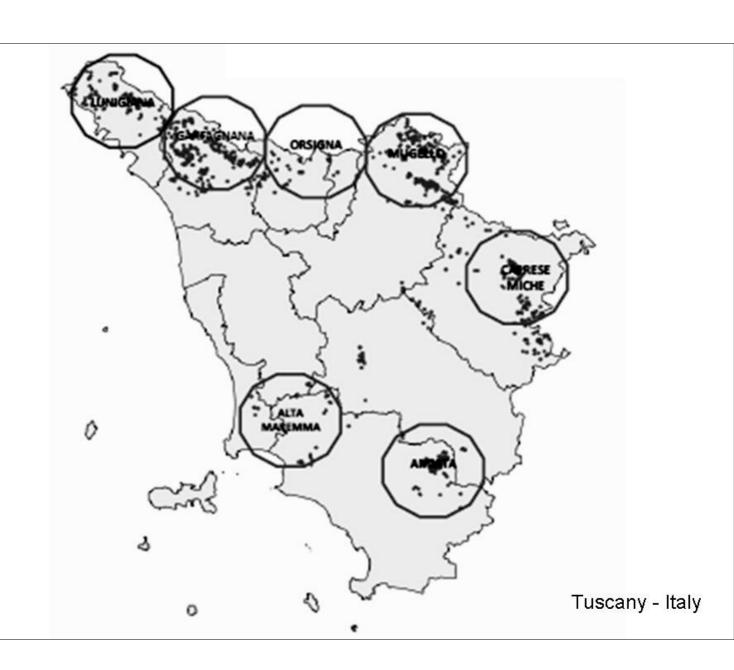
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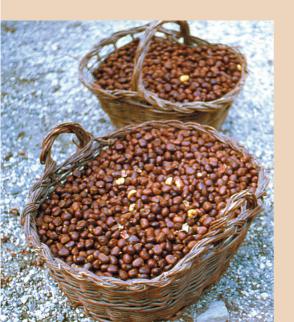
**THE DRYING** of marrons has represented for centuries the most common method of transformation since it permitted to use the product all year round.

The drying process is still carried out in traditional structures called "metati", located directly in the orchards or close to the producer's house.

The "metati" are rectangular structures built in stone without using cement (the so called "a secco" technique: dry-stone technique). The only room is divided, at half height, by a layer of chestnut wooden boards ("staggiole" or "tralicci"). Trough a window, located on the higher part of the structure, fruits are introduced and placed on the boards, ready for drying. Normally a 30 cm thick layer of marrons is left on the wooden board to be dried.







Top. Processing fruits in a "Metato". Side. Freshly dried Marroni del Mugello PGI

In the lower part of the structure a fire is lighted exclusively made of chestnut wood and chaff. The fire must be rigorously kept without flame in order to maintain a constant heating of 35°C-40°C.

The drying process lasts about 40 days. Considering that the loading into the "metato" is carried out progressively during the harvest, it is important to turn over the chestnuts each time (or on a weekly basis) a new load is added so that the fresh fruits are always placed as close as possible to the heat.

After drying, the fruit is mechanically separated from the skin and the pellicle (threshing). The threshing is followed by a fruit selection for a further quality control.



Dried peeled marrons.



In the past dried marrons (commonly called chestnuts) used to be a fundamental nourishment for the families living on the mountains. They were mainly boiled in milk or used to prepare soups as a substitute of pasta that was not a common food on the mountains.

The dried marrons may be commercialized with the PGI label or be used for flour production. In the latter, grinding is carried out with traditional millstones located in the PGI territory.

These traditional production processes are undoubtedly very expensive. Modern techniques using heat pumps, thresher drums, hammer mills have indeed improved the productivity. Nevertheless, such innovations must be respectful of the control procedures and leave unchanged those elements of the tradition that differentiate the Marrone del Mugello PGI flour from the other chestnut flours produced in Italy. The Marrone del Mugello PGI is used in many recipes.



## Marrone del Mugello PGI Flour Nutritional Properties

Marron flour is rich in carbohydrates (starch and simple sugars) and thus comparable to wheat flour. As it lacks gluten, it cannot be used by itself to prepare bread or pasta, but needs to be mixed with

at least 1/3 wheat flour in order to obtain a good cohesion. On the other hand, the absence of gluten makes it an interesting alternative for celiacs. The Marrone del Mugello PGI flour has highly nutritive amino acids. It is generally low in fats, but rich in "healthy" fats such as the unsaturated ones (e.g. the omega-3 and omega-6). The flour, with its rounded and smooth taste, is also called sweet flour because of its high sugar content, making it an excellent product for confectionery. Fibres, that are so important in a correct diet, are 10 times higher than in wheat flour. In addition, it is low in sodium and extremely rich in iron, zinc, potassium, calcium and magnesium. Micronutrients like vitamin E and polifenols, quantitatively comparable to those present in extra virgin olive oil, are radical scavengers, contrasting cellular ageing and preventing oxidative processes. To conclude, compared to the nutritional value of wheat or maize flour, the Marrone del Mugello PGI flour is a complete food. It can be considered a true protagonist in a well balanced Mediterranean diet.

## MARRONE DEL MUGELLO PGI PROCESSING CYCLE

