

M. A. Cisneros-Abreu  
Practitioner Consultant Certification  
Course Level Two

# Medicinal Plant Material in Complementary Alternative Medicine (PB-CAM)



## Introduction...

### **Level Two of Four Levels to Certification**

In Level One we looked at the science connecting many of our illnesses to chemical exposures. We learned how we are chemically and generically damaged by the Air we breathe, the Water / Beverage we drink, the Products/Meds we use, and the Foods we eat. We also learned the reasons to reduce, eliminate and replace damaging chemical products we use in our daily life. In Level Two we will begin to introduce the Plant Materials we in Plant Based Practice use in the replacement of those harmful chemicals and by doing so we change our health life from accumulative toxic living to a reduction of toxins in everyday life.



## Medicinal Plant Materials in Complementary Alternative Medicine

It makes sense to look at Plant Essential Oils and Herbs as medicine since these are the substances the world has used and continues to use in its struggle to survive. Of course this is not a revelation for those people who have relied on plant medicine for their healthcare and maintenance. As mentioned in Level One we persist on being dependent upon the patrimony of medico-botanical knowledge for mainstream medicine. In the meantime the scientific methods and PB-CAM Practices continue to validate the effectiveness of using the natural whole. This principle is fueled by a growing amount of anecdotal information, alternative thinking, and historical and scientific validation. The information in this text is compiled and presented based on the worth of plant essential oils and herbs for the replacement of medicinal products whose benefits no longer outweigh their risks. In Level Two we will cover the therapeutic properties of essential oils and briefly the related medicinal herbs.

### How to identify “real” plant essential oils

Let's begin by separating “Aromatherapy Essential Oils” from the medicinal grade essential oils (from now on referred to as Plant Essential Oils) we use in PB-CAM. You are welcome to view the YouTube video we posted in the late 1990s on how to identify Plant Essential Oils. We recorded



this video when we realized that the majority of the essential oils sold as “100% pure” were oily whereas Plant Essential Oils are not. Many of these “aromatherapy” oils also did not keep their fragrance and all had a shelf life of about 1-2 years again unlike like the Plant Essential Oils we use in our practice. We also realized that these “Essential Oils” were being marketed to people with limited knowledge of their use and safety.

The Term “Essential Oil” is interchangeable with organic and inorganic chemistry. In many cases the term “100% Essential Oil” could very well be 100% synthetic and it may be unwise to depend upon information found on a label if you are going to practice Plant Based Health.

As you continue to smell Plant Essential Oils you will develop your senses. Your experience will guide you and you will be able to detect the not so real essential oils. Until then you may refer to the following information to help you identify the real Plant Essential Oils and so that you don't have to depend on what a label may say or imply.

- Plant Essential Oils are not oily
- They can be left open without evaporation/oxidation
- They have a shelf life of 25 plus years
- Due to the aromatic alcohols and fermentation they become better with time (just like wines)
- Most of them can be placed directly on skin without any negative side effects
- They can be combined in a synergy (2 or more oils with the same properties) and thus benefit from the Law of Synergy which states that the therapeutic properties of each Plant Essential Oil multiplies by 100 to produce a combined effect greater than the sum of their separate effects. (The Power of a Synergy will be covered in greater detail in Level Three in the blending video session and again in Level Four.)

### Obtaining the therapeutic properties from plants

There are three (3) ways to obtain the therapeutic properties from plant material:

- Distillation
- Tea
- Tincture

#### Distillation

Through distillation we get Plant Essential Oils - the plant's therapeutic properties in concentration. It takes an average of 20 pounds of plant materials to obtain one (1) drop of Plant Essential Oil.

#### Tea

As a tea we use hot water to draw out the plant's essential oils and therapeutic properties. This method is recommended for internal use and consumption. We use the therapeutic properties of the plant material's essential oils as a guide to identify the therapeutic properties of the tea. For example, since Lavender Plant Essential Oil has anti-inflammatory properties then Lavender Flower tea is also anti-inflammatory and recommended for those people who have inflammation issues. The plant's essential oils also flavor the tea.

#### Tincture

In a tincture (as in tea form) the therapeutic values of the plant's essential oils transfer to the tinctures. We extract the therapeutic properties by combining herbs with 100 proof vodka. Once the tincture is

mature we place a few drops in a glass filled with filtered water. It is recommended to wait 5 minutes for the alcohol to evaporate before drinking the water. By drinking the water we absorb the therapeutic properties. Preparation of tinctures is demonstrated in Level Three, further described in Level Four and the process may be viewed in blending videos.

## Therapeutic properties of Plant Essential Oils as practiced in PB-CAM

When used in therapy aromas work on three (3) levels, smell recognition, therapeutic value and psychosomatic.

### Level 1 - Smell Recognition

Since the beginning of our lives our minds have recorded smells and associated them with positive, negative or indifferent situations. This is an automatic response affecting us before we perceive the association and many times we are not aware as to why or when the association established itself. Memories are known to be imprinted and anchored to smells and ready to re-appear, to resurface, upon smelling a specific fragrance.

### Level 2 - Therapeutic Value

Trained practitioners working with Plant Essential Oils control the effectiveness at this level.

### Level 3 - Psychosomatic

Allowing the mind to participate in a person's healing is the most important aspect in the outcome of any healing. If we are what we think we are then why not allow our thinking to assist in our healing? For some their natural mode of operation is to self-destruct. The PB-CAM Practitioner Consultant focuses on this tendency and through the use of specific Plant Essential Oil(s) and/or formulated Plant Essential Oil synergies can stimulate positive behavior.

Attaining positive effects on all three levels produces a very powerful force which may result in significant healing. These reactions are individualized as they are based on past smells anchored by memories and experience. It has been observed that having a negative or positive reaction on any one of the three levels will influence the outcome of the effects of the other levels. Level 3, psychosomatic, has the greatest influence.



### How to use Plant Essential Oils

The directions given in this manual are provided only as guidance and should not be construed as medical advice. Read the “CAUTIONS” before using any Plant Essential Oil, Synergy or Blend.

There are many ways the PB-CAM Practitioner Consultant can recommend the use of Plant Essential Oils. The choice or choices will become clearer to you as we continue to Level Four.

#### 1. Balneo Bath (Medicinal Bath)

Fill the bathtub with warm water and add 10-20 drops of the Plant Essential Oil or desired synergy. Just before entering the tub swirl the water to distribute the oil or synergy evenly. Soak for at least 15-20 minutes breathing in deeply and relaxing. Do not take a soap shower after bathing as this could interfere with the aromas and the therapy.

A Balneo Bath is recommended, but not limited to relieving colds, flu, muscle aches, skin conditions, insomnia, and stress. Results can be felt within a few minutes of the first bath.

For those individuals that can't take a bath we recommend a foot bath. For a Foot Bath, fill a pan with warm water and add 4-6 drops of the desired oil, blend or synergy and soak feet for 15-20 minutes. This is also an effective method to deliver the therapeutic properties of the Plant Essential Oils(s).

#### 2. Olfactory/Smell

Apply one to two drops of the desired Plant Essential Oil, synergy or blend to your fingertips and rub the oils between your fingertips before gently applying to the outside of your nostrils. Cup hands over your nose and gently breathe in deeply for a few seconds. The oil, synergy or blend can be also be applied via the palms of your hands. Just place one drop in the palm of your hand, rub your hands together, cup your hands over your nose and gently smell. Keep out of eye contact!!!

To relieve headaches apply one drop of the A-CAM Headache Synergy to your fingertips and gently touch/apply to the left and right temple then apply to the outside of your nostrils. Cup your hands over your nose and gently breathe in deeply for a few seconds.

NOTE: If your skin is sensitive Plant Essential Oils can also be affective by placing a few drops in a tissue and breathing in deeply for a few seconds. Use only when needed and do not exceed 8-10 times per day unless directed by a PB-CAM Practitioner Consultant.

### 3. Aerotherapy - Room Diffused for Home, and/or Work

#### ▶ AIR CONDITIONING SYSTEMS:

In a 24-36 ounce heavy-duty spray bottle add 25-30 drops of desired Plant Essential Oil or synergy and fill with filtered water. Shake well and spray directly into the A/C vents and on the A/C filter weekly for the desired effect.

#### ▶ HUMIDIFIER OR DEHUMIDIFIER:

Following your appliance directions fill with water and add 20-30 drops of the desired Plant Essential Oil or synergy.

#### ▶ AUTOMOBILE:

Place 10 drops of Plant Essential Oil or synergy on a piece of cotton and place under a seat. Replace as needed.

### Important CAUTIONS for the uses of Plant Essential Oils:

- Keep out of reach of children.
- If under a doctor's care consult her/him before using
- Do not take internally by mouth unless directed by a medical doctor or a nurse practitioner.
- Keep out of contact with your eyes.
- Do not use during pregnancy or if breast-feeding.
- If you have any adverse reactions discontinue use.
- Always consult a qualified medical practitioner if ill, suffering from high or low blood pressure or an undiagnosed illness.
- Use Plant Essential Oils by drop and only as directed.
- Keep Plant Essential Oils away from open flames and extreme heat.
- Do not use Rosemary if you have high blood pressure. Do use it if you have low Blood Pressure.
- Do not use Ylang-Ylang if you have low blood pressure. Do use it if you have High Blood Pressure.
- Do not use bath method if you have to maintain a certain therapeutic blood level of medication in your system.

### IMPORTANT NOTICE

The FDA has stated that there is not sufficient scientific evidence to support the claims of Aromatherapy. That is one reason for the formation of PB-CAM and this writing. The American Medical Association (AMA) classifies Aromatherapy as “psychosomatic.” AMA research has shown that 87% to 90% of all known illnesses are psychosomatic. This confirms Aromatherapy as a valuable complement to today’s Health Care and Maintenance.

In the next section the Plant Essential Oils listed were selected for their safety and therapeutic benefits. These medicinal plant materials are the purpose and the foundation for the entire PB-CAM concept and protocols of practice. For Health reasons, therapeutic performance and safety, we neither recommend nor recognized the use of any other medicinal material for PB-CAM’s Practice and Protocols.

### *List of 100% Plant Essential Oils, used in our Practice...*

The following information is supplied for educational purposes only. It is advisable to seek the counsel of a PB-CAM Practitioner Consultant for guidance. Always consult a qualified medical practitioner if ill or suffering from high or low blood pressure or an undiagnosed illness.

The Plant Essential Oils are described as follows:

• Common Name
• National Formulary and or Food Chemical Code rating if applicable
• Country of Origin
• Latin Name-Botanical Family
• Principal Constituents
• Perfume Notes
• Properties
• Interactions with other drugs / Contradictions / Side Effects
• Anecdotal Information
• Notes
• Cautions
• Herbal Tea



The above descriptions are further detailed as follows:

### Principal Constituents

Here you will find a list of the “main pieces” that balance and make up the whole. Always remember that it is the whole that is used and observed for the therapeutic performance.

### Perfume Note

This is a classification of the volatility of the oil and is as follows:

- Top notes last for 1 to 2 hours
- Middle notes last for about 2 to 3 days
- Base notes last from 3 to 7 days
- Top notes need to be blended with a base note for holding quality. It will prolong the effects of the lower notes.

### Contradictions / Side Effects / Interactions with other drugs

This section is sourced from The German Commission E, Monographs, Blumenthal, Busse, Goldberg, Gruenwald, Hall, Klein, Riggins & Rister. Copyright 1998, the American Botanical Council. (Which is the “FDA” of Germany.)

### Anecdotal Information

This is based on our observations of the uses and performance of Plant Essential Oils and related Medicinal Herbs in the PB-CAM Practice. Most of the oils meet the standards set forth by the Food Chemical Codex (FCC) and/or the National Formulary (NF). These agencies are in charge of setting standards for plant materials used in scientific research and in the flavoring industry. If applicable, you will find the NF and/ or the FCC rating next to the essential oil name.

### Notes

Pay attention to the pieces, essential oils (active ingredients) and their definitions (therapeutic merits) this will guide you in composing synergies and non-toxic products and blends.

### Cautions

Any cautions pertaining to the use of that particular essential oil.

### Aniseed/Anise (Hungary)

#### (*Illicium verum*-Magnoliaceae)

Anise oil is distilled from the dried and crushed seeds of the herb that originated in the Near East. This oil has a sweet, fresh smell. It is colorless or very pale yellow, and can be used for digestive problems and for spasmodic coughs. It acts like an expectorant and is mildly antispasmodic and antibacterial in nature.

Principal Constituents:	Anethole from 80% to 90% of the oil is shared with small amounts of aldehydes, anisic acid and methyl chavicol
Perfume Note:	Middle
Interaction with other drugs:	None known
Contradictions:	None known
Side Effects:	Allergic reactions to skin very rarely in some
Anecdotal Information:	An ingredient in PB-CAM's Non-Toxic Toothpaste
Cautions:	<ul style="list-style-type: none"> <li>• Allergic reactions of skin, respiratory tract and gastrointestinal tract</li> <li>• Use by drops in a synergy with other oils or a blend with vegetable oils</li> </ul>

### Basil (Commodores)

#### (*Acumen spp*-Labiatae)

This is a sweet, spicy, fresh oil distilled from the flowering tops and leaves of the herb. The color is yellow. There are many varieties of sweet basil which originated in Asia and were/are extensively used in Indian medicine. Basil is now grown in Reunion, France and Cyprus. It has a calming yet uplifting affect and is excellent for those who are tired and worn out by over-work.

Principal Constituents:	Camphor, estragol (or methyl chavicol), cineol, eugenol, linalool, and pinene.
Perfume Note:	Top
Anecdotal Information:	Basil is another favorite to flavor non-toxic toothpaste. It is also very effective as an inhalant when feeling tired or to increase alertness. It blends well with peppermint and spearmint for a breath freshener. In our practice we blend Basil, Rosemary, Lemon, Peppermint and Ginger as an energy synergy Inhaler.

### Bergamot (Italy)

#### (*Citrus aurantium bergamia*-Rutaceae)

Bergamot oil is expressed from the peel of a fruit that is grown in Calabria, Italy. The oil has an uplifting, sweet-spicy lemon odor and is emerald-green color. It is known as an anti-spasmodic and calmative

when smelled. It is used to increase appetite and to decrease anxiety and depression. It may be diffused for respiratory problems. It is a powerful antiseptic and is also helpful when used in a bath (8 to 10 drops) to address general illness.

Principal Constituents:	Contains up to 50% of linalyl acetate; bergamotene, bergaptene, d-limonene and linalool.
Perfume Note:	Top
Anecdotal Information:	With a pleasant aroma, this essential oil is a favorite for stress release and as a non-toxic product in perfuming. Bergamot's deodorizing qualities are a good choice for bad breath and under arm and/or foot deodorizers. It is effective for oily skin when blended with Geranium Rose. For acne it is effective when blended with Ti-tree. It is best when blended with Lavender for skin problems like seborrhea of the scalp, herpes, and psoriasis. Bergamot, like all citrus essential oils, increases skin photosensitivity and for this reason it is used in "rapid" suntan blends.
Note:	You should avoid using Bergamot in blends in which the effects of the sun should not be increased.
Herbal Tea:	The robust aromatic herb of Bergamot has been traditionally used as a relaxing anti-depressant tea. It is also recommended for the cold and flu season.

## Birch (Leaf) (China)

### (Betulae folium-Betulaceae)

Grown in Europe and Northern Asia, the young branches are of a rich red brown or orange brown color and the trunk is usually white. The bark of the tree has been used from building boats to writing paper. The leaves are distilled to obtain the Essential Oil which is clear in color with a camphor like smell. Birch Essential Oil has been time-tested as an effective muscle relaxer and validated as a diuretic by the Commission E Monographs, March 13, 1986.

Principal Constituents:	Flavonoids, tannic acids (3%), creosol and quaiacol.
Perfume Note:	Middle
Interaction with other drugs:	None known
Contradictions and side effects:	None known
Anecdotal Information:	An excellent addition to a muscle ache synergy. For some it is an effective aphrodisiac. It is also a very effective insect repellent when mixed with Citronella, Lemongrass and Cedar wood Atlas. Birch is one of our analgesics which render a pain numb.

## Black Pepper (India)

### (Piper nigrum-Piperales)

Black pepper is hot, dry and spicy, green-yellow in color with a deeply warming effect. It is useful for relieving muscular aches and pains and stimulating the circulation and lymphatic systems. Only a very small proportion of the yield of black pepper is made into essential oil. Singapore is the commercial center for this oil.

Principal Constituents:	Piperine & terpenes (phellandrene, pinene, limonene)
Anecdotal Information:	Because of its' potency this oil needs to be used by the drop only and diluted with vegetable oil (4 to 6 drops per ounce). Black Pepper has analgesic benefits which makes it a great choice for muscle aches/pain, synergies and blends.

## Cajeput (Malaysia)

### (Melaleuca leucadendrun-Myrtaceae)

This colorless oil is steam distilled from the leaves and buds of the Cajeput tree which grows wild in the Far East. The main producers of this essential oil are Malaysia and Indonesia. The odor is strongly camphoraceous and medicinal. It is mainly used in inhalations for respiratory infections including colds, coughs, sinus infections and sore throats. In vitro it is a proven antimicrobial.

Principal Constituents:	Cineol (45% to 70%) & aldehydes (benzoic, butyric, valeric, pinene, terpineol).
Perfume Note:	Top
Anecdotal Information:	A great choice for muscle aches and excellent for respiratory problems. It can be used by itself or blended in a synergy with other respiratory related oils. Apply it directly or blend with Lavender for insect bites. Cajeput is an ingredient in A-CAM's Coughing synergy.

## Calendula/Marigold (France)

### (Calendula officinalis-Compositae)

Calendula is distilled from the petals of the marigold flower, native to Europe. The essential oil is thick and sticky with a very strong musk/woody smell. Its' tonic and anti-inflammatory properties makes this a wise addition to any skin care synergy or blend, especially for sensitive skin. It is also a very relaxing Essential Oil recommended for baths during stressful times.

Principal Constituents:	Flavonoids, saponosene, and triterpenic alcohol.
Perfume Note:	Base

Anecdotal Information:	A sedative upon smelling makes this essential oil a great addition to A-CAM's unisex PMS Synergy. It promotes wound healing with its anti-inflammatory properties.
Herbal Tea:	The golden yellow flowers are used for tea. I recommend this as a relaxing drink with anti-inflammatory and skin care benefits. It is one of the ingredients in PB-CAM's Acid Reflux tea blend and in PB-CAM's Eye Care Lotion.

### Cardamom (India)

#### (Cardamomi fructus-Zingiberaceae)

Cardamom is native to India and Sri Lanka. The essential oil is distilled from the seeds which grow in the pale green pod produced by the tall, herbaceous plant. It has been used as a perfume, as a diuretic and for stiffness of joints, for some one thousand years before the birth of Christ. It is also reputed as an anti-spasmodic and pulmonary antiseptic.

Principal Constituents:	Cineol, terpineol, limonene, eucalyptol, and zingiberene.
Perfume Note:	Medium to base
Interactions with other drugs:	None known
Contradictions:	Consult a physician. In case of gallstones do not use in a bath.
Side Effects:	None known
Anecdotal Information:	An ingredient in PB-CAM's Non-toxic Toothpaste. A good addition for sickroom diffusion, sinus/cold synergies and natural perfume synergies and blends.

### Carrot Seed (France)

#### (Daucus Carota)

The small hairy seeds are crushed in order to extract the essential oil. It is yellowish orange in color, very fluid and smells like a carrot. Most of the oil comes from Europe. Carrot seed is an amazing essential oil for any skin care product.

Principal Constituents:	Acentic acids, alephatic aldehyde, carotal, beta carotene, cineol, formic acid, limonene, pinene, and terpineol.
Perfume Note:	Top
Anecdotal Information:	The essential oil contains Carotene and vitamins A & E which makes it effective for non-toxic suntan oil blends. Antioxidants in this essential oil repair a lot of the damage done to skin by oxidants (free radicals) and prevent the free radicals from doing further harm. In addition, the limonene constituent makes it an effective first choice for skin care blends and salves. Use only by drops in all blends. An ingredient in PB-CAM's Skin Care blend and Psoriasis Care salve.

## Cedarwood (U.S.A.)

### (*Cedrus atlantica* Manetti-Pinaceae)

Obtained by steam distillation from Cedarwood that grows in North America. It has a pleasant, mild, balsamic-woody odor and is yellowish in color. It is one of the oldest oils to be produced. It was used by ancient Egyptians when embalming the dead and to treat oily skin, oily hair, dandruff and also for mucous coughs and colds.

Principal Constituents:	Terpenic hydrocarbons, cedrol and sesquiterpenes (cardinene).
Perfume Note:	Base
Anecdotal Information:	This is a great oil to use for smell recognition and for its relaxing qualities. It is time tested as an anti-putrid making this an effective skin care oil. Use it for acne, oily skin or blend it with Ti-Tree (ten drops to an ounce of shampoo) for dandruff or seborrhea of the scalp. Cedarwood is effective as a natural insect repellent especially for moths, termites and roaches just like the fragrance from a Cedarwood closet. Cedarwood is an ingredient in A-CAM's Insecticide synergy. It is also what we use to relieving itching.

## Celery Seed (France)

### (*Apium graveolens*)

Celery essential oil is produced by steam distillation from seeds and a native to Southern Europe. It has a strong and spicy aroma and the color ranges from pale to dark yellow/orange. This oil is considered one of the best diuretics in PB-CAM and very helpful in a bath for fluid retention and toxins. It is also known to stimulate metabolism and is helpful for lack of energy especially caused by depression.

Principal Constituents:	Apiol, apigenol, limonene, selinene, sedanolide, and butyl phthalide.
Perfume Note:	Middle
Anecdotal Information:	Use in a bath by itself or blend with juniper and/or grapefruit as a diuretic for water retention. For depression use it by itself or blend with lavender and/or any citrus oil. A 1997 study for the National Cancer Institute, by Luke Lam, Ph.D., analyzing the chemical constituents of celery seed oil, concluded that the compounds sedanolide and butyl phthalide reduced the incidence of tumors in laboratory animals anywhere from 38% to 57%. Studies by William Keller, Ph.D., Div. of Medicinal Chemistry and Pharmaceutics, Northeast Louisiana University, also suggests that celery seed oil may help in lowering blood pressure and cholesterol.
Herbal tea:	To prepare tea pour boiling water over one teaspoon of freshly crushed seeds. Let it steep for 10 to 15 minutes before drinking.



### Chamomile German (Blue) (Hungary) (*Matricaria chamomilla-Compositae*)

The essential oil is distilled from the herb, which grows all over Europe. This oil has a deep ink-blue color due to the high content of azulene, which imparts its anti-inflammatory properties. It contains bisabolol known for relaxing the muscular lining of the digestive system. The tea has many uses including the relieving stomach cramps, period pains, insomnia, and any kind of skin irritation or inflammation. Its anti-spasmodic action makes this oil valuable in asthma blends. Research shows it increases white blood cell activity which is your body's first line of defense against infection. It is an ingredient of A-CAM's Respiratory Synergy and PB-CAM's Skin Care Blend. It is also used in PB-CAM's Skin Care Clay.

Principal Constituents:	The most important part is azulene, a fatty aromatic substance that is anti-inflammatory and promotes rapid healing of skin problems and wounds. It also contains bisabolol that relaxes the muscular lining of the digestive tract.
Perfume note:	Middle
Herbal Tea:	The flower is an ingredient in PB-CAM's Acid Reflux tea blend, Insomnia Tea Blend, and Anti-inflammatory Tea Blend.

### Chamomile Roman (France) (*Anthemis nobilis-Compositae*)

Distilled from the dried flowers of the plant, its' azulene content is not present in the flower but forms as the essential oil is distilled from the plant. This oil is much paler in color than true chamomile; that said, they have similar soothing properties although Roman chamomile is milder and more suitable for children and perfume making. It is grown in France and Hungary.

Principal Constituents:	The most important part is azulene, a fatty aromatic substance that is anti-inflammatory and promotes rapid healing of skin problems and wounds. It also contains bisabolol that relaxes the muscular lining of the digestive tract.
Perfume note:	Middle

Anecdotal Information:	Because of its concentration this oil is used by the drop only. This oil is effective by itself or blended with any other oils. It is used in A-CAM's PMS/Menopause synergy, for painful periods, muscle aches and pains (especially after sports), nervousness, anxiety, depression, insomnia, irritability and tantrums (in children). It can be used in skin-care blends for acne, broken veins, burns, dryness, hypersensitivity, inflammation and wound care due to its anti-allergic & antiseptic properties. Research shows it increases white blood cell activity which is the body's first line of defense against infection. It is recommended in a synergy with Ti-tree for an immune booster bath. Both of the Chamomiles are great for relaxation however the aroma of the Roman Chamomile is truly a fine perfume.
Caution:	Do not use on anyone with allergies to ragweed as chamomile is a member of the ragweed family
Herbal Tea:	This tea is another favorite for its calmativ and anti-inflammatory properties

### Cinnamon/Cassia (NF/FCC) (China)

#### (Cinnamomum Zeylanicum/Cinnamomum Cassia-Lauraceae

Cinnamon essential oil is distilled from the inner bark and leaves of a bush native to east India and Indonesia. The oil has a powerful, warm, sweet-spicy odor and must be well diluted before using as for some people it could be irritating to the skin. The stimulating properties of this oil make it useful for circulation and muscle ache conditions. The best country of origin is Sri Lanka. Cassia is Chinese cinnamon and the essential oil is harder to find. Cinnamon oil is reddish in color while Cassia is much redder. Cinnamon was an ingredient in ancient Egyptian embalming mixtures. In the Bible, Moses used it as a holy anointing oil.

Principal Constituents:	Cinnamic aldehyde (60% to 65%), caryophyllene, cymene, eugenol, linalool, methylamine ketone (gives the aroma), phellandrene, pinene, and many others. Cassia contains a higher proportion of cinnamic aldehyde as much as 80 % to 85 %.
Perfume Note:	Base
Interactions with other drugs:	None known
Contradictions:	Some people may be allergic to cinnamon
Side effects:	Allergic reaction of the skin and mucosa in some.
Anecdotal Information:	This oil, as with all warm spices, should be used by the drop in a synergy or diluted in vegetable oil for muscular aches and pains. Use 2 drops of Cinnamon and 4 to 6 drops of Citronella per ounce of shampoo as lice repellent. Cinnamon is an antiseptic known for its ability to kill the bacteria that cause tooth decay and gum disease as such it is an excellent active ingredient for non-toxic toothpaste.
Herbal Tea:	Human studies involving subjects with type 2-diabetes consuming 1, 3 or 6 grams of cinnamon per day for 40 days concluded that

	compounds present in cinnamon may have beneficial effects on glucose, insulin, and blood lipids and may be beneficial for the prevention and treatment of diabetes. The bark or powder can be blended with other herbs for a sugar control tea blend. <sup>1</sup>
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### Citronella (Ceylon)

#### (Cymbopogon nardus-Gramineae)

This oil originated in Sri Lanka and is distilled from the leaf of the plant. Its color is yellow to light brown. Citronella is time tested and scientifically validated to be the best natural repellent for mosquitoes, ticks, fleas and lice. Use it in shampoos, natural insecticides and personal insect repellents.

Principal Constituents:	Citronellol (20% to 40%), geraniol, citral, methyl-eugenol and various terpenes, borneol and various terpenes.
Perfume Note:	Medium
Anecdotal Information:	This is the undisputed insect repellent. Recommended for indoor diffusion by itself or in combination with other oils. An ingredient in PB-CAM's insecticide products.

### Clary Sage (France)

#### (Salvia sclarea-Labiatae)

This oil has a bittersweet, herbaceous odor. It has a soothing and sedating affect while at the same time it works to strengthen the nervous system. It is one of the best muscle relaxers; useful for muscle cramps and/or pain. As with all essential oils, quality varies according to use of manure, the time of day of picking, and the dryness of the plant. Grown in Russia, Morocco and the South of France.

Principal Constituents:	The main constituents are linalool and linalyl acetate.
Perfume Note:	Top
Anecdotal Information:	First choice for cramps and muscle aches. Blend it in a synergy with the muscle relaxing benefits of Sage Dalmation and the anti-inflammatory benefits of Lavender. An ingredient in A-CAM's Muscle Ache Plus synergy. Effective when smelled to reduce high blood pressure.
Caution:	As with any muscle relaxing essential oil this oil should not be used during pregnancy

<sup>1</sup> **Reference:** Khan A, Safdar M, Khan M, Khattak K, Anderson R. *Diabetes Care*. 2003;26:3215-3218

**Clove (bud) (Indonesia)****(*Eugenia caryophyllata*-Myrtaceae)**

This oil is colorless with a hint of yellow. It is obtained by distillation of the handpicked and dried flower buds of the evergreen clove trees which are grown in the Far East and Africa. As it matures, the color turns to dark brown. It has a strongly stimulating affect and also has pain-relieving properties. It is an antiseptic oil useful as a room fumigant. We are told that in the middle of the rainy season the hot, humid atmosphere disperses the fragrance of the clove tree all over the land where they grow and the lack of sickness in these areas is attributed to the medicinal scent emitted from this strong antiseptic tree. It is one of our analgesic oils used in pain management products and to alleviate toothaches and infections.

Principal Constituents:	Phenols (70% to 0%), particularly eugenol. This was only isolated by Bonastre in 1827 and is one of the most antiseptics of the phenol family, two to four times stronger than any known. Also includes acetyl eugenol (which gives the fragrance), benzoic acid, benzyl benzoate, furfural, sesquiterpenes (beta carophyllene), and vanillin.
Perfume Note:	Base
Anecdotal Information:	This oil is a first choice for toothaches not only for its' natural analgesic qualities but also for its antiseptic and anti-inflammatory benefits. An ingredient in PB-CAM's non-toxic toothpaste, also in A-CAM's Muscle Ache Plus synergy. As with all other members of the warm spices, clove essential oil may irritate some skin types and must be very well diluted before using.

**Cypress (Spain)****(*Curpeus smpervirens*-Cupressaceae)**

This oil is distilled from the needles and twigs of the evergreen tree. The smell has a freshness reminiscent of walking through a pine forest. It is colorless or very pale yellow with a cool woody pine scent. Cypress oil is also produced in Kenya and Spain from *Cupressus lusitanica* and this too is used therapeutically. Cypress is an astringent oil, which tonifies the venous system and is useful for relieving varicose veins, hemorrhoids and broken capillaries. It is an ingredient in A-CAM's respiratory synergy and A-CAM's hemorrhoid synergy. It is an effective bronchial dilator, is effective in respiratory inhalers and is recommended for those who have a need to open the upper respiratory tract.

Principal Constituents:	Terpenes 65% (beta pinene and terpineol), cedrol, cypress camphor, some acids, and tannin.
Perfume Note:	Medium
Anecdotal Information:	A must for the asthma synergy and for combating respiratory problems. Twenty drops used in a bath has been known to shrink hemorrhoids in approximately one to two baths and is equally

effective for inflamed veins.

## Eucalyptus NF/NCC (Australia)

### (Eucalyptus globulus-Myrtaceae)

This oil is distilled from the leaves of a tree native to Australia. It is a warming and antiseptic oil with a strong camphoraceous and medicinal smell. It is particularly useful in steam inhalations to relieve cold symptoms, sinus congestion and mucous coughs. Eucalyptus is grown in Australia, Tasmania, Algeria, Spain, and France. There are about 200 plus species of Eucalyptus oil. Eucalyptus has a cooling effect on body temperature (febrifuge) and for this it is use in bath to bring down a fever.

Principal Constituents:	Cineol or eucalyptol from 70% to 80%; Various aldehydes, ketones, sesquiterpenic alcohols, and terpenes, (approximately 250 different constituents in Eucalyptus).
Perfume note:	Top
Properties:	<ul style="list-style-type: none"> <li>• Decongestant</li> <li>• Bactericidal</li> <li>• Antiseptic; respiratory &amp; urinary</li> <li>• Expectorant</li> <li>• Aids in the relief of allergies</li> <li>• Mosquito repellant</li> <li>• Preventive of contagious and pulmonary diseases</li> <li>• Draws moisture from moist conditions; skincare, wounds, etc.</li> <li>• Mild antispasmodic</li> <li>• Used in a 2% spray solution it kills 70% of the air borne Staphylococci bacteria. The essential oil of Eucalyptus has a much greater effect than Eucalyptol, its' main active principal constituent which is extracted and used in pharmaceuticals. Its effectiveness is primarily due to the action of two natural chemicals, aromadendrene and phellandrene. When they come in contact with the oxygen in the air their chemical reaction produces ozone in which bacteria cannot live.</li> </ul>
Interactions with other drugs	None known
Contradictions:	Internal inflammatory diseases of the gastrointestinal tract and bile ducts and severe liver diseases. Eucalyptus preparations should not be applied to areas of the face, especially the nose, on infants and young children. Gastrointestinal tract inflammation, and serious liver diseases.
Side effects:	In rare cases nausea, vomiting, and diarrhea may occur.

Anecdotal Information:	A first choice for any respiratory synergy/blend and for diffusion in a sick room. Because of its ability to soak up moisture, Eucalyptus essential oil is used in a blend for treatment of a moist skin condition. Blend with Lavender for its ability to increase circulation and Ti-tree for its anti-fungal properties. An ingredient in A-CAM's sinus/cold synergy & salve, fever blister synergy, insecticide synergy and Sick-Building-Syndrome synergy.
Note:	"Eucalyptus Oil induces the enzyme system of the liver involved in the detoxification process. Therefore the effects of other drugs can be weakened and/or shortened." <sup>2</sup>
Caution:	Do not use in a bath on anyone needing to maintain a level of medication in his or her system. Do use in bath for those wanting to detox medication from their system.
Herbal Tea:	To brew a medicinal tea use one to two teaspoons of the dried, crushed leaves per cup of water and steep for ten minutes. It is recommended for coughing. It seems to work by increasing the production of saliva, making you swallow more frequently and suppressing the cough reflex. An ingredient in PB-CAM's sinus & cold tea blend.

## Fennel (sweet) (France)

### (Foeniculum vulgare-Umbelliferae)

There is sweet fennel oil and a bitter fennel oil distilled from the dried crushed seeds, in PB-CAM Practice we use the "Sweet" Fennel. Fennel is widely grown throughout the world; India, Asia, the Mediterranean, America and Europe. Sweet fennel oil has a very sweet, fresh smell, reminiscent of aniseed. Because of its' effect on hormones and its' diuretic qualities it is valuable oil for reducing obesity. Although all parts of the plant are aromatic, it is the seeds that are crushed and distilled for the essential oil. This is usually colorless, sometimes a very pale yellow.

Principal Constituents:	Anethole, up to 60%, 5% to 6% estragon. Others are anisic aldehyde, camphene, d-fenchone, dipentene, estragol, fenone, phellandrene, and pinene.
Perfume Note:	Medium
Properties:	<ul style="list-style-type: none"> <li>• Stimulation of gastrointestinal motility</li> <li>• Feeling of fullness</li> <li>• Antispasmodic in higher concentrations</li> <li>• Anti-microbial in vitro</li> </ul>
Interactions with Other Drugs:	None known
Contradictions:	None known
Side Effects:	In some cases, skin and respiratory system, allergic reactions.
Anecdotal Information:	An ingredient in PB-CAM's Appetite Control inhaler. The smell is very

<sup>2</sup> The Complete German Commission E. Monographs; Blumenthal, Busse, Goldberg, Gruenwald, Hall Klein, Riggins & Rister, copyright 1998, American Botanical Council, Austin, Texas.



	effective for hiccups, nausea, vomiting, and colic. The seeds are effective when chewed for menopause symptoms. Fennel seed tincture is very effective in controlling any symptom caused by low estrogen since Fennel seeds have the greatest concentration of natural estrogen in the natural world.
Herbal Tea:	Try a cup of the tea for heartburn. To brew use 1 teaspoon of the crushed fennel seeds per cup of hot water and brew 8-10 minutes. Drink as needed.

### Fir Needle (Asia)

#### (Piceae aetheroleum-Fichtennadelöl)

Obtained by distillation of the tips of the branches or twigs of the tree. It shares the same antiseptic, antiviral and antimicrobial properties as all of the other pines distilled for their Essential Oils. Excellent for respiratory synergies and/or blends. Use in Aerotherapy and baths. Effective for rheumatic and neuralgic pains.

Principal Constituents:	Bornyl acetate, terpenes
Perfume Note:	Top/Middle
Interaction with Other Drugs:	None known
Contradictions:	<ul style="list-style-type: none"> <li>Can increase bronchial spasms</li> <li>Do not use on bronchial asthma or whooping cough</li> </ul>
Side Effects:	In some cases irritation to the mucous membranes can occur
Anecdotal Information:	Excellent for aero therapy, use just like any pine derivative essential oil. An ingredient in A-CAM's Sinus & Cold synergy.

### Frankincense (Saudi Arabia)

#### (Boswellia carteri-Burseraceae)

Also known as Olibanum oil, it is distilled from the resin of small trees found in the mountainous areas of India and southern Arabia. It has been used for thousands of years by most of the world's religions to induce prayer and meditation. Also used in Egyptian times in rejuvenating facemasks. It is uplifting and aids in concentration. Its tonifying and rejuvenating properties are of benefit to mature skin types. Frankincense is colorless to pale yellow with a woody smell.

Principal constituents:	Ketonic alcohol (olobanol), resinous matters (30% to 60%), terpenes (camphene, dipentene, alpha and beta, pinene, phellandrene).
Perfume Note:	Base
Anecdotal Information:	This oil is anti-putrid (it preserves the skin). And an ingredient in A-CAM's Skincare synergy, blend and salve. It is also a first choice for

	a meditation or imagery synergy. Great aroma for natural perfumes, body powders and body blends.
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## Garlic (Hungary)

### (Allium sativum-Liliaceae)

We could write an entire book about the many benefits of garlic and garlic essential oil. Garlic has shown in endless accounts to have an antiseptic and antiviral value. Garlic essential oil is distilled from the bulbs and has a very strong, pungent aroma and as such is best blended outdoors. Laboratory tests show that three (3) cloves of garlic is equivalent to 100 thousandth units of Penicillin making it is an excellent natural antibiotic. A study by Dr. Donald Lamm, a Urology Professor at West Virginia University, looked at the effects of garlic on the growth of bladder cancer in mice. The study found that 50 milligrams to 500 milligrams of aged garlic extract slowed the growth of bladder tumors in mice.

Principal Constituents:	Sulphur, iodine, silica, two (2) antibiotic principals; allicine and garlicine. Allistatines 1 & 2 have a powerful effect against Staphylococcus.
Properties:	<ul style="list-style-type: none"> <li>• Intestinal and pulmonary antiseptic</li> <li>• Antibacterial</li> <li>• General stimulant-digestive and circulatory</li> <li>• Slows down the pulse</li> <li>• Hypotensive-vasodilator of the arteries and capillaries, (according to Prof. Loeper), use in cases of high blood pressure.</li> <li>• Antispasmodic, calmative</li> <li>• It is an antisclerotic. It dissolves uric acid and thins blood</li> <li>• Diuretic</li> <li>• Prof. A. Lorand lists it as a preventive of cancer due to its antiputrid intestinal action</li> <li>• Modifies bronchial secretion (asthma and emphysema).</li> <li>• Lipid-lowering</li> </ul>
Interactions with Other Drugs:	Do not take garlic if you are taking any blood thinning medication.
Contradictions:	None known
Side Effects:	Gastrointestinal symptoms such as changes to the flora of the intestine. Allergic reactions reported in rare instances.
Anecdotal Information:	This is a first choice in A-CAM's Immune Boosting synergy for bath. It is blended with Ti-tree, Onion, Oregano and Lavender. Garlic is highly effective against e-coli bacteria which causes urinary tract infections. PB-CAM recommends 1500 mg of garlic oil capsules be taken during cold season because of its antiviral and antibiotic properties.

## Geranium Rose (Morocco)

**(Pelargonium spp.-Geraniaceae)**

This oil is steam distilled from the leaves of a variety of Pelargonium. It is a cooling and calming oil useful for relieving anxiety and tension. It has a balancing effect on the skin making it suitable for dry, oily or problem skin and is a very pleasant oil to use in the bath and in massage blends. It requires anywhere from 700 to 1,000 pounds of the plant to yield 2 ½ pounds of essential oil. The oil is colorless with a tint of green. It has a nice aroma rather like rose oil. This also contains geraniol and citronellol which is why geranium rose oil is often used to as a replacement for the more expensive rose oil.

Principal Constituents:	Alcohol's (terpenic geraniol 75% to 80%, borneol, citronellol, linalool, terpineol), esters (acetic, butyric, valerianic), ketones, phenols (eugenol), and terpenes (phellandrene, pinene).
Perfume Note:	Medium
Properties:	<ul style="list-style-type: none"> <li>• Antidepressant &amp; antiseptic</li> <li>• Astringent &amp; homeostatic (stops bleeding in small cuts as such it's a good addition to home/work first aid kit).</li> <li>• Balancing action in sebum production (skin-care)</li> <li>• Balance hormones for both men and women (menopause &amp; PMS)</li> <li>• Diuretic (useful in bath to alleviate water retention)</li> <li>• Stimulates the lymphatic system.</li> </ul>
Anecdotal Information:	An ingredient in A-CAM's Menopause/PMS synergy and A-CAM's Skincare synergy and salve and PB-CAM Skin Care firming Clay. Use in a bath with grapefruit oil for fluid retention. Geranium Rose is also effective as an insect repellent for moths and mosquitoes.

**Grapefruit (Florida)**

**(Citrus paradisi)**

This very relaxing oil is obtained by expression from the peel of the grapefruit. This citrus oil is unique because it is not a photosensitizer. It is yellow/green in color and the aroma smells exactly like the fruit. It is an excellent diuretic making it a first choice for water retention baths. It is a well-known stimulant of the lymphatic system and as such valuable in massage blends and baths.

Principal Constituents:	Limonene, geraniol, citral, and cadinene
Perfume Note:	Medium
Anecdotal Information:	An ingredient in A-CAM's Insomnia synergy.

## Jasmine Absolute (France)

### (*Jasminum officinale*-Oleaceae)

One of the most uplifting of all the oils. It has an intense, rich, exotic smell and its color is reddish-brown. It is produced from the delicate flowers of the jasmine plant and is cultivated in Egypt, India, Morocco, France, Italy and China. Jasmine is a luxurious stress reducer and can definitely be worn alone as a perfume. Obtained by effleurage, the best absolute is extracted by means of solvent extraction. Jasmine is one of the most expensive of the essential oils because the flower needs to be picked at night and quickly extracted in order to obtain the most therapeutic essential oil. This is done as a non-stop process lasting 72 hours.

Principal Constituents:	Ketone jasmine (responsible for the smell), alpha terpineol, benzyl alcohol, indol, and linalyl acetate.
Anecdotal Information:	It is hard to keep this oil without using it all for yourself so be aware of the cost and usage at \$480.00 an ounce or 35 cents per drop. Aside from that, Jasmine is a first choice hormone balancer for men when used alone and for both men and women when mixed with rose in a synergy and/or blend (add 2 to 4 drops to any stress synergy/blend). It is known for its effectiveness in synergies and/or blends for breathing difficulties, bronchial spasms and coughs. Use for dry skin conditions especially for people who have sensitive or easily irritated skin. Jasmine blends well with other oils that have relaxing properties.

## Juniper Berry (Italy)

### (*Juniperus communis*-Cupressaceae)

This oil is distilled from the berries of a bush grown in Europe and Canada. The oil is colorless to pale yellow and grows darker and thicker with age and exposure to air. It is very effective in the treatment of cystitis and is used in skin preparations to aid in reducing oily skin, acne, and for opening blocked pores. When Juniper Berry is added to the bath it is refreshing and will help to rid the body of toxic fluids. Juniper Berry must NOT be used during pregnancy.

Principal Constituents:	alpha pinene, myrcene, sabinene, thujone, borneol, cadinene, camphene, isoborneol, juniperine, terpenic alcohol, and 4-terpineol.
Perfume Note:	Medium

Properties:	<ul style="list-style-type: none"> <li>• Antiseptic</li> <li>• Diuretic</li> <li>• Astringent &amp; homeostatic (stops bleeding)</li> <li>• Stimulates the appetite</li> <li>• Antidepressant</li> <li>• Helps with PMS</li> <li>• Balances hormones (menopausal)</li> <li>• Stimulates the lymphatic system</li> </ul>
Interactions with Other Drugs:	None known
Contradictions:	Do not use if pregnancy and/or if you have inflammation of the kidneys
Side Effects:	Prolonged usage or overdosing may cause kidney damage
Anecdotal Information:	A first choice for a diuretic bath. Juniper Berry is also effective for hormone balancing and for anxiety synergies/blends. It is a first choice for any skin firming products as it firms the skin and increases circulation. Also great for acne and oily skin. In addition it is effective for relieving insomnia and stress.
Herbal Tea:	Juniper berries are crushed to make the tea and is a very effective diuretic. Egyptian doctors used the tea as a laxative as early as 1550 BC.

### Lavender NF/FCC (France)

#### (Lavandula officinalis-Labiatae)

Lavender has a familiar, sweet fragrance and is one of the most widely used of the oils. It has a balancing effect on the nervous system, relieves headaches, helps to fight insomnia, and is very pleasant to use in a massage blend or in a bath. Lavender can be used as an antiseptic as it aids in rapid healing and is one of the best oils to use on burns. Use for open sores, bites, dermatitis and any other inflammation of the skin. Lavender is grown in France, England and Spain.

Principal Constituents:	Alcohol's (borneol, geraniol, and linalool), esters, (geranyle and Linalyl), and terpenes (pinene and limonene). Lavender also contains a high proportion of phenol which gives it very strong antiseptic and antibiotic properties.
Perfume Note:	Medium
Properties:	<ul style="list-style-type: none"> <li>• Antiseptic, disinfectant</li> <li>• Balance nervous system</li> <li>• Anti-spasmodic</li> <li>• Effective with wounds and sores; great for burns</li> <li>• Effective for acne, dry eczema, ingredient in skin-care blends</li> <li>• Use in Balneotherapy for treatment of functional circulatory disorders</li> </ul> <p>Laboratory tests show:</p>

	<ul style="list-style-type: none"> <li>At a strength of 4.5% the essence of lavender kills the Eberth's bacillus (typhoid) and Staphylococcus.</li> <li>At a strength of 5% it will destroy loefflers bacillus (diphtheria).</li> <li>The essence kills the tuberculosis bacillus at strength of 0.2% and its antiseptic power is greater than those of phenol, cresol, and quaiacol<sup>3</sup>.</li> <li>Lavender vapor destroys Streptococcus and Pneumococcus in 12 to 24 hours.</li> </ul>
Contradictions/Side Effects:	None known
Anecdotal Information:	When in doubt, use Lavender. It is a first choice when blended with ti-tree and eucalyptus in a synergy or blended with clay for herpes and shingles. A first choice for sinus/cold synergies/blends. It is undisputed as an anti-inflammatory and for healing burns. Lavender essential oil is a must have for your blending kit mainly for its versatility and effectiveness. It is used to relieve insect bites, minor cuts, abrasions and inflammation. Because lavender essential oil offers a wide-range of therapeutic diversity the PB-CAM Practitioner Consultant uses it in most of the synergies, blends and products we produce. We also use Lavender flower in tea blends and tinctures.

### Lemon NF/FCC (Italy (Citrus limon-Rutaceae)

This oil is expressed from the peel of ripe lemons grown mainly in Cyprus and California. It has a fresh aroma truly reminiscent of ripe lemons. Lemon oil is highly antiseptic and has an astringent effect on the skin. It may be used by itself or in blends for boils, broken capillaries, oily skin, herpes, and insect bites.

Principal Constituents:	Limonene, up to 90%, citral 3-5%, coumarines (Bergamotene and libertine) and flavones (doismine and limotricine).
Perfume Note:	Top
Properties:	<ul style="list-style-type: none"> <li>Vitamins B1, B2, B3 which maintains balances nervous system</li> <li>Vitamins A &amp; C which strengthens the immune system</li> <li>P &amp; P a factor in the protection of the vascular system</li> </ul> <p>Laboratory tests show:</p> <ul style="list-style-type: none"> <li>Vaporized essence neutralizes Meningococcus in 15 minutes<sup>4</sup></li> <li>Essential oil of lemon neutralizes the Eberths bacillus in 5 minutes and Staphylococcus in 5 minutes</li> <li>It leaves Loefflers bacillus completely inactive at 0.2% strength</li> </ul>

<sup>3</sup> (Prof. Courmont, Morel and Rochaix).

<sup>4</sup> (Prof. Courmont, Morel and Rochaix).



Anecdotal Information:	Lemon has antiviral and antibiotic properties along with relaxing qualities that make it a good choice for aerotherapy synergies/blends. Lemon is a natural bleach and antiseptic. It is used in non-toxic cleaning products. Additionally lemon oil can be used for poor circulation, muscle aches, colds, flu, broken capillaries, oily skin, insect bites, it also repels ants & moths. Lemon essential oil is derived from the peel of lemons. In tincture form it is use to purify drinking water and as a natural lemon water fruit drink. An ingredient in A-CAM's Energy/Alert synergy and Non-toxic Products.
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### Lemongrass (India)

#### (*Cymbopogon citratus* and *flexuosus*-Gramineae)

Lemongrass oil is obtained by distillation from two types of grass grown in India, Western Africa and Indonesia. It has a strong, fresh, lemon odor. It is a strong anti-bacterial oil useful for problem skin, open pores and acne, and is a good insect repellent. It takes approximately 350 kilos of the grass to yield 1 oz. of essential oil.

Principal Constituents:	Citral (70% to 85%). <i>C. flexuosus</i> contains; citronellol, dipentene, farnesol, geraniol, linalool, limonene, methylheptenol, myrcene, n-decyclic aldehyde and nerol. <i>C. citratus</i> differs slightly, containing caprylics, citronellol, dipentene, farnesol, furfurol, geraniol, isopulegol, isovaleerianic aldehyde, 1-linalool, methylheptenone, myrcene, n-decyclic aldehyde, nerol, terpineol, and valeric esters.
Perfume Note:	Top
Anecdotal Information:	Lemongrass is effective when used in a non-toxic lice shampoo mixed with lavender. Add a few drops in a synergy and/or blend for muscle aches, skin care, acne and open pores. It is also a favorite to use for house cleaning and disinfecting. Add 100 drops to a bucket of water to clean tile and wood floors, kitchen counters and bathroom tiles. At the same time you will spread anti-bacterial and relaxing aromas all throughout the house.

### Mandarin/Tangerine (Brazil)

#### (*Citrus nobilis*, *Citrus reticulata*)

Mandarin originates from China and is a member of the citrus family. Mandarin essential oil is obtained by expression of the outer rind of the fruit. The gentle, calming aroma of this golden/yellow essential oil makes it a favorite for relaxing synergies and/or blends. Tangerine is the name given to the "mandarin" grown in the United States. Mandarin is the name used when it grows in Europe and Asia.

Principal Constituents:	Methylantranilate, geraniol, limonene, citrol, and citronellol
Perfume Note:	Medium
Anecdotal Information:	Uses are the same as orange essential oil

## Marjoram (Egypt)

### (*Origanum majorana* - Labiatae)

Sweet marjoram oil is steam distilled from the dried leaves and flowering tops. It is grown in France, Eastern Europe and Tunisia. When freshly distilled it is greenish-yellow in color and turns brown as it ages.

Principal Constituents:	Over 80% phenols (carvacrol and thymol), borneol, camphor, cymene, pinene, sabinene and terpineol.
Perfume Note:	Middle
Properties:	<ul style="list-style-type: none"> <li>• Antispasmodic, calmative</li> <li>• Arterial vasodilator</li> <li>• Sedative, dulls emotions</li> </ul>
Anecdotal Information:	A first choice when mixed with valerian for an emotional synergy. Smell for lowering high blood pressure. Also effective for headaches and all muscular pains, bruises, spasm, sprains and strains. Use in insomnia synergies and/or blends. The essence neutralizes the tuberculosis bacillus at a strength of 0.4%. An ingredient in A-CAM's D-Emotion Synergy. Very effective upon smelling.
Herbal Tea:	A teaspoon of the herb in a cup of steamy water makes a mild tonic as a stimulant with relaxing properties. It works well with some types of headaches and digestive problems. An ingredient in PB-CAM's Muscle Ache Tea Blend and PMS Tea Blend.

## Myrrh (Egypt)

### (*Commiphora myrrha*-Burseraceae)

Distilled from the oleo-gum resin that occurs naturally in the trunks of small trees grown in Eastern Africa and Southern Arabia. The oil is an amber color and is heavy and sticky. It has preserving and antiseptic properties and is used to relieve chronic lung conditions and infections of the mouth and throat. Historically Myrrh has proven to be very important in the area of skin care and for its anti-putrid properties.

Principal Constituents:	Acids (acetic, formic, myrrholic, palmitic, tri terpenic,), alcohols, aldehydes (cinnamic, cuminic), sugars (arabinose, galactose), phenols (eugenol, Mircresol), resins and terpenes (cadinene, dipentene, limonene, pinene).
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Anecdotal Information:	Myrrh is a first choice for relieving mouth ulcers. Its qualities make it a great addition to non-toxic toothpaste. Due to its anti-putrid quality it is a good addition to all skin care synergies and/or blends. It is an ingredient in A-CAM's Skin-Care synergy, clay and salve.
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### Neroli Petal (Italy)

#### (Citrus aurantium bigaradia-Rutaceae)

Neroli oil is distilled from the blossoms of the bitter orange tree and comes mainly from France, Italy, and Tunisia. The fresh oil is yellowish and it turns reddish-brown if exposed to light and air. This oil has a refreshing, floral smell and is a classic ingredient in high quality perfumes. It is relaxing and uplifting and has benefit in relieving anxiety, depression and insomnia. For skin care it is useful for dry, mature skin.

Principal Constituents:	Acetic esters, dipentene, terpineol, farnesol, Geraniol, indol, jasmone, camphene, alpha and beta pinene, nerol and nerolidol plus traces of benzoic acid and a few hydrocarbons.
Perfume Note:	Top
Anecdotal Information:	Valuable for its sedative properties and is used for anxiety, depression, to ease tension and as an antispasmodic.

### Niaouli (Spain)

#### (Melaleuca viridiflora-Myrtaceae)

Niaouli oil is distilled from the leaf. This oil appears very pale to dark yellow in color and is very liquid. Niaouli is similar to Cajeput and Eucalyptus in regards to their aroma and therapeutic properties.

Principal Constituents:	Cineol 35-60%, eucalyptol, esters (butyric and isovaleerianic) limonene, pinene, and terpineol.
Perfume Note:	Top
Interactions with Other Drugs:	Niaouli oil contains 35-60 percent cineol. Cineol causes the induction of the enzymes involved in the detoxification of the liver. The effects of other drugs can therefore be reduced and/or shortened.
Contradictions: S	Synergies or blends should not be used in the facial area particularly the nose of infants and toddlers.
Side Effects:	In rare cases nausea, vomiting, and diarrhea can occur with internal use and balneotherapy.
Anecdotal Information:	Effective for catarrhs. This oil can be used in place of Eucalyptus because it has the same qualities and a milder aroma. Use for urinary tract infections, sore throats, sinusitis, runny nose, bronchitis, insect bites, ulcers and wounds. Ingredient in A-CAM's Sinus & Cold Synergy and Salve.

Caution:	Do not use in a bath for anyone needing to maintain a certain blood level of medication in their system
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### Nutmeg (India)

#### (*Myristica fragrans*-Myristicaceae)

Nutmeg is distilled from the seeds of the nutmeg tree. This oil is very pale yellow in color and fluid. The odor is spicy and hot.

Principal Constituents:	Mostly myristicine, small quantities of borneol, camphene, cymol, dipentene, geraniol, linalool, pinene, sapol, terpineol, acetic, butyric, caprylic, formic and myristic acids.
Perfume Note:	Base
Anecdotal Information:	Use very seldom and by the drop only. Added to synergies and/or blends for bad breath and muscular pain.
Caution:	Myristicine is a narcotic and hallucinogenic and is very toxic. It is best not to use, or to use wisely

### Orange NF/FCC (U.S.A.)

#### (*Citrus aurantium sinensis*-Rutaceae)

This oil is expressed from the peel of the sweet orange. The color is pale yellow and it is not completely clear due to wax from the outer skin.

Principal Constituents:	90% limonene with aldehydes, citral, citronellol, Geraniol, linalool, methyl, anthranilate, nonyl alcohol and terpineol.
Perfume Note:	Base
Anecdotal Information:	Use for loss of appetite, anxiety, depression, fear, hysteria, insomnia, palpitations, panic and shock. Orange is an ingredient in A-CAM's D-Stress synergy, Non-Toxic Products and Insect Repellent.

### Patchouli (Indonesia)

#### (*Pogostemon cablin*-Labiatae)

This oil is distilled mainly in Indonesia and the Philippines from the dried leaves of a small plant. It has a persistent, dry, woody odor. It is especially used for its fixative and fermenting properties in perfumery and relaxing blends. Patchouli is claimed to be an aphrodisiac and it may also be used in skin care blends to reduce scarring and for oily and problem skin.

Principal Constituents:	Patchoulol, 25% to 50%, sesquiterpenes (d-guaiene, norpatchoulol, and patchoulene). Traces of benzoic and cinnamic aldehydes, cadinene, carvone, caryophyllene, coerulein, eugenol, humulene and seychellence.
Perfume Note:	Base
Anecdotal Information:	Use for fluid retention, nervousness and depression. Heals cracked skin and also acts a skin rejuvenator. My favorite choice as a deodorant blended with Cypress (antiperspirant) and Bergamot (deodorizer).

### Peppermint NF/NCC (U.S.A.)

#### (*Mentha piperita*-Labiatae)

Distilled from the leaves and flowering tops that are native to Europe. It is known for its decongestant, stimulating and refreshing properties. It is also used to relieve many kinds of digestive upsets including nausea, flatulence and indigestion. Also known to be effective for migraines when blended with Lavender and Clay Sage.

Principal Constituents:	Menthol 30% to 70%, terpenes (menthene, phellandrene, and limonene), 15% to 30% ketone (methone) and tannin.
Perfume Note:	Middle
Contradictions:	Obstruction of the bile ducts, gallbladder inflammation, and severe liver damage. Should not be used on the face and in particularly the nose of infants and small children.
Anecdotal Information:	Use for diarrhea, indigestion, stomach pain, travel sickness, bad breath, colds, headaches (migraine and digestive in origin), sinusitis, debility, coughs, flu, bronchitis and as an insect repellent. It brings body temperature down from 4 to 6 degrees. Just add a few drops in a water bottle filled with filtered water and sprayed away from face and neck. It is excellent for hot flashes and to bring down a fever.
Note:	In a bath do not use more than two (2) drops
Herbal Tea:	Recommended for any stomach upsets and as an alert/energy drink. Ingredient in A-CAM's Acid Reflux and IBS tea blend.

### Peruvian Balsam (S. America)

#### (*Balsamum peruvianum*-Fabaceae)

Peruvian Balsam is a resin. The resin is generated from the scorched tree stems of the Myroxylon balsamum plant. It is a very thick dark brown resin known for its antibacterial/antiseptic properties. It promotes the granulation process and is an anti-parasitic, especially for scabies. Use for infected and poorly healing wounds, for burns, for decubitus ulcers, frostbite, and bruises caused by prostheses.

Principal Constituents:	50%-70% ester mixture composed of benzyl esters of benzoic and cinnamic acid.
Perfume Note:	Base
Interaction with Other Drugs:	None known
Contradictions:	Distinct allergic dispositions
Side Effects:	Skin reactions
Anecdotal Information:	Peruvian Balsam is very thick and very messy to work with and it is difficult to pour. It is advised to warm the oil by placing the bottle of Peruvian Balsam in warm water to liquefy it for a better consistency. It is an ingredient in A-CAM's Psoriasis salve, perfumes, skincare soaps and any skincare product.

### Petitgrain (Italy)

#### (Citrus aurantium bigaradia-Rutaceae)

This essential oil is distilled from the leaves and young twigs of the bitter orange tree. It has a fresh, floral and sweet smell, reminiscent of Neroli, which is made from the flower of the same tree. The better the quality, the closer the aroma is to Neroli. Petitgrain is less expensive than Neroli with almost the same benefits.

Principal Constituents:	Geraniol and geranyl acetate, limonene, linalool, linalyl acetate, and sesquiterpenes.
Perfume Note:	Top
Anecdotal Information:	Use for relaxation, acne, and perfumes in synergies, blends, and products

### Pine Needle (Canada)

#### (Pinus sylvestris-Coniferae)

Distilled from the needles and cones of several species of conifer. The oil is colorless or very pale yellow, with a very strong aroma, camphor and balsamic.

Principal Constituents:	Bornyl acetate, 30% to 40%, terpenes (cadinene, dipentene and phellandrene, pinene and sylvestrene).
Perfume note:	Middle
Properties:	<ul style="list-style-type: none"> <li>• Chest infections</li> <li>• Sore throats</li> <li>• Colds</li> <li>• Stimulates circulation</li> <li>• Relieves muscular pain</li> <li>• Antiseptic; respiratory tract</li> <li>• Catarrhal of lower and upper respiratory tract</li> </ul>



Interaction with Other Drugs:	None known
Contradictions:	Do not use for bronchial asthma or whooping cough
Side Effects:	Bronchial spasms may be reinforced. Irritation may occur on skin and mucous membranes.
Anecdotal Information:	Use for sinuses, general debility, and infections of the respiratory tract except when spasms are part of the condition. Ingredient in A-CAM's Sinus/Cold synergy and salve. Pine needle tea is a great first aid for camping trips and when someone begins to show symptoms of colds and/or respiratory problems.

### Rose Absolute (France)

#### (*Rosa* spp.-Rosaceae)

Rose is a unique oil that is produced from the red roses grown traditionally in Bulgaria and Morocco. Rose is a cooling and soothing essential oil that is excellent for stress related conditions and menstrual problems including PMS. It is beneficial for dry, inflamed and mature skin types. Rose Absolute is produced by solvent extraction or effleurage and it takes 2,000 pounds of rose petals to produce one pound of rose oil.

Principal Constituents:	Eugenol, farnesol, geraniol (or citronellol), linalool, nerol, nonyllic aldehyde, rhodinol and stearoptene.
Perfume Note:	Base
Anecdotal Information:	Use for poor circulation, nausea, vomiting, headache, menstrual irregularity, depression, insomnia, stress, skin antiseptic, and for inflamed, mature and sensitive skin. Rose absolute has such a high concentration that you only need one or two drops in a synergy or blend for the effects to be felt. It cost the same as Jasmine and is used mostly for fine perfumes. It is excellent in skincare products or just to smell by itself and as a treat to relaxation. In smell recognition there are some people who will repel the aroma. This could be from past negative experiences/memories where the aroma was in the air.

### Rosemary (France)

#### (*Rosmarinus officinalis*-Labiatae)

Rosemary is found growing wild in the countries bordering the Mediterranean and has been used as a culinary and medicinal herb for centuries. The oil is refreshing, stimulating and is said to strengthen memory, concentration and to relieve headaches. The oil ranges from colorless to slightly pale yellow-green. The aroma is camphoric, similar to that of the crushed leaves. It is also excellent for hair and scalp problems including hair loss and dandruff. Rosemary is a strong antioxidant. Several studies have shown that it helps prevent the development of cancerous tumors in laboratory animals.

Researchers at the University of Illinois in Urbana found that rosemary reduced the incidence of breast cancer in animals at high risk for developing the disease. “In the few studies done so far rosemary has proven to be strong inhibitor of the development and growth of cancerous tumors” says Dr. Chi-Tang Ho, Ph.D., Professor, Department of Food Science at Rutgers University in New Brunswick, New Jersey. Based on this research we can recommend Rosemary Tea for those wanting to experience the benefits noted in this study.

Principal Constituents:	Borneol 15%, camphene, camphor, cineol, lineol, pinene, resins and saponin.
Perfume Note:	Middle
Properties:	<ul style="list-style-type: none"> <li>• General stimulant</li> <li>• Cerebral stimulant</li> <li>• Diuretic</li> <li>• Sudorific; causing sweating</li> <li>• Cicatrizing (wounds &amp; burns)</li> <li>• Parasiticide (destructive to parasites)</li> </ul>
Anecdotal Information:	Use as a diuretic, for headaches, mental fatigue, to strengthen memory, for aches and pains, general debility, respiratory problems, dandruff, scalp disorders, lice repellant (in shampoo), and as a tick repellant in dog shampoos. Stimulates (increases) blood supply.
Caution:	Rosemary raises blood pressure.
Herbal Tea:	Brew 1 teaspoon of the dry or fresh herb per cup of steamy water. Highly recommended for those at risk for developing breast cancer. Rosemary is a good alert/energy tea for those times of needed energy. It is also my choice when getting over a flu or cold. An Ingredient in PB-CAM's Sinus & Cold tea blend, Anti-Oxidant tea blend & Alert blend.

## Sage Dalmation (Spain)

### (*Salvia officinalis*-Labiatae)

Distilled from the herb indigenous to the northern shores of the Mediterranean. It has a fresh, herbaceous and camphoraceous smell. It is also cultivated in the U.S.A. Sage is a stimulating oil particularly of the nervous and digestive systems. It is known to relieve muscular aches and pains in deep muscles, to reduce excessive sweating and is traditionally used in mouthwashes for gum and mouth infections.

Principal Constituents:	Borneol, camphor cineole, alpha pinene and salvane. Thujone 25%-65%.
Perfume Note:	Top

Interaction with Other Drugs:	None known
Contradictions:	Should not be used internally, especially during pregnancy.
Side Effects: I	If taken internally Epileptiform convulsions can occur.
Anecdotal Information:	Use for all rheumatic conditions and for aches and pains in joints. Also works as a diuretic, is as a good nerve tonic and for ulcers and wounds. It is an ingredient in A-CAM's Muscle Ache synergy and salve.
Herbal Tea:	The herb is an ingredient in PB-CAM's Muscle Ache blend.

## Spearmint (China)

### (*Mentha spicata*-Labiatae)

The essential oil of this branching herb is distilled from the flowers and leaves. It has a very fragrant aroma and has been used in food flavoring for hundreds of years. Use it as a breath freshener and as a deodorizer in non -toxic products. Cultivated largely in the US and the Far East.

Principal Constituents:	Menthol, terpenes, ketone and tannin.
Perfume Note:	Medium
Anecdotal Information:	An ingredient in A-CAM's Tooth Paste and breathe freshener.
Herbal Tea:	An excellent tea for any stomach problems. It is also a great tea to drink for increasing energy and alertness. An ingredient in A-CAM's Acid Reflux and IBS tea blend.

## Tea Tree/Ti-Tree (Australia)

### (*Melaleuca alternifolia*-Myrtaceae)

Also known as Ti-tree, it is obtained by steam distillation from the leaves of a tree grown in Australia. The oil is colorless to pale yellow with a spicy odor. It has excellent germicidal and antifungal properties which offers a wide range of uses including the treatment of colds, flu, herpes, thrush, athlete's foot, warts, and infections. It takes one ton of fresh leaves to produce about twenty pounds of oil.

Principal Constituents:	Terpenes, 50-60%, cineol, sesquiterpenes, and sesquiterpenic alcohols.
Perfume Note:	Top
Properties:	<ul style="list-style-type: none"> <li>• Anti-infectious action</li> <li>• Active against all three categories of infectious organisms - bacteria, fungi and viruses</li> <li>• Powerful immune-stimulant</li> <li>• As an anti-fungal for ringworm and athlete's foot.</li> </ul>
Anecdotal Information:	Use for colds, bronchitis and sore throat, as a mouthwash, for infected wounds, insect bites, and fungus.

## Thyme White NF (Morocco)

### (Thymus spp.-Labiatae)

Thyme White essential oil is obtained from the flowering tops. Thyme is distilled mainly in Spain and Israel although the herb is grown throughout Europe. It is a warm and stimulating oil that will relieve muscular pain. It is used to relieve many kinds of infections in the skin, urinary tract and respiratory system. It is a strong antimicrobial and strengthens the immune response. Thymol, thyme's most active ingredient, is well known for its antibacterial and antifungal properties. "The oil from the leaves of this plant, when inhaled, helps to loosen phlegm and relax the muscles in the respiratory tract," explains Norman R. Farnsworth, Ph.D., director of the Program for Collaborative Research in the Pharmaceutical Sciences at the University of Illinois at Chicago.

Principal Constituents:	25-40% Thymol and carvacrol with borneol, cineol, linalool, menthone, p-cymene, pinene, and triterpenic acid.
Perfume Note:	Middle
Contradictions/Side Effects/Interactions with Other Drugs:	None known
Properties:	<ul style="list-style-type: none"> <li>• Antispasmodic</li> <li>• Diuretic</li> <li>• Antiseptic</li> <li>• Expectorant</li> <li>• Preventive of contagious and pulmonary diseases (diffused)</li> <li>• Anti-mold and mildew</li> </ul> <p>The vapors effectively neutralize:</p> <ul style="list-style-type: none"> <li>• Eberth's bacillus</li> <li>• Diphtheria</li> <li>• Staphylococcus</li> <li>• Tuberculosis</li> </ul>
Caution:	This oil must be well diluted before using as it may irritate sensitive skin.
Anecdotal Information:	Useful for increasing circulation, lowering high blood pressure, as a diuretic, for colds, flu, headaches, sinusitis, sore throats, tonsillitis, menstrual irregularity, insomnia, anxiety, nervous debility, for depression, coughs, bronchitis, emphysema, asthma, boils, sores and hair loss. It is an ingredient in A-CAM's SBS Synergy and in any products used to eliminate mildew and mold.
Note:	We use Thyme "White" but there is also Thyme "Red". What achieves the red color is not the plant but the type of container in which the oil is distilled. Metallic containers oxidize turning the oil red. Onyx containers do not react with the oil leaving the oil in its natural "white" color. It is not known how the therapeutic value is affected by the oxidation of the Thyme Red
Herbal Tea:	An ingredient in A-CAM's Sinus & Cold tea blend.

**Valerian (France)****(Valerian officinalis L.-Valerianaceae)**

Valerian is distilled from the roots and rhizome of an herb grown in Europe, Russia and Asia. The essential oil has an aromatic, pungent, musky smell which for 100's of years has been used as a sedative and tranquilizer. Natural chemicals in valerian called valepotriates act as a muscle relaxer making the essential oil useful for alleviating menstrual cramps and muscle spasms. Current research shows its effectiveness with insomnia. "According to the latest information available, we simply don't know what the active ingredients are." said Varro E. Tyler, Ph.D., Professor of Pharmacognosy, Purdue University, Lafayette, Indiana. Although not related to Valium we utilize Valerian due to their similar properties and qualities. It is also known as an antispasmodic. Use Valerian for reducing blood pressure and as a sleep-promoting sedative.

Principal Constituents:	Valerianic acid, isovalerianic acid, borneol, pinene, camphene, methyl-2-pyrrole ketone, and sesquiterpenes.
Perfume Note:	Base
Contradictions/Side Effects/Interactions with Other Drugs:	None known
Anecdotal Information:	Valerian is a first choice for mixing with Marjoram in emotional synergies and /or blends. Because it is an excellent relaxant Valerian belongs in the practitioner's blending kit. It is an ingredient in A-CAM's D-Emotion and Insomnia synergy.
Herbal Tea:	The tea is scientifically validated as a sleep aid. It is an ingredient in A-CAM's Insomnia Tea and the Anti-Depressant and PMS tea blend. Excellent in a tincture for insomnia, depression, ADHD and more.

**Vetivert (India)****(Vetiveria zizanioides/Andropogon muricatus-Gramineae)**

Vetivert is an aromatic grass that grows up to a height of six feet. The essential oil of Vetiver is distilled from the roots of this herb and is grown mainly in India and Indonesia. Vetivert has a sweet, woody and earthy smell and is used as a base note for perfumes and blends. The oil is dark brown in color. Its properties are anti-inflammatory, antiseptic, aphrodisiac, cicatrizer, nervine, sedative and makes a pleasant addition to massage and bath blends. It takes one ton of plant material to produce six to seven pounds of oil.

Principal Constituents:	Vetiverol alcohol
Perfume Note:	Base
Anecdotal Information:	Great for relaxing perfumes and deodorants and an excellent addition to any skincare product.

**Ylang-Ylang 1st grade extra (Indonesia)****(Cananga odorata-Anonaceae)**

This oil is distilled from the fresh flowers of the trees grown mainly on the Island of Comoros off the coast of East Africa and Indonesia. It has a powerful and exotic floral smell and has a relaxing effect on the nervous system. It is traditionally used as an aphrodisiac and for the relieving high blood pressure.

Principal Constituents:	Alpha pinene, benzoic acid, cadinene, caryophyllene, cresol, eugenol, isoeugenol, 5-7% linalyl acetate, 8-10% linalyl benzoate and 30-32% linalool and geraniol.
Perfume Note:	Base
Anecdotal Information:	<p>One of the most favorite essential oils due to its fragrance and its ability to evoke a very relaxing change upon smelling. Useful for high blood pressure, depression, insomnia, tension, oily skin and in suntan blends. It is also a well-known attractant and useful in many synergies, blends and products.</p> <p>Throughout the years while observing this essential oil's ability to induce relaxation upon smelling we began to ask, "What other synthetic chemical aromas (fumes) do we smell in our environments that could cause reverse symptoms such as increase in hearts rates, increase in blood pressure, panic attacks and more?" This was in the early 1990s. That was when we began to look at and document illnesses caused by chemicals in the air we breathe and began to offer options for better in-door health. That began the formation of PB-CAM's Protocols of Practice.</p>
Caution:	Should not be used by anyone with low blood pressure.



The components of essential oils are included here for those who are interested in this information. You do not need to memorize the information to practice PB-CAM but it is good to know since it offers natural chemical components that give support to the therapeutic properties of the Plant Based Essential Oils. It is good to know that there are scientific reasons for their many antibacterial, antiviral, anti-inflammatory, bronchial dilators, etc. Remember, plant materials have been healing our illnesses since the beginning of time. It worked then and it works now. Let's read some of the chemical reasons for the effectiveness of plant materials in providing health care and maintenance without debilitating effects.

Plant essential oils are vegetable excretory products composed of volatile chemicals (organic compounds which vaporize easily upon heating and are flammable) that are lipophilic (fat loving) and nonpolar or slightly polar in nature. They are found in special cells of the plant like glandular hair, oil duct, resin canals or hard wood.

A typical essential oil contains several hundred individual chemicals with the great majority at concentrations of less than 1%. Consider the fact that a drop of essential oil contains about 40,000,000,000,000,000,000,000, or forty thousand million, million, million, million molecules! When we considered trace constituents of essential oils (may be present at only 0.001%) the number of molecules involved is gigantic.

On a cellular scale amounts of chemicals that seem insignificant to us can in fact be very significant. It is therefore very important not to see a "drop" of essential oil as merely a small amount. One drop of essential oil equals about 20lbs of the plant material.

The building blocks of essential oils are carbon, hydrogen and oxygen. All three are contained in every essential Oil. They combine in countless mono and sesquiterpenic families of hydrocarbons, alcohols, ketones, acids, phenols, esters, coumarins and furocoumarins.

### Terpenes

Terpenes are composed of hydrogen and carbon atoms only known as hydrocarbons. All terpenes are based on the isoprene unit, an essential component in plant biochemistry. Monoterpenes are made up of two such units joined head to tail and so contains 10 carbon atoms. These are called monoterpenes. They are antiseptic, bactericidal, analgesic, expectorant and stimulating. Studies conducted by Dr. Michael N. Gould, concluded "Monoterpenes act against cancer in three decisive ways; they appear to interfere with the product of ras oncogene as well as other growth-control proteins by disrupting the process by which molecules known as Isoprenes bring proteins to their proper 'homes' within the cell.



Monoterpenes may also reduce a tumor cell's capacity to make energy by blocking the synthesis of an important enzyme, coenzyme Q (CoQ), in the cell's mitochondria.” Also of Importance “These cancer-fighting compounds appear to increase cellular levels of molecules important for checking cancer”. In addition monoterpenes may indirectly increase levels of transforming growth factor beta (TGF-beta), a molecule known to inhibit the growth of mammary cells.

Some common Monoterpenes are Camphene, Carene, Cymene, Dipentene, Limonene, Myreene, Ocimene, Phellandrene, Pinene, Sabinene and Terpinene.

### Sesquiterpenes

Sesquiterpenes are composed of three isoprene units and therefore have 15 carbons atoms. They are less common in essential oils than monoterpenes. They are antiseptic, bactericidal, anti-inflammatory, calming, analgistic and anti-spasmodic.

Some common Sesquiterpenes are Bisabolene, Cadinene, Caryophyllene, Cedrene, Chamazulene, Copaene, Farnesene, Germacrene, Humulene, Selinene and Terpinolene.

### Functional Groups

A functional group is an atom or group of atoms that defines the structure of a particular family of organic compounds and determines their properties. Some examples of functional groups are the hydroxyl group (-OH), which are found in alcohols and phenols and the carbonyl group (C=O) which are found in aldehydes and ketones. Oxygen containing functional groups contribute greatly to the odor of essential oils and makes them slightly soluble in water and soluble in alcohol.

### Alcohols

These are the most varied group of terpene derivatives, usually based on monoterpenes. Linalool (rosewood) and geraniol (geranium) are examples of monoterpene alcohols. More rarely plant alcohols are based on sesquiterpenes. Santalol (sandalwood) is an example. They are anti-infective, strongly bactericidal, antiviral and stimulating. They are nontoxic in use and do not cause skin irritation.

Some common Benzyl Alcohols are Bisabolol, Borneol, Citronellol, Danucol, Farnesol, Linalol, Menthol, Neomenthol, Nerol, Geraniol, Lavandulol, Nerolidol, Acetaldehyde, Citronellal and Valeranal.

### Common Aldehydes

Some common Aldehydes are Anisaldehyde, Benzaldehyde, Cinnamaldehyde, Citral, Cuminaldehyde, Geranial, Myrtenal, Neral and Perillaldehyde.

### Ketones Common Alcohols

Caroto,l Cedrol, Nuciferol, Olibanol, Patchouli, Alcohol Perillyl, Alcohol Phenylethyl, Alcohol Pinocarveol, Sabinol, Santalol, Terpeneol, Terpinen-4-ol, Vetiverol, Viridiflorol.

### Aldehydes

Aldehydes are widely distributed as natural essential oils components. Examples are cinnamaldehyde (cinnamon bark), citral (lemongrass) and citronellal (citronella). Aldehydes have a slightly fruity odor. They often cause skin irritation and allergic reactions. Their names end in –al or –aldehydes.

These compounds are structurally similar to aldehydes. They are stable compounds and not easily oxidized. Examples are fenchone (fennel) carvone (caraway) and camphor (rosemary).

The names of Ketones generally end in one such as Acetophenone, Camphor, Carvone, Jasmone, Methone, Methylheptenone, Pinacamphone, Piperitone, Pulegone, 2-undecanone and Valeranone.

### Common Ketones

Fenchone, Ionone, Irone, Nootkatone, Perilla, Ketone Tagetone, Thujone, yEsters.

These compounds often have a fruity odor. They are produced from the corresponding terpene alcohol and an organic acid. The highest levels are reached on maturity of the fruit/plant or flower. In Bergamot as the fruit ripens linalool, an alcohol, is converted to the ester linalyl acetate. In peppermint menthol is converted to menthyl acetate. The names of Esters generally end in –yl or –ate.

### Common Esters

Benzyl acetate Benzyl benzoate Bornyl acetate Bornyl isovalerate Butyl angelate Citronellyl acetate Eugenyl acetate Genaryl acetate Lavanduyl acetate Linalyl acetate Menthyl acetate Menthyl anthranilate Menthol benzoate Menthyl butyrate Menthyl salicylate

### Phenols

They are antiseptic and bactericidal. Because they stimulate both the nervous system (making them effective against depressive illness) and the immune system they activate the body's own healing

process. They can be toxic to the liver and an irritant to the skin if used in substantial amounts or for a long time. A number of phenols appear in essential oils as phenolic ethers. These are more complicated structures. Examples are safrole, methyl chavicol, and eugenol methyl ether. They are known as expectorants, purgatives, antifungals, antivirals and hormonal balancers; e.g. the diterpenic alcohol sclareol in *Salvia sclareol* (Clary Sage) and also the sesquiterpenic alcohol viridiflorol in *Melaleuca viridiflora* (Niaouli).

### Common Phenols

Some common phenols are Carvacrol, Chavibetol, Cresol, Eugenol, Guaiacol, iso- Eugenol and Thymol.

### Ethers and Oxides

Esthers are compounds in which the oxygen atom in the molecule is situated between two carbon atoms, -C-O-C-. A cyclic ether is an ether in which the oxygen atom is found within a ring. Cyclic ethers are also known as oxides.

The most important oxide found in essential oils is cineole, which exist in two forms. The most abundant one is 1,8-cineole also known as eucalyptol when obtained from *Eucalyptus*. Ethers & Oxides are known for their antiviral, antiseptic, antifungal properties.

### Common Ethers

Anethole, Apiol, Asarone, Elicine, Estragole, Eugenol methyl ether, Thymol methyl ether and Safrole.

### Common Oxides

Cineole, Linalool oxide, Geranyl oxide, Nerol oxide and Rose oxide.

## Chapter 2: Exercise

Blending has a certain simplicity and we must look at each Essential Oil as a part of a complete puzzle. By learning the therapeutic qualities of each part we are able to select the right "pieces", essential oils, to assist us in the development of a synergy, blend or product.

For the PB-CAM Practitioner Consultant in training, it is important to acquaint oneself with the essential oils by grouping them according to their properties and therapeutic classification. Keep in mind we are working with the whole which in nature is balanced by the individual constituents which are well known to have a different chemical reaction when used alone (a part of the whole).

### Part A Instructions

Describe below the categorizing qualities of each essential oil. Notice the multiple uses of most of the oils. This exercise will help you in preparing your own chart that in the beginning will guide you product production. Feel free to add more oils or change them around since many oils offer multiple synergistic properties.

### Relaxing Essential Oils

Bergamot:	
Cedarwood:	
Chamomile Blue:	
Chamomile Roman:	
Clary-Sage:	
Frankincense:	

Grapefruit:	
Geranium Rose:	
Jasmine:	
Lavender:	
Neroli:	
Orange:	
Patchouli:	
Petitgrain:	
Rose:	
Ylang-Ylang:	
Valerian:	

**Energizing/Alert Oils**

Basil:	
Peppermint:	
Rosemary:	
Lemon:	

**Skin-Care Oils**

Calendula:	
Carrot Seed:	
Cedarwood:	
Chamomile:	
Eucalyptus:	
Frankincense:	
Geranium Rose:	

Juniper Berry:	
Lavender:	
Lemon:	
Myrrh:	
Neroli:	
Patchouli:	
Petitgrain:	
Rose:	
Ti-Tree:	

### Respiratory Oils

Bergamot:	
Coriander:	
Cypress:	



Eucalyptus:	
Lavender:	
Lemon:	
Myrrh:	
Niaouli:	
Pine:	
Rosemary:	
Ti-Tree:	
Thyme White:	

### Part B Instructions

Using the information you have completed in Part A theoretically find the active ingredient “pieces” (essential oils), for the following “puzzles” (symptom) and give the reason(s) why you have selected them. Choose two to three essential oils per synergy.

#### **Headaches**

Essential Oil	Reason

#### **Insomnia**

Essential Oil	Reason

#### **Stress**

Essential Oil	Reason

#### **Respiratory**

Essential Oil	Reason

**PMS**

Essential Oil	Reason

**Home/office mildew & mold**

Essential Oil	Reason

## Medicinal Herb Materials

In this section we examine the uses of medicinal plant materials in our practice.

The Source of Information is the combine knowledge from the following:

- Scientific Claims & Cautions - As described in the German Commission E Monographs (GCE)
- Historical Information - The uses of medicinal herbs throughout history
- Anecdotal Information - What we have seen in practice which has not yet been proven by science.
- Common Sense - What we know but don't think about.

### Medicinal Herb Tea

In the PB-CAM practice we use the herbs internally and sometimes externally to complement and magnify the effectiveness of the essential oils. Since the flavor of the tea is the essential oil we can conclude that the therapeutic properties of the essential oil also translates to the properties found in the herbal tea or tincture of the same plant material.

This is why we suggest herb teas and/or tinctures taken internally for inflammation, as muscle relaxants, for respiratory issues, as anti-oxidants, for detoxing and as anti-depressants. We use herbs in addition to the external application of essential oils(s) for the same condition. We also find it beneficial to use herb teas in direct skin applications for a variety of skin problems.

### How to brew an herb tea

This is important because most of us cook out the therapeutic properties by boiling the plant material. To extract the therapeutic properties add 1 tsp of herb blend per cup of hot steamy water. Wait 5-10 minutes and drink. If the desire is to omit caffeine simply brew for 60 seconds, throw out the tea and brew again with new hot steamy water. The caffeine is extracted within the first 60 seconds of brewing. We recommend 2-4 cups per day or as suggested for the condition you are addressing.



NOTE: Seeds and roots need to be simmered for 15-25 minutes to extract its essential properties. It is also good to mention that ingesting the water contained in teas may have therapeutic value (in some cases) in and of itself.

The PB-CAM Practitioner Consultant always provides the client with a list of each of the herbs in the formulation and recommends they inform their doctor before using. Remember this practice is complementary to their medical healthcare and maintenance.

The following herbs were selected for the PB-CAM Practice for their therapeutic properties, effectiveness and safety. The notation GCE is added to confirm scientific validation as stated by the German Commission E. Additional information regarding the uses of PB-CAM Herbs is available in our blending videos.

### **Agrimoni (Agrimoniae herba)**

- Mild, nonspecific acute diarrhea (GCE)
- Astringent (GCE)
- External for superficial skin inflammation (GCE)
- Recommended usage: ½ tea spoon of anti-inflammatory tea mix with ½ tea spoon of Agrimoni Leaf per cup
- Directions: drink 2-4-6 cups of tea blend per day until problem is resolved
- Do not drink continuously for more than 4 days

### **Basil Leaf (Basilici herba)**

- Antimicrobial (GCE)
- Feeling of fullness (GCE)
- Flatulence (GCE)
- Stimulation of appetite (GCE)
- Digestion (GCE)
- Diuretic (GCE)
- NOTE: an ingredient in PB-CAM's Energy/Alert Tea Blend

### **Blessed Thistle (Cnici benedicti herba)**

- Loss of appetite (GCE)
- Dyspepsia (indigestion) (GCE)
- Stimulates secretion of saliva & gastric juices (GCE)
- Contraindications: Allergies to Blessed Thistle
- NOTE: an ingredient in PB-CAM's Cleansing Tea Blend

### Calendula Flower (Calendulae flos)

- Anti-inflammatory (GCE)
- Antifungal (GCE)
- Anti-bacterial anti-viral (GCE)
- Immune booster (GCE)
- Indigestion veins (GCE)
- Regulates menses (GCE)
- Varicose veins (GCE)
- Febrifuge (break fevers) (GCE)
- NOTE: 2nd best anti-inflammatory
- Also use cooled directly on skin or blended with Lavender & Chamomile
- An ingredient in Anti-inflammatory Tea Blend

### Chamomile Flowers (Anthemis nobilis)

- Antiphlogistic - preventing inflammation (GCE)
- Musculotropic - acting upon muscle tissue (GCE)
- Antispasmodic (GCE)
- Promotes wound healing (GCE)
- Deodorant (GCE)
- Antibacterial (GCE)
- Bacteriostatic (GCE)
- Skin metabolism activities (GCE)
- Anti-inflammatory (GCE)
- The GCE approved chamomile flower tea for gastrointestinal spasms and inflammatory disease and mild sleep disorder
- It has the German Standard License for gastrointestinal complaints and irritation of the mucous membranes of the mouth, throat and upper respiratory tract (Wichtl and Bisset, 1994)
- NOTE: an ingredient in PB- CAM's Insomnia Tea Blend, Anti-inflammatory Tea Blend, and Acid Reflux Tea Blend

### Juniper Berry (Juniperi fructus)

- Dyspepsia (indigestion) (GCE)
- Increased urine excretion (GCE)

- Add 4 crushed berries to a cup of Anti-Inflammatory Tea Blend
- Drink 2-4 cups of tea blend per day until problem is resolved
- Do not drink more than 4 days
- Contraindication - Pregnancy and inflammation of the kidneys
- Prolonged usage or overdosing may cause kidney damage

### Cinnamon Bark (Cinnamomi ceylanici cortex)

- Antibacterial (GCE)
- Fungistatic (GCE)
- Promotes motility (capacity for spontaneous movement in reference to the intestine) (GCE)
- Increases appetite (GCE)
- Dyspeptic complaints such as mild spastic condition of the gastrointestinal tract, bloating and flatulence
- Sugar level control; reduces sugar levels 30% within two days of consumption
- Add to taste to any anti-inflammatory blend or just dip a cinnamon stick in cup of any tea blend (cinnamon stick can be saved for next cup)
- Drink 2-4 cups of blended tea per day
- Contraindications: allergy to cinnamon and pregnancy
- NOTE: Human studies involving subjects with type 2 diabetes consuming 1, 3 or 6 grams of cinnamon per day for 40 days concluded that compounds present in cinnamon may have beneficial effects on glucose, insulin, and blood lipids and may be beneficial for the prevention and treatment of diabetes<sup>5</sup>

### Dandelion Leaf & Root (Taraxaci radix cum herba)

- Appetite-stimulating (GCE)
- Dyspepsia (indigestion) fullness & flatulence (GCE)
- Diuretic (excretion of urine) (GCE)
- Choleric: stimulating liver to increase bile production (GCE)
- NOTE: an ingredient in PB-CAM's Cleansing Tea Blend
- Contraindications: obstruction of bile ducts and gallbladder
- In case of gallstones, use only after consultation with a physician
- Discomfort due to gastric hyperacidity may occur

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<sup>5</sup> Reference: Khan A, Safdar M, Khan M, Khattak K, Anderson R. Cinnamon improves glucose and lipids of people with type 2 diabetes. Diabetes Care. 2003;26:3215-3218



### Eucalyptus Leaf (Eucalypti folium)

- Catarrhs of the respiratory tract (GCE)
- Secretomotory (stimulating secretion) (GCE)
- Expectorant (GCE)
- Antispasmodic (GCE)
- NOTE: an ingredient in Sinus & Cold Tea Blend
- Contraindications: Gastrointestinal tract inflammation, and the bile ducts; serious liver diseases
- In rare cases nausea, vomiting, and diarrhea may occur
- Important: Eucalyptus oil induces the enzyme system of the liver involved in the detoxification process as a result effects of other drugs can be weakened

### Fennel Seed (Foeniculi fructus)

- Dyspepsia (indigestion) (GCE)
- Flatulence (GCE)
- Antispasmodic (GCE)
- Promotes gastrointestinal motility (spontaneous movement) (GCE)
- Menopausal symptoms
- In some, allergic reaction of skin & respiratory tract.
- Because of Fennel seeds high concentration of estrogen we recommend to chew on 4-6 seeds to stop hot flashes, cold flashes, and other symptoms caused by estrogen deficiency.
- We have seen immediate relief upon chewing the seeds or using the tincture
- It is amazing for those who suffer from menopause - their symptoms can be under control by chewing a couple of seeds - the amazing power of plant based health

### Ginger Root (Zingiberis rhizoma)

- Antiemetic- preventing vomiting (GCE)
- Positively inotropic - effecting force of muscle contraction (GCE)
- Promotes secretion of saliva & gastric juices (GCE)
- Cholagogue – stimulates bile flow from the gallbladder into the duodenum (first portion of the small intestine) (GCE)
- Contraindications: With gallstones use only after consultation with a physician
- NOTE: an ingredient in PB-CAM's Cleansing Tea Blend

### Hawthorn Leaf & Flowers (Crataegi folium cum flore)

- Decreasing cardiac output (for patients with cardiac disease but without resulting limitations of physical activity (Stage II of NYHA) (GCE)
- Increases coronary and myocardial circulatory perfusion (GCE)
- NOTE: An ingredient in PB-CAM's "Over 30" Tea Blend - blended with Lavender, Red Clover, Chamomile, Sencha Leaf (Green Tea), Calendula and Peppermint
- Drink 4-6 cups per day
- Anecdotal Information - I once followed Art Powell, a "Life Keeper" from the Oneida Tribe of Wisconsin and witnessed this powerful herb work on a tribe member that had a blockage in his artery who was scheduled for an angioplasty to unclog his arteries in 45 days. Within those 45 days he consumed the tea as directed by Art. When he was ready for his surgical procedure the doctors could not find a blockage.
- Not a bad tea to take from time to time for anyone wanting to protect the cardiovascular system

### Jasmine Flowers (J. officinale)

- Calmative
- Mild anti-inflammatory
- Sweet floral flavoring
- Note: Good addition to any anti-inflammatory or relaxant tea
- Its sweet flavor blends well with Sencha Leaf (Green Tea)
- An ingredient in PB-CAM's Acid Reflux Tea Blend

### Lavender Flower (Lavandulae flos)

- Anti-inflammatory
- Increases circulation
- Anti-bacterial (effective against the E-coli)
- Anti-viral
- Sedative (GCE)
- Anti-flatulent (GCE)
- Sleep disorders and nervous stomach (GCE)
- Choleric (stimulating the liver to increase bile production) and chologenic actions (producing bile) (Gruncharov, 1973)
- NOTE: The best anti-inflammatory in our arsenal
- Use by itself or in combination with other herbs

- An ingredient in most PB-CAM's tea blends

### Linden Flowers (Tiliae flos)

- Diaphoretic (sudorific, promotes sweating) (GCE)
- Colds and coughs (GCE)
- Sleep aid (historical & anecdotal)
- Relaxant (historical & anecdotal)
- NOTE: An ingredient in PB-CAM's Insomnia Tea Blend - blended with Lavender, Chamomile German, Valerian, St.Johns Wort, Lemon Balm, Peppermint and Jasmine

### Lemon Balm (Melissae folium)

- Nervous sleeping disorders (GCE)
- Functional gastrointestinal complaints (GCE)
- Sedative (GCE)
- Calmative (GCE)
- NOTE: an ingredient in PB-CAM's Insomnia Tea Blend

### Marjoram Leaf (Majoranae aetheroleum)

- Promotes digestion (GCE)
- Strengthening of the stomach and for acute and chronic gastritis (GCE)
- Antispasmodic (GCE)
- Flatulence (GCE)
- Colic-like nervousness (GCE)
- Gastrointestinal disorders(GCE)
- Circulatory deficiencies in the abdominal region(GCE)
- Acute inflammatory liver diseases (GCE)
- Functional regulation of diseases involving gallstones (GCE)
- Dry irritating coughs(GCE)
- Swelling of the ear (GCE)
- Lowering the blood sugar in diabetes (GCE)
- Promotion of milk secretion (GCE)
- Mood swings (GCE)
- Tonic for heart, nerves and circulatory system (GCE)
- NOTE: an ingredient in PB-CAM's Insomnia, and Anti-inflammatory tea blends

### Orégano Leaf (*Origanum vulgare* herba)

- Ailments and difficulties of the respiratory tract (GCE)
- Coughing & bronchial catarrh (GCE)
- Expectorant (GCE)
- Antispasmodic (GCE)
- Disturbances of the gastrointestinal tract (GCE)
- Bloating (GCE)
- Stimulation of gall excretion & digestion (GCE)
- Appetite stimulating (GCE)
- Antispasmodic (GCE)
- Painful menstruation (GCE)
- Diuretic (GCE)
- NOTE: an ingredient in A-CAM's Sinus & Cold tea blend

### Peppermint Leaf (*Mentha piperita* folium)

- Carminative (GCE)
- Choleric: agent stimulating the liver to increase bile production (GCE)
- Antispasmodic action on the smooth muscle of the digestive tract (GCE)
- Flavoring for other blends
- NOTE: an ingredient in A-CAM's Acid Reflux tea blend and Cleansing tea blend
- Contraindications: In case of gallstones, use only after consultation with a physician (GCE)

### Red Clover (*Trifolium pratense*)

- Blood purifier
- Antispasmodic
- Relaxant
- Anti-inflammatory
- NOTE: an ingredient in PB-CAM's Cleansing tea blend - blended with Dandelion Leaf & Roots, Blessed Thistle, Hawthorn Leaf & Flowers, Chamomile German, Peppermint Leaf & Ginger

### Rosemary (Rosemarini folium)

- Antispasmodic on the small intestines (GCE)
- Positive inotropic; increases flow through the coronary artery (effecting force of muscle contraction) (GCE)
- Energizer (historical & anecdotal)
- NOTE: An ingredient in PB-CAM's Energy tea blend - blended with Lavender, Basil Leaf, Peppermint and Spearmint

### Rosehip (Rosae pseudofructus)

- Diseases & ailments of the kidney & lower urinary tract (GCE)
- Diuretic (GCE)
- Arthritic conditions (GCE)
- Rheumatism (GCE)
- Gout (GCE)
- Laxative (GCE)
- Fevers (GCE)
- Vitamin C deficiency
- Blood purification (GCE)
- NOTE: an ingredient in PB-CAM's Sinus & Cold tea blend and Muscle Ache tea blend

### Sage Dalmatian (Salviae folium)

- Antibacterial
- Fungistatic
- Virustatic (inhibiting viral action)
- Strong muscle relaxant
- NOTE: We find it to be an excellent muscle relaxant just like the essential oil
- An ingredient in PB-CAM's Muscle Ache tea blend
- Blend with anti-inflammatory or any relaxing tea blend or tincture

### Spearmint Leaf (Mentha viridis)

- Stimulant
- Carminative
- Antispasmodic

- Flatulence<sup>6</sup>
- NOTE: an ingredient in PB-CAM's Acid Reflux tea blend

### St. John's Wort (Hyperici herba)

- Antidepressant (GCE)
- Expectorant (GCE)
- Diuretic (GCE)
- Astringent (GCE)
- Sedative (GCE)
- Uses: dysentery, diarrhea, jaundice, hysteria, depression
- NOTE: an ingredient in PB-CAM's Insomnia, PMS, and Antidepressant tea blends and tinctures

### Thyme (Thymi herba)

- Bronchoantispasmodic (GCE)
- Expectorant (GCE)
- Antibacterial (GCE)
- Antimicrobial (GCE)
- Bronchitis (GCE)
- Whooping cough (GCE)
- Catarrhs of the upper respiratory tracts (GCE)
- NOTE: an ingredient in PB-CAM's Sinus & Cold tea blend

### Valerian Root (Valerianae radix)

- Anti-convulsive (GCE)
- Anti-spasmodic (GCE)
- Calmative (GCE)
- Nervine (effects the nervous system-stimulating or sedative) (GCE)
- Uses: Insomnia, stress, anxiety, nervous debility, exhaustion and to reduce blood pressure
- NOTE: An ingredient in PB-CAM's Insomnia, PMS and Antidepressant tea blend and tinctures, especially when it is blended with St. Johns Wart

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<sup>6</sup> Reference: "A Modern Herbal" Mrs. M Grieve, F.R.H.S., Dorset Press N.Y. ISBN 0-88029-921-5

### Herb Groups

We have grouped together some of the herbs according to their benefits, just as we did with the essential oils, so you can continue to create your own reference chart. Remember to add some of the therapeutic properties of each herb. We encourage you to add any other herbs that you may know to have a health benefit this way your reference chart continues to grow with your knowledge.

### Anti-inflammatory Herbs (Counteracting inflammation)

- Lavender Flower
- Calendula Flower
- Linden Flower
- Jasmine Flower
- Chamomile Flower

### Muscle Relaxant (Relaxes nerves and muscles)

- Lavender Flower
- Sage Dalmatian
- Marjoram
- Linden Flowers

### Respiratory Herbs Anti-viral (Opposing the actions of a virus)

### Antibacterial (Destroys growth of bacterial infection)

- Lavender
- Eucalyptus
- Lemon Balm
- Rosemary
- Thyme
- Oregano
- Peppermint

### Blood, Liver & Kidney Cleaners

- Dandelion Root & Leaf
- Blessed Thistle
- Ginger
- Red Clover



### Specialty Herbs (use in combination blended with other herbs)

- Agrimony - diarrhea
- Senna Leaf - constipation
- Valerian Root - strong relaxant
- St. John's Wart – anti-depressant
- Cinnamon - lower sugar levels
- Fennel Seed - controls menopausal symptoms
- Juniper Berry – strong diuretic
- Rose Hips – vitamin C

## Plant Based Tinctures

Herb tinctures are made by placing the selected herb or herb combination in a mason glass jar with vodka. Fill 50% of the jar with the herb(s) and then fill the jar up with 100% vodka and let sit for at least 2-3 weeks. The alcohol will extract the essential oils (therapeutic properties) from the plant material and fermentation takes place. Once your tincture is ready, add 10-20 drops in glass or cup of filtered water, wait 5 minutes for the alcohol to evaporate and drink as needed. Effects are reported within a few minutes of consumption.



In our practice we use tinctures by themselves or in combination with essential oil synergies and products and herb tea formulations, not limited to pain management, insomnia, inflammation, acid reflux, stress and more. In Level Three we will blend simple tinctures and in Level Four we will cover in depth their uses, additional formulations and combinations we use in PB-CAM Practice.

## Planting a Medicinal Herb Garden

The great benefit of plant health is that it is easy and economical to plant your own medicinal herb garden for use in your tea and tincture formulations. It does not take a large space nor a green thumb to plant a medicinal garden.

Some of you already have a culinary herb garden without realizing that those cooking herbs are also the medicinal herbs we use in our practice. Such herbs include Marjoram (relaxing), Oregano (antiviral), Rosemary (energizing), Peppermint (stomach problems), Garlic and Onion (antiviral), and many more. We look to these herbs to add flavor when cooking without realizing they have multiple therapeutic properties within them. Once we cook the herbs we keep the flavor, but cook out many of the medicinal properties. In order to extract the therapeutic properties we either brew the fresh herb or herb combination as tea or use them in tincture form. We can also dry the herbs, combine and pulverize them, and use them as our spice blends for healthy eating. As you can see having a medicinal herb garden is of therapeutic benefit for the whole family. It is like having a live First Aid Kit growing in your back yard or indoor containers.

The following is a list of twenty suggested medicinal herbs that are easy to grow in most climates. You can add more herbs to this list as you grow your garden. This fresh herb collection will provide therapeutic properties known to relieve a number of maladies. Keep in mind that some herbs can be grown indoors which is useful for those who don't have outside space for plantings.



### Medicinal Herb Garden (also culinary)

- Marjoram (sweet)
- Peppermint
- Spearmint
- Oregano
- Lemongrass
- Turmeric
- Ginger
- Thyme
- Rosemary
- Basil (sweet)
- Basil (purple)
- Citronella (insecticide)
- Neem (insecticide)
- Fennel (natural estrogen)
- Lavender (in cooler areas)
- Chamomile (in cooler areas)

- Sage Dalmatian (muscle relaxant)
- Cilantro (liver cleanser)
- Parsley (liver cleanser)
- Aloe Vera

Some garden fresh medicinal herb tea combinations are described below. Of course you can create your own formulations as you begin to experience the effects and flavor of each herb. We recommend you begin with equal parts of each herb and later adjust the formulation to fit your taste and/or to achieve specific results.

Energy tea	Rosemary, Basil, Peppermint
Stomach relaxer	Peppermint, Spearmint, Lavender flowers
Muscle relaxer	Sage, Lavender & Chamomile flowers
D-Stress	Sage, Marjoram, Lavender, Chamomile flowers
Insecticide	Neem, Citronella, Lemongrass (place in spray bottle to use)
Liver Cleanser	Cilantro, Parsley, Lavender Flowers
Insomnia	Lavender & Chamomile flowers, Sage, Marjoram & Peppermint

Keep in-mind that any herb tea formulation can also be made into a tincture reflective of the same therapeutic values and many combinations can be also be used for skin toners and lotions.

**We have now completed Level Two of Four Levels to Certification. Take your time to view all the blending videos designed to go along with the Level Two course before you starting with Level Three.**

**As always, our support group is ready to answer any of your questions as you continue with Levels Three and Four of the Plant Based-CAM Certification course.**

**We hope this information is making sense to you and you are realizing the HealthWise important issues to pay attention to - the chemicals in our life and the Plant Based options that are available for better health.**

**Thanks again for choosing PB-CAM Education. See you in Level Three...**