



Observations on the impact of the COVID-19 outbreak on farmers: Case of Italy

Abstract

As countries report mounting cases of the COVID-19, the outbreak presents them and the global community with unprecedented challenges in recent times. FAO monitors the experience of those heavily affected by the pandemic looking at the immediate impacts and the mitigation measures of countries in responding to the crisis. Drawing from the experience of Italy in dealing with the outbreak, this article aims to inform policy makers on response options, best practices and lessons learned. Particular attention in the review is given to small-scale producers and their access to markets.

I. CONTEXT

Cases of COVID-19, commonly known as coronavirus,¹ were first reported in December 2019 in China. One month later, on 30 January 2020, the World Health Organization (WHO) declared COVID-19 as Public Health Emergency of International Concern (WHO, 2020). As COVID-19 spreads and cases mount in the months that followed, countries are increasingly adopting nationwide lockdowns with risks and implications on the food systems (FAO, 2020). In Italy, the first two cases of COVID-19 were reported on 30 January 2020, followed by the first case of secondary transmission on 18 February 2020 (Governo Italiano, 2020c). The government responded by declaring the state of emergency on 31 January 2020 and implementing measures including restrictions of movement and lockdown in the first affected areas, “red zones”. Despite this, cases rose at an exponential rate, leading the Italian Government to adopt a nationwide lockdown on 10 March 2020 with the *Io Resto a Casa* (I Stay Home) decree-law to limit movements and social gatherings within the Italian territory (Governo Italiano, 2020b). To prevent the coronavirus from spreading, all non-essential locations have been closed and nearly 60 million residents have been asked not to leave their homes except when strictly necessary (Di Donato *et al.*, 2020). The government identifies three main necessities for people to leave their homes: i) work, ii) food supply and iii) health-related services (Governo Italiano, 2020b).

Inevitably, the lockdown has had socio-economic implications across the Country, with wide-ranging impact on all sectors of the economy, not least the agricultural sector.

¹ COVID-19 is the disease provoked by the SARS COV 2 virus, which was declared a Public Health Emergency of International Concern and a pandemic by WHO on 30 January 2020 and 11 March 2020 respectively. For updates on novel coronavirus disease (COVID-19) and details on human health, please refer to [the World Health Organization \(WHO\)](https://www.who.int/).

Although the movement restrictions exempt those involved in the food supply chain (producers, inputs, transportation, processing plants, shipping), the difficulties the situation presents may still affect significant elements of both food supply and demand (FAO, 2020).

The present article documents initial observations regarding the repercussion of the lockdown on the agricultural sector during the first two months of the COVID-19 outbreak in Italy. It aims to capture some of the challenges faced by producers and responses by the government and other stakeholders to mitigate the impact during the early stages of the crisis. It should be noted that the observations presented in this article, are based on the information available at the time of writing. Given the proximity of the events that are still unfolding, this research article mainly relies on news and media sources. More insights and in-depth lessons to inform policy options can be gained from continued monitoring and assessments as the situation evolves.

II. IMPACT ON THE AGRICULTURAL SECTOR

The outbreak has had a broad impact on the agricultural sector, from production and harvesting to processing and exports. The containment measures introduced by the government have particularly affected activities related to the harvesting, packaging and transport, as well as the movement of workforce, goods and services within Italy and across Europe. Italian food exports, restaurants and agri-tourism were also deeply affected, with a drop in global demand for the “Made in Italy”.

National policies² are in place to minimize the effects of the lockdown on the agricultural sector by ensuring access to agricultural services, including the supply of seeds, plant protection and fertilizers (Verni, 2020). Still, reality places new challenges on the operationalization of these policies. The logistics for delivery through retailing points are especially vulnerable, particularly for imported agricultural inputs, as in the case of fertilizers, with 2.3 million tons coming from abroad. The crisis is also weakening the provision of services related to storage and food packaging, imposed by the need for new health safety measures and facilities to minimize the risk of people getting infected when at work (Ibid, 2020).

One of the first observations on the initial impacts of COVID-19 on agriculture relates to the demand for milk. The closure of restaurants, coffee shops and farm-holiday-stays had indeed an impact on milk consumption. The *Agenzia Nazionale Stampa Associata* (ANSA), the national associated press agency, reports Giorgio Mercuri, President of *Alleanza Cooperative Agroalimentari*, the agri-food cooperative alliance, stating an agricultural national surplus of 10 percent of fresh milk and the challenge for cooperatives to process the milk. The Cooperative Alliance, therefore, encourages farmers to reduce milk production (ANSA, 2020e). In light of this change, farmers from *Noisiamovoi Piemonte* (Weareyou Piemonte), a producers’ association mainly active in northern Italy, have mobilized to raise their voices on sustaining the national dairy production by lowering imports of dairy products (Tropeano, 2020a).

² In line with the C.4 Art.1 of the DPCM, 11 March 2020

In support of dairy farmers, the Italian Ministry of Agricultural, Food and Forestry Policies is planning to allocate EUR 6 million for purchasing ultra-high-temperature (UHT) processed milk. The intention is to absorb the surplus and distribute UHT milk among vulnerable families (ANSA, 2020e). A similar proposal has been advanced on the allocation of EUR 50 million to acquire the surplus of other food commodities for distribution to the poorest quantiles (Ottaviano, 2020).

Horticulture and fruit production are also at risk. This sector was already suffering from an overproduction deriving from a heatwave and a subsequent drop in prices. With the containment measures for COVID-19, the reduction in the number of people visiting wholesale markets resulted in lower sales of fresh fruits and vegetables, even before the country-wide lockdown (ANSA, 2020a). On 4 March 2020 *Fedagromercati-Confcommercio*, the national federation of Italian agri-food wholesalers, reported a drop of 30 percent in volume of sales, with an estimated 50 percent decline in the following days. This drop can be partially explained by the decline in tourism and access to public sites such as restaurants, school feeding, offices, businesses and local markets (Ibid, 2020a).

Stories from the field: Example of Impact on an artichoke production enterprise

Artichokes are among the crops most affected by the outbreak of the COVID-19. Farmers from Sardinia have already experienced the negative impact of climate change on the production season of the crop. With the implementation of measures to limit the spread of the virus, demand for artichokes has dropped. The cooperative usually sells from 250 to 300 thousand artichoke heads per day. With the closure of restaurants, there are no purchasing orders coming from Rome and Florence. Artichokes are then left in the field and the few ones that are harvested are sold at a very low price of EUR 0.25, as compared to the average price of EUR 0.60-0.70 in a normal situation.

Source: L'unione Sarda, 2020

Rice production is jeopardized as well. About 50 percent of the rice produced across 1 900 farm enterprises cultivating 117 000 hectares of rice-land are mainly concentrated in four Italian provinces. Namely these are Vercelli, Biella, Novara and Alessandria, in Piemonte Region, one of the "red zones" of the early outbreak (Maggio, 2020). On 17 March 2020 the chief of the *Ente Nazionale Risi*, the national rice authority, expressed his concerns on rice production due to the slow-down in the delivery of soil compost coming from the Emilia and Lombardia regions, needed for replanting in the new (spring) season on dry soil (ANSA, 2020f).

Among other sub-sectors, small-scale fisheries are also threatened by the inability to guarantee onboard fishing boats the one-meter physical distancing³ and by the lower demand for fresh fish, which has decreased by 40 percent due to the closure of restaurants (Barbera, 2020). Nearly 70 percent of the clams (*Venerupis Decussata L.*) from Emilia Romagna are indeed sold to restaurants (ANSA, 2020d). The month of March is

³ enforced by the government's DPCM of 8 March 2020

crucial in the fisheries sector, characterized by few sea-storms and favorable wind. March is the month to fish squids, anchovies, prawns and shrimps (Nardella, 2020). Yet, due to the uncertainty of sales, most fishing boats are not sailing (Barbera, 2020).

Stories from the field: Example of impact on a poultry hatchery enterprise

Located in Umbria, the *Marchesini Srl.* is a poultry hatchery enterprise that supplies one-day-old chicks. The breeder farm supplies national markets and it also exports to Greece, Albania and Romania. The hatched chicks are generally transported by truck, through the enterprise's own transport means. When new chicks are hatched, these have to be delivered within 24 hours to breeders who will, in turn, sell them for consumption once these are full-grown. Increased storage time of eggs has a negative impact on the hatchability and quality of the chicks. With the advent of COVID-19, fewer people are buying free-range chickens from the local farm stores, marking a drop in market demand. A week after the national lockdown, the breeder farm had to cull nearly 65 000 chicks, marking an economic loss of 40 000 euros.

Source: Tuttoggi, 2020

Stories from the field: Example of impact on a flower farm

The government has recently clarified that the *decreto del Presidente del Consiglio dei Ministri* (DPCM), the decree of the President of the Council of Ministers, of 22 March 2020, reviewed on 25 March 2020, does include floriculture as one of the businesses that can stay operational. Thus, seeds, plants, fruit plants, potted plants, ornamental plants and fertilizers, can still be produced, transported and marketed (Tropeano, 2020b). Still, with the adoption of the national lockdown, all celebrations and ceremonies have been halted leading to cancellations of purchases and a rapid drop in demand for cut flowers. As a result, thousands of flowers and plants are withering in the nurseries of Italy, to the detriments of this sector. This means a great loss for those involved in floriculture as the spring season generates 75 percent of the annual turnover (Coldiretti, 2020g). It takes from 2 to 6 months for the plants to flourish, with substantial costs involved for the purchase of bulbs or plants, irrigation, treatment, greenhouses and human capital (Sportelli, 2020). A family flower farm specialized in the production of programmed flowering chrysanthemums with over 30 000 m² of iron-glass greenhouses had to destroy its full-grown flower production due to the lack of market demand (ibid, 2020). The flower producers decided to testify their struggle on the web by posting a video of the harvest being smashed on [YouTube](#).⁴

Source: Sportelli, 2020

⁴ The YouTube video mentioned in this article is available at: <https://www.youtube.com/watch?v=elLVKcCIGY8&feature=youtu.be>

III. CONSUMERS' REACTIONS AND FOOD MARKET DEMANDS

The restriction of movement affected not only the national economy but also the lifestyle of people, and sequentially consumption patterns and market demand for food. In the first two weeks of the lockdown, the volume of food sales has increased, especially for the small and medium retailers in villages, which have experienced an upturn in sales ranging from 50 percent to peaks of 100-120 percent in the most remote areas of the country (ANSA, 2020g). Consumer behaviour has also changed, marking an increase in e-commerce up to five-folds and a change in product preferences.

Already in January, the food industry has recorded an increase of net income of 7.9 percent (Coldiretti, 2020c). Within two weeks from the "I Stay Home" decree, the market witnessed an increase in purchases of both staple food and long-shelf-life food products. For instance, demand for flour rose by 80 percent, canned meat by 60 percent, canned beans by 55 percent and tomato sauce by 22 percent (Coldiretti, 2020c). The sociologist Domenico De Masi from the *Agenzia Giornalistica Italia* (AGI), the Italian journalist agency, explains that this change in consumption might be the result of people's sense of uncertainty for the future, coped by the household procurement of emergency food stock (Lanari, 2020). In March, four Italians out of ten (38 percent) have bought food stock with the fear of not being able to find it later in the month. In the third week of March, the food industry showed the first signs of sales normalization, with some fluctuations, probably due to the consumption of the accumulated food stocks at home (ANSA, 2020g).

Within this trend, consumer preference is given to Italian products. About 82 percent of consumers agree on the importance of buying local products to safeguard the national food industry. This objective is also promoted by the *Coldiretti's* campaign *#MangiaItaliano* (*#EatItalian*), which saw the participation of famous personalities to promote the "Made in Italy" (Coldiretti, 2020a). Within this movement, the chief of *Coldiretti Lombardia*, Paolo Voltini, has asked the government to guarantee the continuation of the food industry related activities, including food processing, packaging, transport and delivery, subject to compliance with all of the health and safety measures. In his interview, on 11 March 2020, Paolo Voltini also seeks the support of retailing points to prioritize the supply of local products (Cremaonline, 2020).

According to the *Borsa Merci Telematica Italiana* (Bmti), the agency of the Italian Chambers of Commerce System and *Italmercati*, the outbreak does not seem to have greatly affected the prices of fruit and vegetables. As of 18 March 2020, the only commodity whose price seemed to have increased are oranges, apples and potatoes. The price increase in for oranges may be explained by approaching the end of season as well as the increase in consumers' demand for vitamin-C-rich food products (ANSA, 2020g), while apples and potatoes fall under the category of long shelf-life products.

IV. GOVERNMENT MITIGATION MEASURES

Food remains an essential commodity and a main reason for movement together with work and health. Therefore, the over 3 million stakeholders along the food supply chain remained largely operational (Coldiretti, 2020f), albeit with inevitable constraints. The government has indeed reassured its citizens on the continuity of Italy's national food systems and supply chains. About 88 percent of the food volume is delivered with trucks and there are no limitations to the transport of goods, nor on the activities of agricultural workers (Governo Italiano, 2020; Coldiretti 2020b), provided that 'physical distancing' and safety measures can be ensured.

Since 23 February 2020, the government has passed ten decrees.⁵ The *Cura Italia* (Cure Italy) decree-law, launched on 17 March 2020, allocates funds and provides incentives for agriculture, among other sectors. The decree allocates EUR 100 million to support agricultural enterprises related to farming, fishery and aquaculture to cover the interests of loans and mortgages.⁶ In addition, a contribution of EUR 50 million will be provided to support food distribution for poor and vulnerable people⁷ Also, a compensation of EUR 600 will be transferred to the agricultural workers⁸ with short-term contracts for March. Lastly, farmers will be able to request an advanced disbursement, of 70 percent for the annual non-repayable contributions⁹ instead of the 50 percent foreseen under the Common Agriculture Policy (PAC) (Governo Italiano, 2020; Fotina, 2020). Still, despite the government support and the increase in market demand for food commodities, the supply chain faces several challenges as the situation continues to evolve.

Italian decrees in response to COVID-19

Declaration of the National State of emergency on 31 January 2020

Decrees

- DL 23 February 2020
- DPCM 25 February 2020
- DPCM 1 March 2020
- DPCM 4 March 2020
- DPCM 8 March 2020
- DPCM 9 March 2020
- DPCM 11 March 2020
- DL 17 March 2020 (Cura Italia)
- DPCM 22 March 2020
- DM 25 March 2020

(Source: Governo Italiano, 2020)

The containment and mitigation measures have become more stringent in Italy with the DPCM of 22 March 2020, revised on 25 March 2020, which narrows down the list of essential services and businesses to agriculture and food producers, supermarkets, pharmacies, banks, post offices energy, water and steel suppliers (Governo Italiano, 2020; Follai *et al.*, 2020). However, it should be noted that the last list of essential businesses does not include forestry related activities.

⁵ As of 30 March 2020

⁶ Art. 78, par. 2, D.L. n. 18/2020

⁷ Art. 78, par. 3, D.L. n. 18/2020

⁸ Able to prove at least 50 days of agricultural work during the year of 2019 (Art. 30, par. 1, D.L. n. 18/2020)

⁹ Art. 78, par. 1, D.L. n. 18/2020

V. REGIONAL DYNAMICS REFLECTING ON THE AGRICULTURAL SECTOR

The growing concern on the wider spread of the COVID-19 with the free movement of goods and people, led eight countries¹⁰ in Europe to put in place restrictions on the free-movement policy under the Schengen Treaty. The limited flow of people and goods within the continent reflects on Italy's agricultural workforce, its exports and the European sentiment within the region (McDonald, 2020). In response to these restrictions, the European Union Commission Chief Ursula Von Der Leyen announced on 17 March 2020 the intention to block European Union external borders for 30 days (D'Argenio, 2020).

The agriculture sector in Italy relies heavily on migrant workers from neighbouring countries, due to a consistent decline in the number of Italian workers in this sector. Every year there are about 370 000 seasonal workers coming from abroad, guaranteeing 27 percent of the working hours for agriculture in Italy (Livini, 2020). With the extension of the ban on movement across the continent, seasonal workers are blocked from entering the country at the start of the spring growing season affecting the availability of agricultural labour in the Italian territory (Win, 2020). Thus, the shortage in the agricultural workforce might threaten the preparation for spring and summer crops, such as corn and sunflower, and the management and harvest of fruits, with implications on the agricultural production and a potential rise in market prices.

In response to this emerging challenge, the government has extended the residence permit for non-European Union citizens already living in Italy (ANSA, 2020i). Moreover, several proposals have been advanced by civil society organizations to further mitigate the impact. For example, to regularize foreign labourers¹¹ who lack residence permits, simplify agricultural vouchers¹² to allow Italian students and other occasional workers to carry out the work in the countryside, and temporarily employ in public work programmes those who are currently benefiting from the national cash transfer programme *Reddito di cittadinanza* (citizenship basic income) (Canali, 2020; Benfatto, 2020; Serrao, 2020). As many businesses are affected by the lockdown, there might be scope to encourage the employment of Italian labour in agriculture, especially those affected by business closure. Employment agencies have started to facilitate the recruitment of those interested in working in the food and agricultural sector, often incentivized with the provision of board and lodging.

In addition, agricultural exports are dropping. Filiera Italia an association supporting food grading, agri-food production and transformation system, has forecasted a 4 percent drop in agricultural exports (Ottaviano, 2020). Italy being the hardest hit European country by COVID-19 outbreak (at the time of writing), some countries have started demanding a "virus free" certification on Italian products, with some media outlets arbitrarily questioning the hygiene of food production processes (Coldiretti, 2020b). The European Food Safety Authority has maintained that there is no evidence that food is a

¹⁰ As of 16 March 2020: Austria, Hungary, Check Republic, Denmark, Poland, Lithuania, Germany and Spain

¹¹ As non-European Union citizens have to hold a residence permit for the first five years of residence in Italy. The permit is renewable, issued with varying durations of validity and expiry dated. To address this issue, the government decided to extend to 15 June 2020 those residence permits that are about to expire with the Circular n. 23308 of 21 March 2020

¹² "The voucher programme aims to regularise the work of students and pensioners who offer their labour on an occasional basis. [...] The objective is to encourage workers to emerge from the informal economy and to guarantee better conditions both for employers and occasional workers." (Eurofound, 2009).

vehicle of COVID-19 transmission; this position has also been endorsed by the Agricultural Committee of the European Parliament (European Food Safety Authority, 2020). Still, while 2020 had initially seemed to be a promising year for exports, data show that following the COVID-19 outbreak 53 percent of the farm enterprises have received cancellations of orders for food purchases from abroad (Coldiretti, 2020b).

Paolo De Castro, S&D Coordinator at the Agriculture Committee of the European Parliament

"All health authorities tell us: food can be neither a source nor a means of transmission of the coronavirus. [...] we must work to defend the integrity of the European single market and prohibit any scientifically unjustified measures that restrict the free movement of goods, and in particular of our agri-food excellence ". Source: ANSA, 2020c

Source: Sportelli, 2020

VI. SOCIAL MOBILIZATION AND THE RISE OF DELIVERY SERVICES

Several are the initiatives of social mobilization that have been launched in Italy since the COVID-19 outbreak. A first example comes from *Coldiretti*, one of the main associations of agricultural entrepreneurs, which has made available agricultural machineries (tractors, sprayers nebulizers and atomizers) to the *Protezione Civile* (Civil Protection) to sanitize the streets of cities and towns by spraying disinfectants (Coldiretti, 2020d).

The *Consortium of Parmigiano Reggiano DOP* has sought the support of retirees to replace those workers who fall sick, to minimize the damages within the sector (RomaToday, 2020). There are 50 000 cattle farms engaging in the production of parmesan cheese in the provinces of Bologna, Mantova, Modena, Parma and Reggio Emilia. Cows have to be milked every day, and the fresh milk used in the production of this high-quality cheese cannot be frozen. The measure of mobilizing retirees aims to address labour shortage in case of workers absence on sick leave, to prevent the disruption of the value chain during this crisis (ANSA, 2020b). With this arrangement, the strict observance of preventive health and safety measures within facilities becomes crucial to eliminate the risk of contracting COVID-19, especially for seniors who appear to be the most vulnerable age segments of the population.

It is indeed often a challenge to keep the required personal distancing in the field, factories and warehouses and other facilities along the food value chains. To ensure that those businesses involved can safely operate following the health guidelines and preventative measures required by the government, the professional Italian farmers' organization *Confederazione Italiana Agricoltori* (CIA) has asked to the government and Civil Protection for more clarity on procurement channels and certainty of access to personal protection equipment, such as face masks for employees, to guarantee decent working conditions within their businesses (CIA, 2020).

On the other end, communities have initiated food delivery services for the most vulnerable segments of the population, especially the elderly. Also, the private sector has offered free delivery of purchased groceries for those who are older than 65. It is the case of *Esselunga*, *Carrefour* and *Coop* supermarkets, which have extended this service to over 300 municipalities. However, the great demand for home deliveries coupled with the shortage in human resources have resulted in delays of more than ten days for the delivery of orders (ANSA, 2020h).

Also farmers deliver their products within the initiative *Campagna Amica*; and small and medium retailers are gradually adapting to the situation by adopting simple communication tools such as *WhatsApp* to facilitate purchases and by offering home delivery to their clients (Passatino, 2020; ANSA, 2020h). Given the closure of farmer markets, cooperatives themselves have also embraced adaptive strategies. Online platforms such as *Kalulu* and *Alveare* put producers in direct communication with their end-consumers (Ibid, 2020h). Similarly, enterprises, such as *Ethical Food Selection* that position themselves in the sustainable value chain, deliver products of small farm enterprises, without additional fees, to help sustain small-scale producers who are most vulnerable to the changing situation (Ibid, 2020h).

On a parallel approach, those involved in agri-tourism have decided to share their traditional recipes through social media in support of *#Mangiaitaliano* (*#EatItalian*), under the initiative *#Gliagriturisminsonsifermano* (*#agritourismwontstop*). This innovative idea is based on the evidence that Italians have increased their demand for flour, indicating an increase in household consumption of home-made sweets, bread and pasta. *Coldiretti* will share the photos and videos through *Twitter*, *Instagram* and *Facebook* (Coldiretti, 2020f).

VII. CONSIDERATIONS FOR THE FUTURE

The Italian agricultural sector is characterized by wide participation of small-scale producers representing 72 percent of farm units operating over 12.6 percent of arable land (ISTAT, 2019). While the lockdown affects both large and small producers, the two presumably face different types of challenges in view of the crisis. For example, large producers tend to face issues related to access to labour supply, transport and exports, while small producers may struggle on processing, transporting and marketing their products due to the closure of their informal and semi-formal channels. Still, there is no official data available yet to support this assumption.

The current COVID-19 outbreak presented countries and the global community with unprecedented challenges in recent times. As governments, and people and businesses strive to cope with the outbreak and its repercussions, both old, time-tested measures and new, innovative solutions need to be deployed to alleviate the impact on farmers and the global food production and security. Even at this early stage, the experience of Italy provides intuitions for response options and mitigation measures that might be extrapolated to other countries. Preliminary trends that can be gleaned from this experience include measures to:

- secure operations of the food supply chains to protect national food security;

- minimize the disruption of production and food supply and safeguarding the next growing season;
- ensure the continuity of agricultural input suppliers and service providers;
- protect producers' income with the provision of cash and food transfers;
- address the disruption of seasonal labour force and farm operations;
- facilitate new marketing channels to ensure producers' linkages to end-consumers.

The situation is rapidly evolving not only in Italy but worldwide, while its full impacts are yet to be understood. The interim and long-term measures put in place by the Government, as well as the initiatives promoted by the farmer associations, private sector and civil society, offer interesting lessons and insights for response options for countries that are just starting to deal with the outbreak. The actual implementation and impact of these measures remain to be seen as the situation evolves and more concrete data become available.

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ACKNOWLEDGMENTS

This publication was prepared by Verdiana Biagioni Gazzoli and May Hani¹³ in the Inclusive Rural Transformation and Gender Equity Division in FAO.

¹³ The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO in preference to others of a similar nature that are not mentioned. The views expressed in this information product are those of the authors and do not necessarily reflect the views of the Food and Agriculture Organization of the United Nations (FAO). Moreover, this research article has been written within 2 months of the outbreak of the COVID-19. Given to the proximity of the events that are still unfolding, this research article mainly relies on news sources.

