

Clinical Case Results

Use of HEALx Care Products
in Dogs, Cats, Rabbits and Horses



HEALx Sunshine Factor®

Dietary Supplement

4 oz (120 ml), 16 oz (480 ml)

Sunshine Factor is certified organic red palm fruit oil. The recommended dose is 0.02-0.06 ml/100 g body weight daily.



HEALx Sunshine Factor may be beneficial in:

- improving the animal's integument, ocular, cardiac and immune systems by strengthening the overall nutritional status
- increasing the animal's energy level, particularly in geriatric patients
- helping all aspects of the skin and coat, including dry skin and brittle or dull hair
- giving animals a potent antioxidant (tocopherol and tocotrienol activity of vitamin E)
- serving as a source of vitamin A precursors
- providing a good balance of fatty acids
- improving the effectiveness of nonsteroidal antiinflammatory drugs (NSAIDs)
- contributing to decreased risk of chronic diseases
- providing a vegetable oil that is more stable than flax oil
- Kosher certified

“I use Sunshine Factor in dog cases and have seen synergistic effects with NSAIDs in arthritic cases. We also use Sunshine Factor in felines and have seen increased appetite and weight gain and improved skin quality.”

Thomas Bankstahl, DVM

Director of Medical and Surgical Services

Parkway Small Animal & Exotic Hospital, Clinton Township, Michigan



HEALx Sunshine Factor improves the care of geriatric patients.

“Within 2 weeks of starting HEALx Sunshine Factor, we saw improved coat and increased energy level in the dog. He’s like a new dog. He acts years younger.”

Thomas Bankstahl, DVM



HEALx Sunshine Factor is highly palatable.

HEALx Booster®

Dietary Supplement - 4 oz (120 ml)



HEALx Booster is a mixture of organic red palm fruit oil and a patented monolaurin product (monoglyceride of a fatty acid) for nontoxic antimicrobial activity. Veterinarians use Booster in dogs and cats with various health conditions, including upper respiratory infections and skin disorders. The recommended dose is 0.02-0.06 ml/100 g body weight daily.

HEALx Booster can also be used in puppies and kittens that have experienced a failure to thrive. The use of Booster has resulted in increased appetite, weight gain, improved skin quality and overall health in animals.

HEALx Booster may be beneficial in:

- helping to eliminate recurrent infections without the use of antibiotics or steroids; also works well in conjunction with antibiotic protocols
- improving the animal's integument, ocular, cardiac and immune systems by strengthening the overall nutritional status
- supporting healing of conditions affecting the skin, such as dermatitis
- inhibiting non-autochthonous flora while allowing native gastrointestinal organisms to repopulate
- giving animals a potent antioxidant (tocopherol and tocotrienol activity of vitamin E)
- serving as a source of vitamin A precursors
- providing a good balance of fatty acids
- improving the effectiveness of nonsteroidal anti-inflammatory drugs
- contributing to decreased risk of chronic diseases
- a vegetable oil that is more stable than flax oil



“I found HEALx Booster to be very beneficial. The kittens were very amenable to taking it. I liked the results I saw — faster weight gain, wonderful feel to the skin. It was a great supplement.”

Karla, Katteycasa Sphynx Cattery
Walker, Minnesota

“The use of HEALx Booster in three sphynx catteries yielded consistent weight gains, increased energy levels, improved health, and improved skin quality.”

Thomas Bankstahl, DVM
Director of Medical and Surgical Services
Parkway Small Animal & Exotic Hospital
Clinton Township, Michigan

HEALx Soother®

Topical Spray - 8 oz (240 ml)

HEALx Soother Spray is a patented quaternary ammonium product suspended in aloe vera distillate and water for topical pain relief. Soother employs transdermal technology for efficacy of topical application.



HEALx Soother Spray may be beneficial in:

- promoting healing of sensitive skin and superficial lesions often noted in early self-mutilation cases
- reducing superficial itching
- providing soothing topical relief for skin inflammation and irritation
- providing a nontoxic remedy to support healing of skin disorders

Use of HEALx Soother Spray on a Bite Wound Case*

A horse was presented with a bite wound on the neck. The wound was cleaned, and HEALx Soother spray was applied before suturing. Soother spray was used on the exposed tissues daily thereafter; no other treatment was given. The horse did not bother the wound, and the sutures remained intact. The owner had no problems spraying the horse with the Soother because the sprayer did not make any sound to startle the animal. The Soother provided analgesia and accelerated the healing. After 3 weeks, there was little evidence of the original injury.



Sutured Wound



3 Weeks After



“I have used the Soother Plus and Soother Spray in a white rhino, deer, elephant, wallaby, leopard and also in dogs and cats. The results were, in my honest opinion, pretty amazing. I use them together with cleaning, disinfecting and, in some cases, with injectable medication.”

*Sergio Sarmiento Valiente, DVM
Exoticos Vet Clinic
Palma de Mallorca, Spain

HEALx Soother Plus®

Topical Cream - 1 oz tube (30 ml)

HEALx Soother Plus is a patented quaternary ammonium product suspended in aloe vera distillate for topical pain relief with the addition of patented monolaurin (monoglyceride of a fatty acid) for nontoxic antimicrobial activity. Soother Plus offers a nonsteroidal anti-inflammatory cream for management of skin disorders



HEALx Soother Plus may be beneficial in:

- effectively managing swelling and inflammation
- providing pain relief for bruises, trauma, muscle cramps, post-surgical incisions and self-inflicted wounds
- reducing local pathologic viral, bacterial and fungal populations in lesions
- providing a nontoxic alternative to antibiotics

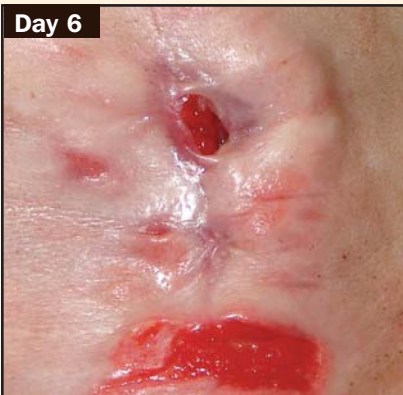
Use of HEALx Soother Plus in an Ulcerative Dermatitis Case*

A 2-year-old Bichon Frise mix presented with ulcerative moist dermatitis secondary to a burn from a dog bark collar. The dog was treated with oral antibiotics, antiinflammatories and HEALx Soother Plus (twice daily). The topical application of Soother Plus provided immediate pain relief and accelerated the healing.



Use of HEALx Soother Plus in a Non-healing Wound Case*

This sphynx cat was presented with a non-healing wound that cultured positive for *Streptomonas*. It was treated for 14 days with traditional oral and topical antibiotics, including Silvadene® cream twice daily, without resolution. Topical therapy was changed to HEALx Soother Plus (twice daily) at Day 0. The results are documented below.



*Thomas Bankstahl, DVM

Use of HEALx Soother Plus in a Pododermatitis Case*

A rabbit was found in a dumpster in appalling condition. Its foot pads exhibited severe dermatitis due to poor hygiene and contact with feces and urine. Deep tissues and tendons had been affected, and the prognosis was very poor. The treatment was long and difficult, but without the help of HEALx the rabbit would likely have been euthanized. The rabbit was given enrofloxacin (10 mg/kg IM q24h) for the first 10 days and HEALx Sunshine Factor (0.3 ml PO q24h). HEALx Soother Plus Cream was administered topically to the wounds. After the first 2 weeks, the rabbit was given 10 more days of enrofloxacin (100 mg/L of drinking water) and the HEALx Sunshine Factor (0.3 ml PO every other day) until the wounds had healed. After treatment with Soother Plus and Sunshine Factor, the rabbit's foot pads are now healed. The combination of HEALx Soother Plus cream and HEALx Sunshine Factor along with good cleaning practices has enabled us to achieve healing in extreme dermatologic cases such as this.



*Sergio Sarmiento Valiente, DVM

References and Further Reading

1. Agarwal MK, Agarwal ML, Athar M, Gupta S: Tocotrienol-rich fraction of palm oil activates p53, modulates Bax/Bcl2 ratio and induces apoptosis independent of cell cycle association. *Cell Cycle*. 2004 Feb;3(2):205-11.
2. Avigan M: Phytotherapy: An alternative treatment for non-healing ulcers. *J Wound Care*. 2004;13(4):157-8.
3. Baliarsingh S, Beg ZH, Ahmad J: The therapeutic impacts of tocotrienols in type 2 diabetic patients with hyperlipidemia. *Atherosclerosis*. 2005;182(2):367-74.
4. Bankstahl T: Clinical results with selected complementary therapies in birds. *Proc Assoc Avian Vet*. 2007.
5. Bankstahl TM: Use of Booster in reptiles and mammals. *Exotic DVM* 8(5):8, 2006.
6. Benade AJ: A place for palm fruit oil to eliminate vitamin A deficiency. *Asia Pac J Clin Nutr*. 2003;12(3):369-72.
7. Bendich A: Carotenoids and the immune response. *J Nutr*. 1989 119:112-115.
8. Bergsson G, Arnfinnsson J, Steingrimsson O, Thormar H: Killing of gram-positive cocci by fatty acids and monoglycerides. *APMIS*. 2001 Oct;109(10):670-8.
9. Bergsson G, Arnfinnsson J, Karlsson SM, et al: In vitro inactivation of *Chlamydia trachomatis* by fatty acids and monoglycerides. *Antimicrob Agents Chemother*. 1998 Sep;42(9):2290-4.
10. Bergsson G, Steingrimsson O, Thormar H: In vitro susceptibilities of *Neisseria gonorrhoeae* to fatty acids and monoglycerides. *Antimicrob Agents Chemother*. 1999 Nov;43(11):2790-2.
11. Black TM, Wang P, Maeda N, Coleman RA: Palm tocotrienols protect ApoE +/- mice from diet induced atheroma formation. *J Nutr*. 2000 Oct;130(10):2420-6.
12. Boateng J, Verghese M, Chawan CB, et al: Red palm oil suppresses the formation of azoxymethane (AOM) induced aberrant crypt foci (ACF) in Fisher 344 male rats. *Food Chem Toxicol*. 2006 Oct;44(10):1667-73.
13. Carpo BG, Verallo-Rowell VM, Kabara J: Novel antibacterial activity of monolaurin compared with conventional antibiotics against organisms from skin infections: An in vitro study. *J Drugs Dermatol*. 2007 Oct;6(10):991-8.
14. Choi SW, Son BW, Son YS, et al: The wound-healing effect of a glycoprotein fraction isolated from aloe vera. *Br J Dermatol*. 2001 Oct;145(4):535-45.
15. Cole L, Heard C: Skin permeation enhancement potential of *Aloe vera* and a proposed mechanism of action based upon size exclusion and pull effect. *Int J Pharm*. 2007 Mar 21;333(1-2):10-6.
16. Cottrell RC: Nutritional aspects of palm oil. *Am J Clin Nutr*. 1991 53: 989S-1009S.
17. Das S, Powell SR, Wang P, et al: Cardio-protection with palm tocotrienol: Anti-oxidant activity of tocotrienol is linked with its ability to stabilize proteasomes. *Am J Physiol Heart Circ Physiol*. 289(1):361-7.
18. Duansak D, Somboonwong J, Patumraj S: Effects of *Aloe vera* on leukocyte adhesion and TNF- α and IL-6 levels in burn wounded rats. *Clin Hemorheol Microcirc*. 2003;29(3-4):239-46
19. Ebong PE, Owu DU, Isong EU: Influence of palm oil (*Elaeis guineensis*) on health. *Plant Foods Hum Nutr*. 1999;53(3):209-22.
20. Edem DO, Eka OU, Umoh IB: Feeding of red palm oil-supplemented diets to rats may impact positively on vitamin A status. *Int J Food Sci Nutr*. 2002 Jul;53(4):285-91.
21. Enig MG: Lauric oils as antimicrobial agents: Theory of effect, scientific rationale, and dietary applications as adjunct nutritional support for HIV-infected individuals. *Nutrients and Foods in AIDS* (RR Watson, ed) CRC Press, Boca Raton, 1998, pp81-97.
22. Esterhuyse JS, van Rooyen J, Strijdom H, et al: Proposed mechanisms for red palm oil induced cardioprotection in a model of hyperlipidaemia in the rat. *Prostaglandins Leukot Essent Fatty Acids*. 2006 Dec;75(6):375-84.
23. Esterhuyse AJ, du Toit EF, Benade AJ, van Rooyen J: Dietary red palm oil improves reperfusion cardiac function in the isolated perfused rat heart of animals fed a high cholesterol diet. *Prostaglandins Leukot Essent Fatty Acids*. 2005 Mar;72(3):153.
24. Esterhuyse AJ, du Toit EF, Rooyen JV: Dietary red palm oil supplementation protects against the consequences of global ischemia in the isolated perfused rat heart. *Asia Pac J Clin Nutr*. 2005;14(4):340-7.
25. Evangelista S: Quaternary ammonium derivatives as spasmolytics for irritable bowel syndrome. *Curr Pharm Des*. 2004;10(28):3561-8.
26. Goh SH, Hew NF, Norhanom AW, Yadav M: Inhibition of tumor promotion by various palm oil tocotrienols. *Int J Cancer*. 1994 57:529-531.
27. Hadley HW, Fischer LA, Whitaker J: A topically applied quaternary ammonium compound exhibits analgesic effects for orthopedic pain. *Altern Med Rev*. 1998 Oct;3(5):361-6.
28. Hornung B, Amtmann E, Sauer G: Lauric acid inhibits the maturation of vesicular stomatitis virus. *J Gen Virol*. 1994 Feb;75 (Pt 2):353-61.
29. Kabara JJ, Swieczkowski C, et al: Fatty acids and derivatives as antimicrobial agents. *Antimicrob Agents Chemother* 1972 2(1):23-28.
30. Kabara JJ: Toxicological, Bactericidal and fungicidal properties of fatty acids and some derivatives. *JAOCS* 56:760-767.
31. Kitahara T, Aoyama Y, et al: In vitro activity of lauric acid or myristylamine in combination with six antimicrobial agents against methicillin-resistant *Staphylococcus aureus* (MRSA). *Int. J. Antimicrob. Agents*. 2006 Jan;27(1):51.
32. Kruger MJ, Engelbrecht AM, Esterhuyse J, et al: Dietary red palm oil reduces ischaemia-reperfusion injury in rats fed a hypercholesterolaemic diet. *Br J Nutr*. 2007 Apr;97(4):653-60.
33. Lightfoot T, Harrison GJ (eds): *Clinical Avian Medicine*, Spix Publishing, 2006.
34. Maenthaisong R, Chaiyakunapruk N, et al: The efficacy of *Aloe vera* used for burn wound healing: A systematic review. *Burns*. 2007 Sep;33(6):713-8.
35. Manorama R, et al: Red palm oil for combating vitamin A deficiency. *Asia Pac J Clin Nutr*. 1997 6(1): 56-59.
36. Manorama R, Rukmini C: Nutritional evaluation of crude palm oil in rats. *Am J Clin Nutr* 1991 53: 1031S-1033S.
37. Nafeeza MI, Norzana AG, Jalaluddin HL, Gapor MT: The effects of a tocotrienol-rich fraction on experimentally induced atherosclerosis in the aorta of rabbits. *Malaysian J Pathol* 2001 23(1):17-25.
38. Messenger G: Cataracts in birds. *Exotic DVM* 9(1):12, 2007.
39. Ng MH, Choo YM, Ma AN, et al: Separation of vitamin E (tocopherol, tocotrienol, and tocomonoenol) in palm oil. *Lipids*. 2004 Oct;39(10):1031-5.
40. Ong AS, Goh SH: Palm oil: A healthful and cost-effective dietary component. *Food Nutr Bull*. 2002 Mar;23(1):11-22.
41. Periat J, Bankstahl TM, Schneider R: Selected clinical results from use of AVIX and HEALX complementary therapies. *Exotic DVM* 9(2):17, 2007.
42. Preuss HG, Eichard B, Enig M, et al: Minimum inhibitory concentrations of herbal essential oils and monolaurin for gram-positive and gram-negative bacteria. *Mol Cell Biochem*. 2005 Apr;272(1-2): 29-34.
43. Raederstorff D, Elste V, Aebischer C, Weber P: Effect of either gamma-tocotrienol or a tocotrienol mixture on the plasma lipid profile in hamsters. *Ann. Nutr. Metab*. 2002 46(1): 17-23.
44. Ritchie BW, Harrison GJ, Harrison LR (eds): *Avian Medicine: Principles and Application*. HBD International, 1994.
45. Rosca-Casiana O, Parvua M, Viaseb L, Tamasc M: Antifungal activity of *Aloe vera* leaves. *Fitoterapia*. 2007 Apr;78(3):219.
46. Schaffer S, Muller WE, Eckert GP: Tocotrienols: Constitutional effects in aging and disease. *J. Nutr*. 2005. 135(2):151-4
47. Schlievart PM, Deringer JR, Kim MH, et al: Effect of glycerol monolaurate on bacterial growth and toxin production. *Antimicrob. Agents Chemother*. 1992 Mar;36(3): 626-31.
48. Schroeder MT, Becker EM, Skibsted LH: Molecular mechanism of antioxidant synergism of tocotrienols and carotenoids in palm oil. *J Agric Food Chem*. 2006 May 3;54(9):3445-53.
49. Simsek R, Chang-Fong J, Lee M, et al: Quaternary ammonium 3-(aminoethoxy) pyridines as antinociceptive agents. *Bioorg Med Chem Lett*. 2003 Sep 1;13(17):2917-20.
50. Sundram K, Sambanthamurthi R, Tan YA: Palm fruit chemistry and nutrition. *Asia Pac J Clin Nutr*. 2003 12(3):355-62.
51. Theriault A, Chao J, et al: Tocotrienol: A review of its therapeutic potential. *Clin Biochem* 1999 32(5):309-319.
52. Theriault A, Wang Q, Gapor A, Adeli K: Effects of g-tocotrienol on ApoB synthesis, degradation, and secretion in HepG2 cells. *Arterioscler. Thromb. Vasc. Biol*. 1999 19 (3):704-12.
53. Zhai H, Packman EW, Maibach HI: Effectiveness of ammonium solution in relieving type I mosquito bite symptoms: A double-blind, placebo-controlled study. *Acta Derm Venereol*. 1998 Jul;78(4):297.

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HEALx



The HEALx line of natural, nontoxic products was developed from formulas created and tested by veterinarians to boost the animal's own immune system.

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Individual results may vary. These products are not intended to diagnose, treat, cure, or prevent any disease.