

**Question: What are the broad impacts of COVID-19 pandemic on food supply?**

Answer: The agricultural supply chain, including different industries within the agricultural sector, have disrupted by COVID-19 tremendously. There are three main aspects to this question:

1. Shortage of labor
  - Large-scale produce growers who typically sell agriculture products through a long supply chain experience a shortage of labor due to the COVID-19 pandemic. Long supply chain means that the growers are producing a lot and they are selling to one or two buyers who will distribute their products to the retailers.
2. Shortage of demand
  - Lower spending power: About 50% of the Americans either lost their jobs or reduce number of hours due to the COVID-19 pandemic, which means that they are making less money. Consumers will prioritize what they need, and they might not spend money on what they don't need especially for those who are having troubles with their employment.
  - Lower demand on fresh produce in the retail stores. Based on the most recent consumer survey from Dr. Feng's lab, nearly 1/3 of consumers are worried about getting COVID-19 from their foods. About 20% are actually changing their food buying behaviors and they are trying to avoid certain food items like produce that do not need further cooking. More studies are needed to monitor the market and the consumers to determine whether their behaviors are permanently changed or just temporary.
  - Lower demand from the restaurants. Most restaurants are not operating at capacity during the pandemic, decreasing the amount of foods sourced for the restaurants.
3. Opportunities for small local businesses
  - There is a big opportunity for local business to advertise and increase online sales because of the flexibility that small local businesses have to change their business model. However, many people don't have the time to dedicate to do online sales as it's very different from the traditional direct-to-consumer sale. Growers need to consider more on how to gather their demand and how to pack and transport their products.

**Question: Where should I change my focus due to this pandemic and where can I grow new populations?**

Answer: There are four major strategies suggested.

1. Communication with your customers. Let your customers know what you did to make your products safe and to keep all your employees and customers safe and healthy. At this situation, health related information is on the priority of consumers such as the information about following CDC guidelines.
2. Customer segmentation. Customer segmentation can be done based on different attributes about individuals such as customers' county, age range (e.g. millennials, baby boomers), personalities (e.g. my customers like adventures and they always like to try new things). Understand who are your customers and segment your customers, then reach out to them.
3. Online advertising to attract potential customers. There are customers that you can potentially have. For example, right now if you are doing local sales and you probably are getting into online sales, one thing you are going to see is that people who were not buying from you may be willing to drive and buy at your retail operation after they see you are open for businesses and you are in their neighbor county. Boosting your online advertising can help you to attract potential customers.
4. Diversify your market portfolio. If you are small business, you probably are not being hurt by labor because you are small enough. You can probably keep producing at the same level, but you have to diversify your market portfolio. For example, you can look for different partners such as other producers, small businesses, or bakery, and together you can provide online gift cards to enhance the sales of the products. Try to be creative on how to diversify your cash flow, because cash flow is the number one reason why businesses fail, especially during crisis.

**Question: What are the most important food safety items we need to address during this pandemic?**

Answer: Panels mentioned three main items.

1. Splitting food safety practices into those to address the conventional hazards that we think of from the perspective of food safety perspective and the practices that are addressing COVID-19 transmission among employees or from the employees to the customers. For the conventional food safety practices, GMPs represent many baselines and are very important. Practices related to temperature control (monitor cook step and refrigeration temperature), sanitation (on food contact surfaces), and employee health and hygiene should be focused. From the perspective of COVID-19 transmission, sanitation on the high-touch surfaces (in the break area or restroom) should be focused. Practices should be adapted based on what are the hazards.
2. Training and communicate with employees. It's very important to have plan to deal with the uncertainties at this situation and communicate your plan with your employees. The plan can include the employee symptom screening, personal hygiene practices, and avoid close social greetings (switch from hugging to waving and smiling). This is also an opportunity to enhance the food safety culture in your business.
3. Communicate with customers. It's very important to find ways to communicate with the customers that the transmission of Coronavirus on food is very unlikely and let them know that your business is taking additional steps to protect the employees and consumers and your products are safe to consume.