Is all Frankincense created equal?

Frankincense essential oil has been prized in both ancient and modern times for its incredible healing properties. Recently, essential oil circles around the world have debated an important question: Which of the forty-two known species of frankincense offers the greatest therapeutic benefit? Through expert academic studies and Gary Young’s extensive world travels, Young Living has identified the two most researched and therapeutic frankincense species to be East African *Boswellia carteri* and Omani *Boswellia sacra*.

The research supporting this claim has centered on three important factors: selection of species, place of origin, and the quality of chemical constituents found in each. This paper focuses on three of the most well-known species of frankincense and their respective merits: the aforementioned *Boswellia carteri* and *Boswellia sacra*, as well as *Boswellia frereana* from Somalia.

**Boswellia Carteri**

Native to East Africa, *Boswellia carteri* is the most well-known and most studied among frankincense species because it contains many important natural constituents, including boswellic acid. One of the most important of these studies discusses the cell differentiating properties of frankincense. In this study, the authors, including Chinese scientist H.K. Lin, named the source of the oil used: “Frankincense oil containing 1,200mg/ml frankincense gum resin was obtained from Young Living Essential Oils (Lehi, UT).”

Gary Young—Frankincense Pioneer

Young Living’s founder and president has personally made fifteen trips to the Middle East. The trips have allowed him to learn more about the history, trade, production, and chemical makeup of the most therapeutic species of frankincense. Read more about Gary’s research and vision on his personal blog: www.dgaryyoung.com/blog/2010/808
Researchers in Tokyo, Japan discovered that the extract of *B. carteri* contains a number of triterpene acids like boswellic acids and incensole acetate that exhibited potent activities.\(^2\)

Another of the eleven *Boswellia carteri* studies found in a search of PubMed, the National Library of Medicine’s website, explains how a purified mixture of boswellic acids from *Boswellia carteri* resin exhibits positive immune system effects.\(^3\)

*Boswellia sacra* Omani frankincense is regarded the world over as the rarest, most sought-after aromatic in existence. In Juliet Highet’s book *Frankincense: Oman’s Gift to the World,* she writes: “The international aromatic trade has a grading system for frankincense depending upon size, colour, degree of transparency, and of course fragrance, but it is generally acknowledged that the premium resin comes from *Boswellia sacra.*”\(^4\)

There is just one species of frankincense that is native to the southern Arabian kingdom of Oman: *Boswellia sacra.* Botanists like Ahmed Al-Harrasi and Salim Al-Saidi, scientists at the Department of Chemistry Sultan Qaboos University in Oman, are united in stating that no other frankincense species grows in Oman.

Mahmoud Suhail, MD, Young Living’s partner in its Omani frankincense venture and a noted frankincense researcher, confirms this, saying, “*Boswellia sacra* is the only frankincense species native to Arabia.” Suhail bases his conclusion on documentation by the Royal Botanical Gardens at Kew, in England, one of the foremost scientific botanical institutions in the world.\(^5\)

Young Living has recognized the benefits of *Boswellia sacra* in recent years due to its high levels of incensole acetate, known for its spiritual properties (see “The Science Behind Spirituality” at left). In 2009, Gary Young was granted special permission to build a Young Living distillery in Oman. Until this venture, no Omani frankincense had ever left the country, unless it was purchased by Saudi royals. Young Living is distilling *Boswellia sacra* essential oil in partnership with Dr. Suhail in Salalah, Oman—a one-of-a-kind relationship between a Western essential oil company and a local practitioner in Arabia.

**BOSWELLIA FREREANA**

While all frankincense species offer health advantages, *Boswellia frereana* has been shown to contain fewer of the healing gifts than the aforementioned *B. carteri* and *B. sacra.* The biggest drawback to *Boswellia*
frereana is that it does not contain the powerful boswellic acids that have been the subject of more than 125 studies, according to a recent PubMed search. Researchers at Cardiff University have stated:

"Although *B. frereana* has the genealogy of the Boswellia species, little is known about the bioactive ingredients, except that it is devoid of the α- and β-boswellic acids that are characteristics of the other family members."6

Another reference documenting the lack of boswellic acid in *B. frereana* is found in a review by Frank and Unger:

"The six boswellic acids . . . are the typical ingredients in frankincense from *B. carteri*, *B. sacra* and *B. serrata* but not in *B. frereana*."7

Not only does *B. frereana* not contain any boswellic acids, it also lacks the important chemical constituent incensole acetate (see “The Science Behind Spirituality” at left).

*Boswellia frereana* grows exclusively in Somalia and is not found in Oman. Dr. Ermias Dagne, professor of chemistry at Addis Ababa University in Ethiopia, stated, “There are six most common Boswellia species whose resins are widely traded . . .” He lists “*B. frereana* . . . known only from Somalia.”8 Other studies confirm that, “*B. frereana* grows in the coastal region of Somalia.”9 and that the distribution and habitat of *Boswellia frereana* is “restricted to N. Somalia.”10

**CONCLUSION**

Based on credible research and analysis of the three key factors—selection of species, place of origin, and quality of chemical constituents—Young Living reaffirms that *Boswellia carteri* from East Africa and *Boswellia sacra* from Oman contain the most potent blend of naturally occurring constituents with the most desirable therapeutic benefits.

Although its wellness potential should not be dismissed, *Boswellia frereana* is inferior to *B. carteri* and *B. sacra* because it lacks the important chemical constituents required for the highest therapeutic benefit.

**NOTES**

Young Living
Frankincense: An Ancient Gift Supported by Modern Science

ABOUT FRANKINCENSE ESSENTIAL OIL
Frankincense has a sweet, warm, balsamic aroma that is stimulating and elevating to the mind. Useful for visualizing, improving one's spiritual connection, and centering, it has comforting properties that help focus the mind and overcome stress and despair. Frankincense is considered the holy anointing oil in the Middle East, where it has been used in religious ceremonies for thousands of years. More recently, it has been used in European and American hospitals and is the subject of substantial research. Frankincense is also a valuable ingredient in skin care products for aging and dry skin. The ancient Egyptians used it in rejuvenation face masks. Frankincense has an approximate ORAC of 6,125 (TE/L). TE/L is expressed as micromole Trolox equivalent per liter.

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