REFERENCES

OATMEAL
OAT
Avena sativa

1. Lust in his book (B8) says that oatmeal is good for a local wash where there is skin diseases, flaky skin, wounds and eye problems.

2. Buchmann in her book (B15) says that oats are good for sores, inflammations and rough skin. Helps soften the skin (to draw out splinters and foreign bodies). An exceptional healing poultice for the skin. Will lessen the pain in an infected wound. Good for chapped handsand healing skin eruptions. Reduces itching in eczema.

3. Bunney (B27) reports that the Common Oat can sometimes be found growing wild as weeds of arable fields and waste ground. The grains and sometimes the dry stalks are used medicinally. The grains contain valuable proteins, sugars, fat, starch, vitamin B complex, pigments (carotenes) and various minerals, among them iron, calcium, and potassium salts. Externally fine oatmeal can be used as a cleansing and soothing poultice or bath preparation. The straw can also be used as a bath preparation to treat rheumatic pains and sciatica and it is a skin tonic.

4. Potter (B5) reports that the seeds are used. The seeds with the husks removed are sold in two or more forms. Crushed or in coarse powder they aare known as groats, and in fine or coarse powder as oatmeal. It is a nerve tonic, stimulant, antispasmodic. Avena forms an important restorative in nervous prostration and exhaustion after all febrile diseases, and as a tonic in spermatorrhoea, insomnia etc. It seems to exert very beneficial action upon the heart muscles and on the urinary organs, speedily relieving spasmodic conditions of the bladder and ureter.

5. Ceres (B2) says of Avena sativa or Wild Oats that this weed of arable land is a menace to farmers, because the only way in which it can be eradicated is by hand pulling. It makes a splendid sedative tea. It is calming and soothing to the nerves and good to take at night as a sleep inducer. A drink made by pouring boiling water over crushed porridge oats has much the same effect and is nutricious to delicate systems.

6. In the Extract from Nature book (B47) we read that oat is a good addition to a bath aimed at relaxation; it is a nerve tonic for mental fatigue and anxiety and helps to promote sleep. Oatmeal has good cleansing qualities, containing enriching vitamin B and vegetable enzymes which soften skin; it is often used in deep cleansing and nourishing products.

7. In a data sheet from Vevy (through Paroxite) we read that the useful part of oat is the endosperm which contains xanthophylls, phytosterols, terpene alcohol, tocopherols and hydrocarbons. Oats are the cereal with the highest lipid content (about 7-8%), most of which is located in the endosperm. It has good skin affinity.

It has a good moisturising action for skin that has been exposed to sun radiation and sea water. It is recommended for after-sun lotions and as a prevention in tanning products for hypersensitive and easily reacting skins subject to depauperization of the lipid layer. Its use in paidocosmetics for the prpearation of protective and lenitive emulsions and pastes is also very important. (This paper was translated from Italian and seems to have a few strange words - ACD!)

8. Evans (B58) says that medicinally wild oat is used; it is the finest remedy for nervous exhaustion, debility, depression or convalescence, acting slowly but steadily to restore normal nervous functioning, without over stimulation.

9. Schauenberg and Paris (B60) say that the grain contain avenine (vanilloside), a tonic compound, 55% starch, 2 - 5% sugars, 14% protein and 5% lipids. It is rich in calcium and minerals (copper, cobalt, manganese, zinc and iron). It strengthens in cases of diabetes and dyspepsia. Avenine stimulates the central nervous system, especially in horses.

The food value has been known since earliest times. It is a powerful stimulant, rich in body building materials. In homoeopathy a tincture is prepared from the fresh plant. It is used in the treatment of arthritis, rheumatism, paralysis, liver infections and skin diseases.

10. In the Lexicon Vevy Europe skin care instant report, volume VIII, Number 3, March 1991. The semen is used, which contain xanthophylls, phtosterols, terpene alcohols, tocopherols, hydrocarbons. Oats are the cereal with the highest lipid content, about 7-8%, most of which is located in the endosperm. It has a moisturising action which is particularly visible in skins dehydrated by excessive exposure to sun radiation and sea water. It is used in paidocosmetics (? paedo?) for the preparation of protectiver and lenitive emulsions and pastes.

11. Genders (B78) says that it is also known as Wild Oat or Groat. It is a valuable food for horses as well as humans and have many uses in beauty treatments both raw and when cooked. Oatmeal has no equal as a skin improver and there are many recipes for its use.

12. The British Herbal Pharmacopoeia (B26) says that avena consists of dehusked and rolled starchy seed endosperm of *Avena sativa* and contains much starch, some protein, and a little fat which contains some tocopherol.

It is anti-depressive, thymoleptic and cardiac tonic. It is indicated for depression, melancholia, menopausal neurasthenia, general debility.

13. Hoffmann says that the seeds and whole plant are used. The seeds contain 50% starch; alkaloids including trigonelline and avenine; saponins; flavones; sterols; vitamin B. The plant straw is rich in silicic acid; mucin; calcium. It is a nervine tonic, anti-depressant, nutritive, demulcent and vulnerary.

Oats is one of the best remedies for feeding the nervous system, especially when under stress. It is considered specific in cases of nervous debility and exhaustion when associated with depression. The high levels of silicic acid will explain its use as a remedy for skin conditions, especially in external application. It may be used in a soothing bath for neuralgia and irritated skin conditions.

14. In the Lawrence review of natural products (Jan 1991) says that Oats probably originated in three widely separated geographic regions; Abyssinia, the Mediterranean and China. Today the grain is grown mainly in the US, Canada, Russia and Germany.

Rich in fat and protein content, oats compared to other cereals have one of the highest food values for humans. Oat extracts have been used for more than a century as soothing topical emollients.

Because of the gluten content, oat plant derivatives have been found useful in managing dry, itchy skin conditions. Bath products including colloidal oatmeal mixtures, bath soap and gels and powders containing oat extracts are available commercially.

An extract of oats is used in traditional Ayurvedic medicine to cure opium addiction and may reduce the desire to smoke cigarettes, with a decrease from 20 to 14 cigarettes per day. Cosumption in the control group remained constant at 17 cigarettes per day. It continued for 2 months after the study. These results could not be confirmed in a repeat study.

Oat bran, the ground inner husk of the grain, has become popular as a dietary means of lowering blood lipids. Soluble fibre may bind cholesterol and bile in the intestines, preventing absorption. The digestion of the fibre may cause flatulence. The ingestion of large amounts of fibre may reduce colonic cancer.

Contact dermatitis due to oat flour has been reported and the oat prolamine, avenin, has been showed to raise antibodies in rabbits. Gluten should be avoided by patients with celiac disease. Oat gluten has been used as a stabiliser, emulsifier and food extender.

No significant toxicity has been associated with oat product ingestion.

15. Martindale (B90) says that it is called Aven; oats; cultivated white oats; oatmeal. It is the grain of *Avena sativa*. Avena is reputed to have antidepressant activity; an extarct or tincture has claimed to be of value in the treatment of drug dependence.

A colloidal fraction extracted from avena has been used in the preparation of emollient dermatological preparations.

Avenin, a protein present in oats, might be harmful to patients with coeliac disease.

16. Chiej (B93) says that oat is *Avena sativa*, where the seeds and leaves are used. These contain starch, nitrogenous substances, cellulose, mineral salts, vitamins A, B1, B2, PP.

It is diuretic, nutrient, nerve sedative. In some parts of Continental Europe, oat straw was once used, and possibly still is, to fill mattresses and palliasses, with great benefit to rheumatic conditions. With small children, oats in various forms, have been found to be remarkably effective against insomnia, in addition to be nourishing. A handful of grains thrown into the bath-water keeps the skin soft because of its emollient action. It is one of the great cereals used as a basic ingredient in the making of certain types of whisky.

17. Levy (B77) says that it is low in starch, high in mineral content (especially potassium and phosphorus, also magnesium and calcium). Particularly rich in vitamin B, with some of the rare E and G also. Highly nerve tonic and bone building, also used externally as a skin tonic (the finely ground meal).

Externally, fine oatmeal makes an excellent poultice, and is applied to the skin as a cleansing rub. Also the meal, placed in cotton bags, is rubbed over the skin as a complexion treatment, some drops of perfume being added. The bags are squeezed out and a milky lotion is produced.

18. Stuart (B28) says of *Avena sativa* that oats or groats provide a staple diet for most of the world's population. *Avena sativa* is a cultigen possible derived from *Avena fatua, Avena sterilis*

or *Avena barbata* which originate from southern Europe and east Asia. It contains starch, protein, gluten, albumen, salts, gum oil, tocopherol. Uses (dehusked seed, starchy seed endosperm) Nutritive; antidepressant; thymolyptic. Of use in depressive states and in general debility; highly nutritious.

19. In a botanical information sheet from A.Webster of English Grains we read that the dried straw is used which contains silicic acid, vitamins of the B group, mineral substances, avenin (alkaloid).

The effect is antiphlogistic. Oat straw is applied as a bath cure to cure inflammatory as well as sebhorrheic and especially itching dermatitis.

The traditional medicine often applies green oat herb. It is said to have an effect against "weak nerves", bladder troubles, insomnia, nicotine addiction and many other complaints. However, these applications are considered obsolete.

Dosage 100g drug per complete bath.

20. In a data sheet from Nurture Inc.

Oats have been in use for millenia, with remnants having been found in caves which date back some 12 thousand years. Oats have probably been in cultivation in excess of 1000 years. they have the highest protein among the cereal grains and, nutritionally, the protein is well balanced.

An additional benefit has been the recognition that the gum (beta glucan) associated with oat bran has therapeutic value in reducing human serum cholesterol levels. In addition to their nutritional value, oats have long been used as topical treatments to reduce inflammation and/or itching of the skin. oatmeal poultices are an ancient folk remedy and soap bars containing oatmeal are commonly used by hospitals.

Oat oil has natural antioxidant properties.

21. Watson (B186) refers to oats as *Avena sativa*, found in almost every all-American kitchen in the form of oatmeal, recently gained in popularity when studies said that oat bran helped lower blood cholesterol. But oat tincture has had a place for centuries in the herbal *Materia Medica* where it was usually recommended for impotence and menstrual problems resulting from nervous exhaustion.

In old Europe, oat straw tincture was also taken by people withdrawing from opium and modern herbalists often prescribe it as a tonic and nerve stimulant for anyone going through drug or alcohol detoxification. Take the tincture in doses of 10-20 drops. A decoction can be made by boiling 1-2 oz. (30-60g) of oat straw in 1 pint of water for 20 minutes.

Several products available today add nettles to green oats as a tonic to increase stamina and sex drive. This combination was initially tested at Budapest University, where the males tested showed increased strength, stamina and sexual vitality along with increased testosterone levels. The Institute for the Advanced Study of Human Sexuality in San Fransisco tested forty men and women and found that it successful in increasing sexual desire and performance.

22. Mindell (B201) refers to *Avena sativa* as Oats.

Long before breakfast meant a bowl of sugar-coated artificially cereal, our ancestors thrived on whole grains such as oats. The grain from the oat plant is not only nutricious but we now know that oat fibre serves another important purpose; it is one of the most effective ways to reduce serum cholesterol. Rich in a gum called beta-glucam, 55-85g/2-3 oz of oat fibre per day in a low-fat diet can reduce cholesterol by 5-10%. Oat extract is a natural relaxant. It is also excellent for indigestion. No part of the oat plant need go to waste. The dried coarse stalk or straw can be used in baths to soothe haemorrhoids and to revitalise sore aching feet.

Possible benefits

- good for wind and upset stomach
- helps prevent heart disease by reducing cholesterol
- good source of vitamin B
- good for skin and haemorrhoids
- extract has a calming effect on the body

The straw is used in external preparations in baths, sitz-baths for haemorrhoids and footbaths.

23. Potter (B285) refers to *Avena sativa* as Oats or Groats, which are widely distributed as a cereal crop. The seeds are used.

Constituents: (i) Proteins, prolamines known as avenins (ii) C-glycosyl flavones (iii) Avenacosides, which are spirostanol glycosides (iv) Fixed oil, vitamin E, starch etc.

Medicinal use: Antidepressant, thymoleptic, cardiac tonic. Used for debility, menopausal symptoms and depression. Reports that extracts counteract dependence on cigarettes and morphine have been disputed. Oats are externally emollient and the colloidal fraction is used in bath preparations for eczema and dry skin.

Preparations: Liquid Extract, dose: 0.6-2 ml.
Regulatory status: GSL.

24. Bob J. Dull: Oat Oil for personal care products. Cosmetics & Toiletries Vol.112, January 1997, pp.77-81.

The use of oat oil (*Avena sativa*) as an ingredient in personal care products is a natural extension of the historical use of oatmeal and oatmeal fractions for improving the skin. Prepared from native oats, oat oil is effectively a concentrated form of one of oatmeal's major active agents, which has been demonstrated to moisturise. Its ability to emulsify large quantities of water in oil makes it a powerful vehicle for hydrating and moisturising epidermal layers.

Lipid compositions

Native oats: Native oats contain up to 9% lipids, with the highest concentrations found within the germ (24.6% lipids). However, the germ represents a small proportion of the total groat mass; thus it is of a limited value as a source of the oil. The endosperm, on the other hand, contains 85% of the total edible groat's lipid fraction. Therefore, it makes sense to extract oil from the entire groat rather than from any particular portion.

The lipid composition of oat groats.

Lipid class	% Composition
Triglycerides	53.7%
Phospholipids	24.6%
Free Fatty Acids	10.0%
Glycolipids	9.6%
Sterol esters	2.1%

Extracted oil: The use of the highly nonpolar solvent hexane results in an extracted oat oil containing a slightly different lipid composition. the fatty acid content is 81% unsaturated and 19% saturated, with oleic (18:1) and linoleic (18:2) acids comprising 96% of the total unsaturates. Total phopsholipid content declines to just over 5%, with phosphatidylcholine and phosphatidylethanolamine predominating. Oat oil's total polar lipid content averages 15-18%.

Other components inlcude tocopherols, tocotrienols, plant sterols and phenolic compounds. Heat treating the groats before extraction results in an oil containing about 2.5% free fatty acids. Peroxide values of virtually 0 meq/kg contribute to the high stability of the oil.

Preparation of oat oil

Oat oil is prepared from native oats (*Avena sativa*) that have been dry milled into rolled oats or steel cut to produce groats. Heat treatment is a critical step, as it inactivates lipases that would otherwise destroy the oats' triglyceride structure, resulting in hydrolytic rancidity.