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Analysis of the U.S. Onion Industry with a Focus on New York State Issues

Executive Summary February 2023

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In the working paper, I outline how the onion industry in the United State and New York State has undergone tremendous change over the past 50 years. Onion demand and production have increased dramatically. Over the past 20 years, U.S. production has reached a plateau of 3.2 million tons per year, while consumption has grown and will continue to rise based on demographic projections. These trends result in a trade deficit: the U.S. imports more and more onions each year, particularly from Mexico and Peru.

The situation for onion growers in the U.S. is very different as the global, national, and local contexts have changed over the past 50 years. Onion growers, depending on their geographic location, have developed different strategies to deal with increasingly tough competition. Many growers (e.g., in Idaho, Oregon, Washington states) have chosen to develop a price competitiveness advantage. In contrast, others have built a differentiation strategy based on a premium onion linked to *a terroir*, such as the Vidalia onion industry in Georgia. The third group of onion growers has not clearly chosen between these two strategies; they have not collectively and locally shared a new vision that takes their strengths, weaknesses, threats, and opportunities into account.

I believe that the New York onion industry, which competes with onion growers who have based their competitive advantage on a single marketing argument: low price. But as a group New York onion growers are not competitive, and their position has declined. In 2017, about 50 onion growers with more than 5 acres produced 95 percent of onion production with 6,400 acres. However, 20 years ago (in 2002) 114 farms with more than 5 acres used 11,400 acres. For 20 years growers and acreages have been approximatively cut in half. My research suggests the drivers of this decline in New York Muck Onion are imperceptible from year to year, but over time have eroded NY's once powerful onion industry. In my view, New York onion growers have become links of a supply chain where they sell a generic onion like a commodity.

Recently, New York onion growers have complained about Canadian exports and have argued that Canada subsidizes Canadian onion growers, causing serious injury to New York growers. I have analyzed Canada's export policy and found that there is no evidence to support this allegation. There are no subsidies to Canadian onion growers that would alter the price and create an unfair competitive advantage for Canadian exporters.

New York onion growers are mostly care about Canadian yellow onion imports as they are direct competition, but they are also secondary/indirect competition coming from sweet onions year-round. Because sweet onions are becoming a generic all-purpose onion for fresh eating and cooking, sweet onion now compete with pungent onion. The largest U.S. growers and shippers of sweet onions have established production in Mexico and Peru, and have become exporters of onions to the U.S. to meet consumer demand year-round.

Furthermore, my results show that the yellow onion market in the northeast part of the U.S. seems to run correctly, without competitive distortions. Growers and handlers try to compete with other onion supply chains that have better productivity and lower production costs. To maintain their onion market shares, New York onion growers use a single driver: low price. Over the last 10 years (2011-2020), in U.S. Northeast region, the current retail price of yellow (pungent) onion has decreased from US\$1.06 to US\$0.90 per pound. However, to reduce the price to consumers, retailers have reduced their share of the value. I examined New York onion price data for the 10-year period 2010 to 2020. At the beginning of the period (2010/2011), retailers received about 72% of the total value, and by the end (2019/2020), this portion declined to 63%. Retailers lost 9% on average. Four-percentage points have been captured by second handlers and five-percentage points by first handlers-growers. At the end of the period, when consumers pay US\$0.90 per pound, 23 cents go to growers-first handlers, 7 cents to second handlers (packers), and 60 cents to retailers. These results contradict the notion that retailers have increased their profitability at the expense of growers and handlers.

New York onion growers cannot change their position in the hierarchy of the yellow onion market. Consumers consider yellow (storage) onions a staple food and retailers use them in a “loss-leader” strategy. As a loss leader, retailers don’t use this onion to make profit; they are selling generic yellow onions below cost to attract customers (e.g., via promotional price discounts). But Retailers will only accept a certain level of loss. The net result for New York onion growers is that they are caught in a low-price trap.

Within the low-price trap, there is price volatility suggesting as there is no volume control in the supply chain. Volatility often yields in a situation that creates asymmetric price transmission. Price transmission is the process by which upstream prices influence downstream prices and vice versa. However, I show no asymmetric price transmission or market power on neither the grower-handler nor retailer sides. In the long-run, shipment prices, terminal market prices and retail prices move together. Moreover, I found that shipment price drives the terminal market price, and the latter causes retail price. First and second handlers operate as if they were price makers even if it is “a low price”.

Therefore, like the Vidalia onion, I suggest that New York onion growers transition at least a portion of their production from the current unprofitable supply chain to a new value-added strategy based on a black dirt soil terroir to create a new, more profitable, and sustainable “value chain.” This new approach requires collective investment in the shared advantages the New York muck onion growers have: unique soil, climate conditions, local onion varieties, and know-how. Because a New York pungent onion value chain could meet consumer expectations and improve the business model of producers and handlers, these positive economic impacts of the onion industry would warrant public support.

At the end of the report I offer a cost/benefit analysis that shows, with given parameters and strategic investments, the New York muck onion community has the potential to capitalize on a New York brand of onions that realizes benefits for all stakeholders in the state’s onion industry, not only growers, but also handlers, retailers, and consumers.

Ten Key Factual Highlights

1. The United States is a major onion producer worldwide, producing 3.2 million tons.
2. Increased demand for onion and stagnating domestic production in the U.S. led to a trade deficit due to imports from Mexico and Peru.
3. In 2019, U.S. onion imports totaled US\$431 million, US\$195 million more than exports. The largest growers and shippers of sweet onions in the U.S. have expanded onion production outside the U.S. and have become exporters to the U.S.
4. The first competitors to U.S. onion growers are probably U.S. onion growers who control farms in Peru and Mexico.
5. Contrary to popular belief, low-priced Canadian exports have not flooded the U.S. domestic onion market or injured New York State onion growers.
6. My analysis reveals that subsidies (significantly low) to Canadian onion industry have not changed the price or created an unfair competitive advantage for Canadian exporters.
7. In 2019, New York produced 3.2% of domestic onions, compared to 20% in 1960.
8. Based on the data analysis presented in this report, I believe the yellow onion market in the Northeastern U.S. runs as it should, without competitive distortions. First and second handlers seem to operate as price makers even if it is a low price. These handlers compete with other onion supply chains that have better productivity and lower production costs. To maintain their share of the onion market, handlers use a single tool: low price. If there is volatility, it is because growers do not have control of the onion supply.
9. Contrary to common belief, my research shows that consumer onion prices have not increased, while wholesale buyers and farmers have received slightly higher prices over the past 10 years. The retail price of the yellow globe onion has decreased since 2011 to US\$0.90/pound, a 16% decline. A similar trend has been observed for yellow sweet onion (-10%), even if this onion has a better price than yellow pungent onion.
10. Because of their cooking flexibility, large Granex sweet onions may be cutting into the demand for pungent onions. The New York onion acts like a commodity rather than a specialty crop. New York onion growers are involved in a cost competitiveness strategy rather than a differentiation strategy (such as Vidalia). However, NY growers are neither competitive as they were not on the relevant market.

Key Recommendations

A few states (Texas, Wisconsin, and New York) cannot reduce their operating costs under US\$8.5 per cwt. They cannot compete in the same market simultaneously with states like Oregon and Idaho or countries like Mexico and Peru. The price of New York onions cannot deviate from competitors' prices without risking the loss of markets. Onions of New York origin are not perceived as different by handlers and repackers because growers have not considered their onion can be differentiated and sold in more profitable markets to compensate for their comparatively lower yield. To do so, growers would have to distinguish their onion and tap a slightly higher market.

Accordingly, I suggest that, instead of focusing on reasons why New York onion growers are not competitive and profitable, all stakeholders of this supply chain (growers, handlers, retailers, public decision-makers, researchers, and extension educators) should take greater advantage of their common legacy: a unique pungent onion grown in a unique black soil.

Indeed, the naturally high sulfur content of the soil from thousands of years of composted vegetation increases the pyruvic acid levels, increasing the sugar content of onions and resulting in a bold, pungent taste. This makes New York Muck onions exceptional for cooking. When caramelized, they become uniquely sweet. The French have a phrase for this: “gout de terroir”—a taste of place. Despite all these special qualities, Muck onions are treated like a commodity rather than a specialty crop. With the support of the ACRE project, led by the Thomas A. Lyson Center, a nonprofit affiliated with Cornell University, a few onion growers have drafted a Vision Statement: *“New York Muck Onion industry will command a special market segment where consumers value a unique product. This segment provides increased profit, protects competitive advantage, and resiliency/vitality/vibrancy/well-being for growers and all constituents/members of the value chain”*.

New York growers and handlers need trust and transparency to better work together in the future. The stakeholders should collaborate on the development of a Produce Prices-Costs-Margins Monitoring Tool (PPCMMT) that draws comparisons between price, cost and margin trends across the value chain.”

Aesop's fable, “The Farmer and His Sons,” is a good example to summarize my suggestions: A dying farmer called his sons to his bedside in order to give them advice. He said, “There is a great treasure hidden in one of the field crops.” Shortly thereafter he died. The sons, upon his death, took tools and carefully dug over every inch of the land several times. They found no material treasure, but the land henceforth yielded an extraordinary crop because of this thorough cultivation. If historically the moral was “hard work is itself a treasure,” the lesson to be learned from this fable is not that New York onion farmers must work harder, but that they have a treasure under their feet that they cannot ignore.

This study has been prepared in 2021 as part of the ACRE project, led by the Thomas A. Lyson Center for Civic Agriculture and Food Systems in collaboration with Cornell University's Department of Global Development. The Lyson Center is a project of the Center for Transformative Action, a nonprofit affiliate of Cornell University. I am extremely grateful for the help and continued support of Duncan Hilchey and Amy Christian (Lyson Center for Civic Agriculture and Food Systems), David Kay (Senior Extension Associate in the Cornell's Department of Global Development), and all the growers, extension educators and experts who have contributed to this study.

The views expressed in this information product are those of the author, Philippe Jeanneaux and do not necessarily reflect the views or policies of the Lyson Center, Cornell University, or VetAgro Sup. **The technical report of this summary is available from:**
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