

Food Innovators

Saving food with science



From kimchi to sauerkraut, jerky to jam, many of our food-preserving techniques are ancient and have been perfected in kitchens all over the world. Heritage food preservation techniques bring together microbiology, physics and chemistry in delicious ways.

Food Preservation Exploration

Time: 1 hour



To keep food from spoiling, people around the world have found ways to preserve food, including drying, smoking, salting, fermenting, canning and pickling. Do you know how to preserve food? Pick a food-preserving technique and research its application throughout history. Think about:

- How, where and why the technique was developed?
- Who used it?
- How does the technique keep food from spoiling?
- What do you have to be careful of when using this technique?
- What are the advantages and disadvantages of this approach?
- How long does it take?

Make Watermelon Rind Pickle

Time: 2 hours

Try this simple recipe. Watermelon rind pickle is a delicious snack common in the Southern United States, but you can also use other ingredients like cucumbers or carrots.



Ingredients

- 1 medium watermelon (roughly 1.8 kilograms)
- 8 cups water
- 3 tablespoons coarse salt
- 2 cups sugar
- 1 1/4 cups apple cider vinegar
- 8 whole cloves
- 8 whole black peppercorns
- 2 cinnamon sticks
- 1/4 teaspoon ground allspice
- 1/4 teaspoon ground ginger



Making it Happen:

1. Cut the pink pulp off the rind to enjoy right away, leaving a thin layer of pink.
2. Peel off the green skin and slice into 1 x 1/2-inch pieces to measure about 4 cups.
3. Combine 8 cups water and 2 tablespoons salt in large pot; bring to boil.
4. Add rind pieces and boil until tender; about 5 minutes.
5. Strain and transfer rinds to large metal bowl.
6. Combine the remaining salt and the next seven ingredients in large saucepan. Bring to boil, stirring until sugar dissolves.
7. Pour liquid over watermelon rinds in bowl. Cover the bowl to keep rinds submerged in pickling liquid.
8. Refrigerate at least 8 hours or overnight.
9. Strain liquid from rinds into saucepan; bring to boil. Pour over rinds again. Cover and refrigerate overnight. Repeat straining and boiling of liquid and pour over rinds one more time.
10. Chill in covered jars and enjoy within 2 weeks as a sweet and tangy condiment with deserts or as a chutney with main dishes or snacks.



Did you know?

You can harness the sun's power to convert fresh foods into storable snacks to eat year-round. You can build your own solar dehydrator to dry apples, grapes and any fruit or vegetable. Here is a great, simple solar dehydrator design.⁷⁵

CLAIM

20 Innovator points



Want to do More?

Create a cookbook of food preservation recipes. As a group you can:

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10 Influencer points

- Create a cooking blog and have teams each contribute a post.
- Create a cookbook with each team contributing a group of recipes (fruit preserves, condiments, preserving meat and fish).
- Create a YouTube channel with each team creating a cooking video.



⁷⁵Mother Earth News (2018). Best-Ever Solar Dehydrator Plans. <<https://www.motherearthnews.com/diy/tools/solar-food-dehydrator-plans-zm0z14jjzmar>>