

Prickly Pear Oil Research Paper

APPEARS IN



Prickly pear seed oil is found in the Americas, Mediterranean, and Caribbean islands. The sweet pink fruit is grown on prickly pear cacti and is touted as a superfruit for its anti-inflammatory, antioxidant, and anti-bacterial properties. Prickly pear oil is packed with vitamins, such as vitamin A, as well as linolenic acid which helps keep the skin hydrated and fresh-looking. Three Ships' Replenish utilizes this powerful ingredient that is packed with vitamins and antioxidant properties.

PRICKLY PEAR OIL IS PACKED WITH VITAMINS, SUCH AS VITAMIN A

The first European encounter of prickly pear oil was made by Christopher Columbus in 1493, when the explorer brought the species to Lisbon. Prickly pear oil is characterized by their high sugar content and vitamin C content. In fact, prickly pears have a higher vitamin C content than apples, pears, grapes, and bananas. Moreover, its antioxidant activity is 2-folds greater (or more) than pears and grapes. Overall, the fruit is high in fatty acids and antioxidants.



Prickly pears are picked and cleaned from the cactus. The seeds are removed from the fruit and dried in the sun. The seeds are cold pressed into a crude oil then refined to a high purity and then packaged and shipped.

The exact method of extraction of Prickly Pear Oil that Three Ships sources, however, is proprietary information.

ANTIOXIDANTS, SUCH AS PRICKLY PEAR OIL, ARE MOLECULES THAT NEUTRALIZE FREE RADICALS

The free radical theory, first proposed in 1954, postulates that aging is caused by free radical reactions. These reactions are irreversible and may be a result of environment, disease, and intrinsic aging. The theory suggests that an individual's lifespan can be increased by slowing the rate of initiation of random free radical reactions. A free radical is a chemical species possessing an unpaired electron. Reactive oxygen species are a type of free radicals that contain oxygen. Oxidative stress occurs when there is an imbalance between the generation of free radicals and the activity of antioxidant defense. Too much oxidative stress can result in cell damage; hence, the generation of too many free radicals can be harmful. Intracellular mechanisms can often reduce the damaging effects of free radicals; however, with age, endogenous antioxidative mechanisms may not work as effectively and oxidative stress is a more likely occurrence.

Antioxidants, such as prickly pear oil, are molecules that neutralize free radicals, caused by extrinsic and intrinsic aging, by accepting or donating electrons. Antioxidants can directly react with free radicals by delocalizing the unpaired electron, or inhibit the activity of free radicals by generating enzymes (e.g. NAD(P)H) that provide an important defense against free radicals. As the name suggests, antioxidants prevent oxidative stress thereby reducing collagen degradation and reducing the appearance of fine lines and wrinkles.

SCIENTIFIC STUDY

Study on the effect of harvest times on bioactive properties and fatty acid compositions of prickly pear fruits

In this study, the effect of harvest times on the bioactive properties of prickly pear oil were studied. Overall, it was found that prickly pear oil is a vital source of bioactive constituents, including phenolic and antioxidant substances, with optimum harvesting times on the 1st of July (Canada Day!). Nonetheless, the study highlights the natural antioxidant content of prickly pear oil.

Overall, the studies show that prickly pear oil has high anti-inflammatory, antioxidant, and hydrating properties. In particular, the bioactive compounds present in prickly pear (polyunsaturated fats and phenolic substances) make it a powerful skincare ingredient. The prickly pear oil that Three Ships sources is GMO-free.