Moringa Butter: The Better, Functional Butter

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Uniqueness

A Truly Remarkable Tree

On Earth Day 2008, as is the annual tradition, the US National Institutes of Health hosted a mystery plant contest. The clues for the mystery plant included:

- It has important medicinal properties but is not endangered.
- In fact, perhaps like no other single species, this plant has the potential to help reverse multiple major environmental problems and provide for many unmet human needs.10

What was this mystery plant with over 100 different names in multiple languages around the world? Moringa oleifera – the Miracle Tree whose leaves alone contain seven times the Vitamin C of oranges, four times the Vitamin A of carrots, four times the calcium of milk, more iron than spinach, three times the potassium of bananas, and twice the protein of yogurt.11 In addition, this vitamin-rich plant contains a variety of amino acids, as well as antioxidants and trace elements.10

The positive attributes of the Moringa tree don’t end with its nutritional benefits. In fact, the seed oil from Moringa oleifera has been used medicinally for many years. Ancient Egyptians have been recorded in hieroglyphs using this seed oil for treating eye and ear infections, and as a tonic in the treatment of diseases like diabetes, heart disease, and cancer.2

An Ancient History of Moringa Seed Oil

Moringa oleifera (see Fig. 1) is a flowering tree native to the foothills of the Himalayas in northern India. It is cultivated in many parts of the world including Africa, tropical Americas, Sri Lanka, Malaya, and the Philippines. Not surprisingly, the Moringa tree is known by many names. In Senegal it is known as Nebbye tree (the tree that never dies) because it is able to survive disasters such as fire and it grows quickly (up to 12 meters per year). In the Philippines the Moringa tree is known as a mother’s best friend because Moringa leaves are used to increase the amount of a mother’s milk, or are boiled and fed to children. In India, the Moringa tree is called the drumstick tree due to the elongated shape of its seed pods. The Moringa tree is also known by various other names throughout Africa, Asia, South and Central America, and the Caribbean.2

The use of Moringa oil, by ancient Egyptians has been recorded in hieroglyphs. In fact, Egyptologists have documented various applications and formulations containing Moringa oil for topical uses and perfumes.1 Some of the historical uses of the Moringa plant include (Table 1):3,6,7

Table 1: Medicinal uses for the Moringa tree

<table>
<thead>
<tr>
<th>Plant Part</th>
<th>Medicinal Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seeds</td>
<td>Antibacterial, antiviral, antifungal, antihistamine, and anti-inflammatory</td>
</tr>
<tr>
<td>Leaves</td>
<td>Antioxidant activity, antithrombic activity, and anti-stress</td>
</tr>
<tr>
<td>Flowers</td>
<td>Antimicrobial, anti-inflammatory, and antioxidant</td>
</tr>
<tr>
<td>Roots</td>
<td>Antibacterial, antifungal, and anti-inflammatory</td>
</tr>
<tr>
<td>Roots</td>
<td>Antioxidant and anti-inflammatory</td>
</tr>
<tr>
<td>Fruit</td>
<td>Antioxidant and anti-inflammatory</td>
</tr>
<tr>
<td>Root</td>
<td>Included in products for topical use and skin treatments</td>
</tr>
</tbody>
</table>

Table 2: Ancient uses of Moringa oil

<table>
<thead>
<tr>
<th>Plant Part</th>
<th>Medicinal uses</th>
</tr>
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<tbody>
<tr>
<td>Moringa leaves</td>
<td>Antioxidant activity, antithrombic activity, and anti-stress</td>
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<td>Antibacterial, antifungal, and anti-inflammatory</td>
</tr>
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<td>Moringa fruit</td>
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Results

Skin Hydration Benefits

Purpose: To evaluate the skin hydration potential of Moringa Butter compared to other butters, when added to an anhydrous stick formulation

Design: one application of each experimental stick was applied to dry lower legs of twelve healthy subjects

End Point: increased skin hydration as measured by the Comecorometer CM 825 over four hours (Figure 2)

Figure 2. Increased Skin Hydration

Results Cont’d

Skin Barrier Recovery

Purpose: To ascertain the benefits of a simple lotion formula containing Moringa Butter [compared to a simple lotion formula containing petrolatum] on skin barrier recovery due to damage by a known skin irritant, sodium laureyl sulfate (SLS)

Design: two applications of each experimental lotion was applied to the volar forearm (following exposure to SLS for approximately 18 hours under occlusion using 15mm Hill Top Chambers)

End Point: increased percent barrier recovery as measured by TEWL via the Tewameter TM300 (Figure 4)

Figure 4. Increased Percent Barrier Recovery

Consumer Perception Benefits

Purpose: to ascertain consumer preference between an anhydrous stick formula containing Moringa Butter and an anhydrous stick formula containing shea butter

Design: one application of each experimental stick was applied to the backs of the hands of 25 healthy subjects

End Point: consumer preference survey immediately following application (Figure 3)

Figure 3. Increased Consumer Preference

Conclusions

- Moringa Butter increased skin hydration better than shea butter, cocoa butter, and olive butter.
- Moringa Butter was preferred over shea butter in a consumer preference study.
- Moringa Butter increased skin barrier recovery similar to petrolatum.

References

[5] Some of the historical uses of the Moringa plant include (Table 1):3,6,7
[12] Canadian Journal of Clinical Pharmacology
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Presented by: Tiffany N Oliphant, M.S., C.C.R.C., and Robert Harper, Ph.D.

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