Food at Our Feet

January 4, 2008

When planning your garden, consider indigenous food plants.

With the exception of berries, indigenous food plants have all but disappeared from our tables. Today, excluding some salient plant families, such as *Solanacae* (potatoes, tomatoes, peppers), C*urcurbitacae* (winter squash, zucchini), string beans and corn, most food crops managed by humans are not indigenous. Rather, they have come to us from faraway countries, borne to our shores by our now-distant ancestors.

It doesn't have to be this way. Truly local foods—foods indigenous to North and South America—can once again fill our root cellars and refrigerators, providing undiminished nutrition. Many indigenous food choices are, or can be, right at our feet. But first, let's examine how we wandered so far from what once nourished us.

Corn

According to Michael Pollan's book, *Omnivore's Dilemma*, the American food chain rests solely on a single base plant: corn (*Zea mays*). This miraculous plant has the unique ability to sequester 25 percent more carbon from the atmosphere for sugar production than any other species of plant, although, when it started as a grass in the wild, it was not much to look at.

The Maya saw a champion in the scrawny waif of a weed and initiated a selective breeding program that went on for centuries. In the end, tall, stately cornstalks developed to become forearm-sized cobs bursting with soft, golden, succulent kernels packed with energy and carbohydrates—a significant food source for settlers in the New World.

Modern individual and corporate needs have called on corn to perform even greater feats, such as inexpensively feeding billions of people, providing a cheap sugar syrup and providing cornstarch that shows up in a dizzying array of products. To these ends, corn has been hybridized, tweaked, twisted, genetically modified, transmogrified and supersized such that most processed food we now consume has some form of corn in it.

The sad truth is that corn in its modernized form can no longer survive without humans farming the "modern" way. Seed gathered from a hybrid plant won't produce that same hybrid; rather, it will produce one of the two "parent" plants that created the hybrid. Modern corn requires prodigious fertilizer and management to get the coveted huge cobs. Corn seeds must be dried away from fungi, insects, rodents and hungry birds.

photo by Jason Miller

Long a staple of home gardens, corn can sequester 25 percent more carbon from the atmosphere for sugar production than any other species of plant.

Potatoes

One of our most dearly beloved of starches, most potatoes (*Solanum tuberosum*) are very much alike, genetically speaking. Because of this, potatoes are susceptible in varying degree to late blight and the Colorado potato beetle, two common problems. To combat late blight, cultivated potato plants are often cross-pollinated with wild stock, which are hard to access from their native homes in remote areas of Peru and Bolivia at altitudes of 2,000 to 4,000 feet. In the best of circumstances, expeditions to obtain germplasm for cross-breeding of our common potatoes with wild stock has given us only resistance to late blight, not immunity.

photo by Jason Miller

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Because most potatoes are, genetically speaking, very much alike, they are susceptible in varying degree to late blight and the Colorado potato beetle—even these Yellow Finn beauties.

Other starch sources

It's hard to compete with luscious corn or potatoes slathered with butter as flavorful starch sources. However, maybe it's time to broaden the base on which our food chain depends, while at the same time making our food less dependent on genetically irreproducible or brittle plants, or on plants that have originated in laboratories.

To investigate other starch sources, let's go back to the North American West Coast as it once was. Upon arrival, native Americans spent thousands of years going through a dangerous and exhaustive trial-and-error process to find food that not only was safe to eat, but tasted good. Foods that met these specifications nurtured Native American tribes.

Native Americans west of the Cascades cultivated and consumed starches that included rhizomes of Silver Weed (*Potentilla anserine* ssp. *pacifica*), Springbank Clover (*Trifolium wormskjoldii*), Cattail roots (*Typha latifolia*), Camas (*Camassia quamash*) and Wapato (*Saggitaria latifolia*). One specific variety of wapato, *Sagittaria cuneata* (a.k.a. "Indian Potato"), was particularly prized by Native Americans.

Wapato is an aquatic plant that sports bright green, arrow-shaped leaves in spring and summer and grows in marshes, riverbank shallows and river backwaters. During the summer months, wapato stores energy in half a dozen or more propagules, in tuber form about the size of a choice tulip bulb, at the end of underwater stems on the floor of these waterways.

When wapato's distinctive foliage had died back, native women would first ply shallower waters in canoes, gathering tubers. Once the "low-hanging fruit" was gone, they would wade into water up to their necks and work the tubers loose with their toes, gathering them as they popped up to the surface. This method of harvest assured that the wapato would multiply and spread: The action of disturbing the tubers guaranteed that the smaller, rejected tubers would germinate the following spring.

This plant, which now can rarely be seen in the wild, no longer inhabits even its eponymous eastern Washington city. Separated from their traditions by European settlers, natives instead settled for foods the settlers imported. Meanwhile, wapato fields became supplanted by imported weeds or faded away from neglect. Food that should be at our feet, our native plants on which native Americans depended for millennia, now seem lost to us.

The silver lining to this is that wapato still can be found in local nurseries, especially those specializing in aquatic plants. For those gardeners willing to search for it, wapato promises to become a new—and loved—comfort food. When cooked, wapato tastes a lot like the familiar Irish potato, with the addition of nutlike tones and a hint of bitterness, and that creamy mashed-potato texture.

Try planting wapato in a pond or creek water feature. If a raccoon doesn't get them first, you could find yourself reaching into the cold November waters for a gourmet snack.

Think of the knockout dinner you could prepare: planked salmon, wapato mashed and flavored with wild onions (*allium cernuum*), and wild greens such as chickweed, sheep sorrel, arugula, and plantain with huckleberries!

As you plan your garden for 2008, consider the proven edible and safe plants that once flourished in North and South America. Shouldn't they find a place at your dinner table?

REFERENCES:

- *Omnivore's Dilemma*, Michael Pollan
- *Keeping It Living*, Duer and Turner, 2005