From Cabbage to Sauerkraut

Cabbages are members of the cruciferous family of vegetables and are closely related to kale, broccoli, collards and Brussels sprouts. When young, the leaves can be eaten and have a mild flavor and crunchy texture. Because cabbage's inner leaves are protected from the sunlight by the surrounding leaves, they are oftentimes lighter in color. However, the outer color of cabbage leaves is still the most common way of dividing cabbage into types. For cabbage, the two basic color types are green and red. Green cabbages can range from very dark to very light in color. Red cabbage can also range widely in color, with some appearing deep purple in color. Savoy cabbage refers to cabbage that has more crinkled or "ruffled" leaves. The leaves may also be less densely packed together. Savoy cabbage also typically has a more delicate texture than ordinary green or red varieties.

Green cabbage in AU Innovation Garden on 7/20

History

There are conflicting analyses of cabbage exact origins. Most histories, however, point to the presence of wild cabbage in Europe as the most direct, distant ancestor of the cabbages that are commonly grown. The original forms of the plant were non-head-forming and much more closely resembled cruciferous vegetables like kale or collards. In 2014, U.S. adult intake of cabbage averaged about seven pounds per year. This volume of intake placed cabbage in 10th place in 2014 as the most commonly consumed vegetable. In terms of food production and the U.S. food supply chain, nearly half (45%) of all cabbage produced for the retail marketplace is ultimately processed into coleslaw. Production of sauerkraut accounts for another 12% of all cabbage production, and most of the remaining cabbage is sold as produce in the form of head cabbage.

Selection

The best cabbage heads are firm and dense with shiny, crisp, colorful leaves free of cracks, bruises, and blemishes. There should be only a few outer loose leaves attached to the stem. If not, it may be an indication of undesirable texture and taste. Avoid buying precut cabbage, either halved or shredded,

since once cabbage is cut, it often begins to lose its valuable vitamin C content. To store, place in a plastic bag in the crisper of your refrigerator. Red and green cabbage will keep about 2 weeks while Savoy cabbage will keep for about 1 week.

Preparing Cabbage

Even though the inside of cabbage is usually clean since the outer leaves protect it, you still may want to clean it. Wash whole cabbage head under running water or remove the thick fibrous outer leaves and cut the cabbage into pieces and then wash under running water. Wash cabbage just prior to eating or cooking in order to help decrease the rate of deterioration. To cut cabbage into smaller pieces, first quarter it and remove the core. Cabbage can be cut into slices of varying thickness, grated by hand or shredded in a food processor. Slicing cabbage very thin before cooking and letting it sit for 5-10 minutes helps bring out their hidden flavors and makes them more enjoyable. The complex rich aroma can begin to emerge a few minutes after you cut it. This is similar to the reactions that occur that causes the pungent smell when onions and garlic are cut, although the smell is not quite as intense.

History of Sauerkraut

Before refrigeration, canning and freezing sauerkraut – like other preserved and fermented foods – provided a source of nutrients during the winter. Fermented foods have a long history in many cultures, with sauerkraut being one of the most well-known instances of traditional fermented moist cabbage dishes.

Turks and Tartars traveling along the Silk Road from China introduced the process of lacto-fermentation — so named for the beneficial lactobacillus bacteria — to Russia as early as the Renaissance. From there the technique spread westward. Sauerkraut, or sour cabbage, was among the most popular ferments. From Russia, Jews brought sauerkraut with them to Germany, France, and even England, until it became one of the most important dishes in all of northern Europe. Sauerkraut became a staple nutrient as it required so little to make — just cabbage and salt — kept for months, and provided an important source of vitamin C. For poor people living in harsh climates, few foods were as beneficial. The English name is borrowed from German where it means literally "sour herb or "sour cabbage".

In pre-industrial times, families began fermenting cabbage and other vegetables in large barrels during the fall harvest. Once the fermentation process was complete, after two to four weeks, the finished sauerkraut was stored over the winter in a cool spot and appeared frequently at mealtime — on its own served with black bread or mixed in with noodles, potatoes, or meat — as a welcome addition to an otherwise bland and monotonous diet.

Sauerkraut is an easy entrée into the world of lacto-fermentation: Unlike most other vegetables, cabbage ferments in its own juice, so all that is needed to make sauerkraut is cabbage and salt. Sauerkraut only requires a jar and something to keep the cabbage submerged as it ferments.

Basic Sauerkraut Recipe

Ingredients

- 1 medium head of green cabbage (3-3 ½ pounds), as fresh as possible
- Sea salt or pickling salt (avoid iodized)
- 1 tablespoon caraway seeds, if desired

Directions

1. Wash and sterilize a half-gallon jar by filling it with boiling water and then pouring it out and allowing the jar to air-dry.
2. Weigh cabbage and measure out correct amount of salt, using a ratio of one tablespoon of salt per pound of cabbage. For example, for 3 1/2 pounds of cabbage, use 3 1/2 tablespoons of salt.
3. Remove any damaged outer leaves from the cabbage and quarter it. Cut away the core from all four quarters.
4. Finely shred the leaves with a large knife, blade grater or mandolin.
5. Place one quarter of the shredded cabbage in a bowl big enough to hold all the cabbage. Firmly massage a quarter of the salt into the cabbage in a large bowl. Repeat this process until all of the cabbage and salt have been combined in the bowl.
6. Set the bowl aside for 30 minutes to allow the salt to draw the water out of the cabbage.
7. After 30 minutes have passed, check the cabbage. There should be a salty brine collecting in the bottom of the bowl.
8. Using your hands, squeeze the shredded cabbage, allowing the liquid to drain into the bowl, and pack the cabbage shreds into the half-gallon jar. Use a wooden spoon or other tool to tightly tamp it down and remove air bubbles.
9. After all the cabbage has been packed into the jar, add the collected liquid from the bowl. The cabbage should be covered by the liquid. If it is not, you will need to add additional brine.
10. Cover cabbage with a glass weight or small plate, ramekin or small plastic bag filled with water. Cover the top of the jar with an airlock (or piece of cheesecloth secured with twine) to allow air to escape. Set aside out of direct sunlight in a room between 55 and 75 degrees.
11. Check the jar daily to make sure the cabbage remains submerged in the brine. You will begin see small bubbles collect on the surface of the brine. If there is any scum (white, yellow, or bluish growth), carefully scoop it off without stirring it into the liquid, and discard. The brine will take on a darker color over time, and the odor may be pungent.
12. When it is no longer bubbling and the cabbage tastes pleasantly sour, not salty, the fermentation is complete. This process can take anywhere from 1-4 weeks, depending on the temperature of the environment.
13. Once the sauerkraut is finished, store it in the refrigerator, dividing into smaller jars if desired. It will last for several months.

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Jerri Husch holds a PhD in Sociology and is a specialist in social change, food policy, innovative land regeneration, and urban food systems. An adjunct professorial lecturer in the Sociology Department she teaches across a variety of areas including, “Political Sociology”, “City and Place”, and “Public Sociology”. In addition to her teaching she is part of AU Facilities Management and a Faculty Fellow, coordinating the “AU Edible Campus” project and promoting the “Learning by Leading” (“LxL”) Initiative.

Dr. Husch works with national and local governments, NGO’s and WHO, UNDP, UNICEF and the UN Secretariat on projects related to food safety, climate change, human rights and livelihoods with a focus on the cultural context of policy and project delivery.

As an international management consultant and trained chef, she has lived and worked around the world, explored markets, collected seeds, cultivated gardens, and invented new recipes for adventurous food loving friends.

For more fun with food contact Jerri at: husch@american.edu.