

Research is continually being conducted in the area of home canning. As a result, recommendations may change. Many factors over which we have no control may cause seal failure or spoilage. Seal failure or spoilage may not be apparent from the appearance or odour of home canned products. Consumption of spoiled food can lead to serious illness or death. **ATCO Blue Flame Kitchen assumes no responsibility or liability for any seal failure or spoilage that may occur as a result of following the general information set out below.**

CURRENT GUIDELINES FOR PROCESSING

Current preserving and food safety information recommends that all home canned foods be processed. **Processing means that jars are filled, leaving the correct headspace, and then heated in a boiling water bath or pressure canner for a specific length of time. This is done in order to destroy microorganisms and enzymes that may cause spoilage.** This heating step also forces air out of the jars. As the jars cool, an airtight vacuum seal forms preventing air and microorganisms from re-entering the jars. Specific processing times are established through laboratory testing.

High acid foods are processed in a **boiling water bath**. High acid foods include:

- Fruits, fruit sauces, fruit syrups, fruit butters and fruit juices (except ripe mangoes and ripe papayas)
- Jams, jellies and marmalades
- Pickles, relishes, salsas and chutneys
- Tomatoes with added acid

See **BOILING WATER BATH PROCESSING (CANNING)**, next page.

All low acid foods must be processed in a pressure canner. Temperatures of at least 240°F (116°C) are required to eliminate the risk of botulism and the only way to achieve this temperature is in a pressure canner.

Low acid foods include:

- Meat, game, poultry, fish and seafood
- Soups and stews
- Vegetables
- Tomato-vegetable mixtures (for example, stewed tomato mixtures, vegetable juices and pasta sauces)

UNSAFE OR OUTDATED PROCEDURES

It is **essential** to replace outdated preserving procedures with updated ones. Avoid following the home canning advice of untrained celebrities, old cookbooks, back-to-nature publications and out-of-date home canning leaflets. Some of these unsafe or outdated procedures include:

- Open kettle canning (hot-fill)
- Steam canning
- Microwave oven canning
- Oven canning
- Slow cooker and sun canning
- Water bath canning of vegetables, soup, meat, fish or poultry
- Canning of tomatoes without added acid
- Sterilizing jars in the oven or dishwasher
- Sealing jam or jelly with paraffin wax
- Turning jars upside down to cool after processing
- Retightening screwbands of metal lids after processing

ATCO Blue Flame Kitchen has provided household advice and recipes in the province of Alberta for more than 80 years.

Through our ATCO Blue Flame Kitchen Answer Line, our Calgary Learning Centre, and our website, ATCO Blue Flame Kitchen provides reliable information on a variety of daily living, household and cooking topics.

Need tips on cooking, recipes, food safety, stain removal and other household problems? We can help. Call us toll-free at 1.877.420.9090, email us at bfkanswerline@atcogas.com, or chat with us online using our live chat tool.

BOILING WATER BATH PROCESSING (CANNING)

Information and Recipe Sheets Available for Boiling Water Bath Processing

- All Things Pickled
- Canning Fruit
- Crabapples
- Jams and Jellies
- Tomatoes
- Sauerkraut

PREPARING THE JARS AND LIDS

Sterilize jars just before use. To sterilize jars, place upright into rack in a boiling water canner or on a rack in a large pot. Cover with room temperature water. Cover canner with lid. Place over high heat and bring to a boil; boil rapidly for 15 minutes at elevations of 1001 - 3000 feet (305 - 914 meters) and 20 minutes at elevations of 3001 - 6000 feet (915 - 1829 meters). Leave jars in canner until ready to fill. Prepare metal lids according to manufacturer's instructions; leave in hot water until ready to use. Screw bands do not need to be sterilized.

CANNING AT HIGH ALTITUDES

In most home canning recipes, recommended processing times for boiling water canners are given for elevations of 0 - 1000 feet (sea level - 305 meters). When using a boiling water canner at altitudes higher than 1000 feet (305 meters), **sterilizing and processing times must be extended**. Air is thinner at higher elevations, so water boils at temperatures lower than 212°F (100°C). These lower temperatures are less effective in destroying microorganisms, therefore, increased processing times are necessary to ensure the safety of home canned foods preserved at higher altitudes.

The times given in most of our publications are for altitudes of 1001 - 3000 feet (305 - 914 meters). For higher altitudes of 3001 - 6000 feet (915 - 1829 meters), add 5 minutes to sterilizing time for jars and to processing times.

All jams and jellies are processed for 10 minutes all over Alberta.

Altitudes in Alberta

1001 – 3000 ft (305 – 914 m)

<i>Edmonton</i>	2201 ft	(671 m)
<i>Fort McMurray</i>	1001 ft	(305 m)
<i>Grande Prairie</i>	2149 ft	(655 m)
<i>Lloydminster</i>	2129 ft	(649 m)
<i>Peace River</i>	1102 ft	(336 m)
<i>Red Deer</i>	2822 ft	(860 m)

3001 – 6000 ft (915 – 1829 m)

<i>Banff</i>	4534 ft	(1382 m)
<i>Calgary</i>	3557 ft	(1084 m)
<i>Jasper</i>	3470 ft	(1058 m)
<i>Lethbridge</i>	2983 ft	(909 m)