All About Bilberry:

An Introduction

"An eye-opener."

What is Bilberry ?

Family: Ericaceae (synonymous to) Vacciniaceae
Genus and Species: Vaccinium myrtillus

Bilberry is a small deciduous shrub found growing mostly in the fields of Europe - England, Scandinavia, and Siberia, although many close relatives of bilberry, such as dwarf bilberry, mountain blueberry, western blueberry, and California huckleberry are found in the northwestern United Stated and British Columbia. The bilberry is a round, bluish fruit with slightly acidic taste and the size of. The commond name "bilberry" has been derived from Danish "bollebar", meaning dark colored berry. Bilberry is also called whortleberry, black whortles, whinberry, bleaberry, hurtleberry, huckleberry, or trackleberry, etc.

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History

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Usage

German Commission E approved the internal use of bilberry to treat acute diarrhea, and mild inflammation of the mucous membranes in mouth and throat. Bilberry is better known in recent years for its ability to promote eye health and vision, and help prevent cataracts, glaucoma, macular degeneration, poor night vision, and retinopathy. The red, blue, and purple colors of Vaccinium fruit skin come from **anthocyanosides**, which are the key to the beneficial effects of the fruit, especially to eyes. In addition to more than a dozen different anthocyanoside compounds - strong anti-oxidants - identified from bilberry fruit, there are 5-10% tannins, several alkaloids, twelve different phenolic acids and flavonoid glycosides in the fruit, which may all play a positive role for medicinal benefit.

Dose: 20-60 grams of dried ripe fruit per day, or 80-160 mg of dry

extract (standardized to 25% anthocyanosides) per day is recommended. Side Effect: There is no reported side effect or adverse effect known for bilberry fruit or extracts. Bilberry is an important component of DreamPharm's product Triple B Super Vision.

Chemistry and Pharmacology

A rather complete chemical composition list of bilberry fruit can be found in Dr. Duke's Phytochemical and Ethnobotanical Databases. Bilberry fruit contains 5-10% catechin tannis; approximately 30% invert sugar; over 1% fruit acids; flavonol glycosides including astragalin, hyperoside, isoquercitrin, and quercitrin; phenolic acids (such as caffeic and chlorogenic acids); pectins; triterpenes (0.25% ursol acid); polyphenols (0.5% anthocyans) such as procyanidins B1-B4, and particularly the anthocyanidins malvidin, cyanidin, and delphinidin bonded to one of three carbohydrates (i.e., glucose, galactose, and arabinose) - for example, delphinidin-3-O-arabinoside, delphinidin-3-O-galactoside, and delphinidin-3-O-glucoside. The anthocyanosides (anthocyanins) are aglycones bound to one of three glycosides. The anthocyanoside content increases as the fruit ripens whereas the catechin tannins and dimeric proanthocyanidins(B1-B4) decrease with the progression. Bilberry has shown vasoprotective, anti-emedatous, anti-oxidant, anti-inflammatory, and astringent actions. Bilberry antocyanins regenerate rhodopsin, which is related to the treatment of poor night vision, macular degeneration, glaucoma, and cataracts.

Other Notes

Cranberry (Vaccinium macrocarpon), blueberry (Vaccinium species), and blackberry (Rubus species), are all in the family of Ericaceae (or Vacciniaceae). Cranberry and blueberry are native to America. Wild cranberry and blueberry have been eaten by native Americans for centuries, and was quickly taken by the pilgrims as they arrived to the new world. Besides the usage as a food, cranberry fruit has been used medicinally for various conditions including scurvy, stomach ailments, liver problems, vomiting, and loss of appetite for a couple hundred years. Cranberry is well known for its effectiveness against infections in the urinary tract thanks to the high tannin concentration that prevents bacteria from attaching to the walls of the bladder and urethra. As a corollary, bilberry could also be helpful for urinay tract infections. Cranberry of course contains beneficial phytochemicals similar to those found in bilberry.
Blueberry has been an important food source for native Americans. Native Americans used blueberry for various medicinal purposes as well, but they are not quite related to what is currently believed. Both blueberry and bilberry contain plentiful of anti-oxidant phytocheimcals such as anthocyanins, and known to be beneficial for eye health.

Bilberry Research:

During World War II, British Royal Air Force pilots were reported to

have improved their vision after eating bilberry jam. Other anecdotal evidences are the hearsays that air traffic controllers, airline pilots and truck drivers have improved night time vision by taking bilberry fruits and extracts. Reports from recent scientific and clinical studies are provided.

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J Agric Food Chem 2001 Aug;49(8):4076-82 - Berry phenolics and their antioxidant activity

Metabolism 2000 Jul;49(7):880-5 - In vivo sequential study of skeletal muscle capillary permeability in diabetic rats: effect of anthocyanosides

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Cochrane Database Syst Rev 2001;(3):CD001321 - Cranberries for preventing urinary tract infections

Cette fiche ne constitue en aucun cas un manuel d'exécution ni une référence et ne peut remplacer l'expérience et le savoir-faire d'un professionnel.