

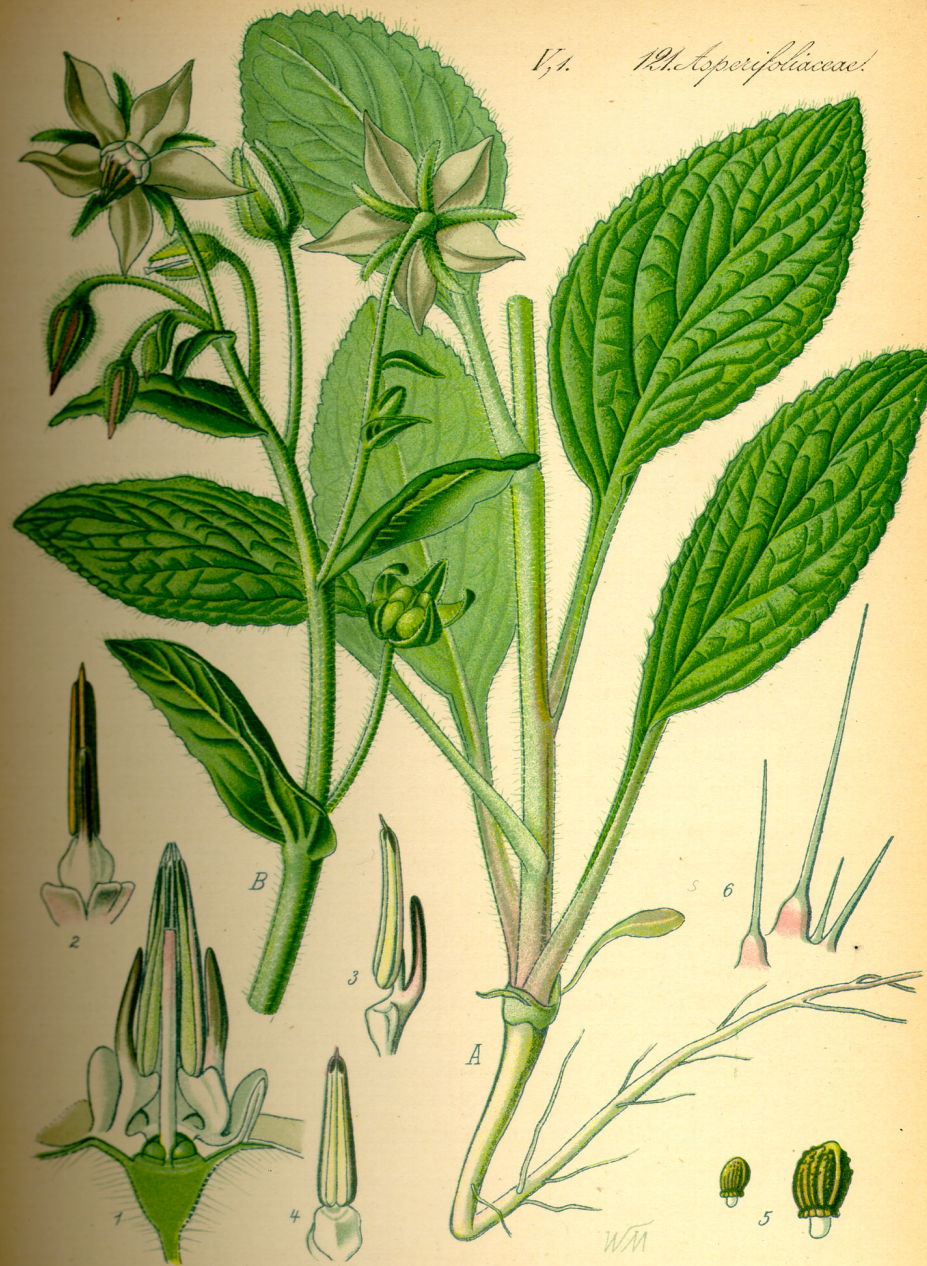
OMEGA EDIBLE OILS

Kleinhoscheid, 05/04/2018

Georges Mouton MD

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Ω6



Borago officinalis

Borage seed oil

21% GLA ($\Omega 6$) – 35% LA ($\Omega 6$)

- *Borago officinalis*
- The richest of all in gamma-linolenic acid (18:3 $\Omega 6$)
- Especially active on skin conditions





Effect of borage oil consumption on fatty acid metabolism, transepidermal water loss and skin parameters in elderly people.

Brosche T, Platt D.

The consumption of borage oil induced a statistically significant improvement of cutaneous barrier function in the elderly people, as reflected in a mean decrease of 10.8% in the transepidermal water loss.



Oenothera biennis

Evening primrose oil

8% GLA ($\Omega 6$) – 69% LA ($\Omega 6$)

- *Oenothera biennis*
- Quite rich in gamma-linolenic acid (18:3 $\Omega 6$)
- Especially active in case of premenstrual syndrome



Am Fam Physician. 2003 Apr 15;67(8):1743-52.

Premenstrual syndrome.

Dickerson LM, Mazyck PJ, Hunter MH.

Premenstrual syndrome is characterized by emotional and physical symptoms that consistently occur during the luteal phase of the menstrual cycle. (...) Dietary supplements, such as calcium and evening primrose oil, may offer modest benefit.



Ribes nigrum

Black currant seed oil

15% GLA ($\Omega 6$) – 12% LNA ($\Omega 3$)

- *Ribes nigrum*
- Rich in gamma-linolenic acid and in alpha-linolenic acid
- Also providing linoleic acid (45%) and stearidonic acid (3%)



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www.ajcn.org

Effect of dietary supplementation with black currant seed oil on the immune response of healthy elderly subjects.

Wu D, Meydani M, Leka LS, Nightingale Z, Handelsman GJ, Blumberg JB, Meydani SN.

Black currant seed oil (BCSO), rich in both gamma-linolenic and alpha-linolenic acids, has been shown to modulate membrane lipid composition and eicosanoid production.

CONCLUSION: BCSO has a moderate immune-enhancing effect attributable to its ability to reduce prostaglandin E(2) production.



Echium plantagineum

Echium seed oil

10% GLA ($\Omega 6$) – 13% SDA ($\Omega 3$)

- *Echium plantagineum*
- Rich in gamma-linolenic acid and in stearidonic acid
- Excellent in case of low Δ -6-desaturase activity (stress, gene polymorphism)



Full text article at
nutrition.org

Dietary echium oil increases plasma and neutrophil long-chain (n-3) fatty acids and lowers serum triacylglycerols in hypertriglyceridemic humans.

Surette ME, Edens M, Chilton FH, Trampusch KM.

Concentrations of long-chain Ω 3 PUFA, including EPA, increased when subjects consumed *Echium* oil. In conclusion, dietary plant oils rich in stearidonic acid are metabolized to longer-chain, more unsaturated Ω 3 PUFA. These oils appear to possess hypotriglyceridemic properties typically associated with fish oils.

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