applying pressure or force to the thin side of the nut, while the butternuts and walnuts can be cracked by applying pressure to the end. If this is remembered the nuts will crack along certain definite lines without injuring the kernel to any extent. At the present time nuts are not expensive as an article of diet because they supply a large amount of energy at a reasonable price per unit. They constitute a very concentrated form of food, even more so than cheese.

The English walnut is also used for pickles, catsups and preserves, and in France many tons a year are made into oil which is used as a substitute for olive oil.

THE MOST VALUABLE NUT TREE.

The Persian or English walnut is, without doubt, the most important nut tree from the commercial standpoint and as this will thrive in many parts of British Columbia, as well as in certain parts of southern Ontario, it will be of interest to call special attention to some interesting facts about this important variety. At the present time Canada and the United States import more dollars' worth of the English walnut than both these countries export in apples. There is little reason why this should be as the nut could be grown on this continent with considerable success. It is perhaps the finest flavored of all the nuts. It was called by the Romans, the nut of the gods, and trees distributed by the Romans throughout southern Europe have left descendants behind which are now over 1,000 years old. One tree has been known to produce as many as 100,000 nuts in a single year, and the value of the wood of a single tree has been known to exceed $3,000.00. The English walnut was first introduced into America about the year 1758, and is grown commercially chiefly in the state of California, where about 12,000 tons are produced. It is possible, however, that trees would do even better in British Columbia than in California, as it succeeds well in almost every section of England. Frosts in the early autumn are an advantage as they induce the outer shucks to crack and release the nuts. The harvesting then becomes a very simple matter.

The Experimental Farm at Agassiz, B.C., has grown, since its formation, many of the varieties of nuts with complete success.

THE WALNUTS.

There are about ten known species of walnut widely scattered throughout the four continents. Four are native to North America and two of them are also found in Canada. The Black Walnut is found in Ontario, south to a little north of Ottawa, and the Butternut from the lakes southeast to the coast. In addition, the Japanese Walnut is hardy at Ottawa and in the southern parts of Canada from coast to coast, while the Persian or English Walnut thrives in British Columbia, but winter kills to the snow line at Ottawa.

THE BLACK WALNUT, *Juglans nigra*. This tree, growing in the open under favorable conditions, attains a height of from 50 to 90 feet with a diameter from 2 to 5 feet. In the forest, however, it grows differently; the trunk is tall and columnar, the head narrow and rigid instead of the rounded crown of the field specimens.

It requires a deep, rich, well-drained loam to do well. At Ottawa trees growing in the Forest Belts in poor and unsuitable soil have made poor growth. In thirty years they made a growth of only 16 feet with a 3-inch diameter when planted in low sandy loam, and a maximum of 24 feet and 4 inches in diameter when planted in a better type of soil. The tree occurs naturally in Canada only in southern Ontario where it is a fairly fast grower and is tolerant of shade. It might be mistaken for the Butternut except that its bark is darker. The buds are smaller than those of the Butternut, while the compound leaves consist of fifteen to twenty-three leaflets.

BUTTERNUT, *Juglans cinerea*. This tree is found throughout the hardwood region of Ontario and east to New Brunswick, growing at its best in well-drained loam solitary or in small groups with other trees. The single specimens grow from 40 to 50 feet high and from 1 to 3 feet in diameter. The crown is roundish to triangular-shaped. At Ottawa single specimens become medium-sized trees about 30 feet high, but those in the Forest Belts, growing in poor soil, have made an average growth of only 13 feet in thirty years. The bark is light gray and the ridges smooth-topped. The leaflets are from nine to seventeen to a leaf.

JAPANESE WALNUT, *Juglans Sieboldiana*. This walnut is hardy at Ottawa where probably some of the oldest trees of the species are to be seen. Native to Japan it was not introduced into Europe until about 1860 by Siebold. Its nuts are edible and sweet and are valued as food in Japan. It becomes a tree of about 50 feet in height, with leaves about two feet long, composed of eleven to seventeen leaflets. It may gain in value as a commercial tree after it has been more widely distributed.

ENGLISH WALNUT, *Juglans regia*. In a former paragraph a fuller description of this tree is given and it is not necessary to do more than mention it here. As a tree it grows from 60 to 100 feet high with rounded spreading crown. The leaves are composed of five to nine leaflets, occasionally even as many as thirteen.

THE HICKORIES.

All of the twelve known species of hickory belong to this continent and five or six of them are native