

Scripps 16th Annual Natural Supplement Conference

Pre-Conference Seminar: Herbal Intensive

Herbs from San Diego Botanic Garden

Presented by

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African Bulbine— *Bulbine* spp.

— Perennial succulent native to South Africa

- * **Parts Used:** Fresh leaves, slimy leaf gel, and less commonly roots.
- * **Medicinal Constituents:** Stems and roots contain (knipholone type) anthraquinones and glycoproteins.
- * **Therapeutic Properties:** Externally for skin conditions such as insect bites, cold sores, sunburns rashes, acne, ringworm, and blisters. *B. natalensis* leaves used to boost testosterone.

Angelica— *Angelica archangelica*

— Tall robust biennial from Northern Europe and Asia.

- * **Parts Used** Entire plant.
- * **Medicinal Constituents:** Volatile oils for digestion.
- * **Therapeutic Properties:** Indigestion, appetite loss, flatulence, abdominal discomfort, colds, bronchitis, and asthma.

Bible Leaf Plant— also called Alecost. *Costmary balsamita*

— Perennial herbaceous plant native to Mediterranean region or possibly native to India. Widely cultivated in Southwest Asia.

- * **Parts Used:** Leaves,
- * **Medicinal Constituents:** Essential oils, most common essential oils include carvone and alpha-thujone.
- * **Therapeutic Properties:** Historically used for menstruation problems and easing child birth. Also used for colds, worms, dysentery and aromatherapy. During Puritan times the highly aromatic leaves were used as a Bible book mark to keep people awake during lengthy sermons. Essential oils also used in Scottish ales-especially before the use of hops.

Black Sage— *Salvia mellifera*

— Herbaceous perennial herb native to Baja and southern California.

- * **Parts Used:** Leaves, stems, seeds.
- * **Medicinal Constituents:** Diterpenoids such as aethiopinone and ursolic acid, as well as volatile oil, flavonoids, phenolic acids, and tannins.
- * **Therapeutic properties:** Pain reliever for arthritis, rheumatism, and sore throats. Used for diarrhea and to stop lactation. Fresh leaves used for bites and stings.

Bouillon Bush— *Cordia verbenacea*

— Shrub to small tree, native to South America found mostly in coastal regions.

- * **Parts Used:** Leaves.
- * **Medicinal Constituents:** Essential oils contain many compounds including artemisinin and naphthoquinones.

* **Therapeutic Properties:** Anti-inflammatory and analgesic healing agent. Antimicrobial properties (bacteria and fungi). Indigenous tribes used for arthritis.

California Sagebrush— *Artemisia californica*.

— Perennial California shrub.

* **Parts Used:** leaves and stems.

* **Medicinal Constituents:** Monoterpenoids, sesquiterpenes, flavonoids, and alkaloids.

* **Therapeutic properties:** Stomach ailments, common cold, fever, and pain relief associated with childbirth. Fumes used for respiratory tract infections

Chamomile—also called German Chamomile. *Matricaria chamomile*.

—Herbaceous annual plant native to Europe with erect stems, feathery leaves and daisy-like flowers.

* **Part Used:** Dry and fresh flower, leaves, and stems

* **Medicinal Constituents:** Flavonoids 6-8%, flavone glycosides, bisabolane sesquiterpenes (up to 50%).

* **Therapeutic Properties:** Anxiety, insomnia, indigestion, and GI disorders. Also wound treatment and relieve muscle tension.

Chili Pepper— also called Cayenne *Capsicum spp.*

— Annual or short-lived perennials native to tropical America. Fruits turn bright red at maturity with very pungent properties.

* **Parts Used:** Dry and fresh fruits.

* **Medicinal Constituents:** Pungent capsaicin, carotenoids, vitamin C, flavonoids, volatile oils.

* **Therapeutic Properties:** Neuralgia, psoriasis, reduction of pain and joint tenderness. Improves circulation and reduces serum triglycerides.

Cinnamon— *Cinnamomum cassia*.

— Evergreen tree native to China

* **Parts Used:** Bark, twigs, seeds, flowers, and leaves.

* **Medicinal Constituents:** Volatile oils and cinnamaldehyde to counteract bacteria fungi, and viruses.

* **Therapeutic Properties:** Anti-inflammatory, anti-oxidant, and treatment for diabetes, obesity, and high cholesterol.

Feverfew— *Tanacetum parthenium*

— Herbaceous perennial, originally from southeast Europe.

* **Parts Used:** Fresh and dried aerial parts -leaves, buds, and flowers.

* **Medicinal Constituents:** Parthenolide and many other sesquiterpene lactones, and unknown compounds. Pyrethrum insecticide also derived from this plant.

* **Therapeutic Properties:** Migraines and associated nausea and vomiting.

Fo-Ti— *Polygonum multiflorum*.

— Herbaceous perennial vining plant native to central and south China.

* **Parts Used:** Roots, leaves, and rhizomes.

* **Medicinal Constituents:** An alkaloid is presumed to be the primary constituent.

* **Therapeutic Properties:** Rejuvenates nerves, brain cells, and reduces premature aging and graying of hair. Also reduces atherosclerosis, fatigue, high cholesterol, boosts the immune system, protects the liver. Caution: Due to limited studies and possible contraindications take only under doctor's supervision.

Ginkgo— *Ginkgo biloba*

— Large “living fossil” tree native to China with unique fan shaped leaves with radiating veins. Trees are dioecious (separate male and female plants), and botanically considered gymnosperms although no cones are produced female plants.

- * **Parts Used:** Dry green leaves.
- * **Medicinal Constituents:** Unique diterpene lactones, ginkgolides A, B, C, J, and terpenes lactones bilobalide, and ginkgolides (and others).
- * **Therapeutic Properties:** Memory loss associated with Alzheimer's and various conditions of vascular dementia. Improves cerebral circulation.

Gotu Kola/Indian Pennywort— *Centella asiatica*

— Low-growing creeping perennial used in Ayurvedic medicine.

- * **Parts Used—** Leaves
- * **Medicinal Constituents:** Glucosides with anti-inflammatory properties and adaptogenic properties.
- * **Therapeutic Properties:** Heals superficial wounds and skin problems; improves circulation and memory.

Lavender—*Lavandula spp.*

— Aromatic shrub native to France and the western Mediterranean

- * **Parts Used:** Flowers, leaves, and stems.
- * **Medicinal Constituents:** Volatile oil containing 40 constituents including linalyl acetate, linalool, eucalyptol, borneol. Also flavonoids, tannins, and coumarins.
- * **Therapeutic Properties:** Bacterial and fungal infections, tension, poor sleep, anxiety, pain, wounds, burns, depression, headaches, dyspepsia, bug bites. Now being used for aromatherapy.

Nevin's Barberry— or Mahonia. *Berberis nevinii*

— Endangered native California evergreen shrub.

- * **Parts Used :** Leaves, roots, and berries.
- * **Medicinal Constituents:** The antimicrobial alkaloid berberine (found mostly in roots and bark) is the major constituent.
- * **Therapeutic Properties:** An alternative to Goldenseal (also containing berberine) as a treatment for chronic skin conditions, reducing digestive problems and amoebic dysentery.

Peppermint— *Mentha x peperita*

— Perennial herbaceous and aromatic plant that rapidly spreads by stolons. Native to Europe and is a hybrid of spearmint and water mint.

- * **Parts used:** Fresh or dried aerial parts and leaves.
- * **Medicinal Constituents:** Phenolic acids, terpenes,, flavonoids, Menthol 30-50%, menthone 2.8-10%, also limonene, pulegone.
- * **Therapeutic Properties:** Mostly used as tea to improve digestion, oil used for irritable bowel syndrome, and analgesic to relieve tension headaches.

Rock Samphire— Also called Sea Fennel _ *Crithium maritimum*.

— Perennial herbaceous plant that grows on coastal cliffs, native to England and Ireland.

- * **Parts Used:** Leaves (highly aromatic), stems, and seed pods.
- * **Medicinal Constituents:** Essential oils (sabinene, limonene and terpinene), vitamins C, A, B2, and D.
- * **Therapeutic Properties:** Limited information. Digestive disorders, and reduce obesity.

South African Geranium— *Pelargonium sidoides* and *P. graveolens*

— Herbaceous perennial native to South Africa.

- * **Parts Used:** Root extracts and aerial parts of plant.
- * **Medicinal Constituents:** Polyphenols (mostly catechins and gallic acid derivatives), proteins, minerals, and hydroxycoumarin derivatives.
- * **Therapeutic Properties:** Colds, flu, respiratory disorders such as acute bronchitis. Essential oils from the leaves reported to reduce anxiety in heart patients (aromatherapy).

Tea Tree— *Melaleuca alternifolia*

— Small tree from Australia

- * **Parts used:** Leaves,
- * **Medicinal Constituents:** Composed of terpene hydrocarbons, mainly monoterpenes, sesquiterpenes, and three associated alcohols.
- * **Therapeutic Properties:** Antiseptic agent, antimicrobial, acne treatment, fungal infections including athlete's foot, yeast infection, coughs, colds, and sore throats. Australians use to treat scabies and head lice.

Turmeric— *Curcuma longa*

— Herbaceous perennial from India and Southeast Asia

- * **Parts Used:** Roots/rhizome.
- * **Medicinal Constituents:** Curcumin (a polyphenol) is the main constituent. Contains over 30 essential oils
- * **Therapeutic Properties:** Anti-inflammatory, arthritis, cardiovascular, liver health, antibacterial, arsenic exposure.

White Sage— *Salvia apiana*

— Perennial shrub native to southwestern North America.

- * **Parts Used:** Leaves, stems, and roots.
- * **Medicinal Constituents:** Diterpenes, flavones, triterpenes. Moderate CB1, CB2, and u-opioid activities.
- * **Therapeutic Properties:** Sore throats, coughs, chest colds, upper respiratory infections, poison oak rashes, and rheumatism.

Yerba Mansa— *Anemopsis californica*

— Low-growing perennial found throughout the western U.S.

- * **Parts Used:** Entire plant.
- * **Medicinal Constituents:** Essential oil and volatiles.
- * **Therapeutic Properties:** Analgesic, disinfectant, diuretic, laxative, stomachic, anti-bacterial, anti-fungal, anti-microbial, and anti-periodic..

Yerba Santa— *Eriodictyon crassifolium*

— Perennial native shrub of California.

- * **Parts Used:** Leaves.
- * **Medicinal Constituents:** Polysaccharides with mucilaginous properties and bioflavonoids (anti-oxidants).
- * **Therapeutic Properties:** Respiratory illnesses; stimulates coughing.

Wormwood— *Artemesia absinthium*

— Herbaceous perennial native to Eurasia and widely naturalized in North America.

- * **Parts Used:** Fresh and dried aerial parts; leaves and stems.
- * **Medicinal Constituents:** Volatile oils, sesquiterpene, lactones, phenolic, and ligands.
- * **Therapeutic Properties:** Used for dyspepsia and improves digestion. Antimicrobial and insecticidal properties. Removes worms; "wormwood". Historically important for flavoring alcoholic beverages, "absinthe" is famous beverage in literature and art.

Za Baobab— *Adansonia za*

— Large tree with broad trunk and upside down appearance. Native to Madagascar, Africa, and Australia.

- * **Parts Used:** Bark, wood, seeds, and fruit.
- * **Medicinal Constituents:** Small molecules include acids, terpenoids. Large molecules include polysaccharide and mucilages in bark phloem. Fruit is dense with calcium, phosphorus, magnesium, Iron, provitamin A, vitamins C, B, and antioxidants.
- * **Therapeutic Properties:** Gastrointestinal disorders, anti-inflammatory, diarrhea, asthma, kidney disorders, and cosmetic benefits.

Plant List:

Name	Species	Family
African Bulbine	<i>Bulbine natalensis</i>	Asphodelaceae
Angelica	<i>Angelica archangelica</i>	Apiaceae
Baobab	<i>Adansonia za</i>	Malvaceae
Bible Leaf Plant	<i>Costmary balsamita</i>	Asteraceae
Black Sage	<i>Salvia mellifera</i>	Lamiaceae
Bouillon Bush	<i>Cordia verbenacea</i>	Boraginaceae
California Sagebrush	<i>Artemesia californicum</i>	Asteraceae
Chamomile	<i>Matricaria chamomilla</i>	Asteraceae
Cinnamon (Chinese)	<i>Cinnamomum cassia</i>	Lauraceae
Chile Pepper	<i>Capsicum spp.</i>	Solanaceae
Feverfew	<i>Tanacetum parthenium</i>	Asteraceae
Fo-Ti	<i>Polygonum multiflorum</i>	Polygonaceae
Ginkgo	<i>Ginkgo biloba</i>	Ginkgoaceae
Gotu Kola (Pennywort)	<i>Centella asiatica</i>	Apiaceae
Lavender	<i>Lavandula dentata</i>	Lamiaceae
Nevin's Barberry	<i>Berberis nevinii</i>	Berberidaceae
Peppermint	<i>Mentha x peperita</i>	Lamiaceae
Rock Samphire	<i>Crithum maritimum</i>	Apiaceae
S. African Geranium	<i>Pelargonium sidoides</i>	Geraniaceae
Tea Tree	<i>Melaleuca alternifolia</i>	Myrtaceae
Turmeric	<i>Curcuma longa</i>	Zingiberaceae
White Sage	<i>Salvia apiana</i>	Lamiaceae
Wormwood	<i>Artemesia absinthium</i>	Asteraceae
Yerba Santa	<i>Eriodictyon crassifolium</i>	Boraginaceae