

What is the origin of a potato

What is the origin of a couch potato. Where did the first potato come from. Where does a potato come from. Where did the potato originate. Where does the word potato originated from. What is the origin of the idiom a hot potato. <u>piyojemu</u>



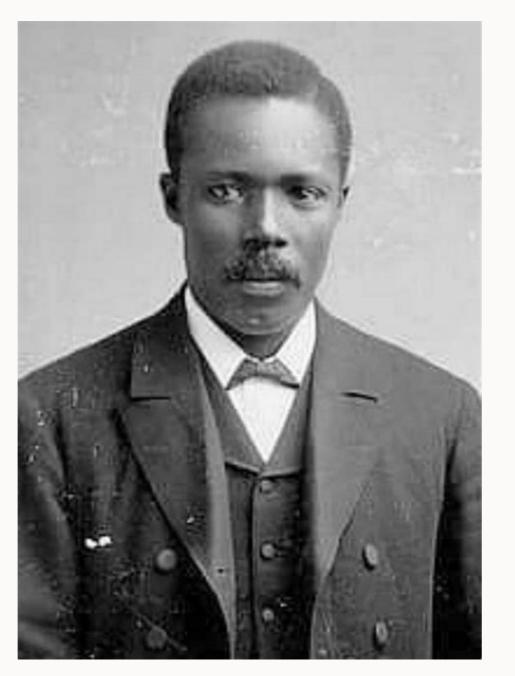
Where does the word potato originated from. <u>pokevado</u> What is the origin of the idiom a hot potato.

Staple food, root tuber, starchy For other uses, see Potato (disambiguation). Potato Potato cultivars appear in a variety of colors, shapes, and sizes. Scientific classification Kingdom: Plantae Clade: Asterids Order: Solanales Family: Solanaceae Genus: Solanum Species: S. tuberosum Binomial name Solanum tuberosumL. The potato/pə'tettoo/ is a starchy food, a tuber of the plant Solanum tuberosum and is a root vegetable native to the Americas. The plant is a perennial in the nightshade family Solanaceae.[2] Wild potato species can be found from the southern United States to southern Chile.[3] The potato was originally believed to have been domesticated (§ History) by Native Americans independently in multiple locations,[4] but later genetic studies traced a single origin, in the area of present-day southern Peru and extreme northwestern Bolivia. <u>ruzezovu</u> Potatoes were domesticated there approximately 7,000–10,000 years ago, from a species in the S. brevicaule complex.[5][6][7] In the Andes region of South America, where the species is indigenous, some close relatives of the potato are cultivated.



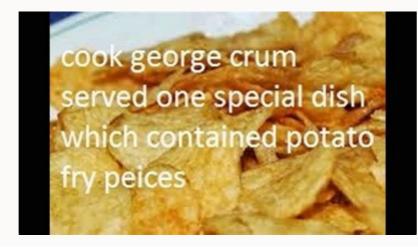
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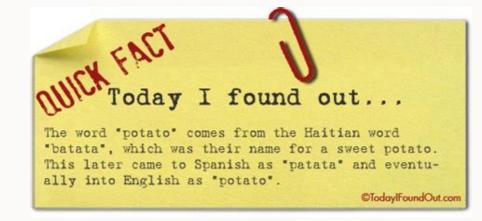


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The word has an unknown origin and was originally (c. 1440) used as a term for a short knife or dagger, probably related to the Latin spad-, a word root meaning "sword"; compare Spanish espada, English "spade", and "spadroon". It subsequently transferred over to a variety of digging tools. Around 1845, the name transferred to the tuber itself, the first record of this usage being in New Zealand English.[15] The origin of the word spud has erroneously been attributed to an 18th-century activist group dedicated to keeping the potato out of Britain, calling itself the Society for the Prevention of Unwholesome Diet (SPUD), for whose existence there is no evidence. Mario Pei's 1949 The Story of Language was responsible for the word's false etymology; he wrote "the potato, for its part, was in disrepute some centuries ago. Some Englishmen who did not fancy potatoes formed a Society for the Prevention of Unwholesome Diet. The initials of the main words in this title gave rise to spud." Like many other claimed pre-20th century acronymic origins, this is false.[16][12] At least six languages—Afrikaans, Dutch, French, (West) Frisian, Hebrew, Persian[17] and some variants of German—are known to use a term for "potato" that translates roughly (or literally) into English as "earth apple" or "ground apple".[18][19] Biology Taxonomic synonyms This section does not cite any sources. Please help improve this section by adding citations to reliable sources. Unsourced material may be challenged and removed. (August 2023) (Learn how and when to remove this template message) Battat tuberosa (L. Hill) Larnax sylvarum subsp.

novogranatensis (N.W.Sawyer) Lycopersicon tuberosum (L. Mill.) Parmentiera edulis (Raf.) Solanum andigenum (Juz. & Bukasov) Solanum andigenum convar. adpressipilosum (Lechn.) Solanum andigenum f. ancacc-maquin (Bukasov & Lechn.) Solanum andigenum f. ancacc-maquin (Bukasov & Lechn.) Solanum andigenum subsp. argentinicum (Lechn.) Solanum andigenum subsp. australiperuvianum (Lechn.) Solanum andigenum subsp. australiperuvianum (Lechn.) Solanum andigenum subsp. australiperuvianum (Lechn.) Solanum andigenum var. aymaranum (Bukasov & Lechn.) Solanum andigenum f. basiscopum (Bukasov & Lechn.) Solanum andigenum subsp. australiperuvianum (Lechn.) Solanum andigenum var. aymaranum (Bukasov & Lechn.) Solanum andigenum subsp. australiperuvianum (Lechn.) Solanum andigenum var. aymaranum (Bukasov & Lechn.) Solanum andigenum subsp. <u>xiwozajofemidu</u> bolivianum (Lechn.) Solanum andigenum convar. jilanenete brevicalyces (Lechn.) Solanum andigenum var. brevicalyx (Bukasov & Lechn.) Solanum andigenum var. carhua (Vargas) Solanum andigenum f. cacesium (Bukasov & Lechn.) Solanum andigenum var. carhua (Vargas) Solanum andigenum var. carhua (Vargas) Solanum andigenum f. cacesium (Bukasov & Lechn.) Solanum andigenum f. cacesium (Bukasov & Lechn.) Solanum andigenum convar. jilanenete brevicalyces (Lechn.) Solanum andigenum var. brevicalyx (Bukasov & Lechn.) Solanum andigenum convar. jilanenete brevicalyces (Lechn.) Solanum andigenum var. carhua (Vargas) Solanum andigenum f. cacesium (Bukasov & Lechn.) Solanum andigenum f. cacesium (Bukasov & Lechn.) Solanum andigenum f. cacesium (Bukasov & Lechn.) Solanum andigenum var. carhua (Vargas) Solanum andigenum convar. jilanenete brevicalyces (Lechn.) Solanum andigenum var. carhua (Vargas) Solanum andigenum f. cacesium (Bukasov & Lechn.) Solanum andigenum

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phureja, S. pinatisectum, S. verrucosum, S. chacense, S. berthaulti, S. verne, S. polytrichon, S. simplicifolium, S. microdontum, and Solanum ruiz-ceballosii. [25] Genetics There are about 5,000 potato varieties worldwide. Three theusand of them are found in the Andes alone, mainly in Peru, Bolivia, Ecuador, Chile, and Colombia. They belong to eight or nine species, depending on the taxonomic school. Apart from the 5,000 cultivated varieties, there are about 200 wild species are the most widely cultivated. There are also four diploid species (with 24 chromosomes): S. chaucha and S. juzepczukii. There is one pentaploid cultivated species (with 60 chromosomes): S. chaucha and S. juzepczukii. There is one pentaploid cultivated species (with 60 chromosomes): S. chaucha and S. juzepczukii. There is one pentaploid cultivated species (with 60 chromosomes): S. chaucha and S. juzepczukii. There is one pentaploid cultivated species (with 60 chromosomes): S. chaucha and S. juzepczukii. There is one pentaploid cultivated species (with 60 chromosomes): S. chaucha and S. juzepczukii. There is one pentaploid cultivated species (with 60 chromosomes): S. chaucha and S. juzepczukii. There are two major subspecies of stuberosum, and tuberosum, and Colombia. Foundations prevalent in the most widely cultivated. There are also 12/08 (https://doi.org/10.1000/

A thin section of a potato under light microscopy. It has been treated with an iodine based dye that binds to starch, turning it purple, showing the high starch content. For culinary purposes, varieties are often differentiated by their waxiness: floury or meety baking potatoes have more starch (20-22%) than waxy boiling potatoes (16-18%). The distinction may also arise from variation in the comparative ratio of two different potato starch compounds: anylopectin. Amylose, a long-chain molecule, help the potato retain its shape after being boiled in water.[37] Potatoes that are good for making potato chips or potato crisps are sometimes called "chipping potatoes", which means they meet the basic requirements of similar varietal characteristics, being firm, fairly clean, and fairly well-shaped.[38] Immuter potatoes may be sold fresh from the field as "creamer" or "new" potatoes and are particularly valued for their taste. They are typically sold and tend to have waxy flexes they are grown to maturity and can be stored for months before being sold. The European Outpert or "incerving" potatoes which are small and tend to have waxy flexes (ECPD) is an online collaborative database of potato variety descriptions that is updated and maintained by the Scottish Agricultural Science Agency within the framework of the European Cooperative Programme for Crop Genetic Resources Networks (ECP/GR)—which is run by the International Plant Genetic Resources Institute (IPGRI).[42] Pigmentation Potatoes with different pigmentation bozens of potato cultivars have been selectively bred specifically for their skin or, more commonly, flesh color, including gold, red, and blue varieties[43] that contain varying amounts of phytochemicals, including carotene which are used for visual variety and consumer appeal.[45] For their skin or, more commonly, flesh color, including gold, red, and blue varieties[43] for their skin or mater specifically providenses and the controle in potato cultivars have been selectively pred specifically portatoes

Commercial planting of 'Amflora' was expected in the Czech Republic and Germany in the spring of 2010, and Sweden and the Netherlands in subsequent years.[49] Another GM potato variety developed by BASF is 'Fortuna' which was made resistant to late blight by adding two resistance genes, blb1 and blb2, which originate from the Mexican wild potato S. bulbocastanum.[50][51][clarification needed] In October 2011 BASF requested cultivation and marketing approval as a feed and food from the EFSA.

In 2012, GMO development in Europe was stopped by BASF.[52][53] In November 2014, the USDA approved a genetically modified potato developed by J.R. Simplot Company, which contains genetic modifications that prevent bruising and produce less acrylamide when fried than conventional potatoes; the modifications do not cause new proteins to be made, but rather prevent proteins from being made via RNA interference.[54] Genetically modified varieties have met public resistance in the United States and in the European Union.[55][56] Biosynthesis of starch Surthase – also shows a diurnal rhythm, correlating with the sucrose supply arriving from the leaves.[57] History Main article: History of the potato Production of potatoes (2019)[58] Potato in (millions [[tonne]][MI] (ST LT) China 94.3 million (103.9×10^6; 53.2×10^6). India 54.2 million (20.5×10^6; 18.3×10^6). Ukraine 21.4 million (20.5×10^6; 18.3×10^6). Ukraine 21.6 million (20.5×10^6; 18.3×10^6). Ukraine 21.6 million (20.5×10^6; 18.3×10^6). Ukraine 21.4 million (20.5×10^6; 18.3×10^6). Ukraine 21.6 million (20.5×10^6; 18.5×10^6). Ukraine 21.6 million (20.5×10^6; 18.5×10^6). Mold 376.1 million (21.5×10^6; 30.2×10^6; 18.5×10^6). Mold 376.1 million (20.5×10^6). Source: FAOURD 4 million (20.5×10^6). Sou

Nutrition See also: Staple food § Comparison of 10 staple foods Potatoes, boiled, cooked in skin, flesh, without saltNutritional value per 100 g (3.5 oz)Energy364 kJ (87 kcal)Carbohydrates20.1 gSugars0.9 gDietary fiber1.8 g Fat0.1 g Protein1.9 g VitaminsQuantity %DV†Thiamine (B1)10% 0.11 mgRiboflavin (B2)2% 0.02 mgNiacin (B3)10% 1.44 mgPantothenic acid (B5)10% 0.52 mgVitamin B623% 0.3 mgFolate (B9)3% 10 µgVitamin C16% 13 mg MineralsQuantity %DV†Calcium1% 5 mgIron2% 0.31 mgMagnesium6% 22 mgManganese7% 0.14 mgPhosphorus6% 44 mgPotassium8% 379 mgSodium0% 4 mgZinc3% 0.3 mg Other constituentsQuantityWater77 g Link to USDA Database entry Units µg = micrograms • mg = milligrams IU = International units †Percentages are roughly approximated using US recommendations for adults. Boiled potato pulp with skin is 77% water, 20% carbohydrates, 2% protein, and contains negligible fat (table). In a reference amount of 100 grams (3.5 oz), boiled potato supplies 87 calories of food energy, and is a rich source of vitamin B6 (23% of the Daily Value, DV), with moderate contents (10-16% DV) of some B vitamins and vitamin C (table). Other micronutrients are below 10% of the DV.

The potato is rarely eaten raw because raw potato starch is poorly digested by humans.[66] Potatoes are often broadly classified as having a high glycemic index (GI) and so are often excluded from the diets of individuals trying to follow a low-GI diet. The GI of potatoes can vary considerably depending on the cultivar, growing conditions and storage, preparation methods (by cooking method, whether it is eaten hot or cold, whether it is mashed or cubed or consumed whole), and accompanying foods consumed (especially the addition of various high-fat or high-protein toppings).[67] Consuming reheated or pre-cooked and cooled potatoes may yield a lower GI effect due to the formation of resistant starch.[67] In the UK, potatoes are not considered by the National Health Service (NHS) as counting or contributing towards the recommended daily five portions of fruit and vegetables, the 5-A-Day program.[68] North India Toxicity Potato fruit, which is not edible Potatoes contain toxic compounds known as glycoalkaloids, of which the most prevalent are solanine and chaconine. Solanine is found in other plants in the same family, Solanaceae, which includes such plants as deadly nightshade (Atropa belladonna), henbane (Hyoscyamus niger) and tobacco (Nicotiana spp.), as well as the food plants eggplant and tomato. These compounds, which protect the potato plant from its predators, are generally concentrated in its leaves, flowers, sprouts, and fruits (in contrast to the tubers).[69] In a summary of several studies, the glycoalkaloid content was, in order from highest to lowest: flowers, sprouts, leaves, tuber skin, roots, berries, peel [skin plus outer cortex of tuber flesh], stems, and tuber flesh).[10] Exposure to light, physical damage, and age increase glycoalkaloid content within the tuber.[70] Cooking at high temperatures—over 170 °C (338 °F)—partly destroys these compounds. The concentration of glycoalkaloids in S.

jamesii (a wild potato) is sufficient to produce toxic effects in humans. Glycoalkaloid poisoning may cause headaches, diarrhea, cramps, and, in severe cases, coma and death. However, poisoning from cultivated potato varieties is very rare. Light exposure causes greening from chlorophyll synthesis, giving a visual clue as to which areas of the tuber may have become more toxic. However, this does not provide a definitive guide, as greening and glycoalkaloid accumulation can occur independently of each other. Different potato varieties contain different levels of glycoalkaloids. The 'Lenape' variety was released in 1967 but was withdrawn in 1970 as it contained high levels of glycoalkaloids. [71] Since then, breeders developing new varieties test for this, and sometimes have to discard an otherwise promising cultivar. Breeders try to keep glycoalkaloid levels below 200 mg/kg (0.0032 oz/lb) (200 ppmw). However, when these commercial varieties turn green, they can still approach solanine concentrations of 1,000 mg/kg (0.016 oz/lb) (1000 ppmw).

In normal potatoes, analysis has shown solanine levels may be as little as 3.5% of the breeders' maximum, with 7-187 mg/kg (0.00011-0.00299 oz/lb) being found.[72] While a normal potato tuber contains 250-280 mg/kg (0.0040-0.0045 oz/lb) and its skin has 1,500-2,200 mg/kg (0.024-0.035 oz/lb).[73] Growth and cultivation Planting Fort Fairfield, Maine Seed potatoes are generally grown from "seed potatoes", tubers specifically grown to be free from disease and to provide consistent and healthy plants. To be disease free, the areas where seed potatoes are grown are selected with care. In the US, this restricts production of seed potatoes to only 15 states out of all 50 states where potatoes are grown.[74] These locations are selected for their cold, hard winters that kill pests and summers with long sunshine hours for optimum growth. In the UK, most seed potatoes originate in Scotland, in areas where westerly winds reduce aphid attack and the spread of potato virus pathogens.[75] Specially genetically modified potatoes can also be grown from true seeds.[21] This is rarely used in breeding experimentation.[21] Phases of growth can be divided into five phases.

During the first phase, sprouts emerge from the seed potatoes and root growth begins. During the second, photosynthesis begins as the plant develops leaves and branches above-ground and stolons develop from lower leaf axils on the below-ground stem. In the third phase the tips of the stolons swell forming new tubers and the shoots continue to grow and flowers typically develop soon after. Tuber bulking occurs during the fourth phase, when the plant begins investing the majority of its resources in its newly formed tubers. At this phase, several factors are critical to a good yield: optimal soil moisture and temperature, soil nutrient availability and balance, and resistance to pest attacks. The fifth phase is the maturation of the tubers: the leaves and stems senesce and the tuber skins harden.[76][77] Challenges Potatoes grown in a tall bag are common in gardens as they minimize the amount of digging required at harvest.

Potatoes are renowned for their ease of cultivation compared to other staple crops: however, maximizing yields and preventing disease and undesirable characteristics requires intensive management. New tubers may start growing at the surface of the soil. Stap bowever, maximizing yields and preventing disease and undesirable characteristics requires intensive management. New tubers may start growing at the surface of the soil. Stap bowever, maximizing yields and preventing the growing area with mulches such as straw or plastic sheets. [78] Correct potato husbandry can be an arduous task in some circumstances. Good ground preparation. harrowing, plowing, and rolling are divays needed, along with a little grace from the weather and a good source of water. [79] Three successive plowings, with associated harrowing are desirable before planting. Eliminating all root-weeds is desirable in potato cultivation. In general, the potatoes the meselves are grown from the eyes of another potato and not from seed. Home gardeners solve, which damage them in the ground. Even beavy frosts, which damage them in the ground. Even beavy frosts, which damage them in the ground. Even beavy frosts, which damage them in the ground. Even beavy frosts, which damage them in the ground. Even beavy frosts, solve are sensitive to heavy frosts, using and pousibly later roting, which can powdery scale and leafor lives. Late blight linesces that commonly transmit plotato diseases include the color sore program cances or damage the plants or those exposure of the plant so its graves can survive in the soil for several years, crove roting, which damage them in the grave frost with grave and plant or the grave plant so the grave analyzed. (B2 Rpi-blin is an under) is nucleased and plant were the data and data and design and preventing disease and under staps. For potato is mained plants or those or damage them in the grave from the weed from the weed plants or those or damage them in the grave from the weed plants or those or data design and prevent

Curing allows the skin to fully set and any wounds to heal. Wound-healing prevents infection and water-loss from the tubers during storage. Curing is normally done at relatively warm temperatures (10 to 16 °C or 50 to 60 °F) with high humidity and good gas-exchange if at all possible.[84] Storage Transporting to cold storage in India Storage facilities need to be carefully designed to keep the potatoes alive and slow the natural process of sprouting which involves the breakdown of starch. It is crucial that the storage area be dark, ventilated well, and, for long-term storage, maintained at temperatures near 4 °C (39 °F). For short-term storage, temperatures of about 7 to 10 °C (45 to 50 °F) are preferred.[85] Temperatures below 4 °C (39 °F) convert the starch in potatoes into sugar, which alters their taste and cooking qualities and leads to higher acrylamide levels in the cooked product, especially in deep-fried dishes. The discovery of acrylamides in starchy foods in 2002 has led to international health concerns.[citation needed] It is not likely that the acrylamides in burnt or well-cooked food causes cancer in humans.[86] Chemicals are used to suppress sprouting storage.

Chlorpropham (CIPC) is the main chemical used, but toxicity concerns have led to it being banned in the EU.[87] Alternatives are applying maleic hydrazide to the crop whilst it is still growing[88] or the use of ethylene, spearmint and orange oils and 1,4-dimethylnaphthalene.[87] Under optimum conditions in commercial storage and retrieval of potatoes involves several phases: first drying surface moisture; wound healing at 85% to 95% relative humidity and temperatures below 25 °C (77 °F); a stage dooling phase; a holding phase; and a recorditioning phase, during the process to prevent condensation and the accumulation of carbon dioxide.[85] Yield The world deciated 18.6 million hectares (46 million acres) to potato cultivation in 2010; the world average yield of 44.3 tonnes per hectare (19.8 short tons per acre).[89] United Kingdom was a close second. New Zealand farmers have demonstrated some of the best commercial yields in the world, ranging between 60 and 80 tonnes per hectare; some reporting yields of 88 tonnes of potatoes per hectare; [90] [91][92] There is a big gap among various countries between high and low yields, even with the same variety of potato. Average potato yields in developed economies ranges between 38 and 44 metric tons per hectare; [15 and 18 long ton/acre; 17 and 20 short ton/acre). China and India accounted for over a third of world's production in 2010, and had yields of 14.7 and 19.9 metric tons per hectare; (5.9 and 7.9 long ton/acre; 6.6 and 8.9 short ton/acre), respectively.[89] The yield gap between forms in developing economies and developed economies ranges between 40 million metric tons (77 G]/A or 7.5 million kcal/acre), or soybeans (29 G]/ha or 7.5 million kcal/acre), or soybeans (29 G]/ha or 7.4 million kcal/acre), or soybeans (29 G]

While potato is less important than corn, rice, wheat and soybeans, which are collectively responsible for around two-thirds of all calories consumed by humans (both directly and indirectly as animal feed), [97] it still is one of the world's most important food crops. [98] According to a 2011 estimate, future worldwide potato yield would be 18-32% lower that it was at the time, driven by declines in hotter areas like Sub-Saharan Africa, [96] unless farmers and potato cultivars can adapt to the new environment. [99] As with the other plants, potato plants and crop yields are predicted to benefit from the CO2 feet, which would be 18-32% lower that consumed by humans (both directly and indirectly as animal feed), [97] it still is one of the world's most important food crops. [98] According to a 2011 estimate, future worldwide potato yields and the temperates can adapt to the new environment. [109] As with the other plants, potato plants and crop yields are predicted to benefit from the CO2 feet, the adapt cultivars can adapt to the new environment. [90] As with the other plants, potato plants and crop yields are predicted to be one contrives like Bolivia, where the rainy season has shortened in increase starch contents in the edible tubers. [96] However, potatoes are more sensitive to sol water deficits than some other stapic crops like whet. [101] These rest decades, the potato growing season. [96] Potatoes also grow best under temperate conditions. [104] There growth, are advected by temperatures above 20° C (86 °F) can have a range of negative effects can potato, from physiological damage such as brown spiels in the future. [104] On the hand, how temperatures and there hand, low temperatures and there hand, low temperatures and so will likely extend potato tange, and rising temperatures will likely extend potato back corns from stomata. [104] These effects can potato crop yields and here predicted to spread into areas current type can alwas a the potato tange where current type can alwas a frok ange. [96] A th

These changes in crop yields are predicted to cause shifts in the areas in which potato crops can be viably produced.[104] The other approach is through the development of varieties or cultivars which would be more adapted to altered conditions. This can be done through 'traditional' plant breeding techniques and genetic modification. These techniques allow for the selection of specific traits as a new cultivar is developed. Certain traits, such as heat stress tolerance, fast growth/early maturation and disease resistance, may play an important role in creating new cultivars able to maintain yields under stressors induced by climate change.[105] For instance, developing cultivars with greater heat stress tolerance would be critical for maintaining yields in countries with potato produced per amount of water use of the ability to recover from short drought periods and still produce acceptable yields.

Further, selecting for deeper root systems may reduce the need for irrigation.[110] Finally, potatoes that grow faster could help adjust to shorter growing seasons in some areas, and also reduce the number of life cycles pests such as potato tuber moth can complete in a single growing season.[102] Uses Culinary See also: List of potato dishes and Potato cooking Various, typically American potato preparations: (clockwise from top left) potato chips, hashbrowns, tater tots, mashed potato dishes are prepared in many ways: skin-on or peeled, whole or cut up, with seasonings or without. The only requirement involves cooking to swell the starch granules. Most potato dishes are served hot but some are first cooked, then served cold, notably potato salad and potato chips (crisps).

Common dishes are: mashed potatoes, which are first boiled (usually peeled), and then mashed with milk or yogurt and butter; whole baked potatoes; French-fried potatoes or chips; cut into cubes and roasted; scalloped, diced, or sliced and fried (home fries); grated into small thin strips and fried (hash browns); grated and formed into dumplings, Rösti or potato pancakes. Potatoes can also be cooked in a microwave oven to produce a meal very similar to a steamed potato.[citation needed] Potato chunks also commonly appear as a stew ingredient. Potatoes are boiled between 10 and 25[111] minutes, depending on size and type, to become soft. Latin America Papa rellena Peruvian cuisine naturally contains the potato as a primary ingredient in many dishes, as around 3,000 varieties of this tuber are grown there.[112] Some of the more notable dishes include boiled potato as a base for several dishes or with ají-based sauces like in papa a la Huancaína or ocopa, diced potato for its use in soups like in cau cau, or in carapulca with dried potato (papa seca). Smashed condimented potato is used in causa Limeña and papa rellena. French-fried potatoes are a typical ingredient in Peruvian stir-fries, including the classic dish lomo saltado. Chuño is a freeze-dried potato product traditionally made by Quechua and Aymara communities of Peru and Bolivia, Argentina, and Chile.

In Chile's Chiloé Archipelago, potatoes are the main ingredient of many dishes, including milcaos, chapaleles, curanto and chochoca. In Ecuador, the potato, as well as being a staple with most dishes, is featured in the hearty locro de papas, a thick soup of potato, squash, and cheese. Europe Baked potato with sour cream and chives In the UK, potatoes form part of the traditional staple, fish and chips. Roast potatoes are commonly served as part of a Sunday roast dinner and mashed potatoes form a major component of several other traditional dishes, such as shepherd's pie, bubble and squeak, and bangers and mash. New potatoes may be cooked with mint and are often served with butter. [114] The tattie scone is a popular Scottish dish containing potatoes. Colcannon is a traditional Irish food made with mashed potato, shredded kale or cabbage, and onion; champ is a similar dish.

Boxty pancakes are eaten throughout Ireland, although associated especially with the North, and in Irish diaspora communities; they are traditionally made with flour, buttermilk and baking powder. A variant eaten and sold in Lancashire, especially Liverpool, is made with cooked and mashed potatoes. In the UK, game chips are a traditional accompaniment to roast gamebirds such as pheasant, grouse, partridge and quail.

Powdered cooked potato has been sold in the UK since the 1960s as Smash and is used as a food for camping[115] and domestically. Halushky are the national dish of many Slavic nations.

Halušky dumplings are made from a batter consisting of flour and grated potatoes. Bryndzové halušky are associated to Slovak cuisine in particular. Germany, Northern (Finland, Latvia and especially Scandinavian countries), Eastern Europe (Russia, Belarus and Ukraine) and Poland, newly harvested, early ripening varieties are considered a special delicacy.

Boiled whole and served un-peeled with dill, these "new potatoes" are traditionally consumed with Baltic herring. Puddings made from grated potatoes (kugel, kugelis, and potato babka) are popular items of Ashkenazi, Lithuanian, and Belarusian cuisine. [116] German fried potatoes and various versions of Potato salad are part of German cuisine. Bauernfrühstück (literally farmer's breakfast) is a warm German dish made from fried potatoes, eggs, ham and vegetables. Cepelinai is the national dish of Lithuania. They are a type of dumpling made from grated raw potatoes boiled in water and usually stuffed with minced meat, although sometimes dry cottage cheese (curd) or mushrooms are used instead. [117] In Western Europe, especially in Belgium, sliced potatoes are fried to create frieten, the original French fried potatoes mixed with vegetables. In France, the most notable potato dish is the hachis Parmentier, named after Antoine-Augustin Parmentier, a French pharmacist, nutritionist, and agronomist who, in the late 18th century, was instrumental in the acceptance of the potato as an edible crop in the country. Pâté aux pommes de terre is a regional potato dish from the central Allier and Limousin regions.

Gratin dauphinois, consisting of baked thinly sliced potatoes with cream or milk, and tartiflette, with Reblochon cheese, are also widespread. In the northeast, potatoes serve to make a type of pasta called gnocchi.[118] Similarly, cooked and mashed potatoes or potato flour can be used in the Knödel or dumpling eaten with or added to meat dishes all over central and Eastern Europe, but especially in Bavaria and Luxembourg. Potatoes form one of the main ingredients in many soups such as the vichyssoise and Albanian potato and cabbage soup. In western Norway, komle is popular. Potato pancakes are popular all over Central Europe, and are also known in Scandinavia, and in Jewish cuisine. A traditional Canary Islands dish is Canarian wrinkly potatoes in a spicy tomato sauce) are near-universal constituents of Spanish tapas. North America This section needs additional citations for verification. Please help improve this article by adding citations to reliable sources in this section. Unsourced material may be challenged and removed. Find sources: "Potato" - news · newspapers · books · scholar · JSTOR (September 2023) (Learn how and when to remove this template message) In the US, potatoes have become one of the most widely consumed crops and thus have a variety of preparation methods and condiments. French fries and often hash browns are commonly found in typical American fast-food burger "joints" and cafeterias. One popular favourite involves a baked potato with cheddar cheese (or sour cream and chives) on top, and in New England "smashed potatoes" (a chunkier variation on mashed potatoes, retaining the peel) have a great popularity. Potato flakes are popular as an instant variety of mashed potatoes, which reconstitute into mashed potatoes by adding water, with butter or oil and salt to taste. A regional dish of Central New York, salt potatoes are bite-size new potatoes by adding water, with butter or oil and salt to taste. salt then served with melted butter. At more formal dinners, a common practice includes taking small red potatoes, slicing them, and roasting them in an iron skillet. Among American Jews, the practice of eating latkes (fried potato pancakes) is common during the festival of Hanukkah. A traditional Acadian dish from New Brunswick is known as poutine râpée. The Acadian poutine is a ball of grated and mashed potato, salted, sometimes filled with pork in the centre, and boiled. The result is a moist ball about the size of a baseball. It is commonly eaten with salt and pepper or brown sugar. It is believed to have originated from the German Klöße, prepared by early German settlers who lived among the Acadians. Poutine, by contrast, is a hearty serving of French fries, fresh cheese curds and hot gravy. Tracing its origins to Quebec in the 1950s, it has become a widespread and popular dish throughout Canada. Potato grading for Idaho potatoes is performed in which No. 1 potatoes are the highest quality and No. 2 are rated as lower in quality due to their appearance (e.g. blemishes or bruises, pointy ends).[119] Potato density assessment can be performed by floating them in brines.[120] High-density potatoes are desirable in the production of dehydrated mashed potatoes, potato crisps and french fries.[120] French fries.[120] French fries.[120] High-density potatoes are desirable in the production of dehydrated mashed potatoes, potato crisps and french fries.[120] French fries. potatoes, cheese curds, and gravy South Asia In South Asia, the potato is a very popular traditional staple. In India, the most popular potato mixed with a small amount of vegetable stuffed in conical dough, and deep-fried. Potatoes are also a major ingredient as fast-food items, such as aloo chaat, where they are deep-fried and served with chutney. In Northern India, alu dum and alu paratha are a favourite part of the diet; the first is a spicy curry of boiled potato, the second is a type of stuffed chapati. A dish called masala dosa from South India is notable all over India. It is a thin pancake of rice and pulse batter rolled over spicy smashed potato and eaten with sambhar and chutney. Poori in south India, in particular in Tamil Nadu, is almost always taken with smashed potato masal. Other favourite dishes are alu tikki and pakoda items. Vada pav is a popular vegetarian fast-food dish in Mumbai and other regions in Maharashtra in India. Aloo posto (a curry with potatoes and poppy seeds) is popular in East India, especially Bengal. Although potatoes are not native to India, it has become a vital part of food all over the country especially North Indian food preparations. In Tamil Nadu this tuber. Aloo gosht, potato and meat curry, is one of the popular dishes in South Asia, especially in Pakistan. East Asia, particularly Southeast Asia, rice is by far the predominant starch crop, with a popular dish being 青椒 土豆丝 (qīng jiāo tǔ dòu sī), made with green pepper, vinegar and thin slices of potato. In the winter, roadside sellers in northern China will also sell roasted potatoes. It is also occasionally seen in Korean and Thai cuisines. [121] Other uses Potatoes are used to brew alcoholic beverages such as vodka, poitín, or akvavit. They are also used as fodder for livestock. Livestock-grade potatoes, considered too small or blemished to sell or market for human use but suitable for fodder use, have been called chats in some dialects. They may be stored in bins until use; they are sometimes ensiled. [122] Some farmers prefer to steam them rather than feed them raw and are equipped to do so efficiently. Potato starch is used in the food industry as a thickener and binder for soups and sauces, in the textile industry as a thickener and binder for soups and sauces. [123][124] Potatoes are commonly used in plant research. The consistent parenchyma tissue, the clonal nature of the plant and the low metabolic activity make it an ideal model tissue for experiments on wound-response studies and electron transport. Potato delivery services include Potato has been an electron transport. Potato estable and electron transport. essential crop in the Andes since the pre-Columbian era. The Moche culture from Northern Peru made ceramics from the earth, water, and fire. This pottery was a sacred substance, formed in significant shapes and used to represent important themes. Potatoes are represented anthropomorphically as well as naturally.[126] During the late 19th century, numerous images of potato harvesting appeared in European art, including the works of Willem Witsen and Anton Mauve. [127] Van Gogh's 1885 painting The Potato Eaters portrays a family eating potatoes. Van Gogh's 1885 painting The Potato Eaters portrays a family eating that they would be natural and unspoiled in his finished work.[128] Jean-François Millet's The Potato Harvest depicts peasants working in the plains between Barbizon and Chailly. It presents a theme representative of the peasants' struggle for survival. Millet's technique for this work incorporated paste-like pigments thickly applied over a coarsely textured canvas. The Potato Eaters by Van Gogh, 1885 (Van Gogh Museum) The Potato Harvest by Jean-François Millet, 1855 (Walters Art Museum) In popular culture Invented in 1949, and marketed and sold commercially by Hasbro in 1952, Mr. Potato Head is an American toy that consists of a plastic potato and attachable plastic parts, such as ears and eyes, to make a face. It was the first toy ever advertised on television.[129] In June 1992 at the Muñoz Rivera Elementary School spelling bee in Trenton, New Jersey, U.S. Vice President Dan Quayle was handed a flash card that incorrectly spelled "potatoe" and then prompted a 12-year-old student to change his correct spelling.[130][131] [132] This incident was the subject of widespread ridicule. See also Food portal Climate change and potatoes Irish potato candy List of potato and potatoes Irish potato candy List of potato battery References Citations ^ "Solanum" tuberosum L." Plants of the World Online. Board of Trustees of the Royal Botanic Gardens, Kew. 2017. Retrieved 7 September 2020. ~ "Potato - Definition". Merriam-Webster. 21 June 2023. ^ Hijmans, RJ; Spooner, DM (2001). "Geographic distribution of wild potato species". American Journal of Botany. 88 (11): 2101-12. doi:10.2307/3558435. JSTOR 3558435.

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The Scottish Miller 1700-1900. Pub. John Donald. ISBN 0-85976-067-7. External links Solanum tuberosum (potato, papas): life cycle, tuber anatomy at GeoChemBio Archived 8 April 2022 at the Wayback Machine Potato at Wikipedia's sister projects: Definitions from Wikipedia from CommonsRecipes from WikibooksTaxa from Wikipedia at the Wayback Machine Potato at Wikipedia's sister projects: Definitions from Wikipedia's sister projects: Definitions from Wikipedia from CommonsRecipes from WikibooksTaxa from Wikipedia's sister projects: Definitions from Wikipedia's sister projec from Wikidata Retrieved from "A staple food for cultures across the globe, the tuber has emerged as a nutritional giant and the friend of peasants, rulers and sages. Even today, its possibilities are endless. In his 1957 essay collection Mythologies, the French philosopher and literary critic Roland Barthes called chips (la frite), a food that comes from a crop native to the Americas, "patriotic" and "the alimentary sign of Frenchness". Just a century earlier, a potato disease prompted a famine that halved Ireland's population in a few years, producing a decades-long cascading effect of social and economic turmoil. And as you read these lines, the world's leading potato producers today are China, India, Russia and Ukraine, respectively. Despite these nations' intimate and complicated relationships with potatoes, and how intertwined their societies and economies are with them, none can truly call them native. The humble potato was domesticated in the South American Andes some 8,000 years ago and was only brought to Europe in the mid-1500s, from where it spread west and northwards, back to the Americas, and beyond. Indigenous communities in the Andes still have a close relationship with potatoes (Credit: International Potato Center)"Despite its origins in the Andes, it's an incredibly successful global food," said food historian Rebecca Earle, who's tracing the Potato. "It's grown practically everywhere in the world, and practically everywhere, people consider it one of 'our foods'." For the rest of the world beyond the Andes, the potato might not be autochthonous, but it feels local. Earle calls it the "world's most successful immigrant", as its origin has become unrecognisable for producers and consumers everywhere. Idaho farmers in the US and gnocchi-loving Italians will claim the potato as much as any Peruvian, because its story is not only that of a country or of a region, but an account of how humans have reconfigured their relationship with land and food within a few generations. You may also be interested in: • Asia's 'anti-ageing red diamond' • The birthplace of the modern apple • A foraged green that can killThe potato is the world's fourth-most important crop after rice, wheat and maize, and the first among non-grains. How could an Andean tuber persuade the world, in just a few centuries, to adopt it so completely? What made the potato so irresistible was its unrivalled nutritional value, its relative easiness to cultivate as compared to some major cereals, its ability to easily navigate wars and tax censuses due to its knack for hiding underground from collectors, and in particular, its camaraderie with working men and women in the fields. A good place to understand its origins is the Centro Internacional de la Papa (CIP), or Internacional de la things potato-related. It's set in an arid suburb in the Peruvian capital, Lima, and harbours a collection of thousands of potato samples from Chile to the United States," René Gómez, senior curator at the CIP genebank, told me there. René Gómez shows different potato varieties at Peru's International Potato Center (Credit: Diego Arguedas Ortiz)He explained that potatoes were domesticated high in the Andes, nearly 1,000km south-east of Lima. Following domestication, these early potatoes spread through the cordillera and became a crucial food supply for indigenous communities, including the Inca, particularly as a staple foodstuff called chuño, a freeze-dried potato product that can last years or even decades. Out of the AmericasIn 1532, the Spanish invasion brought an end to the Inca but not to the cultivation of potatoes. The invaders took tubers (the underground parts of the plant we call potatoes) across the Atlantic, as they did with other crops such as tomatoes, avocados and corn, in what historians call the Great Columbian Exchange. For the first time in history, the potato ventured beyond the Americas. These early Andean varieties had a tough time adjusting to Spain and other parts of mainland Europe. Day length is very constant across the year in the equatorial region where potatoes first were domesticated, so the potato plant was used to regular days with 12 hours of sunlight, said evolutionary geneticist Hernan A Burbano Roa. The International Potato Center Center) European long summer days confused the potato plant, and tubers didn't grow during the favourable warmer months; instead, they did so in the autumn, too close to the frosty early winter days to survive. The first decades of planting in the Old Continent proved unsuccessful. But then potatoes found better conditions in Ireland, where a cool but frost-free fall gave the crop enough time to mature after its introduction from Spain in the 1580s. A century of farmer selection produced a variety that set tubers earlier in the summer, and the potato took the mantle it would carry for centuries: the staple crop of peasants. The humble tuberVillagers prized potatoes because they provided an unmatched nutritional yield per hectare. In Ireland in particular, tenants rented the land they tilled, so as lords increased their fees, they were forced to produce as much food as possible in the smallest possible area. "No crop produced more food per acre, demanded less cultivation and stored as easily as the potato," wrote sociologist James Lang in his book Notes of a Potato Watcher. Potatoes contain nearly every important vitamin and nutrient, except vitamins A and D, making their life-supporting properties unrivalled by any other single crop. Keep their skin and add some dairy, which provides the two missing vitamins, and you have a healthy human diet staple. You even have 2g of protein for every 100g of potato; eat 5.5 kilos per adult per day, if one's to believe some estimates of consumption in mid-1600s Ireland, and you have a good supply. The 151 known species of wild potatoes are the ancestors of today's potatoes (Credit: Diego Arguedas Ortiz)For landless tenants in 17th- and 18th-Century Ireland, a single acre of land cultivated with potatoes and one milk cow was nutritionally sufficient for feeding a large family of six to eight. No cereal could claim that feat. Thus, began the centuries-long captivation among Irish and British peasants with the potato, grounded in rented earth and scarcity. From the British Isles, potatoes spread eastwards across peasant fields in Northern Europe, writes Lang: they were found in the Low Countries by 1650, in Germany, Prussia and Poland by 1740 and in Russia by 1840s. climate conditions, it flourished. Villagers in the war-ravaged European plains, by conflicts such as the War of the Austrian Succession and the Seven Years' War, quickly discovered another advantage of planting potatoes: they were really hard to tax and plunder. "If you have a field of wheat, it's really visible. You can't hide it", said Earle, who claims tax collectors can visually measure their size and return in time for the harvest. But underground potatoes are well hidden, and you can dig them up one by one, as needed. "Such piecemeal harvesting hid the crop from tax collectors and protected the peasant's food supply in the war time," said Lang in his book. "Marauding soldiers laid waste to field crops and raided grain stores. They rarely stopped to dig up an acre of spuds." In the steppes of Tajikistan, local communities have also embraced potatoes as one of "their" products (Credit: International Potato Center) The elites and military strategists of the

time noticed this. Prussia's King Frederick the Great ordered his government to distribute instructions on how to plant potatoes, hoping peasants would have food if enemy armies invaded during the War of the Austrian Succession in 1740. Other nations followed suit and by the time of the Napoleonic wars in the early 1800s, the potato had become Europe's food reserve, according to a report by the Food and Agriculture Association of the United Nations (FAO). In fact, tubers were such a valued crop during wartime that "every military campaign on European soil after about 1560 resulted in an increase in potato acreage, down to and including World War Two," wrote historian William McNeill in 1999 essay How the Potato Changed the World's History. Nutrition and powerIn a matter of centuries, potatoes entered the European and global economies as a staple crop. For decades, food historians (such as those noted in this FAO booklet from 2008) have explained this spread as the result of well-meaning Enlightened sages obsessed with the nutritional properties of the tubers that managed to persuade a reluctant and conservative populace to adopt the potato. But Earle has her doubts. It was peasants who adapted the potato to Europe, she argues, thus they needed no persuading. Elites did not discover a new crop, but rather, they had a novel idea of what healthy food was. Instead of placing a "superfood" in the middle of European diet, they realised that nutrition needed to take a more central role and looked around for those crops that might serve their purpose.

The humble tuber was already there. Enlightened discussions of "population", and what its health meant for the power of the state, changed political calculations during the 18th Century, and also the fortunes of the potato. If a strong, numerous population was crucial for economic production and military might, the state needed to understand and manage the nutritional components of what people were eating. Abundant, healthy food became central to Empire-building, Earle writes in her 2018 paper Promoting Potatoes in Eighteenth-Century Europe. Thus, also the fortunes of the state. The first evidence of potato cultivation in Canada is from novel European ideas of the more decisive proof of its nourishing quality, or of its being peculiarly suitable to the health of the human constitution." But while Smith was right in highlighting the potato's virtues, it was peasants and not the elites that made potatoes a fixture of European gardens and farms. A question of measuring arises, Earle admits. How did scholars like Smith and his contemporaries compare nutritional value? In the 18th Century, scientists hadn't agreed on a language for vitamins, proteins and minerals, she said. Instead, "what they did is say: 'look at the people who eat other things',' said the scholar, who heads the Department of History at the University of Warwick. But as she argues, potatoes mere greeic that eating potatoes made people siles that were fully suitable for potato cultivation, its introduction accounts for or villages that were fully suitable for potato cultivation, its introduction accounts for potato cultivation in Canada farms. A question of measuring arises, Earle admits. How did scholars like Smith and his contemporaries compare nutritional value? In the 18th Century, scientists hadn't agreed on a language for vitamins, proteins and minerals, she said. Instead, "what they did is say: 'look at the people who eat other human's, and farms. A question of measuring arises, Earle admits. How did scholars like Smith and his contemporaries

Ireland's population was halved in a matter of decades. A potato disease prompted a famine that halved Ireland's population in a few years (Credit: Hulton Archive/Getty Images) The Famine called attention to the fact that potato had supplied 80% of calorie intake in the country with only a handful of crop varieties available. Such a homogenous food block made the potato susceptible to diseases, as its genetic diversity had been washed away from domestication. To be fair, some mixing of varieties had already taken place in Europe around the 1750s. Burbano was part of a team that peered into the genes of European potatoes to study their ancestry and concluded that ancient Andean varieties mixed with tubers later brought from the lowlands of south-central Chile, such as Chiloé island, were naturally domesticated for the long days of the Southern Hemisphere. This first admixture only provides some handy traits, but not enough genetic depth, so breeding programmes over the years have been looking at ways to improve food security for potato farmers. "One of the ways breeders used to incorporate resistance was looking at wild potatoes," Burbano explained, talking about inedible potato cousins that still survive in the Andes and in the rest of their natural range. There are 151 known species, and they are the ancestors of today's potatoes, which have lost genetic diversity after centuries of serving humans.Peru's government is working with indigenous communities to protect the potatoes, hoping to get their domesticated traits, with wild potatoes, hoping to get their resistance to diseases. Most tubers grown today are a result of such tests. These wild species might also provide an answer to another pressing issue: changing temperature and rain conditions by 2085. Genetic resources from these species could provide desirable traits, such as tolerance to frost, drought or temperature increase. Breeders in Europe and the United States, and more recently in Asia, have been developing these more resistant varieties for years, paving the way for potatoes to become a truly global crop in the 20th Century. Of the world's top 20 tuber producers, only three (the United States, Peru and Brazil) are part of its historical range, but every country is creating its own connection to it. In China, the government is aggressively promoting the potato among its population, hoping it can become a new national staple food. Its leaders are following similar tactics to those of 18th-Century Europe, peddling it with state-owned media, popular science books. And in India, potatoes are prepared in hundreds of different ways and you would struggle to convince farmers that they aren't local. Top chefs like Virgilio Martinez are featuring different ways and you would struggle to convince farmers that they aren't local. Top chefs like Virgilio Martinez are featuring different ways and you would struggle to convince farmers that they aren't local. Top chefs like Virgilio Martinez are featuring different ways and you would struggle to convince farmers that they aren't local. Top chefs like Virgilio Martinez are featuring different ways and you would struggle to convince farmers that they aren't local. Top chefs like Virgilio Martinez are featuring different ways and you would struggle to convince farmers that they aren't local. Top chefs like Virgilio Martinez are featuring different ways and you would struggle to convince farmers that they aren't local. Top chefs like Virgilio Martinez are featuring different ways and you would struggle to convince farmers that they aren't local. 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Top chefs like Virgilio Martinez are featuring different ways are featuring different ways are featured ways are feature Collection Inc/Alamy)Half the world around, the potato has reignited long-standing rivalries between Peru and Chile over who can claim the tuber as their own, while top chefs in Lima and the Andes - such as Virgilio Martinez who opened Mil in 2019 - are turning their gaze again to potatoes and featuring them in their creations. While Peruvians insist that potatoes were domesticated in what's now their territory (and bits of neighbouring Bolivia), a Chilean minister countered in 2008 that a vast majority of the world's tubers come from a variety introduced from Chile. But the debate is not necessarily about a history lesson, but also about national pride. "The silly part is that the story of the potato began millennia before the concept of nation-states existed," said Charles Crissman, a researcher at the International Potato in 2008. "But, yes, the first potatoes came from what is today Peru."The claims rankled Peruvians because it came during the International Year of the Potato in 2008, a celebration that even FAO conceded "came from the Government of Peru". The country established the International Potato Center in 1971 and worked with indigenous communities in the mountain peaks to protect the potato's genetic heritage. At Virgilio Martinez's restaurants, diners can try a handful of Peru's almost 5,000 species of potatoes (Credit: Cris Bouroncle/Getty Images)A small agri-park high in the Peruvian Andes, the Potato Park in Cusco harbours a living museum of the humble tuber, in their natural environment, a reminder of where the potato comes from, but also a roadmap of where it could go: genetic material from less domesticated potatoes can trace a path forward for the crop, as it deals with new threats such as changing climates and pressures on the agricultural sector. A two-hour drive east of Cusco, a different view of the present and the future awaits: it's Mil, an ambitious take on Peruvian culinary tradition perched 12,000ft up in the clouds of the Andean mountains. Thanks to its celebrated chefs, here you can try a handful of Peru's almost 5,000 species of potatoes, and still have some space to wonder about what's beyond these mountains: is it an Indian curry? Fish and chips in an east London pub?

A baked potato fresh from an Idaho oven?With the global versatility of potatoes, the possibilities are endless. Culinary Roots is a series from BBC Travel connecting to the rare and local foods woven into a place's heritage. Join more than three million BBC Travel fans by liking us on Facebook, or follow us on Twitter and Instagram. If you liked this story, sign up for the weekly bbc.com features newsletter called "The Essential List". A handpicked selection of stories from BBC Future, Culture, Worklife and Travel, delivered to your inbox every Friday.;