the Nearly All Potato Winter

by Carol Deppe

(Part of this story appeared on Alternet as "The Winter I Had to Live Almost Completely on Potatoes...and Love It: Everything you could want to know about the potato, which, it turns out, is an amazing food." The Alternet story gave all the nutrition information, but left out all the methods of cooking and dressing different varieties.)

Chris Voigt, Executive Director of the Washington State Potato Commission, is currently eating nothing but potatoes for two months, 20 5.3 ounce potatoes a day. When I read about it, my reaction was, Hey, what's so hard about that? Last winter, I ate pretty nearly all potatoes for about six months. It was a feast all winter!

Voigt is doing his diet to help publicize the nutritional value of potatoes as well as to protest the fact that the USDA has excluded potatoes from its list of approved foods for the WIC (Women, Infants, Children) food voucher program. I was doing my diet for more traditional reasons. I was short of cash. I needed whatever cash I could scrape up to keep the utilities turned on. So the garden needed to provide the food. And not just vegetables, either. Staple foods. I'm both highly allergic to wheat as well as gluten intolerant. And I'm sensitive enough so that I can't eat other grains that are milled on the same mills as wheat, which includes nearly all the corn, oats, and other grains that would be gluten-free otherwise. Grains milled on dedicated mills are a specialty item, and are expensive. So the cheap foods so widespread in our culture are not available to me. I need to be able to grow my own staples. And the staple food it is easiest to provide from a garden here in maritime Oregon as well as much of the rest of the temperate world isn't grain or beans. It's potatoes. Good thing, too! There is no food I would rather mostly survive on for serious periods of time than the potato.

Potatoes are unique compared with other roots and tubers because they are an excellent source of protein as well as carbohydrate. Potatoes can be thought of as being honorary grains. Since a bite of wheat might kill me from anaphylactic shock before the ambulance arrived, I tend to look at it the other way round. Potatoes are the standard. I view grains as honorary potatoes. Potatoes and grains are comparable as sources of protein. A boiling type of potato, for example, with 2.1 grams of protein per 100 grams fresh weight, has 10.4% protein per unit dry weight. Brown rice with 7.5% protein in the bin, has 9.6% protein per unit dry weight. (Many people don't realize potatoes are a high-protein food because they are used to seeing numbers that compare the levels of protein in wet potatoes with those of dry grain.) Pasta varieties of wheat have protein amounts comparable to those of rice and potatoes. Bread varieties of wheat have higher protein contents. But grain protein is low in the essential amino acid lysine, so is not as usable to fill our protein (actually essential amino acid) needs as is the same amount of potato protein. In addition, we don't absorb wheat proteins as well as those of rice or potatoes. Taking these factors into account, the potato is about as good a source of protein as the higher-protein grains, and is superior to lower-protein grains such as rice or standard commercial hybrid corn. Of annual crops, only beans are better sources of protein.

If I am eating nothing but 2,000 calories per day of potatoes, for example, which is about 5.8 pounds of potatoes (taking boiling potatoes as the standard), I would get 55 grams of protein. The RDA for protein for adult women, adult men, and pregnant or lactating women is 46 grams, 56 grams, and 71 grams per day respectively. However, RDAs are set at somewhat above the needs of the average person so as to cover most of the population, including those with above average protein needs. This means that 55 grams of protein per day would be adequate for many but not all people. Those for whom the protein was a bit short would not be very short. A little milk or an occasional egg or bit cheese, meat, or fish along with the spuds would be all that was needed.

Potatoes are also unusual for a root or tuber crop in containing serious amounts of vitamin C. A 2,000-calorie allotment of freshly harvested potatoes would contain about 680 milligrams of vitamin C. The vitamin C levels drop during storage. But even after 6 months of storage, 2,000 calories of potatoes would provide about 230 milligrams of vitamin C, still well over the RDA. That amount of potatoes would also provide more than the RDAs for several other important vitamins and minerals—thiamin, niacin, B6, folate, iron, phosphorus, potassium, magnesium, manganese, and copper. It would also provide significant amounts of many other vitamins and minerals, including 184 grams of calcium.

An all-potato diet comes as close to being nutritionally balanced as any all-one-food diet you can imagine. It isn't a complete diet, however. Most notably, it lacks fat, including essential fatty acids. It also lacks Vitamin A/carotene. (It may also be low in calcium. Calcium needs are controversial.) I was also eating kale, cabbage, sauerkraut, carrots, winter squash, and eggs from my free-range (backyard) laying flock, however. In addition, once or twice a week I bought a bit of cheese, meat, or canned fish to eat along with my spuds. And I bought and used butter as well as a full range of spices. So I wasn't short on vitamin A/carotene, fat, essential fatty acids and other vitamins and minerals. The store-bought foods weren't nutritionally essential, given the eggs and garden. But I wasn't trying to prove anything by depriving myself more than economically necessary. I was just trying to get through some hard times and stay maximally functional in the process. Eating well helps a lot. No single food can provide a complete diet. But a serious potato patch, a modest vegetable garden, and a few free-range layers in the backyard can provide a complete diet.

(My laying flock are ducks, incidentally, because ducks are better adapted to year-round free-ranging in the maritime Northwest. They are the ecologically ideal livestock for our region. They love cold rain and lots of large slugs. Chickens are miserable and unproductive in cold rain and can't eat large slugs. If I lived in a region where the ground was frozen for large parts of the winter, necessitating keeping the birds indoors for months, I would keep chickens instead. Chickens are a better confinement animal. My ducks, by the way, were eating mostly potatoes along with their free-ranging during the Nearly All Potato Winter. Given separate buckets of commercial chow and (cooked) potatoes, the ducks eat mostly potatoes. The ducks ate all the smaller or cull spuds.)

As staple crops, we also grew polenta corn, corn-bread corn, and dry beans of several kinds. But except for an occasional batch for variety, I was saving those other foods for after the potatoes ran out. We also had plenty of winter squash of gourmet varieties. But we had kind of got burned out on winter squash the year before when we grew 1500 pounds of one variety as part of a breeding project. It's pretty easy to eat half a ton of potatoes and enjoy doing it. It turns out it isn't all that easy to eat half a ton of squash. Gourmet varieties or not, we got too sick of squash to get over it in just a year.

Chris Voigt prepared for his two month 20 Potato Per Day ordeal, as ordeal it clearly was to him, by pigging out on foods he expected to miss, resulting in his gaining weight just before starting his diet. I began my Nearly All Potato Winter right after Nate finished harvesting, and we stood in our attached garage gloating over an entire wall of shelves of bags of potatoes—about 1200 pounds, of 18 varieties. "Whatever else," I said happily, "We're going to eat well this winter!" "I can hardly wait to make a batch of hash-browned Azul Toros!" Nate said. "I can't wait to sink my teeth into a baked Amey Russet!" I responded, continuing, "And I really can't wait to begin taste-testing the new varieties!" Happiness is 1200 pounds of gourmet-quality potatoes tucked away for winter, with several new varieties.

Meanwhile, Chris Voigt, at the one month half-way mark in his 20 Potato Per Day Diet, has lost 13 pounds. This is in spite of his diet including potato chips and more fat than he planned originally, though he is clearly trying to limit fat. His energy levels are fine, he reports. He isn't finding it easy, but he seems to think his diet is working. And so it is, if the purpose is to prove that even huge amounts of potatoes without much fat or fatty toppings are not fatting. But the stated purpose was to demonstrate that potatoes are nutritious. For that, Voigt needed to be able to maintain his weight on the diet. And he hasn't. At the rate he is losing weight, if he were to stay on his diet for another 16 months he would vanish entirely.

Voigt's diet has also slipped a bit. He started off planning to eat only potatoes and seasonings, with just a little fat. He did allow certain things with no nutritional value, such as coffee, tea, diet soda, and artificial sweeteners. He allows potatoes in all forms, including French fries, chips, jojos, instant mashed potatoes, dehydrated potatoes, and potato starch. He could, undoubtedly, gain weight on the diet if he wished by simply eating more potato chips and French fries and fewer fresh potatoes minimally dressed. But he is obviously trying to limit fat. By mid-point, Voigt's diet includes more fat as well as occasional doses of potato chips, chicken bullion, little packets of fast-food hot sauce, and even some fast-food fries. There are, in addition, clear signs of desperation. "Pickles" made by soaking sliced raw potatoes in pickle juice. A concoction of "potato ice cream" made from riced potatoes, cocoa powder, and artificial sweetener. By now Voigt's diet is a nearly all potato diet, just as mine was from the beginning. Voigt's non-potato component, however, is of relatively low dietary and culinary value. My non-potato components turn each meal of potatoes into a feast as well as ideally complement the spuds nutritionally.

In mid-March, close to the end of my Nearly All Potato Winter, Nate and I parceled out the remaining potatoes and then stood gazing a bit mournfully at the near-empty shelves in the garage. It was time to turn to the cornbread corn, polenta corn, and beans. These were superb gourmet varieties. But it was sad to see the last of the potatoes. "I'm not the slightest bit tired of eating potatoes," I observed. "Neither am I," Nate responded. "Next year we need to grow way more potatoes." "Right!"

Chris Voigt seems to be eating mostly standard commercial potatoes, though he does refer occasionally to 'Yukon Gold'. He much more frequently refers generically to "red potatoes." Later in the saga, he is trying some "blue potatoes," still unnamed. He is dressing his mashed generic blue potatoes with chicken bullion and garlic salt, a great thing to do with a white or yellow (but with butter and real garlic in my hands). But it is not the way I would dress a blue.

To me, there is nothing generic about a potato. When I want baked potatoes, I reach for 'Green Mountain', 'Amey Russet', 'German Butterball', or 'Azul Toro'. Each of these has a spectacular flavor when baked, a flavor completely different from each of the others. Each is a different food from each of

the others. Each is magnificent food. In addition, these spectacular bakers, like all the potatoes we grow, yield well when grown organically, without irrigation, and with only modest fertility, the amount of nutrients that can be provided by merely tilling in a legume cover crop. And these varieties all keep well. The German Butterballs last through January under our simple attached-garage storage conditions, but then lose interior quality (even though they remain firm and look OK externally). So we eat the German Butterballs first. The rest of our varieties begin to sprout by January or February but stay firm and hold their quality well enough to be superb eating to the end of March. (I just rub the sprouts off; sprouts have a high glycoalkaloid content.)

It is a myth, by the way, that yellow-fleshed potatoes are more flavorful than white-fleshed. I have had bland yellow-fleshed potatoes as well as potatoes of every other flesh color that have wonderful rich flavors. It's a matter of the specific variety as well as the growing conditions. Of my favorite varieties for baking, 'Green Mountain' and 'Amey Russet' are white-fleshed, 'German Butterball' is yellow-fleshed, and 'Azul Toro' is intense blue-purple.

It is also a myth that fingerling varieties are more flavorful than varieties that produce spuds of standard sizes and shapes. Most fingerling varieties are more flavorful than the standard commercial varieties found in the supermarket. But this is comparing gourmet fingerling varieties to commercial big-potatoes varieties, not gourmet fingerling varieties to gourmet varieties of bigger potatoes. Fingerlings are not more flavorful than the big-spud varieties we grow. We don't grow fingerlings because they are so much more work to harvest as well as to prepare in the kitchen. We like as much delicious gourmet food as possible for the least possible work. So we prefer potato varieties that give us spectacular flavors and good yields of potatoes of good size under our growing conditions, as do all the varieties I mention in this story. I usually bake an oven full of potatoes at once, as leftover baked potatoes are a staple for me. I have developed many recipes that start with leftover baked potatoes and that take advantage of the leftover baked potato's ability to absorb fluids. So I bake an oven-full of spuds about twice a week during the winter, usually some whites or yellows and some blues. When the spuds come out of the oven, I feast that night on just the baked spuds, optimally dressed. For the whites and yellows, I use butter, salt and pepper. For the blues I use butter and tamari sauce. These varieties taste so spectacular baked, I haven't felt the need to experiment with anything more in the way of dressing.

(To bake spuds, I just wash them, put a knife into each in a couple of spots to release steam so they don't explode in the oven, then put them on an open rack and bake them at 380°F until they are soft inside and have nice crunchy skins. Don't wrap them in foil; that's not baking, and gives an entirely different effect. I often cut baking potatoes into wedges for faster baking and additional crunchy surface. Don't oil the cut surfaces; just leave them plain.)

For mashed potatoes, I reach for 'Yukon Gold', 'Satina', 'Skagit Beet Red', 'Azul Toro', or 'October Blue'. Each of these also has a rich and distinctive flavor, except the two blues taste similar. 'Yukon Gold' is a yellow; 'Satina' is white; 'Skagit Beet Red' is intensely red, inside and out. The red and the two blues of these particular varieties hold their intense colors even after cooking. The colors are pH sensitive, however. So they can change when other ingredients are added. (By the way, when adding fluid, milk or water, to spuds to make mashed potatoes, add hot fluid. I use some of the hot cooking water. If you use milk, heat it first. Spuds mashed with cool fluid will not have the desired smooth texture.)

For whole boiled potatoes, my favorites are 'Yukon Gold', 'Satina', 'Skagit Beet Red', and 'October Blue'. Each of these tastes different from all the others. I boil-steam instead of just boiling to get potatoes that

hold together optimally. I start the pot of potatoes with a steamer basket in the pot under the submerged potatoes, cover the spuds with salted water, bring them to a boil and simmer them for ten minutes. Then I pour off most of the water and steam the spuds until they are soft. (I like to cook potatoes whole. Steaming whole potatoes takes forever unless they are very small. Boil-steaming is much faster.) Boil-steamed potatoes stay intact instead of splitting or falling apart, as even good boiling types tend to do when boiled in small amounts. (Potatoes hold together much better when brought to a boil in amounts of a couple gallons or more. That way, they heat up gradually. Small amounts of spuds in small amounts of water come to a boil much faster, and the outside of the potatoes tends to cook, expand, and slough off while the inside is still raw, and the potatoes are also more likely to split. So for whole intact potatoes, I either fix large amounts by boiling or smaller amounts by boil-steaming.)

I usually make smaller batches of mashed potatoes in the microwave oven. I wash the potatoes, cut them into 1- to 2-inch chunks, put them in an 8-inch Pyrex bowl, dump on some seasonings, and add enough water to provide the fluid needed for mashing and stir it in. (Some of the potatoes stick up above the fluid.) Then I zap on high for ten to eighteen minutes, depending upon amounts, until the spuds are soft. Then I run a coarse potato masher through the spuds and add the butter, salt, or salty ingredient. (I always leave the skins on my potatoes, even the mashed potatoes.) For example, with Yukon Golds, I might cook them with a teaspoon of curry powder, then after cooking add butter and salt. Or I might use a can of quality tuna instead of salt, and reheat a bit to warm the tuna and let it pick up some of the curry and butter flavor. Then I add just a little lemon juice or sherry or white balsamic vinegar after the cooking. With October blues, I might add one teaspoon each of chili powder, curry, and cumin as seasonings, then after cooking add butter, tamari sauce, and a little red balsamic vinegar. Or, with the blues, I might add a can of smoked herring instead of butter and tamari to provide the fat as well as salty component. There are infinite possibilities.

I usually eschew fried potatoes and hash browns, as these are more fattening than I can afford. However, Nate loves hash browns. Of our varieties, it is 'Yukon Gold' and 'Azul Toro' that are best for frying.

There is no such thing as a variety that is good for everything, by the way, no matter how many varieties are so described. It is physically impossible. If a variety has the optimum mealy texture as a baker, for example, it will not be a good boiler. Baking varieties fall apart when boiled or steamed. Among other physical characteristics, bakers are high density potatoes; boilers are low-density potatoes. Yukon Gold, a medium to medium-high density potato, actually tastes good when baked, but doesn't have the classic mealy texture I like in a baked potato. Some varieties taste bland cooked some ways but spectacular cooked others. 'Amey Russet' is spectacular baked, but bland boiled or mashed. And it doesn't hold together well enough to make it as a boiler, even boil-steamed. The best bakers never do.

I used to not like blue potatoes. That was back when I thought of them as being in the same food class as the whites and yellows. Somewhere along the line, I came to realize that they aren't. Blue potatoes are an entirely different food. They are best dressed differently than the whites. And they go with different things. Now that I have figured out how to cook and dress them, I love the blues.

Here's an abbreviated guide:

White/yellow potatoes go well with: salt, pepper, butter, olive oil, toasted sesame oil, curry powder, canned tuna, canned salmon, spaghetti sauce, salsa, eggs, mayonnaise, pickle relish, light miso, Dijon

mustard, lemon/lime juice, quality light vinegars (such as white balsamic vinegar and sherry vinegar), sauerkraut, white or mild-flavored beans, and small careful amounts of onions or garlic or roasted onions or garlic. They go best with the white meat of chicken or turkey, and with pork, ham, lamb, and fish (including tuna and salmon). They taste good with but are somewhat overwhelmed by the dark meat of chicken and turkey as well as beef, duck or goose. I always go with white or yellow potatoes to complement a whole roast chicken or turkey.

Blue potatoes have powerful flavors and a powerful aftertaste, and they go well with heavier amount of seasonings and other powerful flavors. They go well with salt, pepper, butter, tamari sauce, soy sauce (if you can eat wheat), dark miso, chili, black/pinto or other powerfully flavored beans, and serious amounts of garlic, onions, and roasted garlic or onions. They are wonderful with beef, duck, goose, smoked herring, and liver. They overwhelm the light meat of chicken or turkey, and their strong aftertaste completely overrides the flavor of the meat. Stick with whites or yellows to go with whole roasted chicken or turkey. Blue potatoes mashed with smoked herring make a wonderful pate. Notice that blue potatoes don't go very well with the seasonings involved in potato salad. Nor do blue potatoes go well with white or yellow potatoes. The aftertaste of the blues so strong that when blues are mixed with yellows or whites, all the potatoes taste like blues. The classical red, white and blue potato salad might be visually delightful, but it tastes much better without the blue potatoes.

Some red-fleshed varieties should be handled as honorary white/yellows. Others taste best handled as honorary blues. I love red-fleshed potatoes mashed with spaghetti sauce, butter, and Italian seasonings, and with Romano cheese melted on top.

With many unique different varieties of potatoes, cooked in various ways and dressed so as to bring out the best in each variety, it's easy to eat mostly potatoes all winter and never get tired of them. The catch, of course, is in having all those varieties. 'Yukon Gold' is now often available commercially. Some of the other varieties I mention are sometimes available in farmer's markets and gourmet food stores. Others are available only to gardeners who obtain a small starting sample and then maintain their own varieties. In The Resilient Gardener: Food Production and Self-reliance in Uncertain Times, I give methods for selecting and maintaining potato varieties using many of the same methods as are used by those that produce commercial certified potato seed. I also give lots of recipes for white, yellow, red, and blue potato varieties.

Chris Voigt's diet is partly aimed at publicizing his objection to the fact that potatoes are excluded from the foods that can be purchased by those on the USDA WIC program. Potatoes are the only fresh vegetable, fruit, root, or tuber excluded. Why isn't obvious. It's fresh potatoes we're talking about allowing or not allowing WIC participants, not frozen French fries. And while you can do fattening things with spuds, you can do so with bread also. So why are only the spuds disbarred? When Voigt inquired, he was told that Americans already eat enough potatoes. This reason doesn't work for me. Bread is not excluded just because people already eat plenty of bread. Cereal is not excluded just because people already eat lots of cereal. I think there genuinely is an unfair and inappropriate bias against the potato. In fact, in the popular diet and nutrition press, potatoes often seem to get a bad rap.

Some of the bad rap for potatoes comes from recent diets that feature lots of fats and as close to no carbohydrates as possible, such as the Atkins diet. I don't think such diets are healthy. And if they were, I don't think I could tolerate them for very long.

A second problem is guilt by association. Potatoes fried in lots of oil are fattening. Potatoes drenched with large amounts of butter or sour cream are fattening. Oil, butter, and sour cream are fattening. Potatoes aren't. Boiled potatoes have only about 80 calories per 100 grams fresh weight. (100 grams is slightly less than ¼ pound.) Baked potatoes run about 90. Mashed potatoes with milk and butter are still typically only 90-100. The same weight of bread, depending upon the recipe, has about 240-290 calories per 100 grams. A single slice of bread is about 80-110 calories. Most common unsugary cereals range from about 100-400 calories per 100 grams. Even cooked brown rice with no butter or fat is about 120. A single tablespoon of butter or other oil or fat, however, has about 100 calories. So putting a tablespoon of butter on 100 grams of spuds more than doubles the calorie content. Since I need to watch my weight, my approach to potatoes is to grow varieties that have spectacular flavors in and of themselves, to learn to cook each variety optimally, and to use fat with restraint.

There is one legitimate nutritional concern about potatoes however. Potatoes have a high glycemic index. We digest them as fast or faster than almost anything, and turn their carbohydrates into pure glucose, blood sugar, the sugar our bodies are designed to run on. A food that is maximally easy to digest and whose carbohydrates are turned almost totally into exactly the form that our bodies can use most easily—shouldn't this be considered the epitome of excellence in a food? Why are all the foods that are harder to digest or that contain or turn part of their carbohydrate into other less directly useful sugars be considered superior? By this reasoning, a food that is so hard to digest that it provides no food value ever and raises blood sugar not at all should be considered best. (Rocks, anyone? Yum yum!) I prefer to view the high glycemic index of potatoes as proof positive that they are the epitome of excellence in a food.

Practically speaking, of course, if you eat a large amount of potatoes all at once with no fat or other ingredients to slow down your digestion, you'll get a big spike in blood sugar. That can be problematic for some people, people with carbohydrate sensitivity, of whom I am one. The big spike in blood sugar can cause the addition of sugars to proteins where they don't belong. In addition, it can trigger a spike in insulin production that may then drive your blood sugar down to below normal levels, resulting in hunger, shakiness, and food cravings shortly after eating. I have such problems if I don't pay attention to what I eat. That doesn't mean I eliminate potatoes from my diet. Instead, I learn how much potato I can eat at what times of day without getting the sugar jags and shakiness that indicate a blood sugar spike. I can eat a small or medium potato for breakfast, for example, but not more. I can eat a larger volume of mashed potatoes than baked potatoes. This is not surprising, given that good baking varieties have less water than boiling types, and concomitantly, more carbohydrate per volume. In addition, we boil mashers in water and add more fluid after cooking. By dinner time, I can eat any amount of potatoes without any problem. I am most carbohydrate sensitive in the morning, with decreasing sensitivity as the day progresses. Of course, additional lower-glycemic-index foods eaten along with the potatoes also slow down the digestion. And in addition, we can also avoid blood sugar spikes by spreading our potato intake out in time. Two smaller meals of potatoes may work fine even though the same amount of spuds in one meal might cause problems. If we take these kinds of factors into account as well as our individual reactions, even those of us with serious carbohydrate sensitivities can make full use of potatoes and other foods that have high glycemic indexes. (I make no recommendations for diabetics, as I am not knowledgeable enough about that problem.)

Even those who aren't concerned about glycemic indexes often seem to discriminate against the potato. I think it is a result of subtle biases. Grain was the staff of life in Europe prior to the Little Ice Age.

Climate change and unpredictable weather associated with the Little Ice Age made it much more difficult to grow grain, with widespread resulting famines and disease. The potato, a New World crop, was introduced in this period, and became one of the major saviors of European peasantry. Potatoes were easier to grow and much higher producers of both carbohydrate and protein per unit land or per amount of labor than any other temperate-climate crop. They are also much easier to process and cook than grain. But above all, potatoes were much more reliable than grains in the face of unpredictable, stormier, wetter, colder, or more erratic weather. In the Little Ice Age, peasants increasingly ate potatoes. Only the upper classes could still eat mostly grain.

When the USDA denies WIC-program women, infants, and children their potatoes, in spite of the potato's known excellence as a food, in spite of how much we all like it, I think I detect a subtly Eurocentric as well as classist message: "The right way to eat is like upper-class Europeans, not like New Worlders or peasants." The problem is bigger than failing to recognize that Americans are not all Europeans, that even most European-Americans now embrace food traditions from many lands and cultures, and that most of us are closer to being peasants than to being medieval European royalty. To reject the potato is to be several hundred years out of date. Rejecting the potato represents a failure to learn some of the most important climate-change lessons of the Little Ice Age. I think the USDA should revisit its potato policy.

Meanwhile, Chris Voigt is having trouble eating all of his 20 potatoes per day. Part of this, I suggest, might simply be a matter of not being used to a diet consisting of foods that are largely water. Most Americans eat a diet that includes many more concentrated foods. Their digestive tracks are not used to processing the larger volume. Most people cannot adjust entirely to a less concentrated, greater-bulk diet in just a few days, or even a month or two. I recall it taking me about a year or two of gradually increasing the proportion of fruits, vegetables, and potatoes in my diet to make the full adjustment. Earlier attempts I had made to suddenly eat many more of such foods led to bloating or gas or indigestion. Now my digestive track is used to processing larger volumes of foods and greater amounts of roughage. It is unhappy if given too much concentrated food and too little volume. If you would like to cut the concentrated foods in your diet and increase the proportion of fruits and vegetables, I would suggest making the change gradually over a period of a year or two. By the time of my Nearly All Potato Winter, I was used to eating a relatively large volume of relatively low-caloric-density foods. I had no trouble at all eating as many potatoes as I needed to maintain my weight. (I was also eating butter too, however, which is a high-caloric-density food.)

I would also suggest paying attention to the water. When I am eating a diet in which most of my calories comes from potatoes, I am getting large amounts of water from the potatoes. I cut back dramatically on the amount of water I drink with meals as well as total water. At this point, it is automatic. Initially, however, I found it difficult to eat enough of the low-caloric-density diet when I was trying, out of habit, to drink the amounts of fluid I was used to drinking when eating a more concentrated diet.

It's fall again. Once again the shelves in the garage are full of bags of potatoes, this time about 1600 pounds of potatoes of 23 varieties. Now we have plenty of polenta corn and cornbread corn, enough to eat it year round instead of needing to hold back until the spuds run out. But our corn is still mostly on the ear, still being processed. The squash patch was a bust this year. In between the coldest summer I've ever experience and a rototiller that quit at the wrong time, the squash patch really just didn't happen. There are plenty of duck eggs. And there are lots of dry beans this year, enough to eat good amounts

through the year. And we have finished processing our dry beans and have started eating them. They go great with potatoes. Best of all, there are another half dozen new potato varieties to try out, to cook with all possible methods, to taste test, to explore, to discover the special virtues of. Happiness is 1600 pounds of potatoes tucked away in the garage, with another half dozen new varieties.