Getting Back to Our Roots

Rutabagas, turnips, parsnips, sweet potatoes or yams—included any of these root vegetables in your meals lately?

These vegetables plus beets, potatoes and carrots sustained our ancestors for centuries through many a cold winter.

If we didn't grow up eating root vegetables, other than carrots or potatoes (yes, potatoes are technically a tuber, but they fit well with this category!), they may seem foreign or old fashioned to us.

We can broaden our vegetable horizon by adding beets, yams, or a rutabaga potato dish to our meals. They add a wealth of flavor and nutrients to our diet.

Carrots, sweet potatoes, and yams, with their rich deep yellow and orange color, are excellent sources of vitamin A. The white root vegetables are sources of potassium and vitamins. Beets do contain iron and the greens are rich in vitamin A.

What do you do with a rutabaga? First, if you are not familiar with it, you may need to do some identification of rutabagas, turnips and parsnips. Parsnips look like white carrots. Turnips are white with a lavender, pink top on the outside and white on the inside. They are also shaped like tops, the children's toy. Rutabagas are the largest of the lot, golden yellow on the outside with a creamy yellow flesh.

Root vegetables are often combined with or substituted for potatoes in many countries. They are a tasty addition to vegetable soups and stews.

The recommended preservation methods vary by the vegetable. Many can be canned or frozen or pickled, such as beets or carrots. Check recommended guidelines to ensure a safe quality product. Remember, they are all low-acid vegetables, requiring pressure processing if canned and blanched if frozen.

Another option for preserving root vegetables? The age-old method used by our ancestors for generations: storage in a cool, moist root cellar. To learn more read Harvesting and Storing Home Garden Vegetables on the University of Minnesota Extension website: http://z.umn.edu/8m7
New and Old Tomatoes Need Acid

When foods are put into a sealed glass jar and canned, the food’s safety is based on the amount of acid in the food. When foods are “high acid”, deadly bacteria will not grow and produce deadly toxins so the jars can be processed in a water bath canner. When foods are “low acid”, bacteria can grow and produce deadly toxins so they must be processed in a pressure canner.

We used to assume that tomatoes were “high acid” but recent research indicates that the amount of acid varies due to weather conditions, soil, variety and ripeness. Tomatoes are not consistently “high” in acid and today’s canning recommendations require that acid be added to ALL canned tomato products even if they are pressure canned.

Heirloom Tomatoes

Heirloom tomatoes are popular because people are looking for “new” flavors and interesting colors.

Home-canners have been asking if heirloom tomatoes are acidic enough to be canned without adding acid. Horticulture researchers have concluded the acidity of heirloom tomato plants is no different from the non-heirloom varieties. In fact, there are some heirloom varieties that are more low-acid than hybrid varieties. As a result, the same recommendations apply for canning heirloom tomatoes (see chart at left).

Updated Minnesota Tomato Mixture

Nearly 40 years ago, University of Minnesota Extension researchers developed a tomato mixture of tomatoes, onion, celery and peppers that can be safely preserved using a water bath canner. The mixture was reviewed recently with the addition of acid to ensure the mixture is safe for home-canning.

Do NOT omit the added acid. Do NOT use over-ripe tomatoes. Do NOT add more onion, celery and peppers than indicated in the recipe. Do NOT use less than 12 full cups of tomatoes.

This mixture is a handy “convenience” ingredient to use for Minnesota hot dishes, stews or soups. http://z.umn.edu/8m8

Heirloom tomatoes are popular because people are looking for “new” flavors and interesting colors.

* Bottled lemon and lime juice contain sulfites. If you or family members have a sulfite sensitivity or allergy, use citric acid or vinegar or substitute frozen lemon juice (not lemonade) that you find in the grocery store frozen section - use same amounts as bottled lemon juice.


<table>
<thead>
<tr>
<th>Acid</th>
<th>Effect on Tomatoes or Tomato Mixtures</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citric Acid</td>
<td>Little change in flavor</td>
<td>½ tsp per quart</td>
</tr>
<tr>
<td>*Bottled Lemon Juice</td>
<td>Easy to use. Can substitute bottled lime juice. Do not use fresh-squeezed lemon juice as acid levels vary.</td>
<td>2 tbsp per quart</td>
</tr>
<tr>
<td>Vinegar (5% acidity)</td>
<td>Noticeable change in flavor</td>
<td>4 tbsp per quart</td>
</tr>
</tbody>
</table>

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Source: Dr. Barbara Ingham, Professor and Food Science Extension Specialist, University of Wisconsin Extension, July, 2011.
End of Season Produce Ideas

As the end of the growing season approaches, it’s a chance to combine vegetables together (Mixed Vegetables [http://z.umn.edu/8me]) and use for soups, stews and hot dishes this winter.

Chop and cook up vegetables and/or fruit in a spicy vinegar solution to create relishes to add interest to sandwiches, salads, dips and egg dishes. Always follow a safe recipe to make sure there is enough vinegar to make sure the product is acidic enough to be safely canned in a water bath canner:

- Rummage Relish [http://z.umn.edu/8mf]
- Fall Garden Relish [http://z.umn.edu/8mg]
- Piccalilli [http://z.umn.edu/8mh]

Many end-of-the season fruits and vegetables can be pickled including Pickled Mixed Vegetables [http://z.umn.edu/8mi] or check the following list for ideas to use foods other than cucumbers for pickling:

- Apples: sweet relish, spiced rings
- Beans: three-bean salad, dill-pickled
- Beets: pickled
- Cabbage: piccalilli, sauerkraut, chow-chow
- Carrots: pickled, chow-chow, mixed vegetable pickles
- Corn: relish
- Onions: pickled, relish
- Pears: pickled, spiced, relish
- Peppers: marinated, pickled, relish
- Plums: spiced
- Squash/zucchini: bread & butter pickles
- Tomatoes: spiced green tomatoes or relish
- Watermelon: rind pickles

Chutneys

Chutneys are a hot and spicy or sweet and sour, relish-like condiment that combines vegetables and/or fruits with spices and vinegar. Chutneys are used with roasted or grilled meats, fish and poultry, used to liven up sandwiches, combined with cream cheese, sour cream or yogurt or served with cheese and cracker assortments.

After cooking, chutneys can be refrigerated or canned for future use. Check the following canning recipes:

- Apple Chutney [http://z.umn.edu/8mj]
- Cranberry Orange Chutney [http://z.umn.edu/8mk]
- Mango Chutney [http://z.umn.edu/8mm]
- Orange Rhubarb Chutney [http://z.umn.edu/8mn]
- Sweet Yellow Tomato Chutney [http://z.umn.edu/8q3]
- Tomato Apple Chutney [http://z.umn.edu/8mp]

Pickled Beets

Farmers’ Market vendors tell us that pickled beets are a requested pickled product at the market. Pickled vegetables, especially beets and asparagus, are experiencing a renewed popularity.

You may have memories of holiday dinners with grandma’s pickled beets making the mashed potatoes on your plate pink! (Or, was that the Jell-O?)

Haven’t had pickled beets for awhile…get back to your roots and give this recipe a try…the holidays are coming! [http://z.umn.edu/8q0]
Veggie Chips & Tasty Tomatoes

Gather your favorite root vegetables—carrots, potatoes, beets, sweet potatoes or parsnips, slice thinly, blanch, and dry to make veggie chips, a healthy snack. Vegetable flakes and powders can be made by crushing dehydrated onions, green peppers, spinach and tomatoes. [http://z.umn.edu/8pz](http://z.umn.edu/8pz)

Enjoy flavorful dried tomatoes, a tasty winter addition to pasta, soup, pizza, and more! [http://z.umn.edu/8py](http://z.umn.edu/8py)

Can I Use My Smooth-Top Stove for Canning?

Some home-canners have good success using their smooth-top stove for canning while other people are shopping for new stoves because they ruined their cook-top while canning!

Before using your smooth-top stove, contact the manufacturer for their recommendation. They may have up-to-date alternatives or suggestions for equipment that you can use. Make sure you describe the size of your boiling water or pressure canner, how long you must keep the canner on the burner for processing (this is important if your cook-top cycles on-and-off because your product will be under-processed and will be at risk for botulism poisoning) and if the canner is made of aluminum.

If you can use your stove for canning, use flat-bottomed canners and keep the canner as close to the diameter of the burner as possible.

Frequently Asked Questions

**Can I double-stack jars in my canner?**

Yes, two layers can be processed at one time in the boiling water bath or pressure canner. Place a small wire rack between the layers so water or steam will circulate around each jar. In a boiling water bath canner, make certain that the water covers the tops of ALL jars by 1 inch. Be sure there is 2-3 inches of water in the bottom of the pressure canner.

**How do I prevent home-canned tomato juice from separating during storage?**

Bring a small amount of tomatoes to a boil quickly; gradually add remaining tomatoes while maintaining the boil. Quick heating of tomatoes destroys the enzymes that cause juice separation before they have a chance to be activated.

**Can home canned goods be eaten if they were in a flooded basement?**

Do not eat any food that may have come into contact with flood water according to the USDA Food Safety Inspection Service. They state: “Also, discard home canned foods if they have come in contact with flood water, because they cannot be effectively cleaned and sanitized.” For more helpful information see: [http://z.umn.edu/8pw](http://z.umn.edu/8pw)

Photos from The National Center for Home Food Preservation [http://nchfp.uga.edu/](http://nchfp.uga.edu/) and University of Minnesota Extension

If you would like to stop receiving the Home Food Preservation newsletter, please email schmi374@umn.edu.

For more food safety information visit our website: [www1.extension.umn.edu/food-safety/](http://www1.extension.umn.edu/food-safety/).

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