OMEGA 7 – ROLE IN THE HUMAN BODY
Omega 7 Fatty Acid (Palmitoleic Acids) plays a critical role in the human body improving insulin sensitivity, decreasing C-reactive protein hence reducing inflammation, decreasing the body’s ability to store fat, decreasing incidence of diabetes and improving lipid profile by lowering total cholesterol.

Seabuckthorn is the main food source of Omega 7. It is an essential component for healthy skin and mucous membranes.

Mucous membranes cover the digestive, respiratory, and urogenital tracts and the inner surface of eyes. They are important channels for interactions between the body and the environment and are the major routes for pathogens, toxins and allergens to enter the body.

OMEGA 7 – GASTROINTESTINAL HEALTH
Symptoms such as excess acidity, ulcers, indigestion, and other gastrointestinal discomfort like acid reflux often eased when seabuckthorn is taken regularly. GI issues are reduced or eliminated as a result of better lubrication.

Studies have shown that seabuckthorn oil protects the mucous membranes of the stomach and the intestines. It can help treat damage caused by chemicals, stress and diet.

OMEGA 7 – URINARY AND GENITAL TRACTS HEALTH
Seabuckthorn oil lubricates and relieves feeling of dryness and irritated mucosa of the urinary system and genitals. Seabuckthorn oil can be used both internally and externally for mucosal dryness. A randomized, double blind, placebo controlled study in Finland has shown beneficial effects of seabuckthorn on vaginal health, indicating a potential alternative for mucosal integrity for those women not able to use estrogen treatment for vaginal atrophy.

Besides the valuable fatty acids; Omega 3, 6, 7 and 9, seabuckthorn is also a great source of vitamin E and vitamin A (from beta-carotene). Vitamin A contributes to the maintenance of normal skin, mucous membranes and vision.

OMEGA 7 – RELIEF OF DRY EYES
Omega 7 fatty acid lubricates the mucous membranes, which helps with dry eyes. Dry eye is a common condition characterized by symptoms of visual disturbance and discomfort. It is sustained and intensified by inflammation. The effect of seabuckthorn oil on dry eyes is due to the combination of carotenoids, vitamins and Omega 7 fatty acids. In a study of 100 participants, seabuckthorn oil had positive effects on tear film osmolarity and symptoms of dry eye.

OMEGA 7 – ATOPIC DERMATITIS AND ECZEMA
Seabuckthorn has an incredible composition of skin-specific nutrients like carotenoids, and polyphenols, but Omega 7 as well as Omega 3, 6 and 9 is particularly important when it comes to soothing dry skin and combating eczema and atopic dermatitis. Omega 7 provides a natural barrier to keep moisture in the skin and boosts collagen production in skin tissue. During a study of 49 atopic dermatitis patients changes in plasma lipids were controlled and the condition of the dermatitis was significantly or remarkably lower after 1 month and 4 months of consuming seabuckthorn.

OMEGA 7 – HEALING EFFECT ON ACUTE AND CHRONIC WOUNDS
Seabuckthorn oil preparations have been used for treating skin radiation lesions, burns and gastric ulcers. The protective and curative effects of seabuckthorn against wounds, burns, scalds, ulcers and mucosal injuries have been extensively investigated using animal models and by clinical trials. The studies confirmed reduction in wound area, collagen synthesis and stabilization at wound site. Seabuckthorn treatments increased levels of antioxidants and decreased lipid peroxide levels in wound granulation tissue.

What makes Seabuckthorn a powerful food?

This tiny yellow-orange berry is approximately one third of the size of a blueberry, yet packs 12 times the amount of Vitamin C as an orange. With high amounts of protein, fibre, antioxidants, vitamins and minerals, this berry is an amazing food. The vitamins, minerals, phytosterols and their trace elements will produce both their singular benefits as well as cumulative which provides the nutritional power of seabuckthorn. Canadian grown Seabuckthorn is a gift of Nature that is one of the world’s healthiest foods.

Seabuckthorn has over 190 bio-available micro-nutrients.

www.solberry.ca
Seabuckthorn Research

**SEABUCKTHORN AND WEIGHT MANAGEMENT**
The study from Finland concluded that intake of seabuckthorn and blueberries for a period of 1 month induced significant effects on overall metabolic profiles of overweight women. Blueberries and seabuckthorn promoted a slight decrease in waist circumference and body weight. Study conducted by Korean scientists confirmed that seabuckthorn leaves have potential metabolic and antioxidant effects.

**NEUROPROTECTIVE EFFECT OF SEABUCKTHORN—EXPERIMENT MODELS**
This study conducted on human brain tissue has found that an extract prepared from seabuckthorn berries and leaves protected human neural cells from oxidative stress. Seabuckthorn was found to support brain functioning and to be an efficient antioxidant. A significant increase to support brain functioning and to be an efficient antioxidant. A significant increase in the level of good cholesterol and maintains the lipid balance.

**EFFECTS OF SEABUCKTHORN ON CARDIOVASCULAR HEALTH**
The effect of seabuckthorn on cardiovascular health has been widely studied by scientific investigation. The results strongly support that seabuckthorn improves the blood lipid profile and reduces the risk factors of the cardiovascular disease:

- Increases the level of good cholesterol and maintains the lipid balance
- Reduces the harmful effects of bad cholesterol
- Significantly reduces platelet aggregation, which prevents blood clotting and keeps the blood vessels open for normal circulation
- Inhibits inflammation in blood vessels and reduces the risk of cardiovascular diseases

A recent study conducted at the University of Manitoba, concluded that the cardio-protective effects of seabuckthorn flavonoids have been attributed to their ability to increase circulating lipid markers and prevent risk factors of coronary heart disease.

**ANTIDEPRESSANT-LIKE EFFECTS OF SEABUCKTHORN FRUIT**
The therapeutic goal in the treatment of major depression is to improve quality of life by normalising mood and reversal of functional and social disabilities associated with depression. The study found that aqueous fruit extract of Seabuckthorn exhibited significant antidepressant-like effects and may serve as a potential resource as a natural psycho-therapeutic agent, against depression in humans.

**EFFECT OF SEABUCKTHORN ON INFLAMMATION**
254 healthy volunteers were randomly assigned to receive seabuckthorn or a placebo product during the study. In the seabuckthorn group the serum CRP concentrations decreased significantly. A decrease in serum C-reactive protein indicates anti-inflammatory effect of seabuckthorn and its positive effect in management of arthritic pain and infection.

**SEABUCKTHORN AS A PREBIOTIC SOURCE**
Digestive stability of seabuckthorn polyphenols was investigated in vitro models. The study found that seabuckthorn polyphenols increased proliferation of good bacteria including Lactobacillus acidophilus, Bacteroides/Prevotella and Bifidobacterium by 35%, 71% and 17% respectively. The gastric and small intestine digestion of seabuckthorn polyphenols created a mild alkaline condition, activated digestive enzymes and led to an increase in antioxidant activity, (40 mg/kg) of Seabuckthorn exhibited significant antioxidant and neuroprotective effect of Seabuckthorn.

**INFLAMMATION**
Supplementation with seabuckthorn (Hippophae rhamnoides) seed and pulp oils on atopic dermatitis. Seabuckthorn berry oil inhibits platelet aggregation. Anu K Johansson, Helena Karth, Boaou Yang, John C Sterley, Heikki P Kallio.

**EFFECTIVE ANTIOXIDANT ACTIVITIES**
Seabuckthorn berry oil inhibits platelet aggregation. Anu K Johanson, Helena Karth, Boaou Yang, John C Sterley, Heikki P Kallio.

**MEDICINAL AND THERAPEUTIC POTENTIAL OF SEABUCKTHORN**
Seabuckthorn as a novel prebiotic source promotes beneficial gut flora. Digestive stability of seabuckthorn polyphenols was investigated in vitro models. The study found that seabuckthorn polyphenols increased proliferation of good bacteria including Lactobacillus acidophilus, Bacteroides/Prevotella and Bifidobacterium by 35%, 71% and 17% respectively. The gastric and small intestine digestion of seabuckthorn polyphenols created a mild alkaline condition, activated digestive enzymes and led to an increase in antioxidant activity.

**SOURCE**
2. Effects of seabuckthorn oil intake on vaginal atrophy in postmenopausal women: A randomised, double-blind, placebo-controlled study Pekka S. Larmo, Boaou, Yang, b, Juha Hysábalc, Heikki P Kallio b, Risto Enkola a, Department of Obstetrics and Gynecology, University Central Hospital of Turku, Finland.
5. Effects of seabuckthorn and bilberry on serum metabolites after according to baseline metabolic profiles in overweight women: a randomized crossover trial—A Pekka S Larmo, Anttila I, Kangas, P, Saarinen, J, Harliau-Maria Lehtinen, Jukka Pietka Suomela, Boaou Yang, Jorma Vilkk, Mikko Aio-Korpela, and Heikki P Kallio. Finland.
7. Effects of dietary and neuroprotective effect of Seabuckthorn (Hippophae rhamnoides L.) on oxidative stress induced cytotoxicity in human neural cell line IMR90 L. Shibuya. a, Y. K, Irama a, G. P. Dubey a,b.
12. Colonic fermentation of polyphenolics from Seabuckthorn (Hippophae rhamnoides) berries: Assessment of effects on microbial diversity by Principal Component Analysis. Sampalan Arthi Kavita Sharma et al. Department of Biotechnology and Bioinformatics, Jaypee University, 2017.
13. Seabuckthorn as a novel prebiotic source improves probiotic viability in yoghurt. Anjus Gurung, Christina Hoory, Candace Legault, et. al. Food Science and Nutrition, Chemistry Department, Carleton University, Ottawa, Canada 2015.