## **Frequently Asked Canning Questions**

Why is it necessary to adjust for altitude when processing foods at home in a boilingwater canner or pressure canner?

Answer: Tested, recommended processing times are based on the boiling water temperature at sea level (212 degrees F). However, using the processing time for canning food at sea level may result in spoilage if you live at altitudes of 1,000 feet or more. Water boils at lower temperatures as the altitude increases—as the elevation increases, air pressure decreases and water boils at a lower temperature. At 4,000 feet elevation, water boils at 204 degrees F; at 8,000 feet, the boiling point is 197 degrees F. Lower boiling temperatures are less effective for killing bacteria. To ensure safety of food that is canned at higher elevations, and prevent under processing, canning processes must be adjusted. In a boiling-water canner, additional processing time is required. When using a pressure canner, an increase in the pounds pressure is needed.

How do I adjust for altitude if my canning recipes don't seem to give processing times or pressures for different altitudes?

Answer: Do not use recipes that don't adjust for altitude! These recipes are old and were probably written before the late 1980's when extensive research was conducted by the United States Department of Agriculture—and may contain other misinformation as well. Use tested research-based recipes from current publications like the USDA's Complete Guide to Home Canning, the Pacific Northwest Extension canning bulletins and the Ball Blue Book which provide information and charts for altitude adjustment and correct processing times. When you use the guides, select the proper processing time or canner pressure for the altitude where you live. If you do not know the altitude, contact your county Extension office.

Is canned food safe to eat if it hasn't been processed for the correct altitude?

Answer: If not enough time or pressure has been allowed for your altitude, the food will be under processed, and may be at risk for spoilage and food borne illness like botulism. Under processed food should be reprocessed within 24 hours, using the correct processing time and/or pressure, and if longer than 24 hours, should be carefully discarded. Source of information: the Complete Guide to Home Canning

Can I go ahead and process an old "family favorite" salsa recipe even though there are no processing times given?

Answer: Most salsa recipes are a mixture of low-acid foods, such as onions and peppers, combined with acid foods, such as tomatoes. For processing in a boiling-water canner, only use recipes that have been tested to ensure that they contain enough acid to be processed safely. Tested salsa recipes for canning can be obtained by calling your county Extension office. Untested recipes, or "family favorites," can be frozen instead.

Can I substitute lemon or lime juices for vinegar in salsa recipes?

Answer: If you wish, you may safely substitute an equal amount of lemon or lime juice for vinegar in salsa recipes calling for vinegar. Lemon and lime juices are more acidic

than vinegar, but have less effect on flavor. Use only bottled lemon and lime juices, and use only vinegar that is at least 5% acid. Do not substitute vinegar or lemon or lime juice. This substitution will result in a less acidic and potentially unsafe salsa. Source of information: Salsa Recipes for Canning (PNW 0395)

<u>I saw a steam canner in the canning section at one of the local super stores. What is a steam canner and is it safe to use?</u>

Answer: Steam canners consist of three pieces: a shallow pan which is filled with 2 quarts of water, a perforated rack on which the jars stand, and a large dome cover. According to the manufacturers, steam canners may be used instead of boiling-water bath canners for processing acid foods. However, the use of steam canners for home canning is not recommended. Research on steam canners has found that foods canned in a steam canner are not heated to as high a temperature as when the same food is canned in a boiling-water canner. The lower temperatures are less effective in destroying bacteria, and lead to under processing and considerable risk of spoilage.

## How can I remove scale or hard-water film from canning jars?

Answer: Soak jars for several hours in a solution containing 1 cup of vinegar and 1 gallon of water. Source of information: National Center for Home Food Preservation.

## Are canned foods that have frozen during storage safe to eat?

Answer: Freezing does not cause food spoilage unless the seal or jar is damaged or broken. With commercially canned foods, the food is safe to eat if the cans are undamaged. All food that has been frozen in tin cans should be examined carefully for spoilage before use. For an extra margin of safety, boil low acid foods (meats, fish, poultry and vegetables) for 10 minutes. Discard all foods with an off color or odor. DO NOT TASTE food that looks or smells suspicious. Discard all damaged, leaking or bulged cans that have thawed. With home-canned foods, the food is safe to eat if the jars are still sealed and there is no breakage. Discard all home-canned foods from jars where the seal is broken or the jar is cracked and the food is thawed.

Source of information: Food Safety Advisor Handbook (EM4895), page 216. National Center for Home Food Preservation.