Gel Point

HOW TO KNOW THAT A GEL WILL FORM WHEN MAKING SOFT SPREADS

How do you know when your jams, jellies, and other soft spreads are ready to remove from the heat? There are several tests that can determine that the gel point (aka gel stage) has been reached, including the sheet test and the refrigerator test. But the most reliable, and perhaps easiest, method is the temperature test.

The gel point is reached at a temperature 8 degrees above the boiling point of water, which at sea level is 212°F. Thus, at sea level the gel point is 212° + 8° = 220°F. At higher altitudes, water boils at a lower temperature, so adjustments must be made. For example, if where you live water boils at 206°F , then the gel point would be 206° + 8° = 214°F. Once you know what your gel point is, use a candy or instant-read thermometer to determine when it has been reached.

A thermometer is only helpful if it gives you an accurate reading. Using the example from above, if water boils at 206°F where you live but your thermometer registers 208°F, it's reading two degrees hotter than it should, and you'll need to take this variance into account to determine the actual temperature of what you're testing. Taking this example further, if the gel point at your elevation is 214°F (206° + 8°) and your thermometer reads two degrees too hot, you would use a reading of 216°F (214° + 2°) to know when the gel point has been reached.

Fortunately, it's easy to calibrate your thermometer. For the how-to's, see our posters at https://ucanr.edu/sites/mfp_of_cs/Food_Safety. For further information on the science behind gel points and the different methods of determining it, see our article https://cecentralsierra.ucanr.edu/files/304297.pdf

For further information on preserving visit the National Center for Home Food Preservation (NCHFP) at https://nchfp.uga.edu or contact your local Cooperative Extension office.

Brought to you by the UCCE Master Food Preservers of El Dorado County
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