

Marmalade (CDAT 2012, 2013, 2014, 2016, 2018, 2020, 2021)

January is marmalade time, as this is the only time that Seville oranges are available. Start looking for them in the shops early in the month, as the later ones will have been stored longer so are less juicy.

INGREDIENTS

2 kg Seville oranges (= approx 12-16 fruits) – *don't be tempted to use more than this in a batch, since you will need to scale up the quantities of sugar and water pro-rata and you will quickly run out of space in the jam kettle.*

4 kg sugar – *Some of this can be brown for improved colour and flavour, but it allegedly weakens the set, so suggest no more than 0.5kg if using demerara, or 0.25kg if using muscovado which is more bitter. For the white sugar granulated is fine, no need for preserving sugar.*

4 large lemons – *the acidity helps the pectin work*

3.5 litres water/juice

Jamjars - *about 20 small / medium size jars, check that old labels have all been soaked/ scraped off. Smell them first : if they have been stored with their lids on then they will almost certainly need to be washed again. Big jars are less useful unless since harder to finish once opened before mould appears.*

Waxed paper discs – *large & (more use) small*

Jam 'kettle' – *this is a large (recommend 10L) boiling pan + lid (if you only have a smaller pan, scale down the quantities of the ingredients)*

DAY 1

1. Preparation

You will need :

- 3 large bowls (for the washed fruits, the innards, and the chopped peel)
- 1 small bowl (for the pips)
- Clean chopping board (smell it first)
- Sharp knives, large & small, + sharpening stone
- 1L jug for juice, + sieve + squeezer
- plenty of time

Weigh & count the oranges (after outsourcing any duds). Wash them individually. For each one remove any stalk/leaves, and prise off the lump where the stalk joins the fruit. The amounts of sugar & water will need to be varied pro-rata depending on the weight of fruit.

Terminology (just to be clear – I have seen other incorrect usages) : the peel comprises the oily orange outer layer (the zest) plus the soft white inner layer (the pith). Inside are segments, each with a membrane on the outside, containing the flesh, juice, & pips.

Cut the fruit in half latitudinally (easier to squeeze), squeeze out & keep the juice. Squeeze gently, so as not to bruise or rupture the peel. If you are not familiar with Seville oranges, taste the juice to see how they differ from dessert oranges. Sieve the juice to remove (and keep) any pips. Tip : if squeezing manually, place the squeezer in a bowl while squeezing to catch overflows / splashes.

Options :

- (A) to make a clear jam, the coarsely chopped membrane/pith plus pips are boiled up to extract the pectin, with the residue discarded;
- (B) to make a cloudy jam, the finely chopped membrane/pith are included in the jam, with just the pips boiled for pectin then discarded.

I prefer Option B because it sets better, and because it is not as sweet.

Under Option B, pick out (and keep) the pips from the fruit-halves (easier at this stage). Observe how with the latitudinal cut the segments appear as pockets in which the pips reside.

Cut each squeezed fruit-half into quarters, pare out (and keep) the internal membrane and any excessive pith. It's OK to keep some pith in the peel, ie the aim here is *not* to completely separate the pith from the zest.

Chop the peel according to taste – I like strips about 3mm wide and 10mm long for a fairly chunky mix. Tip : lay a tea-towel between the chopping board and the table to stop the board from slithering around. If option B then finely chop the membrane/pith and pick out any remaining pips.

Don't be tempted to process the lemons at this stage as for the oranges in order not to waste them, since this will make the marmalade too lemony.

2. Soaking

Put the pips (and if option A, the membrane/pith also, coarsely chopped) into a large saucepan, and cover with 1L (option A) or 1/2 L (option B) water (measure this). Bring to the boil gently, lid off (it will want to stick to the pan & burn & boil over), and leave to cool overnight. By morning the liquid should be slightly jellied with the extracted pectin.

Put the cut peel into a large jam-kettle. Add the juice and enough water to bring the total volume of liquid added to both pans to 3.5L. The pan should be no more than a third full at this stage. Bring to the boil, and leave to cool overnight so that the peel softens (if you have an Aga put the pan cold into the bottom oven and leave overnight). Do not add the sugar yet (otherwise allegedly the peel does not soften properly).

DAY 2

3. Softening / pectin

Bring both pans back to the boil, lid off.

Squeeze the lemons into a jug through a sieve to hold back the pips. [Although more convenient to do this on Day 1 when the relevant tools are to hand, the benefit of the acid is greater if done now immediately before the boil]. Add the juice to the mix.

Add the sugar while stirring and bring back to the boil gently - if the sugar does not dissolve fully before boiling then allegedly it will crystallise out in storage. The pan should be no more than half full at this stage.

At the same time, simmer the pips etc for at least 10 minutes, stirring constantly (very prone to burning). Then [Option B, ie pips only] pour into the mix through a sieve, or [Option A, ie pips + fibre] force

through a sieve into the mix a spoonful at a time to separate the gloop (pectin) from the residual fibre - no farting about with a muslin bag here, in my experience the gloop is just too thick to get through the muslin. Every drop of gloop is precious, scrape as much off your utensils as possible, and swill with a cup-full of boiling water into the mix

4. The Boil

Start the clock. Boil the mix *fiercely* (lid off) for at least 55 minutes (if you scale-down the recipe quantities then you may also need to reduce the boil time). The aim is to sustain the boil temperature at 104C [presumably the fact that this is a sugar solution not pure water allows the boiling temperature to be increased above 100C]. This is you versus the jam now : the mix will froth up the inside the pan, and you need to hold it there as near to the top as possible without boiling over. This is why the mix should only half-fill the jam kettle : if the kettle is too full you will struggle to get the mix hot enough. You can use a jam thermometer if you have one, but I do not bother. Stir every 5 minutes to stop the sugar caramelising on the base of the pan, but avoid over-stirring as this reduces the temperature.

Health & Safety : the mix is superheated and sticky, take great care to avoid spills & splashes.

While the jam is boiling, prep the jamjars and the glass jug which you will use to ladle the jam : check completely clean, and sterilise in a hot oven (100C) for at least 10 mins, so that they are too hot to touch. Boil the lids to sterilise.

Use the 'wrinkle test' to test when the jam is ready : put a drop of the mix on a cold plate, allow to cool, then shove it with your fingernail : does it wrinkle? It needs to be properly cooled, and the wrinkling is only very slight. Or (less useful) the 'stalagmite' test (allow a spoonful of the liquid to cool, then slowly pour back into the pan : do the drops run together to form a hanging stalagmite?).

5. Bottling

When ready, turn off the heat and leave to stand with the lid on for 30-45 minutes so that the mix thickens slightly as it cools, otherwise the peel floats up to the top of the jars after bottling (although this can be an advantage if not all your family like their marmalade chewy). Then stir and bottle quickly using a small pyrex jug. Lightly press a waxed paper disc on to the surface in each jar so that there's no trapped air, use a knife to uncurl the edges; for small jars you will need to cut the bought discs to size grr. Screw the lids on tight while still hot (use a tea towel to protect your hands). Wipe the jars clean with a wet cloth while still hot, before they get sticky as they cool. Once cool, write & apply labels - *please* use gummed (ie moisture-activated) labels not self-adhesive (although these are hard to find), as these are dead easy to soak off so that the jars can be reused.

6. Cleaning up

Use a table knife to scrape all the utensils into your mouth.