

Some foods are not suitable for home canning because the product itself prevents the destruction of harmful microorganisms during the canning process. Other foods interfere with the transfer of heat during processing allowing bacteria to survive. The quality of delicate low acid vegetables may not be suitable after the intense heat of pressure canning.

Directions for canning some of these products are found on the internet, but **do not** can them unless there is a research tested recipe from a reliable source. Reliable sources include the USDA Complete Guide to Home Canning, the National Center for Home Food Preservation, Penn State Extension's Let's Preserve Series, or Cooperative Extension websites from other states.

Dairy Products

- Processing in a pressure canner, water bath, or atmospheric steam is not suitable for dairy products. Instead freeze dairy products.
- Dairy foods are low acid and support the growth of *Clostridium botulinum* spores at room temperature.
- Avoid using dairy products in canned recipes such as creamed soups, meat gravy, pasta and cheese, custard pie filling mixes. Instead prepare these foods fresh or frozen.

Beware of Butter, Cheese, or Milk

- Methods found on the internet that put these products in jars are not really canning.
- Pouring melted butter into a jar, applying a lid, and refrigerating until solid does not involve any heat processing. It is not safe for storage at room temperature.
- Some directions call for heating the butter or cheese in a dry oven. There is no research-based documentation that shows canning any food in an oven has sufficient heat to destroy dangerous bacteria or to produce a proper seal. In addition, there is the risk of the jars breaking and injuring you.
- Placing cheese cubes in jars, melting it in the oven set at a low temperature, closing the jars with lids and processing for X number of minutes in a boiling water bath is not safe. The canning process may add available water allowing spores to grow making even canned hard cheese unsafe. Many hard cheeses are sufficiently dry to prevent the growth of bacteria allowing them to be waxed and stored for aging for years on the shelf without safety problems.
- Soft cheeses have a high-water content and can support the growth of botulism causing bacteria and cannot be stored at room temperature.
- Avoid using dairy products in canning recipes. Do not add to soups intended for canning.

Eggs

- There is no research tested recipes for home canning of plain or pickled eggs for shelf storage.
- Commercial production of pickled eggs must meet USDA and Pennsylvania Department of Agriculture requirements for acidity throughout the product.
- Play it safe—make pickled eggs and refrigerate them.

Oil

- Oil coats any herb or food placed in it creating an ideal environment for *Clostridium botulinum* to grow. Avoid putting any fresh herb, fruit or vegetable in oil and sealing it in a tightly closed jar or bottle to store at room temperature.
- Do not can pesto or any similar product. Pesto may be frozen.
- Do not add oil to research tested recipes such as tomato sauces.
- Exception is one research tested recipe from University of Idaho, Oregon State University and Washington State University Extensions for herbal oil that acidifies the herb before it is stored in oil. **Follow the recipe exactly.**

Starch

- Starch interferes with heat transfer during processing. Do not use unless specified in a scientifically tested recipe.
- Do not thicken soups, relishes, or pie fillings with flour, cornstarch, Clear Jel®, tapioca or other starches unless it is included in a scientifically tested recipe (of which there are only a few).
- Thicken canned products after the jar is opened for heating and serving if desired.

Pasta and Rice

- Pasta, rice, or noodles should not be added to canned products. The starch interferes with heat transfer to the center of the jar.
- Instead can a product such as spaghetti sauce or chicken broth and add the pasta or noodles when you are ready to serve the food.

Very Dense Purees

These foods should not be canned because the density of the product prevents heat from reaching the cold spot in the jar.

- Pureed or mashed pumpkin or winter squash. Instead can as pumpkin or squash cubes.
- Pureed cooked dried beans (refried beans). Instead can as rehydrated dried beans.
- Mashed potatoes. Instead can small potatoes.

- You can drain the canned food and mash or puree it when you are ready to use it.
- You can freeze these pureed products safely.

Bread and Cakes in a Jar

- Breads and cakes baked in glass jars and sealed with canning lids upon removal from the oven are not safe.
- They are low acid and can support the growth of *Clostridium botulinum*. There is the potential for botulism poisoning.
- They are not processed and are not really "canned".
- Canning jar manufacturers do not recommend baking in their canning jars; dry heat may cause the jars to shatter in the oven.

Tender products

where processing would affect the quality of the product.

- Broccoli
- Cauliflower (except pickled)
- Egg Plant
- Summer Squash

These are low acid foods that would require a pressure process to reach temperatures adequate to destroy *C. botulinum*. The high temperatures required to control botulinum spores would cause the product to become soft and mushy. No research tested recipe has been developed.

Pickled cauliflower and pickled zucchini or pickled summer squash contain adequate vinegar to control the acidity, and sugar firms the product, making it safe to use in a water bath or atmospheric steam process.

These vegetables can be safely frozen.