

Tips for Cooking with Solar

Box Ovens

1. Any conventional recipe that would be suitable for a conventional oven will work in a solar oven, also crock pot recipes are suitable for a solar oven.
2. Foods generally use less liquids or cook in their own juices. This produces better tasting and more nutritious food.
3. Foods never burn and rarely overcook in a solar oven.
4. When cooking foods containing liquids, use lids on pans, cover tightly with plastic wrap, or use cooking bags to avoid condensation on the oven glass which blocks the solar radiation.
5. Don't open your box cooker unless absolutely necessary! Every time you do, you let out the heat and slow down the cooking process.
6. Use a meat thermometer instead of a timer to determine if the food is done.
7. A lazy susan underneath your box oven can help you rotate it easily to follow the sun. Remember to adjust your box cooker every 20 minutes or so.
8. Foods particularly suited for the classroom include: hot dogs, slice and bake cookies, brownies, rice mixes, cocktail sausages in barbeque sauce, nachos, baked apples, kebobs
9. Some specific food tips:
 - cook (steam) yellow and green vegetable in dark colored casseroles to prevent discoloration
 - vegetables and meats can be cooked with no water or added liquid
 - reduce liquids in cake recipes by one half
 - cook foods in their natural state (i.e. potatoes in skins and corn in husks)
 - sprinkle some cinnamon on the top of baked goods to darken the surface
 - doughs and batters containing eggs and milk will brown easier
 - chewy dessert recipes such as brownies come out better than crispy ones
 - meats cook better if cut into small pieces
 - vegetables--onions for example--may need to cut in smaller pieces or coarsely grated
 - if the recipe calls for the addition of oil, try adding it last, floating it on the top. This decreases the amount of evaporation (thereby decreasing the amount of heat loss). Stir in the oil at the end.

Temperature:

- On a clear and sunny day a box oven will heat up to 250°F and above. On these days you can cook or bake anything.
- On a partially cloudy day the oven will heat to 200°F to 250°F. On these days you can easily cook meats, rice, baked potatoes, and frozen vegetables, but baking is not recommended.
- Adjust your cooking time to account for the lower temperature. A rule of thumb is to figure twice the regular cooking time.

Panel Cookers

1. Most recipes that can be cooked on top of the stove without frequent stirring will work with a panel cooker. Crock-pot recipes also work well.
2. Always use lids on pans and place the whole pan in a tightly closed high temperature

- oven bag. Thin, shallow, aluminum or steel pans will heat faster.
3. Foods generally use less liquids or cook in their own juices. This produces better tasting and more nutritious food.
 4. Foods never burn and rarely overcook in a panel cooker.
 5. Use a meat thermometer instead of a timer to determine if the food is done.
 6. A lazy susan underneath your panel cooker can help you rotate it easily to follow the sun. Remember to adjust your panel cooker every 20 minutes or so.
 7. Foods particularly suited for the classroom include: rice mixes, chili, chowder, stew, baked beans, couscous, quinoa
 8. Some specific food tips:
 - cook (steam) yellow and green vegetables in dark colored casseroles to prevent discoloration
 - vegetables and meats can be cooked with no water or added liquid
 - meats cook better if cut into small pieces
 - vegetable in some recipes--onions for example--may need to be cut in smaller pieces or coarsely grated.

Temperature:

- On a clear and sunny day a panel cooker will heat the contents to boiling for a sustained time. On these days you can cook anything.
- On a partially cloudy day the panel cooker will heat the contents above pasteurization temperature (149°), and probably to boiling. On these days you can easily cook most things, but extra care should be taken with meats (check the temperature).
- Adjust your cooking time to account for the lower temperature. A rule of thumb is to figure twice the regular cooking time.

Parabolic Cookers

1. Most recipes that can be cooked on top of the stove, in a frying pan or on a grill can be cooked with a parabolic cooker. Foods will brown with a parabolic cooker.
2. Always use metal pans (cast iron is ideal). Do not use high temperature baking bags. Lids on pots are not necessary.
3. Be mindful of observers that don't know the power of solar cooking—they can get burned easily just because they don't realize how hot the focal point of a parabola can get.
4. Foods particularly suited for the classroom include: hot dogs, hamburgers, kebobs, bacon, grilled vegetables, fried eggs
5. Some specific food tips:
 - Keep an eye on your food! Parabolic cookers can get very hot, and also tend to cook in only one area—you may need to turn or rotate your food. Cast iron cookware can help to spread out the heat
 - Unlike other solar cookers, parabolic cookers can burn food.

Temperature:

- On a clear sunny day a parabolic cooker can reach 500° at its focal point. On these days you can cook anything—and cook it quickly!
- On a partially cloudy day a parabolic cooker's temperature will vary with the cloud cover. Cooking will take a little longer.

Slow Roasted Salmon with Fennel, Citrus and Chiles

Favorite Recipe From: Bon Appetit

Ingredients:

- 1 medium fennel bulb, thinly sliced
- 1 blood or navel orange, very thinly sliced, seeds removed
- 1 Meyer or ½ regular lemon, very thinly sliced, seeds removed
- 1 red Fresno chile or jalapeno with seeds, thinly sliced
- 4 sprigs dill, plus more for serving
- Kosher salt, coarsely ground pepper
- (1) 2 lb skin less salmon fillet
- ½ cup olive oil
- Flaky sea salt

decrease to ¼ c. or less

Method:

Set up box oven
Toss w/oil → ~~Preheat oven to 275°~~ Toss fennel, orange slices, lemon slices, chile, and 4 dill sprigs in a shallow 3 qt baking dish; season with salt and pepper. Season salmon with salt and place on top of fennel mixture. ~~Pour oil over.~~ *Put fruit mixture on top & around*

Roast until salmon is just cooked through, 30-40 minutes.

1½-2 hrs

Transfer salmon to a platter, breaking it into large pieces as you go. Spoon fennel mixture and oil from baking dish over, discard dill. Season with salt and pepper and top with fresh dill sprigs.

Old-Fashioned Bread Pudding – Betty Crocker

(8 servings)

Ingredients

- 2** cups milk
- 1/4** cup butter or margarine
- 2** eggs, slightly beaten
- 1/2** cup sugar
- 1** teaspoon ground cinnamon or nutmeg
- 1/4** teaspoon salt
- 6** cups soft bread cubes (about 6 slices bread)
- 1/2** cup raisins, if desired
- Whipping (heavy) cream, if desired

Directions

- 1.** Heat oven to 350°F. In 2-quart saucepan, heat milk and butter over medium heat until butter is melted and milk is hot.
- 2.** In large bowl, mix eggs, sugar, cinnamon and salt. Stir in bread cubes and raisins. Stir in milk mixture. Pour into ungreased deep round pan.
- 3.** Bake uncovered 40 to 45 minutes or until knife inserted 1 inch from edge comes out clean. Serve warm with whipping cream.

Solar Oven Directions

- 1.** In baking dish, toss bread cubes and raisins together.
- 2.** In a small bowl, mix cinnamon and sugar together and spread mixture evenly over the top of the bread cubes & raisins.
- 3.** In a large bowl, mix eggs, milk and salt. Pour over the bread cube mixture and dot with butter.
- 4.** Cover and place in solar oven.

Modifications by Susan Schleith

bon appétit

Root Beer Baked Beans

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This baked beans recipe is the perfect accompaniment for your summertime barbecue, and the root beer flavor will make you think you're a kid again.

Ingredients

8 Servings

4 slices applewood-smoked bacon, cut crosswise into 1-inch pieces

3½ cups chopped onions

2 garlic cloves, finely chopped

4 15-ounce cans cannellini (white kidney beans), rinsed, drained

^{1 cup} 1½ cups root beer (preferably artisanal)

3 tablespoons apple cider vinegar

3 tablespoons mild-flavored (light) molasses

2 tablespoons tomato paste

2 tablespoons Dijon mustard

1½ teaspoons chili powder

1 teaspoon coarse kosher salt

1 teaspoon freshly ground black pepper

Preparation

^{Panel cooker} Preheat oven to 400°F. ^{Precook bacon or cook in parabolic} Cook bacon in a large ovenproof pot over medium heat until crisp, stirring occasionally. Using a slotted spoon, transfer bacon to paper towels. ^{onions, garlic, bacon} Add onions to drippings in pot; cook until beginning to brown, stirring often, about 8 minutes. Add garlic; stir 1 minute. Add beans, root beer, vinegar, molasses, tomato paste, mustard, chili powder, 1 tsp. salt, and 1 tsp. pepper; stir to combine. ^{Cover} Stir in bacon; bring to a boil. ^{Panel cooker, Cook} Transfer to oven; bake uncovered until liquid thickens, about 30 minutes. ^{1-2 hrs.}

Recipe by Rick Rodgers

Photograph by Hans Gissinger

Nutritional Content

One serving contains the following: Calories (kcal) 250.7 %Calories from Fat 12.0 Fat (g) 3.3 Saturated Fat (g) 0.6 Cholesterol (mg) 4.4 Carbohydrates (g) 45.3 Dietary Fiber (g) 9.1 Total Sugars (g) 15.9 Net Carbs (g) 36.3 Protein (g) 11.6 Sodium (mg) 368.1