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AROMATIC • TREASURES

# AROMATIC INTELLIGENCE

## THE HEALING POWER OF ESSENTIAL OILS

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*The Healing Power of Essential Oils*

*www.floracopeia.com*

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# *Introduction*

Aromatherapy has become a household term, yet most don't understand how powerful it can be. The benefits of using pure essential oils are profound and immediate. A small selection of essential oils offers a wide range of applications, and a small amount of essential oil goes a long way.

To get a picture of how powerful essential oils are, consider this: It requires 1,400,000 handpicked rose blossoms to produce a liter of rose essential oil. A single ounce of this oil contains the essence of 40,000 rose blossoms, and sixty-seven roses give only one drop of essential oil. While every plant yields a different amount of essential oil based on its seasonal influences and design, this helps illustrate the profound process that produces these highly concentrated botanical treasures.

Why do plants produce essential oils in the first place? There are two primary reasons:

1. Protection: *Plants use essential oils for protection from pathogens such as fungus, pests, even other invasive plants or animals. They produce essential oils as part of their stress response to changes in climate or to protect themselves from harsh environmental conditions.*

2. Attraction: *Plants also use essential oils to lure in pollinators with their irresistible fragrances.*

*Like plants, there are two primary ways that humans can benefit from the regular use of essential oils:*

1. Protection: *Because essential oils are produced by the immune intelligence of the plants, people can use essential oils to support their wellness and healthy stress response. When we use essential oils we gain enormous benefit from the vitality and health-producing effects of the oils.*

*The modern world is bringing aromatherapy into building designs and medical practices for this purpose. Hospitals are now incorporating essential oils into their treatments, and businesses around the world are using aromatherapy for stress reduction in the workplace.*

2. Attraction: *Plants also create essential oils as a way to attract pollinators. These aromatic molecules, when used by humans, serve a similar purpose. When a man or woman is wearing a pure, botanical aromatic treasure, the power of*

*their attraction is naturally enhanced. Night Blooming Jasmine can make a woman an irresistible to her lover. A drop of rose attar placed on the center of the chest can open the channels of love and compassion. Natural fragrance offers emotional benefits in addition to a fragrance that is harmonious with the constitution and chemistry of the wearer.*

Aromatherapy is an art and science that spans civilizations and covers the globe. The art of perfumery uses science to capture the heavenly aromas of the most intoxicating flowers so that they can be utilized for the purposes of health, attraction, and romance. Today, scientists use sophisticated equipment to study what our ancestors intuitively knew about the aromatic plants around them.

The practice of aromatherapy can be as simple as sipping a cup of tea or diffusing essential oils into the space around us. Aromatherapy can also be as elaborate as a complex healing prescription or specific ceremonial use. The effects of aromatherapy act simultaneously on the mind, body and spirit, offering a range of applications from the most basic skin care to enhancing a connection with the divine.

It is important to educate yourself on aromatherapy before you begin using essential oils. The primary reason is safety: certain oils can be very irritating to the skin or overpowering in large amounts. Another reason is economical: if you know what you are doing with essential oils, you will save money by using the right amount in various applications, recipes or blends. It is also important to understand how the essential oil and perfumery world works before you start shopping.

In the following chapters you will learn everything you need to know before you buy and use essential oils. When you are finished reading this short yet important ebook, you will have a comprehensive and sophisticated understanding of the art of aromatic botanical medicine.

# I

# *The pharmacy of flowers*

Aromatic plants and fragrant flowers are some of nature's most beautiful creations. In the long history of planetary evolution, the appearance of flowers initiated the rapid expansion of biodiversity that created the world in which we live. Now, fragrances from flowers, leaves, roots, seeds, and woods are an important part of every culture as medicines, food, spices, perfumes, and incense.

The distillation of essential oils evolved over the course of at least 2,000 years; it is one of the many contributions made by alchemists in their search for health, longevity, and spiritual knowledge. Evidence points to the possibility that simple methods for extracting aromatic principles from plants may have been one of humanity's earliest refinements of botanical materials, and a major step toward later herbal preparations.

Essential oils have a profound effect on the deepest levels of the body and psyche. Because their primary route of absorption is inhalation, they have a strong and immediate influence on the mucous membranes of the respiratory system. Passing through the capillary beds of the sinuses and activating the olfactory nerves, the fragrances of the oils enter the brain, influencing the nerves, immunity, and hormones. Essential oils powerfully enhance positive mental and emotional states, and increase our ability to stay healthy.

In Chinese terms, essential oils in general are medicines for the Shen, the spiritual essence that resides in the heart and governs consciousness. In Ayurvedic terms, they enhance the flow of prana (life force), nourish ojas (nutritional / immunological essence), and brighten tejas (mental luminosity). However, the pharmacy of flowers is vast, and it contains highly effective medicines for every kind of physical and nonphysical illness. One could study a small number of oils for a lifetime, and still not learn everything about them.

Of all the types of workshops, lectures, and meditation retreats Floracopeia has given over the years, sharing essential oils has consistently produced the most wonderful and interesting results of uplifting, energizing, inspiring, and euphorically intoxicating large groups of people. This is in part why nature created flowers and aromas, and why we must work to preserve these treasures for future generations.

## The Four Global Benefits Of Medicinal Plants

Medicinal plants, especially the aromatic species, are the key to solving numerous interrelated global issues. Their benefits can be summarized into four major categories: healthcare, sustainable economies, environmental protection and ecological restoration, and preservation of ethnobotanical wisdom. When the full potential and possibilities of these benefits are considered, it becomes apparent that medicinal plants are one of humanity's greatest natural resources.

### Healthcare

The first global benefit of medicinal plants is nontoxic, affordable, locally available healthcare. Botanical medicine is the oldest form of healthcare, and remains the primary source of preventive and curative treatment for 80 percent of people in developing countries.

Aromatic plants and their essential oils play an important role in the world's present and future healthcare systems. Many oils create an environment that bacteria find inhospitable.  A small number of oils can be used for a large number of common challenges, especially in restoring comfort, health and balance of the skin, respiratory, and digestive systems.  Many of the common aromatic culinary herbs and spices used throughout the world have significant therapeutic value and are used extensively in traditional medical systems such as Ayurveda.

### Economic

The economic benefit of medicinal plants has two primary aspects. The first is the income derived from the cultivation, processing, and sale of medicinal plants and their products. Medicinal plants have provided livelihood for innumerable people in every part of the world for millennia. Now, as demand for medicinal plants increases and supplies diminish, their economic value is rising, making them more lucrative as cash crops. Many species of medicinal plants are now the world's most expensive legal crops; as the global market expands, more communities can begin producing herbal products as a way of lifting themselves out of poverty.

Herb cultivation and essential oil production are helping to economically revitalize and sustain poor rural areas around the world. By supporting farmers and distillers engaged in these activities, we help them continue their age-old livelihoods. Herb cultivation projects protect communities from the destructive trends of corporate agribusiness and allow people to continue living on the land. Organic agriculture is difficult and labor intensive, but for many people throughout the world the only alternative is migrating to the slums of large cities.

The second economic benefit is the availability of affordable medicines for local populations. Locally grown or wild-harvested herbs are relatively inexpensive compared to allopathic treatments and pharmaceutical drugs, and provide a foundation for nutritional enhancement and preventive therapy. Most of the important oils that create inhospitable environments for contagion, such as tea tree, eucalyptus, oregano, and thyme, are relatively inexpensive, since the plants grow prolifically and produce abundant amounts of oils. These oils require only simple distillation equipment and methods, and minimal investment is needed to start a local industry.

The low cost of the oils, combined with their high effectiveness, offers an important alternative to expensive imported antibiotics in developing countries.

## Ecological

The third global benefit of medicinal plants is ecological and environmental preservation and restoration. When a community cultivates high quality organic plants or manages an ecosystem that provides secondary forest products such as wild-harvested herbs, the biodiversity of the region is protected, restored, and maintained.

Herbs are now being used in projects to make forests and wilderness areas economically viable, and thus protect them from logging and other destructive practices.

Another ecological benefit of some medicinal plants is phytoremediation, the use of plants to purify environmental toxins and regenerate ecosystems. Several medicinal plants that are important for ecological restoration, such as neem trees, thrive in barren and degraded lands; some, such as vetiver grass, are sources of aromatic oils.

## Ethnobotanical

Ethnootanical traditions can be preserved when communities are supported by plant-based economies that protect ecosystems. The long history of accumulating knowledge about plants is one of humanity's greatest legacies, and the foundation of culture itself; ethnobotanical wisdom is intimately linked with ceremony, diet, agriculture, art, and innumerable other aspects of traditional earth-based lifestyles.

The botanical knowledge preserved within indigenous cultures is not only the basis of local healthcare, but is also valuable in the development of new medicines and herbal products.

II

# *Vital Points To Know Before You Purchase Essential Oils*

There are many essential oils on the market and it can be overwhelming to sort out the differences between various companies and suppliers. It is important to understand the following terms before purchasing essential oils to be sure you are getting therapeutic quality essential oils from a supplier you trust.

*1.* "Pure"

In the US, the term "pure" has no legal meaning and is often applied to just about anything. Do not rely on the term pure when shopping for essential oils. It is best to do thorough research on any essential oil company before purchasing their oils. In the case of Floracopeia Blends, we use the term "pure essential oil blend" to indicate that the blend is comprised of essential oils only, with no fillers or carrier oils.

*2.* Synthetic Fragrances

Certain oils do not exist in a natural state, and are only available as synthetic fragrances or "bouqueted" fragrances (combinations of essential oils, absolutes, and synthetics). These include honeysuckle, linden, gardenia, frangipani. Typically you can smell the difference between a synthetic fragrance of rose and the actual essential oil or absolute. If a line of "essential oils" is all priced the same, it is good to suspect that these oils are in fact synthetic. The reason for this is that true essential oils range in cost based on the cost of production (labor, plant matter required, etc).

*3.* Adulteration/Substitution

The more expensive an oil, the greater the risk of adulteration. Some oils are highly adulterated, such as melissa (lemon balm), rose, and sandalwood. Some oils such as birch are substituted with wintergreen, a less expensive but similar essential oil.

*4.* Chain of Supply

The fragrance industry has many levels of buyers and suppliers. The more levels that are involved, the higher the risk of adulteration. Large volumes of

oils sold as “genuine” and “pure” are neither. False advertising is rampant in the aromatherapy world. It is best to get oils from a supplier that works directly with the distiller. A long-term relationship with a trustworthy distiller is key in the aromatherapy industry to assure that high quality essential oils are produced and accurately sold.

### 5. Grades

Lower grades of oils are frequently sold as higher grades. A good example is ylang ylang: Ylang Ylang Superior is the first stage of distillation, where Ylang Ylang Complete is a combination of all four stages of distillation. In this case, the different grades should be clearly labeled for customers to select their preference. However, some companies may sell Ylang Ylang Complete labeled as Superior to increase their profit.

### 6. Extenders

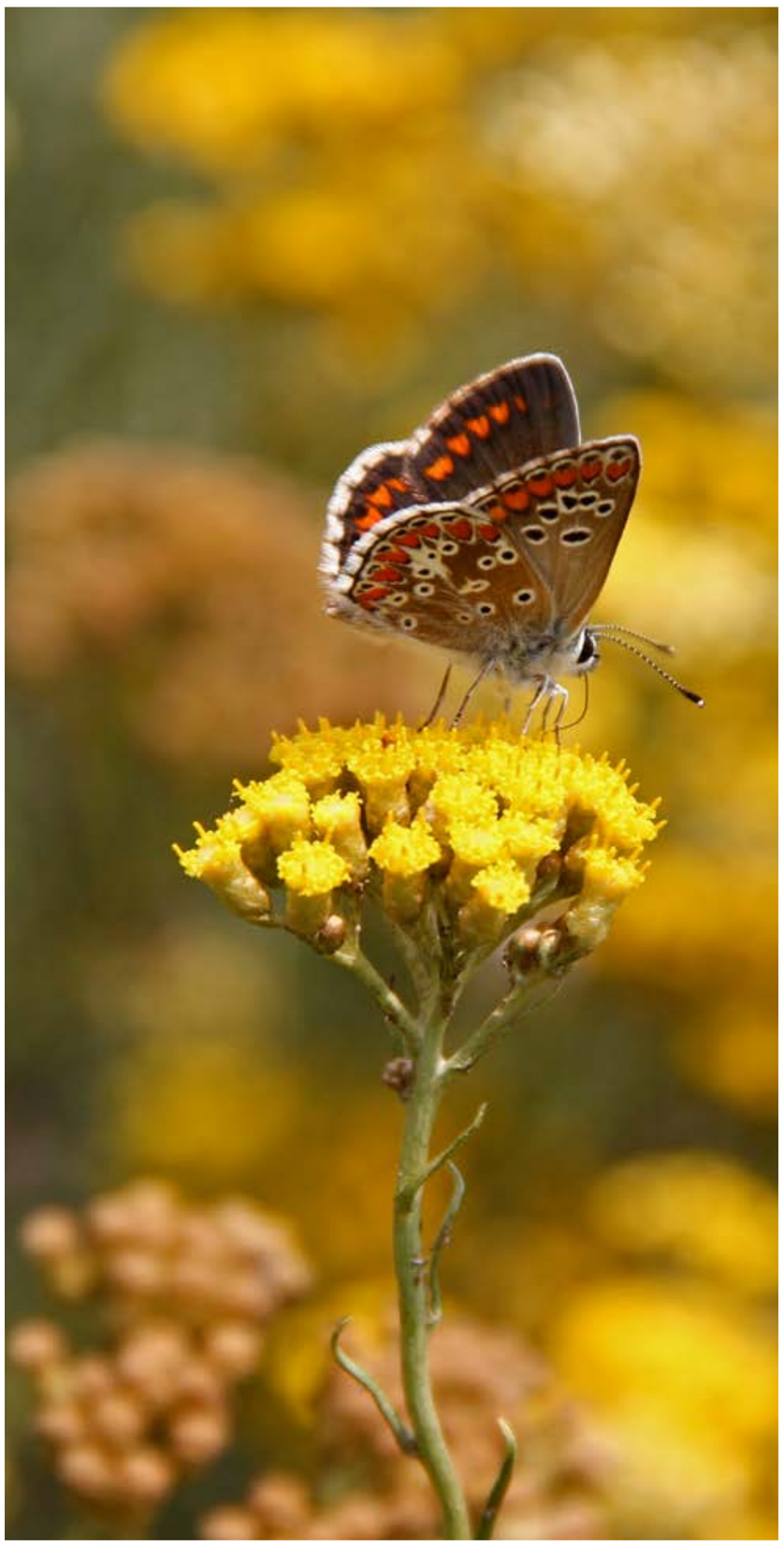
Many oils are “extended” using synthetic or natural solvents. Expensive oils are frequently extended with jojoba. Some oils are extended to make them more pourable. In some cases, as in Floracopeia’s botanical perfumes, this is clearly noted. Other companies may use this method to offer a less concentrated product that reduces their cost of production.

# III

# *The importance of organic essential oils*

Quality control in the essential oil industry is extremely complex and challenging. Even the term "aromatherapy" is misleading, as it has been corrupted by companies producing a wide range of products based on synthetic petrochemical-derived compounds that are aromatic but dangerous to the health. For therapists, it is important to realize that many essential oils and fragrance products sold for aromatherapy purposes are completely unsuitable for such purposes. Finding good sources of high quality oils can be difficult, especially at the retail level, but it is important to know not only the quality of the oils, but the health of the environment from which they come and whether or not they are ethically and sustainably produced.

One way to easily understand this complicated subject is to classify essential oils according to their agricultural origins. Distilled plant materials can come from many types of environments, and multiple factors determine the quality and purity of the oils. I generally group oils into four categories: wild harvested, certified organic, non-certified organic, and conventional.



**The first category is those oils that come from wild harvested plants.**

One of the best examples of this is frankincense oil, which is distilled from resins harvested from trees growing in remote desert areas of northern Africa. Other examples include high-altitude wild helichrysum from the Mediterranean region, and Palo Santo from Ecuador, which is distilled from dead wood that has aged for many years on the forest floor.

Wild harvested oils are some of the best in the world. Wild plants tend to have a greater genetic diversity compared to those that are cultivated, such as wild, high-altitude lavender, which produces a very different oil than those distilled from sterile cultivars grown on lavender plantations. This genetic diversity, combined with the diversity of terrain and ecosystems where the plants grow, tends to give the wild harvested oils a greater range and higher levels of therapeutic compounds than cultivated ones. Because they need stronger immunological resistance to survive in harsh environments, wild plants have long been considered by traditional herbalists to be more therapeutically potent.

The primary challenge facing wild harvested plants, both aromatic ones distilled for their oils and medicinal plants in general, is overharvesting. In some places projects are now developing that will ensure long-term sustainability. Great examples include the regulation of helichrysum harvesting on the island of Corsica, the community forests caretaking the wild jatamansi of Nepal, and the creation of fair trade cooperatives of frankincense harvesters in Somaliland.

**The next two categories are the so-called "organic" oils, which can be of two types: certified or non-certified.**

"Certified organic" means that a third party certifying agency has inspected and certified the source of the plant material and the distillery. Once the oil comes into the hands of an essential oil company that is rebottling and selling it, they may continue using that term if their facilities are also certified; if not, the oil may be sold under the term "organic," as the oil is still organic but the chain of certification has ended.

Because of their origins in natural environments, wild harvested oils can be considered "organic." In some cases these oils will have organic certification from a third party, such as the jatamansi oil from western Nepal and many of the conifer oils. In many cases there will not be certification, and the primary concern is whether or not the oil comes from an ethical and sustainable source.

Because of the high cost, third party certification is not economically possible for many farmers and distillers; the term that is sometimes used for oils of this type is "non-certified" organic. These oils can be just as high quality, or better, than those that are certified, but they lack the official stamp of recognition. Ironically, individual artisans working on a small scale often produce the highest quality oils, but they are the least able to prove it. In many cases, oils that are currently non-certified will become certified at a later time, as demand for certification is driving a general trend toward increased implementation.

**The fourth category is those oils that come from crops that are conventionally grown with agricultural inputs, such as fertilizers and pesticides.**

Agrochemicals are generally not found in wild harvested, certified, or non-certified organic oils, but they can present in oils that are produced on a large industrial scale. A great number of aromatic plants do not need pesticides, as the plants produce essential oils for that very reason, but pesticides and fertilizers are often used in large scale production of more vulnerable species such as some flowers and citruses.

We are often asked: "How do I know if these oils from this company are good or not?" There are basically three ways for both essential oil companies and retail buyers to know that the oils they are getting are high quality. The first is having the certification on the oils, whether from both the producer and the distributor, or only the producer. The second is having the ability to test the oils; this is an expensive process unless a company has a dedicated chemist and the right equipment, which many do not. The third is knowing the producers on a personal level, and knowing that the oils come directly from artisans distilling top grade products from the highest quality plant materials.

When we are asked, "Why is it important to use organic essential oils?" our reply is that it is a matter of protecting the health of our clients and ourselves. Protecting ourselves is especially important if we are therapists using oils on a daily basis, where chronic exposure is high.

When we think of using "organic" essential oils, we of course think of avoiding exposure to agrotoxins. In my opinion, the greater challenge is avoiding the vast number of synthetic toxins that enter the essential oil supply chains as they pass through the hands of numerous brokers as well as the food and fragrance industries.

The essential oil industry is complicated and many synthetic aroma compounds, botanical substitutes, and adulterants find their way into essential oils sold at the retail level. A general rule is that the more limited the source of the oil and the higher the demand, the more likely it is to be either partly or completely adulterated. A prime example of this is sandalwood oil from India, which is now almost impossible to find, even in India, in a true form.

For our health as therapists and the health of our clients, it is vital that we find sources of high quality oils. However, there is also a larger global reason to seek out wild harvested and organic oils from artisan distillers: the love and hard work that they put into caring for the plants and environments. In this way, by caring for ourselves with genuinely therapeutic botanical oils, we are also supporting the healing of the soil and water, and providing important sources of livelihood to those dedicated to such service water, and providing important sources of livelihood to those dedicated to such service.

# IV

# *The top six uses of essential oils*

There are many ways to use essential oils. We will focus on the six most effective and beneficial methods.

## 1. Aromatherapy Diffusers

Essential oil diffusers, or aromatherapy diffusers, offer a safe and easy way to fill your home or office with essential oils. A small amount of essential oil has a big impact when diffused in the air we breathe. Ultrasonic diffusers and nebulizers offer the most efficient and effective way to diffuse essential oils. Rather than heat, these diffusers use the vibration of water molecules to disperse essential oils into the air. Use diffusers when you wish for your home or office to smell fragrant with natural essential oils, any time the air is stagnant or indoor air quality is a concern, or when you are surrounded by the common troubles of winter. Diffusers are great for the home, office, and classroom.


## 2. Inhalations

This application is simple and can be done just about anywhere. Carry your favorite essential oils with you so you can stop and inhale them whenever you need to feel calm and uplifted, are traveling, or are exposed to germy

conditions. For direct inhalation, simply open a bottle of essential oil, place it below your nose and inhale deeply. For palm inhalation, add a drop or two of your favorite skin-friendly essential oil to the palms, cup the palms around the face and inhale deeply. Some favorite essential oil blends for palm inhalation are Relax, Legends, and Spirit Blend.

### 3. Massage

Pure essential oils are many times more concentrated than the whole plant, which is why we recommend diluting essential oils before applying them to the skin. Dilutions are typically 2% - 10%. For adults, a 2.5% dilution is recommended for most purposes. For children under 12, 1% is generally safe.

*1% blend = 6 drops essential oil per oz. carrier oil*
*2% blend = 12 drops essential oil per oz. carrier oil*
*2.5% blend= 15 drops essential oil per oz. carrier oil*
*3% blend = 18 drops essential oil per oz. carrier oil*
*5% blend = 30 drops essential oil per oz. carrier oil*

There are many great carrier oils from which to choose. Jojoba, marula, coconut, argan and tamanu are all nourishing oils with a good shelf life. Rosehip and almond are also wonderful nourishing oils that require refrigeration to preserve.

Floracopeia also offers Flower of the Sun oil, a rosehip seed oil infused with helichrysum essential oils and Champa Infused Almond oil.These oils are ready to be applied to the skin and are formulated to keep the skin vibrant and balanced


### 4. Facial steam

Add 1 - 5 drops of essential oil to a pot of hot water. Cover head with a towel and allow steam to circulate inside the towel. This practice is excellent for opening sinuses, easing tension, and invigorating the skin. Eucalyptus and rosemary essential oils are great for facial steams.

## 5. Baths

An Aromatic Bath is a luxurious way to relax, pamper the skin or feel better when unwell or tired. Always mix essential oils with a natural emulsifier such as milk; honey; oils like almond, sesame, or coconut; or sea salts before adding them to the bath. A generally safe dose is 5 - 10 drops of essential oils mixed with 1/2 - 1 cup of salt or emulsifier. Aromatic baths are excellent for supporting all systems of the body and creating a healthy and balanced state.

Caution: overuse of essential oils in the bath can cause irritation. Use only mild, non-irritating essential oils for bath, such as lavender, chamomile, and clary sage. Hydrosols can also be used instead of essential oils to create a safe and gentle aromatic bath.

## 6. Compresses

Compresses are great way to apply essential oils to bruises, wounds, aches and pains, or skin problems. Mix 10 drops of essential oil in 4 oz. hot water. Soak a clean cloth and wrap the area to be treated. Leave the compress on for 10-20 minutes. Re-apply wrap if needed. Lavender, helichrysum, and tea tree essential oils are good to use in compresses.

# V
# *The immune enhancing effects of aromatherapy diffusers*

Essential oil-containing aromatic plants have been used for anti-infectious purposes for millennia. The unpleasant odors of sewage, rotting garbage, sick people, and environmental pollution reveal the presence of proliferating microbial toxins.

Without knowing the details of which pathogenic agents were present, people have always known that where there were bad vapors, diseases lurked. Throughout history, aromatic plants and their essential oils have been the primary antidote for these evil spirits.

Since the 1800s, scientific research has compiled a substantial body of evidence demonstrating that essential oils have powerful antimicrobial effects against a broad range of bacterial, viral, and fungal pathogens. As the disturbances of the Kali Yuga increase around us, it is wise to consider how these healing plants can be our allies, not only to prevent contagion and enhance personal immunity by purifying the atmosphere around us, but to remove the causes of illness within communities as well.

One of the recent discoveries within aromatic research is that the antimicrobial effects of essential oils are most potent not when the oil is used in liquid form, as when applying tea tree to a fungal infection, but when pathogens are exposed to the vapors of the oils. This means that the most effective way of utilizing essential oils to reduce atmospheric contagion, neutralize airborne illnesses, and enhance immunity is through the use of aromatic diffusers, ionizers, and nebulizers. It has also been found unnecessary to have a high concentration of oil in the atmosphere for it to be effective; only a minimal amount of oil dispersed from a diffuser is required for optimum biological and immunological effects.

Although there are many aromatic diffusers on the market, from simple candle burners to complex ultrasonic devices, atmospheric dispersion of aromatic botanical oils is nothing new. A traditional fire puja in Rajasthan filling the temple with aromatic offerings, precious sandalwood and agarwood incense moving like coiling dragons through monastery meditation halls, Egyptian ceremonies burning copious amounts of desert resins and exotic spices, Tibetan monks throwing juniper branches onto coals while chanting, an Arab family welcoming an honored guest with a smoking censer of their purest frankin-

cense -- these are all ways that cultures have practiced spiritual hygiene and community immunity throughout the ages.

In their native habitats, plants grow in communities. They must survive the natural elements, compete with other plants, and live in the midst of complex microbial and insect communities. Essential oils are part of a plant's immune system, created by its evolutionary intelligence primarily for repelling pathogens. By harvesting and distilling their oils, we bring the immunological power of the plant communities into our communities.

Just as an individual plant cannot thrive in a poor environment, no individual person can maintain their health if the community in which they live is unhealthy. Whether it is the threat of a serious epidemic such as avian flu, allergic reactions caused by genetically engineered food, antibiotic resistant bacterial infections, chemical sensitivities from an increasingly toxic environment, or just the common cold spread through schools and the workplace, one does not have to look far to see this basic truth.

A forest is a perfect example of community immunity. In conifers such as pine, spruce, and fir, the primary agents of the tree's defense are monoterpenes, aromatic molecules such as pinene, which give pines their characteristic fragrance. These molecules have several important physiological functions including repelling insects and microbial pathogens, and healing wounds to branches and bark.

Because trees and humans are so closely related biologically, it is not surprising to discover that the essential oils produced by a tree's immune system are directly beneficial for our own immunity. When we diffuse conifer oils into our homes, we are not just bringing the beautiful fragrance of the forest indoors, we are also surrounding ourselves with a cloud of disease-fighting molecules created by the trees' immunological intelligence.

A garden is another kind of plant community. When the soil is healthy and rich in nutrients produced by healthy microbial ecologies, the plants have vibrant flavors, colors, and fragrances, indicating the vitality and life force. Some of the most powerful antibacterial and antiviral essential oils come from this community: rosemary, sage, thyme, oregano, lemon balm, and lavender. A well-known example of this type of community immunity is the Hindu practice of growing of tulsi (holy basil) in courtyards of homes for its health-enhancing and insect-repelling powers. In other parts of the world aromatic plants such as basils and marigolds planted in gardens have been found to be highly effective for repelling mosquitoes from neighborhoods.

Deserts have their own communities of long-lived species, growing slowly under the harsh sun. In this community we find famous sacred scents used for prayer and meditation from time immemorial: frankincense, junipers, sages. From our own backyard in the dry California coastal mountains, we find the

white sage, now globally renowned as part of Native American ceremonies, containing its own potent camphorous antimicrobial oils.

Jungles are intensely dynamic communities filled with a multitude of aromatic medicines. Here we find common spices like cinnamon as well as more unusual species like ravensare and niaouli, which have unique antimicrobial properties.

In the fields we find yet more fragrant plants with oils that destroy pathogens, such as lemongrass, palmarosa, citronella, and angelicas.

Nature has provided us with a rich and diverse palette of aromatic healing treasures from which to choose. By filling our gardens and cities with aromatic plants, using their flavors in our diet, and diffusing their oils into our workplaces and homes, we are strengthened and protected by the essence of their immunological intelligence. We can create good health not only at the individual level, but community immunity as well.

# VI

# *The safe use of essential oils*

In general, when used properly, essential oils are quite safe and highly beneficial. However, because their uses are still relatively unknown, people can and do hurt themselves by using these highly concentrated botanical substances improperly.

* *Do not use essential oils internally unless under the guidance of a practitioner.*

* *Do not apply directly to skin; dilute with carrier oil.*

* *Keep out of reach of children.*

* *Avoid contact with eyes and mucous membranes.*

* *Do not use citrus oils before exposure to UV light.*

* *Use only pure essential oils; avoid synthetic fragrances.*

* *Do not use essential oils on infants, children, pregnant women, the elderly, or those with serious health problems, without advanced medical study.*

* *Avoid prolonged exposure without ventilation.*

* *Store essential oils and carrier oils properly to avoid degradation and rancidity.*

**Do not use essential oils internally:**

There are two exceptions to this rule.

The first is properly administered dosages of essential oil medications prescribed by a licensed physician. This is now occurring in certain European clinics, but is rarely available in the US. People should avoid using essential oils internally if prescribed by a lay practitioner, especially if the practitioner's education is primarily from a marketing perspective, rather than a clinical perspective.

The second exception is the ingestion of biocompatible levels of essential oil when taken as part of the diet.  A good example of this is oregano oil. Oregano

oil is widely marketed for internal consumption, with numerous claims made about its therapeutic efficacy. In actual practice, the internal consumption of this oil frequently causes the typical symptoms associated with the ingestion of essential oils, such as extreme gastric hyperacidity. On the other hand, the use of oregano as a fresh herb, steamed at the end of food preparation, provides all the benefits of oregano oil at a biocompatible level, with none of the gastric dangers.

Should accidental ingestion of any significant amount of an essential oil occur, immediately call your local Poison Control Center. Do not induce vomiting. Do not give water if breathing or swallowing is difficult.

**Do not apply directly to skin; dilute with carrier oil.**

Essential oils are very concentrated. Dilute essential oils before applying to the skin, either in a fatty carrier/base oil, or in water as when used on a compress.

There are two exceptions to this rule.

The first is the use of attars as natural perfumes. Because the floral essences are distilled into a base of sandalwood oil, the sandalwood oil acts as a carrier which dilutes the potency of the pure essential oil.

The second is the reasonable use of mild essential oils that have a well-documented history of safety. The best example of this is lavender; however, even lavender can be problematic for some people.

Skin reactivity is becoming more of a problem as synthetic aroma chemicals become more common adulterants in the essential oil industry. A general rule is never to apply more than one to two drops of undiluted oil to the skin. Patch testing is always advisable. For people with sensitive skin, always test a small area with a diluted oil before applying over a larger area. For general non-medical use, avoid using essential oils on highly sensitive skin and with any instances of skin allergies, severe inflammation, and dermatitis. Pure essential oils are much less dangerous than synthetic aroma chemicals.

Skin reactions are dependent on the type of oil, the concentration of the oil, and the condition of the skin. It is best to check with clients to determine any prior history of skin reactions before using oils, either for dermal or respiratory applications. Old and oxidized oils are more prone to cause reactions, especially rashes.

Refrigerate fatty carrier oils to prevent rancidity. Essential oils generally have a shelf life of one to three years. Some improe with age, such as sandalwood

oil, vetiver oil, and patchouli oil. The citrus oils are most prone to degradation, and should be used within one year. Skin reactions to essential oils can take three forms:

* Irritation: A small number of oils are strongly or severely irritant. These include horseradish, mustard, garlic, and onion (which are rarely used in aromatherapy practice). Some oils used in massage practice can be moderately irritant, such as cinnamon bark, clove, fennel, and verbena. These oils should be used cautiously or avoided in cases of skin sensitivity.

* Sensitization: Skin sensitization means an allergic skin reaction; this usually manifests as a rash. There are relatively few oils used in a typical massage practice that will produce sensitization under normal applications in a carrier oil. However, there are a number of reports on Pubmed of allergic reactions to essential oils. These include contact dermatitis, eczema, asthma, and pruritic erythematous eruptions. These cases were predominantly among those who used essential oils professionally for long periods of time, such as massage therapists and estheticians. The cases frequently involved exposure to numerous essential oils, and the use of poor quality oils was also likely.

* Phototoxicity: Some essential oils can strongly increase sensitivity to sunlight when applied to the skin. This is especially dangerous in undiluted application to the skin, but even low concentrations in a carrier oil can cause problems if followed by exposure to the sun or tanning lamps.

Phototoxicity will be strongest directly after application of the oil, and will gradually decrease over an eight to twelve hour period; if higher than normal concentrations are used it can be longer. Most of the phototoxic oils are also photocarcinogenic. The most common oils which cause phototoxicity are the citruses; bergamot oil is the most reactive. Some citruses are phototoxic if expressed, but not if distilled, such as lemon oil and lime oil. Other oils include marigold oil (tagetes), verbena, and angelica oil.

The best practice is to use proper dilutions, avoid direct exposure to UV rays after application, and avoid the use of citrus oils if exposure will be occurring after treatment.

The best treatment for skin irritation from essential oils is to apply a fatty oil, such as coconut, which will dilute the impact of the essential oils. Avoid contact with eyes and mucous membranes. If an essential oil gets into the eye, do not rub it. Saturate a cotton ball with milk or vegetable oil and wipe over the area affected. In severe instances, flood the eye area with lukewarm water for 15 minutes.

## General Guidelines

Take special precautions with applications near delicate skin areas. Be sure to dilute essential oils and test them on the skin for reaction before applying to delicate skin or large portions of the body.

**Use only high quality essential oils from a trusted source.**

Use essential oils in well ventilated areas and avoid overexposure. Overexposure to essential oils, especially in confined areas, can cause dizziness, nausea, lightheadedness, headache, and irritability. When exposed to high levels of essential oils, keep the room well-ventilated and go outside for fresh air as needed.

# VII
# *Exploring essential oil products*

## Hydrosols

Hydrosols are the aromatic waters produced during the steam distillation process. These healing waters are gentle and safe for use directly on the skin, near the eyes, or taken internally. Hydrosols are a wonderful aromatic application for skin care as they are hydrating and nourishing. They are safe to use for children and anyone who is sensitive to essential oils.

Add hydrosols to baby's bath water. Spray on the skin after intense sun exposure or for a safe, natural toner. Spray eye masks with hydrosols before sleep or before a massage. Spray hydrosols on the skin to cool the body down on hot days. Spray rose or lavender hydrosol near tired eyes for refreshment. Spray hydrosols into your water glass for a delightful flavor to your water. Use hydrosols like rose and neroli where indicated in recipes.

As hydrosols are water-based, they must be kept refrigerated to extend their shelf life.

## Natural Perfumes

Humans have used perfume for thousands of years, attempting to capture the beautiful fragrances of nature, the warm and deep smell of woods, the delicate scent of flowers, and the fresh, crisp tang of citrus.

Perfumes are the messengers of attraction, sensual pleasure, erotic enticement, and passionate excitement. Just as flowers secrete their nectars to attract pollinators for the perpetuation of their species, so too do humans use perfumes to enhance their attractiveness and signal their interest in love and intimacy.

Botanical perfumes are food for your body at the molecular level. They go into your skin, are digested, and become part of your own body fragrance. In contrast, synthetic perfumes sit on the skin and cover, rather than enhance, one's own natural fragrance. You will find that Natural Perfumes smell different on everyone -- that is the unique reaction between the plant and the person. We are bombarded by chemical fragrances in personal care, cleaning products, foods, and elsewhere. Chemical sensitivities are on the rise. Whereas synthetic perfumes can be irritating and confusing to the senses, perfumes made with essential oils and pure absolutes have more to offer than just a lovely smell. They offer us the healing benefits of the plants from which they are created. Flowers offer feelings of well-being and uplift our spirits, citruses invigorate, and wood oils ground and center us.

Floracopeia offers a line of natural botanical fragrances, infused perfumes, and attars that are all excellent natural choices. These perfumes have the alluring aromas you desire without the noxious chemicals. The Floracopeia Natural Perfume line includes fragrances that appeal to men and women alike.

## Essential Oil Blends

Essential oils have a wide range of health-promoting benefits and aromatherapeutic applications. When combined, essential oils create a dynamic synergy which offers infinite fragrances and enhanced aromatherapeutic effects.

Floracopeia formulations are therapeutic quality essential oil blends compounded for specific purposes. Explore all of Floracopeia's Essential Oil Blends and their uses below.

### The Ayurvedic Essential Oil Blend Collection: **Vata, Pitta, Kapha**

**Vata Essential Oil Blend** is deeply soothing and earthy, with calming, grounding and restorative properties. It is the perfect oil to use any time you need to relax, go inward and center. This blend contains the pure essential oils of Palo Santo (Bursera graveolens), Jatamansi (Nardostachys jatamansi), Clary Sage (Salvia sclerea), and Ruh Khus (Vetiveria zizaniodes).

Pitta Essential Oil Blend is cooling, calming and purifying. It soothes hot emotions of anger and reduces harsh and judgmental thinking. Pitta Blend contains the pure essential oils of Lavender, Kashmir (Lavendula augustifolia), Rose-Geranium (Pelargonium graveolens), and Ruh Khus (Vetiveria zizaniodes).

Kapha Essential Oil Blend contains a blend of pure essential oils of Tulsi (Holy Basil, Ocimum sanctum), Cedar (Cedrus), Orange (Citrus sinensus), and Himalayan Cinnamon (Cinnamomum ceciododaphne). Kapha blend is energizing, warming, and clarifying, and its uplifting effects are immediately noticeable upon first inhalation.

Breathe Blend A unique and beautifully fragrant essential oil blend that can be used in a variety of ways for respiratory support. It is an excellent diffuser blend and is one of the best products to use for regular direct palm inhalation. Consistent use of the Breathe Blend will support respiratory strength and detoxification. It is a blend of Eucalyptus, Silver Fir and White Sage essential oils.

Centered Blend A powerful, versatile combination of Palo Santo and Lavender Kashmir, this blend provides grounding power to center your mind and focus your intentions. It is the ideal blend to keep in your pocket, purse, or desk to inhale throughout the day to bring the mind back to a calm and focused state. We designed this blend to be a powerful guide throughout the day, especially for use in those moments when your energy or thought patterns become dispersed and distracted.

Craving Control Blend Craving Control is a blend of essential oils that may help support overcoming nicotine craving. Using Craving Control can be considered an adjunct aromatherapy treatment to be used alongside diet and herbal support to help you overcome a smoking habit. This blend contains Bupleurum, Black Pepper and Eucalyptus Radiata. We were introduced to Bupleurum oil in Corsica, where it is the only distillation of its species. The Eucalyptus and Black Pepper oils are added to support clean and clear lungs. This blend will help to produce feelings of steadiness and calm.

Dream Blend Floracopeia's Dream Blend is designed for inhalation or anointing before sleep. This original essential oil blend contains Aged Patchouli, Mandarin, Jatamansi, Ylang Ylang and Night Blooming Jasmine. Let this blend inspire creativity and intuition to enhance your dreams.

Energize Blend An invigorating blend of refreshing essential oils designed for direct inhalation or diffusing. This original essential oil blend contains Bergamot, Laurel, Rosemary and Tulsi. Use this blend in your diffuser to freshen up your room, or inhale it directly from the bottle or your palms for an instant boost.

Eucalyptus Blend For the eucalyptus enthusiast, Floracopeia offers this multifaceted blend of five Eucalyptus oil species: globulus, radiata, smithii, dives, and citriodora. The unique sharp pungency of this blend, tempered by intricate notes of lemon and rose, hosts an unparalleled complement of aromatic and therapeutic qualities.

Female Balance Blend This blend's fragrance is luxuriously floral and its effects are subtle yet deep. The Female Balance Blend is specifically useful for supporting women during their monthly cycle and through transitions and changes in their cycle. It is also helpful for those who are interested in optimizing their feminine health for long-lasting vitality and radiance. It is a blend of Lavender, Clary Sage, Jamrosa, and Jasmine.

Focus Blend Floracopeia's Focus Blend is designed to diffuse while studying in order to enhance focus. This original blend contains Lavender Kashmir, Spanish Rosemary, Peppermint, Tulsi, and Melissa. Let this blend fill the air and inspire creativity and mental clarity. Keep a bottle by your diffuser and try it after lunch or during the late afternoon when mental focus tends to diminish. The ingredients in this blend have also been used for centuries to boost winter wellness.

Forest Blend Filled with the fresh coniferous notes of Silver Fir, Pine, Pinon Pine, Juniper, and Spruce, with a hint of earthy spice from Angelica Root. As the trees purify the air we breathe, removing pollutants and exhaling fresh air, they do the same for your living space. By diffusing Forest Blend you will find yourself surrounded by stimulating freshness, enlivening your home, body and mind. This diffuser blend can be used effectively for atmospheric purification; try diffusing during the challenging winter months.

Helichrysum Blend This is a combination of four Helichrysum oils (H. gymnocephalum, splendidum, bractiferum, odoratissimum) that are distilled in South Africa for Floracopeia. These Helichrysum species are used in traditional ethnobotanical medicines of the region, and have similar therapeutic functions to the more commonly known Helichrysum italicum from eastern Europe. Helichrysum is the essential oil that receives the most positive testimonials from our customers by far!

Legends Blend Legends is a historically accurate version of a brew known as "Thieves' Vinegar," used as protection from epidemics in the Middle Ages. Legends is a signature, proprietary Floracopeia blend created from herb and spice oils including Clove, Rosemary, Lavender, Thyme, Basil, White Sage, and Mint. Our recipe is based upon historic aromatic vinegar brews, used throughout the ages, known as Thieves' Vinegar or Marseilles Vinegar. Legends belongs next to your diffuser at the office, home, school, or daycare throughout the winter months. It is an efficacious blend that you will reach for again and again to create community winter wellness.

Little Angels Blend Tranquility is something that we all crave. Many of us with young children are searching for a safe, gentle way to bring peace to our little angels. This blend was designed to do just that! Little Angels Blend can be diffused or mixed with water in a fine mist spray bottle to create a relaxing, soothing atmosphere. This original Floracopeia essential oil blend contains Lavender Kashmir, Cedar, Cape Chamomile, and Vetiver.

Mother Blend During and after pregnancy there are few natural products that a mother can trust to be beneficial both to her needs and the needs of the sensitive new baby. Mother Blend was designed specifically for this purpose. A few drops oin your favorite massage carrier oil is a wonderful way to nurture the mother's changing body and all of the pleasures and challenges that

come with it. Mother's Blend is a blend of Neroli-Petitgrain and Geranium sur fleur Rose.

Muscles Blend Muscles Blend is a combination of Helichrysum and Wintergreen, designed to support the active and hard-working body throughout the day. Dilute into a high-quality carrier oil and rub into the skin over muscles, joints and other areas to promote comfort and relaxation, and to bring ease to an overworked, overstimulated mind and body. This blend is a must-have for athletes, yoga practitioners, or those who do heavy physical labor. Keep a small bottle premixed with your favorite carrier oil with your yoga mat or gym bag, and use before or after engaging in strenuous activity.

Relax Blend A staple addition to your essential oil collection with benefits for the entire family. Relax Blend assists in instantly creating a peaceful, serene environment. Surround yourself with a wonderfully sweet, floral fragrance of fruitiness and spice that captures the aroma of the Himalayan mountainside. Relax is a blend of Lavender and Rhododendron essential oils.

Spirit Blend The perfect fusion of essential oils to aid your meditation or yoga practice, for use in ritual, for emotional support, and to stimulate spiritual moods. One of our top-selling blends, Spirit Blend's healing benefits are numerous: mood enhancing, worry reducing, euphoria inducing, and cleansing to the mind. A blend of Palo Santo, Frankincense, and Sandalwood, it has a sweet, woody, and slightly pungent fragrance with subtle citrus notes.

# VIII
# *Some important aromatic plants and their oils*

## Lavender

Lavender is one of the world's most well-known, versatile, and extensively used essential oils. When we use this essential oil we receive the blessings of the feminine, because lavender can be described as an angel of healing from the floral realm, and an expression of the earth's compassion.

Lavender has a long history of use. Originally, it was an herb used primarily in European herbology, but it has now spread worldwide. When one thinks of lavender cultivation, images of Provence in the south of France may come to mind, where it has been grown for centuries. But lavender has migrated

across the globe, and is now at home in places as diverse as northern California, New Zealand, Kashmir, and the Himalayan states of India. Because of high demand for high-quality organic oil, lavender is an ecological crop that provides income for many people. Lavender cultivation is also a source of ecotourism, as people are naturally drawn to the beauty and peaceful atmosphere where it is grown.

What is the fragrance of lavender? One who is unfamiliar with the aromatic world might assume that all lavender oils are the same, but there are hundreds of species and varieties that create oils with different perfume notes, as well as differences produced by the soil, water, and climate. In general, lavender has a soft, sweet, and floral aroma. However, depending on the quality and place of origin, it can reveal a wide range of other scents, including hints of spiciness, fruity undertones, and green and herbaceous notes. When one smells lavenders from different places, it is easy to imagine the different elements that influence the plant: the hot Mediterranean summer days, the icy mountain winters, the spring rains.

Therapeutically, lavender is one of the safest and most versatile of all essential oils. Its wide spectrum of benefits can be summed up as calmative and relaxing, cooling and calming to the physical body, purifying and immune enhancing, and balancing to the male/female systems. Lavender enhances the body's healing powers; it is effective during times of being unwell, and used specifically for burns. It has pain-reducing properties, which, because of its feminine nature, are more pronounced in women than men. Lavender's pleasing fragrance and skin-regenerating benefits make it one of the most commonly used oils in cosmetic and body products.

Lavender is safe and effective for children, who are more sensitive than adults, and therefore more susceptible to its soothing influence. Used in diffusers in the home, it creates a background scent that calms hyperactivity, excitability, and irritability — in both parents and children.

In Ayurvedic terms, the effect of lavender oil could be described as pacifying to the vata (calms, relaxes, and restores the nervous system) and cooling to the pitta (reduces redness and heat). It is a highly sattvic oil, meaning that it purifies aggravated emotional states and helps bring mental peace.

Use a few drops in a diffuser at the end of asana practice to assist the transition into a calm state of rest. A few drops in a bath afterwards will refresh the mind and support the purifying effects of the asanas. If you are sitting down to meditate after a busy day, sprinkle a few drops of oil on your palms and inhale the fragrance. This will help the transition from an active state of outwardly-focused sensory stimulation to an inward state of absorption and mental serenity.

Sprinkle a few drops on the pillow and sheets before starting yoga nidra,

yogic sleep. The fragrance of lavender will make it easy to imagine beautiful scenery and peaceful visions before drifting into sleep. The combination of this fragrance with meditative sleep will give deep rest to those suffering from insomnia, and will assist in waking up refreshed and renewed.

## Rose

Roses have a long history of use in perfumery, cosmetics, and medicine. They are one of the most important commodities of the floral industry. Of all the flowers, rose is probably the most universal botanical symbol of spirituality in religious culture.

There are over 5,000 varieties of roses, yet only a few give the fragrance sought by perfumeries. The most popular is the pink to light red Damascus rose (Rosa damascena forma triginipetala). This variety, along with the white rose, (Rosa damascena var. alba), are the two crops grown in the Valley of Roses in Bulgaria, one of the world's oldest and most famous rose producing areas. The Rosa damascena, Rosa centifolia and Rosa bourbonia are older varieties of roses that play an important role in India's rose industry.

Roses are an example of how organic farming sustains and protects ecosystems and provides local plant-based economies. Sustainable rose cultivation methods have been practiced in some places for hundreds of years; the Damascus rose was brought to the Valley of the Roses from Tunisia in 1420. Roses had been well established throughout this area of the Turkish Empire for several centuries before that time. The production of high quality rose oil is labor intensive. Unlike plants which produce high concentrations of essential oils, such as lavender or rosemary, rose petals secrete only minute amounts. It takes 3,500 kilos of flowers to produce one kilo of oil; this is 1,400,000 hand-picked blossoms to produce thirty-five ounces of oil, 40,000 blossoms for one ounce of oil, and sixty-seven blossoms to make one drop of oil. The petals must be harvested in the early morning hours, before the heat of the sun evaporates the oil.

Roses play an important economic role in the regions where they are cultivated. In parts of India, Bulgaria, Turkey, Morocco, and other places, they are a major item of commerce, providing perfume oil, fresh flowers for garlands and the flower industry, medicine, food flavoring, and other items.

The fragrance of rose oil produces a gentle but potent mood elevating effect. It brings joy to the heart, promotes feelings of love, reduces fear, drives away melancholy, and helps recovery from sadness and grief. Rose oil relaxes the mind and nerves, restores energy balance, and helps to balance the female moon cycle. As a perfume, rose fragrance represents the essence of purity and innocence, yet is also a sensuality-enhancing aphrodisiac.

Ayurvedic and Chinese medicine value the rose petal as a sweet, cooling, and astringent redness/heat reducer. Gulkand, an Ayurvedic jam made primarily of rose petals and rejuvenating herbs, is used as a cooling tonic to combat fatigue and heat-related conditions; it is also naturally antioxidant and rich in calcium. Rose petals are used as an adjunct in digestive formulas, and as an infusion for internal excessive heat. Rosewater is a good compress for eye and skin issues as well as excessive body temperatures.

In cosmetics, rose is unsurpassed as a beauty oil. It benefits every skin type, especially irritated, dry, and sensitive skin. Rose water is an excellent skin toner and can be used in massage oils.

## Tulsi (Holy Basil)

Tulsi is an aromatic herb with powerful healing properties that is used extensively in Ayurvedic clinical and folk medicine. It also plays a central role in religious devotion.

Recognizing that plants have special powers, traditional cultures incorporated them into their mythologies and religious practices. By doing so, the plants became part of society, and were protected and cared for. If humanity can acknowledgw the sacred life-giving and health-promoting aspects of medicinal plants and re-introduce them into culture, we will move back into a harmonious relationship with the natural world.

Holy Basil has been revered in India for thousands of years. It is regarded as the incarnation of Vishnu, and a favorite plant of Krishna and Lakshmi, the goddess of prosperity. It has a special place in the courtyard of Hindu homes, and the daily religious rituals of many families are centered around the worship of this plant. It fills the surrounding atmosphere with a high quality medicinal aroma which repels mosquitoes and purifies the air.

Tulsi devotional rituals are based on classical Tantric ceremony. The plant is placed in a special altar, invoked and adored as the embodiment of Vishnu or the Divine Mother, given ritual watering, and presented with offerings of incense and food. The worshipper prostrates to the invoked deity, dresses the tulsi in silk scarves, and decorates it with flowers. At the end of the ceremony, the leaves are taken as a sacrament.

Tulsi has a wide range of applications for curing common illnesses and preventing diseases, both in whole plant form and as an essential oil. Ayurveda considers tulsi a purifier of the mind, body and spirit. Heating in nature, it benefits cold, phlegmatic conditions. It is used primarily as a diaphoretic expectorant and aromatic digestive stimulant, and is a powerful mosquito repellant.

Holy Basil is easily cultivated in a wide range of climates. Two major varieties of tulsi are in cultivation: the green variety, which is the most common, and the purple.

## Frankincense

Frankincense is an aromatic resin with a long history of use. It is a powerful medicine, a universally known incense, and a source of livelihood for nomadic tribes. Frankincense is synonymous with spirituality; like myrrh, it was a prized possession in the ancient world, equal in value to many precious gems and metals. The resin has been a major item of commerce for at least 3,000 years.

Frankincense is harvested by making small incisions in the bark of the aromatic tree, producing a milky white resin that hardens as it dries. The collected resin is separated into grades, and stored in dry caves to cure before being sold.

Caretaking frankincense trees and harvesting their resin has been an important tradition for nomadic desert tribes of North Africa for millennia. The trees are owned by families living in the area where they grow; ancient rituals surround the harvesting of the resin and guardianship of the trees are passed on from generation to generation. Sadly, the traditions, customs, and ceremonies surrounding frankincense are being lost. As people embrace modern lifestyles, the old ways of caring for the plants vanish, and the plant's numerous benefits

are forgotten. Frankincense was once a source of many items of commerce, including medicines, dyes, and cosmetics.

Botanically, frankincense trees are an excellent example of the natural diversity that can occur in different species of the same genus, and different varieties of the same species. Proper identification of the various types of frankincense has led to much confusion due to differences in species (approximately 25), varieties of individual species, quality of resin, micro-climates, and time of harvesting.

Wild frankincense trees have a wide range of characteristics even within the same basic climatic zone. The essential oil of frankincense contains more than 200 individual natural chemicals, giving the fragrance a very complex bouquet. There is considerable variation in the proportion of these components de-

pending on the micro-climate where the trees grow, the season during which the resin is harvested, and a number of other factors.

Frankincense has astringent, purifying and anti-heat/redness properties. It is most beneficial to the respiratory system and the skin. It enhances immunity, calms the nerves, and promotes a relaxed state of mind. Traditional uses have included chewing the gum for strengthening the teeth and gums and stimulating digestion, inserting the resin into painful teeth, applying to inflammations, inhaling the vapor for headaches, in eye washes to treat soreness and infection, and dissolved in milk for cough.

Frankincense is used in Chinese and Ayurvedic medicine as an ingredient in blood vitalizing compounds, and externally for poultices.

## Sandalwood

Sandalwood is an aromatic tree with an important role in medicine, perfumery, spiritual culture, and religious ceremony. Sandalwood is an excellent example of the challenges facing many medicinal and aromatic species: demand is high, wild sources are depleted, and the trees mature slowly.

Sandalwood is one of the oldest incense materials, in use for at least 4,000 years. Greek texts from the 1st century A.D. mention sandalwood as being imported from India. The steam-distilled oil is used as the base in making attars, the traditional perfumes of India. The oil is used in international fragrance industry as an important fixative for perfumes.

Sandalwood is a small to medium-sized evergreen tree; it is semi-parasitic, and requires complex symbiotic ecological relationships to thrive. Sandalwood trees reach full maturity in 60 to 80 years, when the heartwood and roots have achieved their highest oil content. Harvesting sandalwood is destructive, because the trees must be uprooted.

Sandalwood trees face numerous ecological, political, and economic challenges. They are one of the most lucrative forest products in the world, and under threat from the high demand for wood and oil. Continuous harvesting combined with little regeneration because of fires, farming, cattle grazing, and disease has led to a serious decline in wild populations. Although sandalwood as a species in not imminently endangered, the old growth trees which produce the highest quality oil are under extreme pressure; some authorities believe that the last of the old trees will be gone within twenty years.

The bulk of what leaves India for the commercial market is exported illegally. Enforcement of existing regulations is ineffective because of political corruption, a large black market, and lack of resources. Large programs of sandal-

wood reforestation are underway in Indonesia. Vietnam and New Caledonia have well-controlled plantations of genuine sandalwood; however, the cultivation of sandalwood in India has had limited success. Sandalwood as a short or medium-term source of income is unattractive because the oil is only obtained from the heartwood of slow-growing mature trees.

The quality of Indian sandalwood oil is generally poor, due to widespread adulteration and distillation of oil from immature trees. Adulteration is no longer detectable by standard tests. According to experts, over 85 percent of Indian sandalwood oil is adulterated or from immature trees. A true sandalwood oil must be legally procured from mature trees.

Sandalwood has been used extensively in traditional Asian medicine. The wood is used in decoctions, powders, pills, and ointments as a cooling astringent with anti-redness/heat properties. In massage and aromatherapy, the oil is used primarily as a calming and relaxing fragrance for enhancing mental and emotional peace.

## Agarwood

Agarwood is an endangered tree that has tremendous potential to create economically sustainable tropical agro-forests. It produces one of the world's most valuable aromatic resins, which is highly in demand as an incense and medicine.

Agarwood trees grow in the foothills of Assam, Burma, Vietnam, and Papua New Guinea.

The fragrant resin is secreted within the heartwood as an immunological response to a fungal disease which attacks the trees. 80 year old trees have the richest agar content, but trees of 50 years or older yield commercial quantities.

Agarwood is highly endangered. For centuries, its resin has been prized for perfumes and incense, but the tree has nearly vanished due to reckless harvesting. At $1,000 per ounce, pure wild harvested agarwood oil is one of the most expensive oils in the world; because of its rarity and cost, it is also frequently adulterated.

A number of successful projects are underway to develop sustainable agarwood cultivation and increased resin production. In order to have success growing a long-term tree crop, projects require coalitions of scientists, foresters, farmers, distillers, and industry officials. These projects have found that agarwood plantations can be successfully developed as an agro-forestry enterprise, and that agar trees can be induced to produce resin nearly ten

times faster than in nature. Development of agarwood plantations is an ideal way of generating income and employment for low-income families living in and around project areas, as there is a long-term market for a wide range of agarwood products with rising demand and a rapidly diminishing supply.

The oil of agarwood is deeply hypnotic, calming, and meditative. The wood is used in both Chinese and Ayurvedic medicine as a pungent, bitter, and warming stimulant. It is a strong analgesic, anti-emetic, and benefits certain kinds of asthma.

## Jatamansi (Himalayan spikenard)

Jatamansi represents an example of the complex factors which cause medicinal plants to become endangered: high demand, overharvesting of wild populations, loss of habitat, slow growth of the plant, and destruction of its life-supporting parts. It is also an excellent example of a plant that could lift communities out of poverty if brought into sustainable cultivation.

Jatamansi has been used as medicine and perfume since antiquity. It was mentioned by the Ayurvedic physician Susruta (500 BCE) in a prescription for epilepsy. It has been used throughout ancient Persia, Turkey, and Egypt; its use as an anointing oil and aromatic treasure is mentioned in the Bible.

There is a great demand for the root and oil as medicine, which is increasing as Ayurveda becomes known throughout the world. Traditionally, Ayurvedic prescribe Jatamansi for a wide range of health problems, but primarily as a nervine tonic with sedative attributes. It is a member of the Valerianaceae family, and functionally similar to Valerian root. Jatamansi oil is used in perfumery and incense; it is also used in hair oils, and is reported to promote growth of hair and impart blackness.

Jatamansi grows in steep alpine areas of the Himalayas. It prefers open, stony and grassy slopes, the turf of glacial flats, and is also found growing in forests of silver birch. The plant grows slowly in the alpine environment, and the plant is destroyed by harvesting because the rhizome is used. Jatamansi, and the biodiversity of Valerianaceae family in general, is under threat in India and Nepal. Most plant material used in medicine and for oil is collected from the wild, but some cultivation projects are now underway in Nepal.

Jatamansi is a plant that could lift many Himalayan regional communities out of poverty. High quality roots are in limited supply, and there is a growing demand. Because the oil is scarce, adulteration occurs frequently. It is possible that with more support from local governments and Ayurvedic herb companies, sustainable Jatamansi cultivation could become a significant source of income for the villagers of remote Himalayan regions.

## Vetiver

Vetiver is an aromatic plant with important ecological uses. It is valuable in protecting and conserving the soil, recharging groundwater, and detoxifying agricultural poisons. It also provides a number of important items to households and farms, such as fragrant sleeping mats, thatching for roofs, mulch, and animal feed.

Vetiver is a grass which grows up to six feet tall; its complex root system can be fifteen feet long. Vetiver grows in dense clumps which act as a highly efficient filtering system that slows down rainfall runoff. The grass is an effective form of ecological flood control, reducing the loss of soil and soil nutrients. Of all the grasses, vetiver is the most effective for reducing soil erosion.

Groundwater resources throughout the world are being rapidly depleted. Groundwater not only supplies wells and springs, but also enhances the dry season flow of major river systems. Recharge of groundwater improves when rainfall runoff is reduced. Vetiver's roots are extremely strong and can penetrate hard soils that other plants cannot, thereby opening the soil to improved absorption and filtration of rainwater. In places where vetiver is planted, the soil moisture and groundwater improve significantly; water levels in wells are higher, springs do not dry up, and small streams run longer into the dry season.

Vetiver has a dual function of both increasing groundwater levels and improving its quality. It thrives in polluted water, is effective in removing excess phosphates, and it mitigates environmental problems resulting from toxic minerals. There is evidence that vetiver can remove pesticides as well. Vetiver is easy to establish, inexpensive, and needs minimum maintenance. It thrives in a wide range of ecosystems and different soil types, can withstand serious drought

and long term waterlogging, is more tolerant to hot and cold than the other grasses, and is not seriously affected by pests or diseases. It promotes other plants' growth and helps restore vegetation. Vetiver is now being grown for environmental purposes in over 100 countries.

Vetiver roots are the source of an exquisite oil that has been used for centuries in medicine and perfumery. This oil is one of the most biochemically complex of the known aromatic oils due to the roots' absorption of soil molecules. The oil vetiver produces in one soil type can be dramatically different than the oil produced in another.

According to Ayurveda, vetiver oil pacifies vata (calms the nervous system) and decreases pitta (anti-inflammatory).

## Ylang Ylang

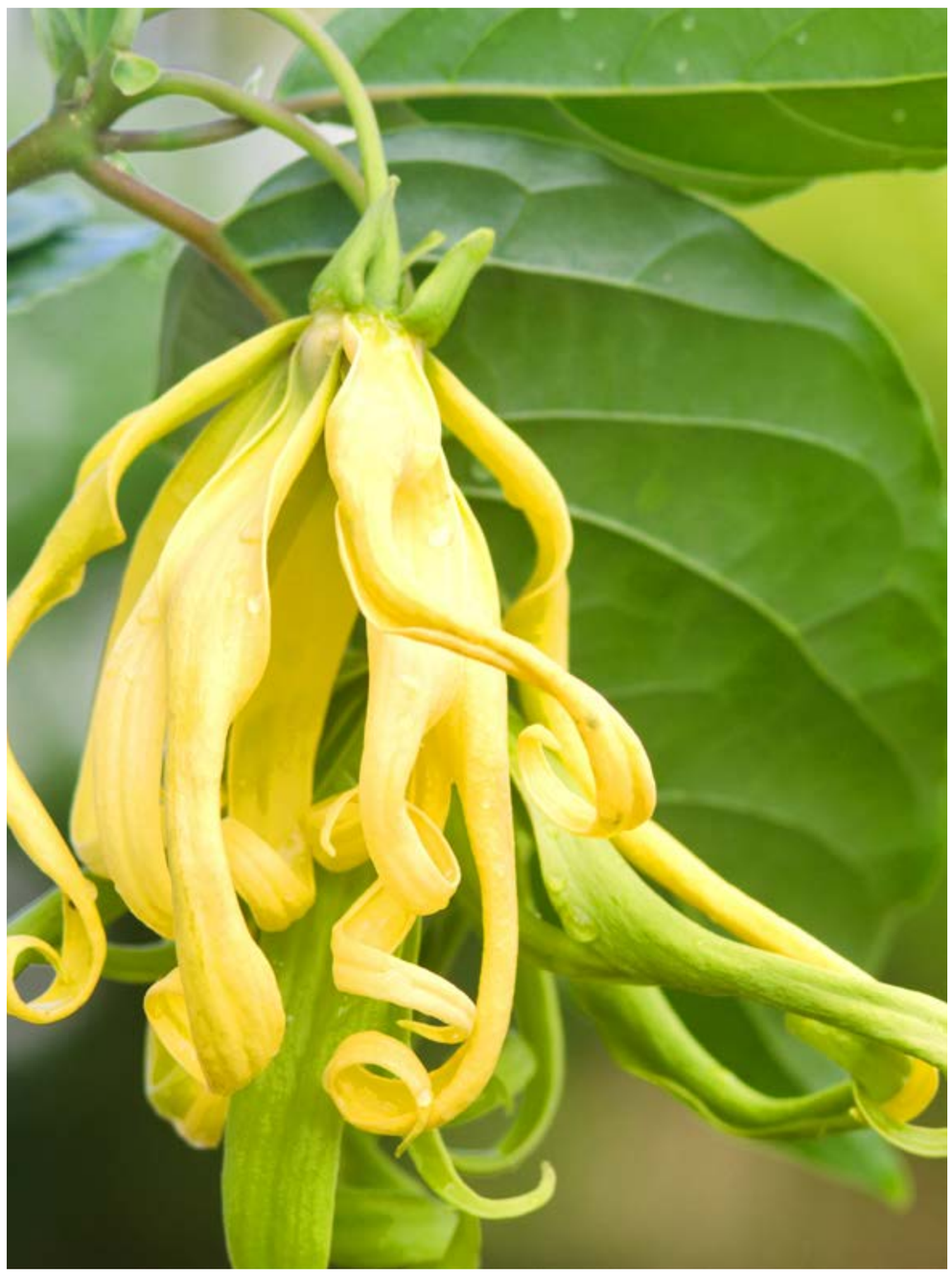
Ylang ylang, the “flower of flowers,” or the “queen of flowers,” is a tall tropical tree with large pink, mauve, or yellow flowers. It grows in the Philippines, Reunion and Comoros Islands (the “islands of perfume”), Madagascar, Indonesia, Java, and Sumatra.

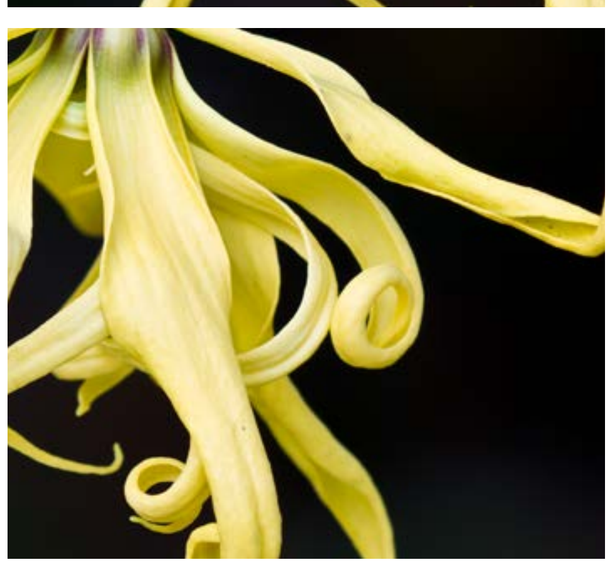
Ylang ylang is an agro-forest product that helps protect rainforests from commercial destruction. In the Comoros Islands, the world’s major producer, 60 tons of oil are distilled annually in 400 traditional family- and community-owned copper stills. By providing a sustainable forest crop, ylang ylang trees are an economically viable alternative to destructive logging and ranching practices.

The climate and soil of the region where it is grown strongly affect the quality of Ylang ylang. The Superior Extra Grade comes from places with a superior climate for the tree; one of the best is the island of Mayotte, off the coast of Madagascar.

The fragrance of Ylang ylang oil is floral and sweet. It is an important ingredient in perfumes and cosmetics, giving blends a voluptuous, narcotic, sensual, and exotic note.

In modern aromatherapy it is regarded an oil which stabilizes emotions, and is especially helpful for nervousness, sadness and grief, and tension.





IX

# *The mediterranean aromatic journey: lavender fields*

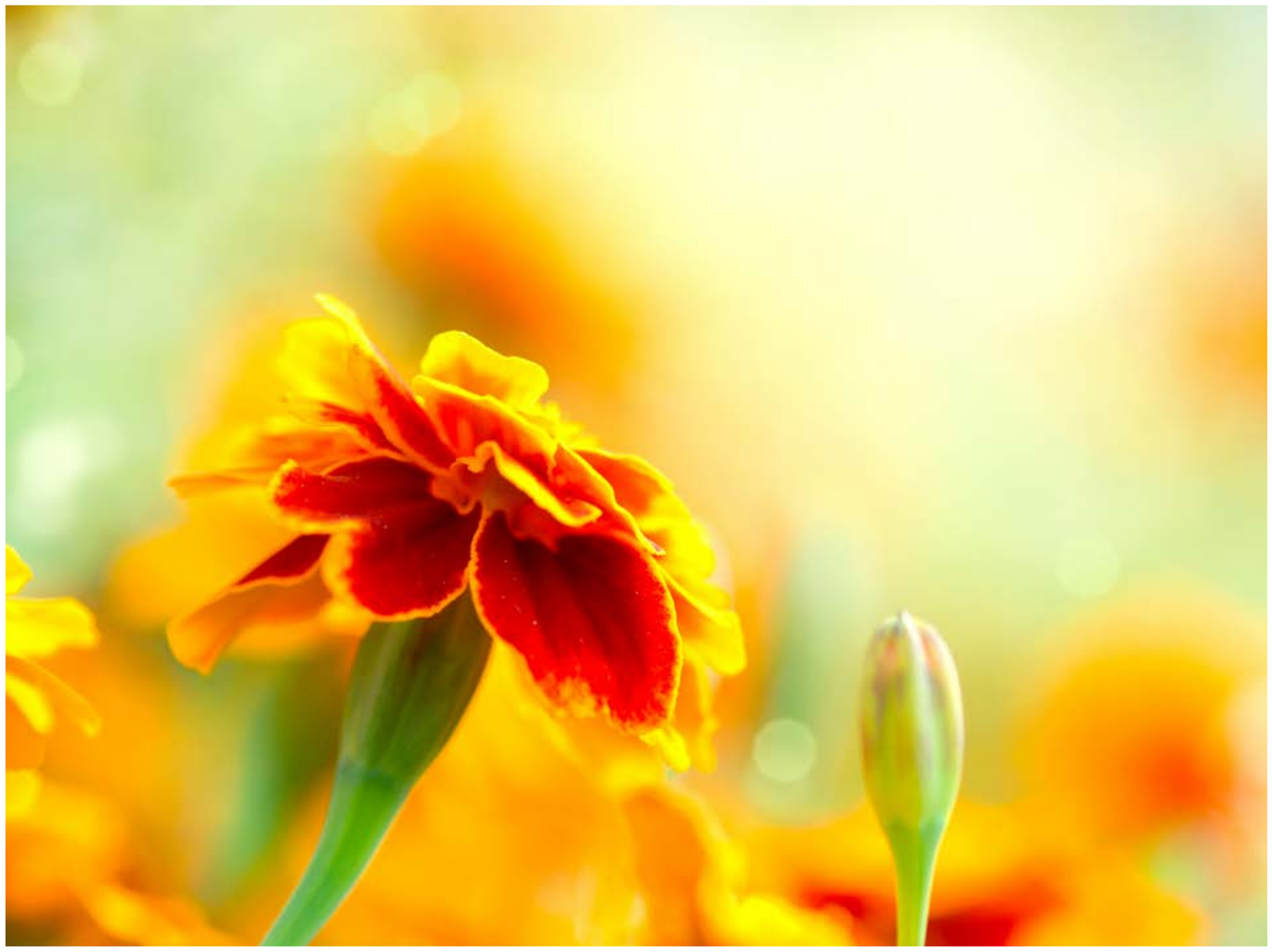
**A story by David Crow, L.Ac.**

I woke in a cloud of lavender fragrance. The birds of Aurel, unlike the nocturnal festival-goers of Lyon, had been up since the first light in the sky, leaving their homes in the tiled roofs of ancient stone houses to soar on the winds streaming up the valley and play in the huge trees. They were more or less the owners of this tiny village, with its mere thirty inhabitants and handful of seasonal visitors.

The aroma of lavender that greeted my emergence from euphoric sleep was not from the fields below, as it was still too early in the season for flowers; it was instead what remained of an essential oil that I had put on our pillows the night before. This oil had been distilled on a farm a few kilometers down the road, from organically grown plants of the variety known as “fine” or “fine population.” We had purchased this oil, along with several other species, from a gentleman by the name of Guillaume, the owner of the farm and distillery.

Following the GPS coordinates he had sent us, we travelled several hours from Lyon, winding our way into increasingly beautiful, rural and mountainous countryside. As the elevation increased and the soil became rockier, lavender farms began appearing, fields planted with rows of low lying shrubs that would soon be adorned with lilac hues. As afternoon approached we turned at the entrance of the farm and followed a dirt lane leading up a gentle hillside.

No one was around when we arrived, but it was obvious where to look. Guillaume’s house was typical medieval architecture, built of weathered yellow stone that looked like it had been standing since the 1500’s. The entrance to the living quarters stood at the top of a curved stairway in a tower on one side, while the ground floor entrance led to a small boutique. We entered the store and were immediately enveloped in exquisite aromas emanating from the large inventory of essential oils, hydrosols, soaps, incenses, dried herbs, and honeys.



Guillaume appeared a few minutes later. Friendly, welcoming and relaxed, he greeted us warmly; it took less than a minute to learn that his English was only slightly better than my French, meaning we would be communicating mostly in sign language. Somehow, I managed to convey that we were there to see his distillery, and that we were specifically interested in finding new sources of high quality oils. He graciously and patiently struggled with his limited vocabulary to explain that he had no lavender oil at present, that he would be distilling more in the summer, but had no idea how much he would get and if it would be enough for his existing customers or not.

Although it seemed that we would not succeed yet in one of the important goals of our journey, Guillaume was happy to show us around.

We found his distillery outside the back of his store. It was an impressive structure over two stories high, inside a gigantic barn at least as old as the house; Guillaume told us that the farm had been in the family for many generations, with the cultivation and distillation of aromatic plants going back at least as far as his grandfather. Climbing the stairs to the top floor, he introduced us to the upper level of the distillation equipment, where plant material by the ton was hoisted into large open vats using lifts. On the ground floor we found the separator units, where condensed steam from above was fed into the collecting vessels through huge pipes.

Opening the lid of one of the separators, he pointed inside to a recently distilled batch of oil and explained that it was Pinus sylvestris; we were amused to discover that the language we had in common was Latin. With this shared vocabulary, Guillaume proceeded to tell me all the major species of aromatic plants he grew on the farm, which came to around forty-five, including five species of trees. Everything was cultivated organically, or “biologique.”

Back in his store, we began sampling the varieties of oils that Guillaume produced, samples that remained from the previous year. There were two types of Lavendula angustifolia, the “fine” variety and the “Maillete” variety; I was familiar with both of these, but was impressed with their rich, smooth sweetness. Additionally, he had several varieties of lavandin, Lavendula grosso, which had less appeal to me personally, but many other intriguing species including absinthe (Artemisia absinthium), wood and branches of cedar and cypress, hyssop, marjoram, oregano, several species of pines, rosemary, savory, several sages, and thymes.

Perhaps it was the effect of smelling the oils, or maybe Guillaume just needed some time to remember his English, but it seemed that our ability to communicate had increased, so I took the opportunity to ask a few questions.

The region of Vaucluse, where we were, is considered the center of lavender

production, he explained. His farm was eighty hectares, about one hundred ninety eight acres. There are about three hundred lavender farms in the vicinity, ranging in size from a few hectares to twice the size of his farm. There are about one hundred distillers in the area, about twenty of them exclusively organic. He was interested in doing business with us, and could probably supply us with some oils in some quantities in the future, depending on the season's production of each species.

We exchanged contacts, wandered around the store while Guillaume talked with more arriving guests, and eventually said au revoir. Outside, the afternoon sun was reflecting on the distant town of Sault, looking as if it were straight from a painting of the Old Masters or an alchemical manuscript. I noticed, as I would each day onward, the abundance of songbirds that graced the landscape, and the simple joy their presence gives the heart.

The swallows were starting their evening flights as we arrived in Aurel; the village of a few dozen ancient homes was otherwise virtually abandoned except for the innkeepers expecting us for dinner. Night came, cold and clear and windy under a canopy of stars, and then lavender-scented dreams.

X

# *The aromatic journey of Prana*

Traditional medical systems such as Ayurveda and Chinese medicine (TCM) are fundamentally systems of "eco-physiology," which describe the functioning of the human body using terms and concepts derived from observing the elements and energetic patterns of planetary biospheric physiology. If students contemplate these principles deeply, they begin to develop a kind of "macro-thinking" that reveals not just the basic elemental correspondences taught in Ayurvedic and TCM colleges, but vast patterns of interrelationships between living beings and the underlying commonalities of biological functions. When this type of synthetic and integrative thinking is combined with an understanding, even rudimentary, of botany, physiology, and chemistry, a truly holistic vision of life emerges. A holistic vision of life awakens a sense of reverence for the intelligence operating within every aspect of nature, and this awakening in turn is the foundation of spiritual wisdom.

Prana is an excellent subject of contemplation for developing the type of macro-thinking that forms the basis of Ayurvedic philosophy. Functioning both at the universal and at the microscopic level, prana unites all life into a unified field yet functions in specific ways within the anatomy, physiology and consciousness of living beings. Any aspect of life could be the entry point for this contemplation, as we could examine the nature of prana in any field of science or in any path of spiritual study and practice.

For the purpose of this article we will follow the journey of essential oils used in aromatherapy from their origin within aromatic plants through their absorption into the human brain's limbic system, and their subsequent impact on physiological functions and ultimate metabolism into consciousness. The subject of aromatherapy is especially relevant for this contemplation on the nature of prana, as volatile aromatic molecules, distillation, respiration, olfaction, and the effects of fragrance on the central nervous system all share prana as their primary elemental medium.

The journey of prana as an essential oil from aromatic plants into the recesses of our limbic systems and inward to states of consciousness must begin ultimately at the source of the elements that nurture the plants.

"All that exists in the three heavens rests in the control of prana," states the Prashna Upanishad. According to this all-encompassing description, prana is the original creative power of the universe, inherent within both Purusha and Prakruti before its projection and manifestation into all levels and forms of Creation. It is therefore found in the fertility of the soil, in the nourishment of the waters, in the luminosity of fire, in the life-sustaining power of air and breath and diffused throughout all space. This is the deepest origin of all the healing powers inherent within medicinal plants: the pancha mahabhutas as the expression of Prakruti's prana, made available to nourish, strengthen, and cure all beings.

The biological process of creating essential oils begins with the assimilation of the environmental pancha mahabhutas into the bodies of plants. Being the original inhabitants of the earth, plants have the capacity to live by directly consuming the elements of the biosphere, while humans, who appeared relatively recently in planetary history, are completely dependent on plants for both the food chain and the atmosphere. In this way, plants might be described as "higher" beings living in a "lower" realm of biological evolution.

Using the example of a sandalwood tree growing in the forest of Tamil Nadu, we can observe how the external elements of the surrounding forest are assimilated by the tree: the tree's roots absord the earth and water elements in the form of nutrients and liquids in the soil; the process of photosynthesis captures the radiant energy of the sun and transforms it into carbohydrates; the leaves inhale and exhale the air element; these four elements circulate through the channels of space within the tree. Over time these elements undergo metabolic alchemy within the heartwood and roots, resulting in a clear, slightly viscous liquid with a golden-yellow hue that has a rich and subtle bouquet of soft, sweet and woody aromatic notes.

This process is not unlike the creation of ojas within the human body, wherein nutrients of food undergo transformation resulting ultimately in a substance that Ayurveda describes as the distilled essence of the solar and lunar influences metabolized by the plants we have consumed, a nectar gathered from the flowers of the dhatu agnis.

What is it that guides this assimilation of the pancha mahabhutas and their metabolism within the tree, and leads to the final alchemical result of sandalwood oil?

The Kaushitaki Upanishad says: “From prana indeed all living forms are born and having been born, they remain alive by prana. At the end they merge into prana once more. “ It is, therefore, the presence of prana that distinguishes a living body from a dead one, whether it is human, animal, or plant. We can infer from this quote that prana is present within the seed, that it is part of the power of germination, that it supports the development and birth of every organism and that it is the sustaining power that supports the survival of every being. We can also infer that it is the force energizing the metabolic transformations taking place inside our sandalwood tree and therefore an inherent ingredient of the oil that gradually appears in its heartwood.

However, prana is not only energy, but also intelligence. How many trillions of events are taking place this moment within the sandalwood tree as it metabolizes the elements of the forest environment into oil? What controls the myriad physiological events that occur every instant in our own bodies? What force pumps the heart, breathes the air, digests the food, regulates the hormones, excretes the wastes, fires the nerves, balances the liver enzymes, gives power to immunity? Furthermore, what control do we actually have over these events? The human body and all living things possess an innate and profound intelligence that knows how to grow, evolve, sustain and

multiply itself, in spite of interference from the negative habits of individual consciousness. Remembrance of our utter dependency on this intelligence, present within us from the moment of conception until the last exhalation, is a profound spiritual practice, another of Ayurveda's gifts to the world.

As in humans, metabolism in botanical species can be understood in terms of prana. The subdoshas of vata, also referred to as the "five pranas," are regarded as the outer manifestations of prana, or "lower" forms of prana that are directly connected to the gross physiological elements of the body as compared to the more refined levels of prana residing within consciousness. These pranas function within the bodies of plants in ways that parallel their functions in the human body. Prana vata could be described as the plant's metabolic intelligence that governs its respiration, intake of nutrition, and immunological power; udana vata is the plant's exhalation cycle; samana vata is the assimilation of nutrients within the plant's tissues and cells; vyana vata is the plant's circulatory power; and apana vata is the plant's excretory system. While sharing these similarities of pranic functions with humans, plants have

one fundamental difference: they do not have nervous systems as the primary conduit for prana. Here we might postulate that plants do not have sthula prana, the prana connected to a physical nervous system, but that they have sukshma prana, the prana that flows through a subtle nervous system, or at least some form of nadis. This hypothesis is plausible if we consider that there are many documented experiments proving that plants have sentient awareness despite lacking a physical nervous system, expressed by liking and disliking of different kinds of music, responsiveness to individuals, and so on.

Approximately ten percent of plants produce essential oils. The biological process of creating essential oil molecules within a plant is referred to as a "secondary metabolic pathway," meaning that it occurs subsequent to more fundamental physiological processes.

It is interesting to note that most aromatic plants are not vulnerable to common pathogens and pests that affect non-aromatic plants; it is therefore likely that the appearance of these secondary metabolic pathways represent botanical immunological evolution. What is even more intriguing is the historical evidence that those who have worked with essential oils during times of epidemics, such as distillers, perfumers, and physicians specializing in the use of aromatic medicines, were less vulnerable to contagious illnesses than the general population. This empirical observation points to the possibility that chronic exposure to the aromatic molecules produced by enhanced botanical immunity has the potential to stimulate, enhance, or somehow educate human immunological responses, a possibility that is now receiving increased research attention.

It is also fascinating to discover that after millions of years of gradual evolution during the early formative stages of the biosphere, the sudden appearance of flowers and their aromatic attractant molecules within the botanical realm was the original stimulus for the explosion of biodiversity in our current planetary epoch, culminating in the appearance of Homo sapiens. In other words, we are the descendants of flowers.

Here we can observe more dimensions of prana at work within the world of aromatic plants. The first is the appearance of essential oils as a botanical evolutionary development; likewise, prana is the force behind evolutionary processes, the unfolding of Prakruti through time and space, whether it is evolution within species based on adaptation or spiritual evolution within an individual. The second is the biological role of essential oils in plants as immunity to a wide range of pathogens; likewise, prana is a fundamental aspect of immunological strength and potency. The third is the affinity between volatile aromatic molecules and the air and space elements that promote the diffusivity of their attractant and repellant molecules into the atmosphere around the plant; likewise, the elemental nature of prana is that of air and space.

A perfect example of prana functioning within these dimensions is a conifer forest. The air and space (prana) of the forest is diffused with the rich, sweet, balsamic green notes of the essential oils produced by the trees. These oils are the expressions of the trees' collective immunological intelligence (prana), which we could call a type of "community immunity." This intelligence developed over time in response to exposure to multitudes of pathogens, and represents evolutionary forces (prana) at work within the trees.

In this example of the conifer forest, there are direct anatomical and physiological parallels that point to the deep underlying biological unity between humans and plants. The lungs have a similar anatomical structure to trees: the trachea is the trunk, the bronchi are the large branches, bronchioles are smaller branches, and alveoli are the leaves. Likewise, the majority of essential oils used with upper respiratory and mucous membranes of the lungs are derived from the leaves of trees, such as eucalyptus and tea tree, or from needles of conifers such as pine, spruce, and fir. In Chinese medical terms, the purifying, immune-enhancing properties of these oils are specifically for treating "wind cold" and "wind heat," i.e. airborne pathogens affecting the upper respiratory system; likewise, the oils produced within the leaves and needles are released by the trees directly into the air to be carried on the wind. Here we find one of prana's most important definitions, given by the ancient Greek physicians and philosophers: "pneuma," the "breath of life," upon which we are directly, inseparably, and biologically dependent with each respiration.

For people who are familiar with both Ayurveda and Chinese medicine, prana and chi are similar, if not synonymous, concepts. Like prana, chi is a fundamental principle underlying both medicine and spiritual practice. Like prana, it is conceived as a vital energy that is part of every living thing. Like prana, the flow of chi is described as being associated with both respiration and with subtle and refined currents within a non-physical nervous system: the meridians and acupuncture points. Like prana, chi is the foundation of health, vitality, and immunity, while its disturbance and decline are the cause and result of illness. Like prana, chi is also described in macrocosmic terms, such as tian chi, "sky breath," used in ordinary language for "weather."

The Chinese character for chi is comprised of two ideograms that signify "steam rising from rice as it cooks." In medical terminology this image describes the vaporous essence released from nutrients under the influence of digestive fire: the pranic energy of food released from rasa under the influence of agni.

This image also offers an excellent analogy for the process of distillation of essential oils.

During distillation, fresh aromatic plant material is placed inside the still, either submerged in water or subjected to steam. As the water boils, the heat breaks apart the cells containing essential oils, releasing the volatile constituents. The aromatic steam, consisting of water and volatile constituents, rises from the still, travels through a condensing coil, and emerges as aromatic water. The volatile molecules then separate, creating a layer of essential oil and a layer of hydrosol.

What exactly is this fragrant liquid that we have extracted from the aromatic plants? Analysis with gas chromatography would reveal that it is composed of

a complex mixture of molecules - terpenes, phenols, aldehydes, alcohols, esters, oxides, ketones — each of which can produce a wide range of effects on the doshas and dhatus. If we look deeply into the origin and nature of these molecules with the universal macro-thinking of Ayurveda, we realize that an essential oil is not an inert liquid, a collection of compounds devoid of life, but the distilled essence of prana: the cosmic prana of Prakruti, projected into the earthly pancha mahabhutas, assimilated by the metabolic power of botanical prana and alchemically refined into molecular expressions of pranic immunological intelligence.

The journey of prana has reached the stage where we now hold it in our hands as an essential oil in a bottle. It is now ready to continue to its last phase: to be used in aromatherapy, where it will directly influence the prana of our respiratory, circulatory, neurological, and immunological functions.

Although there are ways to use essential oils orally and topically, the safest and generally most effective way is through olfaction. Ayurveda states, with a valid logic of natural correspondences, that the sense of smell is connected to the earth element, and the element of air relates to the sense of touch; simple observation, on the other hand, would link the sense of smell more directly to air, as that is the primary elemental vehicle that carries diffusive aromatic molecules. Furthermore, aromatic molecules pass through space, not only that between the source of the aroma and the nose, but ultimately the space within the sinus cavities. Now, we can see the affinity between atmospheric air and space, aromatic diffusivity and inhalation into the sinus cavities as one unified field of prana.

As the aromatic molecules pass from the flower, root, spice, or bottle of essential oil into the sinus cavity, we can observe how prana links the inward conscious to the outer world, and how it brings about the inner perception of external phenomena.

Neurologically, meaning governed by prana, all perception of the outer world arises through a three-phase process. The first phase occurs as sensory stimulation to the peripheral nervous system caused by different types of energies: radiant energy of light, chemical energy of taste and smell, thermal energy of heat and cold, mechanical energy of pressure and movement, kinetic energy of sound vibration. All of these energies could be described variously as forms of prana, the forms that act as the expression of prana, the vehicles that carry prana, or a combination of all.

As each of these forms of energy reach the body, they stimulate receptor sites on the nerve endings of the sense organs. In the sense of smell, aromatic molecules bind at the receptor sites of the olfactory nerves, located in the olfactory epithelium in the sinus cavity. In this first phase of perception, external energies are “decoded” as they stimulate the receptor sites and trans-

formed into bioelectrical energy of neuronal stimulation. In other words, the various forms of environmental pranic energies are changed into nerve current, another form of prana. This pranic transformation can be thought of as taking place within the fires of agni, as the various metabolic pathways between receptor site stimulation and neuronal activation occur with corresponding enzymatic processes.

The second phase of perception occurs as the nerve current passes into the central nervous system and the brain. In the case of smell, this means the neurological impulse, prana, passing from the olfactory epithelium into increasingly large branches of the olfactory nerve, across the cribriform plate of the skull and finally into the limbic system at the olfactory bulb.

The third phase occurs as the prana of neurological current spreads across the neural networks in the brain and stimulates the endocrine glands. These synaptic networks could be said to be under the control of prana vata, the subdosha that governs the senses and consciousness, assimilates sensory information, feelings and knowledge, and in turn controls the other subdoshas of pitta and kapha that reside within the brain. As the electromagnetic holographs of prana arise and dissolve within the brain, corresponding sensations arise within the mind, internal recreations mirroring the three times-removed realities of the outer world.

Simultaneously, as each breath is inhaled, the aromatic molecules of our essential oil pass into the respiratory system, penetrate through the water element of the mucus membrane of the lungs, and begin their journey through the circulatory system, once again under the influence of the five pranas governing physiological activities.

Here the aromatic journey of prana is completed: from the cosmic prana of Prakruti to Her manifestations within the universal elements; assimilated into plants by their life force, metabolized into fragrant molecules by their immunological intelligence; released into the atmosphere as botanical “community immunity” and distilled as a living pranic vapor; inhaled into the space of the sinus cavities, transformed into holographic neural networks; carried into the lungs with each breath of life, circulated throughout the body by its pranic currents, until they are released once again into the atmosphere.

# XI
# *The alchemy of fragrance*

**A Poetic Interpretation by David Crow, L.Ac.**

There are deep and mysterious relationships among the soil, water, sunlight, and air, and the bodies of plants that absorb and transform these elements. There are wondrous alchemies in the plants' transmutation of these elements into food, medicine, and fragrance.

An aromatic plant creates its fragrance from nutrients in the soil and its symbiotic microbial ecologies. When we breathe that perfume, we are breathing the breath of the living soil.

An aromatic plant creates its fragrance from radiant solar energy, in a biorhythm set in motion by the sun, moon, and stars. When we breathe that perfume, we are breathing the breath of the celestial heavens.

An aromatic plant creates its fragrance from springs, dew, rains, snowmelt, and underground streams. When we breathe that perfume, we are breathing the breath of the living waters.

An aromatic plant creates its fragrance from wind and breezes. When we breathe that perfume, we are breathing the breath of the sky. There are deep and mysterious relationships among the movement of the heavens, the environmental elements, the aromatic molecules created by the plants, and the atmosphere that is their medium of travel.

There is a deep and mysterious relationship between the atmosphere and the human breath.

There are deep and mysterious relationships among the aromatic molecules traveling through the atmosphere, the human breath, and the neurochemical changes that occur as fragrances enter the brain.

There is a deep and mysterious relationship between the neurochemical changes created by the aromatic molecules in the brain, and the effects these have on consciousness.

There are deep and mysterious relationships among the movements of consciousness, the fluctuations of mentation, and the flow of time and space.

Ultimately these are one living mystery, from the movement of the heavens to the creation of reality by the human mind. Knowing this, we can purify the world.

Putrid, fetid, rancid, noxious, repulsive, and unpleasant odors arise from conditions of poverty and hunger, war and violence, ignorance and unawareness, lack of sanitation, and toxic pollution. They are the breath of pathogens, the smell of epidemics, and the scent of death. They cause unhappiness, agitation, aggression, and dullness in the human mind.

Fresh, clean, attractive, enjoyable, and pleasant smells arise from conditions of environmental stewardship and ecological balance, sanitation and cleanliness, social and spiritual well-being. They are the breath of health and the scent of vitality. They cause happiness, serenity, compassion, and greater awareness in the human mind.

To transform the growing realms of human misery into realms of happiness and fulfillment of human potential, we must now wisely cooperate to plant gardens perfumed with beautiful fragrances and living pharmacies of aromatic medicines.

Humanity does not need more weapons. It needs balms of lavender, rose, and neroli that promote peaceful sleep, reduce stress and tension, calm anxiety and nervousness, pacify irritation and anger, and free the mind from depression and fear.

The world does not need more disease-causing toxic chemicals and mutated biological experiments, concocted in secrecy and spread across the globe in defiance of scientific reason, human sanity, public health, and democratic process.

It needs unguents of frankincense and vetiver that cool excessive heat and redness in the body. It needs elixirs of osha, rosemary, and ginger that stimulate and strengthen the immune system, and purifying essences of pine, fir, spruce, and cedar that purify the mucous membranes. It needs salves of helichrysum, chamomile, and champa that heal the skin from difficulties.
Society does not need more electronic gadgets, microwave-based communication systems, high-tech entertainment devices, faster computers, and fancier software.

We need to anoint each other with fragrances that promote emotional openness, quiet the mind, build inner strength, overcome isolation, enhance intimacy, and support truthful communication. We need noble aphrodisiacs of

sandalwood, jasmine, and lotus that help men transform pathological lust into passionate love, and help women transform their fear and hatred of men's violence, aggression, and stupidity into nourishing powerful sensuality.

When peaceful cities are blessed with myriad sweet floral scents, when healthy forests are filled with balsamic coniferous perfumes, when farms are enveloped in the earthy aromas of healthy soil and robust crops, when homes are infused with temple essences that bring joy and tranquility, we will understand why the ancients taught that plants were gifts from heaven.

# XII
# *About Floracopeia*


**Understanding The Global Benefits Of Sustainable Essential Oil Use And Production**

Floracopeia was established by David Crow to promote the use of medicinal plants for grassroots healthcare, high-value crops for poverty alleviation, ecological benefits, and preservation of ethnobotanical wisdom. We provide our customers with the highest quality essential oils and other botanical aromatic treasures through our support of ecologically sustainable agricultural and agro-forestry projects.

**Floracopeia was established to support these important goals:**

1) To economically support and uplift ecological farmers around the world by purchasing their high-quality aromatic products.

2) To support preservation of rainforests by purchasing aromatic products from sustainable agroforestry projects.

3) To lower the cost of top-grade essential oils, attars, hydrosols, and natural perfume ingredients by bringing them directly from distillers to retail customers.

4) To provide education about the therapeutic, ecological, economic, and spiritual benefits of medicinal and aromatic plants in the form of workshops, multi-media events, meditation retreats, and publications.

5) To help preserve and promote traditional and indigenous ethnobotanical knowledge of medicinal and aromatic plants and their uses.

**The Floracopeia Mandala**

Floracopeia has developed a business model unlike many other companies. Most companies have a pyramid business model where few benefit from the work of many. This is not a sustainable business model as it depletes the resources upon which it relies and does not contribute to the greater good.

Floracopeia is designed around another, more harmonious model. This structure is inspired by the mandala, or sacred circle, utilized by many indigenous cultures of the world. With this model, the plants are at the center of the circle — they are the beginning and the end of the cycle of work that we are accomplishing. The next ring of the circle is made up of the farmers and distillers who steward the land and cultivate the plants for essential oil distillation. They have a deep connection to the plants and directly benefit from their gifts. The next ring is where the staff at Floracopeia resides. Our work begins as we develop relationships with the distillers and plants and in turn make them available to the world. The next ring in this model is the customers and practitioners who purchase the essential oils from the distiller through Floracopeia. Your purchase not only benefits all who encounter the essential oils, it also gives back to the plants which invigorates the entire circle. Each ring of the mandala is supported by the other rings and benefits as the mandala expands.

This model is not only sustainable, it is a beautiful, living model that guides our company in all that we do. It is this structure of business that sets Floracopeia apart from other companies and draws practitioners and customers who appreciate this evolved way of doing business.

# XIII
# *Closing and more information*

Thank you for your interest in aromatherapy and essential oils. We hope you find this reference helpful. Please visit the links below for more information on safe and effective essential oil use.

Click here for a free video training on how to use essential oils.

If you would like to pursue a more in-depth aromatherapy education, the next step is the Floracopeia Aromatherapy Foundations Course. This home study course is offered as a self-guided course where you can work through the curriculum at your own pace from anywhere in the world. This course meets the NAHA (National Association for Holistic Aromatherapy) requirements for a Level 1 Certification.

Floracopeia also offers an Advanced Aromatherapy Course if you choose to take your aromatherapy education even further. Please visit our course pages for details about our Aromatherapy Education Programs.

For more information, please see:

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