

CAN YOUR TOMATOES! WORKSHOP

SALSA AND KETCHUP



What is Canning?

Canning is really one step beyond cooking. It is a method that applies heat to food in a closed glass home canning jar to stop the natural spoilage that would otherwise take place. When food is processed in jars at extremely high temperatures for a long period of time, the heat kills microorganisms and inactivates enzymes that could cause the food to spoil. The heating process also drives air from the jar, creating a vacuum seal as the food cools.

There are two home canning methods – Water bath Canning and Pressure Canning. Water bath canning is the method we will focus on today, and is appropriate for foods with a pH below 4.6. Fruits, fruit juices, jams, jellies and other fruit spread, salsas, tomatoes with added acid, pickles, relishes, chutneys, sauces, vinegars and condiments can be processed this way.

Canning provides a shelf life typically ranging from one to five years, although under specific circumstances it can be much longer. In 1974, samples of canned food from a ship wreck that sank in 1865 were tested. Although appearance, smell and vitamin content had deteriorated, there was no trace of microbial growth and the 109-year-old food was determined to be still safe to eat.

Safe Canning

For safe canning, recipes must be followed; they have been tested and are known to minimize the risk of micro organisms. *C. botulinum* prefers low oxygen environments, and can therefore grow in non-acidic canned foods and produce the botulism toxin. Botulism is a rare but serious paralytic illness, leading to paralysis that typically starts with the muscles of the face and then spreads towards the limbs.

Steps necessary for safe canning:

- Observe strict cleanliness
- Inspect jars – look for nicks or chips
- Never reuse lids
- Insure jars are covered with 1" water
- Follow recipe
- Insure accurate boiling times
- Check seals after processed

Spoilage has occurred if jars seal at first and then unseal some time later. Signs of spoilage may include bubbling in the jars, bulging lids, or appearance of mold. Spoilage may occur even without obvious signs. Never use jars where the jar seal has broken or where there are obvious signs of spoilage. Safely discard jars that are spoiled. Place jars and contents in heavy garbage bag and close tight.

Great resources include extension work done by many US universities.

<http://nchfp.uga.edu/>

<http://learningstore.uwex.edu/assets/pdfs/b3570.pdf>

http://extension.oregonstate.edu/fch/sites/default/files/documents/pnw_395_salsarecipesforcanning.pdf

<https://extension.usu.edu/utah/files/uploads/Recipes-Cooking-Canning/Salsa%20Recipes%20for%20Canning.pdf>

Ketchup

12 lbs tomatoes	3/4 tsp whole allspice berries
1.5 cups chopped onions	1.5 tbsp celery seed
1/2 tsp cayenne pepper	1.5 cups cider vinegar
2 tsp whole cloves	¾ cup granulated sugar
4 inch cinnamon stick broken up	1/8 cup pickling salt

- Place 7 clean 250ml mason jars on a rack in a boiling water canner; cover jars with water and heat to a simmer (180°F/82°C). Set screw bands aside; heat SNAP LID® sealing discs in hot water, NOT boiling (180°F/82°C). Keep jars and sealing discs hot until ready to use.
- Core and quarter tomatoes. Combine tomatoes, onion, and cayenne pepper in a large stainless steel saucepan. Bring to a boil; reduce heat and simmer 20 minutes, uncovered.
- Tie cloves, cinnamon, allspice and celery seed in a large square of cheesecloth, creating a spice bag. Combine spice bag and vinegar in another large stainless steel saucepan. Bring to a boil; turn off heat and let stand.
- When tomato mixture has cooked 20 minutes, remove spice bag from the vinegar. Add vinegar to tomato mixture; boil 30 minutes.
- Press tomato mixture through a food mill and return to saucepan. Add sugar and salt. Stirring frequently, boil gently until volume is reduced by half, or until mixture mounds on spoon.
- Ladle ketchup into a hot jar to within 1/2 inch (1 cm) of top of jar (headspace). Using nonmetallic utensil, remove air bubbles and adjust headspace, if required, by adding more ketchup. Wipe jar rim removing any food residue. Centre hot sealing disc on clean jar rim. Screw band down until resistance is met, then increase to fingertip tight. Return filled jar to rack in canner. Repeat for remaining ketchup.
- When canner is filled, ensure that all jars are covered by at least one inch (2.5 cm) of water. Cover canner and bring water to full rolling boil before starting to count processing time. At altitudes up to 1000 ft (305 m), process –boil filled jars – 15 minutes.*
- When processing time is complete, remove canner lid, wait 5 minutes, then remove jars without tilting and place them upright on a protected work surface. Cool upright, undisturbed 24 hours; DO NOT RETIGHTEN screw bands.
- After cooling check jar seals. Sealed discs curve downward and do not move when pressed. Remove screw bands; wipe and dry bands and jars. Store screw bands separately or replace loosely on jars, as desired. Label and store jars in a cool, dark place. For best quality, use home canned foods within one year.

Zesty Salsa

- 10 cups chopped cored peeled tomatoes
- 5 cups chopped seeded green bell peppers
- 5 cups chopped onions
- 1 cup chopped seeded chili peppers, 1-1/4 cups cider vinegar
- 3 cloves garlic, finely chopped
- 1 Tbsp salt
- 6 oz can tomato paste

Directions:

1. PREPARE boiling water canner. Heat jars in simmering water until ready for use. Wash lids in warm soapy water and set bands aside.
2. COMBINE tomatoes, green peppers, onions, chili peppers, vinegar, garlic, and salt, in a large stainless steel saucepan. Bring to a boil over medium-high heat, stirring constantly. Reduce heat and boil gently, stirring frequently, until slightly thickened, about 20 minutes.
3. LADLE hot salsa into hot jars, leaving 1/2 inch headspace. Remove air bubbles and adjust headspace, if necessary, by adding hot salsa. Wipe rim. Center lid on jar. Apply band until fit is fingertip tight.
4. PROCESS both pint and half pint jars in a boiling water canner for 15 minutes, adjusting for altitude. Remove jars and cool. Check lids for seal after 24 hours. Lid should not flex up and down when center is pressed.

ALTITUDE CHART		
<i>For Boiling Water Processing</i>		
	Altitude Feet	Increase Processing Time
If you are preserving at an altitude higher than 1,000	1,001–3,000	5 minutes
feet above sea level, adjust	3,001–6,000	10 minutes
boiling water processing	6,001–8,000	15 minutes
time as indicated.	8,001–10,000	20 minutes