Cascara Jelly
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Yields 2 - 4 jars (8oz)

Ingredients
- 6 cups cascara (fresh or frozen)
- 2 medium to large lemons and/or limes (with a thick rind)
- Sugar (demerara and/or cane)
- Water

Equipment
- Large (~10L) non-reactive pot w/ lid (stainless steel or coated w/ non-reactive enamel)
- Medium non-reactive bowl (stainless steel, glass, enamel-coated)
- Cloth or fine metal strainer
- Whisk or spatula
- Tongs
- Timer
- Jars (can be washed & reused)
- Lids (must always use new)
- Water canning rack or steamer basket
- Citrus zester, vegetable peeler and/or sharp knife
- High heat source (stove or fire)
- Food scale
- Dish soap
- Measuring cups, measuring spoons
- Isopropyl alcohol
- Metal fork & spoon
- Clear cup (glass or plastic)
- Marker/pen & label sticker
- Candy thermometer (optional)
- pH meter (optional)
- Brix meter (optional)

Spanish Version
Citrus Peel Pectin
(Adapted from Meredith, 2019)

Ingredientes
(Yields ~ 1 ½ cups pectin)
- 4-5 large lemons (or comparable citrus fruit)
- ½ lbs (226.8 grams) citrus peels (white parts)
- ¼ cup lemon juice (4-5 lemons yields ¾ - 1 cups juice, which is 3 - 4 x more than needed per batch)
- 2 cups water
- Vegetable peeler, lemon zester and/or sharp knife
- Measuring cups
- Food scale
- Isopropyl alcohol

Steps
1. Remove citrus zest with a zester/vegetable peeler/knife. Set aside for other uses or discard.
2. Juice the lemons, saving the juice.
3. Remove the remaining flesh from the inside of the lemon. You are left with only the white pith; finely chop and weigh it.
4. In a pot, combine the chopped pith with the lemon juice. Let stand for 2 hours.
5. Add water and let stand for at least 1 hr and up to overnight.
7. Strain through a jelly bag/strainer/several layers of cheesecloth. Save the liquid and discard the solids.
8. Check that it is concentrated enough with the alcohol test (next slide),
9. The pectin is ready to use. You can keep it in the refrigerator for ~4 weeks, or in the freezer for 6 months.
10. If your pectin does not pass the alcohol test, make the pectin more concentrated by heating it to a boil, uncovered, and checking it with the alcohol test every 3 minutes until it passes.

Use ¼ - ½ cup pectin per cup cascara juice
Test the pectin strength before making each batch of jelly

1. Add 1 tsp of pectin to 1 or more tbsp of isopropyl alcohol.
2. Mix or gently stir the mixture in a closed container so that all the juice comes in contact with the alcohol.
3. Let stand for 1 minute
4. The pectin should form a gelatinous mass that can be picked up with a fork. If the pectin clumps into small particles, it’s not sufficiently concentrated for jelly-making.
Prep

- Thoroughly wash all the equipment with hot water and dish soap
- Prepare the citrus pectin
- Juice the lemons: 4 medium lemons yields ~1 cup juice
- Optional: Calibrate & test the pH and Brix meters

Sterilize Equipment

1. Boil the jars (without the lids) for at least 10 minutes.
2. Place on a sanitized surface.
1. Thaw 6 cups cascara (5-10 mins)
2. In a large pot, (10 L) add the cascara + ~2 cups water, or enough that only ~ ¼ of the fruit protrude above the water.
3. Bring to a boil over high heat, with the lid on.
4. Once boiling, remove the lid and reduce to a simmer. Let simmer for 10-20 mins or until the fruit loses most of its color. Meanwhile, mash the cascara often and stir occasionally with a whisk or large utensil. Do not overcook the cascara; if you can see the bottom of the pot, too much water has evaporated!
5. Strain the juice with a dampened jelly cloth/strainer/cheesecloth
6. Discard* the spent cascara (the fruit should have a pale color and taste very bitter)
7. Optional: separate some juice for pH & Brix measurement (aim for Brix ~14 & pH ~4.5)

*Spent cascara may be used for alternative purposes such as fuel or animal feed.
1. Measure the juice yield in cups
   - 6 cups of cascara + 2 cups of water should yield ¾ - 1 cups of juice
2. Add ¼ - ½ cups of citrus pectin per cup of cascara juice, depending on your taste
3. Add 5-10 tbsp of lemon juice to reach an adequate acidity of pH 3.3 - 3.8
   - pH <3.3 makes the flavor too lemon-dominant, while pH >3.8 may prevent pectin from setting

Note: Cook jelly in small batches! Don’t use >6 - 8 cups of fruit juice at a time. Doubling the recipe does not guarantee correct gelling of the jelly, because a greater quantity of juice requires a longer boiling period, which can cause flavor loss and toughening of the jelly.

1. Weigh the juice mixture. Multiply the juice weight by 0.75 to calculate the weight of sugar to be added. Note: For food safety reasons, it is not advisable to reduce the sugar to <75% by weight of juice.
2. Add the sugar to the juice and mix well.
Boil the juice + sugar mixture for a final time:

1. Cover the pot with the lid and bring to a boil over the highest heat possible. Remove the lid when the jelly starts to boil.
2. Start the timer when the jelly starts to boil rapidly. Cook for 1 - 2 mins, stirring occasionally. The jelly is done when it passes the sheet test (below).

Note: This step is critical for activating the pectin. Beware that both a slow boil or overcooking the jelly can destroy the pectin.

**Sheet Test**

1. Dip a cold metal spoon in the boiling jelly mixture and scoop up a little bit of jelly. Raise the spoon at least 12 inches above the pot (out of the steam).
2. Turn the spoon so that the liquid runs off the side. When the jelly mixture begins to boil, the drops will be light and syrupy. As the jelly continues to cook, the drops will become heavier and thicker, and drip off the spoon 2 at a time.
3. The jelly is ready when the syrup forms 2 drops that flow together in a “sheet” or hang off the edge of the spoon (see the image below).
4. If a candy thermometer is available, cross check the sheet test by ensuring that the jelly reaches its boiling point of 220 °F (104.4 °C).

*It’s ready!*
1. Remove the pot from heat immediately
2. Pour the jelly directly into sterile jars, leaving a headspace of \( \frac{1}{4} \) inch (0.5 cm)
3. Close the lids tightly

**Water bath**

1. Bring a full pot of water to a boil.
2. Place the filled jars in a steamer basket/canning rack and lower into the boiling water. The water should cover each jar completely.
3. Boil for 5 mins, then remove from water with tongs.

**Finish & Set**

1. Label the jars with the date and other important details.
2. Let the jelly set for 24-72 hrs in a cool place without direct sunlight
3. The jelly has set when, upon flipping the jar upside down, the jelly stays in place