A Brief History of Potatoes

Description

The history of potatoes throughout their domestication, exportation, implementation and contribution to contemporaneous society illustrates the uniqueness of starch as a food, materials and energy unique renewable biological resource. Today, the potato is the fifth most important crop worldwide, after wheat, corn, rice and sugar cane.
Potatoes were first domesticated in the Andean highlands as early as 13,000 before the present time. A slow process accompanied potatoes spread to the coasts and the rest of America. Potatoes reached Mexico about 6,000 to 5,000 years, probably passing through Lower Central America and the Caribbean Islands. Following the discovery of the Americas in 1492, the potato was soon introduced to Europe by the Spanish in the late sixteenth century. The first cultivation took place in the Spanish Canary Islands around 1570. Subsequently, the Spanish farmers cultivated the potatoes and exported them to France and The Netherlands. The first scientific description of the potato appeared in 1596 when the Swiss naturalist Gaspard Bauhin awarded it the name Solanum tuberosum esculentum (later simplified to Solanum tuberosum).

The diffusion of the potato throughout Europe was rapid by historical standards. The first record of potatoes cultivated as a staple crop in England was in the 1690s. Adoption was probably encouraged by failures of existing crops during the â??Little Ice Ageâ?• and the wars and famines during the 18th century. There was, however, some reluctance. The potato was generally viewed as a poisonous, dirty plant, a strange gift, and a botanical curiosity. For example, when famine hit Prussia in 1744, King Frederick II attempted to engage his subjects with potatoes. Receiving a less than rapturous response, he had to use reversed psychology to make potatoes seem Â« worth enough to steal Â». He ordered the plantation of the tuber in a particular field secretively. By positioning his guards around it, he made the people think there was something desirable in that royal soil. Some opportunists took the chance to rummage in the dirt, from where they pulled out potatoes further to realize potatoâ??s versatility and its levels of resilience.
Nevertheless, it proved a masterstroke for Europeâ??s population. While serving in the French army during the Seven Yearsâ?? War, Antoine Parmentier was captured and imprisoned by the Prussians. In prison, he ate little but potatoes, and this diet kept him in good health. Trained as a pharmacist, he devoted the rest of his life to promoting Solanum tuberosum. The end of the 18th century showed France hit by high price controls on cereal which started several hundreds of civil disturbances. Throughout his exaltation for potatoes, Parmentier proclaimed that the nation would stop fighting over bread if its citizens would eat potatoes. He succeeded in promoting the notion of planting vast areas with clonesâ??a true monoculture, and for the first time in European history, had a definitive solution be found to spell an end to famine. Compared with grains, tubers are inherently more productive. If the head of a wheat or rice plant grows too big, the plant will fall over, with fatal results. The rest of the plant does not limit the underground growth of the tuber. Potatoes were so productive that the practical effect, in terms of calories, was to double Europeâ??s food supply. The resulting increase in caloric intake after the middle of the eighteenth century significantly influenced the reduction in mortality and a subsequent effect on population growth and urbanization. The primary beneficiaries of the introduction of potatoes were primarily Eastern European countries. An article titled Â« How the Potato Changed

World Historyâ?• argues that potatoes permitted a handful of European nations to dominate most of the world between 1750 and 1950 by feeding rapidly growing populations.
However, a few varietiesâ?? lack of genetic diversity made the crop susceptible to disease. A strain of potato blight (Phytophthora infestans) originating from Peru spread to Europe in the 1840s. It destroyed potatoes in the Netherlands, Germany, Denmark and England. In Ireland, which had adopted the tuber as its national dish, P. infestans wiped out the equivalent of one-half to three-quarters of a million acres planted in 1845. The following year was even worse than the year after that. The attack did not wind down until 1852. The effect of the Great Famine is incomparable to all other places, causing one million deaths, up to two million refugees, and spurring a century-long population decline. Another infection came from an imported species Leptinotarsa decemlineata, an orange-and-black creature; the potato beetle encountered the cultivated potato around the Missouri River in the early 1860s. Because growers planted just a few varieties of a single species, pests like the beetle and the blight had a narrower range of natural defences to overcome; a task even made easier by the developments of railroads and steamships. Among the many desperate trials from the farmers to get rid of the bug, it just happened that one of them threw some leftover green paint (so-called Paris green) on his infected potatoes. The arsenic and copper in the pigments effectively relieved the farmers who sprayed their potatoes with a diluted Paris-green solution. The success attracted the attention of the community of chemists, and real possibilities for the control of late blight first emerged in 1882 with the discovery of the fungicidal activity of a spray of copper sulphate and quicklime (Bordeaux mixture). The first spray trials with Bordeaux mixture to control potato late blight occurred in 1886. The pesticide industry was born!

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1. News