Piko wholefoods
CO-OPERATIVE

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opening hours:
9am-6pm Monday to Friday
9am-4pm Saturday

newsletter

June 2000

Piko is a low profit charitable organization set up in 1979. We are committed to:

- **community focus, e.g. donating to health related organizations, providing a satisfying, consensus-based work environment**
- **environmental impact of grocery shopping,**
- **bulk to reduce cost e.g. on tap, open sack**
- **B.Y.O. containers** or **return CLEAN and USABLE containers and bags**.
- **quality WHOLE-FOODS versus processed food or supplements**
- **providing food for people with allergies eg. Gluten free, diary free, sugar free.**
- **providing accurate information**
- **organic food**. The organic shop-packaged goods are marked with 'organic' or have a **green** sticker ***and*** **look out for the**

New Look .....

Orange cards on
open sacks & on tap = ***ORGANIC***
Blue Cards on
open sacks & on tap = ***NON ORGANIC***

This newsletter focuses on:

Fats and Oils

What's the Truth?!...

There is a lot of contradiction on fats and oils, from popular articles by amateurs, doctors untrained in nutrition, and misleading marketing information.

The information and inspiration in this newsletter is mostly taken from *Fats That Heal, Fats That Kill,* by Udo Erasmus. Since his book was first published in 1986, Erasmus has become an internationally recognised authority and consultant on the subject, and has pioneered technology for processing and packaging healthful oils. For anyone wanting to read beyond this 'user friendly' newsletter, I recommend his book, available at the Canterbury public library and available for reference at Piko 'Alive Books' Fourth printing 2nd edition, Canada, 1996.

Other information has come from David Musgrave of Waihi Bush mill, right here in New Zealand, who has been writing, researching and processing oils, particularly flaxseed, for a number of years.

Bigger is not always better...

Traditionally, in Europe oil pressing was a cottage industry. Many older people who lived in Europe before WW2 remember how fresh oils were sold door to door like milk and eggs. Fresh flax oil was delivered once a week in small 100ml transparent glass bottles. Since the oil was unprotected from light and air, it lasted only a few days. Like fresh produce, unrefined oil was a staple in many homes.

In the 1920s huge oil firms were constructed. Huge fields of oil seeds were planted. Huge continuous-feed, screw-type (expeller), heat-produced oil presses were built to replace small, slow, cold temperature batch presses in use prior to that time. Pesticides came into widespread use. Technologies for seed preparation, oil extraction, refinement, bleaching, deodorization and other processes were developed. The oils cottage industry folded.

Live long and feel Fat-astic!… Fats and oils are a necessary part of our diets but the molecular changes resulting from changed oil processing methods can turn healing fats into killing fats.

Fatty degeneration in the body is a big part of many of the great killer diseases of our time including cardiovascular disease, cancer, diabetes, and multiple sclerosis. Reversal is possible with changes in fat choices.

The healing fats and 'killing' fats (to use Urasmus's words), have different molecular structures.

The fats that heal contain unsaturated fatty acids (different from saturated), often referred to as polyunsaturated, (but do not be mislead by the marketing use of this word e.g. on margarine labels - see separate newsletter on margarine for more information-no.29).

Saturated fats and oils are the fats that 'kill'. They are usually solid at room temperature. Some of the foods that contain saturated fats are lard, butter, meat, cheese, milk, coconut oil, and palm oil.

Choosing your oils …

Along with limiting your intake of saturated fats, there are two major things to consider when choosing your oils:

1. Are your oils **fresh and unrefined?**
2. What are your (EFA) - **essential fatty acid** levels like?

Fresh and unrefined…Unrefined usually means in its natural state - not degummed, not bleached, not deodorised, not partially hydrogenated.

The best oils are unrefined, and taste like the seed from which they were mechanically (expeller) expressed without solvents. They have been pressed, filled, stored and transported without light, heat, or oxygen entering the process

and are consumed fresh.

Ideally, pressing date or expiry date should be printed on the label along with information on whether the seeds have been organically grown.

Then, it is up to us! As consumers we need to make sure that we do not destroy these quality oils during food preparation.

Udo Erasmus advocates frozen oils, the oils last a long time frozen solid at a low enough temperature but this is not always necessary when fresh oils can be kept fresh. Refrigeration slows down the light and oxygen destruction. Opened bottles of oils should be used up rapidly (3 to 6 weeks for flax) because they start to go rancid (oxidize) on contact with air each time we open it.

There is an unfair amount of corruption in the oil industry. Old oils are being mixed with fresh oils; oils from expeller pressing and solvent extraction may be mixed together. 'Cold-pressed' is a term mis-used. It is almost impossible today to find oils commercially pressed without heat. Virgin Olive oils are an exception.

In Switzerland, 'cold-pressed' is defined to mean that oils have reached temperatures not exceeding 50°C during their entire journey from seed to bottle. In North America, anything goes, no argued definition. The Canterbury business 'Cracker of a Nut' 'cold-press' their walnut oil meaning no more than 30°C, as do Geraldine's Waihi Bush flax seed oil mill.

However! Urasmus believes 'cold-pressed' to be a meaningless term, he argues that for quality, it is more important that the oil was protected from light and oxygen during pressing, and sheltered during bottling, storage and shipping.

On a positive note, at Piko we are aware of these problems and are still working on doing our best, to bring you quality oils. We are lucky to have Waihi Bush mill here in South Canterbury who follows all the rules, using the 'Omegaflo' system.

Essential Fatty Acid's and Omega 3s…

. There are two fatty acids that are essential to health that we must obtain from food sources, as our body does not produce them for us. They are known as essential fatty acids (EFA's) and they are linoleic acid LA (or omega 6) abundant in safflower, sunflower, corn and sesame and some in flax; and alpha-linolenic acid - LNA (or Omega 3) abundant in flax, and found in hemp, rape (canola) seed, soybean and walnut.

EFA deficiencies are often correlated with behavioural and/or learning problems eg. ADD/ADHD, poor wound healing, weakened immune function and sterility. People suffering generally from degenerative diseases – obesity, cancer, cardiovascular disease, diabetes, and liver degeneration, usually have lower EFA tissue content.

It is interesting to note that strict vegetarians are less prone than average to degenerative disease.

EFA's are very temperamental. Light, air, and heat destroy them. Nature packages these oils in seeds that keep out light, air and heat.

Oils high in EFA's from seeds such as flax, hemp, sunflower, and sesame have been pressed and enjoyed for their health-supporting properties for at least a few thousand years.

Dark green veges, spinach, parsley and broccoli have small quantities of both EFAs and all whole, unprocessed foods contain some EFAs.

Physiological and clinical research has shown that the majority of Western diets are deficient in the Omega 3 EFA's.

Therapeutically, Omega 3 EFA's are being used to treat many degenerative diseases. Success requires that the other essential nutrient factors are also present in the amounts required for optimal cell functions.

The character above, bouncing out of bed in the morning due to Omega 3, food, did not necessarily boost her/his Omega 3 from supplements! Omega 3 is hard to get in our diet unless we have access to certain fresh whole seeds or plentiful oily, fresh fish, such as mackerel, eel, sardines, salmon, and trout. EFAs in canned fish and capsule fish oils are often rancid.

Japanese and Inuit have higher breast milk content of Omega 3 fatty acids than North Americans. This results from high intake from oils from fish, marine animals, and seaweed, and protects these people against cardiovascular disease, starting from an early age.

The Catholic custom of fish on Fridays has, unfortunately, degenerated to fish and chips! - deep fried in damaging oils.

Omega 3 EFA's are found in the fresh seeds of flax (Linum usitatissimum), hemp, soybean and walnuts, or their fresh oils. Flax is the richest Omega 3 source and the only oil recommended for cancer patients. Flax seeds dry blended or ground less than 15 minutes before eating is an ideal way to get your Omega 3.

Good quality seeds are an excellent source of the freshest possible oils. We ought to consider chewing the seeds of fruits and melons. People from older cultures, including traditions like the Hunza and parts of Russia famous for health and long life, eat seeds as a normal practice.

No doubt there are other Omega 3/Omega 6 EFA containing seeds to be discovered. Knowing the importance of them, they must be in every part of the globe. They are particularly well balanced in hemp seed. In New Mexico the chia seeds are used. The kukui nut tree in Hawaii and the Pacific Islands contains both Omega 3 and Omega 6.

Note that you need to have a balance of Omega 3 and Omega 6. Exclusive reliance on flax oil for all your oil needs can bring about Omega 6 deficiencies after a year or two. Waihi Bush recommends 3 months on flax seed oil to be sure of good Omega 3 levels (1 teaspoon to 2 tablespoons approx. per day for healthy people. Those suffering from degenerative conditions may benefit from 3 to 5 tablespoons per day for a longer period of time), then a change to 'Essential Balance' which is made from organic Flax, safflower, and borage seed oils. Flax, sunflower or safflower, and olive would be another good combination of Omegas 3 and 6 to use in a salad dressing for example. (For more detail on proportions see *Urasmus p.52*)

Some choices…

(We need another newsletter to cover all the oils!)

Almond is rich in vitamin E and stable. It's fine aroma makes it popular and valuable as a skin and massage oil. Almond and apricot are similar in their fatty acid profile. They are monounsaturated oils.

Flax is one of the oldest known cultivated plants, grown in every part of the world except the tropics and the arctic. Traditionally grown for its fibre for linen cloth, for its seeds, and for paint-linseed oil, and for its nutritional and mucilage fibre for normalizing gastrointestinal function. Excellent for it's value for Omega 3 and lignans. (See newsletter no. 24 for more information on flax).

Hemp is worth a mention. It is the twin of flax, and they share a long history. They are two of the oldest known plants to be grown by humanity. The fibre from hemp was used to make canvas and rope. The oil is one of nature's most perfectly balanced EFA oils, but hard to get hold of! The same family as marijuana but the THC has been bred out over many years. It is the only vegetable oil with the combination of both EFAs in the right proportions for long term use, and also contains GLA - Gamma linolenic acid - no other *common* seed oil contains GLA. (Borage and evening primrose do.) Hemp lollipops and lozenges may be available at the shop soon!

Olive oil is rich in monounsaturates but low in EFAs. Reasons for it's popularity over thousands of years of history include stability (important in Mediterranean climates before refrigeration), and ease of pressing from soft olive flesh without requiring high pressing equipment. (Important before that was invented.)

A major reason for olive oil's reputation for health is that of the oils sold on the mass market, <u>virgin</u> olive oil has been the only unrefined oil, although with the world demand for olive oil, pure olive oil is becoming rarer.

This fruit oil protects against cardiovascular disease and is associated with general good health.

Piko's on tap olive oil is virgin-unrefined, 1st grade Spanish oil, not blended with other oils (as is happening).

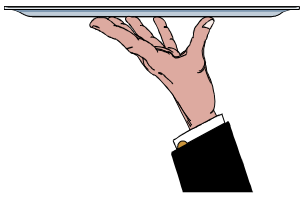
Sometimes olive oil can leave a burning sensation at the back of mouth. This can be for different reasons, not necessarily rancidity. It is often

because the olives have been milled when very fresh and the sensation becomes less as the oil matures. It can also be it the olives haven't been separated thoroughly from the leaves.

Walnut oil contains low levels of saturated fatty acids, contains EFA's worth considering - both Omega 6 and Omega 3; and like olive oil, contains a reasonably high proportion of monounsaturated fatty acid.

Fresh walnut oil has a nutty taste, is a delicate yellow colour and is very nutritious.

Best Uses…



Frying and deep frying

Flax oil, hemp, sunflower and sesame seed oils are all rich in EFAs and are best not to use for frying. If you must fry (says Urasmus despairingly!) use refined oils that contain the lowest amount of EFAs and the greatest amounts of saturated fatty acids and monounsaturated fatty acids, (eg olive oil) and use sulphur rich garlic and onions in the frying to minimize free radical damage. Oils least damaged by high temperature and oxygen include: butter, tropical fats eg. coconut, palm, palm kernal, cocoa, and shea nut, high oleic sunflower oil (not regular sunflower), high oleic safflower, canola, olive.

Traditional Chinese cooks first put water in their wok, not oil; water keeps the temperature down to 100C, a non-destructive temperature. In European gourmet cooking, vegetables placed in the fry pan before oil is added protect the oil from overheating, and oxidation. The food tastes less burned and retains more of its natural flavours and nutrients.

Boiling is less destructive of oils than frying because the temperature goes only to 100°C. Even the most sensitive, EFA rich oils can be used in cooked grains, steamed vege, beans to prevent flatulence! etc. without deterioration.

Flax Recipes

Easy to use. Simply substitute flax for other oils in food preparation except frying, or other high heat uses.

Can take straight from the bottle by the spoonful and follow with a strong flavour like raisins to clear the palate; *on* cereal, toast, mashed or jacket potatoes instead of butter, stir-fry veg; *in* hummus 50:50 with olive oil, salad dressings and dips, soup, in a blender creation, *with* butter to make it spreadable. A yummy side dish is 3 or 4 Tbsp. cottage cheese, 2 or 3 Tbsp. flax oil, curry powder and juice of ½ lemon. Cottage cheese and flax oil bring oxygen to the cells.

You can put flax oil in home made bread as the inside of bread is steamed during the baking process at about 105°C, a safe temperature for the oil. (See Waihi Bush leaflets for fuller details)

In countries like Spain, people **spread** neither butter nor margarine on bread, but they pour their fresh virgin olive oil directly onto the **bread.** In Italy, people simply dip their bread in virgin **olive oil.** The Mediterranean style diet, rich in olive oil, legumes, fruits and vegetables is known for substantially lower risk of death from heart problems.

Fats do not act alone…

Remember, good oil needs to work together with a balance of good protein, minerals, vitamins, and fiber in your diet; and fresh water, exercise, rest, relaxation, and enjoyment!

Organic ***almond oil*** is 20% off this month.

After the last newsletter's focus on ***Dinkel and bread***, this seasons flour is not good for the rising needed in breadmaking. This is due to the damp summer causing it to sprout on the stalk; it is fine for pikelets and scones etc.

Bread delivery days are:
Monday: Breadman Bakery, Amberley Rachel Scott bakery, Sunroom Café - p.m.
Tuesday: Breadman Bakery, Purebread.
Wednesday: Rachel Scott bread, Sunroom café p.m.
Thursday: Breadman Bakery, Dovedale.
Thursdays fortnightly: Essene bread
Friday: Breadman bakery - p.m.
Pita breads and Pan Italia bagels available everyday.

We have a great variety of cheap, quality, organic and sprayfree ***apples*** at present.

Unpasteurised organic ***apple Juice*** now available in fridge at a good price.

Plenty of parking spaces off Barbados St. on left, where Star and Garter used to be.