

Development of a long shelf life ready-to-use dough rolls for making “Pizza Napoletana”(TSG)

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The Neapolitan pizza is the best known and most imitated product of Italian gastronomy in the world. Its spread throughout the world has led to the development of numerous variants of the original technology, adapting the process to the different tastes of consumers and to the regulations in force in the various countries, which have generated different variants of the Neapolitan pizza.

The European Union in 2010 (1) grant to the “Pizza Napoletana” the protected product status of “Traditional Status Guaranteed” (TSG) and the UNESCO has been recognized the Neapolitan pizza making technology (art) as an "Intangible Cultural Heritage of Humanity" (2). However, the tasting of this product remains linked to fresh consumption in pizzerias mainly in the Campania region.

In order to satisfy the growing demands for excellent quality pizzas all over the world and strengthen the business of this product, a study was conducted on the possibility of developing innovative solutions, compatible with the disciplinary of production, that allow to obtain a dough rolls ready-to-use, with a medium-high shelf life useful for pizzas making.

For this purpose, the dough obtained according to the classic recipe was divided into two samples (C1 and C2) which were subjected to two different leavening processes. C1 was leavened in mass for 2 h at 20°C, then divided in 250 g dough rolls and further leavened for 2h (C1-2), 4h (C1-4) and 6h (C1-6) at 20°C before packing. C2 was first divided into 250 g rolls and subsequently leavened for 12h (C2-12), 14h (C2-14) and 16h (C2-16) at 20°C, and then packed. The packaged samples were stored at 1-2 ° C for 28 days. At scheduled times of 7 days the quality of the dough was evaluated by testing the pH, the total titratable acidity, the volume of the dough, the colony forming units, the headspace concentrations of gases O₂ and CO₂, and the lamination property of dough by squeezing tests.

Preliminary results obtained to after 28 days showed that the samples with a longer leavening time (C1-6 and C2-16) exhibited similar characteristics to the fresh product, however, the best chemical-physical characteristics were shown in the C1-6 samples.

These results represent an important starting point for a large-scale marketing of ready-to-use dough balls which can find a valid application in allowing the tasting a "Pizza Napoletana" (TSG) brand products even in pizzerias not necessarily present in the Campania region.

Acknowledgement

The research was made with the financial support of MIUR: PRIN 2017 - 2017SFTX3Y: The Neapolitan pizza: processing, distribution, innovation and environmental aspects.

References

- 1) COMMISSION REGULATION (EU) No 97/2010, Official Journal of the European Union, L34, 4 February 2010
- 2) Jeju, South Korea, 7th December 2017

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Category: Poster presentation