Growing the Most Nutritious Vegetables, Transition Canterbury, Jan. 16, 2014; Hillary Nelson (hillynelson@comcast.net)

Much of the following information is taken from "Eating on the Wild Side" by Jo Robinson - I highly recommend it!

Some rules of thumb (though there are exceptions)

- The closer to it's wild ancestor, the more nutritious a plant will be. Breeding to make plants more palatable (sweeter, easier to chew, etc.) has stripped away a lot of phytonutrients vitamins, minerals and essential fatty acids. The original version of species tend to be higher in fiber and protein and lower in sugar. A good example are the proto apples of Siberia like crabapples, sour and small, but higher in nutrients than modern apples.
- Dark colors, especially purple and red, are generally indications of superior nutritive value (but not always). The colors are protective, like sunscreen for the plant. They contain phytonutrients, such as anthocyanins (blue-red color, as in blueberries and strawberries). There are exceptions to this rule, for example, white cauliflower is more nutritious than green broccoli.
- Bitter flavors, when it comes to greens, are a good thing (if you can tolerate them).
- Open-headed greens, like leaf lettuce are more nutritious than closed-head greens, like iceberg lettuce. This is because open-head greens are more exposed to sun and insects and have to develop more phytonutrients for protection.
- Freshness matters eat plants as close to harvest as possible (there are some exceptions, especially for storage vegetables like squash and potatoes).
- 1) Some plants are more nutritious than other similar plants, for example, scallions are more nutritious than onions.

2) Some varieties are more nutritious than other varieties of the same plant, for example, hot red onions are more nutritious than sweet white onions.

3) Some kinds of plants lose nutrients more quickly than others post harvest, for example, the crucifer broccoli should be eaten soon after it is harvest, while the crucifer cabbage holds up well to storage.

4) Most plants lose nutrients if not stored correctly - the need some respiration or they die, but not too much (which makes them wilt). For most things (lettuce, scallions, broccoli, etc), poke about 10 pinholes in a zip-top food bag. Rinse vegetables, drain, place in bag and press the air out. Store in the refrigerator.

5) Some plants are more nutritious raw, but some, such as carrots and tomatoes, are more nutritious cooked.

6) Most plants must be cooked carefully to maintain maximum nutrients. Avoid cooking in large amounts of water. It is better to steam vegetables, or to roast or saute them with a bit of olive oil.

Greens

Lettuce - red looseleafs are most nutritious, followed by dark green looseleafs; next come red and dark green Bibb and romaine. Light green head lettuces have far fewer phytonutrients.

recommended varieties: Black Jack, Cimarron, Cocarde, Concept, Dazzle, Eruption, Fire Mountain, Flame, Galactic, Lollo Rosso, Merlot, Merveille des Quatre Saisons, Outredgeous, Prizehead, Red Iceberg, Red Oak Leaf, Red Sails, Red Velvet, Revolution, Rouge D'Hiver, Ruby Red

Other Greens: wild greens, like purslane, dandelion, lambs quarters and sorrel are super-high in nutrients (especially purslane). Arugula, radicchio, endive, spinach are also good.

You will absorb more nutrients if you eat some fat with your greens - especially unfiltered extra virgin olive oil (unfiltered olive oil stays fresher longer)

Alliums: It is believed that eating lots of alliums will help to keep your gut micro-biome full of the best kinds of bacteria.

Garlic - To get the maximum amount of allicin (the component in garlic that is really good for you, chop it well and let it sit for 10 minutes before cooking. Recommended varieties: Chilean Silver, Inchelium Red, Music, Persian Star, Pink Music, Romanian Red, Spanish Roja

Shallots - are actually more nutritious than most varieties of onions and will store much longer before sprouting.

Leeks are great for you, but lose their bio-nutrients quickly, so try to eat them quickly. And if storing, do it in sand, so they think they are still growing. Be sure to eat the green part as well as the white - more nutrition in the green

Chives and Garlic Chives are very nutritious, but lose nutrients quickly. Try to eat them quickly after purchasing. Better yet, keep some pots on your windowsill or keep them going in a cold frame to eat fresh all winter.

Onions - the more pungent the better for you - especially pungent red onions are high in antioxidants. Recommended varieties: Karmen (also called Red Karmen), Purplette, Red Wethersfield, Red Wing

Scallions are the most nutritious of the alliums, especially the green part

Corn

Modern varieties of sweet corn are high in sugar and low in nutrients. For the most nutritious sweet corn, buy yellow varieties, the deeper yellow the better, which have some beta carotene in them, or if you can find them, a blue or red variety (most of these are flour corns, though). For a corn with less sugar, choose an old-fashioned sweet corn (coded "su") rather than "se" (sugar-enhanced) or "sh2" (supersweet), unless they have been bred for better nutrition, in which case they will be yellow, red or blue (or a combination).

You will have to cook older varieties of corn promptly, though, as the sugar will convert rapidly to starch. Steam, grill, microwave corn - don't boil it.

Frozen corn is as nutritious as fresh corn.

Recommended varieties: Blue Jade, Double Red Sweet, Golden Bantam, Indian Summer, Ruby Queen.

Potatoes

Potatoes with blue skin and flesh are the most nutritious - Purple Peruvian has 166 times more phytonutrients than Kennebec white potato. It is good to grow your own potatoes, as the commercially grown varieties are covered with pesticides and the most nutritious part of the potato is the skin.

Cooking: to lower glycemic index of potatoes, eat the skins, cook them with some kind of fat, chill them for 24 hours before eating them, flavor them with vinegar.

recommended varieties: All Blue, All Red, Mountain Rose, Nicola, Ozette, Purple Majesty, Purple Peruvian, Ranger Russet, Ruby Crescent, Russet Norkotah

Carrots

Purple varieties are the most nutritious; the lighter in color the less so. Recommended varieties: Atomic Red, Bolero, Carlo, Cosmic Purple, Deep Purple, Nutri Red, Purple Haze

Carrots are most nutritious when cooked and when eaten with some oil or fat.

Beets

Darker varieties are more nutritious than lighter ones.

Cooking: be sure to eat the greens as they are more nutritious than the roots. The roots are more nutritious cooked than raw. Cook with skins on. Best way is roasting, steaming or microwaving, then slip skins off.

Recommended varieties: Bull's Blood, Cylindra, Detroit Dark Red, Red Ace

Tomatoes

Cherry and currant tomatoes are more nutritious than full-sized tomatoes. The darker the color, the more nutritious the tomato. Look for "black" varieties; Baker Creek Seed analyzed several varieties recently and Black Krim and Black Icicle were highest rated.

Cooking: cooking tomatoes for 30 minutes can double their available lycopene; tomato paste has up to ten times the lycopene of fresh tomatoes. So definitely grow enough tomatoes to can some - they're even better for you than fresh.

Recommended varieties: Abraham Lincoln, Black Cherry, Elfin, Sugar Lump, Giant Belgium, Hawaiian Currant, Jet Star, Juliet, Matt's Wild Cherry, Oxheart, Red Pear, San Marzano, Sara's Galapagos, Sun Cherry

Brassicas

Glucosinolates are what make brassicas taste bitter and also give them their health benefits.

Kale is the most nutritious of all brassicas. Best eaten within a few days of harvest, most nutritious raw.

White cauliflower has more cancer fighting compounds than green and purple cauliflower, but the colored varieties are higher in antioxidants. It is more nutritious fresh than frozen.

Cabbages are lower in antioxidants than other crucifers, but they are good for you still. Red cabbage is the best. Cabbage is more nutritious cooked.

Brussels Sprouts are most nutritious fresh and should be eaten soon after purchase..

Broccoli is most nutritious raw; it can also be steamed briefly. Boiling or microwaving will destroy many of its nutrients. It should be eaten as soon after harvest as possible.