

THE POTATO

A very short history of a very valuable plant

by Edward G. Nash
Managing Editor

When, in 1962, Robert Akeley of the Department of Agriculture wrote that an almost perfect diet, in terms of daily nutrient allowances, would be five pounds of boiled potatoes and a quart of milk, I, for one, detected not a ripple of public comment. That the potato and the cow might well be considered man's best friends went almost completely unnoticed. When Akeley went on to say that 11 pounds of potatoes would have to be eaten, to gain an excess of one pound of body fat, compared to four pounds of round beef, the silence was almost deafening. And still today, when the people of this weight-watching land start thinking "diet," one of the first items to go is the innocent (relatively) potato.

Admirers of the plant should not be surprised by this; the potato has had a difficult time of it in its short history as a food plant of worldwide importance. More than 30 years ago, Berthold Laufer, then Chief Curator of Anthropology at Field Museum, wrote of *Solanum tuberosum*, "First misjudged, despised, and ostracized in Europe—even persecuted on account of its nightshade affinities and maliciously slandered for its alleged poisonous properties—the potato remained for a long time the sustenance of the poor only."

Botanically, the plant is a member of the family Solanaceae, the Nightshade family. The very large genus *Solanum*, 2,000 or so species, contains the egg-plant as well as the potato, and is so closely related to the tomato, *Lycopersicon*, that some botanists believe the two genera should be combined. The family contains, as well, the red pepper, belladonna, henbane, the Jimson weed, tobacco and the petunia, as varied a lot as might be found in a large human family. After the grasses and the legumes, Solanaceae is probably the most

important plant family to Man. But the potato's relationship to some very deadly plants may well have slowed its spread. A European who understood very well the political usefulness of, say, belladonna, might be unwilling to test the nutritional value of its kin.

The first Europeans known to have eaten potatoes were members of a small Spanish scouting party in what is now the Republic of Colombia. Early in 1537, the expedition of Gonzalo Jiménez de Quesada was struggling through the dense forest of the Magdalena Valley. A small patrol worked its way up onto the plateau to the east and entered the Indian village of Sorocota. The natives fled and, searching the houses, the Spaniards found maize, beans and "truffles" that were a "dainty dish even for Spaniards." He had eaten, of course, a potato.

The plant had been cultivated in South America for many centuries; more than any other crop, it enabled the Peruvian Indian to survive on the high, cold, barren Andean plateau. The Indians had even developed a freeze-dry technique for preserving the tubers the year round. In this form, *chuno*, it is still a staple food in the Andes.

The Spanish, as they developed their enormous colonial empire in the New World, were quick to see the value of the potato as food for the Indians. Fortunes were made transporting *chuno* to the great forced labor mines of Peru and Bolivia. The gold and silver of the Spanish treasure ships were dug with the energy supplied by *Solanum*. The very importance of this food to the Indian cheapened it in the eyes of the conquerors, and the Spanish never understood that the plant itself was worth far more than all the precious metals they sought.

By 1570 or so, *Solanum tuberosum* had

reached Spain, probably as an ornamental plant, or in some ship's stores. It was little grown. It turns up in Italy a little later and the great herbalists began to study it. How it reached England is not clear, but the tradition is that Sir Walter Raleigh imported it. This could well be true; he was deeply interested in agriculture. Raleigh may also have introduced it into Ireland.

In continental Europe, the plant spread slowly. It took a royal decree, during a famine after the Seven Years' War (1763) to bring the plant into cultivation in Prussia. In Sweden similarly, the government had to insist on its use. In western Europe, the Industrial Revolution, which required large non-farming populations, sparked the spread of the plant. In the east, population pressure helped. The potato, under ideal conditions, will produce more pounds of food per acre than almost any other staple—five times as much as rice and ten times the yield of wheat per acre, on average.

But in no country did the food become more important—to the exclusion of almost every other crop—than in Ireland. By the 1840s, the Irish had been growing the crop for more than two hundred years. They were absolutely dependent on it. When the fungus *Phytophthora infestans* blighted the potato crops of Europe in the middle forties, Ireland was laid waste. By the close of the decade, the population of that unhappy island had declined by 2½ million people. Many, a million perhaps, emigrated to Canada and the United States; the others died. Those who fled the Famine, and their descendants, have made enormous contributions to this country.

In America, potato consumption has been declining, due, to some extent, to the prejudice of the weight-watchers. We use slightly over 100 pounds a year per capita. In France, Germany, and Central Europe the use is four times as great. Still, as Richard Bissell implies in the subtitle to his recent book "How Many Miles to Galena?", it is nearly impossible to go to an American restaurant without having to answer the universal question "Baked, hashed brown or French fried?"



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