

Preserved lemons

It's really easy to preserve your own lemons, and once you have a jar of them you'll find yourself adding them to tagines (eg chicken with lemon and olives), salsas (with shallots and fresh herbs, to go on grilled fish or meat), salads and couscous dishes.

This recipe is from Paula Wolfert, goddess of Mediterranean cuisines and author of 'Couscous and other good food from Morocco', from where it comes. One of my favourite jobs at Chez Panisse was preserving lemons, which we did whenever stocks ran low. They usually preserve Meyer lemons, as they are so sweet, fruity and fragrant, but any lemons will work.

The lemons are preserved by lacto-fermentation. Special lactobacteria enjoy the salty conditions and cause fermentation. They produce an acid (which helps preserve the lemons, and tastes great) and carbon dioxide (which displaces the air in the jar above the lemons, also helping preserve them). Lots of the best foods are lacto-fermented - sourdough bread, yoghurt, kimchi, chocolate, sauerkraut...



Makes: as much as you want

Preparation time: 30 mins

Curing time: one month

unwaxed lemons, with beautiful, unblemished skins

salt (pure, with no anti-caking agents)

lots of freshly squeezed lemon juice

one cinnamon stick (optional)

3 cloves (optional)

6 coriander seeds (optional)

4 black peppercorns (optional)

one bay leaf (optional)

1. Scrub clean the lemons.
2. Scrub clean a glass jar which is large enough to hold the lemons tightly packed and which has a tight-fitting lid. Sprinkle a tablespoon of salt in the bottom.

3. Cut the stem end tips off the lemons. You need only cut off a very small amount.
4. Hold a lemon with the cut end up and make a vertical incision through the centre but do not cut the lemon in half - stop about ½" before the bottom. Make a second cut perpendicular to the first, as if cutting the lemon into 4 wedges, but again stop short of the end by ½". Repeat with remaining lemons.
5. Working over a small bowl, prise open a lemon and liberally sprinkle salt inside, coating all of the cut surfaces. Place it in the jar. Repeat with the remaining lemons, using the salt caught in the bowl as well. Stuff them all tightly in the jar, squishing out their juices, and sprinkle another tablespoon or so of salt on top. If using, put the spices in the jar as you go.
6. Fill jar with extra lemon juice so that all lemons are *completely* covered with the salty lemon juice. This is important. Do not be tempted to top it up with water. If needed place some kind of weight inside the jar to ensure lemons are submerged.
7. Cover and leave in a warm room for one month while the lemons ferment. If using a preserving jar with rubber seal, as pictured here, you can clamp it shut as they're designed to let out gas. If using a regular jar, leave it loosely closed, or cover with muslin instead, so that gas can escape as the lemons ferment. Every day or two give the jar a shake.
8. Now transfer jar to a cool place, such as a larder, and tighten lid. The longer you keep them, the better they'll get. Eventually the liquid will turn deliciously syrupy.
9. To use, spoon out a lemon and rinse off excess salty liquid. Pull apart the segments, cut away any pips, and the flesh too if it tastes too salty (but it should be delicious), then cut into dice, slithers or however desired. The lemons should keep for at least a year. When making your next batch you can reuse the juice from the previous jar.



Lemon facts:

- The lemon seems to be such a common, and essential, fruit, that you'd imagine it had been around since the beginning of time. Not so. The original three citrus plants, from which all others have been bred, are the citron, the mandarin and the pummelo. The lemon is probably a multi-step hybrid, involving the citron, the lime and the pummelo. Lemons arrived in

Europe 1500-2000 years ago, having originated in what is now Pakistan and India, and coming via the Middle East.

- Preserved lemons are actually preserved not only by virtue of the salt and acidic lemon juice that surrounds them, but also by fermentation. Natural yeasts on the lemons flourish in these salty, acidic conditions and suppress other microbes that would otherwise spoil the lemons. They do this by consuming the fruit's sugars and producing carbon dioxide, acids and alcohol, which help protect the lemons from spoiling by deterring nasty bacteria and favouring friendly bacteria. You'll be pleased to know that they don't touch the vitamin C – it's left for you. The salt solution should be 5-10% to create optimum conditions. The result is an unusual and particular flavour – still very lemony and aromatic, for sure, but also slightly fermenty, quite salty, less acidic and more rounded.
- Meyer lemons are a particular variety, probably a cross between a lemon and a mandarin or orange. They have thinner skins, which are usually a deeper yellow in colour, and are a little smaller than regular lemons. Their juice and zest is considerably sweeter, fruitier and herbier, making them highly desirable to pastry cooks and cocktail mixologists, especially in the Bay Area of California it seems, where Alice Waters' restaurant, *Chez Panisse*, helped popularise them. Being harder (ie less profitable) to grow commercially, cooks usually have to source them from friends' and neighbours' gardens, if they're lucky enough to live in a warm enough climate.
- As we all know, lemons, like their many citrus cousins, are an excellent source of vitamin C. Vitamin C was not identified as ascorbic acid until the 1930s, although its benefits had already been established. Sea-faring captains of the 15th – 17th century seemed to have appreciated the benefits of feeding their crews with regular doses of citrus fruit or juice. Then for some reason the wisdom was lost, and many poor sailors of the 18th century lost their lives in the most hideous way to scurvy, which sets in after 3 months of no vitamin C intake. For example, George Anson set out to circumnavigate the world in 1740. Four years later he returned with less than 10% of his original crew of 2,000, the rest having died, mostly from scurvy. It wasn't until 1795 that British seamen started getting a regular dose of lime juice, which earned them abroad the derisive name '*limeys*'.
- Lemons have an array of other practical uses, for example:
 - A few drops in your cup of tea prevents that nasty film forming on the surface;
 - Cut apples, pears, artichokes, Jerusalem artichokes, avocados and other fruits and vegetables can be prevented from browning by sprinkling them with lemon juice or submerging them in water acidulated with lemon juice;
 - Fish that has started to pong (but is not yet off) can be deodorised by a quick bath in lemony water.

Sources:

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Food Plants of the World, Ben-Erik van Wyk, 2005

On Food and Cooking, Harold McGee, 1984

What Einstein Told His Cook, Robert Wolke, 2002

Molecular Gastronomy, Hervé This, 2006