

The following table gives the quantities of oil or fat in one hundred pounds of the more common articles of food:

VEGETABLE FOOD.	
Potatoes	0.2
Wheat Flour	1.2
Barley Meal	0.3
Oatmeal	5.7
Indian Meal	7.7
Rye	1.0
Peas	2.0
Rice	0.7
Beans	2.0
Cocoa	50.0
Lentils	2.0
Buckwheat	1.0
Tea	4.0
Coffee	12.0
ANIMAL FOOD.	
Milk	3.5
Pork	50.0
Veal	16.0
Beef	30.0
Mutton	40.0
Fish	7.0
Cheese	25.0

The olive (*Olea Europea*) is cultivated in the south of Europe. The part of the plant which contains the oil is the fruit. The berries of the olives are pressed, and yield the oil which is so extensively employed on the continent of Europe, and known in this country under the name of Salad Oil. In countries where little butter or fat meat is employed as food, this oil is a most important ingredient in diet.

The seeds of most plants contain oil in addition to starch and other principles. Many seeds are used for obtaining oil for various purposes in the arts, as the poppy, rape, mustard, hemp and flax seeds. The following seeds, eaten as food, contain oil:

Almonds	(<i>Amygdalus communis</i>).
Chestnuts	(<i>Castan-a vesca</i>).
Walnuts	(<i>Juglans regia</i> et <i>Juglans nigra</i>).
Pecan Nuts	(<i>Juglans oliviformis</i>).
Brazil Nuts	(<i>Bertholletia excelsa</i>).
Spanish & Hazel Nuts	(<i>Corylus avellana</i>).
Hickory Nuts	(<i>Carya alba</i>).
Beech Nuts	(<i>Fagus sylvatica</i>).
Pistacio Nuts	(<i>Pistacia vera</i>).
Cashew Nuts	(<i>Anacardium occidentale</i>).
Chicha Nuts	(<i>Sterculia Chicha</i>).
Pine Seeds	(<i>Pinus Pinca</i>).

The seeds of many other species of plants are eaten, and the oil they contain is probably their chief recommendation.

Amongst them may be mentioned the various forms of acorns which are eaten in Portugal, Greece, Asia Minor, and other parts of the world. The Sacred Bean of Egypt (*Nelumbium speciosum*), and the Lotos (*Nymphaea Lotos*) of the same region, the Water-nuts (*Trapa natans*) of China and Cashmir, and the Sumari or Butter-nuts (*Caryocar butyrosu*) of Demerara.

A bread is made at Gaboon, in Africa, from the seeds of the *Mangifera Gabonensis*, called Dica or Odika bread. By simply boiling in water, from 70 to 80 per cent. of fat can be extracted from this bread. In this respect these seeds resemble Chocolate, and it is not impossible that they might be used in Europe in the same way. They are exceedingly abundant in Gaboon.

The seeds of many of the palms yield large quantities of oil, especially the oil palm (*Elais guineensis*) of Africa. The seed of the cocoa-nut palm (*Cocos nucifera*) is used as a substantive article of diet in Ceylon and many parts of the East Indies. It is imported into this country for the sake of the oil it contains. The milk in the interior of the seed is a bland fluid, and, when the nut is fresh-gathered, is a cool and pleasant drink. In the young state the seeds of most palms are filled with a cool fluid consisting mostly of water. This fluid is drunk by the inhabitants of the countries in which they grow. The double cocoa-nut of the Seychelles Islands (*Loidicea Seychellarum*) contains sometimes as much as fourteen pints of water, and is drunk by sailors touching on these islands with great relish. Even the hard ivory-nut (*Phyllephas macrocarpa*) contains when young a fluid which is drunk by the natives of the countries in which it grows.

Amongst vegetable foods yielding oil the Cocoa or Chocolate plant (*Theobroma Cacao*) is one of the most remarkable. The seeds of this plant contain 50 per cent. of a hard oil or butter.

Food is sometimes preserved in oil which, on account of the small quantity of oxygen it contains, prevents animal or vegetable substances from putrefying. A familiar instance is known in this country in the case of the fish called sardines, which are thus preserved. Oil is used for this purpose in China.

ACIDS.

Many of the organic acids resemble closely in their composition starch and sugar, and may to a certain extent act on the system in the same way. They are therefore referred to the carbonaceous group, but there is no reason to suppose that in any system of diet they could be substituted for any of the other substances in the group. The following paragraphs explain their action:

Organic Acids enter extensively into the composition of various kinds of food. The acids most commonly used in diet are—Acetic acid, Citric acid, Tartaric acid, Malic acid, Oxalic acid.

As articles of diet they probably all act in the same manner on the system. They all exert a solvent power over mineral substances, and assist in carrying the alkalies and alkaline earths into the blood. There is also reason to believe that in certain states of the system they favour the development of the gastric juice in the stomach, and assist, by their decomposition, in oxidising the materials of the blood. In all cases they act medicinally, or as auxiliaries, to the first class of foods.

Acetic Acid, or *Vinegar*, is obtained either from the oxidation of alcohol in fermented liquors, or from the distillation of wood. Common vinegar is obtained from the oxidation of the fermented wort of malt. Vinegar is added to sauces and food to give them a flavour. It also preserves vegetable substances from decomposition, and is used in the manufacture of what are called "Pickles."

Citric Acid is contained in many fruits, but it exists in greatest abundance and purity in the fruits of the Orange tribe (*Aurantiaecae*). Citric acid is separated from the fruits of these plants in a crystalline form.

Tartaric Acid is found in the juice of the fruits of the Vine tribe (*Vitaceae*), more especially of the common Vine (*Vitis vinifera*). This acid gives the acidity to the fruit of the grape, and is the acid pre-