always good on what we can and cannot say in the world of aromatherapy language. NAHA Vice President Jennifer Pressimone breaks it down in an easy-to-understand way.

If you’re looking for something a little different, don’t miss our guest writer articles on the fascinating world of ferns and the allies, and how Traditional Chinese Medicine (TCM) is closely interwoven with essential oil use. To round everything out, we catch up with our regional directors with some summer recipe blends and our International Committee share their latest achievements for NAHA.

As we head towards the end of summer, take a minute to appreciate the nuances of lemon and all that it can offer you in your aromatherapy toolkit. There is definitely more than meets the nose with these year-round lemon aromas!

Have a safe, healthy and relaxing summer season,

Sharon Falsetto

Sharon Falsetto, BA (Hons), NAHA Certified Professional Aromatherapist®

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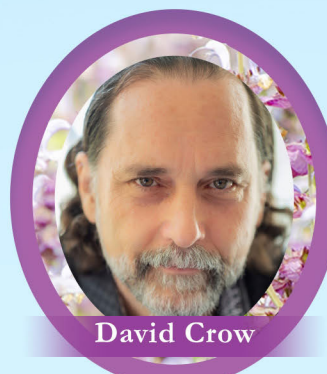
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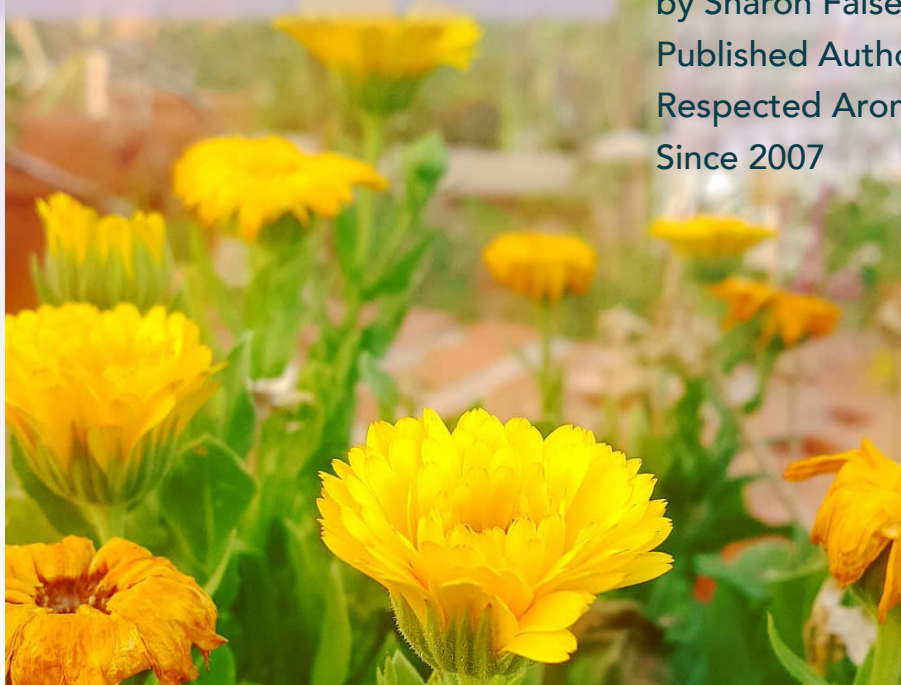
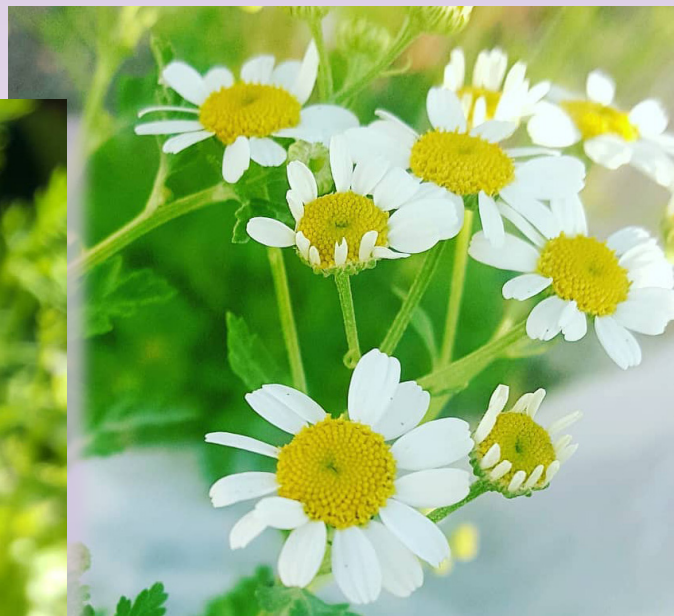
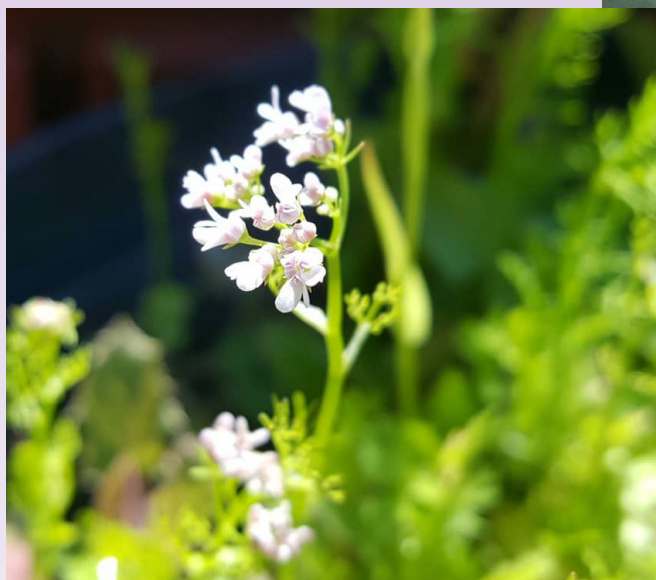


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Mad About Melissa (*Melissa officinalis* L.)

My Heart's Delight

By Sharon Falsetto, BA (Hons)
NAHA Certified Professional
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If you are searching for an inconspicuous garden herb, follow the bees, who will lead you to the minute flowers of melissa (*Melissa officinalis* L.). Bees love this ancient remedy – and humans have used it since almost time began, recognizing the power of this small but mighty herb.

You'd probably pass melissa by in the garden with little acknowledgement or respect, if you didn't know what it looked like. It blends in so well among its mint cousins, even when it is in flower. Its light lemony aroma gives little clue to its power as an essential oil, both in scent and therapeutic properties.

Melissa packs a lemon-balm punch when needed and it is used in aromatherapy, herbalism, and natural perfumery in various types of extracts. Its overpowering lemony aroma when used as an essential oil can be toned down by switching to a hydrosol or infused oil. Learn why melissa deserves a space in your aromatherapist, herbalist, and natural perfumery toolbox!

Botanical Profile

Botanical Name: *Melissa officinalis* L..⁴

Synonyms: Lemon balm, bee balm (not to be confused with *Monarda* spp.), heart's delight, honey plant,⁵ balm.^{6,7}

Botanical Family: *Lamiaceae* (Mint).

Plant Zones: 4-8.⁸

Plant Profile

Melissa (*Melissa officinalis* L.) is an herbaceous perennial herb, meaning that it will die back each winter above ground, but it will spring up from its roots again in the spring. It is very similar in appearance to its mint cousins, with characteristic square stems. These are a few key pointers to distinguish it:

Overall Appearance: Grows up to a height of 2 feet (60 cm).⁵

Leaves: Bright green leaves which are one of the key differences to mint.⁸ Leaves are serrated.⁵

Photo this page: Melissa (*Melissa officinalis* L.)

Flowers: Minute summer flowers of white to pink.^{5,9}

Extracts from the Plant:

Herb: Fresh or dried for teas, tinctures, infused oils, and culinary seasoning. Use dried melissa leaves within a few months, as they do not retain their taste and aroma for long.⁸

Essential Oil: A steam distillation of the leaves (and flowering tops) produces an essential oil. You need to crush the leaves in your hand to release melissa’s light aroma.

Hydrosol: A hydrosol of melissa is extracted in much the same way as the essential oil.

CO2 Extract: A CO2 extract of melissa is also available (see below).

Plant Distribution

Melissa (*Melissa officinalis* L.) is indigenous to the Mediterranean region of the world, like many of its Mint family cousins. However, it is a prolific re-seeder⁸ and you will find it in most gardens around the world if the climate is right.

Grow melissa from seed or small plant cuttings. You can separate roots of established plants in the spring or autumn and grow from them, too.⁹

Melissa Translated

***Melissa officinalis* L.**

Melissa (muh-LISS-uh): The Greeks recognized the attraction of melissa to the bees and consequently gave it the name of *melissa* or *melitta*, which is translated in English to *honeybee*.¹

officinalis (oh-fiss-ih-NAH-lis): Herbs sold in stores were given the name *officinalis* to denote their use as an herbal, vegetable, or culinary plant.²

L.: An abbreviation of Linnaeus, referring to Carl Linnaeus (synonym, Carl von Linné). Botanical names require the name of the original author of a plant species, hence the abbreviation L. after *Melissa officinalis*.³



Common Varieties of Melissa in the Garden^{5,10}

Although there are several varieties of melissa available to grow in the garden, they all have the same therapeutic properties, with the same aroma (except for lime balm, which is more lime than lemon in fragrance). See the table below for some of the varieties available.

Common Varieties of Melissa in the Garden^{5,10}

Common Name	Botanical Name	Plant Characteristics	Plant Aroma
Melissa/Lemon balm	<i>Melissa officinalis</i> L.	Bright green leaves	Soft lemon
Variegated lemon balm	<i>Melissa officinalis</i> 'Variegata'	Green-yellow leaves with blotches	Soft lemon
Golden lemon balm	<i>Melissa officinalis</i> 'Aurea'	Yellow-green leaves	Soft lemon
Lime (lemon) balm	<i>Melissa officinalis</i> 'Lime balm'	Bright green leaves	Soft lime

Garden Profile

Melissa (*Melissa officinalis* L.) is one herb that you will want to grow in your herb garden for its versatility, ease of care, and its attraction for pollinators.

How to Grow Melissa:

Although easy to care for once it is propagated, melissa is a slow starter. I have patiently waited for seeds to grow in the spring, never to materialize. Small seedlings seem to fair better, or you can try to propagate seeds in a greenhouse or sunny windowsill indoors to get an earlier start on the season. Remember to gradually harden off before transplanting into the outside herb garden.

Melissa prefers a moist rich soil to grow and a spot which receives both sun and shade.⁹ A drought-tolerant plant, melissa does better when regularly watered.⁸ Although Keville⁸ advises against planting melissa next to plants with a strong aroma, I have planted melissa together with mint in the garden. However, I agree that mint does tend to overpower the daintier melissa.

Garden Benefits: If you plant melissa, you will attract bees to your garden, a beneficial pollinator of other plants as well. According to Pliny the Elder (AD 23/24 – 29), a Roman naturalist, planting melissa around and near beehives kept the bees happy and attracted other bees.¹¹



Melissa (*Melissa officinalis* L.)

Historical Profile

Arctander¹² speculates that melissa is an herb that has been in use for thousands of years. Indeed, Lawless makes reference to the fact that it was one of the “earliest known medicinal herbs.”⁵ So, what was this revered herb used for historically?

One of its most commonly listed uses was for melancholy, known better as depression in modern times, and also for easing “affairs of the heart.”^{5,12,13} Battaglia writes about how Avicenna (980-1037), a Persian physician, recommended “melissa for strengthening the heart,”¹³ while Keville states he recommended it “to elevate a bad mood.”⁸ It no doubt earned its colloquial name of *Heart’s Delight* in reference to its use as a remedy to melancholy, heart disease,¹² nervous disorders and even ‘bad mood.’⁸

Other historical uses of melissa include:

- Wounds and inflammation^{13,15}
- To strengthen memory^{13,14,15}
- To strengthen the spirit⁵
- To promote fertility and to manage menses.⁵



Melissa (*Melissa officinalis* L.)

Energetic Profile

Worwood describes melissa (*Melissa officinalis* L.) as “enchantment” in *Le code de l’amour* in *Scents and Scentuality*.¹⁸

Mojay describes melissa as *cool* and *dry* in energetic terms.¹⁹ Melissa has the power to move inert *Qi-energy*, calm the mind and heart, and soothe disturbances in the digestive system. Tierra goes further as to describe the flavor of melissa as sour and spicy and indicates that it affects the lungs and liver in Traditional Chinese Medicine (TCM) practice.⁶

The Mystery of Carmelite Water

In the course of my research for this article, I fell down a complex rabbit hole on the origins of a “miracle water” called *Carmelite Water*, *Eau de Carmes*, or *Eau de Melissa*, depending on which resource you reference.

Regardless of its true origins, this original, secret recipe was thought to include melissa (*Melissa officinalis* L.) as its main ingredient, with a variation of other beneficial herbs, infused in an alcohol base. Its uses are listed as a complexion water for “headaches and nervous system disorders,”⁸ digestive issues and “neuralgic affections,”¹³ and a mild tonic.¹⁴ Indeed, it was often regarded as a true “elixir of life” and was much sought after.

Both versions of its history list the original creators of this recipe as French Carmelite nuns (or monks), yet dates vary widely. One version lists a recipe by Carmelite nuns of the Carmelite Abbey of St. Just in France, during the 1300’s, and Charles V of France (1338-1380) is said to have taken this Carmelite Water each day.¹⁵

Another version lists a recipe from the seventeenth century,¹³ and it was also marketed under an alternative name of *Eau de melissa* at some point in time and said to have been taken by the courtiers of King Louis XIV (1638-1715).¹⁶

In some versions of history, it was drunk, in others it was applied topically.

My conclusions are that it’s possible that this is the same recipe used throughout the centuries and amended by various nunneries/monasteries in France, as was the tradition of herbal recipes during those times, but not recorded accurately as time evolved. I found a comprehensive history of Carmelite Water on *French Wikipedia* which was intriguing, and it threw some possible light on the discrepancies I found, but unfortunately many of the facts were unreferenced or verified.¹⁷

I prefer to verify facts from non-commercial resources for research purposes, but these were lacking in the mystery of the history of Carmelite Water. Regardless, it was a valuable remedy of its time and versions of it can still be made today.

Chemistry Profile

Herb: Chevallier lists the key chemical constituents of melissa as flavonoids, polyphenols, triterpenes, tannins, and a 0.2% volatile oil consisting of “citral, caryophyllene oxide, linalool, and citronellal.”²⁰ A study entitled *Melissa officinalis L.: A Review Study With*

an Antioxidant Perspective,²¹ carried out by Sepide Miraj, PhD, Rafieian-Kopaei, PhD, and Sara Kiani, studied the chemical compounds in *Melissa officinalis* leaf and broke down these key chemical constituents further as summarized in the table at right.

Essential Oil: Tisserand and Young list the main chemical components (above 4%, although there is a range of variants for each component) of melissa (*Melissa officinalis* L.) essential oil as geranial, neral, β -caryophyllene, citronellal, germacrene D, caryophyllene oxide and geraniol.²²

Caddy illustrates that aliphatic aldehydes (predominately citral) make up to half of essential oil components for melissa (*Melissa officinalis* L.), while the remainder is made up of sesquiterpenes (β -caryophyllene), ketones, alcohols, oxides, esters, and monoterpenes in descending order.²³

Peace-Rhind lists the main chemical components of melissa (*Melissa officinalis* L.) essential oil as citral, geranial, neral, β -caryophyllene, and citronellal.²⁴

Although not discussed in other literature researched, or commonly listed in the sales of melissa (*Melissa officinalis* L.) essential oil,

Melissa (<i>Melissa officinalis</i> L.) Leaf Constituents	
Constituent Group	Individual Constituents within Group
Flavonoids	Quercetin, rhamnocitrin, luteolin
Polyphenols	Rosmarinic acid, caffeic acid, protocatechuic acid
Triterpenes	Ursolic acid, oleanolic acid
Tannins	Not identified
Essential Oil	Citral (main)
Other	Monoterpenoid aldehyde, monoterpene glycosides, sesquiterpenes

Price and Price list two distinct chemotypes of melissa: *Melissa officinalis* ct. citral, and *Melissa officinalis* ct. citronellal.²⁵

Hydrosol: Harman speculates that the likely chemical constituents of melissa (*Melissa officinalis* L.) hydrosol are “Citronellal, geranial, neral.”²⁶ In *Understanding Hydrolats: The Specific Hydrosols for Aromatherapy*, Price and Price include an analysis of melissa (*Melissa officinalis* L.) hydrosol which shows the main components as geranial, neral, and 6-Methyl-5-hepten-2-one.²⁷

CO₂: Kerkhof discusses both the total and select CO₂ extract of melissa (*Melissa officinalis* L.) in one of the few books available on *CO₂ Extracts in Aromatherapy*. Both extracts produce very similar quantities of the main chemical components of citral, β -caryophyllene, caryophyllene oxide, citronellal, geraniol and geranyl acetate.²⁸ Further reading is necessary to analyze the distinct differences.

Aroma Profile

Melissa’s aroma varies greatly between plant, essential oil, hydrosol, and CO₂ extract.

The Aroma of Melissa

Keywords: Lemon, herbal, light, citrus.

General Aroma: Melissa is one of the “lemon-scented botanicals,” as described by Peace-Rhind, which are characterized by chemical constituents such as citral and citronellal, like those found in melissa (*Melissa officinalis* L.). Citral, writes Peace-Rhind, has a “strong, lemony odour, while citronellal has a powerful fresh, green, lemon odour with faint rosy herbaceous undertones...”¹⁵ From a perfumery vocabulary perspective I find this interesting, as it is all the little nuances within a broader descriptor for an aroma which brings an aromatic perfume together. Indeed, Moriel classifies melissa (*Melissa officinalis* L.) as a “citrus-leafy” aroma within the broader citrus category of note classifications and volatility rates.

Herb: The aroma found within the herb itself gives some indication as to why melissa (*Melissa officinalis* L.) is one of the most adulterated essential oils.¹⁵ You have to crush the leaves within your hand to release the most faint of aromas, described by Keville as “lemony and herbal,” “lighter than lemon and more fleeting” and in summary “like sweet herbal tea served with a slice of lemon.”⁸ Personally, I find that melissa (*Melissa officinalis* L.) is like a version of mint but in lemon tones.

Essential Oil: The essential oil is steam distilled from the leaves and flowering tops of the herb. As stated, melissa essential oil is often adulterated. The small amount of essential oil that is yielded from the distillation of its leaves, leads to an adulteration of (or a co-distillation with) plants such as lemon (*Citrus × limon*), citronella (*Cymbopogon nardus*), lemongrass (*Cymbopogon citratus*),

or lemon verbena (*Aloysia triphylla*).¹¹ As for the true melissa (*Melissa officinalis* L.) essential oil, it can be described as lemony, herbal, fresh, and light, although I personally find it a little heavy, unless used sparingly.

Hydrosol: I would describe the aroma of melissa hydrosol as a lighter form of the essential oil.

CO₂ Extract: Kerkhof describes melissa CO₂ select extract as “soft, light with that hint of lemon but earthy at the same time.” She describes the total extract as a “smooth, pleasant smelling extract with a hint of lemon.”²⁷

Therapeutic Profile

Herb: Chevallier lists three main modern uses for melissa (*Melissa officinalis* L.) as an herb which are “modern relaxing tonic, cold sores, and [as an] hormonal herb.”²⁰ He expands on this by writing that, in addition to being a tonic for depression and anxiety, the herb can be used for anxiety which causes digestive issues. It has also been used to treat people with an overactive thyroid.

Tierra lists the same therapeutic uses for melissa as Chevallier and adds that melissa’s therapeutic properties include “diaphoretic, calmative, antispasmodic, carminative, emmenagogue, [and] stomachic.”⁶

Mabey states that melissa (*Melissa officinalis* L.) “has antiviral properties against mumps, cold sores (*Herpes simplex*), and other viruses.”²⁹

Gladstar indicates that melissa (*Melissa officinalis* L.) can be used to help a child with Attention-deficit/hyperactivity Disorder (ADHD).¹⁴ She writes that it also a good aid to help with children’s nightmares.

I personally love to use melissa as an herb in either a calming hot tea infusion, or as a refreshing iced tea on a hot summer afternoon.

Essential Oil: Peace-Rhind lists melissa (*Melissa officinalis* L.) essential oil's main therapeutic properties as "anti-inflammatory, analgesic, antispasmodic, antiviral, anti-cancer, sedative, [and] sleep-inducing."²⁴ She suggests using melissa essential oil in a combination with lavender (*Lavandula angustifolia*), lemongrass (*Cymbopogon flexuosus*), or immortelle (*Helichrysum angustifolium*), among other essential oils to calm itching and inflammation in the skin. Rose adds that melissa essential oil can be used in times of anger.⁷

With regard to the use of melissa essential oil with children, Lawless states that it can be used to calm colic.⁵

Therapeutic uses for melissa essential oil are similar to that of the herb: Digestive complaints (particularly those of a nervous nature), insect bites, insect repellent, insomnia, anxiety, depression, shock, vertigo,⁵ and scanty periods.

Hydrosol: Price and Price list the therapeutic properties of melissa (*Melissa officinalis* L.) hydrosol as analgesic, anti-inflammatory, antioxidant, antiviral, digestive, and relaxing, citing various other sources.³⁰ Harman adds that melissa hydrosol is expectorant, anti-spasmodic, vulnerary, astringent, and diaphoretic.²⁶

I love to add melissa (*Melissa officinalis* L.) hydrosol to a facial toner blend with rose (*Rosa* spp.) and neroli (*Citrus aurantium* var. *amara* (flos)) hydrosols.

CO₂ Extract: Kerkhof writes that the CO₂-select extract of melissa (*Melissa officinalis* L.) is sedative, anti-depressant, calming, antiviral, anti-inflammatory, insect repellent, antihistamine, and a cardiostimulant, in addition to several other therapeutic properties. She states that it is good to use with people who have dementia, or with those who are suffering from "deep grief and existential crises."²⁷ Melissa CO₂-total extract can be used in a similar way.²⁷ Kerkhof includes a useful lip balm recipe in her book for cold sores.

Safety Profile

Cautions for Use

Herb: None noted, although individual situations may vary.

Essential Oil: The main caution associated with melissa (*Melissa officinalis* L.) essential oil is skin sensitivity,^{5,15,13,23} either due to frequent adulteration of the essential oil or the inclusion of the chemical component citral.

Peace-Rhind states that the high content of citral is "often cited as a potential skin irritant with sensitizing (allergic reaction) potential."¹⁵ Tisserand and Young advise a maximum dermal use level for the essential oil of 0.9%²² whereas the *International Fragrance Association (IFRA)* recommended dermal use at 0.63% in the past and have now completely removed it as a recommended fragrance ingredient.²²

Melissa is unfortunately one of the "most frequently adulterated essential oils"^{5,11} due to a low yield of oil. This makes it common to adulterate melissa (*Melissa officinalis* L.) essential oil with similar-scented oils or components such as lemon (*Citrus* ×

limon), lemon verbena (*Aloysia citrodora*), lemongrass (*Cymbopogon citratus*), citronella (*Cymbopogon nardus*) essential oil and “various mixtures or fractions thereof.”¹¹

Caddy advises that melissa (*Melissa officinalis* L.) essential oil is “best avoided in pregnancy,”²³ a statement affirmed by Tisserand and Young, although their specific caution is with regard to oral use, not dermal use.²²

Tisserand and Young do not advise the use of melissa (*Melissa officinalis* L.) essential oil with children aged two years and under.²² Other cautions, as listed by Tisserand and Young,²² associated with melissa (*Melissa officinalis* L.) essential oil refer specifically to internal use of the essential oil, such as drug interactions for diabetes and those metabolized by CYP2B6.

Hydrosol: I could find no cautions listed specifically in regard to melissa (*Melissa officinalis* L.) hydrosol in the course of my research for this article, but you can assume that, although some chemical components are similar or the same to those found in the essential oil, reactions maybe of a lesser or varied response.

CO₂ Extract: Kerkof advises that the select extract of melissa (*Melissa officinalis* L.) may cause skin sensitivity (due to high citral content), especially on damaged or sensitive

skin (which should be avoided). The total extract of melissa (*Melissa officinalis* L.) has low citral content (when compared to the essential oil), so skin sensitivity should be minimal with use of this particular extract.²⁷

Clinical Research

Dementia-related Research

Although melissa (*Melissa officinalis* L.) has undergone clinical studies in various areas of research, for this article I concentrated on the area of dementia and its related symptoms as positive research is growing in this area.

Keville cites an interesting study done by the University of Ottawa, in Canada, which looked at how melissa (*Melissa officinalis* L.) may improve

mood “by acting on brain neurotransmitters, such as GABA [Gamma aminobutyric acid].”⁸ In perhaps what might be groundbreaking investigation, Peace-Rhind writes that researchers (Ballard et al. (2002)) concluded that melissa (*Melissa officinalis* L.) “could reduce agitation in severe dementia, and extend the time on constructive activities while reducing the time of social withdrawal.”¹⁵ I researched this statement further and found the original study³¹ as cited by Peace-Rhind, as well as many other hopeful research studies including:

- *Safety and efficacy of Melissa officinalis extract containing rosmarinic acid in the prevention of Alzheimer’s disease*



Tea infusion © Sharon Falsetto

progression: Results were not significantly different between the placebo group and those given *Melissa officinalis* L. extract but “the mean Neuropsychiatric Inventory Questionnaire (NPI-Q) score improved by 0.5 points in the M. officinalis group and worsened by 0.7 points in the placebo group between the baseline and 24-week visit, indicating a significant difference (P = 0.012).”³²

- *A randomised controlled trial of Lavender (Lavandula Angustifolia) and Lemon Balm (Melissa Officinalis) essential oils for the treatment of agitated behaviour in older people with and without dementia*: Results showed a “significant difference... when essential oils effect were compared between the cognitive groups. Post hoc analysis reports Lemon Balm more effective in reducing NPI agitation (p = .04) and CMAI physical non-aggressive behaviour (PNAB) (p = .02) in residents without dementia. Lemon Balm less effective in reducing NPI irritability (p = 0.01) and Lavender more effective in reducing CMAI PNAB (p = 0.04) in dementia.”³³

- *Are sage, rosemary and lemon balm effective interventions in dementia?*: Although benefits in this study were discovered for both sage (*Salvia officinalis*) and rosemary (*Salvia rosmarinus*) as well, the results pertaining specifically to melissa (*Melissa officinalis* L.) concluded that “Among eight articles identified

on lemon balm, seven studies found it effective in improving mood or cognition.”³⁴

As discussed above, rosmarinic acid is one chemical component which makes up melissa (*Melissa officinalis* L.) (leaf). This very important constituent may have positive results in preventing the development of Alzheimer’s disease. A study conducted by Hase, T., Shishido, S., Yamamoto, S. *et al.* entitled *Rosmarinic acid suppresses Alzheimer’s disease development by reducing amyloid β aggregation by increasing monoamine secretion*, produced results in which “RA [Rosmarinic Acid]-initiated monoamine increase in the brain may beneficially act against AD [Alzheimer’s Disease].”³⁵

This is a growing area of research with positive indications for the use of herbs and essential oils such as melissa (*Melissa officinalis* L.) and warrants a much more in-depth study than this article allows for.

Melissa in Full Profile

Melissa’s power is small but mighty and it should not be dismissed readily either in the garden or the apothecary. There are various extracts to choose from aromatically and medicinally, so even with the high cost of melissa (*Melissa officinalis* L.) as an essential oil, it can alternatively be used as an herb, hydrosol, or CO2 extract.

Melissa (*Melissa officinalis* L.) has been around for a long time and there is a reason it has earned the nicknames “the Elixir of Life” and “Heart’s Delight”⁵ over time. It will be around for a long time yet, so grab some for your summer garden and invest in your future health!

Editor’s Note: Remember that clinical studies need to be read in context with many factors including size of study, control methodology, number of participants and location. The studies in this article are extracts or summaries of studies and their stated perceived outcomes. Research each study fully and correctly to learn more.

A Cup of Minty Sunshine

Bath Tea with Hydrosol and Salt Blend

This is a lovely, calming, soothing blend of a tea infusion, hydrosols, and salts for a summer nighttime bath, or it can be adapted as a foot soak if you prefer. Use for issues of pain and comfort.

It might be beneficial to use this blend with people who suffer from dementia (especially when used as a foot soak) to lessen agitation. Results may vary and I have not tested it in this capacity.

This recipe makes 8-oz./235 mL of each component (tea infusion/hydrosol blend/salt blend). Don't combine each component until you are ready to use the full blend. The tea infusion will last several days if kept in the refrigerator. Otherwise, make a smaller quantity of each part of the recipe, if you think you won't use it within a few days.

Equipment:

- Teapot or glass jar for tea infusion
- 8-oz. (240 mL) colored, glass bottle for hydrosol blend
- 8-oz. (225 g) colored, PET container for salt blend

Ingredients for Tea Infusion:

- (By volume)*
- ½ Tbsp. fresh or home-dried mint (*Mentha* spp.) leaves OR ½ tsp. store-bought dried mint (*Mentha* spp.) leaves
 - ½ Tbsp. fresh melissa (*Melissa officinalis* L.) leaves*
 - 8-oz. (235 mL) boiling water

**I do not advise using dried melissa (*Melissa officinalis* L.) leaves as they may lack potency compared to fresh leaves.*



Hydrosol blend © Sharon Falsetto

Hydrosols for Hydrosol Blend:

- (By volume)*
- 3-oz. (90 mL) melissa (*Melissa officinalis* L.)
 - 2-oz. (60 mL) peppermint (*Mentha × piperita*)
 - 1-oz. (30 mL) spearmint (*Mentha spicata*)
 - 2-oz. (60 mL) neroli (*Citrus aurantium* var. *amara* (flos))

Ingredients for Salt Blend:

- (By weight)*
- 3-oz. (85 g) Epsom salts
 - 4-oz. (115 g) Dead Sea salts
 - 1-oz. (30 g) pink Himalayan salts
- Optional:* 3 tsp. fresh mint (*Mentha* spp.), melissa (*Melissa officinalis* L.), calendula (*Calendula officinalis* L.), feverfew (*Tanacetum parthenium*) leaves and blooms

Tip: Use whichever herbs/flowers you have available in your garden and/or dried which help with skincare, pain and relaxation.

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Tea infusion © Sharon Falsetto

A Cup of Minty Sunshine (continued)

To Make Tea Infusion: Boil fresh, clean water in a kettle or on the stove top. Pour over the herbs in an infuser tea pot or in a glass jar. Allow to steep for twenty minutes. Strain and pour into a suitable container.

To Make Hydrosol Blend: Combine the listed hydrosols in a glass bottle. Cap and label. Store appropriately.

To Make Salt Blend: Combine the salts as listed in a PET container. Cap and label. Add herbs and flowers (if using) when you add to the bath water. Store away from water.

Instructions for Use:

1. First, make the tea infusion as instructed.
2. Next make the hydrosol blend as instructed.
3. Thirdly, make the salt blend as instructed.
4. When you are ready to take a bath, combine 4-oz. of the tea infusion with 2-oz. of the hydrosol blend.
5. Add the blend to the bathtub under running warm water.

6. Add 2 Tbsp. of the salt blend when you are ready to step into the bath.
7. Swirl water gently before immersing in the tub.

If you prefer to use this blend as a foot soak:

1. Follow the instructions to make each part of the blend.
2. Then, when you are ready to soak your feet, combine the tea infusion with the hydrosol blend as above.
3. Add 2-oz. of the combined blend to a bowl of warm water.
4. Add 2 tsp. of the salt blend when you are ready to soak your feet.
5. Swirl water gently before stepping into the foot soak.
6. Soak for up to twenty minutes.

Cautions: For adult use only. Possible skin sensitivity. Discontinue use if irritation occurs. Avoid adding feverfew (*Tanacetum parthenium*) if pregnant. Use peppermint (*Mentha × piperita*) with caution if pregnant.

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About Sharon Falsetto:

Sharon Falsetto, BA (Hons), is a UK-certified aromatherapist through the *Penny Price Academy of Aromatherapy*. She has lived in the United States since 2006 and is the founder of *Sedona Aromatics: The Garden School Online*.™ Sharon has written and edited an aromatherapy education program for *Sedona Aromatics* based on the concept of *Botanical Aromatherapy*™. *Sedona*

Aromatics is a NAHA approved school educator and a NAHA approved continuing education provider.

Since the onset of COVID-19, Sharon has pivoted her aromatherapy school to a low profit business model, now offering community aromatherapy scholarships for courses and affording aromatherapy education to more during these challenging times. Her school recently launched a new online *Botanical Aromatherapy™* membership school.

Sharon has worked within the healthcare industry since the 1990's. She has also been writing and editing professionally since 2008 and is both a published author and editor in aromatherapy. With a graduate degree in business (with honors), she is well situated to help aromatherapy businesses navigate changing times through professional copy

writing, editing, and consulting.

Sharon is an intuitive aromatherapy blend formulator. As a continuing student in the study of herbalism for home and garden use, and natural perfumery, she also believes in integrating herbal and scent knowledge within her aromatherapy formulas and teachings.

Sharon works from her garden studio in Sedona, Arizona, surrounded by her one-acre homestead and aromatic gardens. She is the author of *Authentic Aromatherapy*, the chief editor of the *NAHA Aromatherapy Journal*, the NAHA Director Coordinator, and the NAHA regional director for Arizona. She presented at the NAHA Conference in June 2021 on *The Garden Apothecary: Traditional Aromatics for 2021*. You can visit Sharon's website at: www.sedonaaromatics.com

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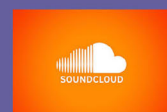
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Adding Lemon and Lavender to Your Summer Recipes

By Marie Olson, RWP, FNTF, CA



Lemon (*Citrus × limon*) is a flowering plant of the *Rutaceae* family, which is native to South Asia, and specifically Northeast India. It has uses throughout the world in both culinary and non-culinary purposes. The rind (peel), leaves, and fruit can be used in cooking, and the use of lemon dates back to around the second century AD.¹

Lemon for Summer Dishes

The two most common types of lemon found in the grocery store are Eureka and Lisbon. Meyer lemon (*Citrus × meyeri*) a cross between mandarin (*Citrus reticulata*) and lemon (*Citrus × limon*), is another type of lemon, and it is known for being sweeter and having a less acidic taste than either Eureka or Lisbon lemon, which tend to be sourer. When selecting lemons, look for fruit that is fully ripe, yellow with no green and have a smooth, thin skin. Old lemons tend to have wrinkled skin with hard or soft patches, and may be less vibrant in color. The lemon should be heavy for its size. Those that give a bit under gentle

pressure typically have more juice. Those with thicker peels typically have less juice. Lemons can usually be found year-round.²

Lavender for Summer Dishes

Lavender (*Lavandula angustifolia*) is a species of flowering plant of the *Lamiaceae* family,

which is the same family that mint

(*Mentha* spp.) belongs. It's

native to Europe, Africa,

the Mediterranean,

Southwest Asia and

Southeast India.

Lavender has several species synonyms,

but the name English

lavender (*Lavandula angustifolia*) is

usually used with

regard to the species

used most commonly

in cooking. It is known

to have a sweet fragrance

with lemon or citrus notes, and

typically pairs well with lemon for this

reason. Usually the flowers, or dried buds, are used in cooking, but the leaves can also be used. The use of aromatic lavender dates back to the time of the Ancient Greeks.³ It has bluish green leaves and blue-tinted blossoms, not purple. It is one of the main ingredients in the blend *Herbes de Provence* and should be used

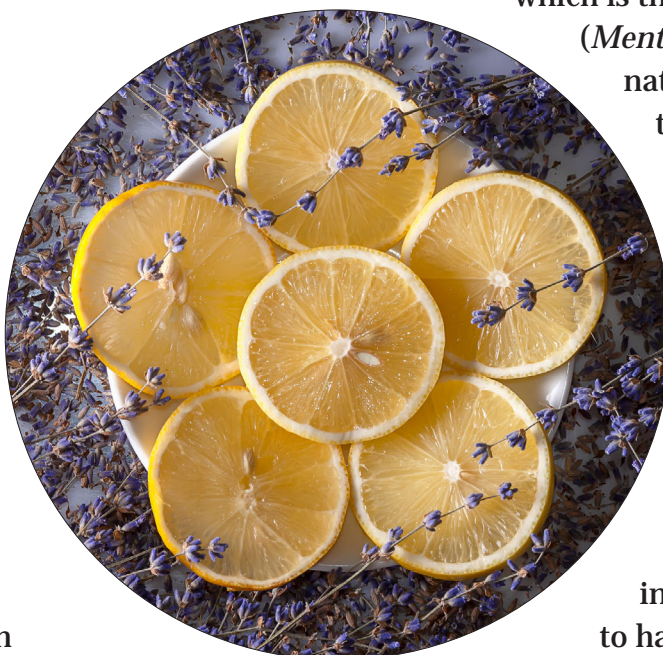


Photo this page: Lemon (*Citrus × limon*) and lavender (*Lavandula angustifolia*)



Lavender (*Lavandula angustifolia*)

sparingly in cooking so as not to overpower the dish. It can often be found in herb or farmers' markets, and is typically available in the summer.⁴

The Pairing of Lavender and Lemon

Lavender and lemon are often paired together because of their complementary flavors. They are used in everything from raw food cooking such as marinades and dressings, to savory dishes, to sweet desserts. Their flavor profiles complement each dish. Additionally, lavender has a place in herbal remedies, and has been used for restlessness, insomnia, intestinal discomfort and cardiovascular diseases, among other maladies. Lemon is a rich source of vitamin C, and its juice has about five times the amount of citric acid as orange juice.^{1,3}

Lemon and Lavender Cookies

If you like to bake, try adding lemon and lavender to your favorite cookie recipe for some delicious tea accompaniments! Try these 3-2-1 cookies.⁶

This recipe is adapted from Healthy Lavender Lemon Cookies (Gluten Free, Vegan) and Food Network Kitchen Sugar Cookies.^{7, 8}

Ingredients:

3 parts flour of choice (all purpose, gluten free, etc. When using gluten free flour, add 1 tsp. xanthan gum to each cup of flour)

2 parts fat (butter, vegan substitute, etc.)

1 part sugar (granulated or measure for measure substitute like Swerve®)

1 large egg

2 tsp vanilla (*Vanilla planifolia*)

¼ tsp salt

1 tsp lemon (*Citrus × limon*) zest

1 tsp lavender (*Lavandula angustifolia*) flowers

To Make:

Whisk together egg and vanilla. Cream butter (or other fat) and add sugar. Beat with mixer until light and fluffy. Scrape down bowl, add egg and vanilla, beat for an additional minute.

Sift together remaining dry ingredients (salt, lemon zest, lavender, flour) and add to wet ingredients. Mix until blended.

Roll out onto parchment into ¼ inch thick block and refrigerate for about 2 hours. Cut cookies with your favorite cookie cutters and space 1 inch apart on a lined baking sheet and bake for 15 minutes in a 325° F oven, or until edges are golden brown.

Cool and enjoy!

Lavender Lemonade

It is quite simple to make a basic syrup out of lavender to flavor a popular summery drink, Lavender Lemonade. The following recipe is adapted from *Forgotten Skills of Cooking*.⁵

Ingredients:

8-oz. (128 g.) sugar
 10.oz. (295 mL) water
 1 Tbsp. dried lavender (*Lavandula angustifolia*) buds
 3 lemons (*Citrus × limon*)
 24-oz (710 mL) water

To Make:

Combine the sugar with 10-oz. (295 mL) of water. Add about one tablespoon of dried lavender. Place in a pan on the stovetop and bring it to a boil for 2 minutes. Allow to cool.

While it cools, juice 3 lemons, and add 24-oz. (710 mL) of water and stir. Once the syrup is cool, add 8-oz (235 mL) of syrup with lemon juice and water and stir. Taste and adjust juice, syrup and water to your flavor preference.

Add ice and consume within a few hours of preparation for best flavor.

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About Marie Olson:

After several years of working as a Special Investigator, Marie went back to school to become a Functional Nutritional Therapy Practitioner (FNTP). She always had an interest in natural medicine, holistic health, and how things work, and felt called to learn more about foundational holistic nutrition. A friend of hers introduced her to essential oils while she was studying to be an FNTP, and she sought out quality education to learn more, and happily came across Aromahead Institute School of Essential Oil Studies. She took her first aromatherapy class sometime in 2015.

After completing FNTP training, she opened a private practice and taught Culinary Nutrition at the Culinary Institute of Virginia, where she discovered that teaching was a passion of hers! Additionally, in her private practice, she combined her investigation skills with her nutrition and teaching passions, and helped people get to the root cause of their digestive and health issues. She continued taking classes at Aromahead, and become the first Certified Aromatherapist in Guam in 2018. She currently teaches aromatherapy classes and works in private practice as an FNTP and Certified Professional Aromatherapist. Essential oils are a perfect complement to her nutrition practice, and she loves custom making products to serve her clients' needs! Marie is the NAHA regional director for Delaware. You can learn more about Marie her at www.NutriSimplicity.com



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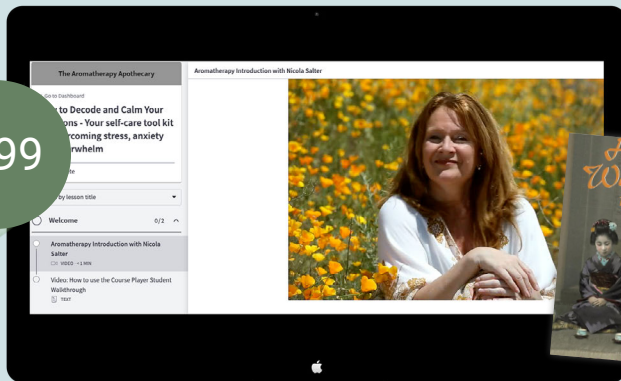
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Citrus Hydrosols in the Limelight!

By Tricia Ambroziak, NAHA Certified Professional Aromatherapist®

Sweet, tart, bright, and zesty, lime is perfect for summer. While you may be more familiar with the use of the fruit in drinks and food, lime hydrosol is a refreshing addition to your summer aromatherapy toolkit.

Lime, like many other citrus fruits, is a member of the *Rutaceae* family. However, there is confusion regarding the identities and number of species within the genus *Citrus*.

Some researchers believe that only citron (*Citrus medica*), mandarin (*Citrus reticula*), and pummelo (*Citrus grandis*, or *C. maxima*) constitute valid species with the remainder being introgressions. However, numerous researchers also include lime (*Citrus* × *aurantifolia*) as well as biasong or samuyao (*Citrus micrantha*), and mountain citron (*Citrus halimii*) in this list of “true” citrus species.¹

True limes are a diverse group with dual natural clusters: Sour or acid limes, and sweet or acid-less limes. Five main groups of cultivated limes are recognized:

1. *Citrus* × *aurantifolia* or small fruited acid lime: These include “Mexican” lime and

its cultivars such as “Key” lime, “Kagzi” lime, and “West Indian” lime.

2. *Citrus* × *latifolia* or large fruited acid lime: These include “Persian” lime, “Tahiti” lime, or “Bearss” lime.

3. *Citrus limettioides* or sweet lime: These include “Palestine sweet” lime, “Indian sweet” lime, “Mary Ellen sweet” lime.

4. Australian limes or finger limes of the genus *Microcitrus* and “Australian desert” lime *Eremocitrus* which accordingly are grouped under the genus *Citrus*.²

5. Lime hybrids: “Perrine lemonine” lemon × lime hybrid (*Citrus limon* × *Citrus aurantifolia*) and limequats lime × kumquat hybrid (*Citrus aurantifolia* × *Fortunella japonica*) are two examples.

Of these cultivated limes, two species are most commonly extracted for hydrosol and essential oil: Key lime (*Citrus* × *aurantifolia*) and Persian lime (*Citrus* × *latifolia*). You’ll also sometimes find Makrut lime peel (*Citrus hystrix*) hydrosol. In this article I’ll be focusing on *Citrus aurantifolia* and *Citrus latifolia*.

Photo this page: Lime (*Citrus* × *aurantifolia*)

For the most part one could use the hydrosols from these three species interchangeably.

More than Meets the Pie...

When I say key lime what comes to mind? For me it's pie (and I don't even like pie – except for pizza). *Citrus × aurantifolia* also known as West Indian lime, bartender's lime, Omani lime, and Mexican lime is a hybrid of *Citrus hystrix* and *Citrus medica* and it is native to Southeast Asia.³

It is believed that it was introduced through the Middle East to North Africa, then Sicily and Andalucia by Spanish explorers of the West Indies and Florida Keys. Credit is given to horticulturist Henry Perrine for introducing the Key lime to Florida.⁴

Its cultivation spread from the Caribbean to include tropical and subtropical regions of North America including California, Florida, and Mexico.

Citrus × aurantifolia is a small, shrubby, evergreen tree with thorns and many branches. It grows up to 5m (16 ft) in height with ovate leaves 25 – 90 mm (1-3 ½ in) long and 25 mm

(1 in) in diameter yellow-white flowers with hints of purple.

The fruit is small, round, and seedier than that of *Citrus latifolia*. It is usually picked when green and becomes yellow when ripe. It has high acidity, strong aroma, and a thin rind. Flowers and fruit show up year-round but are most plentiful May through September in the Northern Hemisphere.⁵

Key or Mexican lime is much more sensitive to cold than lemon and thrives in a warm, moist climate with average rainfall of 80 to 150 in (203-381 mm). It tolerates drought much better than other citrus fruit and is subject to fungal disease with excess rainfall.⁵

Lemons, Limes, and Bearss, Oh My!

Citrus × latifolia, also known as Bearss lime, Tahitian lime, or Persian lime, is a nearly thornless tree with seedless fruit that averages 6 cm (2.4 in) in diameter. Commercially *Citrus × latifolia* also boasts larger, thicker skinned, less acidic, less bitter fruit with a longer shelf life but is considered less aromatic than *Citrus × aurantifolia*.⁶

Citrus × latifolia is triploid cross between a haploid ovule of lemon (*Citrus × limon*) by a diploid gamete of Key lime (*Citrus × aurantifolia*) which gives rise to a plant with three sets of chromosomes rather than two. The rare seeds that do occur are highly monoembryonic.

The tree grows 6 -15 ft tall (180-450 cm) and enjoys full sun, and well-drained, regularly watered soil. Flowers are five petaled and white with hints of purple, bundled white stamens, and yellow anthers. The leaves are green, glossy, and broadly lanceolate.⁷



Lime (*Citrus × latifolia*)

This variety is only known in cultivation, and it is thought to have originated around 1895 under the nurseryman J.T. Bearss in Portersville, California, presumably from the seed of a fruit from Tahitian origin.⁶

Although the Tahiti lime was reportedly growing in Florida as early as 1883, it is not known for certain when the Bearss variety was introduced there.

The Californian and Floridian varieties of Tahiti and Persian lime were thought to be two similar yet distinct varieties for many years. However, comparisons conducted in California strongly suggest the clones are identical.⁶

The Sublime Benefits and Uses of Lime Fruit

Lime, with its delightful aroma and unique flavor, is well loved in both foods and drinks. Mexican or Key lime (*Citrus × aurantifolia*) is used simply to flavor all types of dishes from meats to guacamole. The juice is made into syrups, marmalades, and pies with “Key Lime Pie” being a famous dish of the Florida Keys and southern Florida. However, today it’s often commercially made with Tahiti lime (*Citrus × latifolia*) concentrate.⁵

In the Bahamas, fishermen always have their homemade bottles of “old sour” – lime juice with salt. Lime juice is used internationally to create all types of cocktails as well as limeade. In countries such as India and Malaysia, limes are pickled and eaten as appetizers or used as condiments.⁵

In the West Indies, lime juice is used in dyeing leather. In India, dried lime peel and the “sludge” remaining after clarifying lime juice is used to clean metal. The peel is used

for essential oil, and it is used in the perfume industry. In tropical Africa, lime twigs are popular chewsticks. Medicinally, lime juice is used to ease the swelling and irritation of mosquito bites.

Limes are packed with nutrients, including 22% Recommended Dietary Intake (RDI) of vitamin C, 2% RDI of iron, calcium, Vitamin B6, Thiamine, and smaller amounts of potassium, riboflavin, niacin, folate, phosphorus, and magnesium.⁸

Limes are also rich in antioxidants, they can support immune health, support healthy skin (vitamin C is needed to make collagen, the protein that helps to keep your skin firm), support heart and kidney health, increase iron absorption, and like other citrus fruits have been linked to a lower risk of certain cancers due to their flavonoid content.⁸

Lime juice can be combined with vinegar and water in cleaning as a refreshing surface spray.

The Therapeutic Benefits of Lime Essential Oil and Hydrosol

Lime essential oil is bright, energizing, and rich in d-limonene, gamma-terpinene, α-terpineol, and a small amount of sesquiterpenes and oxides. It is often used to fight germs, ease muscle spasms, and boost mood and energy levels.

Lime essential oil also supports skin health and offers anti-inflammatory and antioxidant properties.

Lime hydrosol, extracted from *Citrus × aurantifolia* is described as sweet.

Although limited GC/MS data is available, lime (*Citrus × latifolia*) hydrosol is reported to be

most abundant in α -terpineol (114.22 mg/L or 44% of total volatiles), with terpinene-4-ol, linalool, geranial, 1,8 cineole, neral, cis- β -terpineol, borneol, and geraniol all weighing in around 4 mg/L or more (1.5% or more of total volatiles).^{9,10}

The GC/MS data suggests that lime hydrosol would offer antimicrobial, analgesic, anti-inflammatory, neuroprotective, anti-spasmodic, anti-inflammatory, immune supportive, and sedative benefits due to the aromatic compounds present.¹¹

Aromatherapist Amy Kreydin describes the odor of Key or Mexican lime (*Citrus × aurantifolia*) hydrosol as sweet, citrusy, and like “candied limes.” She describes the taste as “bitter citrus.”¹²

Bears or Persian/Tahiti lime (*Citrus × latifolia*) hydrosol on the other hand has a subtler, slightly medicinal, but unmistakably lime aroma. The taste is slightly bitter and citrusy. It’s the hydrosol I have on hand and its aroma subtle and a bit medicinal. Kreydin uses this hydrosol interchangeably with lemon (*Citrus × limon*) hydrosol.

Kreydin suggests lime hydrosol when antiseptic, astringent, cicatrisant, depurative (purifying agent), diuretic, or tonic actions are desired.

Kreydin also suggests lime hydrosol for dull congested skin or to cool varicose veins during the summer months. Additionally, she suggests lime (or lemon (*Citrus × limon*)) hydrosol to support concentration and ease mental fatigue.

For respiratory health or to support a client in the months that follow quitting smoking,



Key lime (*Citrus × aurantifolia*)

Kreydin advocates lemon (*Citrus × limon*) or lime (*Citrus* spp.) hydrosol delivered via nebulizer.

How to Use Lime Hydrosol Therapeutically

As with many hydrosols, both *Citrus × aurantifolia* and *Citrus × latifolia* are much gentler than the essential oil and can be used directly on the skin without dilution. As they are steam distilled, neither hydrosol has any phototoxicity concerns.

Pure, fresh, unpreserved, lime hydrosol can be diluted in purified water, juice, or tea to take advantage of its purifying, diuretic, or tonic actions. Kreydin recommends 5-15 mL (1 teaspoon to 1 tablespoon) per 4- 6-oz. (120 – 180 mL) of liquid taken twice daily for long term support or 30-45 mL (2-3 tablespoons) per 4-6-oz. (120 -180 mL) of purified water, juice, or tea taken twice daily for short term support (up to three weeks).

Aromatherapist Suzanne Catty typically recommends diluting the hydrosol in a much greater volume of water, 1.5 liters (50.7-oz.), but the recommended hydrosol volume is typically the same for both long- and short-term support as Kreydin suggests.¹³

To support oily skin with occasional blemishes, use lime hydrosol undiluted as a toner or incorporated into aromatherapy blends for lotions, cleansers, and masks in place of the water component or other liquid components, in order to take advantage of its astringent, cicatrisant, depurative, and tonic actions.

Kreydin suggests using lemon (*Citrus × limon*) or lime (*Citrus spp.*) hydrosol in nebulizers to support respiratory health. Use two parts hydrosols to five parts distilled water in the liquid basin and inhale for ten minutes.¹²

You can also add 30 mL (1-oz.) of the hydrosol to a ceramic or glass bowl and pour an equal amount of boiling water over the hydrosol. Tent the head in a towel and inhale the vapors for five to ten minutes with or without the addition of essential oils.

Lime hydrosol is an excellent choice to include in sprays for cleaning, freshening a space, or uplifting the mood, such as surface cleansing sprays or air fresheners.

Sweet and citrusy, lime hydrosol is a sublime companion for summer to cool, cleanse, uplift, and refresh. I've included two refreshing recipes you'll want to have on hand for summer fun!

Lime hydrosol is sublime. I hope that you've enjoyed your time being featured in the limelight! And if you have any questions about lime hydrosol or the recipes in this article (pages 32 and 33), feel free to contact me. Aromatic blessings!



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Sublime Spray Lotion

After a day at the beach or poolside the skin can certainly use refreshing. This light lotion is hydrating, sprayable, and features lime hydrosol and scents of summer. Tuck it in your purse, pool or beach bag, or travel gear and spray lightly to moisturize the face and body after a day in the sun or while traveling. Please note that using the recommended emulsifier is key to obtaining a sprayable lotion. If for some reason your lotion is too thick to spray, use a pump bottle instead.

Equipment:

Five 8-oz. or ten 4-oz. clean glass or PET bottles with spray tops

Scale

Two stainless steel or glass bowls

Glass rod or spoon for mixing

Stick blender or beater

Funnel

Spatula or scraper

Water bath or double boiler set up

Bowl with cool or ice water

Ingredients:

789 g (28-oz.) lime (*Citrus × aurantifolia*) hydrosol*

20 g (0.7-oz.) glycerin

50 g (1.78-oz.) aloe vera (*Aloe barbadensis*) gel or liquid

60 g (2.14-oz.) coconut (*Cocos nucifera*) oil

30 g (1.07-oz.) Phytomulse chlorella® Cetearyl alcohol & glyceryl stearate & chlorelleth-20 emulsifier (you can use any of the Phytomulse® emulsifiers)

1 g (0.036-oz.) vitamin E (Tocopherol) or you can simply add 5-6 drops

40 g (1.43-oz.) Leucidal® liquid Max (Lactobacillus ferment) or suitable preservative



10 g (0.36-oz.) lime (*Citrus × aurantifolia* or *Citrus × latifolia*) or sweet orange (*Citrus sinensis*) essential oil

*If you don't have quite enough lime hydrosol you can use distilled water or a mixture of hydrosols

To Make:

Clean equipment with 70% isopropyl alcohol.

Combine hydrosol (and distilled water if using), glycerin, and aloe vera –this is the water phase. Combine emulsifier and coconut oil – this is the oil phase.

Heat both the water and oil phase to 75-80 C (167F – 176F). Drizzle the heated oil mixture into water mixture and stir gently with glass rod or spoon to combine. Use stick blender or hand mixer to blend for 1-2 minutes to form an emulsion.

Place the mixture into a cool water bath and continue blending for 1-2 minutes. Once the mixture reaches 40C (104F) add vitamin E, essential oils, and preservative. Transfer the mixture to spray bottles using a funnel.

To Use: Spray lightly onto dry skin to hydrate and freshen, avoiding eyes. This lotion is especially wonderful after a day on the beach or outdoors.

Cautions: For adult use only. Discontinue use if sensitivity occurs.

Easy Does It Micellar Water Cleanser and Toner

Micellar water is fantastic to have in your gym bag, at the pool or beach, or for travel. It's like a cleanser and toner all in one. This version features lime (*Citrus* spp.) and witch hazel (*Hamamelis virginiana*) hydrosols, as well as hibiscus-infused glycerin. It's refreshing, hydrating, and makes it easy to cleanse your skin quickly. It is a great choice for oily or blemish prone skin but is also suitable for all skin types.

Equipment:

One 8-oz. clean glass or PET bottle with flip-top

Scale

Beaker, glass measuring cup/bowl, or stainless-steel bowl for mixing

Glass stirring rod or spoon for mixing

Funnel

Ingredients:

112.5 g (3.75-oz.) lime (*Citrus × aurantifolia* or *Citrus × latifolia*) hydrosol

112.5 g (3.75-oz.) witch hazel (*Hamamelis virginiana*) hydrosol

6.75 g (0.23-oz.) hibiscus (*Hibiscus abdariffa*) infused-glycerin or glycerin

6.75 g (0.23-oz.) Caprylyl/Capryl glucoside or Castille Soap

9 g (0.3-oz.) Leucidal® liquid Max (Lactobacillus ferment) or suitable preservative

To Make:

Clean equipment with 70% isopropyl alcohol or 10% chlorine solution. Combine hydrosols, glycerin, Caprylyl/Capryl glucoside or Castille Soap, and preservative and mix gently to combine. Pour mixture into glass or PET bottle using funnel if needed.

To Use:

Soak a cotton ball, cotton pad, or wash cloth with a small amount of micellar water. Swipe gently over the face and neck to cleanse and refresh the skin. Allow the skin to dry or use a towel to absorb any excess micellar water from the skin.

Substitute the hydrosols appropriately as needed for therapeutic benefits.

Cautions: For adult use only. Discontinue use if sensitivity occurs.

About Tricia Ambroziak:

Patricia (Tricia) Ambroziak is a certified aromatherapist and cosmetic formulator. She has been blessed with 30 years of marriage and is mom to two amazing young adults. She enjoys exploring the wonder and power of plants, herbs, hydrosols, and essential oils and their role in supporting wellness. She is the owner of *Aromatherapy by Tricia Ambroziak* and formulates products for a number of local small businesses including *Be Kekoa*

Hair Salon, Pure Silk Skincare & Beauty boutique, and Holbody Healing Massage Therapy. Tricia also tutors at Great Oak High School, has taught science, and worked in biological research. She is a former martial arts instructor with a 3rd degree black belt in Tae-Kwon-Do and college basketball player, who enjoys staying active in sunny, Southern California. To learn more about Tricia visit her website at: www.aromatherapybytriciaambroziak.com



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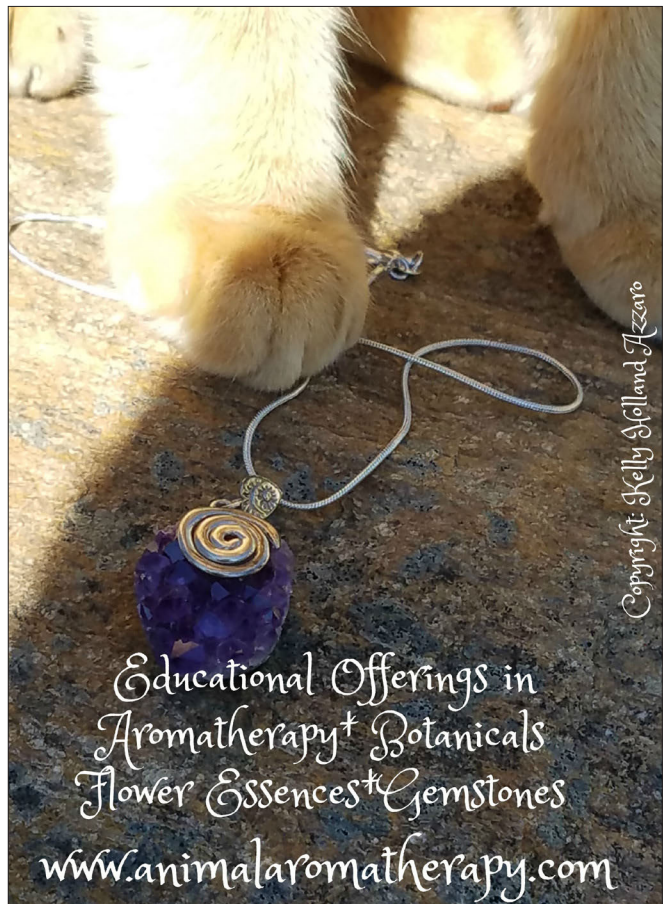
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Growing Lemon Verbena in Your Aromatic Garden

By Anna Pageau
NAHA Certified Professional Aromatherapist®



Lemon verbena is part of the verbena family, *Verbenaceae*. The verbena family consists of trees, shrubs and herbs that have clusters or spikes of small, usually aromatic, flowers.

What's in a Name?

Lemon verbena is an interesting plant with several different botanical names. *Aloysia triphylla* and *Aloysia citrodora* are both accepted as scientific names for lemon verbena whereas *Lippia citrodora* is currently listed as a synonym.¹

The genus *Aloysia* is commonly known as *beebrush*. Although I couldn't find a specific reason why this is so, it is believed that the genus is named for Maria Luisa of Parma (1751-1819) and it was an adaptation of the name Luisa. The genus synonym of *Lippia* was

named for the French naturalist and botanist Augustus Lippi (1678-1705). The plants found in both genera are subtropical plants that can survive in desert climates. These plants generally grow well in zones 8-10.^{2,3} Note that lemon verbena (*Aloysia citrodora*) was previously classified in the *Lippia* genus, hence its synonym *Lippia citrodora*.⁴

Both species' synonyms provide us with a bit of information about the plant. All species that are identified as *citrodora* are lemon scented. The species name *triphylla* means "three leaved" which indicates that the plant has three leaves at the same point on the stem.

Lemon verbena is a bushy perennial and it can grow to about six feet tall. It develops small spikes of flowers that can be white, light pink or lilac in color. Bees and butterflies find these small flowers attractive and subsequently pollinate them.⁵

How to Grow Lemon Verbena

Growing lemon verbena can be a bit challenging since it is a tropical plant originally from South America. It prefers full sun with well drained sandy soil that has been amended with compost. If the soil is overly wet the roots will rot. It is drought tolerant, but if the plant gets stressed it will drop leaves. Don't give up though because with care it will produce more leaves.



Photo this page: Lemon verbena (*Aloysia citrodora*)

In colder climates lemon verbena can be grown as an annual that needs to be replanted each season. Some gardeners will overwinter their plant by withholding water at the end of the growing season. This triggers the plant to go dormant. If it is planted in the ground, it can be dug up and placed in a pot in moist sand for the winter and then replanted in spring.

The plant is not easy to start from seed, as it is slow to germinate and grows slowly which also makes it more difficult when trying to grow in short seasons. If you have an established plant, it does well with regular pruning and those trimmings can be used to propagate a new plant. To propagate from cuttings, strip the bark and lower leaves off just above the cut. Dip this section into rooting hormone (or cinnamon powder (*Cinnamomum zeylanicum*)). Cinnamon was recommended to me by a local gardener, which seems to work great. Place it in a glass of water in a sunny window. It will take 7-14 days for roots to form. Once roots are formed you can plant this in a large pot or directly in the ground. Check the soil periodically to ensure that the roots aren't too wet.

When pruning be sure to strip the leaves for use in the kitchen. They can be used fresh or dried.

How to Use Lemon Verbena

The fresh or dried leaves and flowering tops of lemon verbena are used to make a refreshing tea, or for flavoring stuffing, preserves, or desserts. Lemon verbena tea is good for nausea and flatulence. The dried leaves maintain their fragrance for years so they can be a good addition to a potpourri as well.

How to Make a Potpourri Sachet with Herbs from the Garden

Supplies:

A small drawstring bag made from muslin, cotton, or silk

Herbs* cut from the garden and dried (enough to fill the bag)



*Herbs which are soothing can include: lemon balm (*Melissa officinalis* L.), lemon verbena (*Aloysia citrodora*), rose (*Rosa* spp.), calendula (*Calendula officinalis*), German and Roman chamomile (*Matricaria recutita*, *Chamaemelum nobile*), and lavender (*Lavandula angustifolia*).

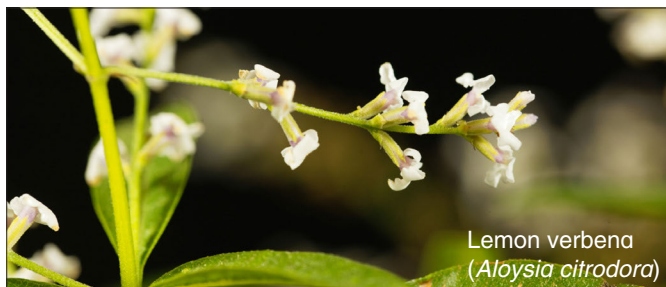
To Make: Add the cut and dried herbs to the bag and fasten off the drawstring.

Uses:

- Place the sachet in a drawer to keep clothes smelling nice.
- Place a sachet on a bedside table for a soothing night's sleep.
- Hang a sachet on a patio to help to repel bugs in the summer.

Cautions for Use

According to the 2nd Edition of *Essential Oil Safety*, lemon verbena (*Aloysia citrodora*) essential oil may be mildly phototoxic and should be used at a maximum dermal level of 0.9%. The essential oil is often adulterated with other lemon-scented plants. Some of the suggested therapeutic uses are for indigestion, irritable bowel syndrome, stress, and muscular spasms. Many people find citrus fragrances soothing so it is good for calming. ⁶



Alternative Lemon-Scented Plants

If you aren't ready to try a plant that requires a bit of patience, here are a few lemon-scented plants to try to grow depending on your climate:

- **Lemon (*Citrus × limon*):** In warmer climates, lemon blooms are great for bees. The trees can produce an abundant amount of fruit for use all year. Grows best in zones 9-11.
- **Lemon balm (*Melissa officinalis* L.):** Part of the *Lamiaceae* (mint) family, so it is an abundant producer. Lemon balm is best used fresh since it doesn't maintain its fragrance when dried. Grows best in zone 4-8.
- **Lemon basil (*Ocimum × citriodorum*):** Basil has a wide variety of cultivars. You could add a bouquet of different flavors by just growing all the different basil in an herb garden. An annual that can grow many places from seed each year.
- **Lemon catnip (*Nepeta cataria*):** This variety of catnip is a good option to plant near a porch. Or you can dry it and put in a satchel or bag. Hang it near seating areas for repelling mosquitoes as it is too strong for regular consumption. Grows best in zone 3-9.
- **Lemongrass (*Cymbopogon citratus*):** Another warm weather plant that provides beauty and it is useful in the kitchen. Grows best in zones 10-11.

- **Lemon thyme (*Thymus citriodorus*):** Thyme has many different fragrant varieties and can be a great option for people in cooler climates. It grows best in zones 4-5.

There are many fragrant plants that can enhance your gardening experience at different times of the year. If you enjoy working with plants lemon verbena can be a great addition to your aromatic garden.

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About Anna Pageau:

Anna Pageau is a certified aromatherapist. She completed her Level 2 certification with the Aromahead Institute in 2015 and took her animal aromatherapy certification with Ashi Aromatics in 2017. Anna dedicated five years to working at a rescue farm, helping farm animals overcome physical and emotional abuse. The farm also hosted many children and adult programs where Anna taught about the benefits of plants and aromatherapy. At the end of 2019, Anna relocated with her family to Northern Nevada. She is currently building her own small farm and working with the local community to share about the healing properties of plants for both humans and animals. Anna is the NAHA Regional Director for Nevada. To learn more about Anna, visit: www.annasmusings.com

Aromatherapy by Anna Pageau

Certified Aromatherapist

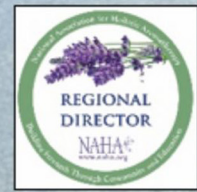
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Lemon Essential Oils of Australasia

By Kathy Sadowski
MS in Aromatherapy, RA, LMT



Has your well-trained aromatherapy nose ever had a difficult time identifying the lemon-scented species in an essential oil blend? There are a variety of lemony botanical aromas. Three delightfully lemon-scented essential oils are extracted from non-lemon plants of Australasian origin. These include lemon scented eucalyptus (*Corymbia citriodora*), lemon myrtle (*Backhousia citriodora*), and lemongrass (*Cymbopogon flexuosus*).

Lemon-scented Eucalyptus

Botanical Name: *Corymbia citriodora*.

Family: *Myrtaceae*.

Extraction Method: Steam distilled.

Plant Parts: Leaves and branches.

Country of Origin: Australia, China, India, Madagascar, Ethiopia, Brazil.¹

Key Chemical Constituents: Citronellal and citronellol.

Aroma: Refreshingly lemony and citronella-like.

Aroma Note: Top.

Aroma Strength: Medium.

Blends Well with: Virginian cedarwood (*Juniperus virginiana*), grapefruit (*Citrus × paradisi*), lavender (*Lavandula angustifolia*),

palmarosa (*Cymbopogon martinii*), petitgrain (*Citrus aurantium* var. *amara (fol)*), rose geranium (*Pelargonium graveolens*), and spearmint (*Mentha spicata*).

Possible Uses: Insect repelling, air freshening, and mood-boosting.

Contraindications: Possibility of skin irritation for sensitive people.

Scientific Research

- Constituents of citronellal and citronellol have demonstrated possible insect repelling activities.²
- Citronellal and citronellol have shown analgesic activities in vitro and in vivo; more research is needed to determine a safe and effective use for humans.³
- Citronellal was sedative in mice.⁴



Lemon-scented eucalyptus (*Corymbia citriodora*)



Lemon Myrtle (*Backhousia citriodora*)

Lemon Myrtle

Botanical Name: *Backhousia citriodora*.

Family: *Myrtaceae*.

Extraction Method: Steam distilled.

Plant Parts: Leaves and branches.

Country of Origin: Australia.

Key Constituents: Geranial and neral.

Aroma: Sweet and lemony.

Aroma Note: Top.

Aroma Strength: Strong.

Blends Well with: Bergamot (*Citrus × bergamia*), cypress (*Cupressus sempervirens*), juniper berry (*Juniperus communis*), lavender (*Lavandula angustifolia*), sweet orange (*Citrus sinensis*), and rose geranium (*Pelargonium graveolens*).

Possible Uses: Uplifting, may help open breathing, possibly a topical antiviral, and can

be used for possible food spoilage reduction related to an antimicrobial action.

Contraindications: Avoid use with pregnant or nursing women and young children under five years of age. Possible drug interactions. Avoid topical use with sensitive skin. Dilute the essential oil to at least 0.7% to avoid skin irritation.¹ This equals about three single drops of essential oil per one ounce of carrier oil.

Scientific Research

- *Backhousia citriodora* demonstrated antibacterial and antifungal against food spoilage microbes.⁵

- A preliminary human study of the Molluscum contagiosum virus resulted in a reduction of the disease through topical use. *Molluscum contagiosum* is a common childhood viral infection which is also present in adults, especially those with weakened immune systems.⁶

Lemongrass

Botanical Name: *Cymbopogon flexuosus*.

Synonym: *Cymbopogon citratus*.

Family: *Poaceae*.

Extraction Method: Steam distilled.

Plant Parts: Leaves.

Country of Origin: Asia. West Indian lemongrass is native to predominately Sri Lanka whereas East Indian lemongrass is native to eastern India.

Key Constituents: Geranial and neral.

Aroma: Strong lemon and slightly herbaceous scent.

Aroma Note: Top.

Aroma Strength: Strong.

Blends Well with: Basil (*Ocimum basilicum* L.), bergamot (*Citrus × bergamia*), Virginian cedarwood (*Juniperus virginiana*), ginger (*Zingiber officinale*), grapefruit (*Citrus × paradisi*), and vetiver (*Vetiveria zizanioides*).

Possible Uses: Air-freshening, insect repelling, antimicrobial, respiratory aid, analgesic, anti-dandruff, anxiolytic, anti-depressive, cognition-enhancing, and possibly for fever.

Contraindications: Avoid use with pregnant or nursing women and young children under the age of five years. Possible drug interactions. Avoid topical use with sensitive skin. Dilute the essential oil to at least 0.7% to avoid skin irritation.¹ This equals about three single drops of essential oil per one ounce of carrier oil.

Scientific Research

- In a mega analysis of insect repelling essential oils, lemongrass (*Cymbopogon flexuosus*) was effective in multiple studies.⁷

- Lemongrass (*Cymbopogon flexuosus*) has shown antimicrobial activities against antibiotic-resistant microbes. More research is needed.⁸

- Lemongrass (*Cymbopogon flexuosus*) aroma may aid in respiratory infections related to its possible fungitoxic activity against the *Aspergillus* spp. that cause respiratory infections. Human research is needed.⁹

- Lemongrass (*Cymbopogon flexuosus*) essential oil may help to reduce foot fungus in heated footbath water.¹⁰



Lemongrass (*Cymbopogon flexuosus*)

- Lemongrass (*Cymbopogon flexuosus*) has demonstrated in vitro and in vivo analgesic activities in studies. More research is needed to determine the safe and effective uses for humans.¹¹

- In a small human study with thirty people having dandruff, a hair product containing 10% lemongrass used for fourteen days reduced dandruff significantly without any reported scalp irritation. More human studies are needed to determine safety and effectiveness.¹²

- In a single blind parallel study with sixty healthy women, those who breathed a blend of lemongrass (*Cymbopogon flexuosus*), patchouli (*Pogostemon cablin*), and ylang ylang (*Cananga odorata*) essential oils demonstrated reduced blood pressure and anxiety compared to the control group.¹³

- Cognitive performance improved in a small study with thirty women who inhaled a lemongrass (*Cymbopogon flexuosus*) aroma.¹⁴

- Lemongrass (*Cymbopogon flexuosus*) has been recorded as a common folk remedy for fever reduction.¹⁵

Lemony Laundry Refresher

Naturally freshen up the laundry or pre-treat stains with this lemony-scented recipe.

Ingredients:

0.33-oz. (10 mL) Dawn® brand dish soap

8-oz. (235 mL) white vinegar

8-oz. (235 mL) hydrogen peroxide

8-oz. (235 mL) water

Essential Oils:

0.17-oz. (6 g) lemon-scented eucalyptus

(*Corymbia citriodora*)

0.17-oz. (6 g) lemongrass

(*Cymbopogon flexuosus*)

To Make:

Make sure that you wear skin-protective gloves to make this recipe.

In a 32-oz. (1000 mL) Pyrex® measuring cup, mix the essential oils and dish soap together using a spoon. Then, pour in the vinegar, hydrogen peroxide, and water, and mix again with the spoon.

Pour into a 32-oz. (1000 mL) spray bottle or four smaller spray bottles. Shake well. Label the bottle/s with the ingredients, date made, and the How to Use instructions listed below.

To Use: Pour 3-oz. (90 mL) into your clothes washer's "bleach" dispenser for a fresh clean scent. To treat a stain, spray one to two times directly onto the stained clothes. Leave for five minutes. Then wash the clothes in your washing machine as usual.

Cautions: Hydrogen peroxide can cause bleaching/whitening to colored fabrics. Rinse clothes well. Lemongrass (*Cymbopogon flexuosus*) essential oil is a possible skin irritant. Discontinue use if any irritations occur.



Lemongrass
(*Cymbopogon flexuosus*)

In Conclusion

Lemon scented eucalyptus (*Corymbia citriodora*), lemon myrtle (*Backhousia citriodora*), and lemongrass (*Cymbopogon flexuosus*) essential oils all have a surprisingly sunshine-lemon scent that is sure to boost mood, freshen the air, and may offer additional possible benefits. The laundry cleaning recipe included in this article is sure to be a favorite!

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About Kathy Sadoswki:

Kathy Sadowski has a Master of Science degree in Aromatherapy from the American College of Healthcare Sciences. With a passion for reading scientific studies on herbs and essential oils, she has developed the website www.EarthtoKathy.com, which categorizes 4,000 plus scientific research articles on plants by species, therapeutic action, and constituent. The goal is to demonstrate a growing amount of evidence for the potential healthful uses of herbs and essential oils. Kathy is a professional member of NAHA and AIA, a Registered Aromatherapist (ARC), licensed massage therapist, and enthusiast for environmental protection and a natural lifestyle. Visit Kathy's website at: www.EarthtoKathy.com

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Crazy for Catnip (*Nepeta cataria* L.)

By Kelly Holland Azzaro
RA, CCAP, CBFP, LMT



Common Name/s: Catnip, catmint, cat wort, field balm.

Binomial Name: *Nepeta cataria* L.

Botanical Synonyms: *Nepeta cataria*.

Botanical Family: *Lamiaceae* (*Labiatae*).

Genus: *Nepeta*.

Native Origin: Europe, Asia, Middle East.

Cultivated: North America (in particular, the USA and Canada).

Plant Parts Used: Aerial parts (flowers, leaves, stems). Both the leaves and stems contain a volatile oil known as nepetalactone.

Extraction Method: Steam distillation, hydro-distillation.

Varieties: *Nepeta cataria* var. *citriodora* (or *N. cataria* subsp. *citriodora*), or “lemon catnip.”¹

Scent: Light herbal mint aroma. A more potent scent is released when crushing the fresh leaves.

Interesting Notes: “The name *Nepeta* is believed to have come from the town of Nepeta

in Italy. *Cataria* is thought to have come from the Latin word for cat.”²

Cultivation

A perennial plant that thrives during spring into mid-autumn. Catnip plants are drought tolerant (and require good drainage to avoid getting soggy roots). *Nepeta* species love sunshine but can also do well in mild shaded areas as long as the plant has access to sunlight for at least six or more hours. Catnip is considered to be an invasive plant and since it is part of the *Lamiaceae* botanical family,

Did you know that not all cats will go crazy for catnip—or do they?

A 2017 research study conducted wakens one to rethink what was thought to be that not all cats (due to genetics) may react to catnip's chemical components. However, from this published abstract the following is suggested:

“These results suggest that all cats respond to catnip but they express it actively, passively or with a combination of both types of responses, which mainly depends on age and sex, and early gonadectomy to a much less extent.”³

Photo this page: Catnip (*Nepeta cataria*) © Kelly Holland Azzaro

as are many of the *Mentha* species which also belong to this family, be sure to map out where you'd like to grow catnip in your garden (for example, in a separate garden, pots, or larger raised beds secured with wooden boards, etc.). This will ensure it doesn't take over too much garden space – unless, of course, that is your intention. Or, should I say, your cat's intention! A specific catnip garden just for your cats...

With every growing season, catnip produces larger sized downy soft, heart-shaped leaves and beautiful, light, purple-speckled flowers. The plant reseeds itself and can grow from 1 to 3-3.5 feet tall. Starter plants are usually available at a local nursery, farmer's markets, or ask a gardener friend for a few stems with healthy roots to replant and start your own catnip garden. This plant is pretty resilient and will serve you and your outdoor cats during spring, summer, and autumn.

Note: Catmint is not as potent in scent as catnip, though it does have a very soft catnip-minty aroma. Cats do not seem to be as attracted to it, but I do find that it provides a nice shady spot for an afternoon catnap!

Chemistry

The two main chemical components of catnip (*Nepeta cataria*) essential oil are the terpenoid Nepetalactone isomers (up to 80+%), and Nepetalic acid (up to 40+%). The main constituent nepetalactone is considered responsible for CNS (Central Nervous System) effects.⁴

The hydrosol contains “carophyllene oxide, and possibly nepetalactone isomers.”⁵

Catnip's chemistry interacts as a vapor at the olfactory epithelium.⁶



Catmint (*Nepeta* spp.) © Kelly Holland Azzaro

Therapeutic Properties

- Antispasmodic (digestive)
- Calming (nervous system)
- Carminative (digestive system)
- Diaphoretic (promotes sweating)
- Repellent (gnats, mosquitoes)
- Sedative (nervous system)
- Stimulating (felines).

Resonates with the TCM (Traditional Chinese Medicine) Meridians: Heart, Lungs, Stomach, Triple Warmer.



Catnip (*Nepeta cataria* L.) © Kelly Holland Azzaro

Traditional Uses

- **Bug Repellent:** Research has shown its effectiveness in particular with cockroaches, mosquitoes, stable flies, ixodid ticks, and poultry mites. See *Research Abstracts* listed at the end of this article for further information.
- Tension, stress, anxiousness from feeling uptight, and overwhelmed (use the dried herb for tea and a hydrosol).
- Catnip tisane (herbal tea), tincture, and topical compress have been used for both digestive and nervous system support.

Hydrosol Uses

The use of the hydrosol is a safe and effective way to incorporate catnip use with humans and their animal friends. The hydrosol is readily available and easy to use. Use in a mist spray bottle to spritz onto outdoor clothing when gardening, hiking, and camping to help keep biting bugs at bay.

Another fun way to try the hydrosol is to pour it into a mini-ice cube tray and freeze. Use a frozen cube wrapped in a cotton cloth to apply to bug bites/stings, the nape of the neck

to cool off, and to the forehead. I have also placed a small ice cube in a glass of iced tea for a refreshing and relaxing drink to cool down after a day of gardening.

The hydrosol can be used in a compress and applied to the skin if feeling overheated due to too much fun in the sun, or to the forehead for relief from a headache (tension and heat-induced).

Spray the hydrosol onto cotton cat toys to freshen up dried catnip herb.

Be mindful when applied topically. You may find yourself being followed by a few felines!

Essential Oil Use

The pure essential oil is more potent and, when diluted with vegetable oil or unscented lotion for topical use, has been found by some individuals to be quite useful during nature walks when pesty biting bugs are near. If incorporating for use to help with biting flies with larger farm animals (horses, cattle, alpacas, llamas, goats, and sheep), both the essential oil and the hydrosol may be effective in a blend. Stick with the use of the diluted hydrosol for dogs and cats.

Safety Cautions

Use caution with topical application of the essential oil to the skin. Properly dilute the essential oil with a base/vegetable oil to avoid possible skin sensitization issues. The dried herbal form is best suited for internal consumption when made into tea. Fresh plant flowers and leaves may also be used for their aromatic properties via simple inhalation. Gently rub the plant material back and forth with your fingers and take a whiff of the

herbaceous scent. Just be sure to wash your hands well (and avoid rubbing or touching your eyes) after you have finished working with the plants/fresh/dried herbs/essential oil and or hydrosol.

With all essential oils, herbs, and hydrosols, be sure to keep out of reach of children and pets. Store out of direct sunlight and be sure to always use fresh products. The herb and hydrosol are prone to mildew if not properly stored and the essential oil, over time, is prone to oxidation. If unsure of use, consult with a qualified aromatherapist/herbalist for more information.

Price Point

Low to moderately priced. The pure essential oil is more expensive than the hydrosol, and, at times can be difficult to find for purchase. The fresh herb plants usually cost \$3-\$5 each, and all you need are a few to get started and then you will have plenty for repotting and sharing with others.



Catnip (*Nepeta cataria* L.) © Kelly Holland Azzaro

A Magical Catnip Garden for Our Outdoor Cats

I love it when synchronicity plays a part in magical experiences. One day we were looking for garden statues for our botanical garden and a local business owner who makes these was in the process of clearing out older stock along with some wooden planters I noticed tossed to the side. I asked what they were used for, and he shared how he made the planters to use for starter boxes to hold small cypress trees while they grew taller. He then planted the mature trees in his yard as a privacy fence. I remarked how creative he was. He surprised us by gifting the planters, saying that he knew they were going to be put to good use. How wonderful for us (and our cats)!

The planters are very sturdy and the perfect size to start a mini garden. I thought, perhaps they'd make for a nice border when lined up next to each other and then top them with some nice aromatic plants. One of our outdoor cats immediately jumped in the smaller of the empty planters. And voilà! The idea for a separate mini garden for the cats came to mind.

Catnip was the first plant that I placed into two of the planters, and then I placed the catmint spp. in another. I left the last planter empty because that one became a favorite for playing hide and seek. Over the last two years, the catnip plants have increased in size and provide a special place for the cats to experience catnip bliss. I found that by visiting the planters that I'm followed by my feline friends, and it has now become an important ritual that we all enjoy. It has also increased their level of confidence and social camaraderie amongst each other.

By spending time outdoors, within the beauty of nature, and, most importantly, with our feline friends such magic is brought to our days. I myself find it very calming, grounding, and uplifting for my spirit.

Taking time away from electronic devices and absorbing the healing power of the sunlight vs. being a sponge for electromagnetic waves is certainly something I look forward to as part of my self-care. I hope that our cats' catnip garden will inspire you to do the same.

Even if you are not a caregiver to outdoor cats, creating a mini aromatic garden to experience a small part of nature is still a truly joyful gift to give yourself and your family. But, be forewarned if you do decide to plant catnip for your own use, you may find yourself some new furry friends to spend time with!

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About Kelly Holland Azzaro

Kelly Holland Azzaro is a Registered Aromatherapist, Certified Clinical Aromatherapy Practitioner, Certified Bach Flower Practitioner, Licensed Massage Therapist, and Reiki Practitioner. Kelly is an active member of over twenty years and has served The National Association for Holistic Aromatherapy Board Member positions of Vice President (NAHA) and President (NAHA), and is the current Public Relations Director. She also is the Journal Manager and Co-Editor for the NAHA Aromatherapy Journal. Kelly is the Founder and Director of The Holistic Animal Aromatherapy Association.

Kelly has over 25 years of professional experience and educational training in Clinical Aromatherapy and Massage Therapy (including over 20+ modalities). She also has specialized training in Canine, Feline and Equine Anatomy and Physiology, Equine/Canine and small animal Acupressure-Massage Therapies, Animal Communication, Homeopathy and Herbal Therapies (Human/

Animal), Reiki (Human/Animal), Craniosacral Therapy (CST) (Human/Animal), Chiropractic Assistant (Parker Chiropractic Foundation), and advanced studies in both Aromatherapy and Flower Essence Therapy for people and their animal friends.

A presenter at live events, Kelly has spoken on the topic of animal aromatherapy and flower essences at the Natural Canine Health Symposium 2014, the National Association for Holistic Aromatherapy World of Aromatherapy V (2004) VIII (2016), IX (2018), and X (2021) Conferences, and the North Carolina Herb Association Conferences (2017, 2018). As an educator, Kelly's style of teaching is heart-centered with a focus on mentorship and support for the student and their individual goals. Empowering others

through education is key in the student's journey and also inspires those seeking to connect with animals to develop a deeper level of listening and awareness skills.

Kelly, and her husband Marco a Licensed Acupuncturist and Qigong Practitioner and Instructor own Ashi Therapy, a Holistic Healing Center, where they work together as a team to educate and empower others through holistic services, education, and support. Kelly is approved by the National Certification Board of Therapeutic Massage and Bodywork (NCBTMB) as a Continuing Education Approved Provider.

To learn more about Kelly and course offerings, please visit www.animalaromatherapy.com

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Pollution and Pollinators

By Amanda Plunkett
NAHA Certified Clinical Aromatherapist®



In the spring edition of the *NAHA Aromatherapy Journal 2021.1*, my article “The Making of Bee Bread,” highlighted the science behind why pollination is really plant sex. Plants have adapted over millions of years to find the perfect recipe to attract their reproductive aid, their pollinators, by their means of communicating through a blend of odoriferous compounds. The perfect recipe often comprises of hundreds of compounds. “Rose (*Rosa* [×] *damascena*) flowers contain over 300 essential oil compounds that contribute to the attraction of pollinators.”¹ The “recipe” greatly affects success in pollination. “1,8-Cineole, present in 60% of the scents of orchids analysed by Dodson et al., 8 was found to attract the greatest number of pollinator bees (70%). In comparison, eugenol, methyl salicylate and methyl cinnamate attract fewer species.”² This intimate relationship between pollinator and plant relies heavily on specific formulations and can easily be disrupted by varying factors and leads to many questions. Have you ever wondered if pollution affect our pollinators?

To help with their sexual life, many plants mimic the pheromones of female pollinators to attract the males of that specific specialized species. Although daisies and lilies also pollinate through sexual mimicry, orchids remain the most studied. “Some orchid

flowers mimic the receptive females of (usually) just one pollinator species. Males are attracted by the shape and odour of the flower, which resemble the virgin female bee, and transfer the pollinia during so-called ‘pseudocopulation’ with the flower labella.”³ Then, after pollination of a flower, orchids will lower certain compounds and increase others to mimic the pheromones that inhibit copulation in the female. This ensures that the male bee moves to another flower rather than repeating pollination, and the flower changes the “recipe” of these secondary metabolite compounds to communicate their needs.

Pollution in Numbers

Many times, in discussing air quality and research, the term “ozone” is used. Ozone exists in the stratosphere (6-30 miles above Earth) to protect us from harmful ultraviolet (UV) sun rays. However, the troposphere where we live (0-5 miles above the Earth), creates harmful nitrogen oxides and other harmful compounds that damages living tissues of plants and animals. The Environmental Protection Agency (EPA) has updated national standards to 70 ppb (parts per billion)⁴ and the World Health Organization (WHO) recommends lower than 60 ppb⁵ for an 8-hour average. For perspective, in 2016, the Los Angeles area averaged 96



ppb⁶ and with wildfires can reach 185 ppb.⁷ In 2020, Texas reported that ten of its counties regularly violated the federal standards of 70 ppb.⁸ These numbers are essential to understanding the environmental impacts of pollution.

How Pollution Affects Pollinators

Through modeling and lab-controlled experiments, researchers have found that pollution negatively impacts our pollinators through changing the “recipes” of the plant emitted odors as well as changing pollen output. Let us consider just a few examples:

- β -myrcene is a primary component of ylang ylang (*Cananga odorata*), African basil (*Ocimum gratissimum*), hairy mountain mint (*Pycnanthemum pilosum*), and the common hyacinth (*Hyacinthus orientalis*) flowers for pollinators. This constituent can also be found in essential oils such as bay laurel (*Laurus nobilis*) leaf and lemongrass (*Cymbopogon citratus*). In an ozone-free environment, this essential oil component travels more than 3,000 ft.; yet at 60 ppb it travels only 1,000 ft.^{9,10}

- α -pinene, a primary component of African basil (*Ocimum gratissimum*) flowers, hairy mountain mint (*Pycnanthemum pilosum*) flowers and rosemary (*Salvia rosmarinus*) leaves¹¹ survives forty hours in an ozone free environment. Sadly, it only lasted ten hours at 60 ppb and only one hour at 120 ppb.¹²

- Honeybee foragers found β -caryophyllene, a sesquiterpene that gives carnation (*Dianthus caryophyllus*) its sweet scent,¹³ lasted only ten minutes in an ozone-free environment. When the ozone rose to only 20 ppb, not even close to the federal requirement, it took 180 minutes (three hours).¹⁴

What do all these numbers mean? Pollution not only confuses the recipe for attracting pollinators, but pollinators have to spend longer looking for resources which limits how much they can provide for their families, if they are able to find the flowers at all since it reduces the “distance over which floral olfactory signals can be detected by pollinators.”¹⁵

Once pollinators do find the food, pollution also negatively impacts the quality and quantity available for forage. With more time spent foraging, less energy is spent on pollination activity. This decrease in pollinator foraging efficiency could simultaneously decrease the pollinator’s reproductive output and the amount of pollen flow in flowering plants. Plants, when exposed to ozone at 100 ppb, were seen to have a decreased pollen germination percentage and pollen tube length, as well as delayed flower development and increased bud abortion/abscission.¹⁶

In addition to directly influencing foraging rates and foraging amounts, pollution may

also contribute to reduced nectar and pollen availability by worsening droughts:

- “Increases in air pollution and other particulate matter in the atmosphere can strongly affect cloud development in ways that reduce precipitation in dry regions or seasons, while increasing rain, snowfall and the intensity of severe storms in wet regions or seasons, says a new study. The research provides the first clear evidence of how aerosols can affect weather and climate,

with important economic and water resource implications.”¹⁷

- “A greenhouse experiment demonstrated that drought does reduce both pollen and nectar production by *I. aggregata* flowers.”¹⁸

- Drought stress reduces the amounts of flowers available as well as the amount of nectar available in flowers produced.¹⁹

Such nutritional and heat stress results in lower production of offspring and overall

Sunscreen Blend

This recipe yields 12-oz./340 g of sunscreen. You will need suitable containers such as 12 x 1-oz. jars.

Ingredients:

- 4-oz./120 mL calendula, organically grown (*Calendula officinalis*), organic sunflower (*Helianthus annuus*) oil, organic and sustainable red palm (*Cyrtostachys renda*) oil
 - 4-oz./120 mL certified organic shea butter (*Butyrospermum parkii*)
 - 2-oz./60 mL certified organic argan (*Argania spinosa*) oil
 - 2-oz./60 mL certified organic jojoba (*Simmondsia chinensis*)
 - 2-oz./60 mL certified organic coconut (*Cocos nucifera*) oil
 - 10-oz./285 g certified organic beeswax (*Cera alba*)
 - 2 tsp. certified organic rosemary antioxidant extract rosemary (*Salvia rosmarinus*) and olive oil (*Olea europaea*)
 - 6-oz./170 g non-nano uncoated zinc oxide
- Essential Oils (Optional):**
- 40 drops of lavender (*Lavandula angustifolia*)

To Make: Gently melt all of the oils and beeswax using the bain marie method. Once blended, take off of the stove top. Add the zinc oxide and essential oils. Stir. Cool for one hour in a large bowl and place in the refrigerator. Once cooled, put the mixture into a blender or food processor to whip. Once finished, scoop into containers.

To Use: Apply as needed when outdoors.

Cautions: For adult use only.

Amanda’s Tips: If you would like to make tinted sunscreen, blend organic raw cocoa powder in while melting. This may take a few attempts to get the right shade for your skin. The ratio of oils to zinc is 24-oz./710 mL oils to 6-oz./170g zinc. Please ensure you buy non-nano and uncoated zinc. With natural sunscreen, it is best to apply one hour before being out in the sun and reapply upon arrival. Be sure to consistently reapply when you are out in the sun and after getting wet.

Editor’s Note: This recipe is not a replacement for traditional sunscreen and sunblock products that may be required for use with certain individuals.

reproduction.²⁰ With three-quarters of the United States gripped in the worst drought in decades and California in the worst year since 1977, the effect of pollution on drought can no longer be ignored. Our focus needs to redirect towards carbon sequestration through soil science, replanting our landscapes with drought tolerant plants, and keeping our trees alive. After all, a growing body of evidence is emerging that trees not only sequester carbon and reduce pollution, but they can also cause rain.²¹

This year, beekeepers in Southern California are reporting reduced growth of colonies and reduced nectar flow. For the first time since starting bee rescues and beekeeping, our relocations and colony populations are low. The forecast from our firefighters is that moisture levels are two months prematurely reduced. This summer dearth (limited resources for pollinators) and subsequent fire season looks bleak. When you become a beekeeper, people begin to treat you like a hero. We become stewards of a cornerstone species we can closely observe for monitoring climate change. We become intuitively connected to changes in floral resources. It then becomes our responsibility to represent as stewards, not only honeybees, but all pollinators, and to be the hero. Beekeeping then morphs into a vehicle for advocating environmental health. Whether or not you too are a beekeeper, plant trees and plants either at home, at a local community garden, or with a local organization, provide food sources, habitat, and water for our pollinators. You will receive a bounty of beauty in return.



Insect hotel for pollinators

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About Amanda Plunkett:

After years of suffering with an environmental illness, Amanda turned to holistic medicine. She began her aromatic education by obtaining her Advanced Aromatherapy and Internal Usage Certifications under the mentorship of Jade Shutes in 2015 with over 500 hours of training. She now serves the community as a NAHA Certified Clinical Aromatherapist®. In 2016, she launched Bee Rooted, a company dedicated to advocating for healthy environments and rescuing nuisance honeybees. Since then, she has also successfully completed a horticulture class and gained an Organic Lawn Care Accredited Professional Certification through the Organic Landscape Association and the Northeast Organic Farming Association.

As an Environmental Illness survivor, she feels she has a special relationship with bees as they too are sensitive to miniscule environmental changes. She uses her experience to spread awareness for healthier environments, offering consultations and presentations around the country on holistic personal care, organic landscaping, and developing habitat for pollinators. Amanda is the Southern California regional director for NAHA. To learn more about Amanda, visit her website at: www.beerooted.com



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Non-Seed Plant Aromatherapy: Ferns and the Allies

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Ferns have prevailed worldwide since the Carboniferous era (approximately 350 million years ago). Today they represent 305 genera and incorporate more than 10,000 species.¹ Ancient peoples have used ferns for numerous medicinal properties²⁻⁵ like infections, bleeding, trauma, burning diarrhea and cold.⁶ Bioactivities like antioxidant, antitumor, anti-HIV, antimicrobial, anti-inflammatory and antiviral have been reported.⁷ Today Central American countries still trade them in the local markets for medical uses.⁸ For example, it is easy to find the fronds of the hairy flowering fern (*Anemia tomentosa* var. *anthriscifolia*) at these markets because they are used as an infusion against menstrual complaints and to help control a menstrual cycle:⁹ this plant is used alone as a poultice or tincture.

Scent in Ferns

Ferns have a diverse scent repertoire. Some ferns used in medicine do not possess a strong scent and generally have flavor and aroma from other plant sources added when used, like the red fern (*Stenochlaena palustris*).¹⁰ But others like the northern maidenhair fern (*Adiantum pentadactylon*) and the brake fern (*Pteris tremula*) are reported to smell like tom cat urine.¹¹ Fons *et al.* showcased the volatile organic compounds from five French ferns.¹²

The southern maidenhair fern (*Adiantum capillus-veneris*) contained the compound (E)-2-decenal which is like “stink bug” odor. The lady fern (*Athyrium filix-femina*) and the hard fern (*Blechnum spicant*) both contained small amounts of isoprenoids and the main volatile compounds of 2-phenylehtanal (lilac and hyacinth odor) and 1-octen-3-ol (mushroom like odor – like the bryophytes). Male fern (*Dryopteris filix-mas*) contained (E)-nerolidol which has a woody bark note. Lemon scented fern (*Oreopteris limbosperma*) contained the highest diversity of volatiles. Most were from the terpenic pathway which is not surprising since this fern has a natural lemony scent. It mimics many of the same monoterpenes as the angiosperms.

The same authors went one step further to determine the “fougère” scent, a unique “green odor” used in the perfume industry. It was thought that this was a man-made combination, but they found that six ferns each make the comparable scent due to the coumarin, hexanol, hexenol, and 1-octen-3-ol components present.¹³ The perfume industry has used this variation for numerous purposes. While herbal remedies and perfume uses abound for ferns, essential oils have a different historical path.

Essential Oils in Ferns

In 1947, an article in *Nature* was published on “A Terpene-type Essential Oil from a Fern (*Paesia scaberula*).”¹⁴ Compared to the bryophyte literature which takes off in the 1990s/2000s, this was a huge surprise showing that the ferns have a longer and in-depth chemical investigative history. At the time, only four studies showed evidence for essential oils in the entire Pteridophyta (the fern family) and it was thought that essential oils were rare in simpler plants.¹⁴

The scented fern (*Paesia scaberula*) was a natural place to start exploration for essential oils since the common name suggested a scent existed. The researchers obtained a deep-red oil from the fronds through steam distillation at the concentration of 0.05% yield. The outcome of chemical components were bicyclic sesquiterpenols that required further analysis to properly identify specific chemical components.¹⁴

Wide investigation has occurred for the non-volatile organic components of ferns.¹⁵⁻²¹ Even though strong evidence of medical fern use is evident, most of the scientific literature focuses on specific primary and secondary metabolites.²²⁻²⁴ Few reports characterized the volatile components from aromatic ferns before the early 2000s.²⁵⁻³⁰

Therapeutic Properties

The bracken fern (*Pteridium aquilinum*) contains pterosin and is reported to exhibit smooth muscle relaxant properties.³¹

Researchers examined the essential oils of the hairy flowing fern (*Anemia tomentosa* var. *anthriscifolia*) since it is used often in traditional medicine. Upon chemical



Southern Lady Fern (*Athyrium asplenoides*) © 2021 DB Poli

composition determination, 48 of 80 compounds were identified and the volatile oils were mainly sesquiterpenes (α -bisabolol is the major player) and monoterpenes.³² Alpha-bisabolol from the small tree candeerio (*Vanillosmopsis arborea*) displayed anti-inflammatory and local analgesic activities³³ and therefore this fern may possess similar therapeutic relief since it also contains α -bisabolol.

In 2009, a group of researchers began exploring medicinal ferns for antioxidative, tyrosinase inhibiting, and antibacterial activities, specifically from essential oils, because

industry was looking for additional ways to prevent health crises and subvert drug-resistant bacterial strains. In addition, antioxidants are useful for cardiovascular disorders, diabetes, cancer, and rheumatic arthritis.³⁴ Tyrosinase inhibitors are natural whitening agents and aid the food industry for browning of food.³⁵⁻³⁶ Table 2 summarizes findings showing how each plant's traditional use lined up with its more scientific testing results.



Christmas Tree Fern (*Polystichum acrostichoides*) © 2021 DB Poi

Table 2: Medicinal Ferns Investigated ³⁷⁻⁴⁰

Fern	Traditional Use	Scientific Findings
Golden Leather Fern (<i>Acrostichum aureum</i>)	Ulcers, boils, wounds, worms and bladder (support)	Demonstrated no visible antibacterial properties
Bird's Nest Fern (<i>Asplenium nidus</i>)	Depurative, sedative, easing labor, and chest pain	Showed broad spectrum antibacterial activity
Centipede Fern (<i>Blechnum orientale</i>)	Anthelmintic, boils, blisters, abscesses, and sores	Highest potential for use as an antioxidant, tyrosinase inhibition and antibacterial activity
Evergreen Fern (<i>Cibotium barometz</i>)	Fainting, wounds and ulcers, coughs, anti-rheumatic, kidney and liver tonic	Good potential as antioxidant and antibacterial agent
Forked Fern (<i>Dicranopteris linearis</i>)	Controlling fever, wounds and ulcers, anthelmintic, treating asthma	Good potential as antioxidant and antibacterial agent against Gram-positive bacteria

In 2011, a study examined if fifteen Malaysian ferns, some the same species as the Lai, Lim, and Tan work,⁴¹ also contained antioxidant properties.⁴² The researchers focused on phenolic compounds because plants will generate them in response to environmental stress. Therefore, plants in high-mountain areas and exposed to low air temperature, decreased partial oxygen pressure, increased ultraviolet (UV) radiation, and variations in water should generally have an increase in antioxidants. The result was those five ferns (*Cyathea latebrosa*, *Cibotium barometz*,

Drynaria quercifolia, *Blechnum orientale*, and *Dicranopteris linearis*) showed very high total phenolic content from fresh leaves. This was determined by antioxidant activity on the DPPH (2,2-diphenyl-1-picrylhydrazyl) radical scavenging activity, ferric ion reducing power and inhibition of lipid peroxidation.⁴² This suggests that the ferns may be fantastic options for future use in preventative healthcare. However, if we were to begin to harvest ferns in this stressed environment, we must take care to approach it from an environmental conservation perspective. These

unique niches would be easy to decimate. But by understanding how ferns respond to stress would provide indigenous peoples with a way to compete on a global scale in the healthcare world.

In 2016, essential oils were collected from black spleenwort (*Asplenium adiantum-nigrum*) and maidenhair spleenwort (*Asplenium trichomanes*), both collected in Kroumira region, Northwest of Tunisia. Up until that time, it was reported that ferns from the Aspleniaceae (spleenwort) family were rich in phenolic compounds such as flavones, flavonols, and phenolic acids – antioxidants. These species were picked by the researchers due to their medical importance in this region of the world. It was determined that *A. adiantum-nigrum* was dominated by palmitic acid (34.5%) but *A. trichomanes* showed a high amount of phytol (14%). Neither was assessed for the therapeutic activity these compounds may possess and therefore contribute to its traditional use.⁴³ Currently, this is the state of the fern research in essential oils. The chemistry is being performed, but a lot of supportive biological studies still need to occur.

One recent study that used chemistry and biology was investigating antiviral activities of the royal fern (*Osmunda regalis*) in South Africa. *Osmunda* is a primitive fern and one of the oldest surviving ferns today. This fern typically lives in harsher environments than the others in this group. The essential oils were extracted by hydro-distillation and a GC-MS analysis determined the oil's components. While the oil was non-toxic to a cell line (and therefore would not hurt a host) it was effective against Coxsackievirus B4 (CV-B4) which is an

enterovirus that appears in myocarditis, type 1 diabetes, and central nervous system disease. This study showcases how a complete study of fern can lead to promising bioactivity and therapeutic properties.⁴⁴

A unique approach and use for fern essential oils is demonstrated by a 2014 study exploring the climbing fern (*Lygodium microphyllum*). This invasive climbing and weedy species is so successful in its invasive behavior, where this species grows, other plants are not able to grow and the researchers wondered why. After essential oils were distilled from the leaves, a GC-MS analysis identified fifteen components where the main constituents were α -monoolein (28.3%), ethylene glycol oleate (25.7%), and undecyne (15.5%). This oil showed antimicrobial activity against *Staphylococcus aureus*, *Escherichia coli*, and *Piricularia oryzae*. Therefore, this plant may be able to neutralize the soil of all symbiotic relationships that neighboring plants need for proper growth. This convenient yet deadly way of establishing dominance in a habitat ('pest management') may provide a new way of investigating possible candidate ferns for future human healthcare benefits.⁴⁵

Conclusions

This article, and the one previously published in the NAHA Aromatherapy Journal 2021.1, *Non-Seed Plant Aromatherapy: Bryophytes*, has provided an opportunity to realize that all plants are useful to humans. While the bryophytes live in small communities that distillation would completely decimate, there are more options with ferns. As aromatherapists, we must remember that plants have a long history. They all have a few tricks up their sleeves!

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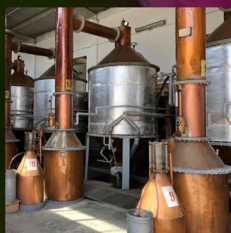


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The Qi Connected to Heaven and Earth II: The Properties of Scents and Meridian Tropism of Essential Oils Part 2 of 2

By Dr. Li Chun Lian



In my previous article, published in the *NAHA Aromatherapy Journal 2020.4*, I talked about the properties of smell and taste. In this article, I will continue and talk about meridian tropism. The concept of meridian tropism has long existed in the Chinese culture. It is recorded that all herbs and food have their own meridian tropisms. In other words, these herbs and food go to particular meridians and are particularly good for particular organs after we eat them. Meridian tropism is not simply classified by the colors of food, such as green, red, yellow, white, and black. To determine something's meridian tropism, we also need to consider its properties of scent and its effects on the human body.

You might have seen the diagram regarding the five elements of wood, fire, earth, metal and water of the Chinese philosophy. These elements represent different colors, directions and seasons. The nature of east is wood. Its color is green, which represents spring, a time for all lives to grow. The nature of south is fire. Its color is red, which represents summer, a time when plants prosper. The nature of the middle center is earth. Its color is yellow, which represents June in the lunar calendar



and refers to four solar terms, including Great Heat, the Beginning of Autumn, the Limit of Heat and White Dew. The nature of West is metal. Its color is white, which represents autumn, a time of harvest, convergence and disappearance. The nature of north is water. Its color is black, which represents winter, a time when things are hidden and covered by ice.

Although aromatic plants differ in color, most essential oils are transparent or transparent that is a bit yellowish. Only a few of them have characteristic colors. For instance, myrrh (*Commiphora myrrha*) essential oil is ochre. German chamomile (*Matricaria recutita*) essential oil is dark green. Bergamot (*Citrus × bergamia*) and rose geranium (*Pelargonium graveolens*) essential oils are transparent in color which are also a bit yellowish and green. The color of some essential oils even varies depending on the method of extraction, which also changes the properties of those essential oils. For instance, agarwood (*Aquilaria malaccensis*) essential oil, which is transparent by steam-distillation, becomes a dark brown viscous gum by CO₂ extraction. Also, some essential oils require

solvent extraction before they can be distilled, such as frankincense (*Boswellia carteri*) and myrrh (*Commiphora myrrha*) essential oils. Therefore, it is basically meaningless to define the five-elemental property of each essential oil by their color and appearance.

In my previous article, I wrote about the properties of cold and heat and the properties of ascending and descending, which are based on smell and taste. Smell and taste are important references for us to determine the directionality and the properties of things. People with a stronger sense of smell will have the property of moving upward and people with a milder sense of smell will have the property of moving downward. The latter usually has the effects of restraining and calming things down, which means it has a stronger effect in calming the nerves and the mind. People who move upward walk on the route of yang (qi). People who move downward walk on the route of yin (blood).

Smell and taste can be further distinguished by their thickness. This may help in determining where the qi of aroma goes to the meridian channel of the upper burner (the Heart and the Lung), middle burner (the Spleen and the Stomach) or lower burner (the Liver and the Kidney). People with thick smell and thin taste go to the Heart and the Lung meridian channels. People with even-smell-even-taste go to the Spleen and the Stomach meridian channels. People with thin smell and thick taste go to the Liver and the Kidney meridian channels. That is how I classified the meridian tropisms of tea tree (*Melaleuca alternifolia*) and blue gum eucalyptus (*Eucalyptus globulus*) as Lung meridian channel, jasmine (*Jasminum sambac*) and melissa (*Melissa officinalis*) as Heart, patchouli (*Pogostemon*



patchouli) and cinnamon (*Cinnamomum zeylanicum*) as Spleen and Stomach meridian channels, sandalwood (*Santalum album*) as Kidney meridian channel, and rose (*Rosa × damascena*) as Liver meridian channel.

Anxiety, vexation, irritability, hyperactivity, ambition, strong desire, and insomnia are a mastication of emotional imbalance with too much ascension with insufficient descending. In these circumstances, the use of sandalwood (*Santalum album*) that goes to the Kidney meridian channel and rose (*Rosa × damascena*) that goes to the Liver meridian channel may be helpful in regulating Heart meridian channel fire blazing upward.

Depression, low tide, burnout, and laziness are a mastication of emotional imbalance with too much descending with insufficient ascension. In these circumstances, the use of peppermint (*Mentha × piperita*) and rosemary (*Salvia rosmarinus*) with sweet orange (*Citrus sinensis*) may be suitable for dispersing the down and the dampened.

Another note is that plants with the strongest restraining and calming effects are those from the seeds. In Traditional Chinese Medicine (TCM), there is a saying that "all seeds descend."¹ It suggests that the property of seeds is usually descending and restraining.

This is why most of our laxatives, cough and



asthma medicines are derived from seeds. In aromatherapy, sweet almond (*Prunus amygdalus dulcis*) oil and grape seed (*Vitis vinifera*) oil, both extracted from seeds, are best used for the skin. When we use essential oils along with sweet almond (*Prunus amygdalus dulcis*) oil and grape seed (*Vitis vinifera*) oil, they help to improve the effects of restraining, inhibiting and directing turbidity downward thus making the body work better in relaxing, calming and caring for the spirit.

The Five Internal Organs and the Five Minds

Essential oils are volatile organic compounds extracted from plants. Their aroma travels among the five internal organs and it is the key to the cultivation of the spirits. In Traditional Chinese Medicine (TCM), the five internal

organs refer to the liver, the heart, the spleen, the lungs, and the kidneys, which correspond to the five elements, wood, fire, earth, metal and water.

The five internal organs are also said to hide/house five kinds of minds (spirits), which are Shen (spirit), Hun (ethereal soul), Yi (intention), Po (corporeal soul), and Zhi (resolve).

In the “Xuanming wuqi Paradigm of the five elemental phases” chapter of *The Yellow Emperor’s Classic of Internal Medicine*, it says “the five internal organs hide: the Heart hides Shen (spirit), the Lung hides Po (corporeal soul), the Liver hides Hun (ethereal soul), the Spleen hides Yi (intention) and the Kidney hides Zhi (resolve).”² If we re-arrange the order according to the principles of the five

elements, we might say one gets the Liver Hun first before one gets the Heart Shen. When one has the Heart Shen, he or she gets to have the Spleen Yi, then the Lung Po and Kidney Zhi.

The Heart hides Shen (the spirit). What is hidden in the Heart is Xinshen (known as the state of mind). It dominates the conscious thinking activities and emotional changes of people, including one's consciousness, thinking, characteristics, psychology, and emotions. That is, essential oils that have the effects of adjusting the state of mind go to the Heart, which help settle the mind as well as its qi.

The Liver hides Hun (ethereal soul). The Liver is where Hun (ethereal soul) lives. What is Hun (ethereal soul)? It represents one's yang qi, wisdom, reason, growth and vitality. "The Liver is the general of the body, which concerns and seeks to drive out."² The Liver is the commander-in-chief that resists toxins and diseases that invade the human body. The Liver will try to metabolize any foreign substances that are harmful to the human body to prevent it from harming other internal organs. *The Yellow Emperor's Classic of Internal Medicine* says, "The Liver hides the blood, and the Heart runs it. When the human body moves, the blood operates among all meridians; when the human body stands still, the blood returns to and hides in the Liver. That is why the Liver governs the sea of blood."²

The Spleen hides Yi (intention). Yi (intention) refers to the part of the human mind that can be changed. The Spleen controls the blood, and blood circulation is related to the mind and will. "The Spleen is the official of the barn"² and is in charge of digesting and transporting the water and the food. The nature of the Spleen is related to the earth element. All

Guest Editor's Note: Each organ has its own "spirit" that is associated with it. The term "hides" refers to "reside/house" (or "reside's/house's").

— Anthony Marco Azzaro, L.Ac.

living creatures rely on what is grown from the earth to sustain their lives. People rely on the Spleen and the stomach to digest food and then transport it to the whole body. That is why poor blood circulation, dampness, and stasis of the body are all related to the Spleen.

Lung hides Po (corporeal soul). What is Po (corporeal soul)? It is the cohesion of yin qi, the energy to organize and coordinate the physiological activities of various organs of the human body. "Lung governs management and regulation."² It means that the Lung can help the Heart to regulate the circulation of qi and blood. When qi and blood operate smoothly, hundreds of veins will be filled. The saying that "the Lung heads towards hundreds of veins,"² means that the blood of the whole body will gather in the Lung. The Lung will be responsible for distributing the qi and the blood of the body to every organ. Among the five internal organs of the human body, the Lung is the only organ that can be controlled by the human will. The pace of one's breathing will affect the activity pace of other organs. Hun (ethereal soul) manages wisdom and reason while Po (corporeal soul) manages the activities of the body.

The Kidney hides Zhi (resolve). In the "Lingshu Benshen" chapter of *The Yellow Emperor's Classic of Internal Medicine*, it proposes that "Kidney hides Essence and in Essence lives Zhi (resolve)." It illustrates that the Essence of Kidney produces marrow that goes to

the brain and when the brain is full of marrow, it will be full of energy, then Zhi, the resolve of the mind will be in function. If the marrow is insufficient and Zhi (resolve) has no place to hide, the mind becomes exhausted, dizzy and forgetful, that the resolve of the mind is hard to persist. The young have sufficient Essence of the Kidney and usually have ambitious resolve. The old with declining Kidney Essence tend to have low-spirited resolve.

In summary, essential oils with strong taste and weak smell, such as sandalwood (*Santalum album*) and geranium (*Pelargonium graveolens*), have the effects of reducing heart fire and liver fire and are often used to improve sleep and care of the mind. Essential oils, such as peppermint (*Mentha × piperita*) and blue gum eucalyptus (*Eucalyptus globulus*), with strong smell and weak taste, have the effects of refreshing and dispersing and are often used for headaches and respiratory infections. My topic of “The Qi Connected to Heaven and Earth: The Properties of Scents and Meridian Tropism of Essential Oils” ends here.

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About Dr. Li Chun Lian


Dr. Li Chun Lian is the founder of CAREIN Co. Ltd and CAREIN Aromatherapy Institute, the director of International Institute of Meridian Essence and the author of *A Comprehensive Application Book for Aromatherapy in Traditional Chinese Medicine, The Theory of Meridian Essence, Theory of Essential Oil and Meridian I, Theory of Essential Oil and Meridian II: Health Preserving According to*

the Five Phases of Chinese Philosophy.

Dr. Li Chun Lian is a NAHA Certified Clinical Aromatherapist and has been involved in the field of essential oils for more than twenty years. As a traditional Chinese medical doctor, she is also familiar with the compatibility of traditional Chinese herbs, the use of essential oils and how they can work together and benefit people through the operation of meridians. She believes that by application, massage, manipulation or acupuncture, the incredible power of the plant is able to come into effect through breathing and the circulation of qi and blood. To learn more about Dr. Li Chun Lian visit:

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Formulating Safely with Citrus Essential Oils

By Kayla Fioravanti



Citrus essential oils bring bright, fresh, and invigorating aromas to your formulations, as well as several challenges. With a journal full of articles that are sure to highlight all the positives of citrus essential oils I am going to focus on the challenges of formulating with citrus essential oils in personal care products.

It is common knowledge to most aromatherapists that some citrus essential oils are phototoxic. When formulating skin care products, it is vital to know if an essential oil you are using in your product is phototoxic or not. I highly recommend that every aromatherapist owns a copy of “Essential Oil Safety” by Robert Tisserand and Rodney Young to double check all the essential oils in your blends for a variety of safety issues, including phototoxicity and safe usages levels. I suggest that you read and bookmark pages 84-90 of “Essential Oil Safety” which gives an in-depth review of phototoxicity and photosensitivity.

When you formulate products for topical use it is important to be careful when using essential oils that contain furanocoumarin (psoralen).



Different varieties of citrus

“Citrus oils contain significant amounts of psoralens (lemon oils), methoxylated flavonones, and flavones (orange oils). A specific species of psoralens, namely furocoumarins, have been identified as photomutagenic and photocarcinogenic products. The International Agency for Research on Cancer (IARC) has classified 5-methoxypsoralen, (5-MOP, bergapten) and 8-methoxypsoralen, (8-MOP, xanthotoxin) when combined with UV radiation as group

2A (probably carcinogenic to humans) and as group 1 (carcinogenic to humans) risk carcinogens, respectively. On that basis, limits have been defined for the presence of psoralens in cosmetics. The Commission Directive 95/34/DC of 1995 states that furocoumarines should be below 1 mg/kg (1 ppm) in sun protection and in bronzing products.”¹

Exposure to ultra-violet (UV) light, whether it is from the sun or a tanning bed, after topical application of photosensitizing essential oils, can cause a phototoxic reaction that includes sun burn, chemical burns, redness, itching, allergic reactions, and blisters, as well as short term and even permanent skin discoloration. It is recommended to avoid UV exposure for 12-18 hours after applying essential oils on the skin that contain furocoumarin.

Outdoor bars and consumers using citrus in drinks have discovered the power of furocoumarin in fresh citrus used in drinks that cause burns. There have been many reports of margarita photodermatitis from drinking margaritas and Corona beer served with lime (*Citrus × aurantifolia*) in outdoor settings.



The Cosmetic Ingredient Review (CIR) Expert Panel assessed the safety of the following fourteen citrus-derived peel oil* as a cosmetic ingredient:

- *Citrus aurantifolia* (Lime) Peel Oil
- *Citrus aurantium amara* (Bitter Orange) Peel Oil
- *Citrus aurantium curassaviensis* Peel Oil [Curacao Orange]
- *Citrus aurantium dulcis* (Orange) Peel Oil
- *Citrus clementina* Peel Oil [Clementine Orange]
- *Citrus grandis* (Grapefruit) Peel Oil
- *Citrus iyo* Peel Oil [Japanese Citrus Fruit]
- *Citrus junos* Peel Oil [Yuzu Fruit]
- *Citrus limon* (Lemon) Peel Oil
- *Citrus medica vulgaris* Peel Oil [Citron]
- *Citrus nobilis* (Mandarin Orange) Peel Oil
- *Citrus reticulata* (Tangerine) Peel Oil
- *Citrus tachibana/reticulata* Peel Oil [Tachibana Orange]
- *Citrus tangerina* (Tangerine) Peel Oil

The CIR Panel concluded these fourteen essential oils are safe in leave-on products when formulated to have 0.0015% (15 ppm) of 5-methoxypsoralen (5-MOP) and that they are formulated to be non-sensitizing and non-irritating.²

***Editor’s Note:** The names above are listed as INCI names vs. botanical names, although it is, in most instances, apparent which citrus is being identified, due to the similar language. Those names listed in square parentheses have been added as an Editor’s Note to clarify the less familiar names.

Which part of the plant is used and how the essential oils are extracted make all the difference when it comes to using citrus essential oils in topical products. Look closely at the following:

Phototoxic Citrus Essential Oils

- Bergamot peel (*Citrus aurantium* (L.) var. *bergamia*)
- Bitter orange peel (*Citrus aurantium* var. *amara*) – Expressed.
- Grapefruit peel (*Citrus × paradisi*) – Expressed.
- Lemon peel (*Citrus × limon*) – Expressed.
- Lime peel (*Citrus × aurantifolia*) – Expressed.
- Mandarin leaf (*Citrus reticulata*) – Steam Distilled.

Essential Oils from Citrus Plants that are not Phototoxic

- Bergaptene-free (BF) or furocoumarin-free (FCF) bergamot (*Citrus aurantium* (L.) var. *bergamia*)
- Bitter orange (*Citrus aurantium* var. *amara*) – Flowers (Neroli), leaves and twigs (Petitgrain)
- Grapefruit (*Citrus × paradisi*) – Steam distilled.
- Lemon leaves and peel (*Citrus × limon*) – Steam distilled.
- Lime (*Citrus × aurantifolia*) – Steam distilled.
- Mandarin peel (*Citrus reticulata*) – Expressed or steam distilled.
- Orange and blood orange (*Citrus sinensis*) – Expressed and steam distilled.

- Satsuma (*Citrus unshiu*) – Expressed or steam distilled.
- Tangelo (*Citrus × tangelo*) – Expressed or steam distilled.
- Yuzu (*Citrus junos*) – Expressed or steam distilled.

Packaging Products with Citrus Essential Oils

Citrus essential oils easily oxidize. Your stored citrus essential oils that you use in formulas should be kept in the refrigerator to extend the shelf life. Dr. Robert Pappas explains, “Most oils, especially the citrus oils and the blue oils will degrade with age (at least within human lifetimes). Citrus oils are especially prone to degradation due to the high levels of limonene which oxidizes relatively easily. Even very small amounts of limonene oxide formation can totally destroy the odor of a once good citrus oil. In addition, wax formation in citrus due to monoterpene polymerization is also quite common over time. For this reason, it’s best to go through citrus oils within a year, if possible.”³

Packaging choices are vital to the shelf life of all cosmetics, but especially for natural products and even more so for citrus essential oils because they are amazingly effective organic solvents. Once diluted into a blended product, essential oils should be protected from light and air for the best shelf life of the finished product. Essential oils that contain d-limonene can easily dissolve polystyrene (plastic number 6) packaging. Polystyrene is a plastic used to make a wide variety of consumer products, including hard solid plastic, laboratory ware, and foam packaging. The hydrocarbon bonds of polystyrene can be broken down by d-limonene. The best

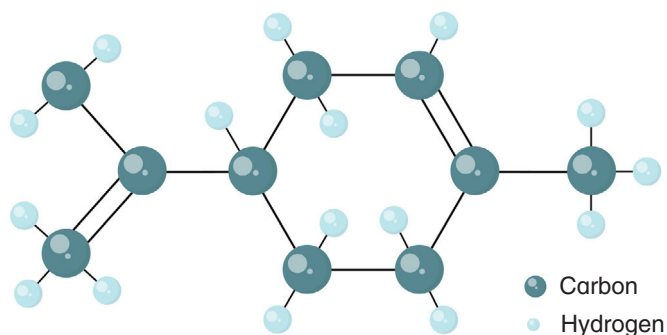
packaging for any product containing citrus essential oils is made out of glass, PET plastic, or aluminum. Packaging that is either dark or has a UV coating is wise to use for products that contain essential oils, but especially citrus essential oils.

One cannot underestimate the amount of limonene in citrus essential oils. In an article in the *International Journal of Toxicology*, Christina Burnett reported that, “Citrus oils contain large amounts of monoterpene hydrocarbons. Limonene is the constituent present in the greatest amount, often comprising greater than 90% of the oil, and the amount present can vary within the oil; for example, limonene is reported to compose 38.1% to 95.8% C. limon (lemon) peel essential oils, cold-pressed. Citrus oils also contain sesquiterpene hydrocarbons, which are responsible for the characteristic flavors of these oils.”⁴

Variations in Essential Oils

In nature there is no standardization. Seasonal weather, hybridization, geographical growing variations, storage, age of the essential oil, different species, and much more can cause variations that will impact your formulations. All essential oils, but especially the complex botanical composition of constituents in citrus essential oils, can react differently in a formula from one batch to another. How these variations impact formulas can best be seen in surfactant-based formulations. It is common for a citrus essential oil to thin

Structural Formula of Limonene



out a shampoo, shower gel, or hand soap on occasion. Emulsified water-based products can also react differently from batch to batch. A formulator may find that a citrus blending with Polysorbate might emulsify perfectly at a 1:1 ratio one time and then a new batch of those same citrus essential oils may separate without increasing the Polysorbate 20. Clouding is also a common variation.

The active volatile compounds found in citrus essential oils can also interact with other ingredients. This can cause a variety of reactions. Most commonly these reactions can happen with preservatives and exposure to light and air. Citrus essential oils are a prime example of why products should be thoroughly tested, not only to ensure that the preservation system works, but also to see that there are not any unintended product changes.

Sensitization

Essential oils that have oxidized can cause more sensitization than those which have not oxidized. Once sensitization has occurred, each subsequent exposure to the sensitizer (contact allergen) can lead to allergic contact dermatitis.



The 26 fragrance substances listed in annex III of the Cosmetics Directive by the 7th amendment (2003/15/EC)

Researched from the Scientific Committee on Consumer Safety (SCCS)
*Opinion on Fragrance Allergens in Cosmetic Products:*⁵

- 3-Methyl-4-(2,6,6-trimethyl-2-cyclohexen-1-yl)-3-buten-2-one
- Amyl cinnamal
- Amylcinnamyl alcohol
- Anisyl alcohol
- Benzyl alcohol
- Benzyl benzoate
- Benzyl cinnamate
- Benzyl salicylate
- Cinnamal
- Cinnamyl alcohol
- Citral (Lemon, Orange, Grapefruit)
- Citronellol (Orange)
- Coumarin
- d-Limonene (Lemon, Orange, Neroli, Bergamot, Mandarin, Lime)
- Eugenol
- Farnesol (Lime, Neroli)
- Geraniol (Orange, Neroli, Mandarin)
- Hexyl cinnamaldehyde
- Hydroxycitronellal
- Hydroxymethylpentyl-cyclohexenecarboxaldehyde
- Isoeugenol
- Lilial
- Linalool (Lemon, Orange, Neroli, Lime, Bergamot)
- Methyl heptine carbonate
- Oak moss
- Tree moss

For products sold within the European Union (EU), the ingredient list must be broken down to list out any of the components on this list. Even if your products are not sold within the EU, it is still important to be aware of the components of each essential oil that you use in formulas, especially if you want to reach consumers with sensitive skin or allergies.

Even after over two decades in the aromatherapy industry and having formulated thousands of products I still go back and read up on the most recent information on every ingredient I use, including essential oils. Research is ongoing and updated on a regular basis. I highly recommend checking the certificate of analysis (COA), specification sheets, safety data sheets, formulation sheets, studies, and more for each citrus essential oil that you intend to add to your aromatherapy blends and formulas.

References:

1. Vanhoenacker, Gerd. David, and Sandra, Pat. *Profiling of Citrus Oils and Determination of Furocoumarins in Citrus Oils Using the Agilent 1290 Infinity 2D-LC Solution*. Research Institute for Chromatography. Accessed May 31, 2021 from: <https://www.agilent.com/cs/library/applications/5991-3474EN.pdf>
2. The Cosmetic Ingredient Review. *Safety Assessment of Citrus-Derived Peel Oils as Used in Cosmetics*. Accessed May 31, 2021 from: <http://www.cir-safety.org/sites/default/files/cpeelo092014FR.pdf>
3. Pappas, Robert Dr., *10 Essential Oil Myth vs. Facts*. Accessed May 31, 2021 from: <https://www.weedemandreap.com/essential-oil-myths-dr-pappas/>
4. Burnett, Christina L. et al. *Safety Assessment of Citrus-Derived Peel Oils as Used in Cosmetics*. International Journal of Toxicology. Accessed May 31, 2021 from: <https://journals.sagepub.com/doi/10.1177/1091581819862504>
5. Scientific Committee on Consumer Safety (SCCS) Opinion on Fragrance allergens in cosmetic products. Accessed May 31, 2021 from: https://ec.europa.eu/health/scientific_committees/consumer_safety/docs/sccs_o_102.pdf

Recommended Resources:

- Tisserand, Robert and Rodney Young, 2014, *Essential Oil Safety 2nd Edition*, UK: Churchill Livingstone Elsevier
- International Fragrance Association (IFRA) *Citrus Oils and Other Furocoumarins Containing Essential Oils* PDF accessed from: https://ifrafragrance.org/standards/IFRA_STD_089.pdf

Citrus Essential Oil Safety *continued*

- International Fragrance Association (IFRA) *Guidance for the Use of IFRA Standards*, accessed from: [https://ifrafragrance.org/docs/default-source/ifra-code-of-practice-and-standards/49th-amendment/ifra-49th-amendment-\(att-01\)---guidance-for-the-use-of-ifra-standardsa7006c445f36499bbb0eb141e8c0d4be.pdf?sfvrsn=7fb244c8_2](https://ifrafragrance.org/docs/default-source/ifra-code-of-practice-and-standards/49th-amendment/ifra-49th-amendment-(att-01)---guidance-for-the-use-of-ifra-standardsa7006c445f36499bbb0eb141e8c0d4be.pdf?sfvrsn=7fb244c8_2)
- Cosmetic Ingredient Review Safety Assessment, *Citrus-Derived Peel Oils as Used in Cosmetics* PDF, accessed from: <http://www.cir-safety.org/sites/default/files/cpeelo092014FR.pdf>
- Essential Oil University, *Essential Oil Chemical Reference Database*, accessed from: <https://essentialoils.org/plans>

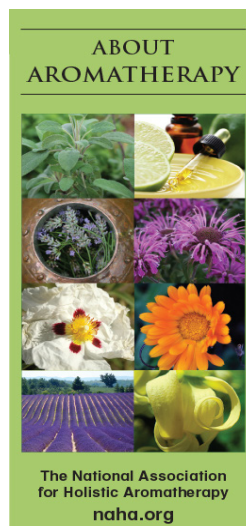
About Kayla Fioravanti:

Kayla Fioravanti is the co-founder of *Ology Essentials* and is an award-winning author, certified aromatherapist and cosmetic formulator. She is the author of *The Art, Science and Business of Aromatherapy* and the co-author of the Amazon #1 New Release, *The Unspoken Truth About Essential Oils*. To learn more about Kayla, visit her website at: www.ologyessentials.com

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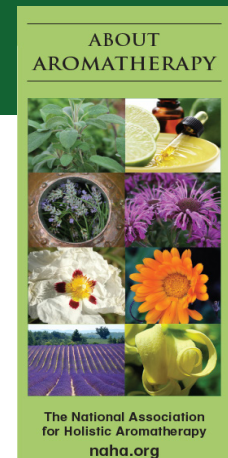
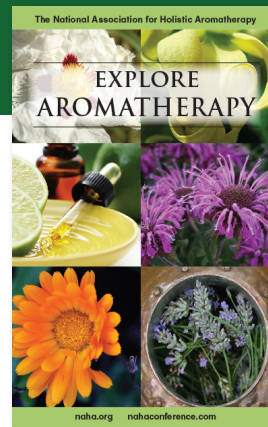
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Safe Aromatherapy Practices: The Art of Languaging

*By Jennifer Pressimone,
Clinical Aromatherapist,
Herbalist, and Author &
Educator*



A poignant topic in today's aromatherapy climate. When I started out twenty years ago, aromatherapy wasn't a household name like it is today. People weren't as educated about the benefits of using essential oils, let alone how to talk about them and apply them safely and responsibly.

As the needs of this industry continue to grow, so does the number of aromatherapists, industry sales representatives, essential oil and aromatherapy product distributors, and wellness practitioners. The grey area of aromatherapy practices has become greyer. Or has it?

Even though the aromatherapy landscape is changing, there are still core and foundational principles that stay true to authentic aromatherapy, its purposes and intended benefits. With this knowledge comes responsibility. Responsibility to learn what you can, and share what you know, safely.

Aromatherapy is a beautiful blend of art and science. It can offer a plethora of benefits for a variety of purposes. The intent behind this article is to bring awareness and reminders to keep us all safe while employing this

"As aromatherapy evolves, so shall the practitioner, advocate, and enthusiast."

—Jennifer Pressimone

wonderful discipline we love and use so much. I encourage you to be a part of preserving this ancient healing modality.

What are Safe Aromatherapy Practices?

Aromatherapy is not a licensed trade. There is no formal governing agency over the aromatherapy industry. However, there are federal and state regulations that must be followed within the scope of certain aromatherapy practices. This somewhat "flexible freedom" does come with responsibility on your part to do and share the right information, appropriately. One must realize and acknowledge that inexperience and unfamiliarity are not acceptable. Our profession, as a whole, needs to support and protect one another. Yes, we have the freedom to share. Unfortunately, that does leave space for bad publicity, inappropriate languaging, and misleading marketing, which raises red flags with the governing bodies.

This hurts our industry and the practitioners working responsibly within it. Let this serve as a Public Service Announcement (PSA) to empower you with what you can and cannot do within the legal structure.

This is where you come in and play a very important role. Understanding the safe practice boundaries will help you from overstepping into practicing medicine without a license. Your actions and language can either help or hurt.

Essential oils and aromatherapy products have multiple distribution avenues such as bath and body products, personal care, room deodorizers, cleaning products and others. It is even an integral part of many events, scent marketing material, and workplace wellness programs.

The key with its use and promotion comes down to purpose, languaging, labeling, and marketing.

Safe aromatherapy practices:

- Know what you know and don't know.
- Do not mislead or misguide others into using essential oils that you are not properly trained in.
- Do not give medical advice or diagnostic claims when sharing essential oils and botanicals.
- Read safety guidelines, contraindications, sensitivities, and allergies for each essential oil and botanical that you use and/or share.
- Re-read, at least twice a year, and adhere to the [NAHA Code of Ethics](#).



How Aromatherapy Guidelines Can Keep You Safe

Most aromatherapists have the purpose and passion of self-care and helping others. I have no doubt that you have reviewed the aromatherapy safety information listed on the [NAHA website](#). However, let me shift your frame of mind to look at that with more clarity. Those aromatherapy guidelines are stated to help keep you and the people you work with safe. There is a reason that there are safety guidelines.

We know everyone is different and will respond differently. However, there are some unknown and unforeseeable factors that you may or may not have considered, even if you are experienced and certified in aromatherapy. There may be some specific chemistry or contraindications that you are not yet experienced in. For example, cinnamon (*Cinnamomum zeylanicum*, *C. verum*) essential oil has been shown, in certain potencies, to possess blood thinning properties. Use caution with those taking blood thinners, who have blood disorders or

sensitivities, and/or who have heavy menses. Knowing this can help keep you and others safe from a potential unhealthy, unintentional situation.

There are several categories of safety guidelines:

- Type of person or animal.
- Type(s) of health conditions and sensitivities (known and unknown).
- Skin integrity.
- Cognitive awareness.
- Intended use and purpose.
- Dilution ratio (potency) and frequency of use.



Editor's Note: The information in this article pertains to the practice and business of aromatherapy in the United States. International readers will need to check their own country regulations for similar laws and practices as they apply to their specific country of practice and/or business.

Languaging: What You Can and Cannot Say

Although aromatherapy is a grey area in the eyes of the Food and Drugs Administration (FDA), consumers, and manufacturers, it is clear what you can and cannot say when sharing essential oils and aromatherapy products.

What you can say is general supporting information like:

- This has been scientifically shown to... (and cite a reference).
- This may help support, strengthen, and maintain healthy circulatory functions.
- This may promote and nourish healthy cognitive functions.
- This may help to stimulate healthy metabolism.

You cannot make diagnostic claims if you are not a licensed medical professional. Here are some words that you cannot legally say as an aromatherapist (unless you are licensed to do so as a licensed medical professional):

- Cure
- Prescribe
- Treat
- Diagnose

The statement listed below is taken from the FDA's website and often used on product labeling, website and marketing materials. You can use a version of this statement on your website, labeling and products.

FDA's disclaimer language: *"This statement has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease."*



Labeling Criteria

Although aromatherapy is not a governed trade, there are certain criteria that you need to be compliant with on your labels. You need to inform the consumer of what is in your product or blend. Your label must not state any claims about the product. There is a list of [labeling requirements on the NAHA website](#). Also, on that same page you will find a link for the *FDA Guide to Good Manufacturing Practices*.

Legal Marketing Concepts

First and foremost, I am not a legal professional. I always recommend that you consult a legal professional when you are in doubt about practices and laws in your state.

There are three levels of government that you should familiarize yourself with before practicing aromatherapy, and manufacturing and distributing products. It is helpful to understand the laws, regulations, and requirements for conducting business the way you intend or are currently doing business. Again, as we've

discussed, it comes down to your language, labeling and marketing of your aromatherapy products, and not making diagnostic claims.

- **State and Local:** Each state has a website that should tell you how to do business in their state. Many offer customer service via phone, chatbox and email.
- **Federal:** A great place to familiarize yourself with federal regulations is the [FDA website](#).
- **International:** Know exporting and importing laws of aromatherapy products.

With the explosion of aromatherapy-based products and practices, let this be a reminder of how to safely share essential oils and botanicals. This by no means is a complete list of safe practices. Just a starting point for you to become and remain confident in the way you share aromatherapy.

Resources:

- *National Association for Holistic Aromatherapy* website: <https://naha.org/>
- Pressimone, J. Feb. 2014. *Aromatherapy & The Art of Language* NAHA Webinar. FREE download from the NAHA webstore: <https://naha.org/store/entry/aromatherapy-and-the-art-of-language>
- *Food and Drugs Administration* website, *Is it a Cosmetic, a Drug or Both? (Or is it Soap)*: <https://www.fda.gov/cosmetics/cosmetics-laws-regulations/it-cosmetic-drug-or-both-or-it-soap>
- *Food and Drugs Administration* website, *Aromatherapy*: <https://www.fda.gov/cosmetics/cosmetic-products/aromatherapy>
- *National Association for Holistic Aromatherapy* website, Gale, Marie, 2013, *Business and Legislation: Labeling Aromatherapy Products for Resale* PDF: <https://www.fda.gov/cosmetics/cosmetic-products/aromatherapy>

About Jennifer Pressimone

Jennifer Pressimone is a NAHA Certified Clinical Aromatherapist, Herbalist, Educator, Author and Motivation Speaker. She has been immersed in integrative natural health for 20 years in Central Florida and has

taught thousands worldwide. She earned her bachelor's degree in Psychology from the University of Central Florida, and is the owner of JennScents, Inc. and JennScents Aromaversity. Jennifer is a gifted and intuitive aromatherapy formulator and teacher that bridges the mind and body connection to promote authentic emotional, cognitive, and gut health. JennScents is an approved NAHA school offering Holistic, Professional and Clinical Aromatherapy Certifications, as well as specialty Masterclasses and personal development coaching. She is the Central Florida Regional Director and Vice President of NAHA. She presented at the NAHA Conference in June 2021 on Scenterpretation™ for Psychological Health: Connecting Mind, Body & Soul. Visit Jennifer's website at: www.JennScents.com.



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How to Sell Successfully at Online Pop-ups

By Haleigh Fioravanti



I know the one thing us makers are ecstatic about as the world slowly opens back up is in-person markets and pop-ups! For some of us, craft fairs and farmers markets were our only source of income. If that was the case, you were forced to adjust and to pivot, and that meant learning to navigate the online world of virtual markets. As exciting as it is to be returning to in-person events, the convenience of the virtual market is likely here to stay. So below are five quick tips to optimize the online pop-up experience in order to sell successfully.

1. Social Media

Social media marketing is key when it comes to the success of your online pop-up.

More than likely, the virtual market you have signed up for will be hosted through a platform like *Instagram* and *Facebook*, which means you need to be present, creating content and engaging with your audience consistently. Static posts are great, but sometimes those get missed when people are mindlessly scrolling. Remind your followers about the market every day with the story feature, along with your regularly scheduled posts. Lastly, you must engage with your followers and the host of the virtual market: Remember to tag, comment, and share posts. And use those hashtags!

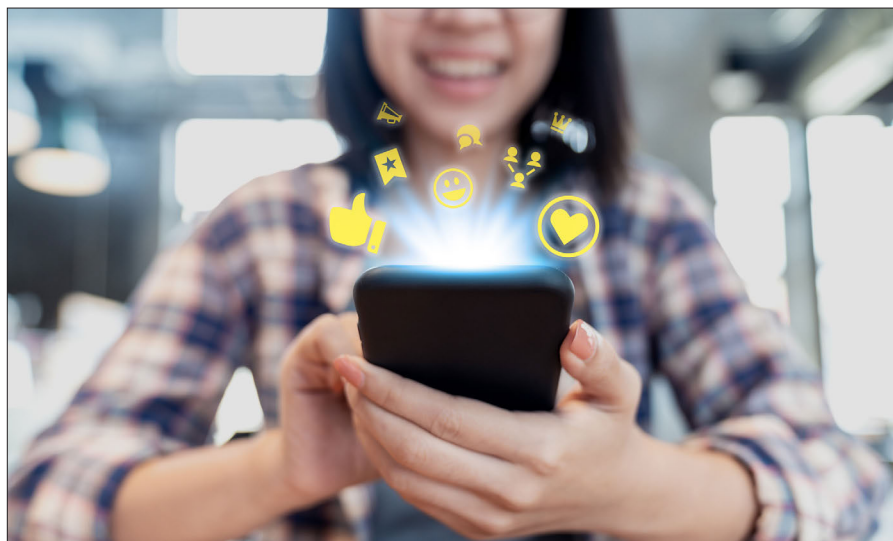


2. Email Subscriber List

Sometimes social media can feel like you are shouting into a void, but an email list, built on subscribers who have opted to receive mail-outs from you, can guarantee views. Your email subscriber list is where your people are; it is where your returning customers are. It is basically a list of people who **definitely want to see** what you are up to and what you've got brewing. Give people what they want and tell them about your upcoming virtual market in **every single mail-out**, often in the form of a newsletter, along with other updates and product offerings.

3. An Up-to-date Website

I know many people who throw up a website and let it sit for months at a time without any updates. This is not the way to do it. Customers want to see that you are **active, relevant, and engaged with your audience**. Make sure that your website is up to date with the latest trends, invest in professional photos, update it weekly or biweekly with a blog post, and utilize pop-ups to gain more email list subscribers. And notify website visitors of your upcoming events!



4. Exclusive Product Offerings

Creating an exclusive product for a single event is a great way to generate excitement. When people hear the word “exclusive” and phrases like “for a limited time only” and “while supplies last,” it instills a sense of urgency. Your current customers will be on stand-by to purchase your exclusive product because they already know and love your current products! And new customers will want to try a one-of-a-kind product because rarity implies value.

5. Event Discounts

Who doesn't love a good discount? Discounts are a great way for new customers to try your products. Since customers aren't able to see you in person, I typically like to add a free shipping coupon code for potential customers during a pop-up. The psychology around free shipping is fascinating. We are now living in a world where free shipping is often expected.

So, when you offer free shipping for certain events it generates a sense of exclusivity and studies have shown that people are likely to buy more!¹ Yes, please!

Now with these tips in mind, I hope you feel confident to get out there and conquer those virtual markets!

References:

1. *National Retail Federation* website, Jan. 15, 2019, *NRF Study Says More Online Shoppers Want Free Shipping*, accessed from: <https://nrf.com/media-center/press-releases/nrf-study-says-more-online-shoppers-want-free-shipping>

About Haleigh Fioravanti:

Haleigh is a true Nashville Native—a unicorn as some would say. You can always find Haleigh bouncing from passion to passion, wholeheartedly diving into a subject and then moving on to the next (a true Aries at heart). Her background is in cultural anthropology and filmmaking, but she's also found passion in health and sustainability. In fact, her interest in hemp was originally for its sustainability promises, but CBD came on the scene, and she hasn't looked back! Haleigh is a co-founder and Chief Marketing Officer (CMO) at: www.ologyessentials.com

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NAHA International Relations Committee News

*Submitted by Raghda Maksoud
International Relations Chair*



It was an absolute honor when Annette Davis, NAHA President, reached out to me for the nomination of the International Relations Committee. Straightaway, I started contacting some colleagues that I had in mind to serve on the committee with me, and I was very happy when they were approved.

Members of the International Relations Committee are:

- Raghda Maksoud (Chair), CA, PMP, CSCP, NAHA International Director for Egypt
- Dr. Nicole Bou Khalil, PharmD, MPH, NAHA International Director for Beirut-Lebanon
- Claudia Vaz, NAHA International Director for Brazil (São Paulo)
- Dr. Eli Klouvi, MD, MPH, CA, NAHA International Director for Africa

The International Relations Committee members come from different backgrounds, various countries, and we speak different languages. My team and I have worked very hard from day one. Here is what we have

accomplished so far since our first meeting in October 2020:

- Translated the NAHA brochure into Arabic, French, Portuguese, Mina / Ewe language.
- Reached out to the amazing directors for Turkey (Meltam Kurtsan, Pharm.) and Korea (Hyun mihn Doh) and got two more translations done in Turkish and Korean.
- Filmed the NAHA Christmas greetings video in four different languages.
- Filmed the NAHA description video in four different languages.
- Recorded interviews for the NAHA podcast with guests from Egypt, Brazil, Lebanon and Togo.
- Hosted free educational webinars and introduced NAHA during the webinar.
- With the help and support of our amazing NAHA President and the NAHA Board Members, we managed to have equal pricing membership put in place for all international members which encouraged more members to join from around the world.



To learn more about the NAHA Committees, please visit:
naha.org/about/boards-committees/committees/



Lemon (*Citrus x limon*)

Summer Recipes

Contributed by NAHA Directors

Our summer issue focuses on lemon! We asked our directors to dig out their favorite recipes to share which featured all and everything lemon related. Check out these lemony vibes to end your summer!

Soul Cleansing Spritzer

By Cherisse Gigli, New Jersey

You will need a 3-oz. spray bottle to make this blend.

Ingredients:

1-oz./ 30 mL lavender

(*Lavandula angustifolia*) hydrosol

1-oz./ 30 mL rose otto

(*Rosa x damascena*) hydrosol

Solubol: 48 drops*

Essential Oils:

5 drops lemon (*Citrus x limon*)

5 drops palmarosa

(*Cymbopogon martinii* var. *motia*)

4 drops sustainably harvested frankincense

(*Boswellia carterii*)

4 drops sandalwood (*Santalum album*)

3 drops palo santo (*Bursera graveolens*)

3 drops sweet fennel (*Foeniculum vulgare*)

To Make: Add the essential oils to a 3-oz. spray bottle. Add the solubol. Fill up the bottle with the hydrosols leaving a small amount of space. Cap. Then shake well.

To Use: Mist in a room or spray on pulse points on skin. Make sure not to spray in eyes or mouth.

Cautions: For adult use only. Lemon (*Citrus x limon*) essential oil can be phototoxic when used at a rate of over 12 drops per ounce. This recipe is below that ratio. Sun sensitive people should be wary though of spraying on body prior to sun exposure. This blend also contains sweet fennel (*Foeniculum vulgare*) essential oil and should not be used on or around children under five years old nor used with women who are pregnant or breastfeeding.

Cherisse's Tips: An uplifting blend to use throughout the summer months!

*This is 2:1 ratio Solubol: 2 drops Solubol per 1 drop essential oil

Calm Concentration Blend

By Cheryl Beller, California (Northern)

You will need a 1-oz. spray bottle to make this blend.

Ingredients:

- 0.66-oz./20 mL distilled water
- 0.20-oz./6 mL neroli
(Citrus aurantium var. amara (flos)) hydrosol
- 0.13-oz./4 mL lemon verbena
(Lippia citriodora) hydrosol
- Solubol: 20 drops

Essential Oils:

- 3 drops lemon (*Citrus x limon*)
- 3 drops sweet orange (*Citrus sinensis*)
- 2 drops sustainably harvested
frankincense (*Boswellia carterii*)
- 2 drops benzoin (*Styrax benzoin*)

To Make: Drop essential oil drops into the bottom of a 1-oz./30 mL amber or cobalt blue glass spray bottle. Add each hydrosol, swirling gently after adding each. Finally, add the distilled water and swirl gently again to completely mix ingredients. Attach spray fitting and label.

To Use: Swirl or gently shake before use. Spray into the air in front of the face (avoiding eyes), inhaling deeply.

Cautions: For adult use only. Avoid getting the spray into eyes, mouth and ears, or onto skin. If blend gets onto skin, keep that area out of the sun or tanning bed for 24 hours, due to potential phototoxicity. Do not use near cats or small pets. Store in cool, dark place.

Cheryl's Tips: I use this blend when I want to be alert enough to concentrate, but also want to continue to be centered and calm.

Happy Breast Protecting Citrus Blend

By Cécile Ellert, New Hampshire

You will need a 1-oz. bottle to make this blend.

Ingredients:

- 0.85-oz./25 mL macadamia
(Macadamia ternifolia) oil

Essential Oils:

- 10 drops tangerine (*Citrus reticulata*)
- 3 drops ylang ylang (*Cananga odorata*)
- 5 drops may chang (*Litsea cubeba*)
- 7 drops carrot seed (*Daucus carota*)

To Make: Add the macadamia oil to the bottle. Add the essential oils and combine. Cap and label.

To Use: Massage a dime-sized amount over your breasts both morning and night.

Cautions: For adult use only. Possible skin sensitivity. Lower dilution rate or discontinue use if irritation occurs.

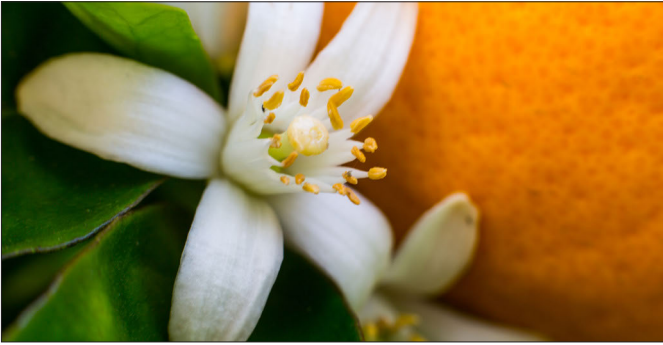
Cécile's Tips: Make time for yourself for applying this blend. Massaging the breasts with this blend will make sure that your liver qi will move, which decreases the risks of energy stagnation, growths and PMS.

Submitted recipes are subject to change at Editor's discretion to meet NAHA safety guidelines.

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Tangerine (*Citrus reticulata* Blanco)



Neroli (*Citrus aurantium* var. *amara* (flos))

Scars and Dry Skin Blend

By Rehne Burge, C.A., Louisiana

You will need a 1-oz. bottle with cap to make this blend.

Ingredients:

0.5-oz/15 mL jojoba (*Simmondsia chinensis*)

0.5-oz/15 mL olive (*Olea europaea*) oil

Essential Oils:

6 drops lemon (*Citrus x limon*)

8 drops sustainably harvested frankincense (*Boswellia carterii*)

4 drops ylang ylang (*Cananga odorata* var. *genuina*)

To Make: Combine essential oils in a glass container such as a graduated cylinder. Add the carrier oils to a 1-oz. bottle. Add the combined essential oils and blend thoroughly. Cap and label.

To Use: Apply to scars and/or dry skin 3-4 times a day, especially after bathing when skin is dry, warm and more receptive.

Cautions: For adult use only. Possible photo-toxicity. Possible skin sensitivity. Discontinue use if irritation occurs.

Rehne's Tips: Jojoba was chosen for its ability to mimic sebum and it is wonderful on all skin types. It is a wax and works best as a base oil, so I've combined it with olive oil for its soothing nature for inflamed skin, bruises, insect bites and more. Alongside the use of these essential oils, you'll find that skin heals quickly and beautifully.

Envision Blend

By Raghda A Maksoud International (Egypt)

You will need an inhaler (plastic or aluminum), glass bowls, and a plastic disposable dropper to make this blend.

Essential Oils:

5 drops melissa (*Melissa officinalis*)

6 drops sweet marjoram (*Origanum majorana*)

2 drops neroli (*Citrus aurantium* var. *amara* (flos))

6 drops lavender (*Lavandula angustifolia*)

To Make: Start by adding each essential oil in the glass bowl and mix with a glass stirrer. Put the cotton wick of the inhaler in an empty glass bowl, take few drops of the synergy and add to the cotton wick until it is fully saturated. Place the cotton wick in the inhaler and cap. Label.

To Use: Inhale as needed for clarity and relaxation.

Cautions: Avoid use in the evening. Avoid use with children under five years of age. Avoid use in pregnancy.

Raghda's Tips: Use for trauma, anger, anxiety, and insomnia.

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Lemon (*Citrus x limon*)

NAHA Marketplace

AROMATHERAPY BUSINESSES

Amrita Aromatherapy Inc.

Established in 1989, Amrita Aromatherapy has been specializing in certified-organic therapeutic aromatherapy for over 30 years. Founded by master aromatherapist Dr. Christoph Streicher, Amrita's essential oils are meticulously chosen and tested in our in-house lab to ensure purity and the highest quality. Amrita is the first essential oil company in the USA to get USDA certified and has the largest supply of USDA certified essential oils. Amrita offers certified-organic and wild-crafted essential oils, perfumes, chemical-free skincare, and many unique aromatherapy products. Amrita Aromatherapy can supply any essential oils, retail or wholesale, in a certified-organic version upon request. We offer a 10% discount to NAHA members. Please use the following coupon code on our website: NAHA10

amrita.net

Arlys Naturals

ARLYS specializes in 100% pure essential oils, absolutes, synergies, hydrosols, carrier oils and more for the novice to the professional. An aromatic oasis for the senses as you shop for professional grade natural skin and body care products, diffusers, herbal teas, books, soaps, music, perfumery, and supplies. All distinctive aromatherapy products to enhance your health and well-being. Sign up for our free online monthly newsletter. Online Catalog Only. Retail/Wholesale. Secure online ordering. Sign up for our Blog at: www.aromatherapycontessa.com.

arlysnaturals.com

Aromaland, Inc

Aromaland is a leading source for quality aromatherapy, CBD, & body care products. We offer one of the largest selections of aromatherapy products in the world with both branded consumer sizes, plus a huge selection of bulk sizes. Plus, we are a leading supplier in soap, shampoo, and other body

product bases. Our plant-based products contain NO parabens, NO synthetic fragrances, NO artificial colors, NO formaldehydes, NO sodium lauryl sulfate, NO petroleum, NO cocamide diethanolamine, and are nut free, gluten free, and animal testing free! We specialize in quality and the ability to handle large wholesale orders. We have a state of the art 35,000 square foot production facility and 35 years of experience making aromatherapy products. Whether you are simply looking for an exotic essential oil for yourself, or a bulk unscented shampoo for your business, you can find it all at Aromaland.

aromaland.com

AromaWeb

Founded in 1997 by Wendy Robbins, AromaWeb is a free educational holistic aromatherapy Web site that provides nearly 700 pages of objective aromatherapy articles, essential and carrier oil profiles, hydrosol profiles, book reviews, recipes plus categorized aromatherapy educator and business directories. Advertising opportunities are available. AromaWeb can play a powerful role in promoting your business, school or practice. View AromaWeb's [Advertising Area](#) and [Contact AromaWeb](#) to inquire about special advertising discounts for NAHA members!

aromaweb.com

Artisan Aromatics

Pure Therapeutic Quality Essential Oils direct from artisan distillers & suppliers worldwide plus rare Absolutes & Enfleurage Oils since 1993. Each oil selected by our internationally known Clinical Aromatherapy Consultant, Joie Power, Ph.D. and all oils are GCMS / organoleptic tested. We specialize in providing over 200 of the finest quality essential oils to aromatherapists, clinics and hospitals. NAHA members registered as Practitioners save 30%. Wholesale, Bulk & Private Labeling too. To provide the freshest oils possible, each oil is bottled only after orders are received. Batch # and bottling date also included on each label. Bottled in NC, USA.

artisanaromatics.com

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Be Kind Botanicals

Be Kind Botanicals offers the highest quality, pure essential oils and information for professionals and those just starting their essential oil journey. Owned and operated by a clinically trained Registered Aromatherapist (RA), we take pride in testing every single batch of essential oils using qualified labs and share our results freely. Our priority is to help others find what works for them, and we are here to help in any way we can.

bkbotanicals.com

Birch Hill Happenings

Aromatherapy LLC

We have 100% Pure Essential oils for use in Therapeutic Aromatherapy. A large selection of aromatherapy supplies including carrier oils, unscented personal care base products, many styles of diffusers, charts, decoders, bottles and more. We are "Your One Stop Aromatherapy Shop!" Questions answered and free consultations by e-mail. Easy, secure shopping, fast and friendly service. Sign up to get our weekly newsletters and helpful tips.

birchhillhappenings.net

Blue Dawn Aromatherapy

Soothe and Renew Naturally - Because wellbeing is so very important, Blue Dawn Aromatherapy provides nourishing 100% all natural (and often organic) botanical skin care and wellness products. Our products are made with wholesome, high quality ingredients carefully sourced from the world over. Each product is handcrafted with love and expertise by a Certified and Registered Aromatherapist™. We feel each person's skin care needs are unique, so we prefer to take a very hands-on, one-on-one approach to our clients. Join the Blue Dawn family, your skin will thank you!

bluedawnaromatherapy.com

Dreaming Earth Botanicals

At Dreaming Earth, we've been offering Therapeutic Quality Essential Oils and Aromatherapy Supplies since 1997. We custom blend healing aromatic blends, fragrant bath salts, aromatherapy lotions and search out beautiful aromatherapy diffusers and essential oil jewelry. We have two certified aromatherapists on staff who source our products, and we're happy to offer both a practitioner discount and wholesale pricing. Want to private label your own line? We can help! We believe in offering excellent quality aromatherapy products and friendly, personal service. Call us! 100+ therapeutic quality essential oils, aromatherapy blends, lotions, carriers and a natural pest control line.

dreamingearth.com

Egypt Aromatic

Egypt Aromatic is a promising, growing and stable Enterprise in the middle of the Nile Delta , at Shoubrablola, Kotour, Tanta, Al Gharbia Governorate. We are specialized in producing diverse top quality products of essential oils, concretes and absolutes .Our products are compliant with the international quality standards, meanwhile at very competitive prices. We have special concretes and absolutes of Jasmine ,violet leaves, Geranium, Basil, Bitter Orange and Cassia. Our special products of essential oils are Marjoram ,Neroli, Petitgrain mandarine. Our vision is to be one day a partner with a Multi- National Company offering our products to selected loyal customers all over the world in the area of perfumes, pharmaceuticals and food industries. Our mission is to develop and innovate competitive and unprecedented essential oils, concretes and absolutes in terms of quality and value. We will exert strenuous efforts together with our partners not only to satisfy but exceed the requirements, wishes and expectations of our customers.

egyptaromatic.org

NAHA Marketplace

From Nature With Love

Explore our range of ethically and sustainably sourced certified organic and conventional Essential Oils, CO2 Supercritical Extracts, Carrier Oils, Vegetable Butters, Hydrosols, Floral Waxes, Botanicals, Salts and more. Automatically earn FNWL Rewards valued at 10% of your merchandise subtotal. Qualifying orders are also eligible to receive up to 5 generously sized samples. Our products are offered in a wide variety of sizes, allowing you to purchase as much or as little as you need. Purchasing larger quantities leads to greater wholesale discounts. Visit fromnaturewithlove.com to learn more! From Nature With Love is a wholesale brand of Natural Sourcing, LLC.

fromnaturewithlove.com

Get Natural Essential Oils

Affordable and quality essential oils at unbeatable prices. Get Natural Essential Oils offers a wide range of pure and therapeutic quality, USDA certified organic and conventional: essential oils, carrier oils and body butters at wholesale prices. Located in Northern Virginia, most orders are shipped next business day. Ordering is simple and can be done online. However large orders must be called in or emailed. gNEO subscribers get monthly updates on prices as well promotional specials! Check out our private label services for both conventional and USDA certified organic product offerings; we are also flexible to meet any needs you have.

getnaturalessentialoils.com

International Clinical Aromatherapy Network (ICAN)

ICAN is a one-stop international resource for expanding, nourishing and deepening your professional aromatherapy connections, knowledge and skills! If clinical aromatherapy is your passion, your motivation, your goal or your experience, ICAN provides you with a safe, supportive and professional online environment to connect, express and learn. We offer memberships for professional practitioners, educators, students, researchers, growers and distillers. Please visit our website to register your interest today. We look forward to welcoming you as a member of our global aromatic community!

clinicalaromatherapynetwork.com

International Journal of Professional Holistic Aromatherapy

Now in its 10th year of publication, the International Journal of Professional Holistic Aromatherapy (IJPHA) is a peer-reviewed professional journal dedicated to providing the professional holistic practitioner with useful information and resources to enhance their practice and expand their "toolbox." The IJPHA is a resource in university libraries in many countries around the world. Each quarterly issue provides the reader with informative articles highlighting the practical application of essential oils, research, sustainability and ethics, integrative health, business skills, professionalism and to provide a showcase for practitioner case studies. Each quarterly issue contains a variety of articles including (but not limited to) profiles of essential oils that are commercially available (but lesser known), chemistry, research, and how to build and maintain a thriving successful business. Articles often feature therapeutic blends, and/or personal care products; industry news, book/product reviews, and current information on issues relevant to the field of Aromatherapy, botanical medicine and integrative healthcare.

ijpha.com

Lotus Garden Botanicals

Lotus Garden Botanicals supplies batch specific GC-MS analyzed essential oils. On our product pages you will find complete information that includes not just the product name and its Latin name, but vitally important facts such as cultivation method, production date, minimum suggested shelf life, blends well with, aroma note, aromatherapy uses, general uses, and any known contraindications. Since 2012 LGB has proudly served aromatherapists, health care professionals and institutions, skin care companies, home DIY enthusiasts, and, those engaged in the art of natural perfumery. LGB stocks over 420 products, from Absolutes (both Conventional & Hexane-Free), CO2 Extracts, Pure Essential Oils, Essential Oil Blends, Carrier Oils, Hydrosols, and Resins to Supplies. The owner travels worldwide to meet with distillers and producers as part of our stringent quality control measures that culminates with third party laboratory GC-MS analysis. LGB also gives free samples with orders for olfactory inspection. The details of our free sample policy can be found on the website. Whether Retail

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or Wholesale, LGB stands ready to supply aromatherapeutic quality oils that are botanically rich, aromatically divine. Staffed with a highly professional customer service team, questions and inquiries are handled quickly and efficiently. All oil products are 'hand poured to order' by our highly trained oil room product fulfillment team. Use code NAHA15 for 15% Off your first order. Aromatherapy Student discounts and Certified Aromatherapist/Health Care Professional discounts available by contacting us.

lgbotanicals.com

Mountain Rose Herbs

Mountain Rose Herbs offers high-quality organically grown herbs, spices, teas, essential oils, and botanical goods. Since 1987, they have been known for their uncompromising commitment to organic agriculture, fair trade standards, and sustainable business practices. The company's core belief that people, plants, and planet are more important than profit guides everything they do.

mountainroseherbs.com

New Directions Aromatics

New Directions Aromatics: Certified organic processor offering the highest quality, pure essential oils for professional use. Discover hard to find oils and natural products including wild crafted and conventional types. You will be amazed at our extensive line of carrier oils, extracts, absolutes, ayurvedics, cosmetic and soap bases, specialty packaging and much more. Purchasing directly from distilleries and producers worldwide enables us to offer premium quality products at wholesale pricing. ISO, USDA Organic, Fair Trade, Vegan and Kosher certified with a knowledgeable and friendly customer service and a 100% customer satisfaction guarantee.

newdirectionsaromatics.com

Palo Santo EcuadorianHands

We're artisan distillers of Palo Santo (Bursera Graveolens) 100% pure essential oil, therapeutic grade. Elaborated without harming the tree, PaloSanto is very useful for relaxing the mind and body as well as purifying the bad energies. Incense,

malas, beads, soap also available. Bursera graveolens, known in spanish as "Palo Santo" (holy wood) is a tree that inhabits the coast of Ecuador. It has a high concentration of Limonene, a medicinal terpene known to be a strong antioxidant, anti-inflammatory, antibacterial, anti-fungal and antiseptic agent. [Learn about our reforestation program.](#)

ecuadorianhands.com

Plant Therapy

Plant Therapy is the premier destination for essential oils, KidSafe blends, carrier oils, hydrosols, USDA Certified Organic products, and more! At Plant Therapy we have always believed in exceptional quality, the purest ingredients, and the desire to positively impact as many people as humanly possible. Ultimately, we feel this is possible by providing our customers with an exceptional experience that keeps them coming back. Plant Therapy's quality control procedures are some of the strictest in the industry. Each oil offered by Plant Therapy has gone through multiple rounds of testing and has been approved by Robert Tisserand and our team of Certified Aromatherapists. Every bottle of oil that you purchase from Plant Therapy will have a specific batch code that is linked to batch specific GC-MS reports which can be found on the product page. With free shipping and free returns, you can't go wrong with Plant Therapy!

planttherapy.com

Positively Aromatic

Positively Aromatic is an Artisan Distillery. Our primary product is Hydrosol produced using Copper Alembic Stills with low temperature, slow process distillations that produce a high-quality Hydrosol and Essential Oil. Our distillates are USDA Certified Organic, pure and unadulterated. We produce 52 different Hydrosols and have 11 different varieties of Lavender Essential Oils. With each distillation, we are thoughtful of the end-user and how our beautiful Hydrosol will enrich their health and well-being. Distillation is done intentionally, sustainably, and ethically with meticulous sterilization protocols. Our owner is a Certified Aromatherapist and NAHA Director. Visit us at pa-wholesale.com

pa-wholesale.com

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Pure Bulgarian Lavender

Growing roses and lavender was family tradition from several generations. Now is the time to order your bulk rose oil and Hydrosol at exclusive price directly from our distillery. We grow and distill USDA Organic and Non organic Rose Oil, Lavender Oil, Blue Chamomile, Roman Chamomile, Melissa Oil, Menta Piperita Oil, Juniper Berry Oil, Silver Fir Oil, Pine Oil, Yarrow Oil. We have our own fields with aromatic plants and two distilleries in Bulgaria, Rose Valley. For your convenience, we ship worldwide from two locations Chicago IL and Karlovo Bulgaria. We ship door to door and we take care for the logistic and custom.

purebulgarianlavender.com

PurePlant Essentials

Let us be your first choice for a wide selection of premium quality 100% pure GC/MS tested, organic and wild crafted essential oils and custom formulas. All of our oils are sustainably sourced, formulated by a certified clinical aromatherapist and hand poured fresh to your specified order to ensure potency and freshness. Serving the aromatherapy community online since 2005, we are also your qualified source for aromatherapy education and certification - NAHA Approved Educator.

pureplantessentials.com

Shaman Essential Oils

Springing from the Kalustyan Corp.'s 70-plus years in the spices and herb market, Shaman Essential Oils embraces local growers and sustainability to bring premium quality aromatic oils to the world. We offer a full line of essential oils, carrier oils, organic essential oils, unique custom blends, and more, all of it sourced from small, sustainable farms and our own overseas distillation operations. We sell in bulk and also offer private labels. We are a proud member

of the NAHA, and hold Organic, Vegan, Non-GMO, and Kosher certifications. We've traveled thousands of miles and devoted hundreds of hours to offer only the best essential oils. From farm to bottle to you, many of our essential oils never leave our hands until they're in your hands.

shamanoils.com

Time Laboratories

Founded by Annemarie Buhler in 1973, Time Laboratories stands as a pioneer in the natural products industry. We incorporate only the highest quality research-based essential oils, plant extracts, and other raw materials into innovative formulations offered to our customers at competitive prices. We offer a full line of pure & genuine essential oils (third-party GC/MS tested), authentic aromatherapy products, natural skin care products, bath & spa products, herbal supplements, capsules & tablets, mother tinctures and gemmotherapy glycerin macerats. Choose from our extensive stock line, or allow us to custom formulate for you. We look forward to hearing from you!

timelabs.com

Your Body Needs

Your Body Needs... provides 100% pure essential oils, carrier oils and aromatherapy accessories. The company also has its own line of aromatherapy based body products such as body oils and muscle therapy cream. We provide aromatherapy classes on a regular schedule and personal consultations specializing in custom face oils for skin care, and personal blends for stresses of daily living due to physical or mental stress. In business since 2008, Your Body Needs...has developed relationships with distillers and educators in the field all around the world. We are dedicated to quality of product and our customers.

yourbodyneeds.com

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SCHOOLS

ACHS.edu American College

American College has a heritage of excellence in distance education for over 40+ years. Our Aromatherapy Department offers uniquely tailored accredited degrees, certificates, professional focus credentials, general interest, and FREE online classes ranging from beginner level to those needing advanced clinical aromatherapy professional credentialing. Our programs are designed for student success with research, a science-based curriculum taught by industry-leading experts and a collaborative experiential online learning environment. We are DEAC accredited and fully online for ease of education. See why 98% of ACHS students would recommend us to a friend. Your success is our reputation.

achs.edu

Aroma Apothecary Healing Arts Academy

Aroma Apothecary Healing Arts Academy is an aromatherapy and holistic healing school. We invite you to learn nature's pharmacy and natural healing methods. Our professional aromatherapy certification courses are designed for health professionals, holistic retailers, and those who have an interest in aromatherapy and natural healing. These courses can be taken in 50 hour sections or as a full 200-hour Professional Clinical Aromatherapy Program or a 300-hour Clinical Aromatherapy Mastery Program which exceeds the NAHA Levels 1, 2 and 3. Aroma Apothecary Healing Arts Academy is an Approved School by the National Association for Holistic Aromatherapy (NAHA), Alliance of International Aromatherapists (AIA), and by the National Certification Board for Therapeutic Massage and Bodywork (NCBTMB) for massage therapy continuing education. [AAHAA BLOG](#)

learnaroma.com

Aroma Hut Institute

Aroma Hut Institute offers professional quality clinical aromatherapy courses online and in-person. Aroma Hut training includes Aromatherapy Certification programs for Level 1 Foundation (100 hours) & Level 2 Advanced Clinical (270 hours). Courses are approved for Massage Therapy CEU's in Florida and Nationally through NCBTMB and can be taken individually. Graduates have the option to continue with Teacher Training and start their own Aroma Hut School. Rebecca Park Totilo, our in-house apothecary formulator and instructor, is a best-selling author of over 52 books on aromatherapy and essential oils including, Organic Beauty With Essential Oil, Therapeutic Blending With Essential Oil and Heal With Oil. She has been seen by millions via national television, syndicated radio, and internet. Rebecca has over twenty-five years of experience as an international educator, specializing in the ancient biblical healing arts.

aromahut.com

Aromahead Institute

Study essential oils online with Andrea Butje! Andrea has been teaching Aromatherapy since 1995 and has an international reputation for her work with essential oil distillers. Aromahead Institute's classes are in-depth and dynamic, all taught in an easy to use, beautiful and well organized online classroom. Aromahead offers a 235-hour Aromatherapy Certification Program (covering both NAHA Levels 1 and 2), and a 400-hour Scholars Program including advanced courses in aromatherapy chemistry and therapeutic blending. Interact directly with Andrea and students from all over the world. Aromahead's classes are approved for Massage Therapy CEUs in FL, NY, and by the NCBTMB.

aromahead.com

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Ashi Aromatics Inc.

Do you love animals? Are you considering a holistic career working with animals and their caregivers? Do you want to learn more about aromatherapy for use with your animal friends? If you answered yes to one or more of these questions, you may be interested in our unique and specialized courses. We offer Aromatherapy and Botanical Studies to assist you on your path to become a qualified Animal Aromatherapist and Animal Flower Essence Practitioner. Our courses are unique in that it offers a complete program designed with the main focus on Animal Aromatics and Botanical Studies. The Animal Aromatherapy Practitioner Certification Course(sm) is a 300+hour online program specific to the use with animals. Our courses are approved by NAHA and HAA (Holistic Animal Aromatherapy Association). Continuing Education is available for NAHA & HAA members as well as for CFA (Canadian Federation of Aromatherapists) Members. Course registration includes access to student forum and instructor mentorship support. We also offer programs in Animal Aroma Acupoint Massage(sm), Auricular Aromatherapy, Energy Therapies, and more. Your Instructor Kelly Holland Azzaro, RA, CCAP, CBFP, LMT has over 25 years professional experience in aromatherapy, massage and energy therapies for both humans and their animal friends. She specializes in Animal Aromatherapy and Flower Essences and shares her passion, knowledge and practical real-life experience on these topics to help education and empower others.

animalaromatherapy.com

Bev Hawkins Membership Club

The Bev Hawkins Membership Club a subscription club sharing focused, detailed and insightful information in monthly packages with a new package is delivered each month. Our Members range from anyone with an interest in aromatherapy, to the novice just starting out, to the enthusiast who is more familiar with essential oils, to the Professional who wants to continue to expand and share their knowledge. Benefits of Membership include the Welcome Package; Monthly Packages; Certificates of Completion; All Previously Published Packages and a community. Each month's package covers: one essential oil in depth; one condition plus so much more.

bevhawkins.com/bundles/Membership-welcome

Essentria Aromatherapy School

Welcome to Essentria Aromatherapy School! We are an online school offering a Level 1 & Level 3 certification course with NAHA. Come learn in our easy to use online program from the comfort of your home! Learn at your own pace, start whenever you want! Created by Rachael Dean, Nikki Fraser, and Rhonda Greenbury who are each Level 3, Certified Clinical Aromatherapists with NAHA and Certified Aromatherapy Health Practitioners (CAHP) with the Canadian Federation of Aromatherapists (CFA). Our Level 3, Aromatherapy Certification course (fully updated 2021!) is over 425 hours and covers over 70 essential oil profiles, history, chemistry, safety, chakras, carrier oils, hydrosols and so much more. Students also learn anatomy, physiology and pathology. They learn through hands-on activities, assignments and case studies while having fun in our positive and upbeat student group. Those who will benefit from our program are; parents, health providers, health coaches, fitness, yoga instructors, RMT's, naturopath's and natural health enthusiasts or those who want to learn how to improve their health! Our Level 1 Aromatherapist Course is designed for professionals looking to add essential oils into their established practice. In this 50 hours course, it covers 20 essential oil profiles, history, basic chemistry, 3 carrier oils, and so much more. Our free Intro Course is available for all to get a taste of our online learning environment! Join us today!

schoolofessentria.com

Institute of Integrative Aromatherapy

When you select the Institute of Integrative Aromatherapy for your education partner, you'll see the difference from the very beginning. Our unique clinical and holistic training program was developed and is taught by a professional nurse aromatherapist and pioneer in Integrative Aromatherapy® education. With more than 30 years of experience, and 9 authored books on the subject, Valerie Cooksley, RN, OCN, FAAIM, CERT shares her expertise as both an experienced aromatherapy practitioner and educator. You will receive one-on-one personalized mentoring in the specialized training in the art, science and bio-energetics of essential oil therapy and learn how to combine with other integrative therapies.

floramedica.com

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JennScents Aromaversity

JennScents provides holistic health education, products, services and private coaching. AROMAVERSITY: Level 1, 2 & 3 online aromatherapy certification program, NAHA & NCBTMB approved. An inviting, user-friendly and easy to navigate multi-modal learning environment for aspiring & current aromatherapists to grow and develop aromatherapy skills, scentillect and scenterpretation. Our structure makes it convenient to attend class when it's convenient for you. We also specialize in: Virtual & Custom Blending Services, Professional Essential Oil & Product Formulation Services, Clinically formulated mind-body health products and Guest speaker and Private Mind-Body-Soul Health Coaching—providing motivation, inspiration & encouragement.

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Sedona Aromatics: The Garden School

The Garden School Online(TM). UK-certified aromatherapist, published author and editor, Sharon Falsetto, BA (Hons), has been working in healthcare-related services since the 1990's. She wrote and tutors Sedona Aromatic's Botanical Aromatherapy™ online program. Sedona Aromatics is a NAHA approved school and a NAHA approved continuing education provider. Sedona Aromatics also offer the Botanical Aromatherapy(TM) Membership School for one low fee per year. Sharon is an intuitive custom blend formulator, small business consultant, aromatic gardener, and herbalist in training. She works exclusively from her garden studio and aromatic gardens on a one-acre sanctuary near Sedona, Arizona.

sedonaaromatics.com

Natural Health Resources - Clinics

Be Hive of Healing

Be Hive of Healing is about the manifestation of a holistic vision of integrated healing. Integrative Medicine is a time-tested medical protocol that merges the practices and philosophies of both conventional and alternative medicine to create a new paradigm for optimum health. Treatments are individualized to each patient's condition, and are developed to activate the body's natural healing processes. Integrative medicine is a holistic approach to healing, and acknowledges the person as a whole being, rather than a collection of symptoms. We attend to your health through a doctor-patient relationship founded on listening to your needs, empathizing with your pain, and meeting your expectations. Our holistic healing methodology includes all aspects of you—body, mind and spirit. Location: Agoura Hills, CA. Medical Team: Dr. Habib Sadeghi, Dr. Sherry Sami

behiveofhealing.com

Endobiogenic Integrative Medical Center (EIMC)

CHALLENGING HEALTH ISSUES? JUST DON'T FEEL WELL? WE CAN HELP! We use innovative techniques to treat a wide range of conditions. Our clinic was founded in 2005 in cooperation with Dr. Jean Bokelmann and the Idaho State University Integrative Health Clinic. The Endobiogenic Concept® was developed by French medical doctors Christian Duraffourd and Jean Claude Lapraz. Our Endobiogeny team uses this personalized approach to wellness to focus on the cause of disease rather than just symptoms. Based on modern physiology and endocrinology, Endobiogeny is an innovative natural approach to wellness that identifies the imbalances, unique to the human body, that are causing suffering. Endobiogeny focuses on the root causes of disease, not just symptoms. Individualized Phyto-Aromatherapy treatments include essential oils, herbs, supplements, diet & lifestyle changes. Location: Pocatello, Idaho - Face-to-face and remote appointments available. Medical Team: DeLisa Eddington NP-C, Annette Davis CN, Laramie Wheeler, DO

restorehealth.us

Seeking Aromatherapy Education?

Click the links below to learn more!

- NAHA Approved Schools & Educators
- Updated NAHA Education Standards
- Educational Classes and Events

naha.org

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Please consult your health care practitioner if you are pregnant or have been diagnosed with any serious healthcare problems before using essential oils. Keep all aromatherapy products out of reach of children and pets. Before using essential oils and aromatherapy products please consult with a professional aromatherapist.

NAHA asks that all authors and contributors include information on safe use of essential oils and clearly define each essential oil's common name and Latin binomial(s). NAHA has the right to accept or reject any articles, advertisements or content submitted. NAHA website is a resource-full area for information on Aromatherapy Safety, Applications and Uses. www.naha.org

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