

LEADER/TEACHER GUIDE  
RE-EXAMINING ROOT VEGETABLES 2013

MATERIALS TO ASSEMBLE

- 1) Copy handouts for each participant in your group plus a couple extra for guests
- 2) Extra books, magazines and photos of the subject to show the class. If you can check-out ROOTS from a library, it contains photos of nearly every vegetable discussed.
- 3) Actual VEGETABLES purchased in a grocery store or local Asian or Latino market--concentrate on a few that your members may not have seen before and might want to try.
- 4) Extra paper, pens for copying other recipes provided by members with their potluck contributions.
- 5) Prepare a favorite dish of your own family to share and discuss it's ease of assembly and healthful benefits.

SUGGESTIONS

The month before you give this lesson to your group, ask the members to bring dishes to the next potluck that their families serve using root vegetables. Ask them to bring the recipe for others to copy. Even the cakes could be made from carrots or beets!

An excellent description of ROOT CELLARS can be found in the book ROOTS. It appears on ppgs 18 & 19. The author, Diane Morgan, lives in Portland, Oregon. The book should be available in most libraries in Oregon. She points out the proper long term and short term storage on pg 19 that you can share with your students.

# RE-EXAMINING ROOT VEGETABLES

A Lesson Developed by the FCE Lost Creek Study Group, Dexter, Oregon 2013

## Introduction

Most of us are familiar with root vegetables, having been cooking them most of our adult lives. However, depending upon where we grew up and what our families had available to them is what we knew as root vegetables. Today we have so much fresh produce in our stores and at our local community farms and fruit stands. Many of the things we see there are not familiar to us. We have no idea how to use them if we brought them home.

The purpose of this lesson is to acquaint you with the various varieties available and offer some delicious but simple ways to fix them.

Root Vegetables are defined as “those found underground”. Roots are vegetables that have fleshy, edible underground parts that originate from roots, stems or leaf bases. Their storage organs are enlarged to hold carbohydrates as energy.

Following is a list of the various Root Vegetables that can be found locally. The list was compiled by an author who lives in Portland, Oregon, so we should be able to find them too.

ANDEAN TUBERS domesticated 10,000 years ago. They can be found in Latin American markets

ARROWHEAD members of the Chinook tribe of the lower Columbia River sold these roots to Lewis & Clark when they wintered in Oregon! It is eaten boiled or roasted on a stick. It can be used as potatoes but is bitter and benefits from a flavorful liquid. (It is NOT arrowroot)

BEET prehistoric, native to western Europe, Mediterranean and North Africa. Before the Romans came, it was primarily grown for the leaves. Roasting is preferred: scrub and trim. Peeling is easier after roasting. Work in gloves so as not to stain hands.

BURDOCK Siberian native. Used as a diuretic. In the 1940's Swiss inventor George de Mestral observed this plant while exercising his dog. The seeds in the “loop and hook” system got caught in the dog's fur. He invented VELCRO as a result of his interest in this plant!

CARROT native to Afghanistan. Various colors available. The Nantes type have small cores. They are important for their Vitamin A content. Cooked carrots have 29% more beta-carotene than raw. As with most of the root vegetables discussed here, the tops should be removed when brought home and stored separately. Leaving the tops on will drain the moisture from the roots. The tops should be used within a day or two. Carrot Top Pesto is a good choice for these tops.

CELERY ROOT one of the 1<sup>st</sup> vegetables to appear in recorded history, before 500 BC! It is mentioned in the *ODYSSEY* as “selinon“. Popular now in French, German, Hungarian, Dutch and Scandinavian cooking. As with most roots, do not scrub until ready to use. Then, use a brush to clean out all of the crevices. Boiling before peeling is the easiest way. Then peel and cut up to use as a potato. See Family Holiday recipe.

CROSNE The French are the largest users and growers today. Also called “Japanese or Chinese Artichoke”. It increases probiotic activity in the intestine due to the carbohydrate “stachyose”. They can be parboiled, sautéed, fried, stir-fried, steamed, roasted or pickled.

GALANGAL a member of the ginger family, used for medicinal purposes and common in Thai, Malaysian and Indonesian cooking used as ginger. In India it is used as a mouth wash or deodorant, in Russia it is used in tea.

GINGER is one of the FIRST spices. Today India and China are the largest producers but the best quality comes from Hawaii in December--April. It is widely used in the making of extracts, oils teas, drinks and has been shown to lessen the symptoms of the common cold and to ease the nausea that comes with morning sickness, sea-sickness and chemotherapy treatments. Use it in salad dressing, or a stir-fry or gingerbread or homemade gingerale.

HORSERADISH IS not a radish although it belongs to the same family, Brassicacea. It is used in medicine as a circulatory stimulant, a diuretic for treating lung and urinary infections and as a pain reliever for sore, stiff joints and muscles. Beginning in 1869 in Pennsylvania, H.J.Heintz sold it from his own garden. He put it in clear bottles to show it was pure. Others were selling horseradish-flavored mashed turnip pulp. Wear goggles and rubber gloves when grating horseradish. See the family holiday recipe that follows.

JERUSALEM ARTICHOKE is indigenous to North America and was cultivated by native Americans before the Europeans arrived. It was used before the potato became popular. There are a dozen varieties. It is neither an artichoke or from Jerusalem. It is thought that it is an English corruption of the word *sunflower* in Spanish and Italian because it has little sunflowers. It is a good potato substitute for diabetics. It can be eaten raw or cooked. It can cause bloating due to the carbohydrate *inulin*.

JICAMA grew wild in Mexico and Central America and was cultivated by the Aztecs and Mayas. The Spaniards introduced it to the Philippines and it continued to spread to Asia. Three species have been domesticated but we commonly see the Mexican variety. If cultivated, please note that it is a climbing annual with pods that are edible when young. Once mature, the pods are *poisonous!* Treat the root as a potato or water chestnut. It can be eaten raw or cooked and is similar to a pear.

LOTUS ROOT is native to Asia, the Middle East and is also found in North America. Look for it fresh in Asian markets otherwise it will be found canned. It has a lace-doily look when sliced and can be use in many different ways.

MALANGA has more than 40 species that are all native to tropical North America. It's common name is Taro. It is highly digestible and ideal for the gluten-intolerant. *BUT NEVER eat it RAW!* It has oxalic-acid compounds which are tempered when cooked. Wear gloves while handling it to prevent skin irritation. It is a valuable food crop of tropical regions.

PARSLEY ROOT is of German origin. They call it "soup greens". The Hamburg Parsley is grown for the root only, not the tops. It is used cooked or raw in squash or potato preparations.

PARSNIP was used in North America until the potato became more popular. It has been used to make wine and beer and as a substitute for sugar. Today in Italy it is fed to special pigs which will be turned into Parma Proscuitto. They are good year-round but are especially sweet after the 1<sup>st</sup> frost when the starches turn to sugar. Do not choose in the store if they are sprouting as they may be "woody". Fix them exactly like you would carrots--raw, grated or added to baked goods. See the recipe for roasted vegetables that follows.

POTATO is indigenous to the Andean region of South America. They did not arrive in North America directly from S. America but later with Irish immigrants to North America! They became popular in Germany during very hard times because they could be hidden and stored during many wars when the food stuffs would be destroyed by enemies. Potatoes are in the "nightshade" family called *Solanaceae*. There are thousands of varieties. They are categorized by starch and moisture content.

- 1) mealy--high starch, low moisture: Idaho, Russet Burbank or "bakers", best for French fries, mashed
- 2) medium starch, yellow flesh: Yukon Gold, Purple Flesh, "all purpose", can be cooked with any method
- 3) wax--low starch, high moisture: "new potatoes", fingerlings, red-skinned, higher sugar content  
hold their shape well, best in stews, soups, salads

Greenish patches have been exposed to excessive amounts of light creating "solanine" a poisonous alkaloid

YUCA pronounced “yoo-ka” as opposed to YUCCA. It is referred to as Cassava or Manioc and comes from Brazil or Mexico. There are two types: Sweet that is used like a potato and Bitter that is used to make into tapioca or manioc meal. It is called “famine food” because of its trouble-free cultivation and its ability to survive in harsh drought conditions. It must ALWAYS BE COOKED because the raw tubers contain poisonous hydrogen cyanide. Cooking neutralizes the poison.

### OTHER ROOTS

Arrowroot--sold as a white powder, used as a thickener for sauces.

Chicory Root--roasted and ground as a caffeine-free alternative to coffee, also as a medicine for minor ailments

Coriander Root--used in Thai cooking, sometimes called “cilantro” the roots are hard to find in stores

Earthnut/Pignut--grows wild in the British highlands

Enset--is called the “false banana”, from Ethiopia, its fruit is not edible, only the root. It is called the “tree against hunger” as it is a food to fight famine

Ginseng--is grown for medicinal properties. It has complex ginseng side compounds.

Groundnut--or “Indian Potato” “hoppiss”, from North America is high in protein. Is eaten raw, cooked or ground into flour.

Konjac--or “Devil’s Tongue”, or “voodoo lily”, snake palm, elephant palm, from Indonesia is made into a flour that is used as a vegan substitute for gelatin.

Kudzu--or the “mile-a-minute vine” is a starch used for thickening sauces and soups or a coating for fried foods.

Licorice--with its anise-like flavor is 50 times sweeter than glucose and is used to make candy and beer.

Caution: large doses can be linked to high blood pressure.

Maca--is found in the Andes region. It is sweet, ground into flour and used to make beer.

Mashua--Is found in the Andes. It has a peppery bite and is usually stewed with other vegetables.

Oca--is found in the Andes. It is eaten raw, pickled or cooked like potatoes.

Peruvian Parsnips--is NOT eaten raw but cooked much like potatoes.

Prairie Turnips--the Lakota name is “timpula”, native to North America, only grown wild and cooked like potatoes.

Skirret--“water parsnip” is grown only wild, tastes like celery root but sweeter, cooked in soups & stews.

Tigernut--in Spain it is made into a popular beverage or ground into flour.

Turnip-rooted Chervil--in France they are popular roasted or boiled in stews.

Yacon--the Peruvian Ground Apple--medicinal for friendly digestive bacteria.

### BIBLIOGRAPHY

ROOTS, the definitive compendium by Diane Morgan Chronicle Books LLC 2012

THE VEGETABLES WE EAT by Gail Gibbons Holiday House 2007

GERMAN COOKERY by Elizabeth Schuler Crown Publishers, Inc 1967

IN THE KITCHEN WITH ROSIE Oprah’s Favorite Recipes by Rosie Daley Alfred A. Knopf 1994

Martha Stewart Living Magazine/Good Things

Martha Stewart Everyday Food Magazine

RADISH was on the menu for the workers who built the pyramids, along with garlic and onions! The four main varieties that we see are Table Radishes, Asian, Black and others that are referred to as “rat tailed”. Western cooks usually serve them raw but they can be cooked also. The tops can be made into a delicious soup.

RUTABAGA the history is mainly from Sweden where it is considered a “peasant food” because it was used primarily for animal food but is austere times for people. It requires cold conditions to sweeten the root before harvest so it is grown in northern climates. It is roasted, Boiled, mashed or braised. It can be eaten raw or cooked.

SALSIFY is popular mainly in Italy and France. It is sometimes called the oyster plant. It is a good choice for diabetics because it contains *insulin* which yields fructose rather than glucose from the carbohydrates. Peel it, put it in an acidic bath to keep it from browning. It can be steamed, simmered, boiled, roasted, sautéed, or fried.

SWEET POTATO is from the morning glory family and not to be confused with yams. It is indigenous to tropical America. However, it was on the tables of Europe long before the Irish potato arrived there! There are 100's of varieties but three main categories 1) soft/bakers, sometimes called “yams”, 2) firm/due to lack of moisture they are ideal for mashing, 3) Cuban

The name confusion between sweet potatoes and yams may have occurred due to earlier familiarity with the unrelated African yam of the genus *dioscorea*. In North America the firm fleshed were already being grown when the soft ones were introduced and to tell them apart, the new ones were called “yams” although not correctly. Today the sweet potato casserole is a holiday favorite with many and as a raw vegetable for dipping is wonderful!

TARO there are 100 or so varieties of *TRUE TARO*. It is sometimes called “potato of the tropics”. It is thought to have been cultivated in Asia even before rice or millet. The starch granules are easy to digest, making it an ideal food for the gluten intolerant or for those with digestive problems. Poi is a Polynesian staple. It is taro cooked, mashed and allowed to ferment. **TARO MUST ALWAYS BE COOKED!** It contains oxalic acid that can irritate the skin. Wear gloves and pare the skin off to use.

TURMERIC is sometimes called “yellow ginger”. There are at least 30 species. It is used as a dye, a spice and as a medicine. In medicine it is used to treat poor digestion, heart disease, and to heal wounds. Curcumin is being studied for its link to anti-inflammatory properties and anti-cancer potential. It is used for dye in making mustards and worcestershire sauce. Always wear gloves when working with it since it is a powerful natural dye. One favorite easy food made with it is “Yellow Rice”.

TURNIP is a common vegetable to us. In other countries it fed the poor and their livestock in very hard times due to its dependability of growth and storage. Turnip greens is an iconic “soul food” dish in this country. Smaller turnips tend to be sweeter, larger ones more peppery.

WASABI is not related to horseradish even though you may see it referred to as “Japanese horseradish”. It is difficult to grow commercially so most of it grows wild in wet, cool valleys in Japan. It is expensive and not easy to find. Cheaper versions of the paste and powder are made of horseradish. It can be used in dips, mayonnaise, mashed potatoes, and fish marinades. Wasabi is being studied for its ability to enhance natural detoxifying enzymes in our bodies, reducing the risk factors for certain kinds of cancer and to inhibit formation of blood clots.

WATER CHESTNUT is a water plant native to China, used as a remedy for many ills. It is delicious raw, chopped up in a tuna salad.

YAM is originally from Africa, Asia and the Americas. There are conflicting theories about how they wound their way throughout the world. It is known that they existed at the beginning of the Jurassic era when dinosaurs ruled and South America and Asia were still joined! At the end of the Cretaceous era the continents separated and the yams proceeded separately. Unlike the sweet potato, yams must always be cooked to remove harmful compounds that may irritate the skin and throat. Chinese yams are an exception and can be eaten raw. Baking is not recommended because the yam has hard, dry flesh. It can be grated, pan fried, mashed with cream or coconut milk, sautéed or stewed in broth. In Africa they are pounded into a starchy paste or dried and milled into flour. Peel and cut up before cooking.

ROASTED ROOT VEGETABLES WITH SAGE AND GARLIC

Martha Stewart Magazine

- 8 ounces rutabagas, peeled and cut into ½ inch cubes or half-moons
- 8 ounces turnips, peeled and cut into ½ cubes or half-moons
- 8 ounces carrots, peeled and cut into ½ inch cubes or rounds
- 8 ounces parsnips, peeled and cut into ½ cubes or rounds
- 8 fresh sage leaves
- 4 garlic cloves (do not peel)
- Coarse salt and freshly ground pepper
- 4-½ teaspoons olive oil

Pre-heat oven to 375 degrees. Toss together all ingredients; spread out in a roasting pan . Roast, stirring occasionally, until golden brown and tender, 50-60 minutes.

Can also use sweet potatoes, cauliflower, Brussels sprouts or white potatoes.

CELERY SALAD (SELLERIESALAT)

Jung Family holiday table "must"

- 2 large celery knobs
- 3 tbsp vinegar
- 3 tbsp sugar
- 3 tbsp olive oil
- ¼ cup beef stock (or bullion cube dissolved)
- 1 small onion chopped fine
- 1 small celery stalk minced
- 1 tbsp Maggi seasoning (optional)
- Salt and pepper

Scrub celery and cook in water until tender. Peel and chop up into small squares. Prepare marinade, mix well with celery root and let stand for several hours. Instead of olive oil, one or two strips of bacon, chopped and lightly browned with the fat may be used. Serves 4.

RED BEET SALAD (Rote Reubensalat)

German Cookery

- 1 lb red beets
- 4 tbsp vinegar
- 4 tbsp water
- ½ tsp sugar
- 2 tsp caraway seeds
- 1 small onion, chopped
- 1 tsp cloves, ground
- 1 bay leaf
- Salt and pepper
- 3-4 tbsp olive oil

Scrub beets and cook in water until tender, or, roast in the oven until tender. Dip in cold water, peel, slice thinly. Prepare a marinade from other ingredients, smoothing it out with oil to taste. Pour marinade over beets and soak several hours before serving. Serves 4.

(6)

UNFRIED FRENCH FRIES  
In The Kitchen With Rosie

5 large baking potatoes (about-2 ¾ pounds total)

Light vegetable oil cooking spray

2 large egg whites

1 Tablespoon Cajun spice

Preheat oven to 400 degrees

Slice each potato lengthwise into ¼ -inch ovals, then slice each oval lengthwise into matchsticks. Coat a baking sheet with 3 sprays of the vegetable oil. Combine the egg whites and Cajun spice in a bowl. Add the potatoes and mix to coat. Pour the coated potatoes onto the prepared baking sheet, spread into a single layer, leaving a little space in between. Bake for 40-45 minutes on the bottom shelf of the preheated oven until the fries are crispy, turning them a few times with a spatula so that they brown evenly. Serve immediately. Sweet potatoes can be substituted, but they cook faster. Serves 4.

HOLIDAY HORSERADISH RELISH

Doris Van Buren

To a small amount of heavy cream (3 parts) that you have whipped to go with dessert, add commercial horseradish (1 part), fold in gently and serve with ham or salmon--yummm!

BEYOND THE KALE CHIP (root vegetable tops)

Martha Stewart

Bake Swiss chard, beet, turnip or radish leaves into crunchy snacks. Tear large leaves into 2-inch pieces, then toss with olive oil just to coat. Season lightly with salt and spread in a single layer on a baking sheet. Bake at 350 degrees until the leaves flatten, darken slightly and become crisp, about 8-15 minutes. Cool on a wire rack.

CARROT TOP PESTO

Roots pg 79

1 cup lightly packed carrot leaves, stems removed

6 tbsp extra-virgin olive oil

1 large garlic clove, peeled

¼ tsp kosher or fine sea salt

3 tbsp pine nuts, toasted

¼ cup grated Parmesan cheese

In a food processor, combine the carrot leaves, oil, garlic and salt. Process until finely minced. Add the pine nuts and pulse until finely chopped. Add the Parmesan and pulse just until combined. Taste and adjust the seasoning. Use immediately or cover and refrigerate for up to 2 days. Make about 2/3 cup.