Polygonum Fagopyrum
Related Ingredients: BUCKWHEAT WAX – BUCKWHEAT OIL

The Greek etymology of the word *Polygonum* tells us about its morphology. *Poly* meaning several and *Gonu* (knees) refer to the numerous joints displayed by the plants in this family.

It is also called Black Wheat in France as opposed to Noble Wheat since it was mostly grown by smallholders. This name also alludes to the black colour of the grain. In the Middle Ages, the Saracens were dark skinned people from Spain, Africa and the Orient. The name Saracen comes from the “Sarrazins” whom it is believed went to Saint-Malo and cultivated it there after the battle of Poitiers.

**Synonyms:** *Fagopyrum Esculentum, Sarrasin, Black Wheat, Saracen Knotgrass.*
**BOTANICAL**

**Botanical Family:** Polygonaceae

*Polygonum Fagopyrum* is a herbaceous plant 20 to 70 cm high that belongs to the rhubarb and sorrel family.

**The stem** is straight, reddish, hollow and branched.

**The leaves** are triangular, alternate and with long petioles. At the base of each leaf is the characteristic ochrea of this family, a small scarious tube surrounding the stem 1 cm above each node (where the stipules are fused).

**The bunches** are short and bear small regular flowers.

**The flowers** are bisexual, without petals and made up of 5 white or pink petaloid sepals. As in other species of the Fagopyrum genus, there are two floral morphologies: these are distylic species.

**The seeds** are shaped like beechnuts, a small three faced pyramid.

**The fruits** are dry. They are winged trigonal achenes.

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**BIOTOPE**

Indigenous to Central Asia (meaning it is found in the wild in this region without human cultivation), *Polygonum Fagopyrum* lives in temperate and sub-tropical areas of the northern hemisphere since it likes a wet and temperate climate. It is not demanding in terms of soil quality. It will grow on poor, silica rich soils and adapts well to a wide range of light soils.

Buckwheat gives its best results on light, nitrogen deficient sandy soils, that are neutral or somewhat acidic (pH 4.5 – 7). It suits newly cleared infertile soils, drained marshes, heavy soils or acidic soils with a high decomposing organic matter content. Buckwheat has a reputation for having an acceptable yield on marginal and infertile soils.

There is little accurate data on what temperature suits buckwheat the best but climate descriptions indicate a range from 18 – 30 °C during daylight and 5 – 10°C lower for night time temperatures. Buckwheat is very sensitive to frost and is also relatively sensitive to drought due to its shallow root system.
HISTORICAL AND GEOGRAPHICAL DISTRIBUTION

*Polygonum Fagopyrum* arrived from the East. It grows wild in Asia, Manchuria and Nepal. It was imported to Europe during the Crusades, being introduced into France from the 15th century and then into the rest of Western Europe during the 16th century (Germany, Low Countries) where it became one of the main plants cultivated on poor soils and an important food staple. European emigrants then introduced it into the USA and Canada. The increased use of chemical fertiliser at the beginning of the 20th century led to a considerable drop in the area of land planted with buckwheat in Europe and North America. It was replaced with higher yielding species such as rye, oats, maize, wheat and potatoes. But buckwheat has not declined at all in India, China, Korea and Japan as well as in Eastern Europe. On the other hand, cultivation remains patchy in tropical Africa (such as DR Congo, Ethiopia, Uganda, Zimbabwe or the Island of Reunion) and in South Africa.

Buckwheat arrived in Brittany (north west France) in about 1550. Famine was averted because of it. It was promoted in Brittany by Anne of Brittany. In that part of France, its cultivation reached its peak in the middle of the last century, forming the foundation of the rural food supply. Production fell continuously with the development of animal rearing and global competition until by 1987 Brittany was importing more than 10,000 tonnes of buckwheat from China, Brazil and South Africa. Under the impetus of a handful of farmers in Central Brittany, “black wheat” is now making a comeback in the region with more than 300 producers, a cooperative, five mills, 250 pancake houses and so on.

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**LEGENDS**

According to tradition in Brittany, the devil wanted to copy wheat and rye since they were divine creations but only succeeded in making buckwheat. For this reason in times of old at the end of each harvest, Brittany farmers left a few sheaves or threw some buckwheat around the fields: this was “the evil one’s share” (another name for the devil).

According to a custom in Lower Brittany, buckwheat seeds are used to treat an eye infection. Nine seeds have to be begged from nine different houses, put into a container of water and taken out one by one to trace a cross on the eyelids of the patient and then do a circle around the eye while saying out loud “Impious drop I forbid you from boiling. By the virtue of my seed in the water you will be drowned. Amen”. The seeds are deposited in a glass used by a very old woman and a little boy before throwing the lot in the fire.
**MEDICINAL USES**

*Fagopyrum esculentum* can be used as a homoeopathic remedy since its seeds contain rutin which has a beneficial effect on the blood capillaries. This reduces risk of haemorrhaging in persons with high arterial pressure and activates capillary circulation in people with venous insufficiency.

*Fagopyrum esculentum* is also used against cutaneous pathologies. It treats skin lesions, sun allergies, cutaneous eruptions, chillblains and so on. The plant is also indicated for diabetics since it stimulates production of stimulin. Digestive problems such as dyspepsia can also be treated.

In East Africa, buckwheat leaves are chewed or the juice is taken to reduce fever. In China buckwheat is recognised as an energising and nutritious plant. It is used in TCM to lower cholesterol levels.

Generally speaking, all buckwheat based foods are healthy due to its high magnesium, potassium, zinc, phosphorous and B vitamin content, which are all excellent for the nervous system, skin and digestive system.

**DIETARY USES**

The small, black, trigonal, dry and indehiscent fruits (achenes) of the plant are used. They are very rich in minerals, particularly magnesium. They also contain vitamins B1, B2, PP, B5 and amino acids.

Buckwheat is eaten as a cereal since it is rich in protein and highly nutritious. It is eaten as:

- Pancakes in Brittany.
- Blinis and soup in Russia.
- Kasha in east Germany (toasted seeds very popular in Slavic countries).
- Noodles in Japan.

It can also be put in salads which it goes with very well due to its nutty flavour. It can also be used to brew beer and alcohol.

Finally, buckwheat produces abundant honey. It gives a thick, reddish honey, better for making preserves than for the table.

**OTHER USES**

In agriculture *Polygonum Fagopyrum* is used as a green fertiliser. It fertilisers poor soils, prevents weeds from growing, retains soil moisture and disappears after a few years. The seeds are also used as animal feed for pigs, poultry and pheasants. It also makes a good forage crop if fed in moderate quantities.

*Polygonum Fagopyrum* is also a dye plant. A good solid blue dye can be obtained from the fermented straw.

Finally, since it produces honey, apiculturists locate their hives near buckwheat fields since the flowers secrete abundant nectar for an extended period of time.