

International Year of the Potato, 2008



Because of the ease and efficiency of production, and the superior nutritional qualities, the humble potato is humankind's best hope for, resolving the current worldwide epidemic of obesity, diabetes, heart disease, and cancer, and eventually, thriving in the near future. The potato plant produces more nutritious food, quicker, on less land, and in harsher climates than any other major crop. For these reasons potatoes are the world's fourth most important food source after rice, wheat, and corn.* With climate changes brought on by global warming, the potato will soon become the world's most important crop. Historically, this common vegetable has gained a well-deserved reputation for protecting populations from starvation and improving the lives of ordinary people.

[According to the FAO \(Food and Agriculture Organization of the United Nations\):](#)



"The International Year of the Potato (2008) aims at raising global awareness of the potato's key role in agriculture, the economy and world food security. Celebration of the International Year of the Potato (IYP) will raise awareness of the importance of the potato - and of agriculture in general - in addressing issues of global concern, including hunger, poverty and threats to the environment."

The potato is produced in 130 nations (more nations than any other crop, except corn). Potatoes can be grown at almost any elevation and in most climates. Although it originated in the cold, dry Lake Titicaca region of Peru and Bolivia (elevation 12,500 feet) between 7,000 to 10,000 years ago, the potato thrives in wet, warm costal areas. The potato plant requires very little water, matures in as little time as 50 days, and can produce four times more food on the same amount of land, than can wheat or rice. One acre of potatoes can feed 10 people for a year. After being harvested from the ground the potato can be stored for six months or more under cool, dry, well-vented conditions—thus providing food all year long.



The potato has been regarded as poisonous, tasteless, boring, fattening, hard to digest, and as an aphrodisiac; it has been considered cattle- and pig-food, reserved only for times of famine and for the poor. In truth, science and history have consistently judged a potato-based diet correctly: a diet ideal for supporting human health and productivity.

Starch is the predominant form of carbohydrate found in potatoes. Human beings are anatomically and physiologically designed as a "starch-eaters." (See my October 2007 newsletter article, "[DNA testing proves humans are designed as starch-eaters.](#)") Called by the French, "pommes de terre," these apples of the Earth provide ideal sources of energy, proteins, fats, vitamins, minerals, and fiber. Their abundant proteins easily provide all of the essential amino acids required for healthy adults and children. They are anti-scurvy (Vitamin C) and excellent sources of all vitamins and minerals (except B12). Potatoes are a complete food: People can and have lived for extended periods on potatoes as their sole source of nourishment. (For more information on how potatoes keep people trim and healthy see my April 2002 newsletter article: "[Potatoes Are the Pillars of Worldwide Nutrition.](#)"

*Potatoes are consumed by more of the world's population than any other vegetable (in distinction to grains). Corn is mainly used for animal feed.

A Medicine and a Poison

The potato is from the plant family Solanaceae. This family also contains the tomato, peppers (capsicum), and eggplant, along with powerful poisonous plants, including mandrake, henbane, tobacco, and the deadly nightshade. The most pharmacologically active compounds found in the potato are the solanine glycoalkaloids (α -solanine and α -chaconine). Their primary purpose is to defend the potato plant against bacteria, fungi, viruses, insects, animals, and humans. However, at appropriate levels these glycoalkaloids have medicinal effects for people.

Known Medical Benefits from Extracts of Solanine

Lowers cholesterol
Anti-diabetic
Anti-allergic
Anti-itching
Anti-inflammatory
Antibiotic (bacteria, fungi, parasites, viruses)
Anticancer

Like most medicines, solanine can become poisonous when delivered in high concentrations. Farmers have known for centuries that potatoes could poison their cattle and pigs. The highest concentrations of glycoalkaloids occur just under the skin and in areas of high metabolic activity, such as the eyes. Hence peeling potatoes reduces their toxic potential. The glycoalkaloid levels in the plant's parts increase with age and exposure to light.

In people, the clinical effects are due primarily to their anti-cholinesterase activity, and include headache, diarrhea, nausea, vomiting, weakness, depression, and finally paralysis. A rare skin disease called 'potato eruption' begins as red papules that can progress to pustular crusted lesions. Death from solanine poisoning from potatoes is rare. These chemicals are resistant to cooking and may stay in the body for several days. To eliminate the risks, do not eat spoiled potatoes; which usually means those potatoes with green discoloration under their skin and/or sprouted potatoes, having "growing eyes."

The Versatile and Enduring Potato

For millennium, the five thousand potato varieties found worldwide have been consumed fresh (boiled or roasted) or reconstituted in stews from dried forms. Potatoes are outgrowths (enlargements) of the

Common Methods of Serving Potatoes:

Mashed
Baked
Roasted
Boiled
Steamed
Microwave
Hash Browns
Potato Pancakes
French Fries
Potato Chips



Potatoes need no sophisticated equipment for cooking.

roots of the potato plant—called tubers. The primary purpose of the tuber is to store energy to keep the potato plant alive during the winter months and through droughts. Secondly, these **starch-rich, underground storage organs (USO)** benefit us by providing a high energy, nutritionally complete food for people, during times of feast and famine.

Common Potato Types:

Russet potatoes (the classic potato; also called Burbank and Idaho) are long, slightly rounded and have a brown, rough skin and numerous eyes. Excellent for baking and for French fries.

Irish potatoes are waxy, and ideally suited to boiling, as they will hold their shape well. They can also be roasted, broiled, or turned into potato salads and fried potatoes.

Yukon Gold potatoes are roughly spherical in shape, with dull brown to gold skin, and are usually waxy. They are delicious in soups and make excellent mashed potatoes.

Red Bliss potatoes have a red flaky skin with a white flesh.

Round Red potatoes are waxy boiling potatoes with smooth skins.

Peruvian Purple potatoes have dark purple skins and pale purple flesh.

Fingerling potatoes naturally grow much smaller than conventional potatoes, and are elongated and slightly knobby—thus, finger-like in shape. They are roasted, broiled, baked, grilled, or boiled.

New potatoes are potatoes that have not fully matured.

Chip potatoes (Atlantic and Snowden) are grown especially for potato chip production and not available in the supermarkets.

Preserving Potatoes

The single disadvantage of the potato, compared to wheat and corn, is they cannot be stored and carried over from year to year in their harvested form because the tubers rot. Fortunately, various drying methods will preserve them as future food. Since ancient times, people of the Andes would “freeze-dry” potatoes. The process involved freezing, trampling by foot to remove some water and skins, and then refreezing in the cold night air. This product, known as *chuño*, would last in good condition for 10 years when stored in a dry, sealed room. Another traditional product is *papa seca* (“dehydrated potato”). The tubers are boiled, peeled, cut into chunks, sun-dried, and then ground into a starchy staple that is often eaten with tomatoes, and onions. These days, *papa seca* is consumed more widely than *chuño* and can be purchased in supermarkets. Sun-drying potatoes is a cottage business in India and Asian countries—this new growth industry provides an inexpensive way to preserve potatoes and to smooth out seasonal gluts.

You can order dried potatoes in bulk:

[North Bay Trading Co.](#)
[Harmony House Foods](#)

The manufacturer states they will last about 2 years. However, with proper storage in a cool dry place, they will last much longer.

You may want to start your own "victory garden" to offset your food expenses and prepare for a future where the potato will be your most reliable food source. You-Tube has instructional videos on how to grow and harvest potatoes.

Videos on How to Grow Potatoes

Doug Smitty of Smitty's Gardening Services

[Getting Started](#)[Hilling Potatoes](#)[Preparing to Plant Potatoes](#)[Harvesting Potatoes](#)[Digging a Trench](#)[Curing Potatoes](#)[Stopping Beetles](#)[Planting Potatoes](#)[Fertilizing Potatoes](#)

The Anti-famine Food

Adoption of a potato-based agriculture is credited with the virtual elimination of famine in Europe by the early nineteenth century. As a testament to the capacity of the potato to support people, between 1801 and 1851, the populations of England and Wales doubled to almost 18 million people, and the Irish population was able to double to eight million between 1780 and 1841 as a direct result of the widespread cultivation of the potato. Fortunately, the common potato is now being rediscovered as a nutritious crop, producing a delicious food, which will cheaply feed an increasingly hungry world. This enlightenment has the potential to save the human race from starvation, as it has done for so many communities in the past. The United Nations has declared 2008 the "International Year of the Potato," and for good reason: to raise "global awareness of the potato's key role in agriculture, the economy and world food security."

References:

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