



## Pasteli: A Nutritious Home-Made Sweet

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Pasteli or sesame bar or sesame crunch, is a sweet food product prepared from sesame and honey. Honey and sesame were the main ingredients of the nutritional casualties of the ancient Greeks, who had invented different food combinations, in order to flourish their dishes. The roots of pasteli report through the Ancient Times are considered to start from Homer's Iliad. It was first reported by Homer in the Iliad and called "intrion", which meant placenta with honey and sesame, which the Greeks used to eat in order to withstand the hardships of the war. Herodotus, who lived in the 5<sup>th</sup> century B.C., was also referred to pasteli [1,2].

Pasteli is a goody, full of nutritional constituents and a rich source of energy; dietary elements that should be projected and included in everyone's nutritional habits and daily diet. It is a tonic sweetener, rich in vitamin E, calcium, phosphorus, potassium, magnesium, iron, etc (Table 1).

Nutrient	Unit	Value per 100g
<b>Proximates</b>		
Water	g	2.20
Energy	kcal	516
Energy	kJ	2161
Protein	g	11.60
Total lipid (fat)	g	33.30
Ash	g	2.60
Carbohydrate, by difference	g	50.30
Fiber, total dietary	g	7.7
Sugars, total	g	31.17
<b>Minerals</b>		
Calcium, Ca	mg	639
Iron, Fe	mg	4.27
Magnesium, Mg	mg	251
Phosphorus, P	mg	412
Potassium, K	mg	307
Sodium, Na	mg	167
Zinc, Zn	mg	3.76
Copper, Cu	mg	0.950
Manganese, Mn	mg	1.609
Selenium, Se	µg	4.0

<b>Vitamins</b>		
Thiamin	mg	0.444
Riboflavin	mg	0.159
Niacin	mg	3.703
Pantothenic acid	mg	0.033
Vitamin B-6	mg	0.491
Folate, total	µg	51
Folate, food	µg	51
Folate, DFE	µg	51
Choline, total	mg	16.7
Carotene, beta	µg	3
Vitamin A, IU	IU	6
Vitamin E (alpha-tocopherol)	mg	0.16
<b>Lipids</b>		
Fatty acids, total saturated	g	4.662
14:0	g	0.083
16:0	g	2.976
18:0	g	1.401
Fatty acids, total monounsaturated	g	12.571
16:1 undifferentiated	g	0.100
18:1 undifferentiated	g	12.412
20:1	g	0.047
Fatty acids, total polyunsaturated	g	14.591
18:2 undifferentiated	g	14.324
18:3 undifferentiated	g	0.252

**Table 1:** Typical nutritional data (g/100g) of sesame crunch [5]. Carbohydrate Factor: 3.9, Fat Factor: 8.4, Protein Factor: 3.5, Nitrogen to Protein Conversion Factor: 5.3

It may be easily prepared at the home of every consumer, who is "in love" with a healthy diet. A typical recipe of pasteli preparation is as follows: Honey is boiled (5-10 min) in a specific shallow utensil with a big surface in order the foam particles (originating from wax or pollen residues during honey extraction) to be removed. Afterwards, an amount of sesame is added and subsequently the stirring procedure starts manually, by using a ladle in order to prevent sesame to stick in the bottom of the utensil. When the boiling is over, the mixture is then spread in a marble or a tapestry-frame smeared with sweet wine or almond oil (optional). Finally, when the mixture is cooled (10-15 min), it is then cut in pieces of a given weight.

Indeed, towards the end of the 20<sup>th</sup> century pasteli was distributed in Greece after being packed in paralleled pieces of 120 - 150 grams with a fairly soft texture (melato). Today, pasteli is sold in the market in smaller packages and of different texture (melato or tragano). The origin of "melato pasteli" is considered to come from Messinia region, whereas that of "tragano" (crispy) from Sifnos Island. Differences between "melato" and "tragano" pasteli may be attributed to the different amounts of sesame used for their preparation or the different heating procedures followed. Pasteli has a long shelf-life due to the considerable amount of honey used for its preparation along with the antioxidant properties of sesame with respect to its lignan content, including sesamol, sesamin, pinoresinol and lariciresinol [3-5].

It can be then concluded, that pasteli is a nutritious, easy to prepare, delicious home-made natural sweet and is recommended for the daily diet of humans. However, boiling of honey may result in excessive HMF (hydroxymethyl furfural) content, which it has been associated with toxic effects on humans health. Hence, there is a great tendency for alternative methods of pasteli preparation, focusing mainly on mild heat treatment of honey [6].

### Conflicts of Interest

The author needs funding to develop and carry out the research program entitled: "Preparation of bio-functional sesame bars".

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**Volume 2 Issue 2 February 2018**

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