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FOOD SYSTEMS
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Colorado Potato Markets During COVID-19 and Producer Implications
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Sales Gains at the Retail Level for Grocers Amid Pandemic

As the American public faced the reality of COVID-19 in March and April 2020, food retailers, such as Walmart, Target, and Kroger, saw major sales gains as consumers stocked up to prepare for extended stays at home and shifted their food expenditures towards food at home as opposed to food away from home (Redman, 2020c, 2020b, 2020a). Figure 1 shows how grocery revenues increased in 2020, compared to the same months in 2019.

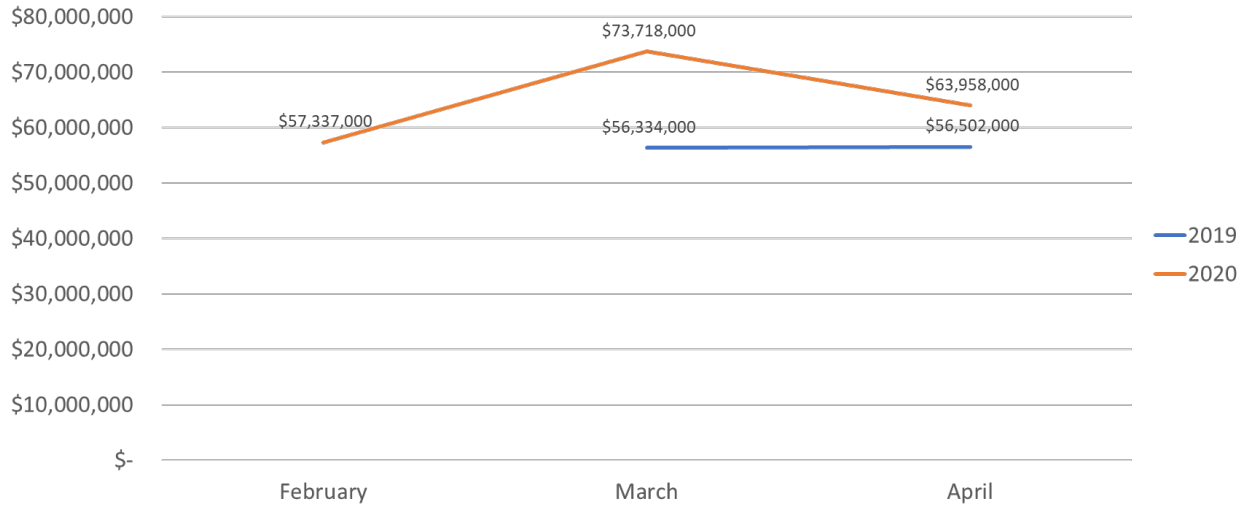

Figure 1. *Estimated monthly sales for grocery stores (US Census Bureau, 2020).*

With the retail sector performing so strongly, one might expect that sales and price gains might trickle back down to farms that sell some of their product through these high-performing retail markets. But, as has often been the case, farms do not reap the full benefits from strong food demand.

When it comes to farm sales, media headlines have told two different stories. On the one hand, many large establishments whose customer base consists of restaurants and food service did not harvest product, lost sales, or had unwanted inventories of product they could not sell (see Figure 2a). On the other hand, establishments whose primary customers are in retail or direct-to-consumer markets (farmers markets, roadside stands, etc.) have seen increased demand for their products (see Figure 2b). In short, the reality of COVID-19 is affecting farm establishments differently, depending on a number of factors including their market channel.

Figures 2a and 2b. *Two headlines from the New York Times about sales of agricultural products during the pandemic (Robey, 2020; Yaffe-Bellany & Corkery, 2020).*

One local example of a farm changing its marketing strategy during the pandemic is Rockey Farms LLC based in Mosca, Colorado. Rockey Farms primarily grows specialty potatoes, such as colorful and fingerling varieties, and some of their largest customers include upscale restaurants and cruise ships (Blevins, 2020). Fingerlings were the only potato category to experience a decrease in dollar sales (-4.9%) over the past year (Potatoes USA, 2020). Unlike russet potatoes grown in Colorado, which are generally destined for fresh, retail markets, fingerling potatoes are more frequently sold to food service markets. Accordingly, when the pandemic hit, Rockey Farm had to identify retail market outlets and then repackage their potatoes for these market channels at a substantial logistical and financial cost.

Potato Retail Market Sees Major Gains; Colorado a Major Player in Fresh Potato Provision

Colorado is ranked second among states in terms of fresh table stock potato production, after Idaho, which is the industry leader for both fresh and processed potatoes (see Figure 3; Ehrlich, 2019). Price dynamics and industry trends in national potato markets have strong ties to Colorado because of the state's position as a top industry player.

Between July 2019 and mid-May 2020, fresh potato sales experienced a 13.5% increase in dollar sales and 9% increase in volume sales (Potatoes USA, 2020). Demand for potatoes was particularly high during March and April 2020, perhaps because of consumers' perceptions of them being reliable and long-lasting pantry staples, or because US households had to cook at home, were familiar with potatoes, and had more time to cook. Across the US, potatoes were the highest-volume specialty crop moved by refrigerated trucks in the period of March 1-May 31, 2020: Colorado contributed the second-highest volume, after Idaho (see Figure 4). In March 2020, demand for all potato products was 41% higher than in March 2019 (Pieterse, 2020). The higher potato demand is part of an overall spike in the transportation of produce by refrigerated trucks in mid-March during the stock-up period (USDA AMS, 2020a, 2020c). While potato demand leveled off somewhat after the mid-March buying frenzy, for the March-May period, sales were up 26.9% over 2019 (Nickle, 2020).

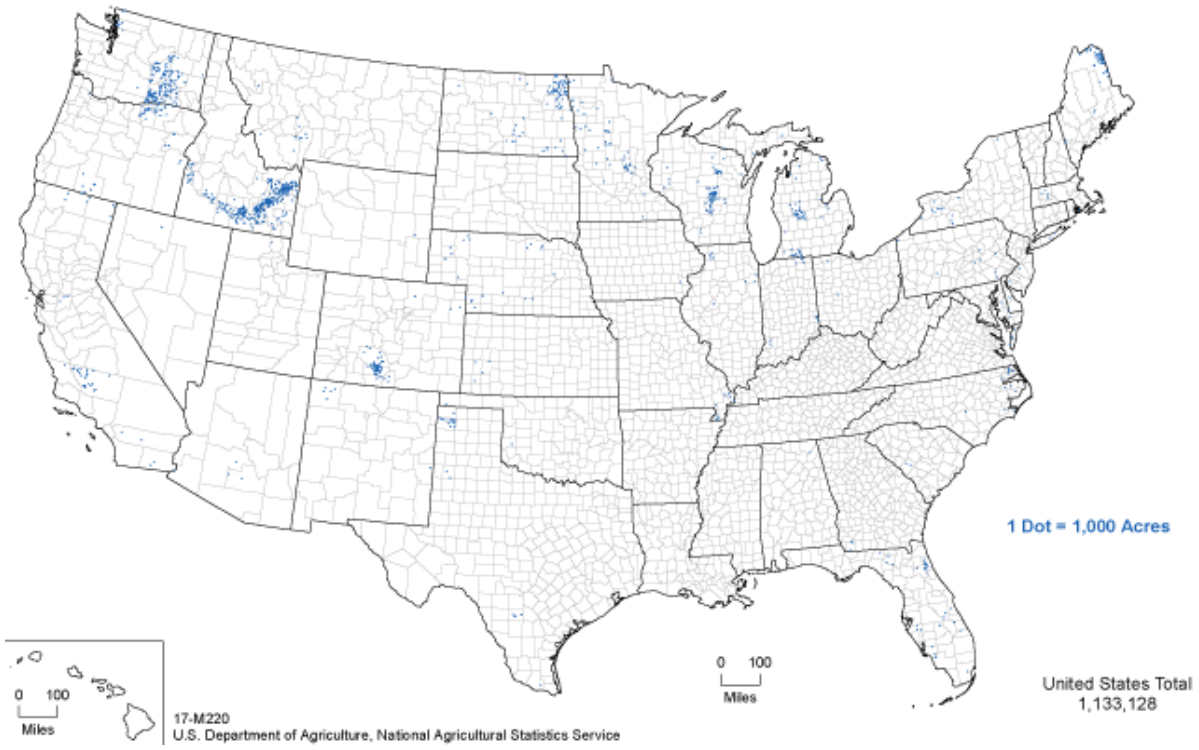

Figure 3. *Potato production acreage in the U.S. (USDA NASS, 2019).*

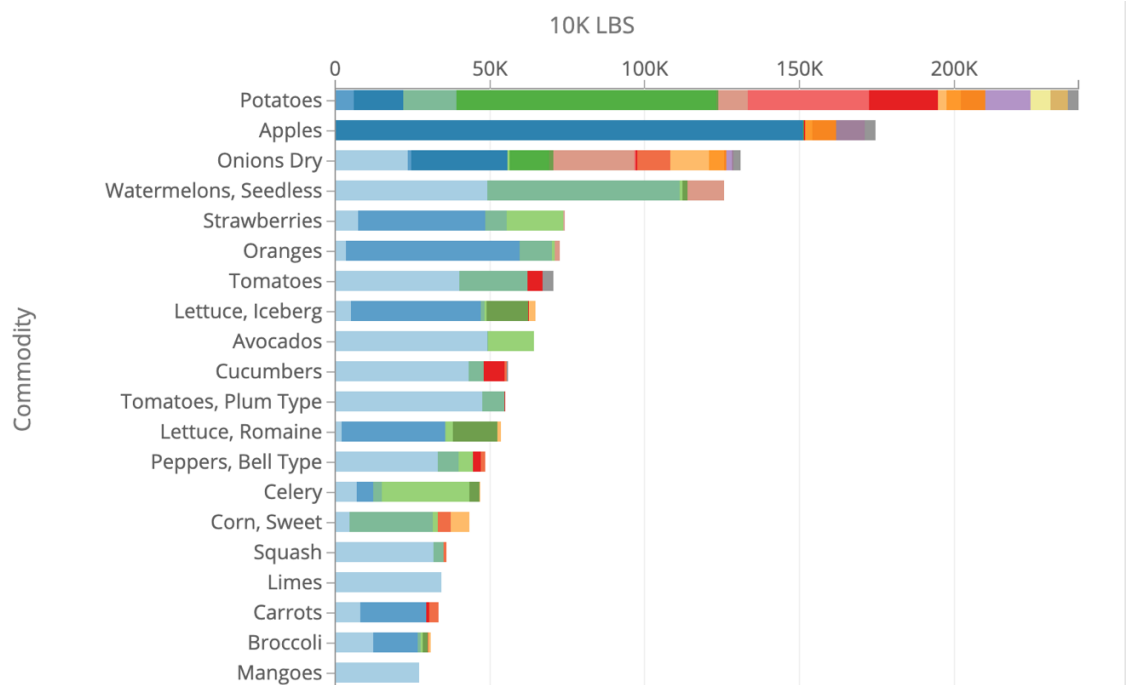

Figure 4. *Potatoes were the highest-volume crop moved in refrigerated trucks in the March 1 – May 31 COVID-19 event period. Color key for potatoes: Idaho (light green), Colorado (bright pink), Canada (red), Florida (sea foam green), Washington (dark blue), Wisconsin (purple), Texas (faded pink), Michigan (dark orange), North Dakota (light yellow), California-Central Valley (medium-blue), Maine (gold), Oregon (light orange), Other states (gray), California-Imperial Valley (peach) (USDA AMS, 2020c).*

If we take a closer look at the COVID-19 event period of March-May 2020, we see a more nuanced story than is reflected in the strong annual retail gains. Retail prices for potatoes dropped drastically in late March 2020 and subsequently recovered throughout the month of April (see Figure 5). During that same time period, prices at the farmgate briefly and mildly peaked and then steadily decreased with no price recovery in-line with retail prices, indicating that the major sales gains seen by retailers were not flowing back to farmers (USDA AMS 2020).

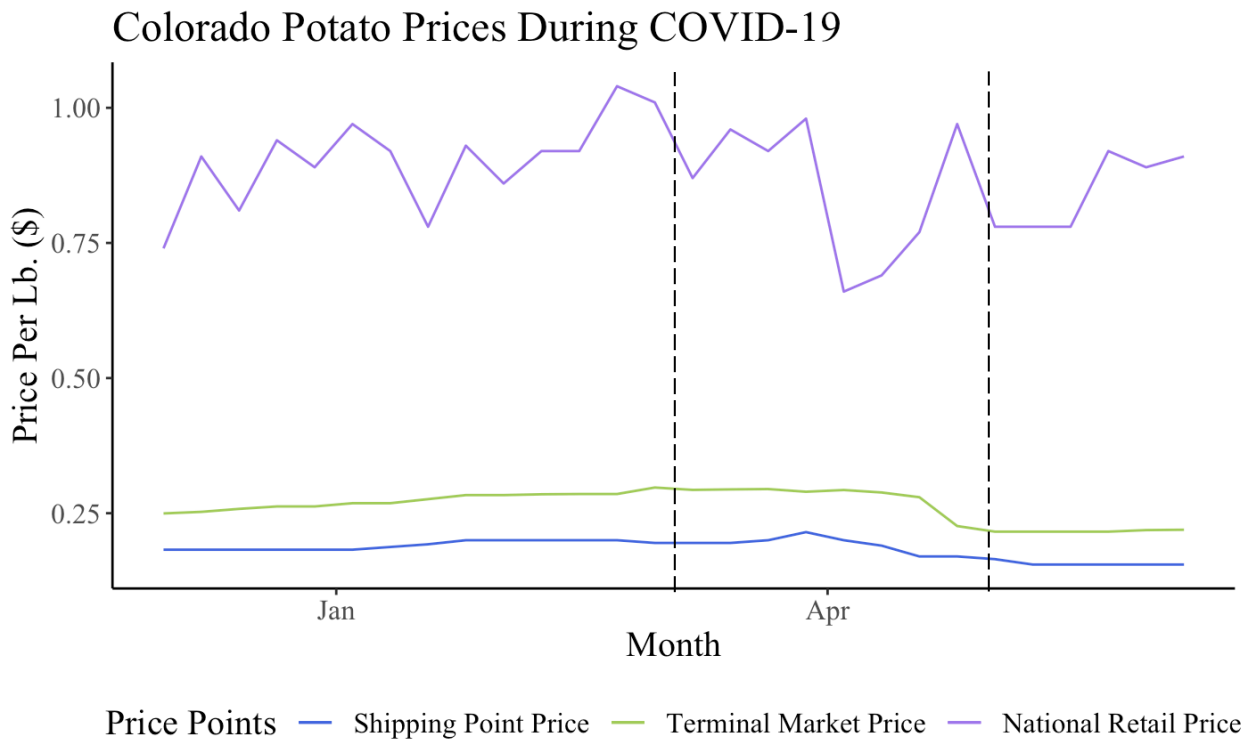

Figure 5. *Potato prices at shipping, terminal market, and retail points for Dec. 2019-May 2020 (USDA AMS, 2020b). The March 1-May 31 COVID-19 event period is demarcated with dashed black lines.*

How Does Current Activity Align with Past Colorado Potato Market Dynamics?

How do current potato market trends align with or differ from historical patterns producers have faced? An analysis of twenty years of USDA Agricultural Marketing Service potato price data[1] show that the current situation of strong demand and prices at the retail level failing to transmit back along the supply chain to the farmer is not unique nor surprising.

From January 1998 to May 2019, the mean shipping point price for potatoes from San Luis Valley was $0.118 per lb., the terminal market price was $0.358 per lb., and the national retail price was $0.524 per lb. (USDA AMS, 2019). Taking into account input costs for farmers or costs paid to procure product by later steps in the supply chain, gross margins were $0.04 per lb. at the farm level, $0.24 per lb. at terminal markets, and $0.17 per lb. at the retail level (Colorado State University Extension, 2015; USDA AMS, 2019). Price analyses show that Colorado producers face price influence at the farmgate from both Idaho producers and national retailers (Love, 2020). There is also evidence that these producers experience lags in returns to normal price levels after a shock, compared to Idaho producers and distributors and players farther down the supply chain. This may be due in part to the smaller scale and thus market power of Colorado farms compared to Idaho growers, distributors, or retailers.

[1] The analysis was performed on 50 lb. cartons of size 70 conventionally produced Russet potatoes.

Taken together, twenty years of data indicate that Colorado farmers in the potato industry have historically struggled to capture gains from upward trends farther down the supply chain, whereas downward movements in prices or demand flow readily back to farmers, who often bear the losses in those situations. The trends during COVID-19 are not the exception and demonstrate the potential role of alternative marketing channels, such as local food markets, to mitigate producer price risk or allow them to capture the benefits of strong consumer markets. Such marketing opportunities can move limited volume of product, but they represent an opportunity to rebalance power dynamics in product pricing. If farmers participate in shorter supply chains, they can capture more of the gains that other parts of the supply chain experience during periods of strong demand, such as this spring.

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