

Francesca Nocente, PhD

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Researcher at the CREA – Research Centre for Engineering and Agro-Food Processing in Rome, carrying out scientific activities in the field of cereal technology, with an integrated approach combining genetic, technological, and nutritional aspects of the cereal supply chain.

She graduated with honors in Biological Sciences at Sapienza Università di Roma and obtained a PhD in Biochemistry and Technologies Applied to Food and Nutrition at Università Campus Bio-Medico of Roma. During her research activities, she has developed expertise in cereal technology and in the evaluation of the nutritional and technological quality of raw materials and first- and second-stage processed products.

Her research focuses on the development and optimization of production processes, employing both innovative technologies (3D printing, micronization, air-classification) and traditional technologies for the production of cereal-based foods—particularly pasta—with enhanced nutritional and health-promoting properties, also by using agro-food by-products within the framework of sustainability and circular economy principles. From 2014 to 2018, she was responsible for the qualitative monitoring of durum wheat at the farm level within the project “Rete Qualità Cereali Plus” (RQC+), funded by the Italian Ministry of Agricultural, Food and Forestry Policies (Mipaaf), aimed at monitoring the quality of wheat national production.

She has also developed expertise in wheat genetics, with particular focus on the study of resistance to wheat rust diseases, contributing to national monitoring and evaluation activities. Since 2004, she has collaborated with the National Epidemiological Trial Network for wheat, and since 2025 she has been responsible for the National Epidemiological Trial Network for both common wheat and durum wheat within the RETICER project, funded by the Italian Ministry of Agriculture, Food Sovereignty and Forestry (Masaf). She is also a member of the CREA Working Group on Phytosanitary Emergencies.

She has participated in numerous national and international research projects on cereals and has collaborated through research agreements with public and private institutions, including ENSE, the Agricultural and Forestry Research Centre of Laimburg, Dow AgroScience Italia S.r.l., and she has served as scientific coordinator of the collaboration with Barilla S.p.A..

She has carried out teaching activities at Università Campus Bio-Medico di Roma, where she served as Tutor in Food Technology in the Bachelor’s Degree Course in Food Science and Human Nutrition (2014–2021) and as Professor in Food Technology (2022–2024). She also supervises undergraduate and graduate theses, internships, and PhD students.

She is a Member of the Scientific Committee of CREA IT (Rome). She serves as Guest Editor of Special Issues of the journal *Foods* and as reviewer for several international scientific journals in the field of food science and cereal science.

Her research activity is documented by more than 100 publications in national and international peer-reviewed journals.

Selected publications

-Natale, C., Galassi, E., Nocente, F., Taddei, F., Folloni, S., Visioli, G., ... & Gazza, L. (2025). Rheological, Technological, and Nutritional Profile of Sustainable Crops: Bread Wheat Evolutionary Populations. *Foods*, 14(22), 3821. <https://doi.org/10.3390/foods14223821>.

-Galassi, E.; Natale, C.; Nocente, F.; Taddei, F.; Visioli, G.; Ceccarelli, S.; Galaverna, G.; Gazza, L. (2025). Regenerative Agronomic Approaches: Technological, Biochemical and Rheological Characterization of Four Perennial Wheat Lines Grown in Italy. *Agronomy*, 15, 939. <https://doi.org/10.3390/agronomy15040939>

-Nocente, F. & Gazza, L. (2025). Technological Development in Wholegrain Food Processing. *Foods*, 14, 2009. <https://doi.org/10.3390/foods14122009>. Review.

-Nocente F., De Francesco G., Marconi O., Floridi S., Latini A., Cantale C., Galeffi P., Ammar K., Laura Gazza (2025). Malting and brewing process optimization of elite lines of triticale for beer production. *Food and Bioprocess Technology*. *Food and Bioprocess Technology*, 18(4), 3346-3355. <https://doi.org/10.1007/s11947-024-03654-z>.

-Nocente, F., Galassi, E., Taddei, F., Natale, C., Gazza, L. (2024). Preliminary Evaluation of Minor Cereals as Non-Traditional Brewing Raw Materials. *Beverages*, 10(1), 2. <https://doi.org/10.3390/beverages10010002>.

- Gazza, L., Menga, V., Taddei, F., Nocente, F., Galassi, E., Natale, C., Lanzanova C., Paone S. & Fares, C. (2024). Nutritional Traits, Pasting Properties and Antioxidant Profile of Selected Genotypes of Sorghum, Oat and Maize Eligible for Gluten-Free Products. *Foods*, 13(7), 990. <https://doi.org/10.3390/foods13070990>.
- DeMaria F, Romeo Lironcurti S., Morandi F., Pesce A., Gazza L., Nocente F. (2024). Consumers' response to genetically modified food: an Italian case study. *GM Crops & Food*, 15(1), 303–315. <https://doi.org/10.1080/21645698.2024.2417473>
- Gazza, L. & Nocente, F. (2023). The Contribution of Minor Cereals to Sustainable Diets and Agro-Food Biodiversity. *Foods*, 12(18), 3500. Editorial. <https://doi.org/10.3390/foods12183500>
- Galassi, E., Gazza, L., Nocente, F., Kouagang Tchakoutio, P., Natale, C., Taddei, F. (2023). Valorization of Two African Typical Crops, Sorghum and Cassava, by the Production of Different Dry Pasta Formulations. *Plants*, 12(15), 2867. <https://doi.org/10.3390/plants12152867>
- Nocente, F., Galassi, E., Taddei, F., Natale, C., Gazza, L. (2022). Ancient caucasian wheats: A contribution for sustainable diets and food diversity. *Foods*, 11(9), 1209. <https://doi.org/10.3390/foods11091209>.
- Gazza, L., Galassi, E., Nocente, F., Natale, C., Taddei, F. (2022). Cooking quality and chemical and technological characteristics of wholegrain einkorn pasta obtained from micronized flour. *Foods*, 11(18), 2905. <https://doi.org/10.3390/foods11182905>
- Gazza, L., & Nocente, F. (2022). Innovative Pasta with High Nutritional and Health Potential. *Foods*, 11(16), 2448. Editorial. <https://doi.org/10.3390/foods11162448>.
- Nocente F., Natale C., Galassi E., Taddei F., Gazza L. (2021). Using Einkorn and Triticum Brewers' Spent Grain to Increase the Nutritional Potential of Durum Wheat Pasta. *Foods* 2021, 10, 502. <https://doi.org/10.3390/foods10030502>.
- Taddei F., Galassi E., Nocente F., Gazza L. (2021). Innovative Milling Processes to Improve the Technological and Nutritional Quality of Parboiled Brown Rice Pasta from Contrasting Amylose Content Cultivars. *Foods*, 10, 1316. <https://doi.org/10.3390/foods10061316>.
- Ciccoritti R, Taddei F, Gazza L, Nocente F. (2021). Influence of kernel thermal pre-treatments on 5-n-alkylresorcinols, polyphenols and antioxidant activity of durum and einkorn wheat. *European Food Research and Technology*, <https://doi.org/10.1007/s00217-020-03627-4>.
- P. Firmani, A. Nardecchia, F Nocente, L Gazza, F Marini, A Biancolillo. (2020). Multi-block classification of Italian semolina based on Near Infrared Spectroscopy (NIR) analysis and alveographic indices. *Food Chemistry*, 30 309: 125677. <https://doi.org/10.1016/j.foodchem.2019.125677>.
- Galassi, E., Taddei, F., Ciccoritti, R., Nocente F., Gazza, L. (2020). Biochemical and technological characterization of two C4 gluten-free cereals: Sorghum bicolor and Eragrostis tef. *Cereal Chemistry*, 97:65–73. <https://doi.org/10.1002/cche.10217>.
- Nocente F., Taddei F., Galassi E., Gazza L. (2019). Upcycling of brewers' spent grain by production of dry pasta with higher nutritional potential. *LWT – Food Science and Technology*. *LWT-Food Science and Technology*, 114. <https://doi.org/10.1016/j.lwt.2019.108421>.
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- Miriana Durante, Marcello S. Lenucci, Laura Gazza, Federica Taddei, Francesca Nocente, Giuseppe E. De Benedetto, Monica De Caroli, Gabriella Piro, Giovanni Mita. (2019). Bioactive composition and sensory evaluation of innovative spaghetti supplemented with free or α -cyclodextrin chlated pumpkin oil extracted by supercritical CO₂. *Food Chemistry*, 294:112–122. <https://doi.org/10.1016/j.foodchem.2019.05.032>.
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- Katya Carbone, Mariano Paliotta, Laura Micheli, Claudia Mazzuca, Ilaria Cacciotti, Francesca Nocente, Alessandra Ciampa, Maria Teresa Dell'Abate. (2019). A completely green approach to the synthesis of dendritic silver nanostructures starting from white grape pomace as a potential nanofactory. *Arabian Journal of Chemistry* 12: 597–609. <https://doi.org/10.1016/j.arabjc.2018.08.001>.