



I Am THE
**FOOD
ON YOUR
PLATE**

Potatoes

All Eyes on Me: The World's Dream Starch

BY *Kate Lowenstein*
AND *Daniel Gritzer*

I T'S COMPLETE DARKNESS, through day and night, where I am. In the silence of the cool, loosely packed earth, I'm reproducing. My eyes shoot forth stems, millimeter by millimeter, into the dirt around me. Aboveground, my green leaves bask in the sunlight, photosynthesizing sugars, which ease downward to nourish nodes along those stems. The nodes then swell with flesh—new potatoes in the making, each one a perfect clone of me.

Cloning myself in the dark isn't the only way I reproduce. My second means of reproduction is fertilization of my flowers by another potato plant, and any variety will do. This insurance policy has given me maximum flexibility as a multiplier over the ages. Today, 8,000 years since humans began cultivating my ilk near Lake Titicaca in the Peruvian Andes, taxonomists have no idea how many cultivated and wild versions of me exist.

I am the *Solanum tuberosum*, a member of the nightshade family and a close cousin of tomatoes, eggplant, peppers, and tobacco. Don't let our shared moniker fool you: I am no relation to the sweet potato. She's correctly described as a root vegetable, whereas my edible part is the stem, swollen into a starchy, filling snack.

Thousands of years ago, I was but a knobby knot in the ground, hardly edible, at times even poisonous. In the dirt-caked hands of generations of farmers, I've been bred so that my bitter glycoalkaloids—the compounds

that to this day make me go green after one too many days on your windowsill—are at safe-to-eat levels, and my edible insides have expanded to accommodate the human appetite.

As a result of this happy coexistence with my cultivators, I've hitched my way all over the world and adapted to life on continents outside my home turf in the Americas. I can live at 12,000 feet in the dry, chilly mountains and at sea level in the tropics.

My appearance is as varied as the places I live. I can be white, yellow, red, purple, pink, or blue; speckled, spotted, coiled, or mottled; knobby, smooth, thin, or stumpy; covered in skin that's thick and leathery or as thin as tissue paper.

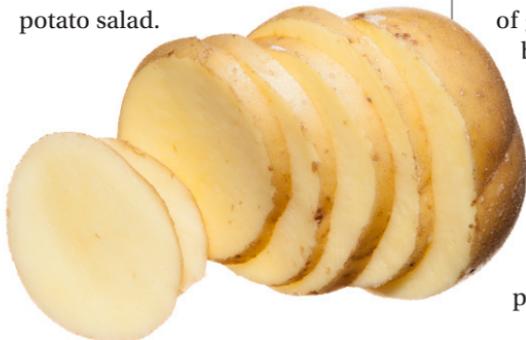
Despite this dazzling diversity, a North American shopper will encounter only a few varieties: russets, which are very starchy and thus good for baked potatoes and fries; Yukon Golds, which are moist and waxy and great for producing a silky mash; fingerlings and new potatoes, delightful when boiled; and red potatoes, perfectly tender and sweet in a potato salad.

PERFECT BOILED FINGERLINGS

Put whole fingerlings in a pot and cover with cold water. Now add salt, starting with 1.5 tablespoons per 4 cups of water, and then sprinkle in more until the water tastes as salty as the sea. (Don't worry: Most will go down the drain, and the little that's absorbed will make all the difference.) Add aromatics: garlic, a halved onion, carrots, celery, a bay leaf, and fresh herbs such as rosemary, thyme, and sage. Bring water to a gentle simmer and cook anywhere from 25 minutes to two hours, until you can slide a fork into a potato without resistance. (The larger the potatoes and batch, the longer they'll take.) Turn the heat off; leave the potatoes until the water is warm. Discard the aromatics and herbs, drain the potatoes, and toss with melted butter or olive oil and minced parsley, chives, and/or tarragon. Add black pepper and salt to taste.

Around the world, I take many more forms, from soft purees to shatteringly crisp potato chips. I'm rolled into cloudlike dumplings in Italy, bulk up Guinness stews in Ireland, and grace the tables of France's haute temples of gastronomy, usually laden with butter and cream.

Yet I didn't become the fifth-most-abundant crop across the globe in 2016 as an indulgence. I am a true staple, highly storable, surprisingly nutritious. Civilizations have depended on me. The Incan Empire grew on my back, its soldiers



subsisting on me as they marched through harsh mountain terrain. Europeans relied on me through lean times, sometimes too heavily. My nemesis, the fungus that produces late blight, attacked me in the mid-1800s in western Europe and nearly collapsed Ireland, where about one million people died.

More recently, I've been identified by NASA as a food seemingly made for astronauts on missions, as I offer all nine essential amino acids, the building blocks of proteins necessary for humans to maintain themselves. (That subplot of *The Martian* in which the Matt Damon character lives on potatoes alone may not be too off base.) Even the whitest and blandest of my brethren contain potassium, fiber, and an array of potentially cancer- and heart disease-fighting polyphenols in their flesh and skin. My most abundant polyphenol,

chlorogenic acid, which is associated with lowering blood sugar, is important for diabetics.

Today, scientists on Earth are breeding biofortified versions of me with double the normal iron content to feed parts of the world where anemia is pervasive. They are using genetic modification to develop a potato fully resistant to the fast-moving late blight, which is still the most aggressive threat to me. There is also a significant effort to develop varieties of me that tolerate the stresses of drought, soil salinity, and heat as climate change presses in on staple crops like me. Dare I say, that's progress for a tuber that got its start underfoot, in the silent darkness. **R**

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The All-American Christmas Tree-dition

Pagans and Romans used evergreen trees in winter festivities long before the birth of Christianity, but it took American ingenuity to light up the idea and bring it home for the holidays. The Germans lit the earliest Christmas trees with candles, which had the dual disadvantage of being messy (the dripping wax) and dangerous (the flames dancing near those pine needles). In 1882, Edward H. Johnson, a vice president and inventor at Thomas Edison's Electric Light Company, hand-wired strings of the company's new electric bulbs—80 red, white, and blue bulbs in total—and layered them on the tree in his Manhattan home. By 1903, General Electric was selling sets of prestrung Christmas lights to the masses for \$12. That's more than \$300 in current dollars.