Pandemic Tilts Local Agriculture and Communities to Behavior Changes

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Additional index words. marketing changes, pandemic results, wholesale to retail

Typical agricultural distribution systems and venues temporarily ceased during the COVID-19 pandemic. Commodities were turned under in fields, dumped, or left behind for wildlife to pilfer while food banks ran out of produce. Residents did not know where to get fresh produce and wholesale producers lacked the ability to instantly shift their business model and distribution methods to meet local needs. Advisory board networks helped connect components of the food system: wholesale producers; retail outlets; and consumers to locations where produce was available. I connected volunteer gleaners with wholesale producers to gather produce for distribution to food banks around Manatee County. The Bradenton Downtown Farmer’s Market started a Community Supported Agriculture (CSA) venue to accommodate wholesale producers with a retail venue. The county Geographic Information System (GIS) team and I created an interactive map of local agriculture commodities such as vegetables, fruit and vegetable crops, aquaculture, beef and dairy products, and nursery plants. The volunteer group organized over 60 gleaning events and harvested over 72,000 pounds of produce for food insecure residents. Based on the farmer’s market model, two producers created CSA markets, in addition to their restaurant venue. As a result of the pandemic, four wholesale producers expanded distribution to local retail venues. The GIS map included over 100 Manatee County agriculture producers, searchable by location and commodity for markets, nurseries, aquaculture, beef and dairy, fruits, and vegetables. Key players in the food system who initially connected during the pandemic lockdown were able to provide beneficial opportunities for everyone. The GIS map has increased awareness of local agricultural production in Manatee County. Some wholesale producers adopted alternative marketing venues to rebound from pandemic deficits and prepare for future market changes. Gleaning events continue to provide local fruits and vegetables to food insecure residents, allowing them to enjoy healthy, accessible produce. Socially, many new connections and relationships have been fostered between the farming and residential communities.

Throughout Florida during the COVID-19 pandemic, a group of University of Florida, Institute of Food and Agricultural Sciences (UF/IFAS) Extension faculty and researchers interviewed small and large scale, commercial fruit and vegetable producers, farmers’ market managers, community garden representatives, restaurants, and other parts of the food system. The pandemic had both negative and positive impacts on the agricultural and the residential communities. This paper discusses the local impacts and behavior changes in Manatee County.

Understanding food insecurity is relevant to the need for this project. In 2020, 10.9% or 13.8 million people in the United States faced food insecurity (USDA–ERS, 2020); in 2020, Florida’s insecurity level was 10.9% or 2.38 million people (FDACS, 2021) while Manatee County’s food insecurity in 2019 was 11.5% or 44,200 people (Feeding America, 2019). Food insecurity increased during the pandemic. Local volunteers worked with local producers to glean crop crops. The volunteers gleaned, transported crops that could not be sold through the “normal” distribution chain to local food banks. Food insecure residents were able to eat fresh, local fruits and vegetables.

Manatee County has roughly 59,541 acres of commercial fruit and vegetable production (USDA–NASS, 2017), producing seven of the top vegetable crops: tomatoes, cucumbers, peppers, potatoes, green beans, sweet potatoes, and cabbage. At 14,000 acres, tomatoes are the primary crop (USDA–NASS, 2017). Most wholesale vegetables leave the county.

When the pandemic lockdown happened in March 2020, the county was in full swing with fruit and vegetable production and harvesting. The shut down—from distribution points to restaurants, food service to grocery stores—meant commercial producers could not move their crops. A typical scene was of fruit and vegetables piled up with no place to go. The crops were left to rot or for wildlife to pilfer. A local dairy had to dump thousands of gallons of milk when the school district and local food services closed. The growers who sold their produce wholesale were not prepared for closures of this magnitude or to make the shift to selling small quantities on a retail basis.

Grocery stores went from full shelves to bare shelves within a two-month period. Farmer’s markets shut down and food banks had no fresh produce. Residents contacted the local extension office seeking solutions.

Materials and Methods

At the onset of the pandemic lockdown, producers were called weekly to understand and discuss the impacts of the closures. There were virtual advisory board meetings and other meetings with people associated with other parts of the food system. Three goals emerged: producers needed alternative venues to sell crops, volunteer organizations needed to be trained and connected to producers to glean produce that would go to waste otherwise, and

I would like to thank the wholesale producers involved in this project for their willingness to modify their business models during the COVID-19 pandemic to accommodate the community.

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Manatee County residents needed to become aware of locally available produce and other agricultural products.

I discussed the Community Supported Agriculture (CSA) model with the Bradenton Farmer’s Market (BFM). This model had previously been used by a network of small farm producers in Manatee County. [Note: A CSA is an alternative marketing style of selling fresh produce where the consumer usually pays up front to help support the farm(s) financially through a subscription or other payment (USDA-NAL, 2021)]. A market volunteer created an online CSA model to sell local crops online through the BFM. Some growers opened produce stands at their farms for direct to consumer sales while others created their own CSAs.

A local non-profit organization trained volunteers on gleaning. The non-profit and growers who were willing to donate excess produce to local food banks were put in touch with each other. Once the gleaners finished, they would haul produce directly to the food banks. Residents needing food received fresh, local produce that had not formerly been available.

Personal interviews with residents showed that many residents did not know about all the produce grown in Manatee County. The author worked with the county’s GIS team to create an online map identifying the locations of farms with available items. Extension agents created several social media campaigns to increase community awareness of produce available locally and its nutritional value.

Results and Discussion

Fourteen growers sold their crops at alternative locations: two via a CSA; four to the Bradenton Farmer’s Market via the CSA model; two had U-pick options; and six opened produce stands selling directly to consumers. Although the wholesale model for sales is back to normal, six of the 14 have continued their retail sales. The two producers with CSAs feel it is more successful than their traditional sales to restaurants.

The non-profit organized over 60 gleaning events in nine months, harvesting over 72,000 pounds of fruits and vegetables. During and after the lockdown, food insecurity heightened and the influx of fresh, local produce provided some relief to food insecure families. I continue to connect growers with the non-profit organization when they have surpluses. Currently the non-profit has expanded their gleaning efforts to assist homeowners with over productive, backyard fruit trees. The will pick up the excess fruit and take it to the food banks.

The GIS map increased the community’s awareness of local agricultural products. I was able to generate a list of farms, locations, crops, operating hours, and whether they were open to the public for retail sales. The interactive map <www.tinyurl.com/manateecountyproducers> has a tutorial for users. It allows the user to search for local produce near where they live, by crop type (e.g. vegetables vs. fruits), or by business style (e.g. farm stand, U-pick, restaurant, wholesale, or retail, etc.) Within four months of launching the map, over 3000 visits lasting ≥ 3 minutes were recorded.

Conclusion

Key food system players worked together during and post pandemic which helped all involved. Wholesale growers adopted alternative business models, are on the rebound, and are better equipped for the next major market change. Volunteers gleaned, and food insecure residents reaped the benefits of locally grown, fresh produce. The GIS map has escalated awareness of local agricultural products.

Literature Cited


