



Hops and Health

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Review of:

http://www.hopsteiner.de/fileadmin/redeakteur/pdf/neuigkeiten-berichte/technische-veroeffentlichungen_NEU/2009/Hops_and_Health_-_M._Biendl_-_MBAA_2009.pdf

Hops have been around since the New Stone Age (10,000 BC), mostly used for its medicinal properties before being used in beer starting around the year 1,000 AD.

Originally hops were added to brewing not for taste, but because it kept away certain putrefactions from beverages.

Hops medicinal benefits have been recorded throughout the years, covering its antimicrobial properties, anti-inflammatory properties, uses as a diuretic, fever reducer, and its digestive properties. Hops were found to be used in both Europe and North America, where original tribes used hop tea as a relaxant, stomach complaints, and a hop brew for healing wounds or a sleeping agent.

Coming into the 19th and 20th century, scientific research substantiated much of the traditional uses of hops as a sedative, anti-inflammatory, and having positive gastrointestinal effects.

Hops and Health

Currently, one of the biggest uses of hops has been as supplement with sedative effects, especially when combined with valerian.

Recent studies have confirmed that hop extracts promote the formation of gastric juices while also assisting digestion and stimulating appetite.

Hops antimicrobial properties can best be attributed to the bitter compounds found in the plant. These compounds are mostly made up by Alpha and Beta Acids.

Alpha-Acids are also very active against inflammation, which confirms hops use as an anti-inflammatory.

Beta-Acids have been used by the sugar industry in processing of sugar beets as a natural antibiotic and in the ethanol industry to control bacterial infections in fermentation.

For personal use, Alpha and Beta Acids have been found effective against bacteria that can cause gastric ulcers, athlete's foot, and bacteria associated with acne.

Polyphenols can be found as one of the constituents of hops and other foods like green tea, soy beans, and red wine, which has been shown to reduce risk for cardiovascular disease, osteoporosis, and cancer.

Two of these polyphenols quercetin, which is one of the most potent polyphenol antioxidants, and kaempferol, a similar compound, have been shown to be effective in alleviating allergy symptoms, which was found through a double-blind, placebo-controlled clinical trial.

Hops and Health

Another polyphenol xanthohumol has been found in hops, which has been especially promising for its use for cancer chemoprevention, or compounds with the objective of inhibiting cancer before a tumor starts growing.

Xanthohumol does this through deactivating carcinogens and inhibiting tumor growth through inhibition of new blood vessels.

One of the polyphenols that help with osteoporosis and cardiovascular disease is 8-Prenylnaringenin, which is a phytoestrogen, and quite similar to the human produced estrogen.

This phytoestrogen has been found a viable replacement for natural estrogen in women who are going through menopause.

While these constituents only make up a small part of the hop plant, some companies are already extracting them from hops for use as dietary supplements.

It has also been shown that modifying the brewing process can raise or decrease certain constituents found, creating a viable way to include more beneficial compounds in beer.

Recent studies have shown that moderate beer consumption parallels the medicinal effects demonstrated through moderate wine consumption.

Overall, hops as a plant hold many medicinal values that can be imparted through beer, extracts of certain constituents, or brews made from the plant.

