

Rapeseed Oil - Information About Oils

Introduction

Rapeseed is a member of the Brassica family which also includes cabbages and turnips. It was first cultivated some four thousand years ago in India, China and probably Japan and was originally used for lighting and as a lubricant. Today, rapeseed oil is one of the most important vegetable oils for human consumption. The plants grow to a height of 75-175 cm and have distinctive yellow flowers with blue-green leaves. The seeds are small, round and black-red in colour.

Large areas of rapeseed are cultivated in the UK, Poland and Germany. Outside Europe the dominant producers are China, India, Canada and Australia.

Rapeseed is planted either in the autumn (winter varieties) or in the spring (summer varieties). The winter varieties have a longer vegetation period and give a better yield, but can only be grown in areas with a mild winter climate. In Europe winter rapeseed is the dominating variety, whereas in Canada only summer rapeseed is grown. The harvest period in the Northern Hemisphere starts in late July for the winter varieties, in late August or early September for the summer varieties.

Cold Pressed

Sometimes you will see rapeseed being referred to as "cold pressed", meaning that the oil is extracted without the use of heat or chemicals to help increase the amount of oil produced. This oil can be used for roasting; frying and deep fat frying; baking; marinades; dipping; drizzling and sauces (mayonnaise and salad dressing).

The rapeseed can yield up to 45% oil which is extracted leaving a high protein meal used in compound feed for cattle, pigs and poultry. Once the extracted oil has been refined, the result is a bland, pale oil, uniquely low in saturated fatty acids and with a high content of monounsaturated fatty acids. It is also a good source of Omega 3.

Nutritional Composition

		per 100g
Energy		3700KJ/900Kcal
Saturates		6-8g
Monounsaturates		60-65g
Polyunsaturates		28-34g
Of Which	Omega 3	7-11g
	Omega 6	21g
Vitamin E		25-40mg

Rapeseed oil is low in saturated fat, so has been hailed for its health benefits and also has other nutritional bonuses - it contains omegas 3, 6 and 9, which reduce cholesterol and help to maintain healthy joint, brain and heart functions. As it is high in mono-unsaturated fats, it is one of the only unblended oils that can be heated to a high frying temperature and not spoil its antioxidants, character, colour or flavour.

Homegrown rapeseed oil has been heralded the 'British olive oil' but its flavour is more earthy and nutty than fruity.

Nutritional Claims

Only the following claims can be made on rapeseed oil:-

High omega 3 fatty acids (more than 0.6 g Alpha-linolenic acid per 100 g and 100 kcal)

High monounsaturated fats (more than 45% of the fatty acids are from monounsaturated fats, which represent more than 20% of the energy content)

High unsaturated fats (more than 70% of the fatty acids are from unsaturated fats, which represent more than 20% of the energy content)

High vitamin E (more than 30% of Recommended Daily Allowances (RDA) of vitamin E set at 12 mg/day)

Uses

Rapeseed oil can be used for shallow, home or pan frying, cooking and dressing. Research on new varieties of rapeseed is on-going to try to develop seeds and modify the fatty acid profile to improve functionalities of the oil. Example: high oleic rapeseed has an increased monounsaturated fatty acid content, which gives a better heat stability during frying than that of standard rapeseed oil.

The demand for rapeseed oil is rising since its use in the biodiesel industry over the last decade. Biodiesel is the renewable fuel produced from vegetable oils such as rapeseed oil, and other used cooking oils or animal fats.