

Upcoming Webinars

- **March 12 - The Science Behind Indoor Plant Lighting**
- Esther McGinnis, Associate Professor and Horticulturist, NDSU
- **March 19 - Pickling Safety**
- Cindy Brison, Extension educator, University of Nebraska

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March 5

Let's Preserve Salsa (Live Demonstration)

Julie Garden-Robinson, Extension food and nutrition specialist and professor, NDSU

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Let's Make
Salsa!

Presented by
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Food and Nutrition Specialist


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Step-by-Step Canning

Prepare the Canner

- Make sure the canner has a rack in the bottom
- Fill the boiling-water canner about half full and begin heating
- Make sure the tops of the jars are covered by 1 to 2 inches of water
- Add jars when temperature reaches 180 F



Source: National Center Home Food Preservation **NDSU** | EXTENSION

Step-by-Step Canning

Prepare the Jars and Lids

- Select four or five pint jars and make sure they have no nicks or cracks
- Select jar rings that display no rust or bending, and new flat lids
- Wash everything in warm, soapy water and rinse well



Source: National Center Home Food Preservation **NDSU** | EXTENSION

Step-by-Step Canning

Prepare the Jars and Lids

- Keep jars in warm water while preparing salsa
- Follow directions from the lid manufacturer for preparing the lids
- Have an extra pot of water heating in case you need more to add to the canner at processing time



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Step-by-Step Canning

Collect the Ingredients

- Tomatoes
- Peppers
- Onions
- Vinegar (5%)
- Pickling or canning salt

- Your recipe may include:
 - Cloves of garlic
 - Other dried seasoning



Source: National Center Home Food Preservation NDSU EXTENSION

Step-by-Step Canning

To Prepare Tomatoes:

- Wash tomatoes and make an X-shaped slit in the skin at the base.
- Dip tomatoes in boiling water for 30 to 60 seconds until skins split.
- Dip immediately into cool water.
- Slip the skins off and core.
- Chop into small pieces and measure required amount.



Source: National Center Home Food Preservation NDSU EXTENSION

Step-by-Step Canning

To Prepare Peppers

- Wash peppers well and cut lengthwise. Remove stems and white membranes. The more seeds you remove, the milder the salsa.
- Chop peppers into small pieces and measure required amount.



Source: National Center Home Food Preservation

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Step-by-Step Canning

To Prepare Onions and Garlic

- Remove the outer skins and wash well.
- Cut away any tough stem or root ends.
- Chop the onions into small pieces. Use a garlic press to mince the garlic finely (or chop very small by hand).
- Measure required amount of each.



Source: National Center Home Food Preservation

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Step-by-Step Canning

Cook the Salsa

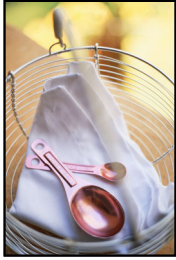
- Canned salsa is a hot pack.
- Combine all prepared ingredients in a large saucepot with vinegar and seasonings.
- Bring to a boil, stirring frequently.
- Reduce the heat and simmer for 20 minutes, stirring occasionally.



Source: National Center Home Food Preservation

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Salsa!



- Salsa is popular, tasty and nutritious.
- A 2-tablespoon serving contains about 10 calories and 0 grams of fat, plus vitamin C and other nutrients.

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Salsa!

- When preparing salsa, always start with high-quality ingredients.
- Any salsa recipe can be frozen safely.



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What's in Salsa?

A basic salsa recipe often will contain:


- Tomatoes
- Onions
- Garlic
- Jalapeno peppers
- Cilantro and spices
- Lemon or lime juice



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Tomatoes

- ✦ Tomatoes are considered fruits because of their seeds.
- ✦ However, they are considered vegetables on menus.




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Tomatoes

✦ Tomatoes:

- Low in calories
- Provide vitamin C and potassium
- Contain lycopene (natural pigment)



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Tomatoes



- ✦ Lycopene, a powerful antioxidant, gives tomatoes their red color and protective effects.
- ✦ According to several studies, lycopene may offer protection against certain types of cancer.
- ✦ Lycopene is more easily absorbed from cooked and processed tomatoes.

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Tomatoes

✦ The type of tomato used will affect the quality and texture of salsa.

- Paste/Italian tomatoes will produce a thicker salsa.
- Slicing tomatoes yield a thinner, waterier salsa.

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Tomatoes

TOMATO VARIETIES TO CONSIDER

- Roma – 75 Days
- La Roma – 65 Days
- Mamma Mia – 62 Days
- San Marzano – 80 Days
- Rio Grande – 80 Days

SLICING TOMATOES

- Big Boy
- AAS Selections Floramerica & Celebrity – 72 Days
- Early Girl – 52 Days
- Heartland – 68 Days

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Tomatoes

- Require full sunlight
- Consistent water supply
- Regular fertilization schedule

Reasons for poor or non-bearing

- Temperatures too low (soil temp >60F)
- Nitrogen too high
- Not enough sunlight


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Tomatoes


- Choose tomatoes with a rosy color, plump shape and blemish-free skin that are slightly soft to the touch.
- Don't use overripe tomatoes or tomatoes from frost-killed vines because their acidity may be affected.

Approximate Equivalents


- One bushel fresh tomatoes = about 53 pounds = about 18 quarts canned tomatoes
- 2.5 to 3 pounds fresh tomatoes = about 1 quart canned tomatoes



Peppers




- Peppers are an excellent source of vitamin C.
- Capsaicin is the chemical found in peppers that gives them their heat.
- Capsaicin may reduce risk for certain types of cancer




Peppers

- Bell and Hot**
 - Require 9-10 weeks from seed to planting
 - Require more heat/water stability
 - Most mature in 65-75 days following transplanting

Peppers


- ✦ Choose peppers that are fresh looking, firm and thick-fleshed, and free of disease or damage.
- ✦ Peppers vary greatly in taste and heat, so you can vary salsa hotness to suit your tastes
 - Generally, the smaller the pepper, the hotter it tastes.



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Peppers

- ✦ One type of pepper may be substituted for another in salsa recipes for canning, but do not vary the total amount the recipe requires.
- ✦ “Scoville Heat Units” give relative heat values among peppers.



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✦ Some of the pepper varieties that can be grown in our region (northern United States):

Pepper Type	Description	Flavor	Scoville Heat Units
Bell	Thick fleshed, blocky shape; dark green, yellow, orange, red	Mild, sweet	0
Poblano	Resemble bell pepper; dark green with a purplish tint, red when fully ripe	Sweet, earthy	2,500 – 3,000
Jalapeño	Tapered, shiny dark green about 2 inches long	Pungent	2,500 – 5,000
Serrano	Small, tapered; dark green or scarlet red when ripe	Sweet, acidic, fruity, citrus	5,000 – 15,000
Cayenne	Slim, long, curved; dark green to red	Acidic, tart, pungent	30,000 – 50,000
Thai	Thin, elongated; red when fully ripe	Lingering heat	50,000 – 100,000
Habanero	Shaped like a lumpy square; green to orange-red	Fiery, acidic heat	100,000 – 300,000

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Peppers

Preparing Peppers



- ✦ Avoid direct contact with hot peppers.
 - Wear rubber gloves when handling
 - Wash your hands thoroughly before touching your face
- ✦ Wash peppers before peeling or chopping.

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Peppers

Preparing Peppers

- ✦ If you choose to peel peppers, slit each pepper on its side and use one of these methods:
 - Oven or broiler method
 - Range-top method
- ✦ When cooled, peel, discard seeds and chop peppers.

Approximate Equivalents


- 1 medium bell pepper = about 1 cup, chopped
- 1 large bell pepper = about 2 cups, chopped
- 1 medium jalapeño pepper = about 1/2 cup, chopped



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Onions and Garlic

- ✦ Onions and garlic are in the *Allium* family.
- ✦ This family of vegetables contains:
 - Sulfur compounds
 - Selenium
 - Antioxidants
- ✦ These are believed to stimulate the immune system, inhibit cancer growth and possibly decrease blood cholesterol.



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Onions and Garlic

- ✍ Choose onions that are firm and free from cuts and bruises. Store in a cool, dry place or refrigerate.
- ✍ Be sure the garlic heads are firm and avoid garlic with green growth. Store garlic in a cool, dark place.


Approximate Equivalent

- 1 medium onion = about 1 cup, chopped

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Cilantro

- ✍ Select cilantro that appears fresh and green.



- If purchasing, look for cilantro with roots
- Place in container with water covering roots or stems; wrap leaves loosely in a plastic bag and refrigerate
 - With roots, cilantro should last about two weeks
 - Without roots, cilantro should last about one week

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Acid Ingredients


- ✍ Acid ingredients in canned salsa help preserve it.
- ✍ Additional acid is needed when canning tomatoes. This includes:
 - Bottled lemon or lime juice
 - Vinegar (should be at least 5% acid)



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Acid Ingredients

- Lemon or lime juice can be substituted for vinegar, but vinegar cannot be substituted for lemon or lime juice.
- Freshly squeezed lemon or lime juice may be used in fresh salsa recipes but is not recommended for use in canning recipes.



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Acid Ingredients

- NOTE: If you are using a recipe that has not been research-tested:
 - Serve it fresh
 - Store in the refrigerator and use it within a couple of weeks
 - Freeze in freezer-safe containers




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Step-by-Step Canning

Fill the Jars, Part 1

- Fill clean, hot canning jars with the hot salsa.
- Use a ladle and a jar filler to avoid getting salsa on the sealing surface.
- Leave ½-inch of head space, making sure the juices cover the food pieces.




Source: National Center Home Food Preservation

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Step-by-Step Canning

Fill the Jars, Part 2

- Remove air bubbles and adjust head space, if needed, using a plastic knife or spatula.
- Wipe the rims of the jars with a damp, clean paper towel.



Source: National Center Home Food Preservation

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Step-by-Step Canning

Applying the Lids

- Pretreated lids according to manufacture directions.
- Apply lids to jars.
- Tighten the ring bands over the lids until "fingertip tight" and snug.




Source: National Center Home Food Preservation

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Step-by-Step Canning

Place the Jars in the Canner

- The temperature of the water in the canner should be about 180 F (simmering).
- Carefully add the jars to the canner using a jar lifter.
- Do not tilt jars.




Source: National Center Home Food Preservation

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Step-by-Step Canning

Processing the Salsa

- Make sure the water is 1 to 2 inches over the jars. Place the lid on the canner.
- Turn the heat on high and bring the water to a full boil.
- After the water is boiling, process the jars for the required amount of time.




Source: National Center Home Food Preservation NDSU EXTENSION

Step-by-Step Canning

Removing Jars From the Canner

- After processing, turn off the burner. Remove the lid, turning it away from you.
- Let the jars sit in the canner for five minutes.
- Using the lifter, remove the jars from the canner and set them on a thick, clean towel or plastic or wooden cutting board.



Source: National Center Home Food Preservation NDSU EXTENSION

Step-by-Step Canning

Cooling the Jars

- Let the jars sit undisturbed to cool (12 to 24 hours).
- If sealed properly, the lid will be curved inward and will have a clear ringing sound when tapped.



Source: National Center Home Food Preservation NDSU EXTENSION

Step-by-Step Canning

Storing the Jars

- Remove ring bands from the sealed jars.
- Gently wash the lid and threads of the jars.
- Rinse, dry and label the jars with the date and contents.
- Store jars (without ring bands) in a cool, dark place.
- Store unsealed jars in the refrigerator.

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Salsa Storage

- Use salsa within one year for best quality
- Do not taste, and discard the jars and contents carefully, if you see signs of spoilage.
- Signs of spoilage include:
 - Bulging lids
 - Bubbling
 - Bad odors



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Thank You!

Any Questions?



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Credits


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