FOOD PROCESSING & PRODUCTION

Food and Beverage Processing: The COVID-19 Pandemic Influence

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The year 2020 will go down in recent history as one of the most disruptive in our lifetime because of the mother of all disruptors – the COVID-19 pandemic. We were all impacted. Most of us adversely, but some businesses and entrepreneurs actually thrived. The food and beverage processing sector was indeed impacted, both positively and negatively. The supply chain was severely disrupted thus causing product shortages (remember how difficult it was to find toilet paper?); grocery retailers saw some of the highest profits ever

because of sales; meat production went offline for nearly an entire month because of labor shortages associated with the virus, and on and on.

What hasn't changed is that consumers continue to expect more from their food. That means healthier options. Food safety continues to be of paramount importance. And now smart farming is driving change to this sector. This article will unpack these items and more as we look into the future for 2021 and post COVID.

By the numbers: The Food and Beverage industry grew 17 percent over the past decade nationally. Continued growth is expected with several sectors growing faster than others. Breweries, Wineries and Distilleries showed the strongest gains with Breweries increasing a whopping 259 percent over the past 10 years. These three sectors will continue to be strong moving forward, followed by Seasoning & Dressing Manufacturing (35 percent), Snack Food Manufacturing (29 percent), and Animal Food Manufacturing (24 percent). Beverage Manufacturing extends past the alcoholic drinks with additive water and energy drinks leading growth.

What is most astounding is the proliferation of online grocery sales during the pandemic. A recent CBRE industrial real estate report suggested that an additional 75 million to 100 million square feet of industrial freezer/cooler space will be needed to meet the demand generated by online grocery sales in the next five years. Demand for cold storage—not necessarily freezer—has been increasing even before the pandemic. More about that further in this article.

The F&B sector has been undergoing a shift, with consumers increasingly choosing healthy, fresh, organic, local, and ready-to-eat alternatives over traditional products that are massproduced. Food and Beverage Processing will tie in strongly with distribution systems particularly the growing delivery business.

Food Processing does require ample water for its processes and of course Beverage Processing will need even more as it often becomes part of the finished product.

The table below is representative of some of the most active subsectors in the U.S. within the F&B sector:

NAICS	Industry Description	2019 Jobs	10-Year Change	10-Year % Change	10-Year Forecast	10-Year % Forecast	Wages
3111	Animal Food Mfg.	64,745	12,300	23.5%	2,654	4.1%	\$61,208
3113	Confectionery Product Mfg.	79,237	10,024	14.5%	-977	-1.2%	\$52,169
3116	Animal Processing	533,089	39,176	7.9%	5,030	0.9%	\$43,125
3117	Seafood Product Preparation and Packaging	37,305	-1,124	-2.9%	-4,370	-11.7%	\$50,361
3118	Bakeries & Tortilla Mfg.	327,888	42,053	14.7%	1,544	0.5%	\$39,412
31141	Frozen Food Mfg.	92,902	5,589	6.4%	-6,866	-7.4%	\$48,819
31191	Snack Food Mfg.	60,510	13,703	29.3%	3,133	5.2%	\$51,624
31193	Flavoring Syrup & Concentrate Mfg.	8,723	-1,165	-11.8%	455	5.2%	\$86,235
31194	Seasoning & Dressing Mfg.	45,612	11,858	35.1%	2,382	5.2%	\$63,887
31211	Soft Drink & Ice Mfg.	101,626	5,724	6.0%	6,021	5.9%	\$57,468
31212	Breweries	89,574	64,618	258.9%	5,249	5.9%	\$44,295
31213	Wineries	73,109	31,948	77.6%	4,245	5.8%	\$46,108
31214	Distilleries	18,516	11,295	156.4%	1,076	5.8%	\$62,035
4244	Grocery Wholesalers	799,116	79,947	11.1%	2,551	0.3%	\$61,706
49312	Refrigerated Warehousing	66,574	18,101	37.3%	9,662	14.5%	\$52,683
	Total/Average	2,822,665	409,187	17.0%	31,027	1.1%	\$52,539

Target Employment, Change and Wages, United States, 2019

Source: JobsEQ

Trends and More

Automated farming: Labor shortages are significant in the farming and food processing sectors. During the pandemic, more than 40 percent of the U.S. meat processing went offline as a result of the virus with a number of processing facilities closing because of COVID hot spots. This caused a significant supply shortage and high prices of various types of meat and poultry products. Immigration issues related to migrant workers are causing farmers to face crop harvesting challenges. There are simply not enough people that will do the difficult work related to farming. So, here comes automaton. More farmers are using technology and the Internet of Things (IoT) to gather data related to their operations. GPS systems, sensors, drones and robots are tools now actively engaged in farm management. Self-driving tractors, automated crop harvesting and crop fertilization are becoming the norm in farm operations. In a labor market where adaptation and innovation mean survival, farmers are showing the way.

Food safety: Food safety is imperative to the health of consumers, and the financial health of F&B companies. The Food Safety Modernization Act (FSMA) was signed into law in 2011 and gives the FDA authority to regulate the way foods are grown, harvested and processed. The law grants the FDA a number of new powers, including mandatory recall authority. The law was prompted after many reported incidents of foodborne illnesses during the first decade of the 2000's and was largely crafted by members of the Grocery Manufacturers Association. Tainted food has cost the food industry billions of dollars in recalls, lost sales and legal expenses.

According to the Centers for Disease Control (CDC), about 48 million people become ill from foodborne illnesses every year. This translates to one in six people get sick from contaminated food every year. FSMA was created to help combat this. F&B producers rely on technology to enhance food safety practices. Enhancements to supply chain management and safety helps producers and distributors combat this challenge. Some companies have become very high tech in monitoring and track the quality of their products. Antibacterial liners can deter spoilage and increase shelf life. Artificial intelligence (AI) is now being used extensively in food safety protocols. This is more common now through sensors and machine visioning during the processing, sorting and shipping of the commodity. If anyone tells you that the F&B sector is not advanced manufacturing, tell them differently!

Health and wellness foods: Though this trend began in the first part of the 2000's, it continues to transform and evolve, significantly. Though all age demographics are causing this, including an aging baby boomer population that is health conscious, the millennial and Generation Z age groups are driving the push. Companies are expanding their portfolios to appeal to younger consumers who want healthier snacks. Probiotics are attractive to food companies and are making their way into a variety of foods, not just yogurt. Again, not new since the trend has been around for at least 10 years, but clearly adapting and evolving. According to the Nutritional Business Journal, sales of functional snacks will reach \$8.5 billion in 2020, an increase of 11 percent over the previous year. If you are targeting specific types of F&B for your community, this is a must for your portfolio.

Liquor is back as a result of the pandemic. The COVID-19 pandemic has seen a 16 percent increase in adults stating they increased their alcohol consumption, according to an article

in *Time Magazine*. This is a complete shift in consumer activity and combined with an increased desire for 'better-for-you products', hard seltzers have skyrocketed in popularity. Nearly 40 brands have launched since 2019, and hard seltzer sales from June 2019 to June 2020 grew by 127 percent. With a better-for-you mindset and an increasing array of product selection, consumer support for this segment will continue to grow.



Plant-based meat alternatives: Alternative meat is a hot trend. The days of the veggie burger are gone. This new process and science combine aminos, minerals, lipids and water and give it a meat texture and taste. Hamburger chains have latched on to it. Fish is next. New product lines could equal new locations.

Milk Alternatives: Alternative milk products continue to gain traction as they improve their texture and nutritional properties. These include oat, almond, soy, hemp, chickpea, and quinoa. Yogurt producers are also doing entire lines of milk alternative products.

Cannabis: The Farm Bill of 2018 legalizes the cultivation of hemp, a plant in the cannabis family. Derivatives of hemp such as CBD (cannabinoid), is known as an aid for relaxation, anxiety and pain. It is no longer illegal, but the FDA still prohibits food and beverage products with CBD ingredients from crossing state lines. As soon as that prohibition ends, and it will eventually, there will be a rush for companies to incorporate ingredients of CBD into food products. The medical use of cannabis is legalized (with a doctor's recommendation) in 33 states, four out of five permanently inhabited U.S. territories, and the District of Columbia. Fourteen other states have laws that limit THC content, for the purpose of allowing access to products that are rich in cannabidiol (CBD), a non-psychoactive component of cannabis.

The recreational use of cannabis is legalized in 11 states, the District of Columbia, the Northern Mariana Islands, and Guam. Another 16 states and the U.S. Virgin Islands have decriminalized. Industry watchers and government lobbyists believe it will receive full federal legalization by 2021. That also depends on elections.



What about cold storage facilities? It's hot, hot, hot!

Cold storage units are not technically part of the food and beverage family and have a different NAICS (North American Industry Classification System) code (49312). But cold storage facilities are an integral and necessary part of the F&B supply chain. At the end of 2018, cold storage facilities employed 56,000 people with over 1,600 businesses in the U.S. Wages for this industry are over \$2.6B and annual revenue is in excess of \$5.9B. Is there any wonder why economic developers, communities and electric utility providers don't have these companies on their radar as a targeted industry sector? A "typical" new cold storage facility investment may have a capital outlay of over \$60M and 50-75 jobs. Now dominated by about 10 major players, the cold storage industry is hot. The relatively new market forces including food delivery and subscription box services, online grocery delivery and a huge rise in the use of biologic and specialty pharmaceuticals which require cold storage are all impacting industry growth, acting much like rocket fuel.



Site Selection Requirements: What does all of this mean for your community and economic

development professionals working to attract F&B and cold storage facilities to a locality? New trends, processes and products typically mean new opportunities. Often a new product line could mean a new facility, based on an existing facility's footprint. So, what are the key factors needed in attracting F&B companies?

Water and wastewater treatment capacity. Simply put, no water, no project. Water is the most important ingredient in the site selection process for F&B companies. If it's not used as an ingredient, it is always used for sanitation. Having excess water capacity of 500,000 MGD is a start.

Low or competitive energy rates. F&B companies and cold storage facilities are big users of energy. Having competitive electric and gas rates are important.

Access to four-lane roads. An interstate location will trump a non-interstate location. Fourlane access roads will always trump two-lane roads. Gas and diesel are big components of energy costs, and accessibility has a direct impact on operating costs.

"No product, No Project."[™] Shovel ready sites are needed for speed to market. An existing USDA/FDA grade building is a benefit, depending on the size, but hard to find. Eighty-five percent of all new F&B site searches start with a desire to find an existing facility. It's rare that one is found, so those searches turn into a greenfield project.

A workforce within a 45-minute drive time of those key occupations that F&B companies consider necessary is a benefit. Talent is always important. Talent is the new currency.[™]

These are the essential ingredients that will allow communities to compete effectively in this constantly growing sector. So, with adversity comes opportunity. The F&B sector will continue to evolve and the pandemic will accelerate change. Seize the day and turn that adversity into opportunity for your community! Contact us to see how we may be of help to your company or community.

About the Author:

About Jay Garner: Jay A. Garner, CEcD is the president and founder of Garner Economics LLC, an economic development and site location consulting firm headquartered in Atlanta, Georgia. Jay often lectures and provides counsel on creating and implementing proactive global business development strategies and tactics. His firm is also a leader in providing assistance to corporate clients in their site selection process, such as Anchor Glass, Academy Sports, Hatfield Quality Meats, Hill's Pet Foods, Marel, Future Pipe Industries and others. He is a founding member and current chair of the board for the Site Selectors Guild, a prestigious group of the top site location consultants, globally. He is a co-author of the book, Economic Development Is Not For Amateurs!, a must-read for community leaders on how to achieve economic development success, which can be purchased on Amazon.

CDG Engineers and Garner Economics have partnered to create one of the most extensive certification initiatives in the economic development arena for the food and beverage (F&B) industry. Their goal is to help communities effectively prepare for attracting F&B projects. Conversely, this expertise and locational knowledge serves corporate clients in the F&B industry as they have direct access and information on communities that have met the CDG/Garner rigorous F&B review requirements. To learn more about the CDG/Garner Food Site Certification designation, see the link at https://garnereconomics.com/services/foodprocessing-site-certification.

About Garner Economics LLC:

We are data driven strategists helping companies, communities and organizations, large and small, urban and rural, achieve success.

The firm offers location advisory analysis, analytical research, industry targeting, strategic planning and organizational assessments with a wealth of expertise to companies, communities, and organizations, globally.

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