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Will the COVID-19 pandemic make us reconsider the relevance of short food supply chains and local productions?



To the editor:

The globalization led to the opportunity to make available several food products in all over the world, with positive returns for the profitability of the food industries and for consumers. After the second world war, all the involved countries had to face and to resolve several critical issues regarding the food productions: first, the food security; secondly, the food safety of products; finally, nowadays, the improvement of foods from a nutritional, technological, and sensorial point of view. Nowadays, in industrialized countries, the trade and logistics management of food products have planetary character. In the European Union, the food trade is simplified by the articles 34, 35, 36, and 37 of the TFUE (European Union, 2012), which allow the free movement of goods. It is superfluous to highlight the enormous steps forward made worldwide for the production and distribution of food products. They are so huge that the critical issues of food security and food safety seem to have become faraway memories. This food policy changed the eating habits of consumers which move from local and retail markets to supermarkets and discount stores where they can, with a single stop, purchase all the foods they needed. Moreover, the significant change in lifestyle, the increase in working hours, and the ever-decreasing availability of time to cook, led to the inevitable triumph of supermarkets and discount stores.

Globalization must not be considered negatively. Nevertheless, the short food supply chains and the local producers, which were not able to be part of this global business for several reasons (e.g. low production capacity, non-competitive prices, etc.) were negatively affected by this expansion of market. Fortunately, through production differentiation strategies, such as rediscovery of autochthonous varieties and of ancient wheat cultivars (Cappelli et al., 2018; Guerrini et al., 2020), through the connection with the territory (Mundler & Laughrea, 2016), and by the assessment and reduction of environmental impact (Recchia, Cappelli, Cini, Garbati Pegna, & Boncinelli, 2019), these companies

were able to carve out their market niche. But what happens in the event of a crisis of planetary dimensions like the COVID-19 pandemic? If even the countries member of the European community close their borders, how can movements and availability of food be guaranteed? Moreover, given the personal freedoms restrictions of consumers applied by country governments, who sometimes cannot even change municipalities for purchase foods, how can access to essential foods be guaranteed for these people? In this scenario, it seems to be back to 1950, having potential problems of food security which, a few months ago, seemed to be distant memories.

A potential answer to these questions might be furnished by short food supply chains and local productions, which feel less the effect of international restrictions and which, since their rooted presence in the territory, could be closer to the consumers. For these reasons, after the conclusion of this international crisis, is essential to strengthen the research activities to provide technical solutions aimed to improve short food supply chains and local productions, as we are doing for wheat and flour production chains (Cappelli et al., 2019a, 2020a, 2020b; Cappelli et al. 2019a; Cappelli et al. 2020a; Cappelli et al. 2020b), because in this crisis (and in potential future menaces even worse) they will represent a potential lifeline. The reinforcement of this local micro-economy is also useful in non-crisis situations, since allow to increase the chances of employment and improve people's quality of life. Sometime, when we are forced to take a step backwards, to have invested in the improvement of short food supply chains and in local productions could let us moving forwards, preserving the food products access. In light of the above, after that consumers rediscover their bond with the territory, will they want to return to supermarkets?

Declaration of competing interest

No competing interests were disclosed.

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References

- Cappelli, A., Cini, E., Guerrini, L., Masella, P., Angeloni, G., & Parenti, A. (2018). Predictive models of the rheological properties and optimal water content in doughs: An application to ancient grain flours with different degrees of refining. *Journal of Cereal Science*, 83, 229–235.
- Cappelli, A., Guerrini, L., Cini, E., & Parenti, A. (2019a). Improving whole wheat dough tenacity and extensibility: A new kneading process. *Journal of Cereal Science*, 90, 102852.
- Cappelli, A., Guerrini, L., Parenti, A., Palladino, G., & Cini, E. (2020a). Effects of wheat tempering and stone rotational speed on particle size, dough rheology and bread characteristics for a stone-milled weak flour. *Journal of Cereal Science*, 91, 102879.
- Cappelli, A., Oliva, N., & Cini, E. (2020b). Stone milling versus roller milling: A systematic review of the effects on wheat flour quality, dough rheology, and bread characteristics. *Trends in Food Science & Technology*, 2020. <https://doi.org/10.1016/j.tifs.2020.01.008>.
- European Union (2012). *Consolidated versions of the treaty on European union and the treaty on the functioning of the European union (C326/47)*. Office for Official Publications of the European Communities.
- Guerrini, L., Napoli, M., Mancini, M., Masella, P., Cappelli, A., Parenti, A., et al. (2020). Wheat grain composition, dough rheology and bread quality as affected by nitrogen and sulfur fertilization and seeding density. *Agronomy*, 10(2), 233.
- Mundler, P., & Laughrea, S. (2016). The contributions of short food supply chains to territorial development: A study of three quebec territories. *Journal of Rural Studies*, 45, 218–229.
- Recchia, L., Cappelli, A., Cini, E., Garbati Pegna, F., & Boncinelli, P. (2019). Environmental sustainability of pasta production chains: An integrated approach for comparing local and global chains. *Resources*, 8(1), 56.

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