Foods produced through the ancient process of fermentation have gotten new attention from health-conscious eaters and shoppers seeking new culinary tastes. Many direct marketing farmers are interested in adding value to their agricultural products by making fermented products. Fermentation is a process and not a specific category of food product, and fermented products range from breads to cheese and yogurt, tempeh, vinegar, and wine. Much of the recent interest is focused on fermented vegetables like sauerkrauts and fermented pickles, and kombucha beverages.

This factsheet includes information on:
- What is a fermented food?
- Regulations for fermented sauerkrauts, kimchi, and pickles.
- Regulations for kombucha.
- Additional resources.

What is a fermented food?
Used since ancient times as a safe and nutritious way of preserving food, fermentation in food is the process of converting carbohydrates into organic acids, or alcohol, using microorganisms in anaerobic conditions, resulting in an acidified product. Traditionally, this acidification of vegetables was accomplished with the addition of salt and fermentation. Today other methods are commonly used to acidify foods for preservation, and there can be confusion between types of products. When navigating food safety rules and requirements, it can be helpful to understand the differences.

**Acidified foods** are made by adding some type of acid, frequently acetic acid (vinegar), to a low-acid food like vegetables with an initial pH above 4.6, so that the final product maintains a lower pH.

**Fermented** vegetables are made when low-acid vegetables are subjected to the action of a naturally occurring, acid-producing microorganism that lowers and maintains a pH of 4.6 or lower.

“Pickles” is a less-specific term that can include fermented cucumber pickles, as well as other pickled vegetables. Pickles are processed and may be stored in an acidic brine which may be the result of natural fermentation, but more frequently is a combination of fermentation and the addition of acetic acid (vinegar) in order to lower and maintain a pH of 4.6 or lower.

**Regulations for fermented sauerkrauts, kimchi, and pickles**
Fermented sauerkraut, kimchi, and pickles are all processed products. Depending on how the product will be sold to the end consumer, either a WSDA Food Processor License or retail food permit from the local health department is needed. Contact both the WSDA Food Safety Program and the local health jurisdiction with your plans to determine the permit and licenses your product will need.

These products are not allowed to be sold under the WSDA Cottage Food Permit.

Generally, if the product is prepared to be served as a ready-to-eat food for immediate consumption—for example, at a restaurant or from a food truck—a retail food permit is required. See the Selling Ready-to-Eat Foods fact sheet for more information. A list of local health jurisdiction office contact information can be found by searching the Washington Department of Health website, [doh.wa.gov](http://doh.wa.gov).

Generally, if the product is sold as a packaged product for the customer to take home and eat at another time, a WSDA Food Processor License is required. For example, in some cases a fermented vegetable product may be further processed with a heat or pasteurizing step that creates a shelf-stable product. For many consumers, the value of a fermented product is that it is a “live” food and processors prefer that the final product not be shelf-stable, but instead require refrigeration. The product will need to meet the food safety requirements, including appropriate refrigerated storage and transportation.
The WSDA Food Safety Program can provide assistance with the licensing process, which may include guidance on food science techniques, utensil and equipment requirements, heating and cooling procedures, and facility design including water source, pest control strategies, as well as product labeling, and techniques for preventing cross-contamination of your food products. See the WSDA Food Processor License and Facilities fact sheet.

Contact WSDA Food Safety Program 360-902-1876, foodsafety@agr.wa.gov, or at agr.wa.gov.

**Regulations for Kombucha**

A license or permit is required to make and sell kombucha. The specific permit or license depends on whether or not it is an alcoholic beverage, and how the product will be sold to the end consumer.

**Alcoholic Kombucha**

Kombucha that is at or above 0.5% alcohol by volume at any time requires a federal basic permit for alcoholic beverage producers from the U.S. Department of the Treasury’s Alcohol and Tobacco Tax and Trade Bureau (TTB). This includes kombucha that has less than 0.5 percent when bottled, but continued fermentation in the bottle increases the alcohol content to 0.5 percent or more by volume at any point after bottling.

The TTB website provides information and explains requirements for beverage alcohol including kombucha, in addition to labeling, and tax regulations. Complete information and applications for the Federal Basic Permit are available at ttb.gov. The TTB also has helpful information and resources on kombucha, including an FAQ on their website, ttb.gov. Click through the menu from “beverage alcohol” to “kombucha.”

A non-retail alcohol license from the Washington State Liquor and Cannabis Board (WSLCB) is also needed. The WSLCB license requirements for alcoholic kombucha producers are similar to those for micro-breweries. Contact the WSLCB directly for details on license requirements.

**Non-alcoholic Kombucha**

Contact both the WSDA Food Safety Program and the local health department with your plans to determine which permits or licenses your product will need. In some cases you may need a permit from either WSDA or the local health department—or both. In general:

- Kombucha that is prepared as a ready-to-eat food for immediate consumption—for example, a restaurant that makes and sells kombucha on site or is approved to sell off site at a farmers market within a county—may need a retail food permit from the local health department.

A list of local health jurisdiction office contact information can be found by searching the Washington Department of Health website, doh.wa.gov.

- Kombucha that is bottled or canned, and sold through a grocery store or at farmers markets across multiple counties may need a WSDA Food Processor License. Special food safety process considerations are required if kombucha made under a WSDA Food Processor License includes juice as an ingredient. WSDA will not allow use of raw juice as an ingredient unless it is treated for a “5-log reduction” (kill step). See the “Selling Juice” fact sheet for more information.

Contact the WSDA Food Safety Program, 360-902-1876, foodsafety@agr.wa.gov, or at agr.wa.gov.

**Additional Resources**

- WSU Food Processing Extension and Research provides product evaluation and testing services for a fee: foodprocessing.wsu.edu/extension, 509-335-5613, or girish.ganjyal@wsu.edu.

23. WSDA Food Processor License and Facilities
25. Food Product Recalls
26. FAQ on the Food Safety Modernization Act
48. Selling Ready-to-Eat Foods