

The Potato.

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[Written for the Agriculturist.]

The potato may rightly claim to be the most valuable esculent root with which we are acquainted. As an article of food it occupies a prominent place in the daily diet of the majority of the people living in temperate climates. It is highly nutritious for man or beast. It can be palatably cooked in a variety of ways. Although much more productive in some localities than in others it gives a fair increase in a great diversity of soil and climate and under widely different modes of cultivation.

Notwithstanding it is now commonly known as the Irish potato and is in general cultivation in the countries of the Old World, it is purely American in its origin. At the time of the Spanish conquest under the leadership of Pizarro, the potato was found under cultivation by the Incas near Quito, and grew indigenous to the lower ridges and high table lands of the Andes in Chili and Peru. A Spanish monk by the name of Hieronymus Cardan is supposed to have first introduced it into Spain. A book published at Saville in 1553 entitled *Cronica de Peru* by Pedro Cieca contains the first printed account of the potato in any language. The natives of Chili are said to have called the plant "papa" which the Spanish corrupted into "battata". This their neighbors in Portugal softened into "ba-ta-ta" which ultimately became spelled and pronounced, potato.

In 1584 Sir Walter Raleigh was granted a patent by Queen Elizabeth "for discovering and planting new countries not possessed by Christians." Thomas Harriott accompanied the expedition to America and sent home the description of a plant called "openawk" found in Virginia, where it had probably been introduced by the Spanish in their intercourse with the early settlers, as there is no evidence to show that the potato is indigenous to either Virginia or California, "having round roots

hanging together as if fixed on ropes and good for food either boiled or roasted." On the return of Sir Walter in 1586 he took with him some of the roots, a portion of which were afterward planted at his residence in Youghal, near Cork. This was the first introduction of the potato into Ireland. The *Cyclopedia of the Society for the Diffusion of Useful Knowledge* published in London states that long after the potato was introduced into Ireland it was introduced into Lancashire, by a shipwreck at North Meols, at the mouth of the river Ribble and from there gradually spread through Great Britain.

De l'Esclure whose latinized name was Clusius, a botanist living in Vienna in 1588 wrote of the potato. He received two tubers from Flanders, which had previously been brought from Italy where they had been received from Spain. He describes the plant under the name of *tatarouffis*.

The next author of note to write about the potato was Gerard an English botanist, who had a garden near London in 1597. He describes them in his *Herbal* as "being roots which do strengthen and comfort nature and are used to be eaten roasted in the ashes, some, when they be so roasted infuse them and sop them in wine, others, to give them greater grace in eating do boyle them with prunes and so eat them."

The illustration of the potato in Gerard's *Herbal* is said to be the most accurate of any given by the early writers.

After the potato had been introduced into Europe its cultivation continued very limited, being grown only in the gardens of the rich as a novelty or as a delicacy.

Potatoes were provided for the table of Queen Elizabeth at 2s per lb. in 1619. In 1663 they were brought before the Royal Society of England as a vegetable of national importance, yet the *Complete Gardener* which was published by leading London nurserymen in 1719 made no mention of them. The *General Agricultural Report of Scotland* in 1725-6 states that the potatoes cultivated in the gardens near Edinburgh were left in the ground from year to year, only a few of the tubers

being removed in the fall for use, the remainder being covered to protect them from freezing in the winter. About 1732 they were cultivated in Scotland as a field crop. The most important publication on gardening issued in 1771 mentions only two varieties of potatoes.

At the present time it is difficult to understand why the potato made such slow progress toward popular favor. One of the reasons urged against its use principally by the Puritans, was that as no mention is made of it in the Bible it must be unlawful to eat it. Strange as this objection appears to the present generation it is hardly less unreasonable than the opinion entertained of it by the people of New Hampshire in the early days of that state when it was considered unwholesome and not suitable for daily use. This idea is said to have been so generally held in the state at one time that articles of agreement drawn relative to apprentices that a clause was sometimes inserted forbidding the apprentice to be compelled to eat potatoes more than twice in one week.

It is not improbable that the learned men at the time of the introduction of the potato into Europe may have had some hesitancy in recommending it for general use as food because belongs to the family of plants designated as solanums, the botanical name of the potato is *solanum tuberosum*, which contains among many others such poisonous plants as tobacco, hellebane, stramonium and belladonna. The potato being found in such questionable company was probably regarded with some degree of suspicion. The vines contain a poisonous substance as do the tubers under certain conditions as when they grow above ground. The action of the sun's rays changes the chemical constituents of the potato as well as turns the tuber to a greenish color. The bitter taste in these greenish potatoes is produced by the poisonous element which is never developed in the tuber if it is grown under ground and not exposed any length of time to the sunlight. The poison is called solanine and four grains of it have killed a dog. However large the amount of solanine in the vines or in potatoes exposed to the sun, in properly grown tubers it does not exist, although it is found in the sprouts. It may be interesting to note in passing that this family of solanums contain such other esculents as the tomato and egg plant as well as the potato.

To be continued.