Pickling & Fermenting

Pickling and fermenting are great ways to preserve foods, but it is important to follow the proper processing steps. Unsafe methods could result in growth of harmful pathogens, such as *Clostridium botulinum*, an anaerobic pathogen responsible for most canned food outbreaks. Reports of acid resistant *Escherichia coli* have been linked with products with a pH below 4.0 (same range as properly pickled and fermented products), emphasizing the importance of safe processing.



Acidity is just as important to safety as it is to taste.

- Never alter recipe proportions
- Use tested recipes
- Minimum level of acid must be reached to prevent the growth of *C. botulinum*

Salt favors growth of desirable bacteria while inhibiting growth of others.

- Canning or pickling salt is recommended
- Reduced sodium salt can be used in quick pickling but NOT in fermented pickle recipes



What you will need:

- Fresh, firm, fruits and vegetables
- Acidifier
- Canning or pickling salts
- White granulated sugar or brown sugar if applicable
- Canning jar with lids
- Canner



Low-Temperature Pasteurization:

This process is essential to reduce pathogens and avoid spoilage.

Step by Step:

- Place jars in canner filled halfway with warm (120-140°F) water. (Make sure jars do not touch).
- 2. Add hot water one inch above jars.
- Heat water enough to maintain 180-185°F
- Use candy or jelly thermometer to check temperature (at least 180°F during the <u>entire</u> 30 minutes).
- 5. Remove jars with CAUTION.

Foods to Pickle and Ferment:

- Cucumbers
- Cabbage
- Other vegetables such as peppers, mushrooms, beets, carrots, Brussel sprouts, okra, cauliflower, green tomatoes, asparagus, and onions
- Fruits
- Relish
- Chutney



Heat water

between 180°-185° for 30 minutes.

This information was adapted from the National Center for Home Food Preservation and University of Georgia. For more information and recipes to follow, go to http://nchfp.uga.edu

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NC STATE EXTENSION

Time