



# Food Security and COVID-19: We must act now to protect the first and last mile

Published on March 23, 2020



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Food consumption patterns and supply chains have been upended due to global quarantines, placing immense strains on the systems that enable agriculture and ensure the food supply. Right now, labor shortages, national and local border closures (or the threat of closures) and potential protectionist measures are at risk of impacting the ability to plant and harvest this year’s crops, and to deliver the food that is already in the supply chain. In short, we must act decisively to secure the two most urgent pieces of the food chain—the first and the last mile.

Consider these two statistics:

- 1. The first mile: In the next two months, 80% of all arable land in the Northern Hemisphere must be planted. For most crops, the window for planting is narrow and finite—often less than two weeks. (See Exhibit 1.)
- 2. The last mile: Over 30% of US caloric intake is consumed at restaurants or through foodservice companies, many of which are now closed. (See Exhibit 2)

We must ensure that planting continues without a hitch, and that the food already in the supply chain can make the last-mile trip to retailers and consumers. The good news is that we can overcome these challenges. The actions we take over the next two months can ensure near-term food security and a successful harvest in the months ahead.

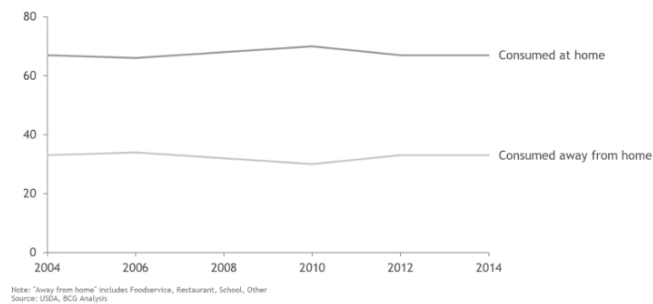
Exhibit 1: Most of the crops grown in the Northern Hemisphere must be planted in the next two months

Planting window				
Region	Crop	Planting Area (M acres)	Next 10 weeks	Rest of year
 North America	Corn	104	95%	5%
	Soybean	90	70%	30%
	Spring wheat	40	100%	0%
	Others	63	47%	53%
 China	Corn	106	100%	0%
	Rice	75	80%	20%
	Spring wheat	55	100%	0%
	Others	37	83%	17%
 EU	Spring wheat	33	100%	0%
	Barley	30	75%	25%
	Corn	21	100%	0%
	Others	57	26%	74%
 Russia	Spring wheat	29	100%	0%
	Barley	20	100%	0%
	Oats	7	100%	0%
	Others	53	14%	86%
Total		818	637	181
%		100%	78%	22%

Note: Field/row crops only, not including fruit, vegetables and specialty crops  
Source: USDA, BCG AgKnowledge

Exhibit 2: Over 30 percent of US caloric intake is consumed outside of the home

Percent of total calories



## Risks to the supply chain

The food chain starts down on the farm, where each spring farmers work together with their finance providers, manufacturers and distributors of agricultural inputs (seeds, crop protection chemicals, crop nutrients), and equipment manufacturers (tractors, planters, sprayers) to plant and grow this year's crops. How these players respond to the ongoing pressure of COVID-19 will determine how smoothly the rest of the food chain will operate.

China's recent experience is telling. Hubei—the epicenter of the Coronavirus—is China's largest fertilizer producer. Shutdowns in the province have led to some ripple effects in planting for Chinese growers. Growers have already suffered some setbacks, including shortages of labor, fertilizer and seeds. Without the supplies needed to plant in time, many growers have had to switch from high-value crops to rice.

In response, the Chinese government has prioritized the movement of agriculture inputs along supply chains, bypassing security checks and other potential roadblocks. As a result, China's planting season is currently on pace to match last year's.

Whether other countries will be willing to take the severe measures to support their growers that China has taken remains to be seen. And growers are only the beginning. Once crops are harvested, they must pass through the rest of the food chain, from manufacturers and processors to retailers and, finally, across the last mile to the consumer. We see four areas where action is needed to ensure the flow of food to consumers in the U.S. and beyond.

- 1. Addressing labor shortages with flexibility and coordination:** The potential for severe, ongoing labor shortages is real. More than 250,000 migrant laborers cross the U.S.–Mexico border every year on H2A visas. Sustained restrictions or delays in their movement could create a major labor gap during the prime planting and harvest seasons. The truckers needed to move both farm inputs and food have been in short supply for some time, so transport logistics will likely require even more support. For the last mile, the dramatic shift to "food at home" networks is straining retailers' capacity to pick and deliver products. It is critical to ensure that new sources of labor can quickly fill the gaps being created. Industries that have been idled may need to shift labor to other food and farming-related needs. This will require governments, unions, growers, food producers, distributors, and grocers to move quickly with a coordinated response.
- 2. Slowing down logistics to keep up:** To ensure continuity through the last mile of our food chain, distributors and retailers must take actions to reduce transmission of the virus, which, if left unchecked, will seriously disrupt their supply and delivery networks. In response, we must thoughtfully sacrifice productivity to ensure the redundancy of the supply chain, and find more labor than previously required to complete specific tasks. Potential actions include strict social distancing, staggered worker shifts, breaking worker teams into discrete cells, introducing A/B worker teams, and the like.
- 3. Ensuring the solvency of growers and restaurants:** Real farm income among growers in the U.S. has declined more than 25% over the past five years, thanks to historically low commodity prices. The downward pressure on commodity prices will likely continue, and with growers already strapped for cash, many may choose not to plant without easier credit and direct financial support. Moreover, the large-scale disruption to restaurants and other food-service operations will be difficult to overcome unless they can be supported through the quarantine period. The food preparation personnel who work in restaurants and foodservice provide 30% of all calories consumed in the U.S., and these workers cannot be easily replaced if they leave the industry. We must provide access to financing for farmers and those in the agricultural input supply chain as well as restaurateurs and food service companies. This includes ensuring unemployment benefits or temporary alternative work opportunities for the employees in these industries to ensure that they can weather the current storm and return to work once the virus subsides.

**4. Maintaining border access:** Concerns about potential border closures is already limiting the movement of agricultural inputs and food across national, state and local borders. Some truckers carrying food and fertilizer have been reluctant and at times refused to drive into Italy for fear of being unable to return. Moreover, some governments are already putting in place protectionist policies designed to better secure their own food supplies. Kazakhstan, for example, has [banned](#) the export of some food staples, including buckwheat, sugar, potatoes and onions, while Serbia has banned exports of sunflower oil. It is essential to ensure that national, regional and local borders remain open to food and farm supplies, and governments must clearly communicate their willingness to keep their borders open.

### **Weathering the storm**

Mitigating these risks and supporting growers in their efforts to plant this year's crops requires immediate action on the public and private sectors alike. First and foremost, governments must step up to minimize disruptions and ensure food security for all. To do so, they need to ensure that growers have access to the credit they need to buy the inputs needed to plant their crops, and to provide direct financial support to growers in need. Borders must be opened sufficiently to allow migrant farmworkers to enter and help with the planting season. All efforts must be made to keep essential agricultural input and equipment supply chains moving. And they must ensure that end markets for farm products remain open, and use trade and border control policies to minimize the impact of the pandemic on the global movement of agricultural products.

Private players, including input and equipment companies as well as their distributors and retailers, must make every effort to keep production of essential inputs moving, and ensure that the goods and services they provide are getting to growers in a timely fashion. This will require retaining the workers needed to maintain operations, even at the risk of maximum productivity, and making sure their own supply chains remain open. Input prices and financing terms may have to be adjusted so that struggling growers can get their crops into the ground. Regular and open communication with growers and throughout the input supply chain is critical to keep things moving.

Ensuring last-mile continuity, distributors, Direct-store distribution networks and food retailers must aggressively step up transmission-mitigation protocols, including A/B teams, staggered shifts, and checking workers' temperature. They also need to make contingency plans should part of the network go down, including coordination with new partners, such as foodservice providers, with the capacity to fill any gaps. Finally, supply chain players and retailers will need to coordinate efforts to focus on the most critical products to reduce unnecessary complexity. In these unusual times, companies also need to communicate and share best practices across the sector and the globe to accelerate the learning curve.

### **Reasons for optimism**

There are several pieces of good news:

- National, state and local governments, agricultural input providers, farming equipment companies and food companies are already mobilizing to ensure continuity of supply.
- So far, rural areas have been less impacted by COVID-19, so economic activities are less affected than in more densely populated cities. And many growers in the Northern Hemisphere have already purchased the inputs they need and made their planting plans for the coming season.
- Food retailers, foodservice providers, and distributors are acting now on the lessons from other parts of the world, putting protocols in place and shifting labor to where it is needed most.

Securing the global food supply in the face of the COVID-19 pandemic must be the top priority for actors across the food and agriculture value chain, and for the governments that oversee it. We have strong reason to believe that we are up to the challenge, and that, in the long run, our food supply chain will come out even stronger than before.

For more information on the impact of COVID on other sectors and the broader economy, please visit [BCG COVID site](#).

*Special thanks to BCG Partners @Dan Gott @Prerak Bathia and @Torsten Kurth for contributing to this article.*