

Apple Category Performance and New York Varietal Share

December 17, 2020



Apples
FROM
NEW YORK

Data Facts/Background

- This study was initiated by a grant from the New York State Department of Agriculture and the New York Apple Association.
- Data in this report is provided by Nielsen powered by Category Partners. Coverage includes total food sales in the United States including all outlets, i.e. supermarkets, mass merchandisers, club stores, dollar stores, convenience stores and military commissaries. This measurement of total retail food stores is inclusive of UPC and fresh non-UPC (random-weight-PLU) products across 90,000 stores.
- Date range in the data covers 52 weeks from 10/6/2019 – 10/3/2020 compared to the same period last year.
- Data was collected for the apple category at the sub-category level (varieties).
- The report documents performance for the Total US, New England and Mid Atlantic regions combined and 21 US markets.
- Individual reports are included for 52 week and Q4 performance. Q4 is important for many New York varieties as sales peak during this period for many of these apples.

Parameters

- Growing region identification at retail linked to specifically to apples grown in New York State is limited. Apple category volume is comprised of approximately 50% random weight transactions which carry no regional brand or shipper information at retail. In addition, the largest US retail supermarket chains have shifted to Private Label packages which also reveal no grower identification in packaged products. As such, use of UPC/PLU data to identify specific performance of New York grown apples is insufficient for analysis.
- As an alternative to identifying New York State grown apples, varieties which are extensively grown in New York were segregated for dollar and volume performance. This at least provides a scorecard for apple performance for varieties which are primarily grown in New York state revealing important trend and share information on retail performance as well as consumer purchases of these varieties.
- Varieties which have broad national production (i.e. Gala, Honeycrisp, Red Delicious, Golden Delicious, Fuji) which are grown throughout the US are NOT included in the New York performance summary since growing regions cannot be ascertained from the Nielsen scan data.

Markets and Regions Included

Atlanta	Hartford
Baltimore	Houston
Boston	Louisville
Buffalo Rochester	Jacksonville
Charlotte	Miami
Chicago	New York
Cincinnati	Philadelphia
Cleveland	Pittsburgh
Columbus	Tampa
Dallas	Washington DC
Detroit	Total US

New England Division



Mid Atlantic Division



Varieties included in “New York”

- The list below shows the varieties which are included in the “New York share” However, it is recognized that the share of *total* New York retail apple performance is understated as most leading varieties are grown nationally (as well as in New York) and therefore cannot be attributed to the share totals of any region even though many of these varieties are grown and shipped from New York.

Sub Category
CORTLAND
CRISPIN
EMPIRE
GINGER GOLD
IDA RED
JONAGOLD
JONAMAC
JONATHAN
MACOUN
MCINTOSH
PAULA RED
RUBY FROST
SNAP DRAGON

Cautions and Notes

This is a study of Retail Performance Data/Opportunity

- Includes outlets driving approximately 75% of total US food sales
- Conventional Retail and Mass Merchandiser data
- No foodservice, specialty format retailers, convenience, independents, fruit markets
- Limited club stores
- No customer direct channels
 - Farm stands/farm direct
 - Direct customer delivery

Key Findings

1. Apple varieties that are largely exclusive to New York represent a small, *declining* segment of the total apple category performance, even in the top regional markets. The category volume share driven by New York varieties generally shrinks as the geographic distance from the orchards increases. This indicates a commensurate reduction in the differentiating power of these apples in the customer acquisition process. It underscores the importance for New York growers of continuing to enhance capabilities to aggressively compete in Honeycrisp, other mainstream varieties as well as proprietary premium varieties.
2. Even in markets where New York variety share peaks, category share is dominated by established varieties that are produced nationally. As such, success is increasingly dependent on the capability of New York growers to capture a larger market share in core, mainline apple varieties.
3. Among the top 10 varieties in terms of apple category volume, McIntosh is the only top 10 variety with production coming primarily from New York orchards. Yet, McIntosh volume declined for the Total US as well as in the critical New England and Mid-Atlantic regions. This reinforces the urgency for New York growers in aggressively competing to increase share in the varieties which will broaden opportunities for engagement with key retail partners.
4. Q4 is the strongest period of the year for the apple category and is also the peak period for sales of New York specific varieties. Even during Q4 2019, New York varieties lost share in the Total US as well as in the home markets in the Mid-Atlantic and New England regions. This is additional evidence of the importance of varietal diversification as retail assortment and consumer preferences shift to other established and premium varieties.

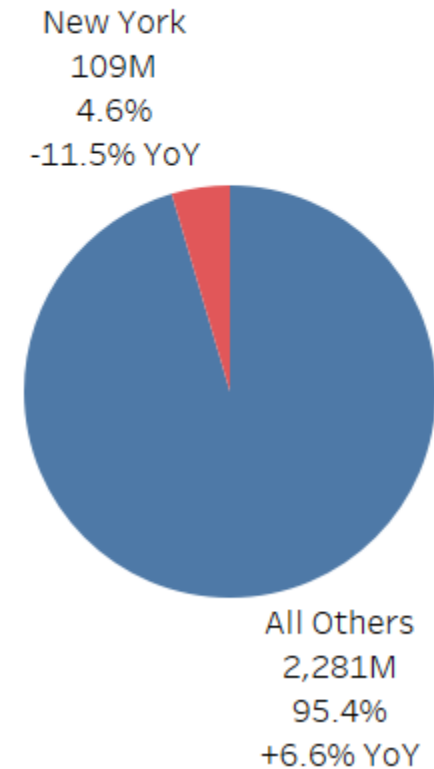
Key Findings

5. As noted, even in core markets, traditional New York varieties are losing market share. Growers of these varieties are likely faced with a difficult marketing task to either invest in efforts to expand distribution in more distant markets and/or working to stabilize sales in core markets, minimizing varietal contraction.
6. Bag/bulk ratio in New York varieties is 63% bags versus only 44% of “All Other” varieties. This shows the importance for growers in New York of producing a strong mix of apples in all major varieties that sell in both bag and bulk at the retail level.
7. While Gala, Fuji and Granny are mainline varieties that increased volume, category growth in most markets is being driven by Honeycrisp. Assuming a competitive offering is available with an appropriate bag/bulk mix, New York growers should seek to capture a significant share of new Honeycrisp volume growth in all Eastern markets.
8. Granny Smith was ranked #4 in volume for the Total US as well as being #4 or higher in 16 of 20 markets reviewed in this study. This indicates a strong market for higher acid varieties like Snap Dragon, but particularly Ruby Frost. Growers of these varieties should consider appealing directly to this customer base.
9. Overall premium apple variety volume performance varies significantly by market, apparently driven more by retail distribution and assortment practices vs. established consumer preferences. This indicates that New York growers can be equally effective as producers in other regions in capturing share for local premium varieties.

Total US New York Group Volume Share

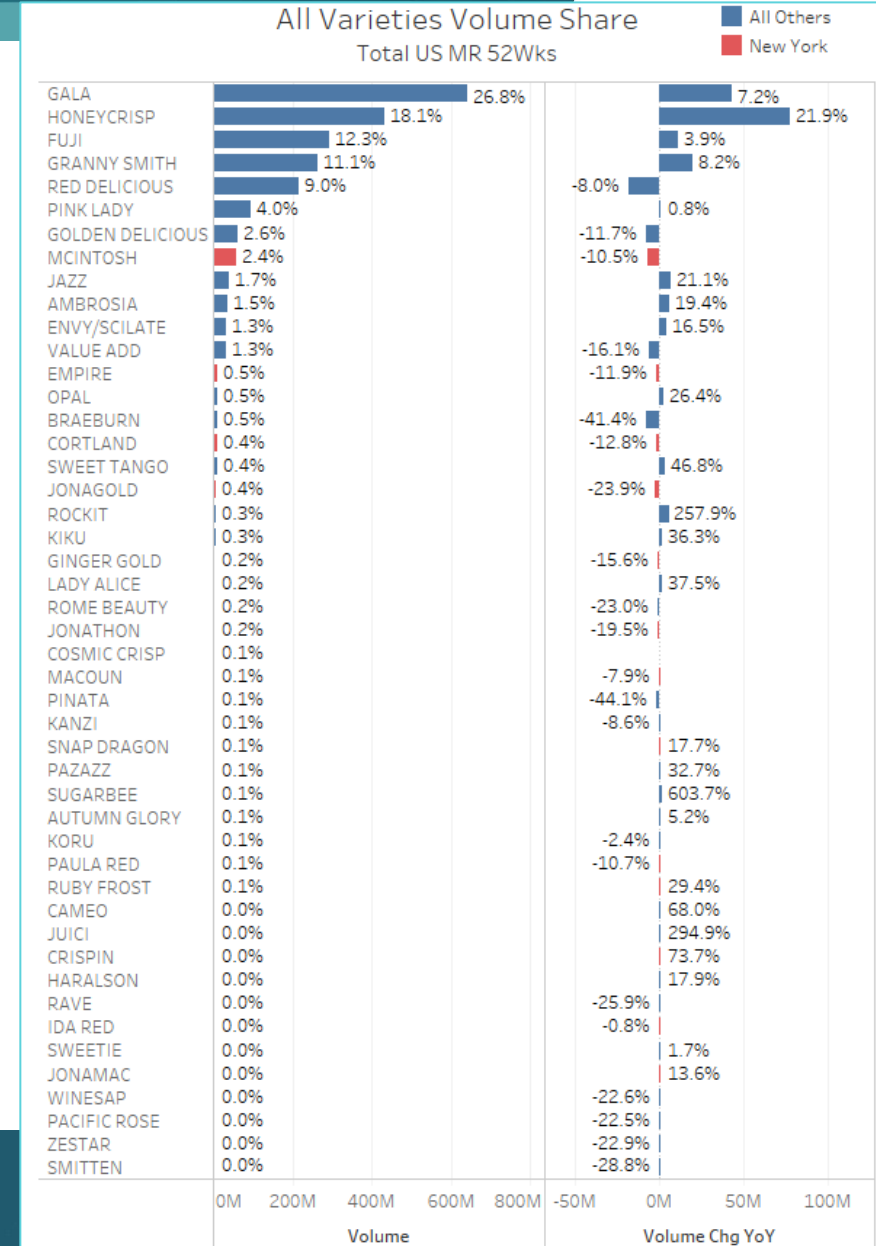
- For the total US, apple varieties that are grown primarily in Northeastern States in general and New York specifically drove 4.6% of total category volume.
- Volume share of the New York varietal group declined by 11.5% versus the same period last year.
- The total category volume share of “All Other” (non New York exclusive varieties) increased in volume by 6.6% and drove 95.4% of total volume.

Volume Share by Variety Group
Total US MR 52Wks



52 Weeks--Total US Volume Share by Variety

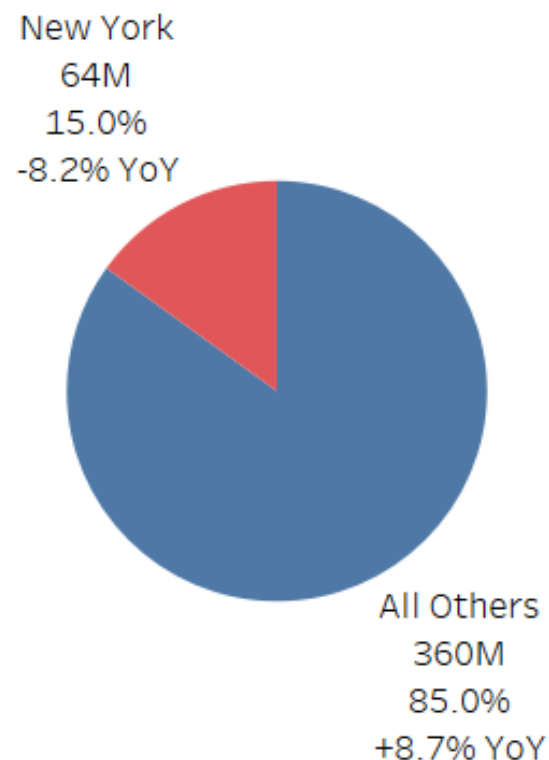
- The top 10 varieties drove nearly 90% of total category volume indicating significant concentration in retail sales and consumer purchases.
- McIntosh is the only true New York variety in the top 10 (#8). This underscores the competitive importance to New York growers of capturing sales in other varieties beyond the regional, legacy apples.
- Within the top 10, only Red Delicious, Golden Delicious and McIntosh declined in volume, indicating a distinct retail/consumer shift away from these traditional legacy varieties. In addition, Empire (#12) and Cortland (#15) and Jonagold (#17) also declined in volume.
- Nationally, Honeycrisp continues to drive volume increases for the entire category. Over the last 52-weeks, Honeycrisp increased nearly 22% and captured 18.1% of total category volume.



Mid Atlantic and New England New York Group Volume Share

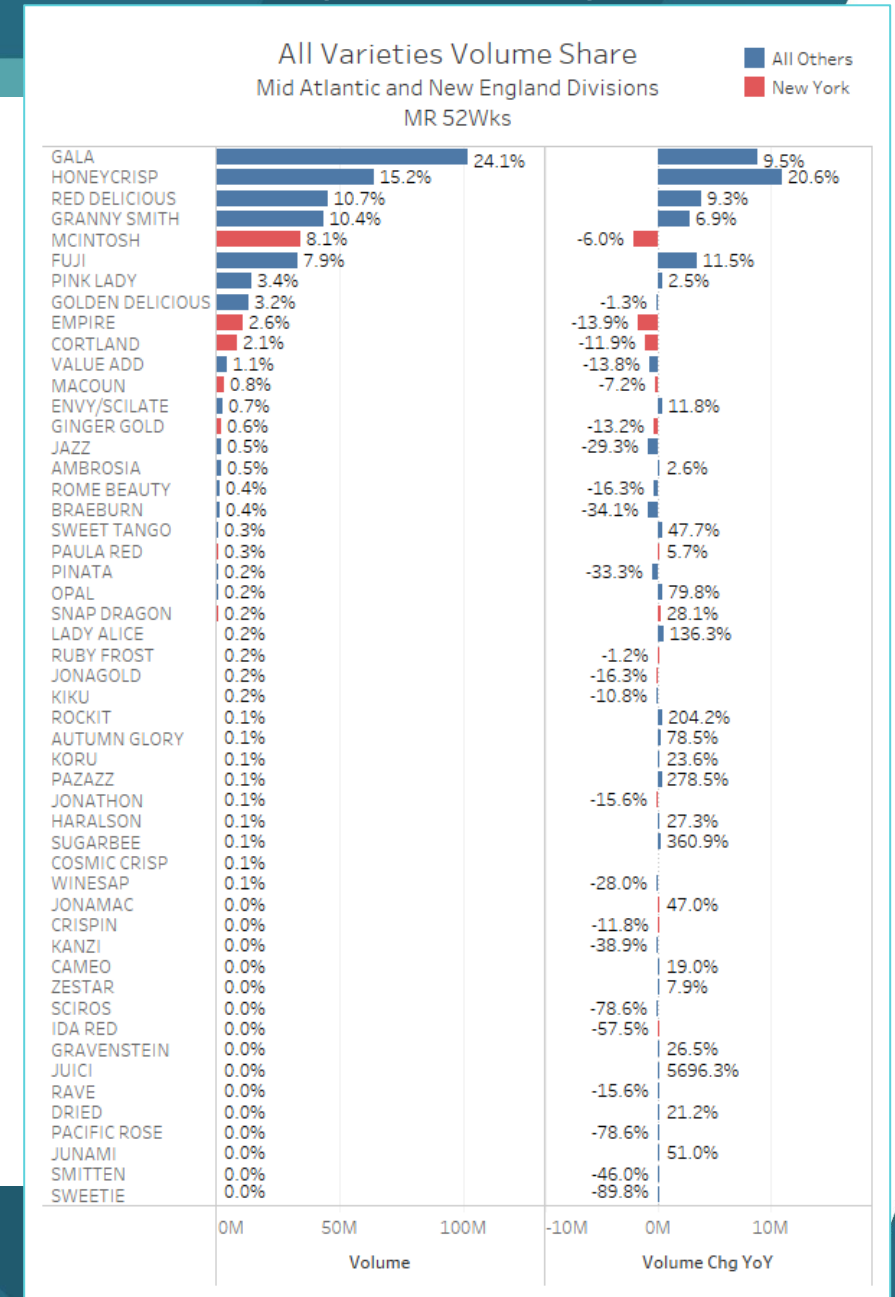
- In looking specifically at the New England and Mid Atlantic regions, the New York variety segment drove 15% of total 52-week category volume. This volume share for New York is more than double the category share of the Total US.
- Volume decreases in the exclusive New York varietal segment (-8.2%) were significant. All other apples increased by 8.7%.
- Share declines for the traditional New York varieties in the Mid-Atlantic and New England regions were significant. This indicates that even in the home markets that have held traditional strength and preference for regional apples, these varieties are losing share at retail.

Volume Share by Variety Group
Mid Atlantic and New England Divisions
MR 52Wks



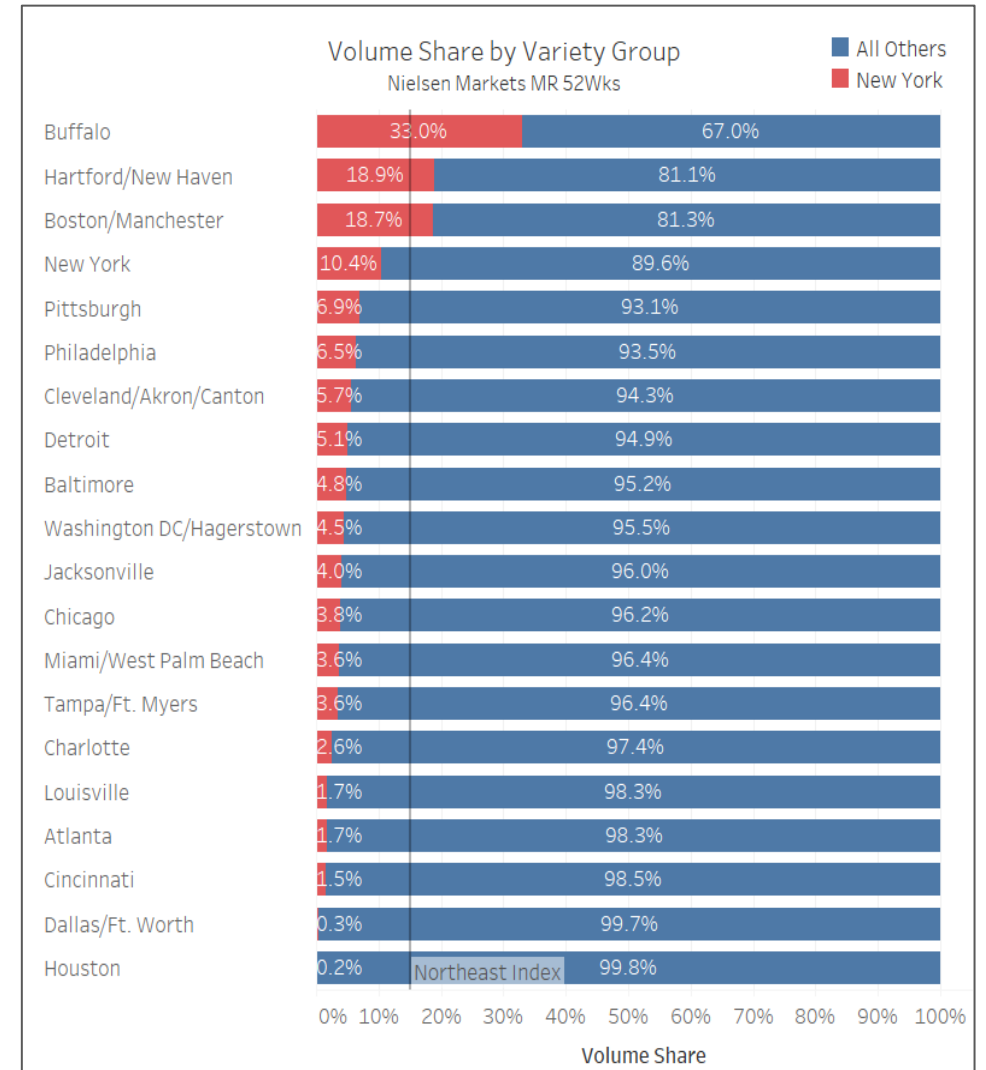
52 Weeks--Mid Atlantic/New England Volume Share by Variety

- Total volume trends in the Mid Atlantic and New England regions shows varietal concentration similar to the Total US, with the top 10 apples driving nearly 88% of total category volume.
- In looking at varietal performance in the Mid Atlantic and New England regions, three regional apples are in the top 10 for varietal share: McIntosh, Empire and Cortland. These three varieties contributed 12.8% of 52-week category volume.
- Of concern is McIntosh (-6.0%), Empire (-13.9%), Cortland (-11.9%) and Macoun (-7.2%) all declined in volume. These are the strongest regions nationally for New York grown apples.
- Other key regional varieties also lost volume in the Mid Atlantic and New England regions. These included Ginger Gold, Rome Beauty, Jonagold, Jonathon, Winesap and Crispin. However, Paula Red and Haralson generated volume gains.



52 Weeks Nielsen Markets Volume Share by New York Group

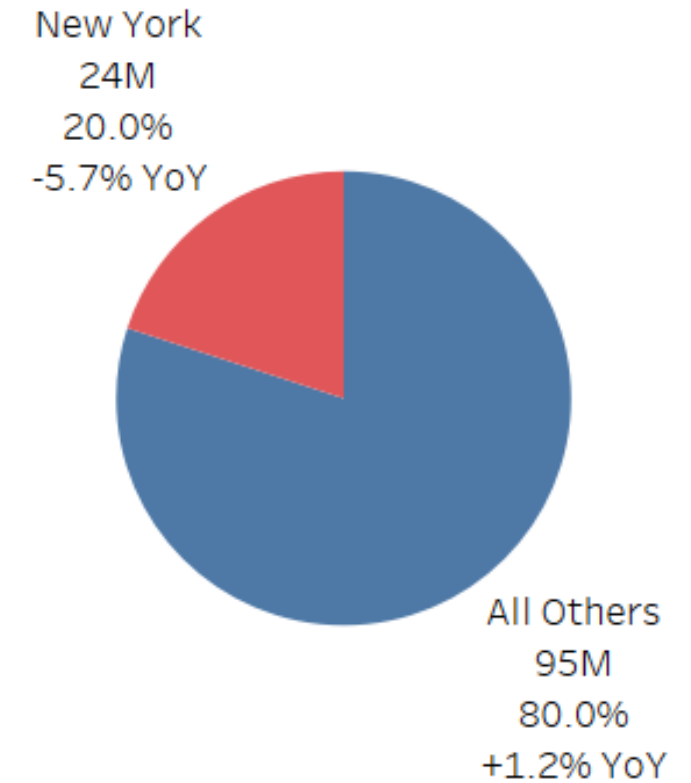
- In looking at individual markets, there is a strong regional volume bias toward New York varieties in Northeastern markets. Buffalo led all markets with New York varieties contributing 33% of total 52-week volume followed by Hartford (18.9%), Boston (18.7%) and New York (10.4%).
- Beyond the top four markets listed above, volume share for New York varieties falls under 7% of category total in all other markets.
- Multiple markets with relative proximity to New York orchards (Pittsburgh, Philadelphia, Baltimore, Washington, DC) show relatively low share in New York varieties.
- In general, as distance increases from New York, varietal share of New York varieties declines. On one hand this suggests that New York varieties have opportunities for growth in under-developed markets. On the other, this indicates that New York growers must successfully compete head-to-head with other growing regions across a broader varietal mix to win in these markets.



Q4 Mid Atlantic/New England New York Group Volume Share

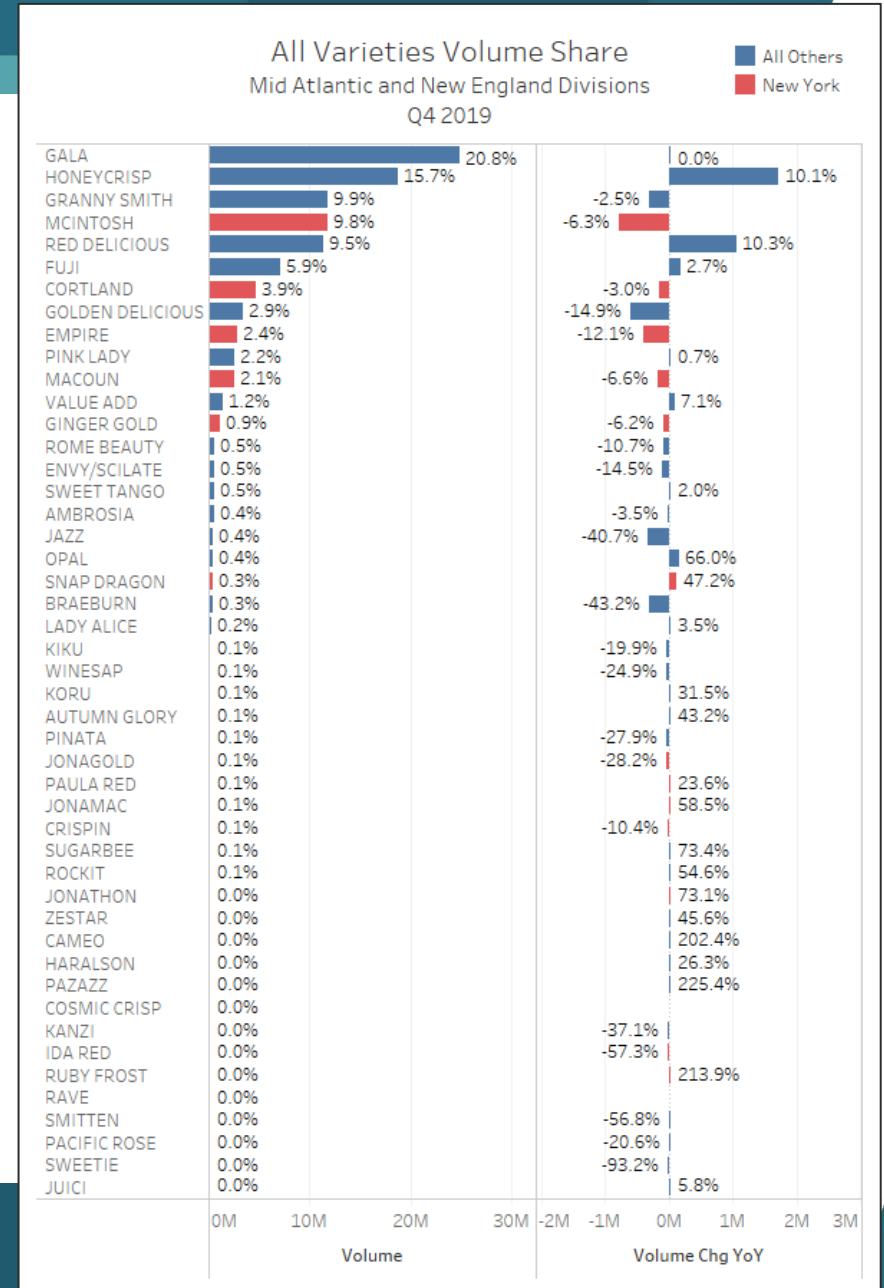
- Q4 is the strongest period of the year for total apple performance at retail as well as for sales of New York varieties. During Q4, New York varieties drove 20% of total category volume share in the Mid Atlantic and New England regions.
- Q4 volume in New York varieties declined by -5.7% while All Other volume increased by 1.2%.

Volume Share by Variety Group
Mid Atlantic and New England Divisions
Q4 2019



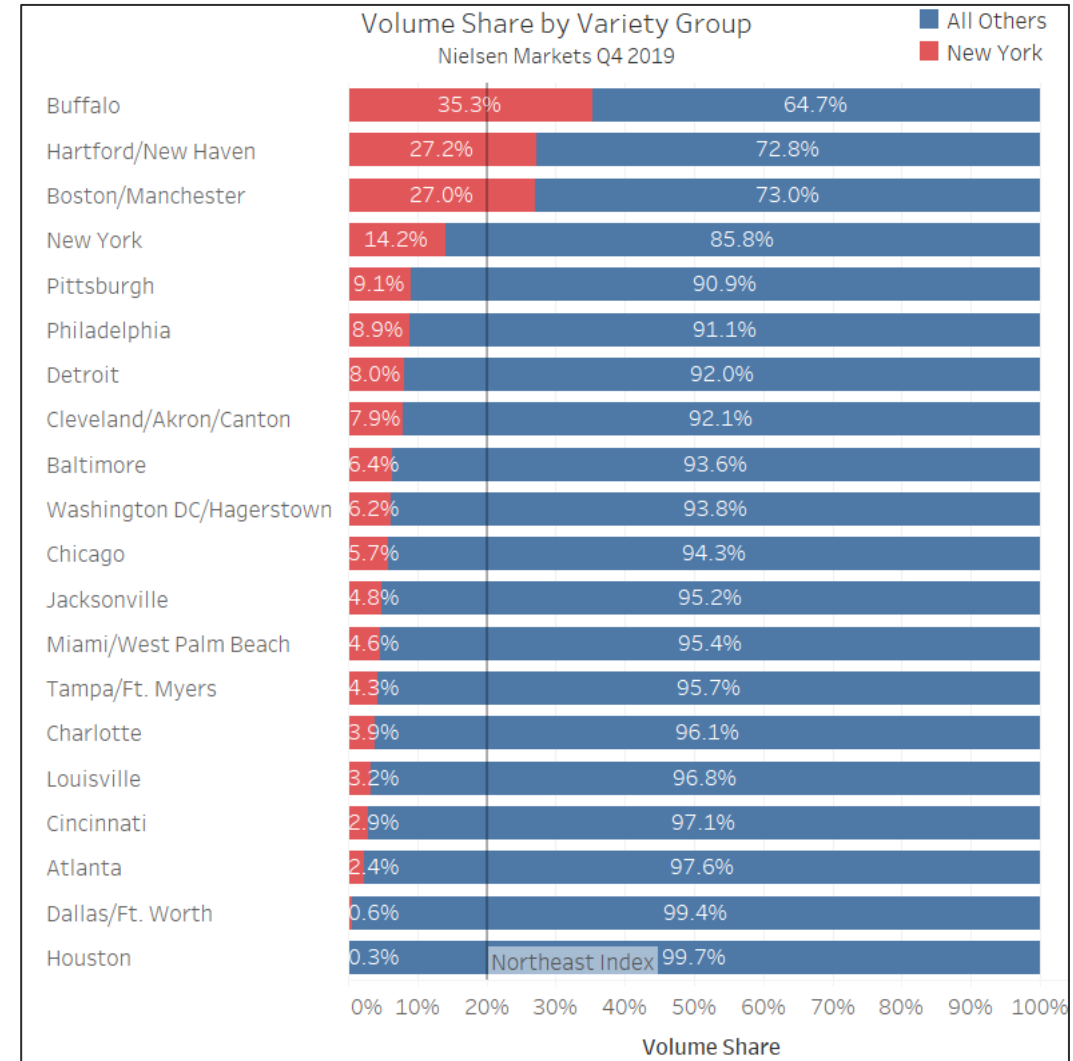
Q4 Mid Atlantic/New England Volume Share by Variety

- During Q4, in the Mid Atlantic and New England regions, nearly two thirds of total category volume is driven by the top 5 varieties. McIntosh is the only variety in the top 5 (#4) that is produced with mostly regional exclusivity.
- Most category volume growth was driven by Honeycrisp which increased by 10.1% Somewhat surprising, Red Delicious volume increased by 10.3% in these regions.
- Overall, Honeycrisp drove 15.7% of category volume.
- Many premium club varieties generated strong growth in Q4. However, total share of these varieties remains very small.



Q4 Nielsen Markets Volume Share by New York Group

- During Q4, New York varieties contribute a larger share of total apple performance, particularly in markets closest to the production areas.
- Consistent with the 52-week totals, Q4 New York variety share was highest in Buffalo followed by Hartford, Boston and New York with share declining as distance from the growing regions increases.
- Some markets with regional proximity to New York production areas had low share in regional varietal apples. In particular, Philadelphia, Baltimore and Washington, DC appear to underperform in New York varieties given regional proximity and significant transportation advantages.

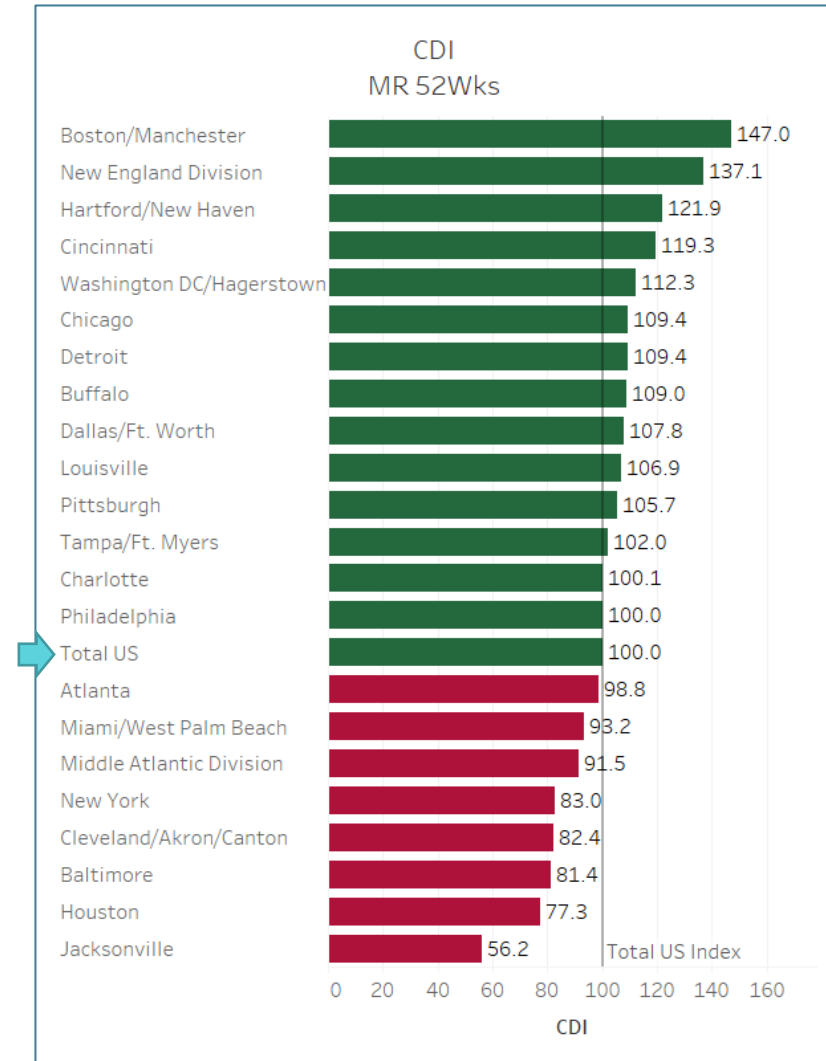


Category Development Index



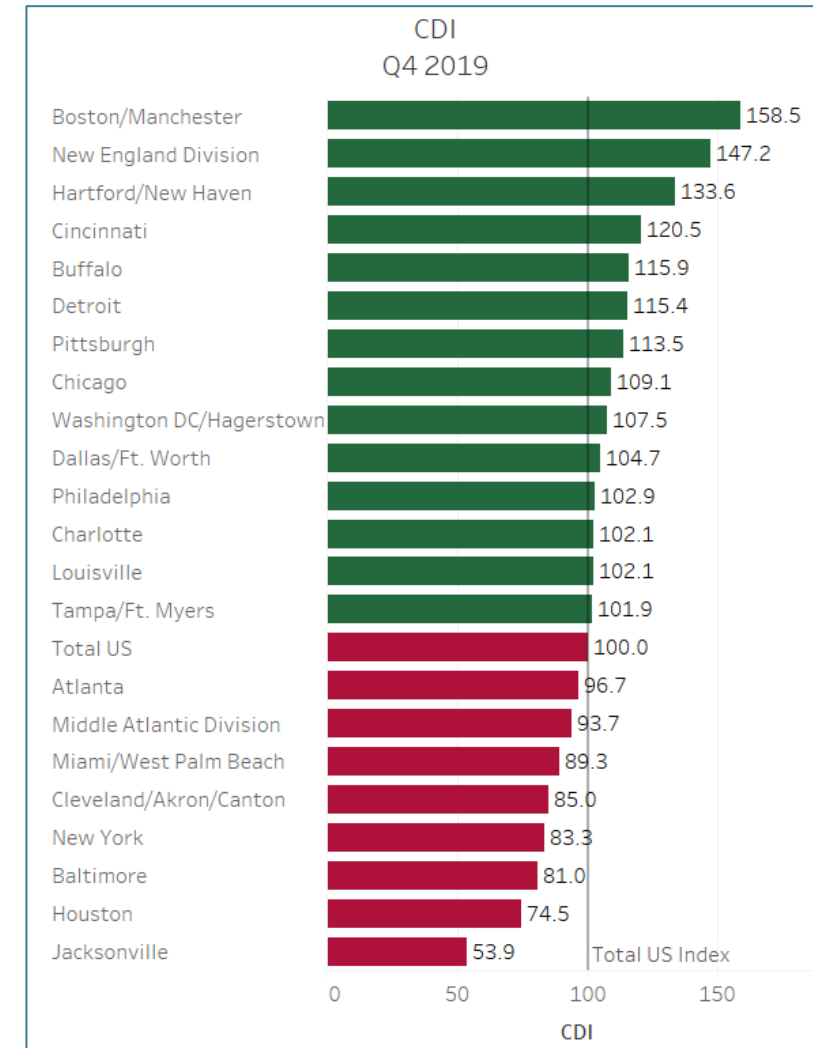
Category Development Index

- Category Development Index (CDI) shows the apple category performance relative to population in various markets. The index reveals the market performance for the apple category weighed against population.
- The New England region has a CDI index of 137 indicating apple volume in this area is performing 37% above what we would expect given the population. The Mid-Atlantic region (91.5) actually falls below the average for the Total US.
- Boston and Hartford (two markets with strong performance in traditional New York varieties) have among the highest category development indexes. However, Buffalo (strongest NY market) indexes only slightly above average at 109. The New York City market (83) actually performs 17% below the average for the Total US.



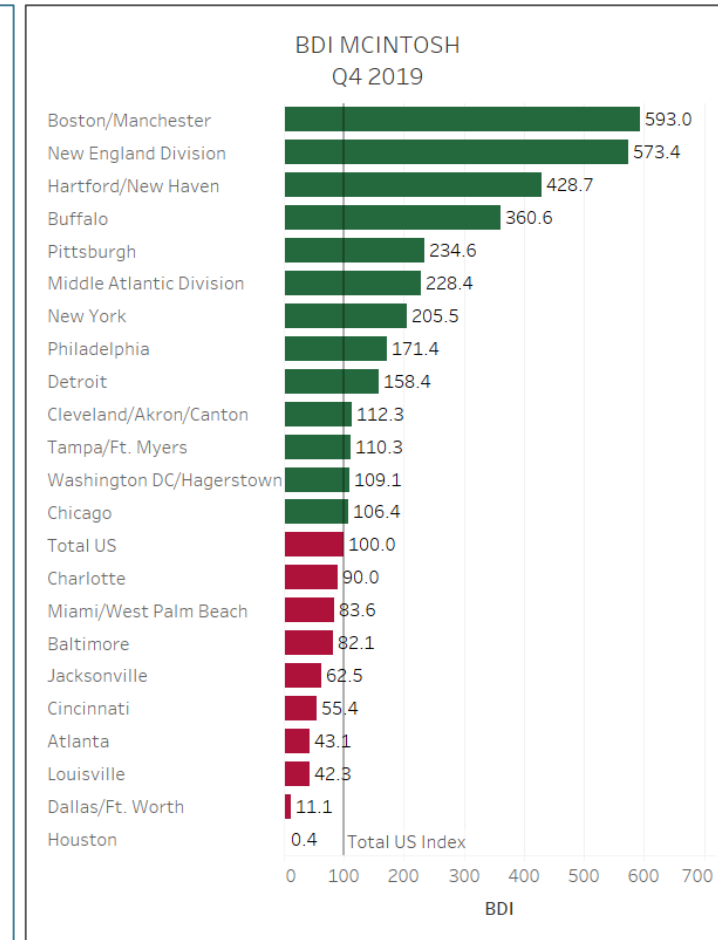
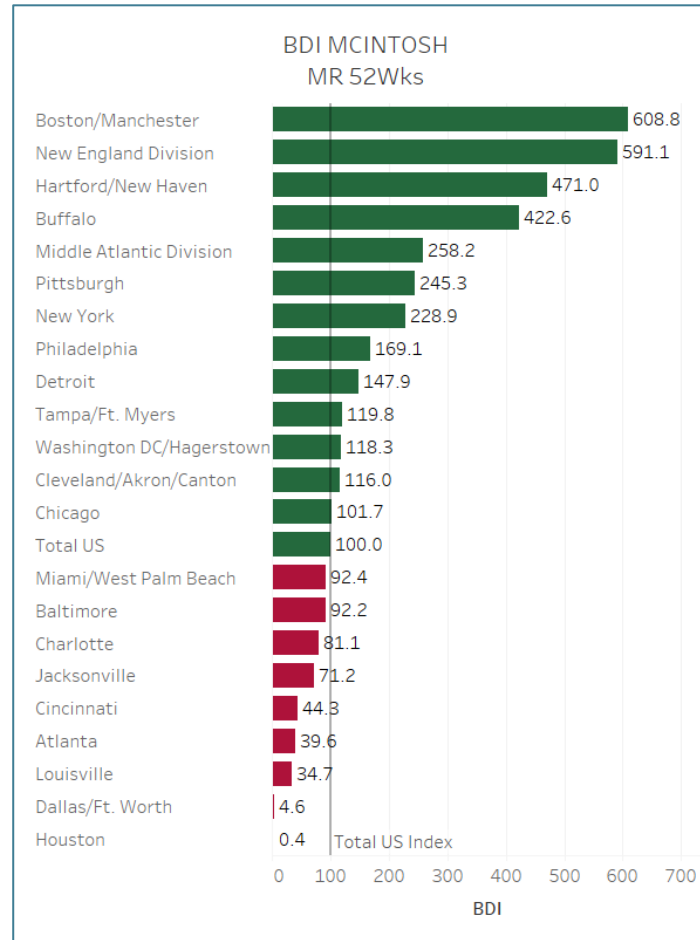
Q4 Category Development Index

- During Q4 the New England region has a CDI index of 147 indicating apple volume in this area is 47% above what we would expect given the population. The Mid-Atlantic region (93.7) actually falls below the average for the Total US.
- Boston and Hartford (two markets with strong performance in traditional New York varieties) have among the highest category development indexes. However, Buffalo (strongest NY market) indexes only slightly above average at 115.9.
- Even during the critical Q4 period when apple volume peaks, the New York market (83) actually performs 17% below the average for the Total US. This suggests a significant opportunity to increase apple performance in this market.



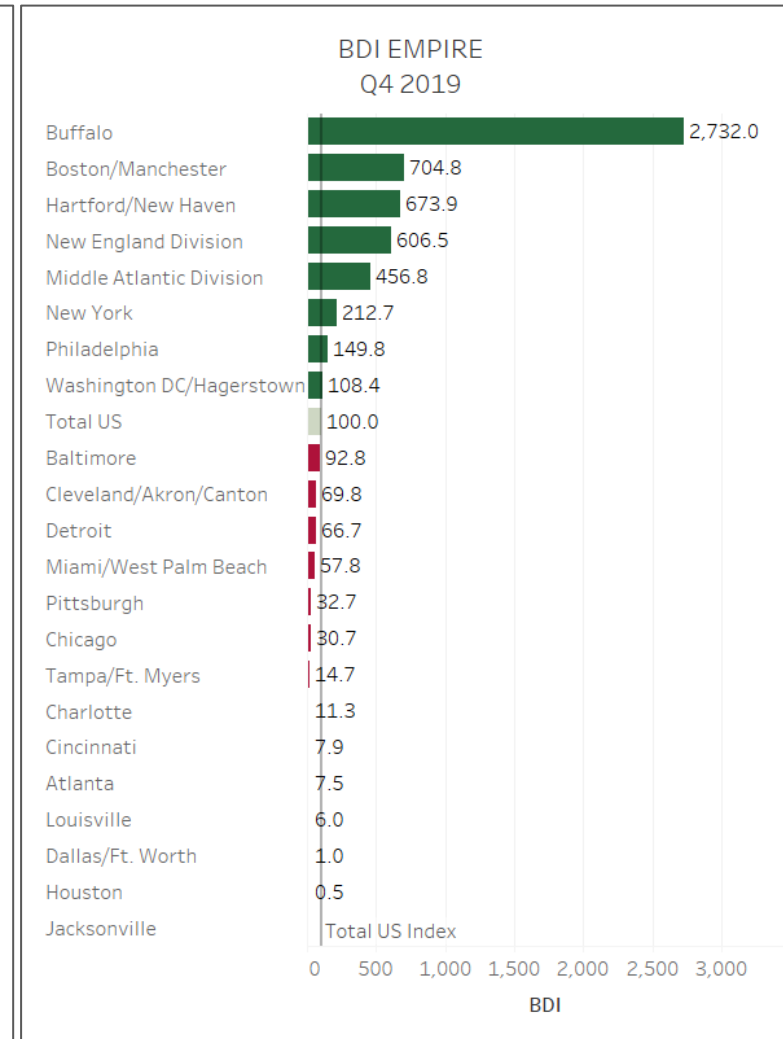
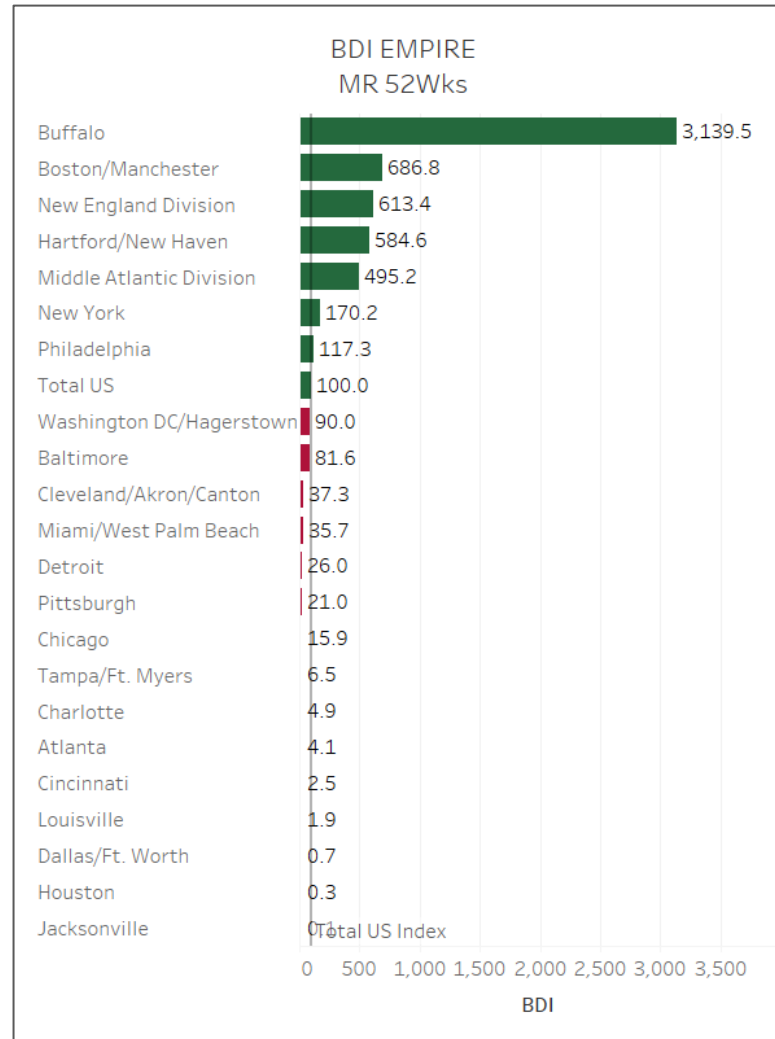
McIntosh Brand Development Index

- Market BDI shows the New England region as well as the key markets in close proximity to New York growing areas have the strongest indexes for McIntosh.
- BDI indexes are relatively consistent among markets when comparing Q4 and 52 week BDI totals. This indicates that McIntosh performance is likely linked more to product availability than shifts in retail sales practices.
- Several markets of opportunity for McIntosh appear based on BDI. For example, Baltimore, Charlotte, Jacksonville and Atlanta all have lower BDI indexes indicating Macs are under-performing.



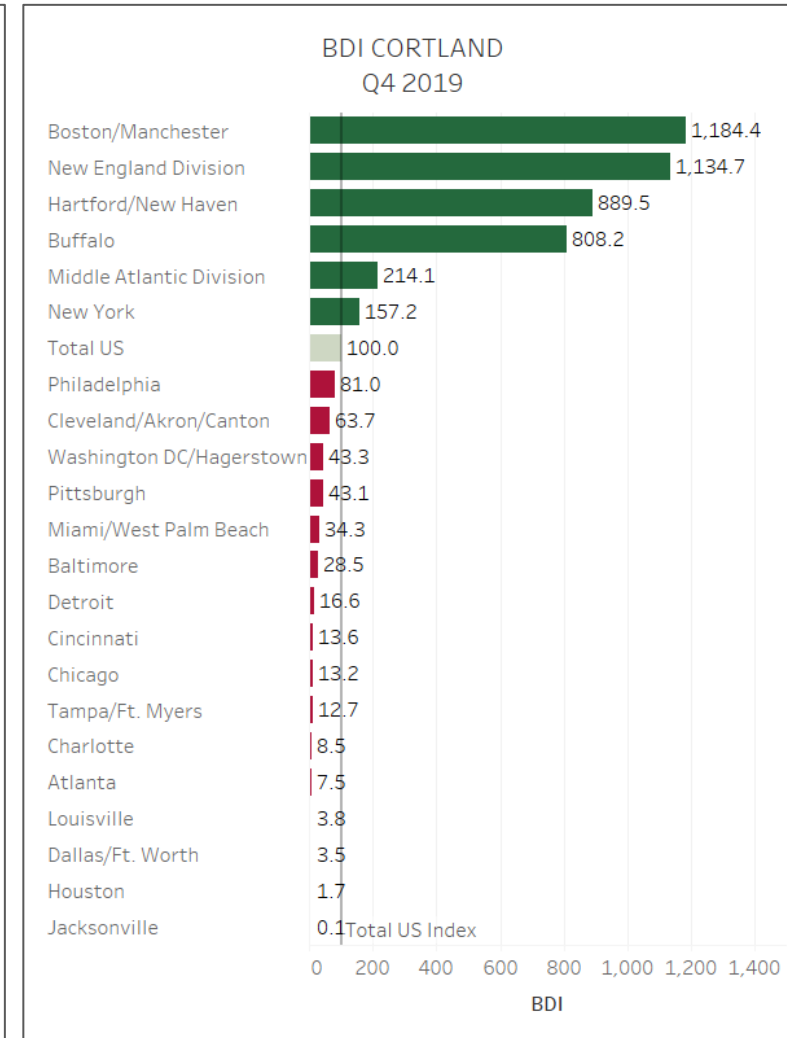
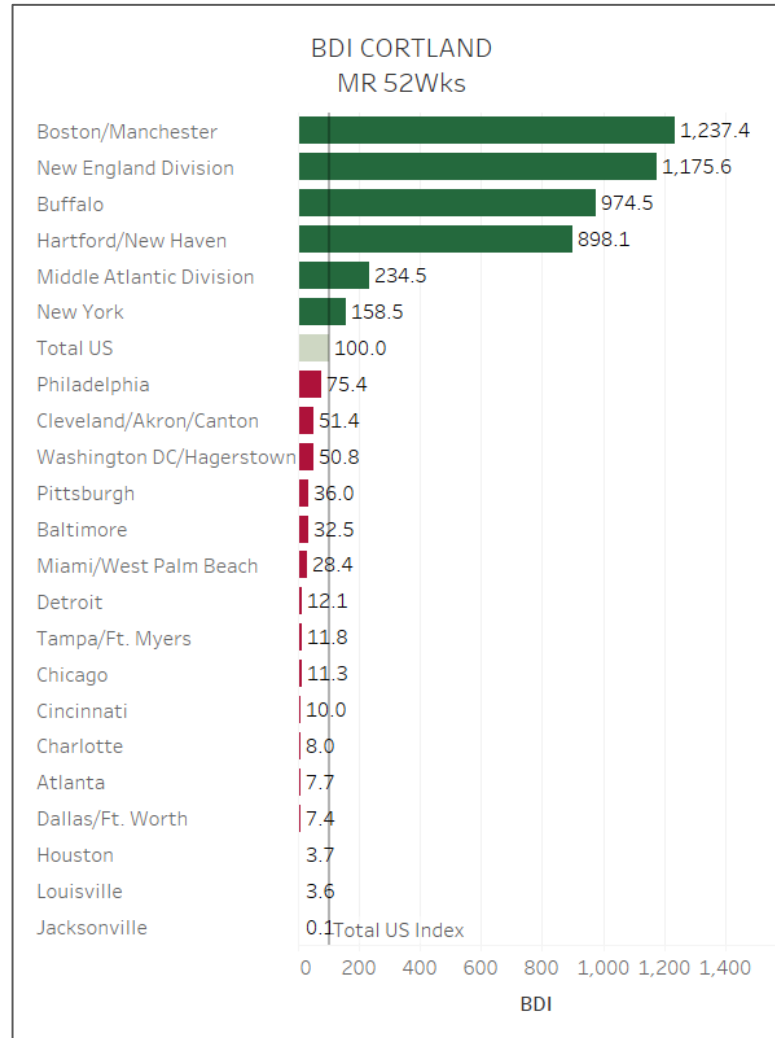
Empire Brand Development Index

- Market BDI on Empire shows a narrow group of high performing markets with relatively low performance. Of the 20 markets included, only five index above the US average for Empire.
- Empire performance in key markets in the mid-Atlantic states and the Southeast is extremely low.



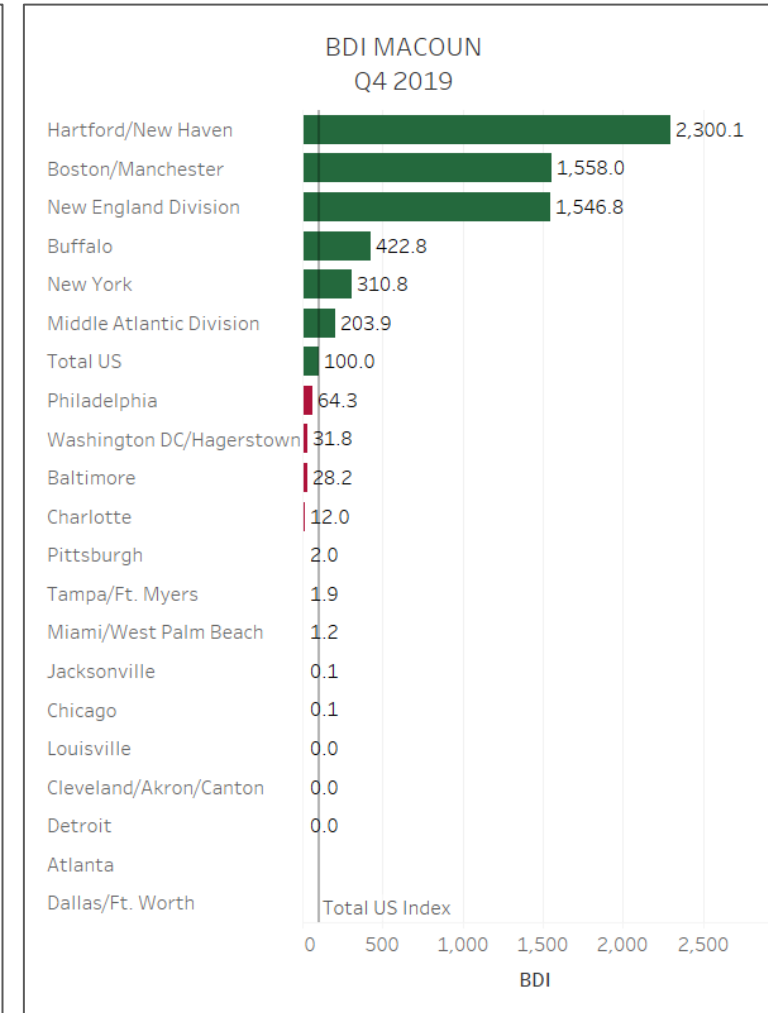
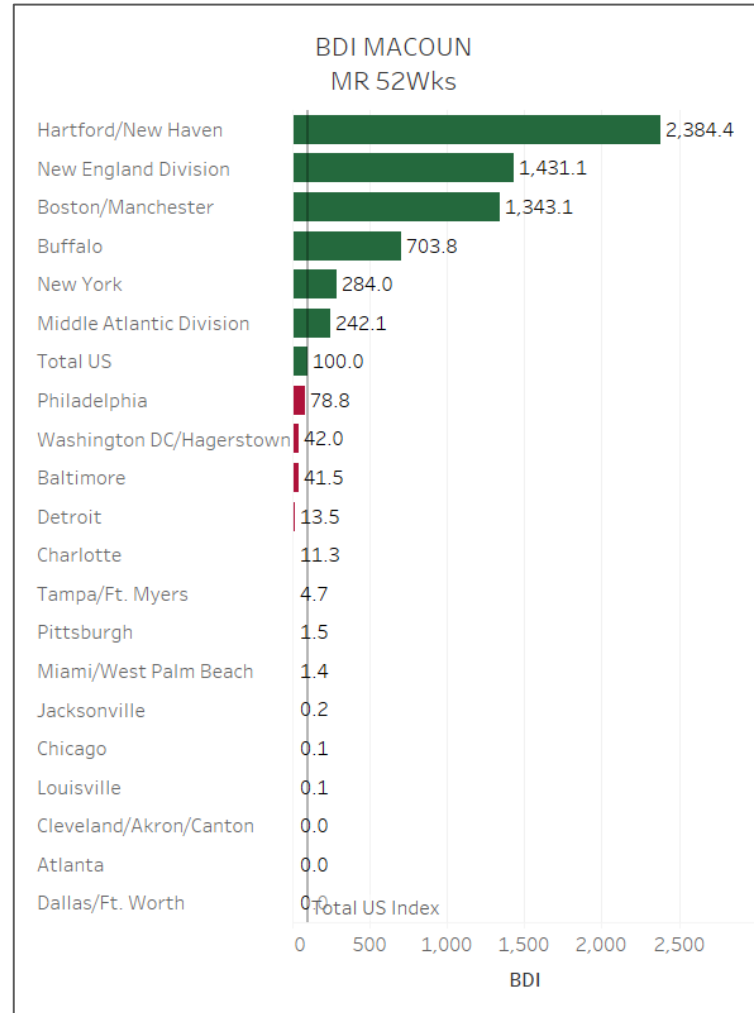
Cortland Brand Development Index

- Market BDI on Cortland shows a very narrow group of high performing markets with relatively low performance in all others. Of the 20 markets included, only four index above the US average.
- Cortland performance is very low in several key markets relatively near the NY growing regions. In particular, Philadelphia, Washington DC, Pittsburgh and Baltimore stand out as opportunity markets.



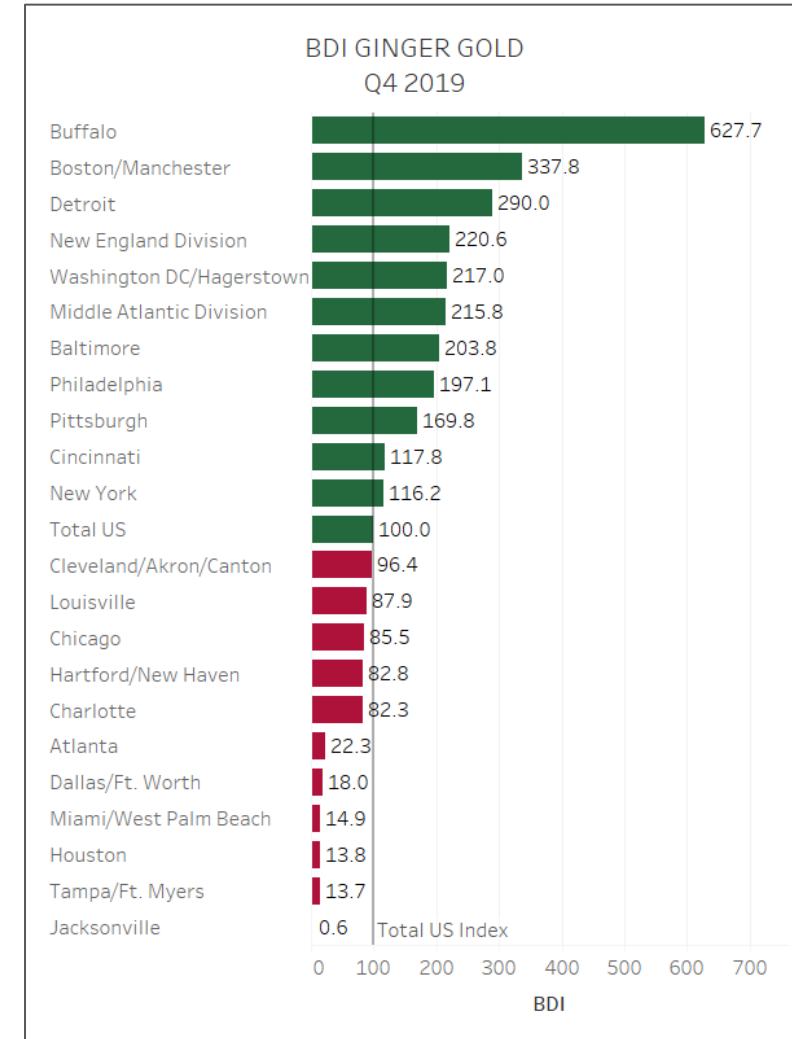
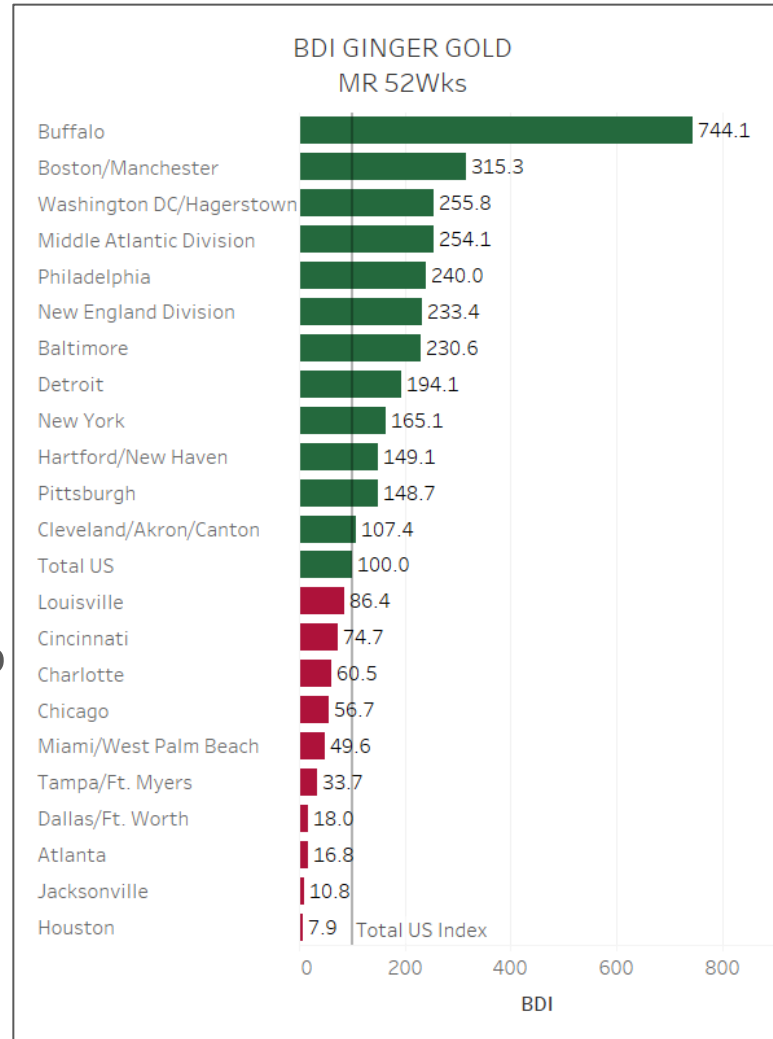
Macoun Brand Development Index

- Market BDI on Macoun shows a very narrow group of high performing markets with relatively low performance in all others. Of the 20 markets included, only four index above the US average.
- Macoun BDI is highest in the Hartford market.
- Macoun performance is very low in several key markets relatively near the NY growing regions. In particular, Philadelphia, Washington DC, Pittsburgh and Baltimore stand out as opportunity markets.



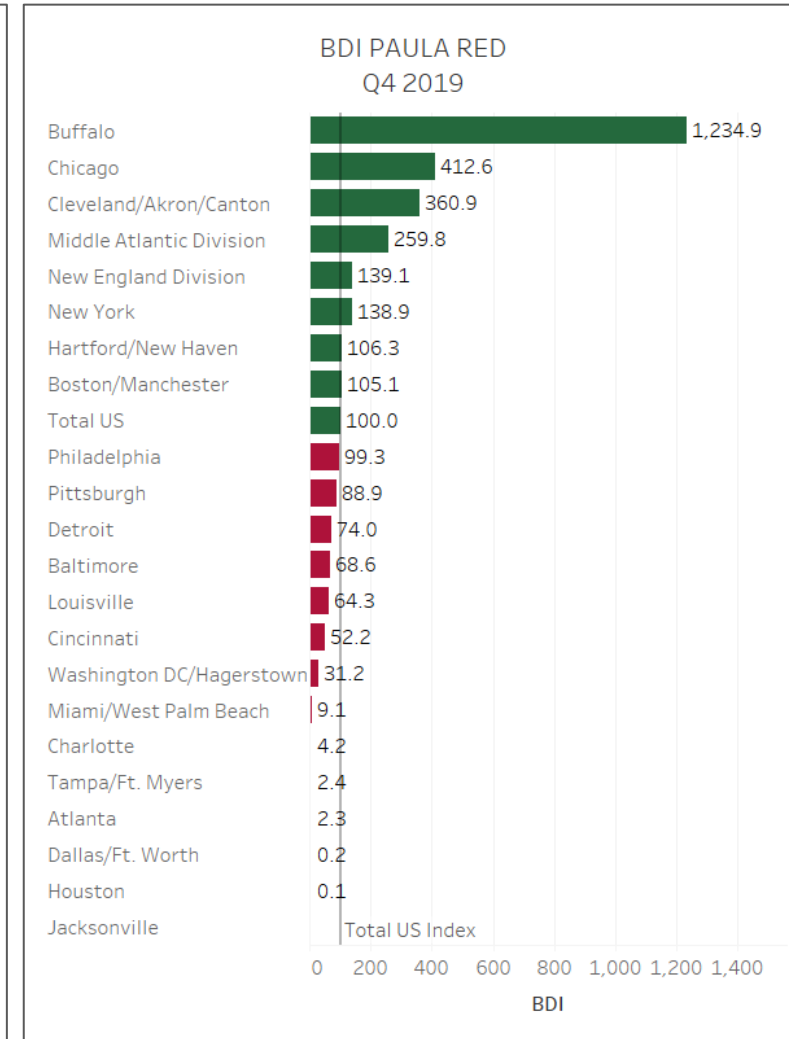
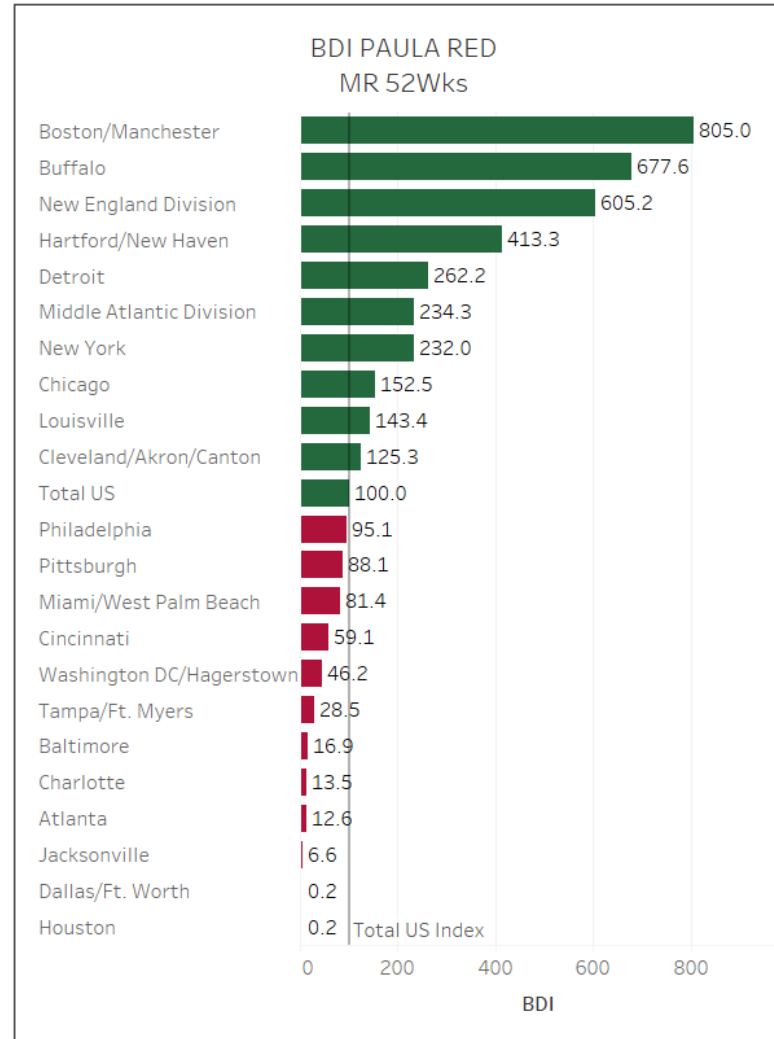
Ginger Gold Brand Development Index

- Market BDI on Ginger Gold shows broader development than the leading NY varieties. While the BDI indexes in top markets are lower than other key varieties, the wider development indicates stronger retail and consumer acceptance.
- The broader development can be seen in that 10 of the 20 markets reviewed have performance higher than the national average.
- Ginger Gold BDI is highest in the Buffalo market.
- Ginger Gold performance is relatively strong in several Midwest markets but well below average in others. This indicates opportunities in markets like Louisville, Cincinnati and Chicago.



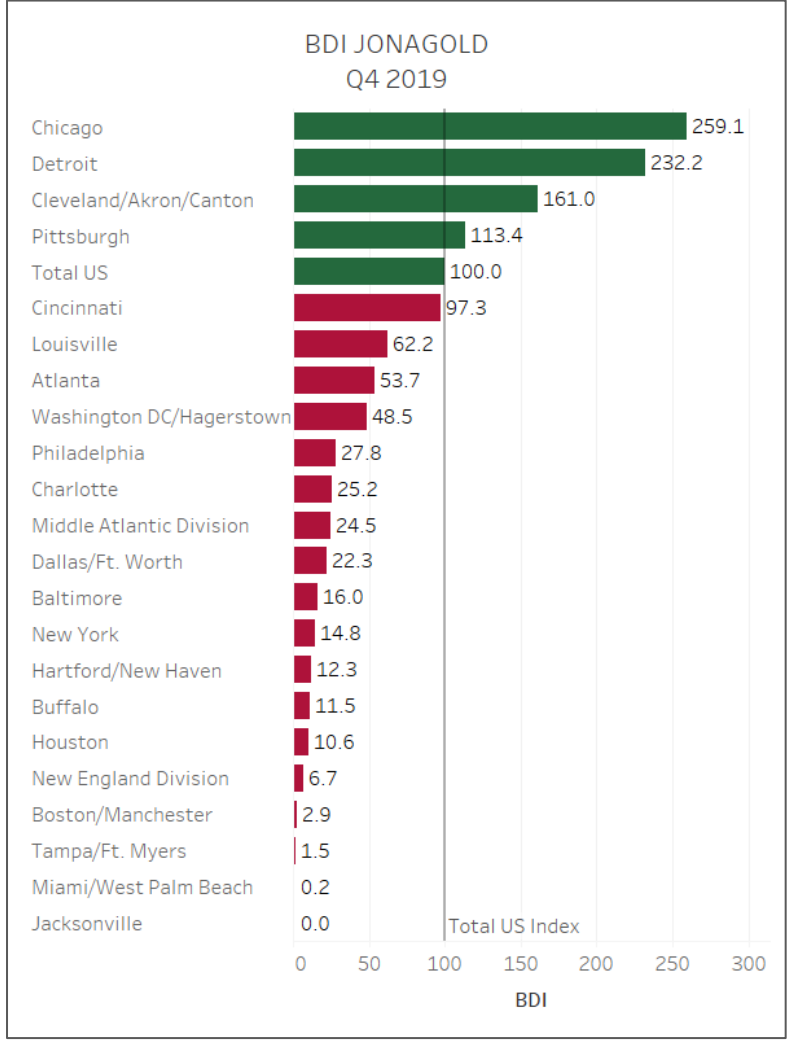
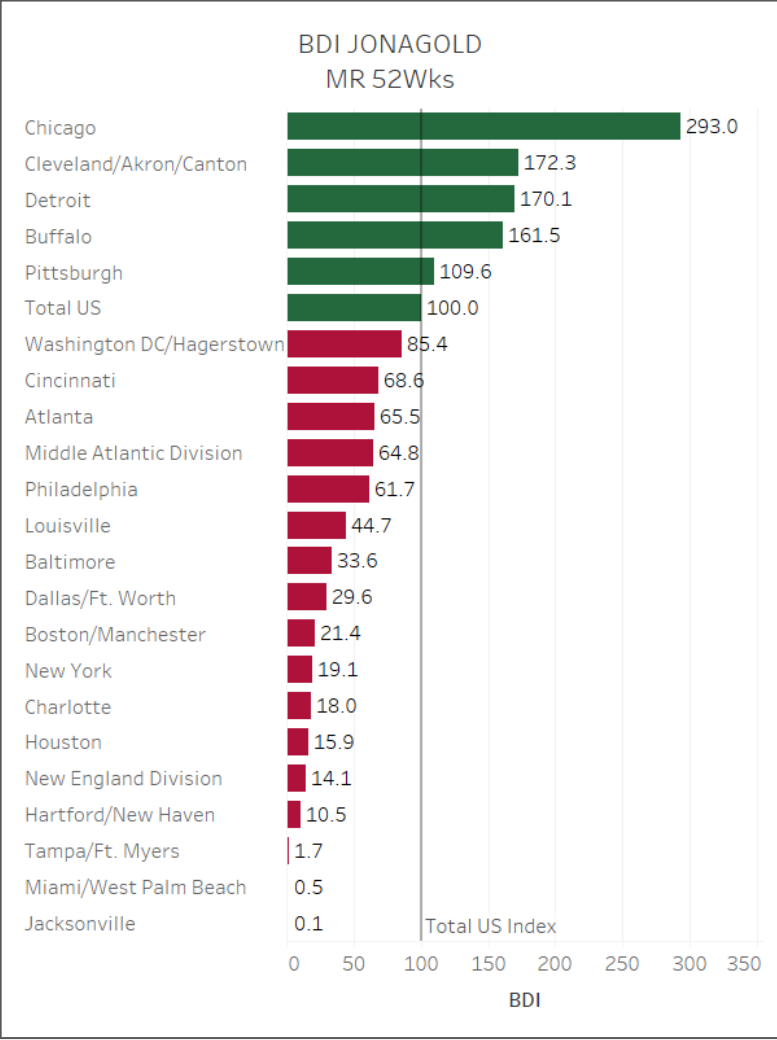
Paula Red Brand Development Index

- Market BDI on Paula Red shows broader development than the leading NY varieties. While the BDI indexes in top markets are lower than other key varieties like McIntosh and Empire, the index indicates stronger retail and consumer acceptance.
- The broader development can be seen in that 12 of the 20 markets reviewed have performance higher than the national average.
- Paula Red BDI is highest in the Boston market.
- Paula Red performance is relatively strong in both New York and Midwest growing regions. Like Ginger Gold, several Midwest and Mid Atlantic markets are below average.



Jonagold Brand Development Index

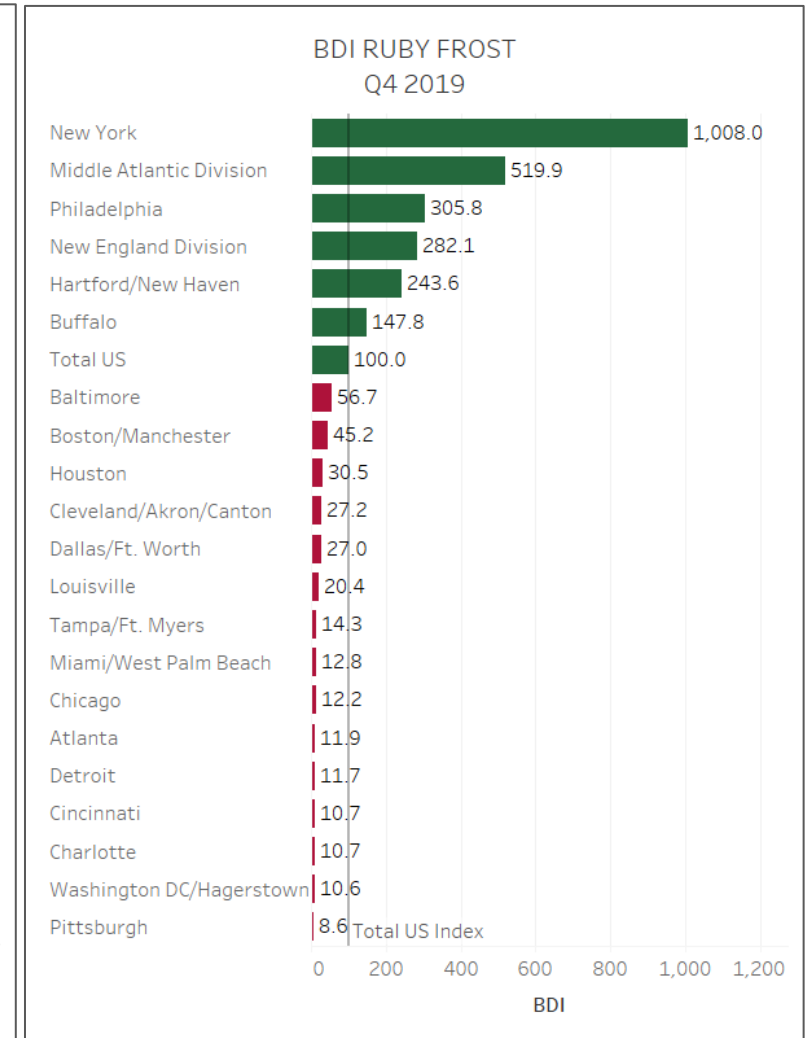
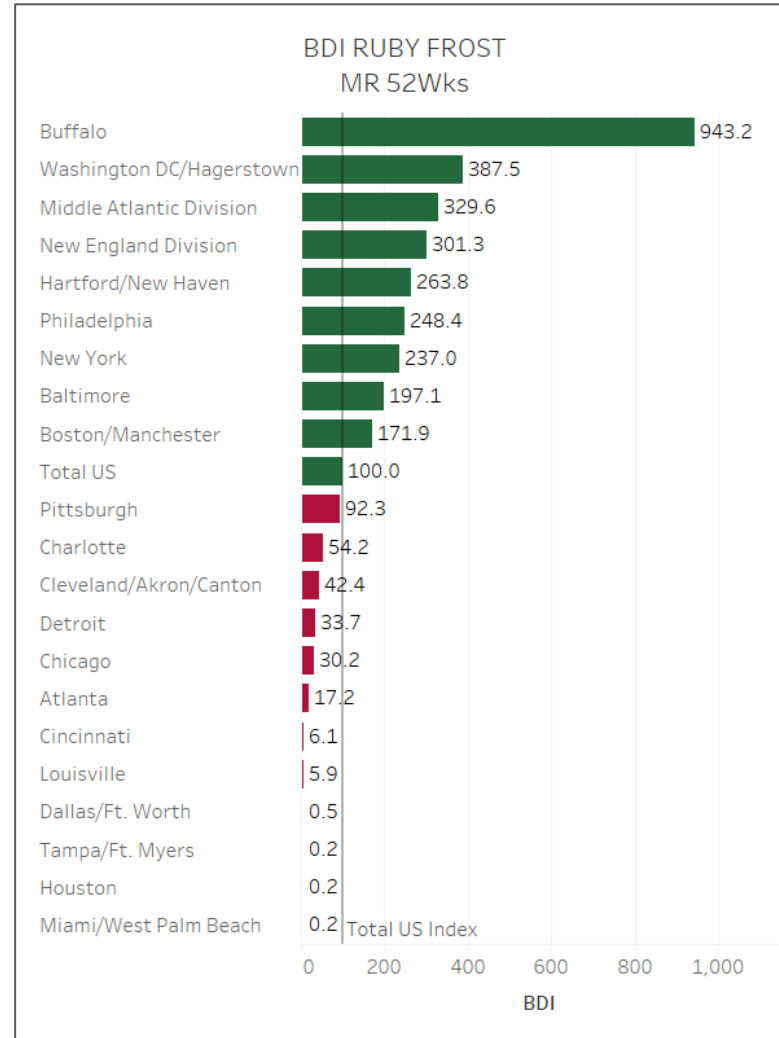
- Market BDI on Jonagold shows a strong influence of Midwest markets likely driven by production in Michigan. Of the leading New York varieties reviewed in this study, Jonagold shows the strongest indexes in Chicago, Cleveland and Detroit.
- Varietal development is relatively narrow with only 5 markets showing an above average BDI.
- Jonagold BDI is highest in the Chicago market.
- Jonagold performance is relatively weak in several key regional markets including the entire New England and Mid-Atlantic regions.



Source: Nielsen Supermarket Scan Data, 52 weeks 10-6-2019 to 10-3-2020 vs. same period last year

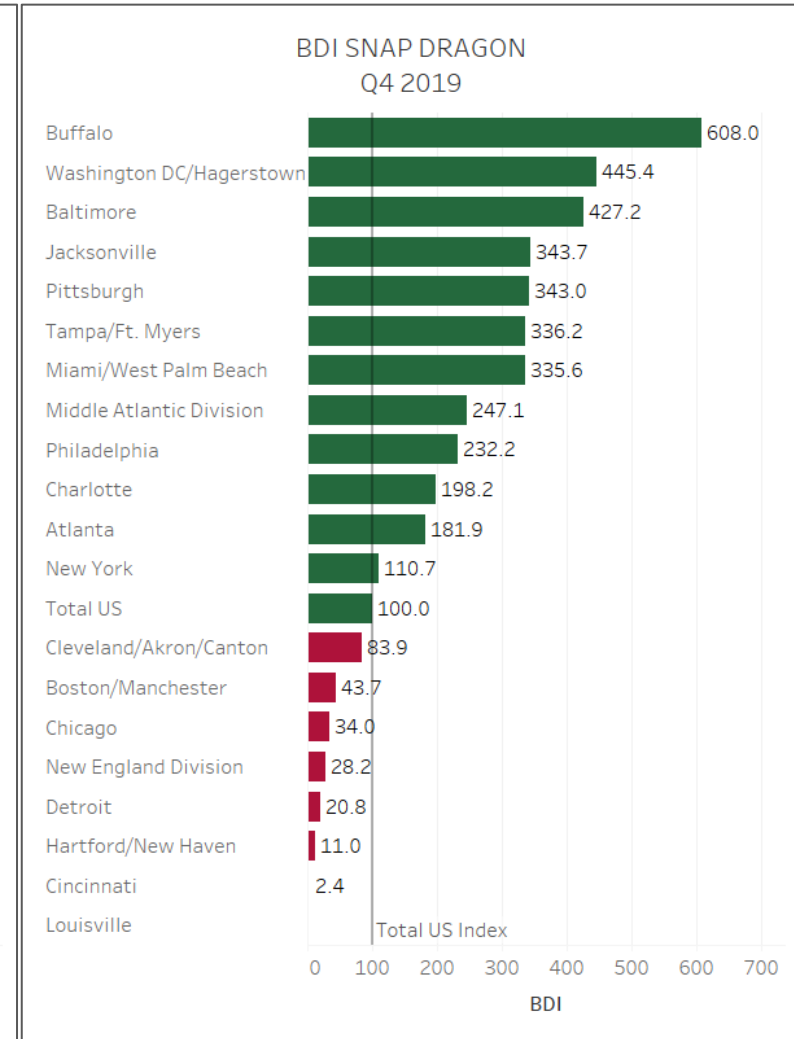
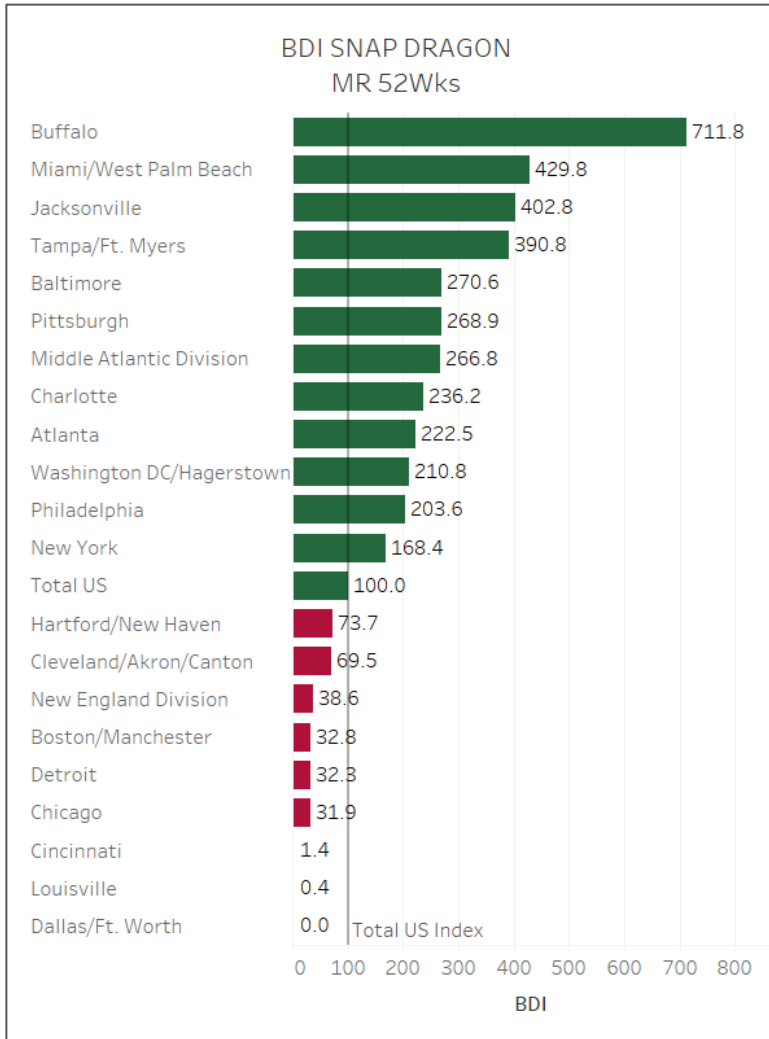
Ruby Frost Brand Development Index

- With smaller developing varieties like Ruby Frost, market development is driven by retail distribution. The 52 week BDI is broader than the Q4 BDI, likely a reflection of product marketing and availability.
- Market BDI on Ruby Frost shows diversity in market development beyond the performance seen in varieties like McIntosh and Empire.
- Washington DC, Philadelphia and Baltimore show as high indexing markets. This is impressive given the relatively low BDI for other New York varieties in these markets.
- The Ruby Frost BDI shows almost no development in several key Midwest and South Eastern markets.



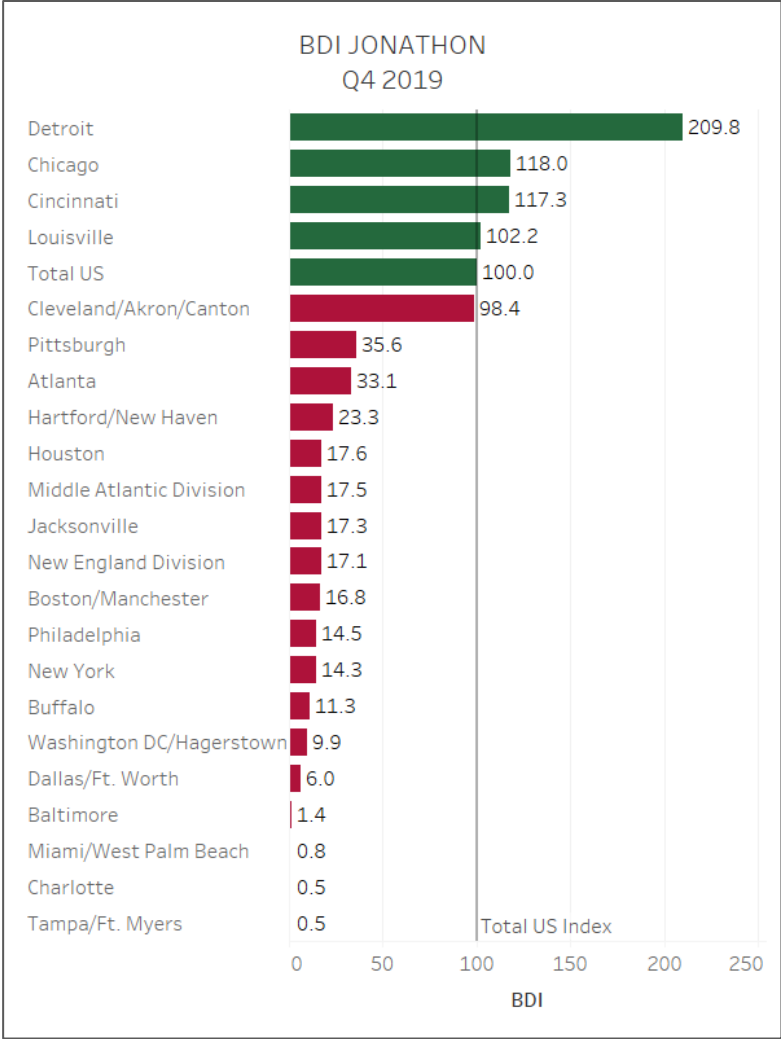
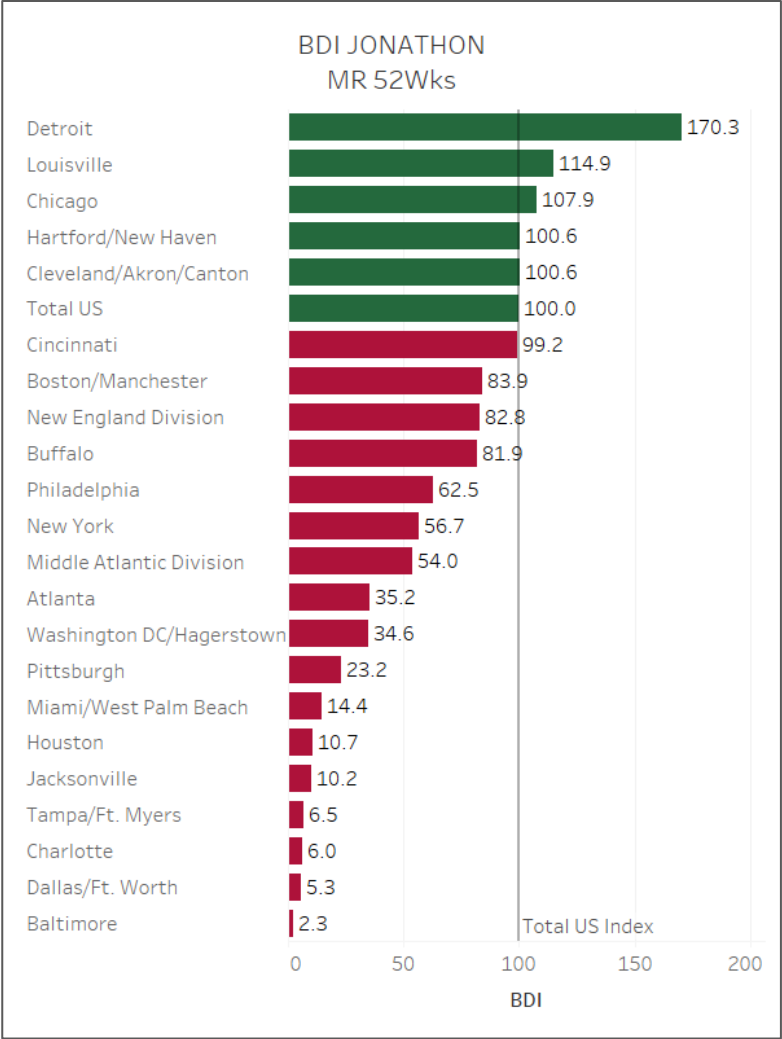
Snap Dragon Brand Development Index

- With smaller developing varieties like Snap Dragon, market development is driven by retail distribution. The 52- week BDI is generally consistent with Q4 BDI. However, there were several significant variations in the market development for Q4 vs. 52-week.
- Market BDI on Snap Dragon shows strong market development in Florida as well as several key Mid-Atlantic markets.
- Strong development in Buffalo likely reflects local marketing efforts to create retailer and consumer familiarity with Snap Dragon.
- In Q4, Washington DC, Pittsburgh and Baltimore show as high indexing markets. This is impressive given the relatively low BDI for other New York varieties.
- The Snap Dragon BDI shows low development in the New England region and at least two markets key to New York growers (Boston, Hartford).



Jonathon Brand Development Index

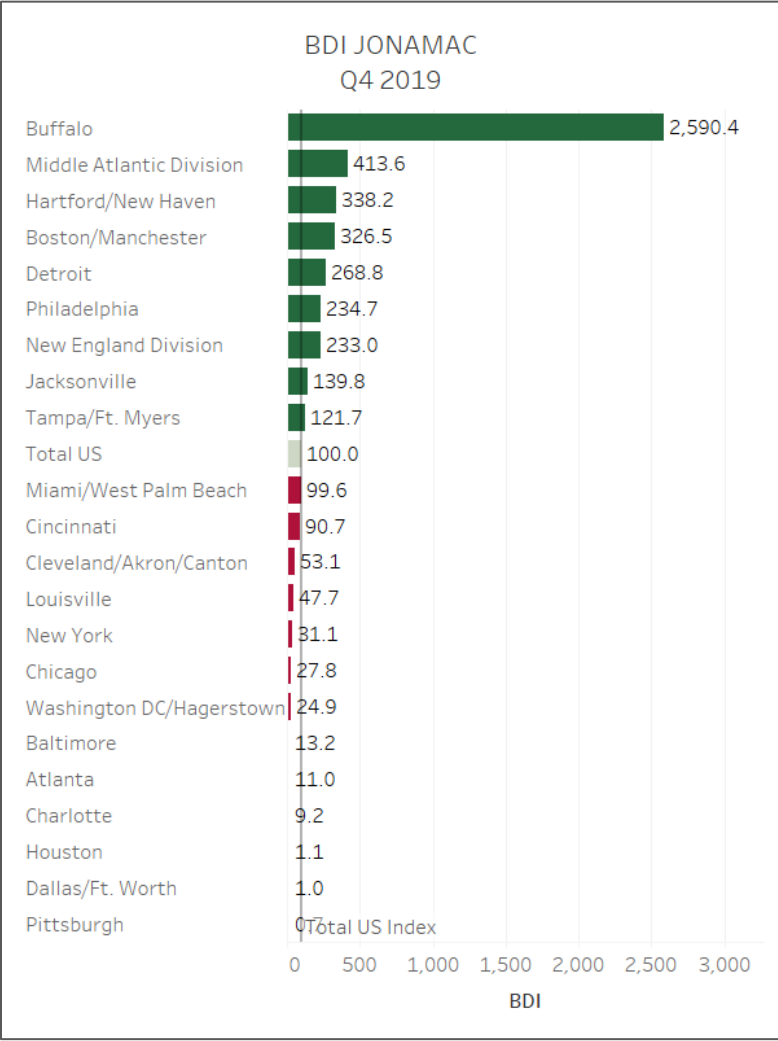
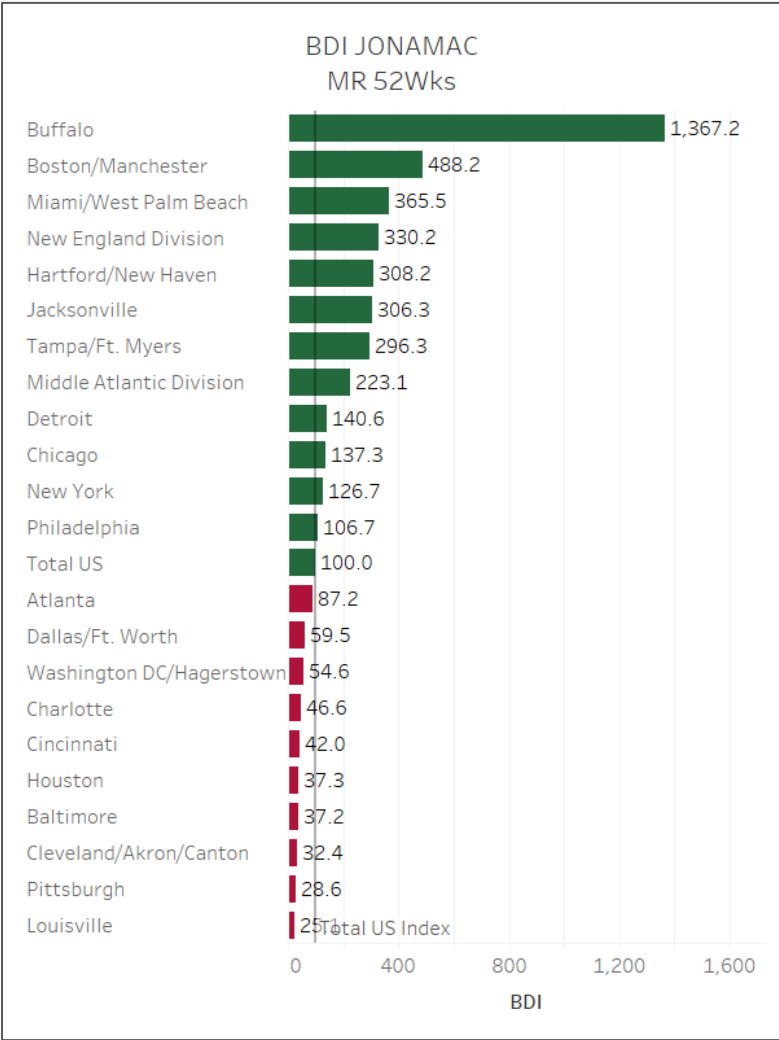
- Jonathon has narrow BDI success and the variety is solidly sharp in Midwest markets. Of the 20 markets included, only three show performance above average, all in the Midwest.
- There is very little difference in the Q4 and 52-week BDI.
- With the exception of Hartford, Jonathon development in key New York markets is weak.



Source: Nielsen Supermarket Scan Data, 52 weeks 10-6-2019 to 10-3-2020 vs. same period last year

Jonamac Brand Development Index

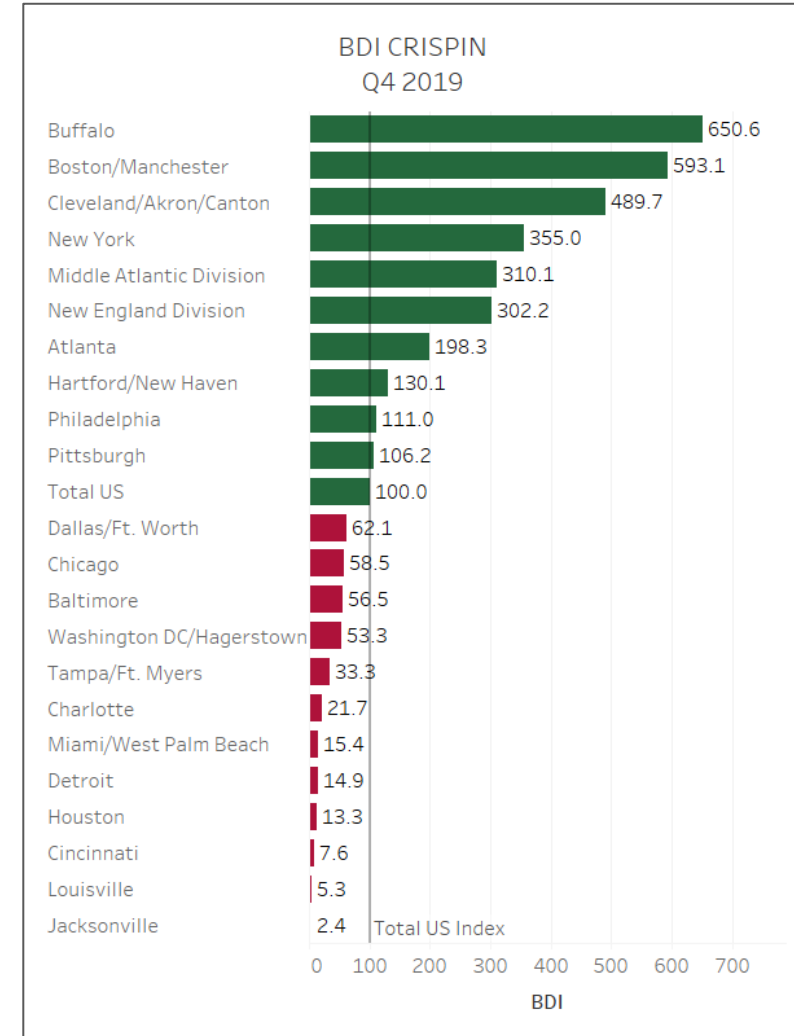
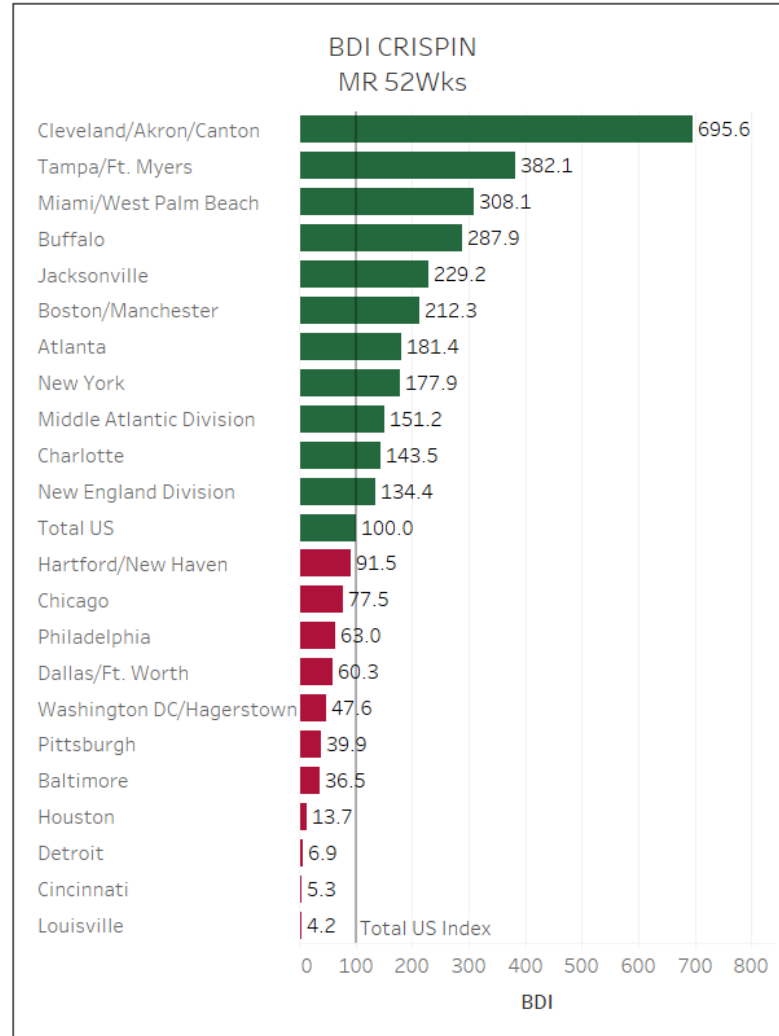
- JonaMac BDI performance is different from most other varieties. It has strong development in the Northeast, similar to McIntosh. However, the apple also sold well in markets in Florida and the Midwest.
- The Mid-Atlantic and New England regions both showed strong brand development indexes.
- The apple fared poorly in several market in the lower Midwest as well as the eastern seaboard.



Source: Nielsen Supermarket Scan Data, 52 weeks 10-6-2019 to 10-3-2020 vs. same period last year

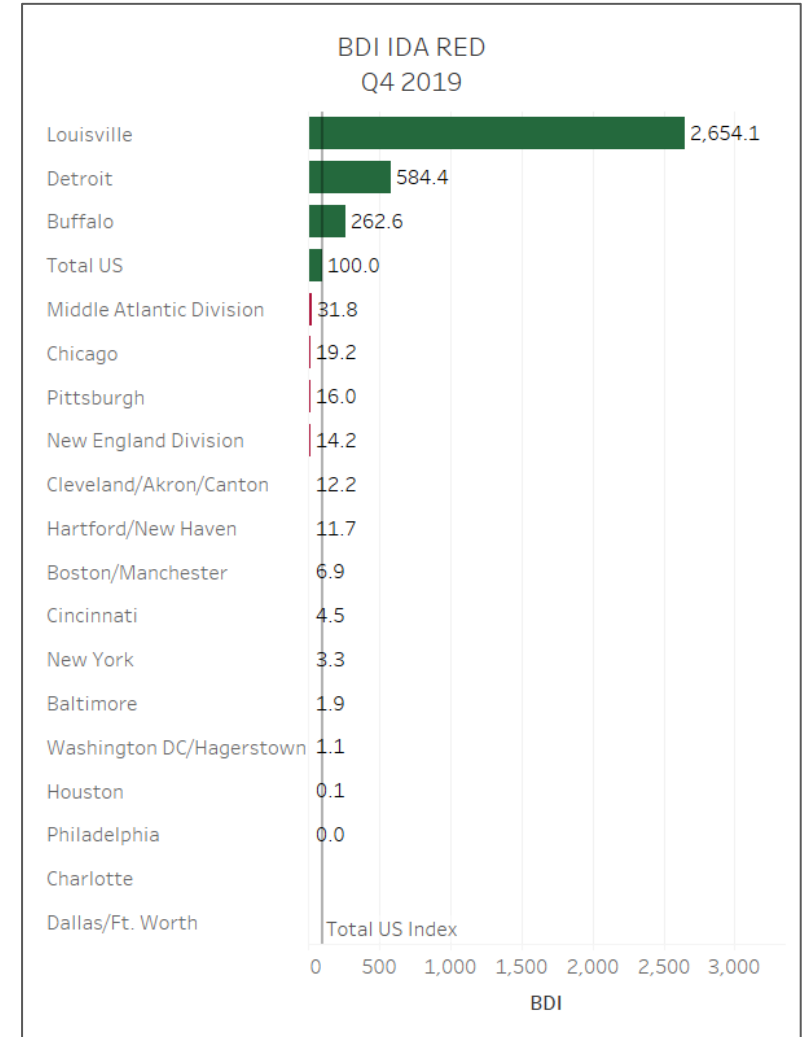
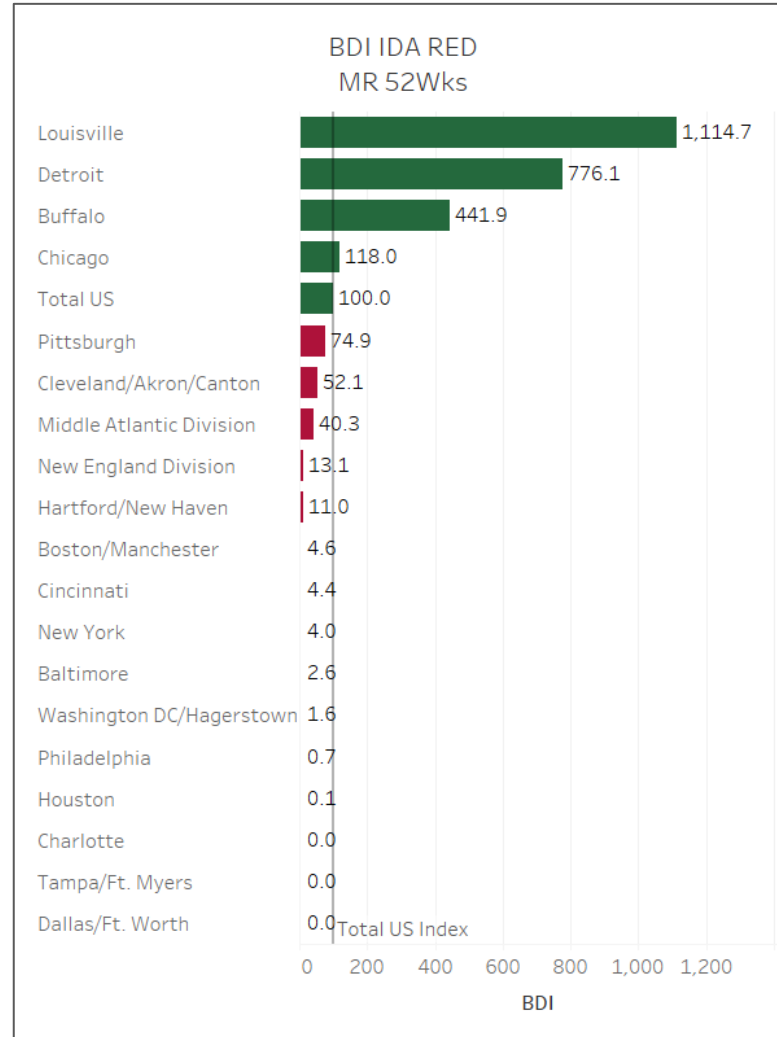
Crispin Brand Development Index

- Crispin is similar to JonaMac in that it has high BDI's in most of the key New England markets but also performed well in Florida as well as some Midwest markets.
- In Q4 BDI Crispin was very strong in Buffalo, Boston, Cleveland and New York. Across 52-weeks, Cleveland jumps to the top as well as several markets in Florida.



Idared Brand Development Index

- Market BDI on IdaRed is the narrowest of all New York varieties with only 4 markets showing an index above average.
- IdaRed shows a strong influence of Midwest markets. Of the leading New York varieties reviewed in this study, IdaRed shows the strongest indexes in Louisville, Detroit, Buffalo and Chicago.
- IdaRed BDI is highest in the Louisville market.
- IdaRed performance is relatively weak in most key regional markets including the entire New England and Mid-Atlantic regions.

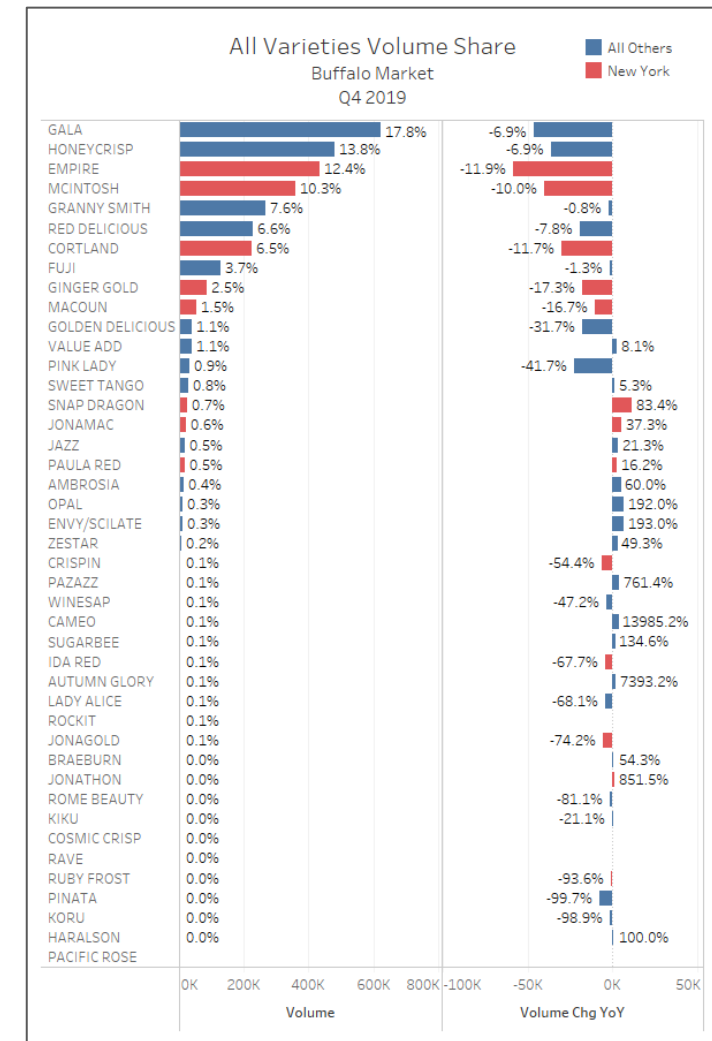
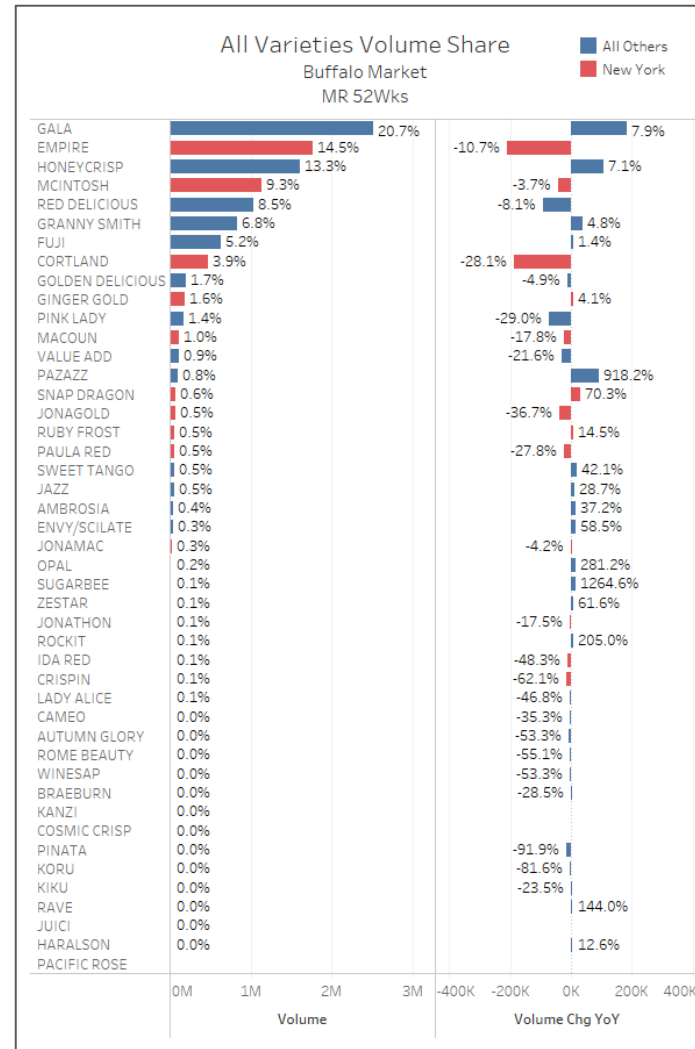


Volume Share by Market



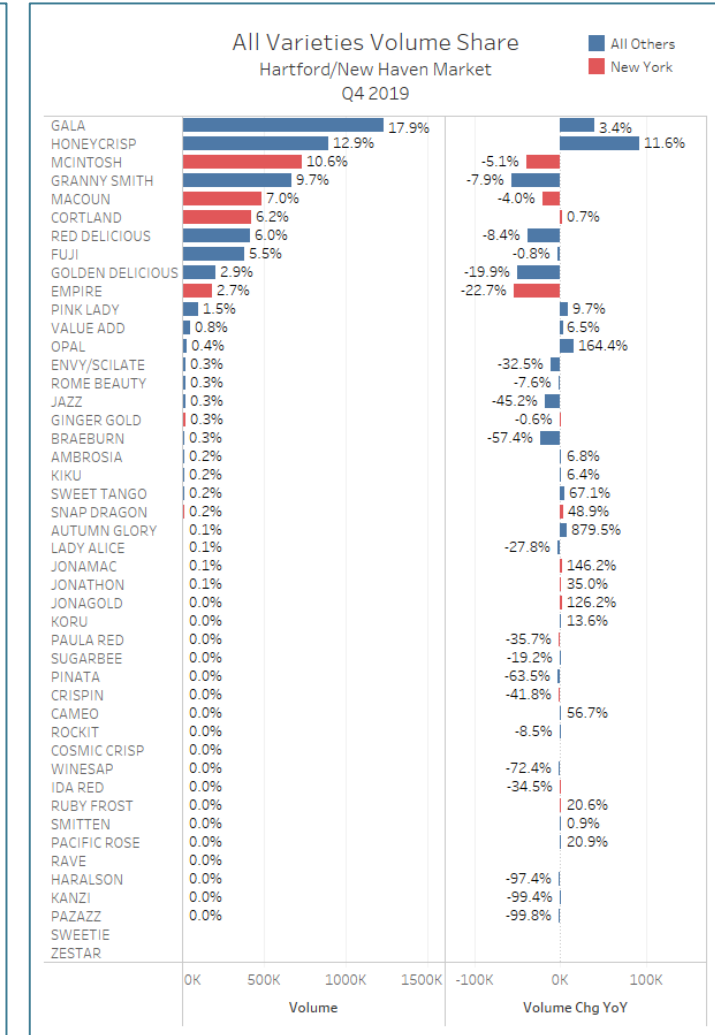
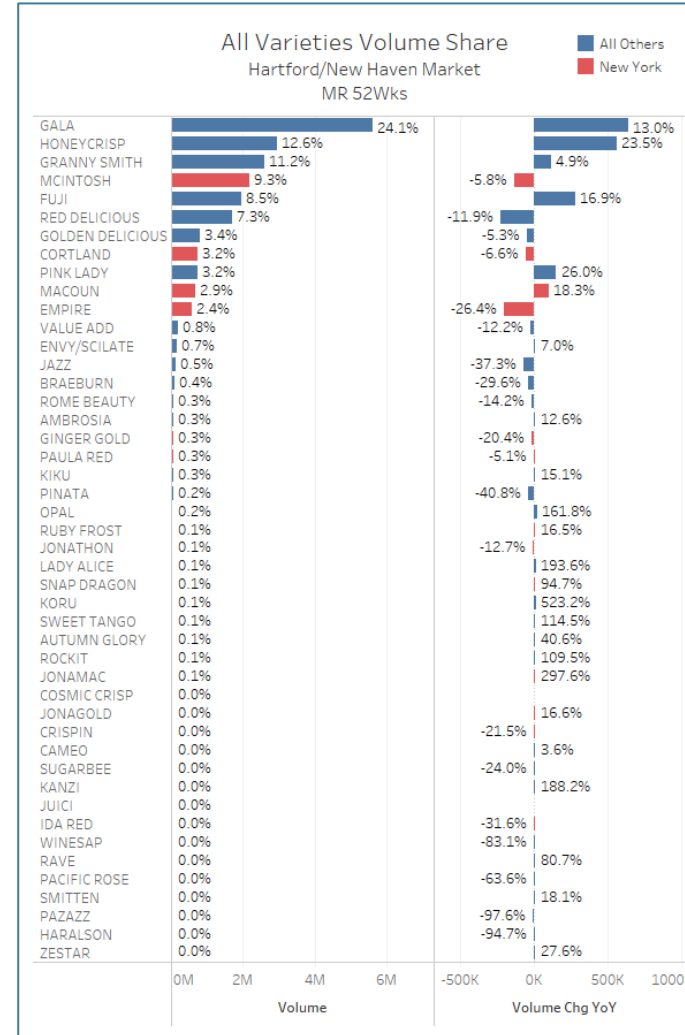
Buffalo Market Volume Share by Variety

- Buffalo has the strongest CDI/BDI for New York varieties over 52 weeks. In Buffalo, four New York varieties are in the top 10 for volume share including Empire (#2), McIntosh (#4), Cortland (#8) and Ginger (#10).
- Among these four top 10 New York varieties, three declined in volume with only Ginger Gold gaining 4.1%.
- During Q4 2019, the Apple Category in Buffalo showed considerable weakness with every apple in the top 10 declining in volume.
- Many premium varieties generated in volume increases in both the 52 week and Q4 periods.



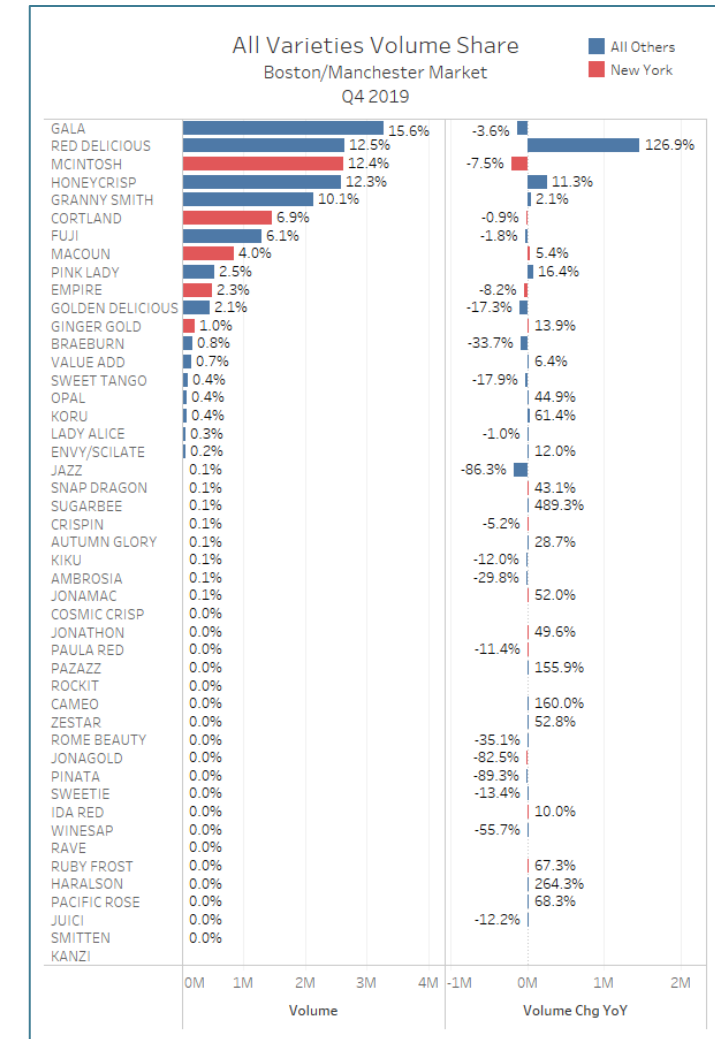
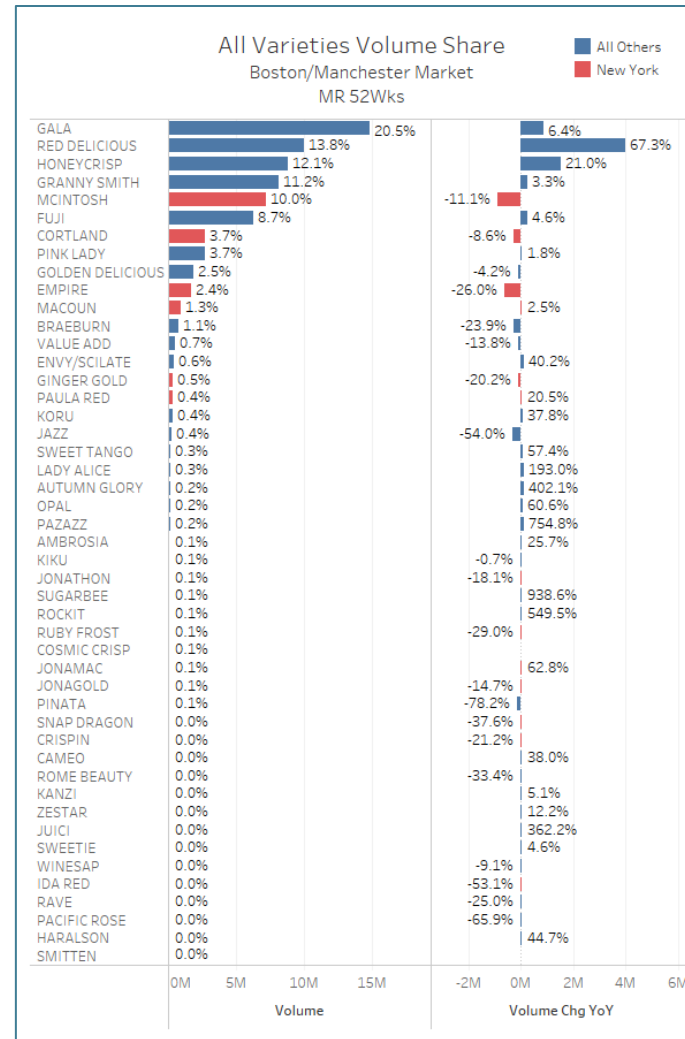
Hartford/New Haven Market Volume Share by Variety

- Hartford has one the strongest CDI/BDI for New York varieties over 52 weeks. In Hartford, three New York varieties are in the top 10 for volume share including McIntosh (#4), Cortland (#8) and Macoun (#10).
- Among these three top 10 New York varieties, two of three declined in volume with Macoun gaining a solid 18.3%.
- During Q4 2019 in Hartford, only Honeycrisp showed volume strength (+11.6) with every apple in the top 10 declining in volume except Cortland (+0.7%).
- Many premium varieties generated in volume increases in both the 52 week and Q4 periods.



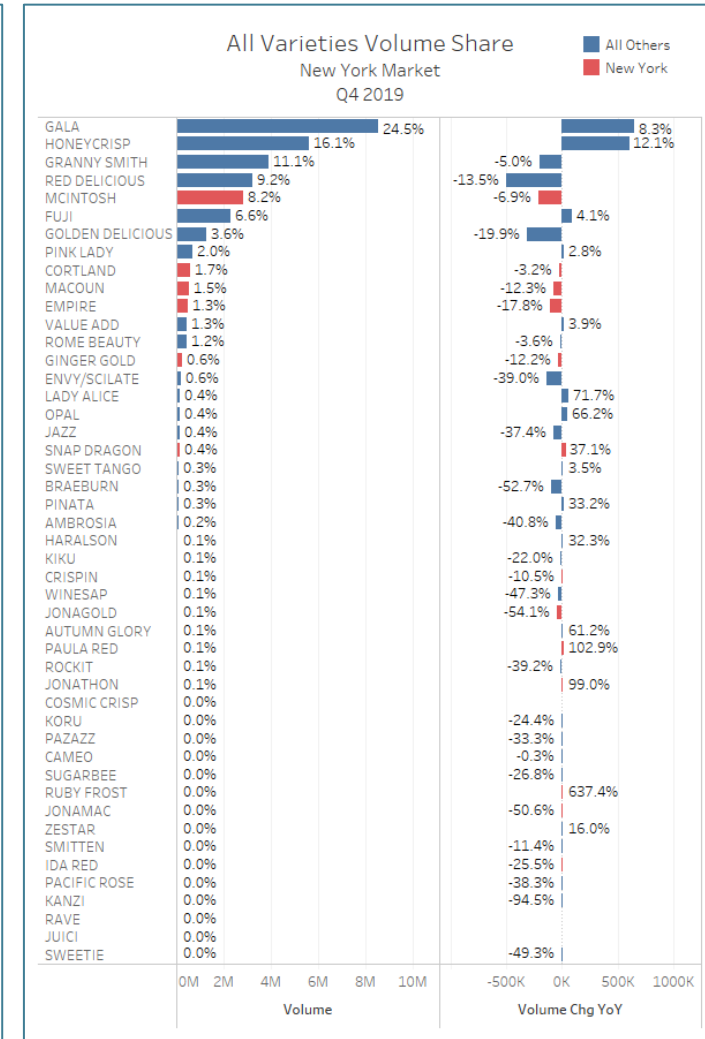
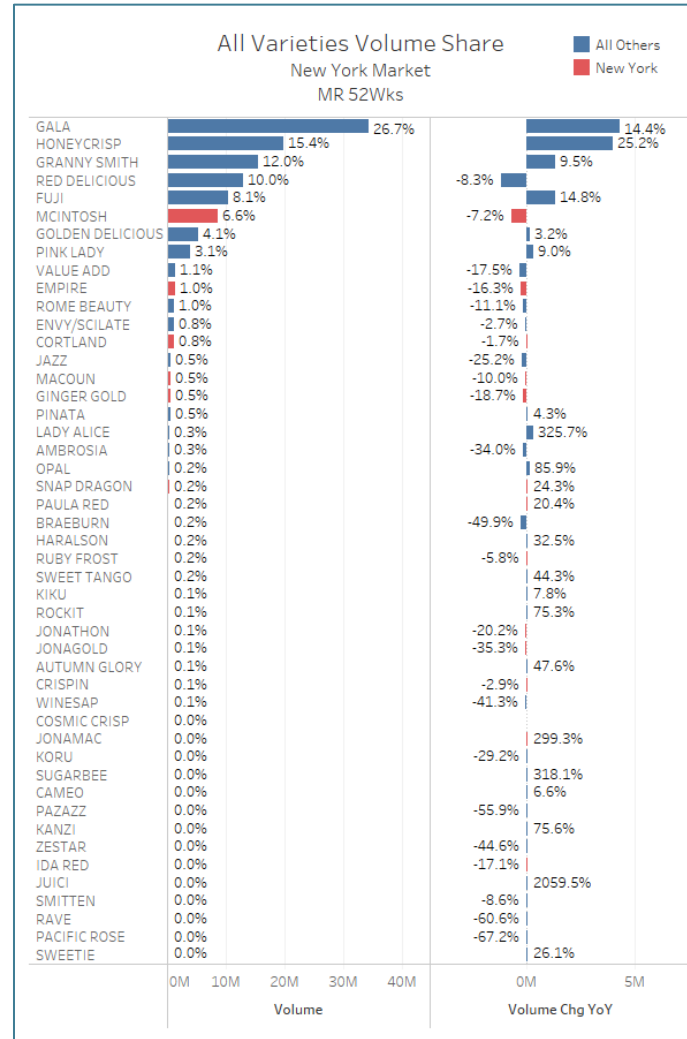
Boston/Manchester Market Volume Share by Variety

- Boston has one the strongest CDI/BDI for New York varieties over 52 weeks. In Boston, three New York varieties are in the top 10 for volume share including McIntosh (#5), Cortland (#7) and Empire (#10).
- Among these three top 10 New York varieties, all three declined in volume over 52 weeks.
- During Q4 2019 in Boston, Red Delicious was surprisingly strong, increasing by 126.9%. Honeycrisp increased by 11.3%.
- Many premium varieties generated in volume increases in both the 52 week and Q4 periods.



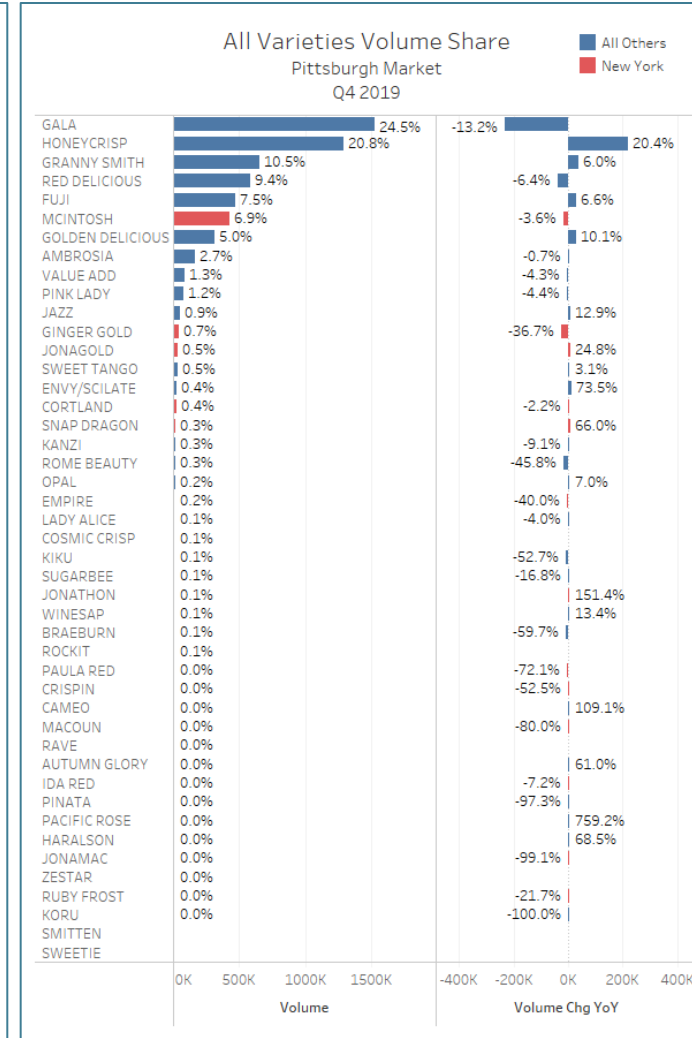
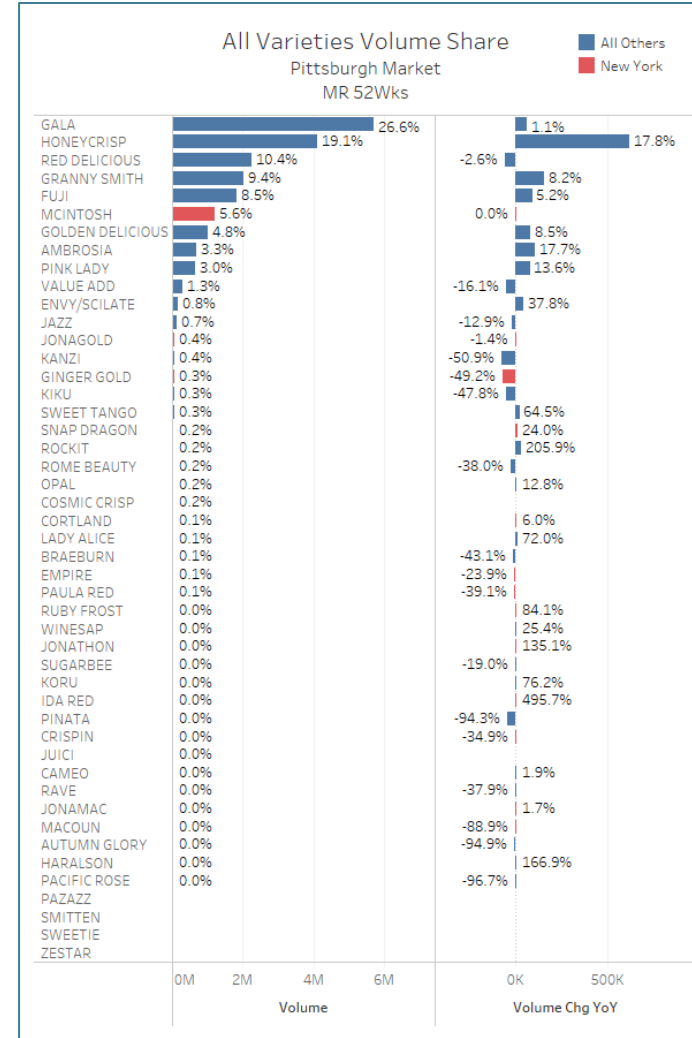
New York Market Volume Share by Variety

- New York City has one the strongest CDI/BDI for New York varieties over 52 weeks. In the New York market, two New York varieties are in the top 10 for volume share including McIntosh (#6) and Empire (#10).
- Both McIntosh and Empire declined in volume over 52 weeks.
- During Q4 2019, the three NY varieties in the top 10 including McIntosh (#5), Cortland (#9) and Macoun (#10) all declined in volume. Honeycrisp (#2) increased by 12.1% while Gala (#1) increased 8.3%.
- Premium varietal volume performance increases were generally strong over 52 weeks but mixed during Q4.



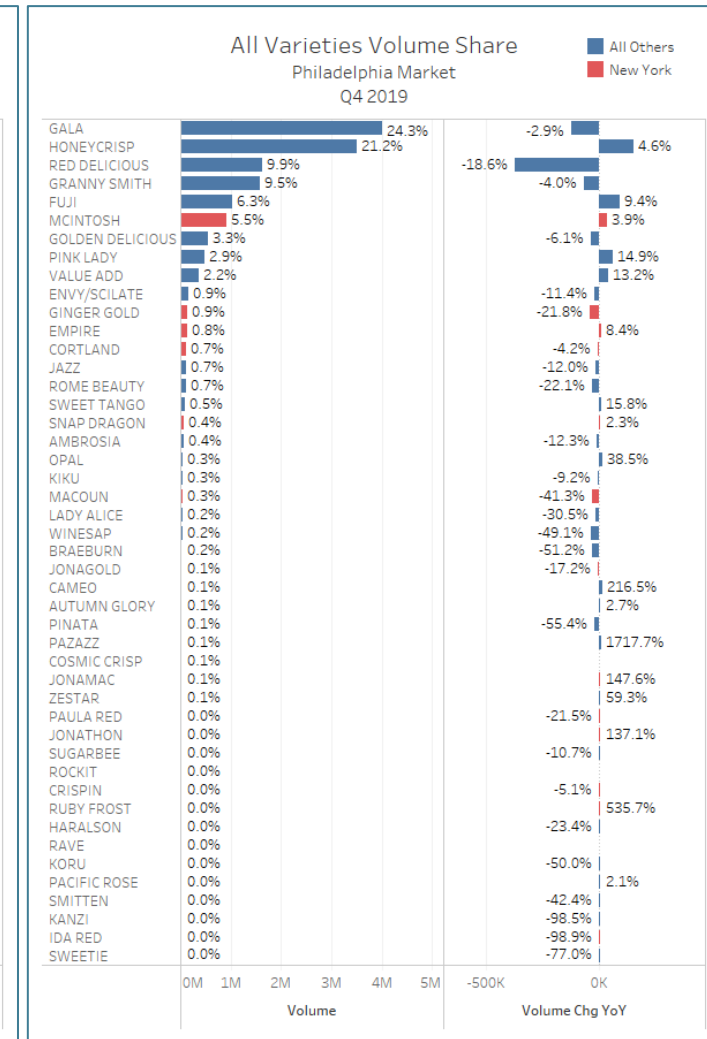
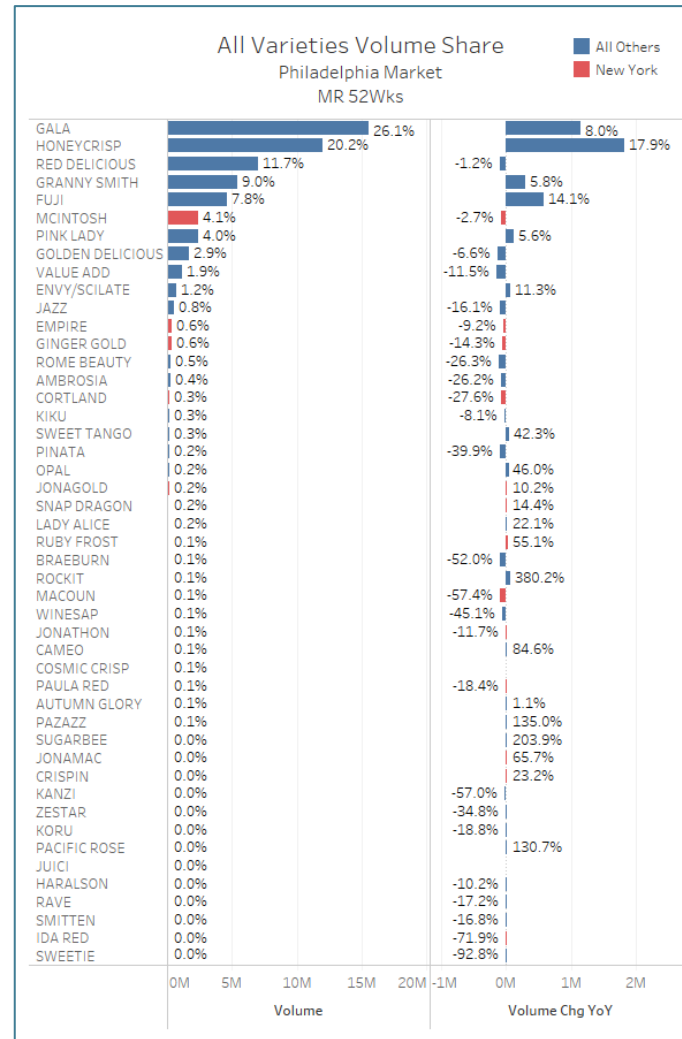
Pittsburgh Market Volume Share by Variety

- Pittsburgh performance in New York varieties was slightly above average in both Q4 and over 52 weeks. In Pittsburgh only McIntosh (#6) volume was sufficient make the top 10.
- McIntosh volume flat year over year over 52 weeks and down -3.6% during Q4.
- Honeycrisp drove growth in both Q4 (+20.4%) as well as over 52 weeks (17.8%)
- Snap Dragon and Ruby Frost showed strong gains over 52 weeks.
- Overall performance was mixed in both New York varieties as well as premium apples.



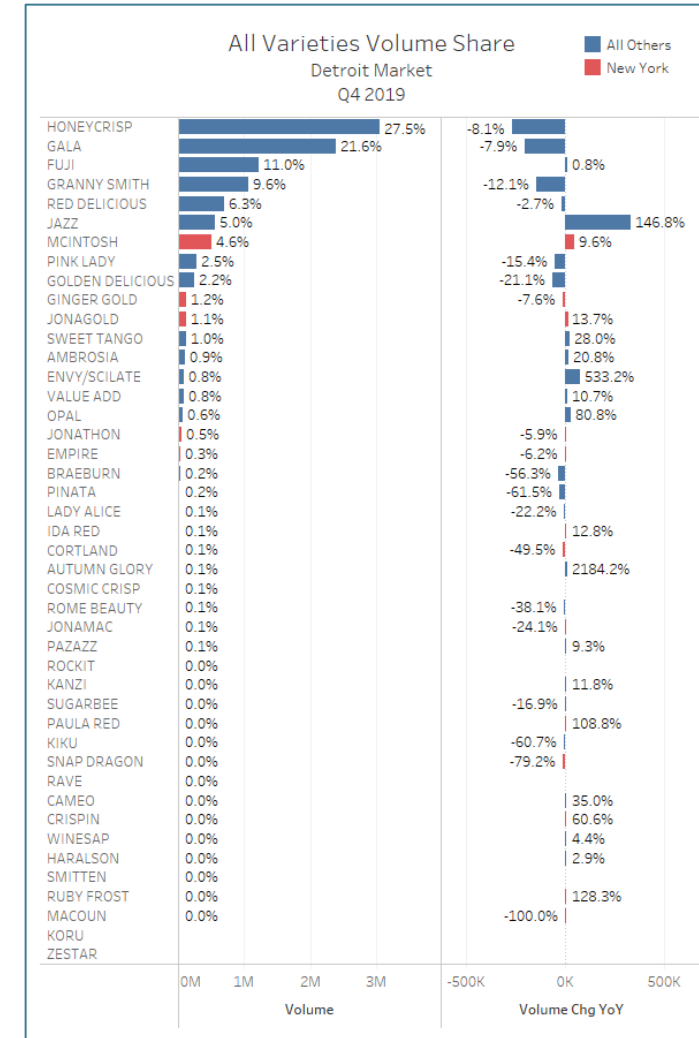
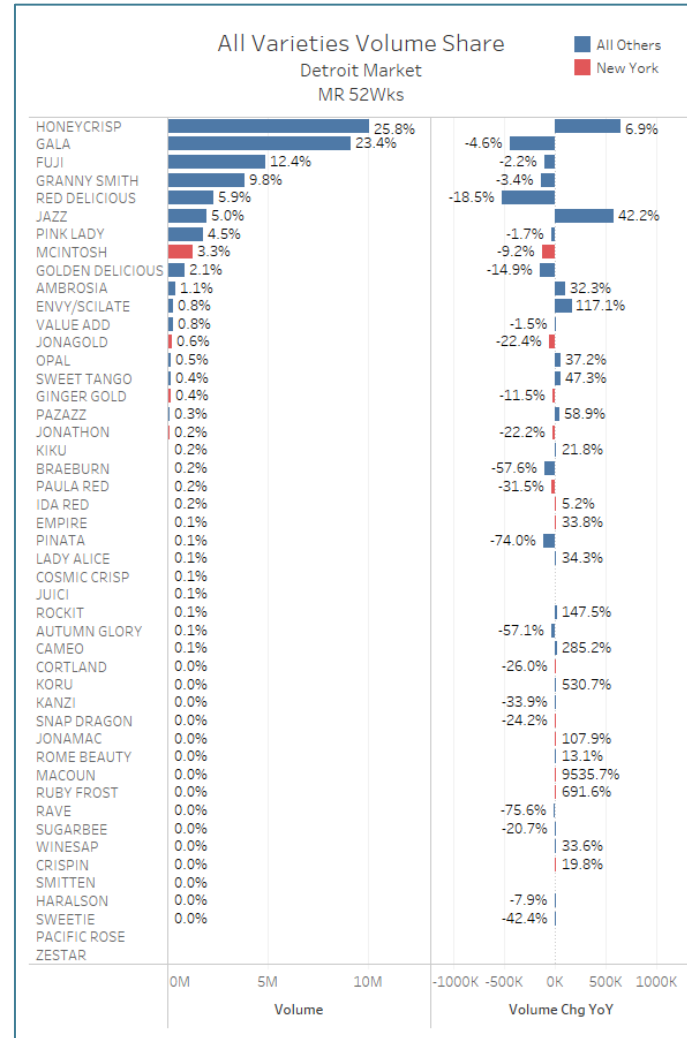
Philadelphia Market Volume Share by Variety

- Philadelphia performance in New York varieties was average in both Q4 and over 52 weeks. Only McIntosh (#6) volume was sufficient to make the top 10.
- McIntosh volume declined 2.7% over 52 weeks but generated an increase of 3.9% during Q4.
- Honeycrisp drove growth over 52 weeks increasing by 17.9%. However, during Q4 Honeycrisp volume only increased by 4.6%.
- Snap Dragon and Ruby Frost showed strong gains over 52 weeks.
- Overall performance was mixed in both New York varieties as well as premium apples.



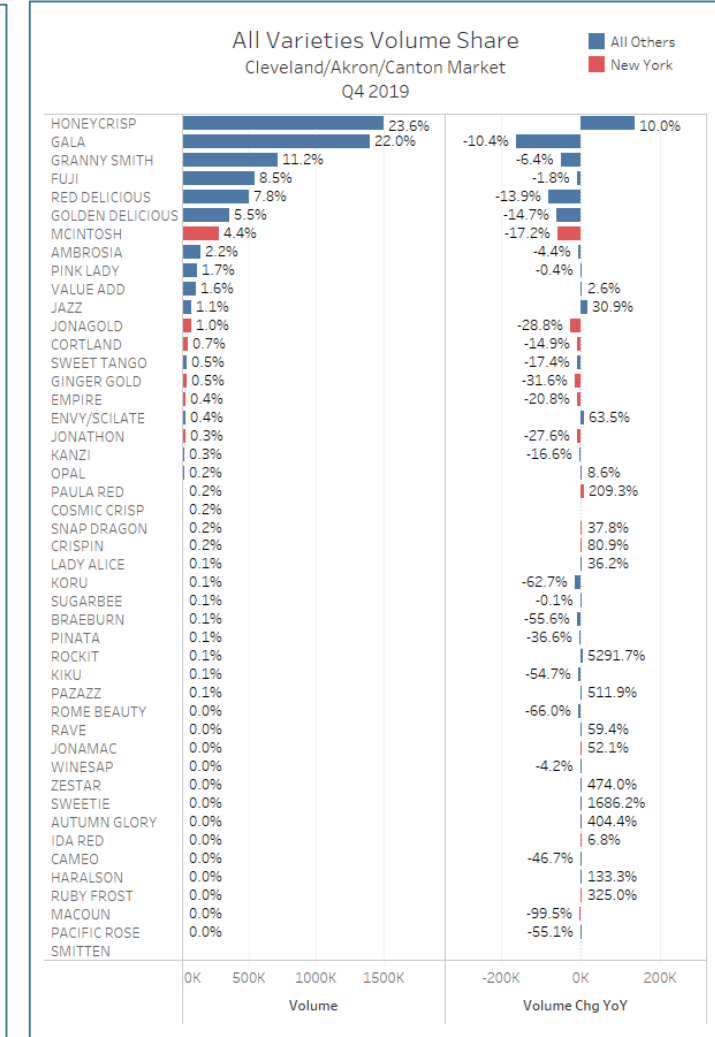
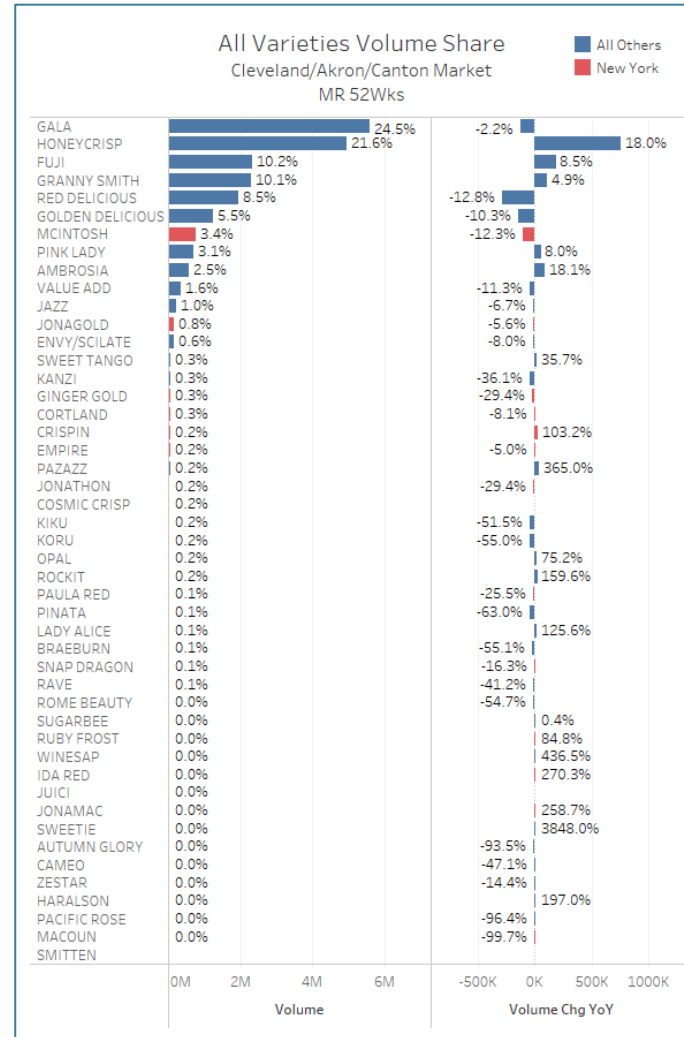
Detroit Market Volume Share by Variety

- Detroit performance is slightly above average for category development but is overall weak in the performance of New York varieties. Only McIntosh (#8) volume was sufficient make the top 10.
- McIntosh volume declined over 52 weeks, down -9.2.% but increased 9.6% during Q4.
- Honeycrisp drove growth in both Q4 (+20.4%) as well as over 52 weeks (17.8%)
- Snap Dragon and Ruby Frost showed strong gains over 52 weeks.
- Overall performance was mixed in both New York varieties as well as premium apples.



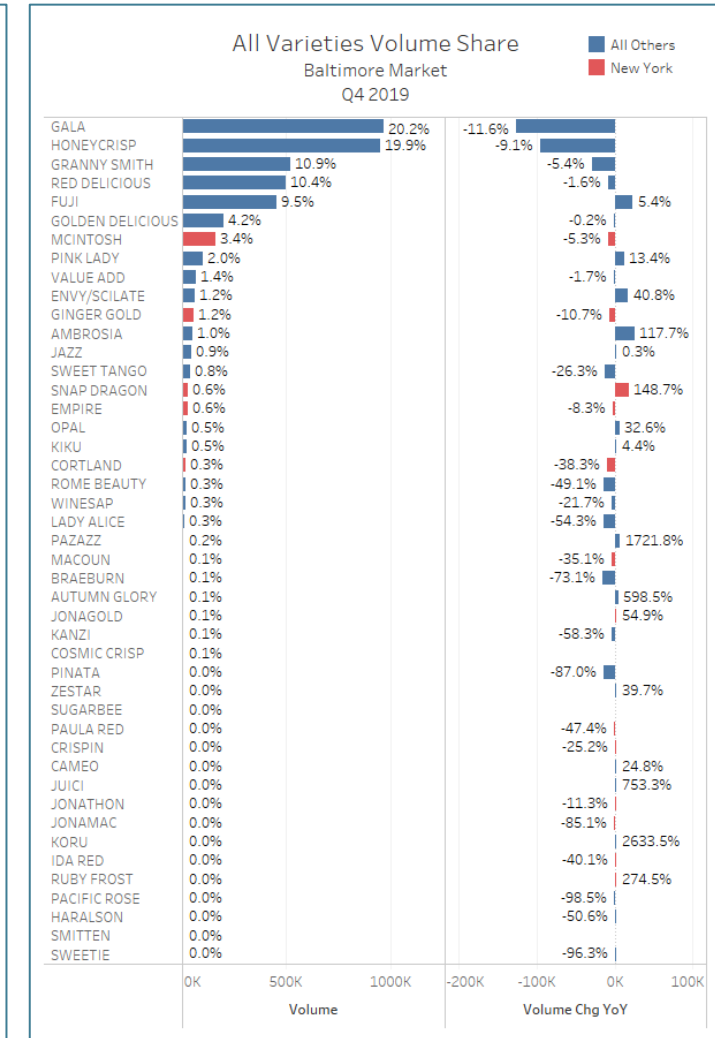
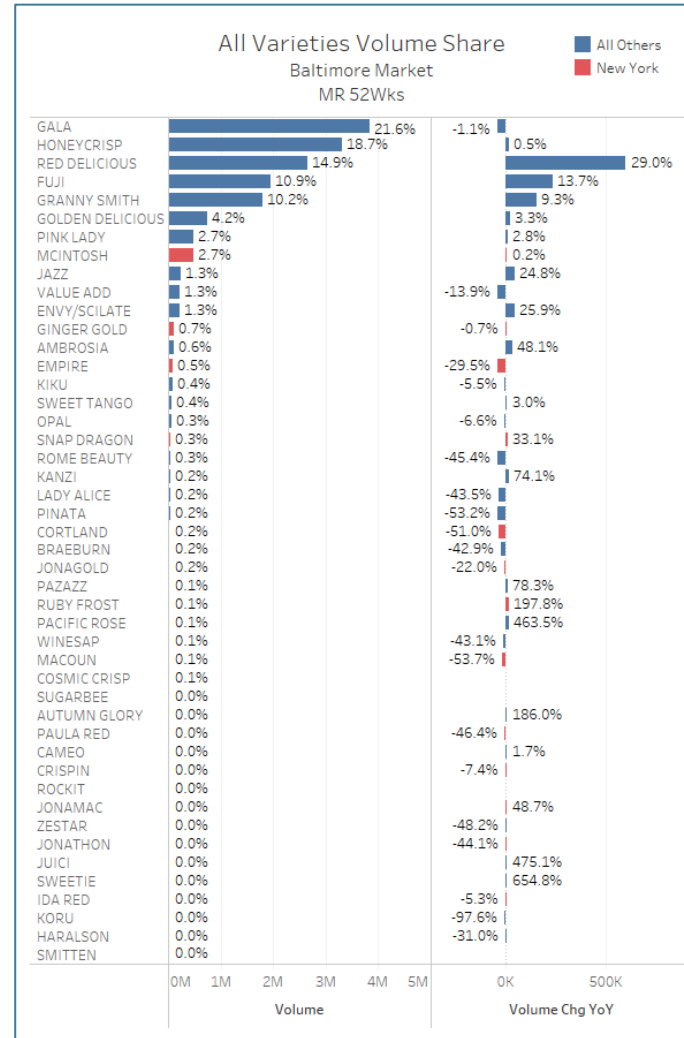
Cleveland/Akron/Canton Market Volume Share by Variety

- Cleveland performance is slightly above average for category development but is overall weak in the performance of New York varieties. Only McIntosh (#7) volume was sufficient make the top 10.
- McIntosh volume declined over 52 weeks, down -12.3.% and declined -17.2% during Q4.
- Honeycrisp drove growth in both Q4 (+10.0%) as well as over 52 weeks (18.0%)
- Ruby Frost showed strong gains over 52 weeks off a small base.
- Overall performance was mixed in both New York varieties as well as premium apples.



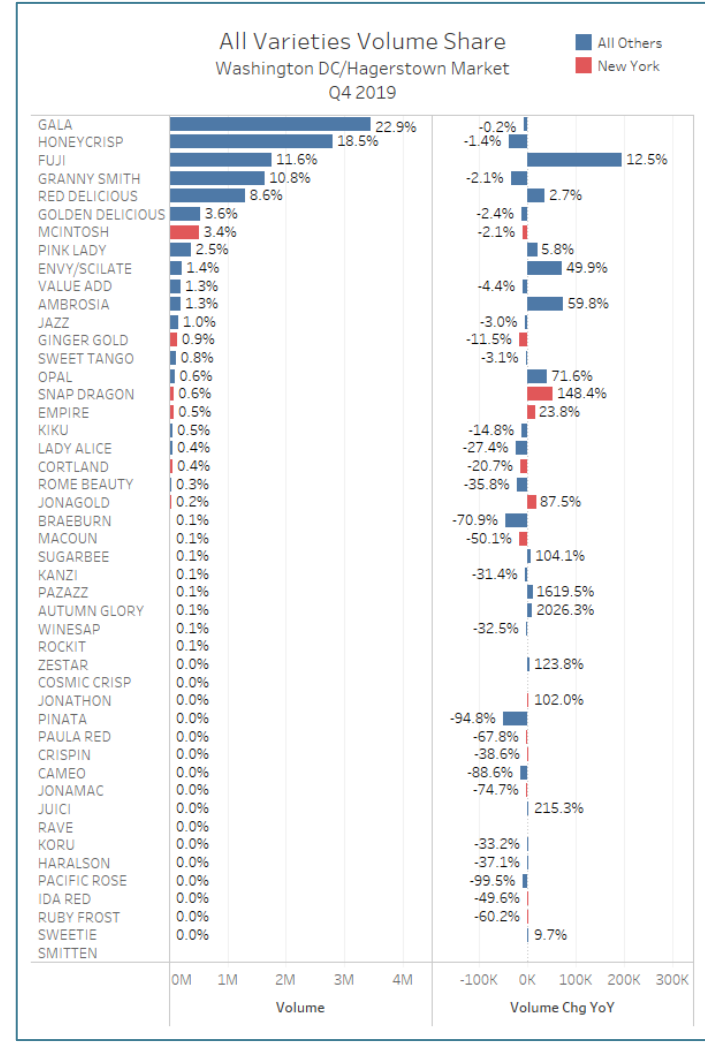
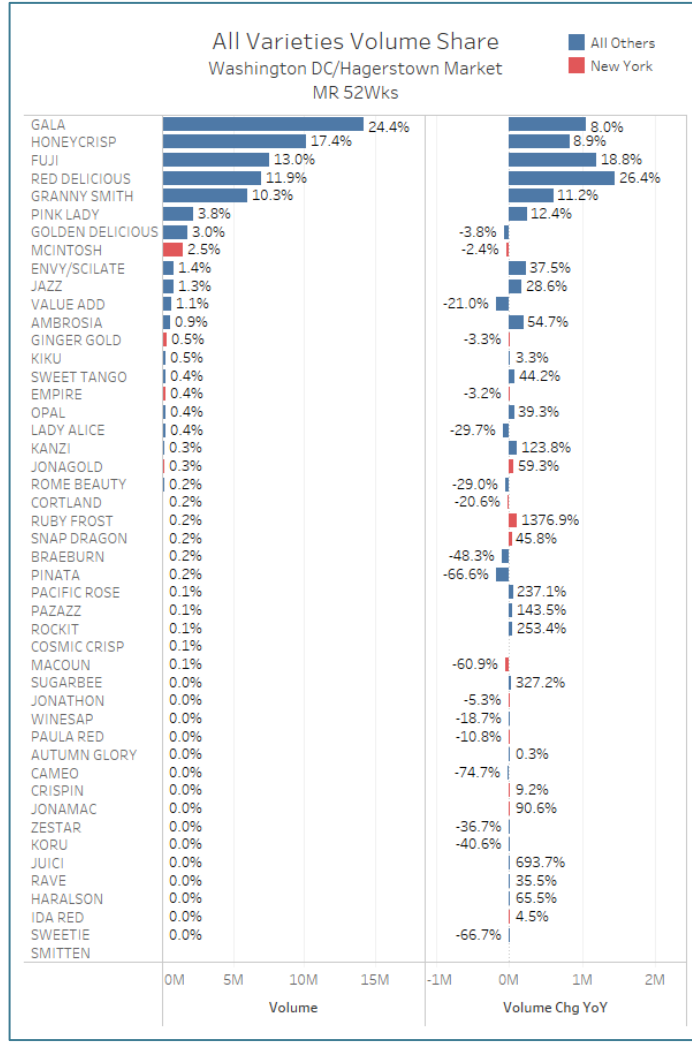
Baltimore Market Volume Share by Variety

- Baltimore performance is substantially below average for category development and overall is weak in the performance of New York varieties. Only McIntosh (#8) volume was sufficient make the top 10.
- McIntosh volume was flat over 52 weeks and declined -5.3% during Q4.
- It is probably telling that Baltimore is a low CDI market and several legacy varieties drove volume gains over 52 weeks. Red Delicious (29%), Fuji (13.7%) and Granny Smith (9.3%) all showing strong gains. Meanwhile, Gala and Honeycrisp both saw significant losses in volume during Q4 losing 11.6% and 9.1% respectively.
- Both Snap Dragon and Ruby Frost showed strong gains over 52 weeks off a small base.
- Overall performance was mixed in both New York varieties as well as premium apples.



Washington DC/Hagerstown Market Volume Share by Variety

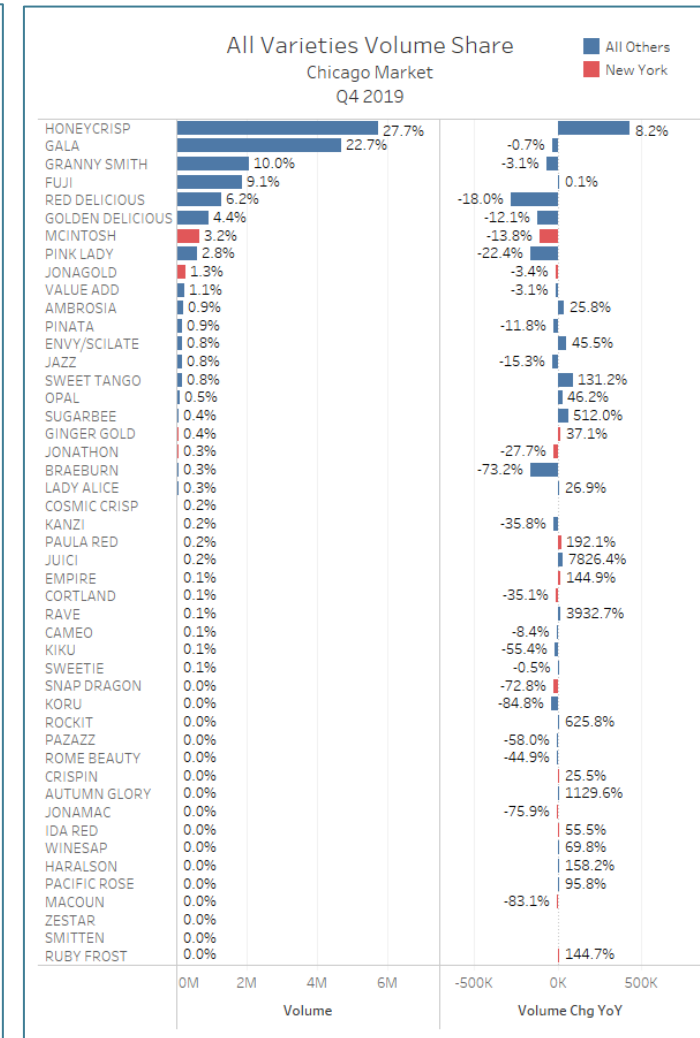
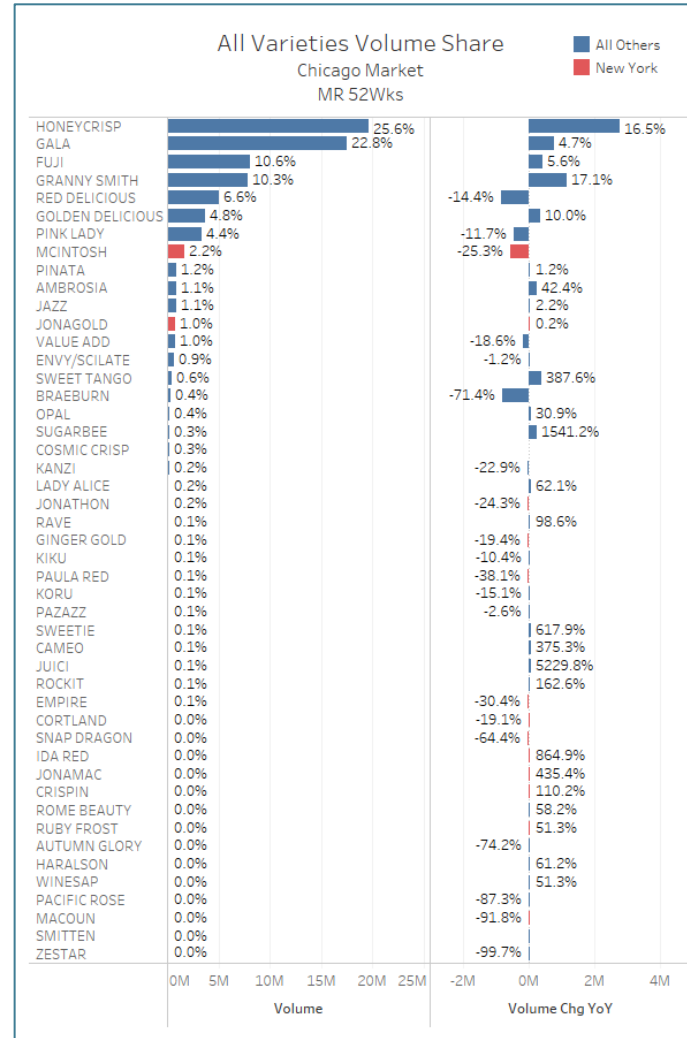
- Washington DC performance is slightly above average for category development and overall is weak in the performance of New York varieties. Only McIntosh (#8) volume was sufficient make the top 10.
- McIntosh volume declined -2.4% over 52 weeks and declined -2.1% during Q4.
- The top six varieties drove volume gains over 52 weeks with Gala (8.0%), Honeycrisp (8.9%), Fuji (18.8%), Red Delicious (26.4%), Fuji (13.7%) and Granny Smith (11.2%) all showing strong gains. During Q4 all of these same varieties except Fuji declined in volume.
- Both Snap Dragon and Ruby Frost showed strong gains over 52 weeks off a small base.



Source: Nielsen Supermarket Scan Data, 52 weeks 10-6-2019 to 10-3-2020 vs. same period last year

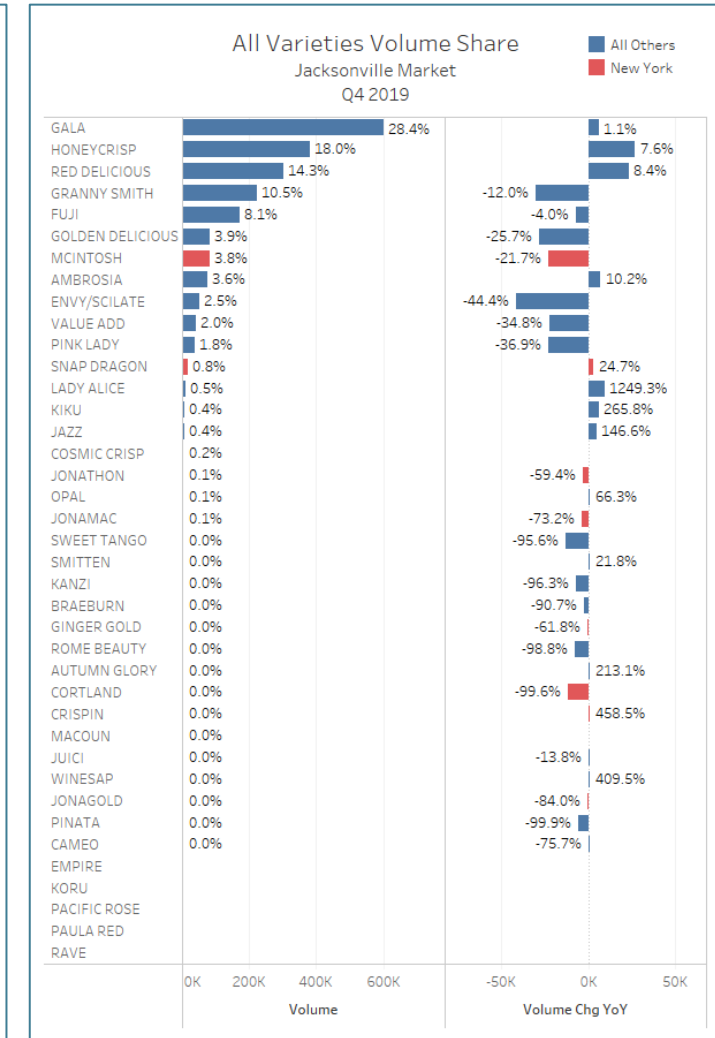
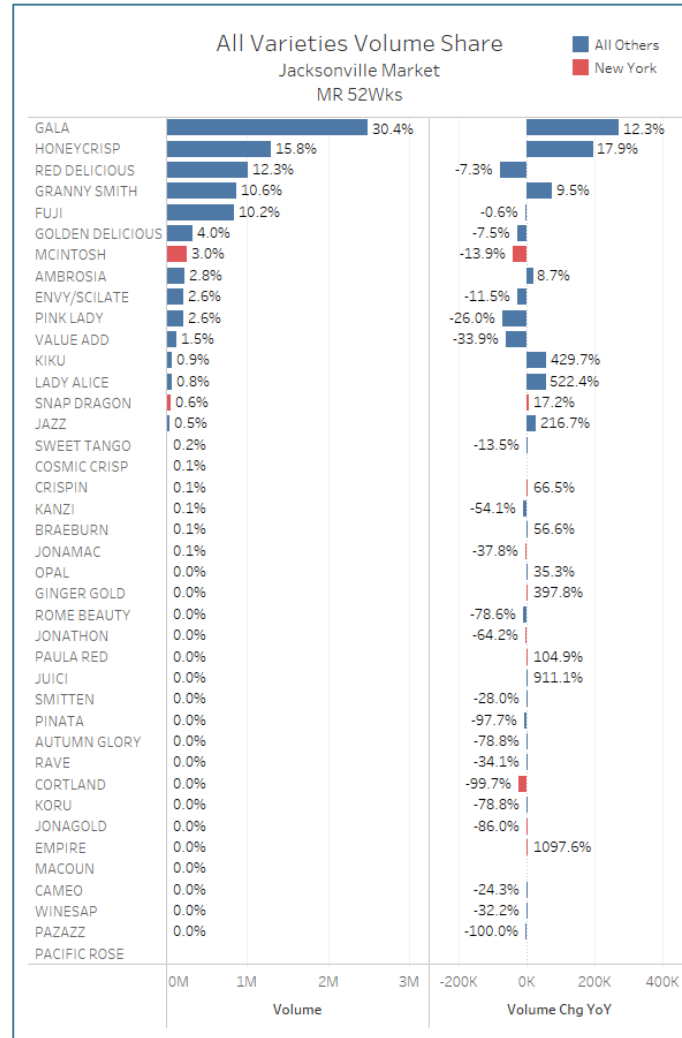
Chicago Market Volume Share by Variety

- Chicago performance is slightly above average for category development and overall is weak in the performance of New York varieties. Only McIntosh (#8) volume was sufficient make the top 10.
- McIntosh volume declined -25.3% over 52 weeks and declined -13.8% during Q4.
- The top four varieties drove volume gains over 52 weeks with Honeycrisp (16.5%), Gala (4.7%), Fuji (5.6%) and Granny Smith (17.1%) all showing strong gains. During Q4 also generated strong gains, jumping 8.2% in volume.
- Snap Dragon declined significantly over 52 weeks off a small base.



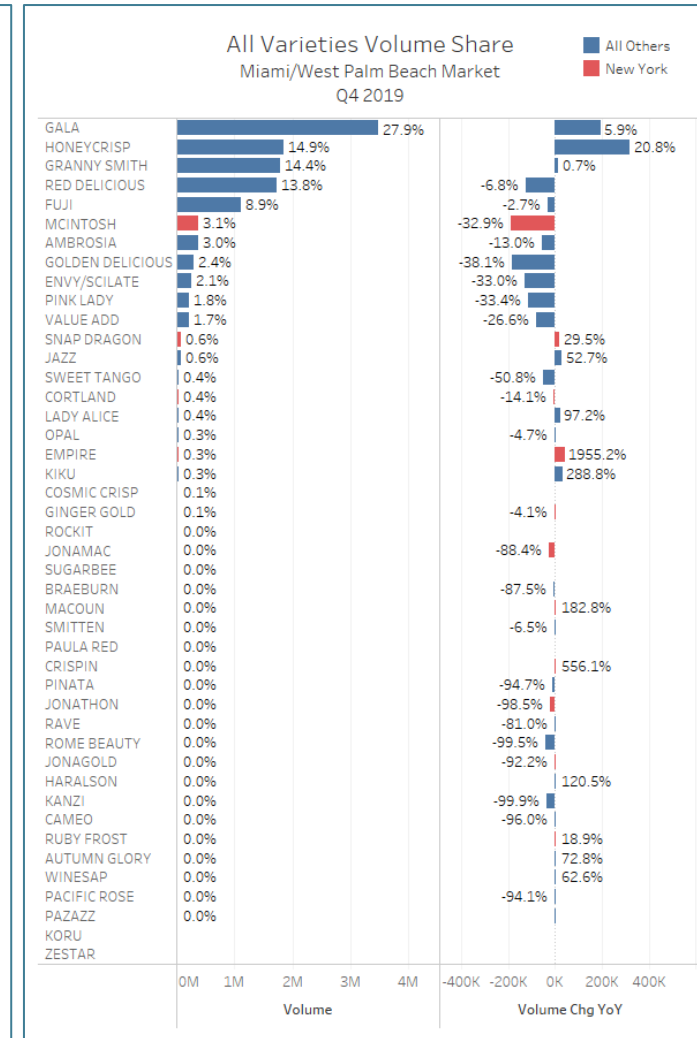
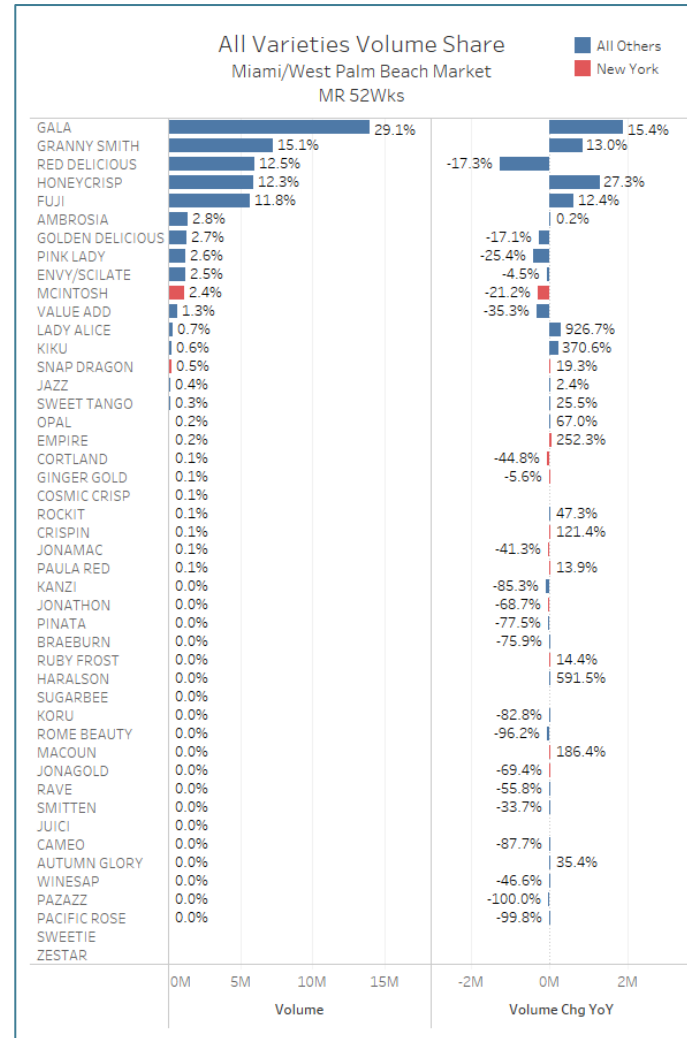
Jacksonville Market Volume Share by Variety

- Jacksonville performance is far below average for category development falling last among markets reviewed in this report. Overall, the market is also weak in the performance of New York varieties. Only McIntosh (#7) volume was sufficient make the top 10.
- McIntosh volume declined -13.9% over 52 weeks and declined -21.7% during Q4.
- Honeycrisp (12.3%) and Gala (17.9%) generated the largest total volume gains across 52 weeks.
- Snap Dragon performed well and over 52 weeks was the 13th best selling variety.



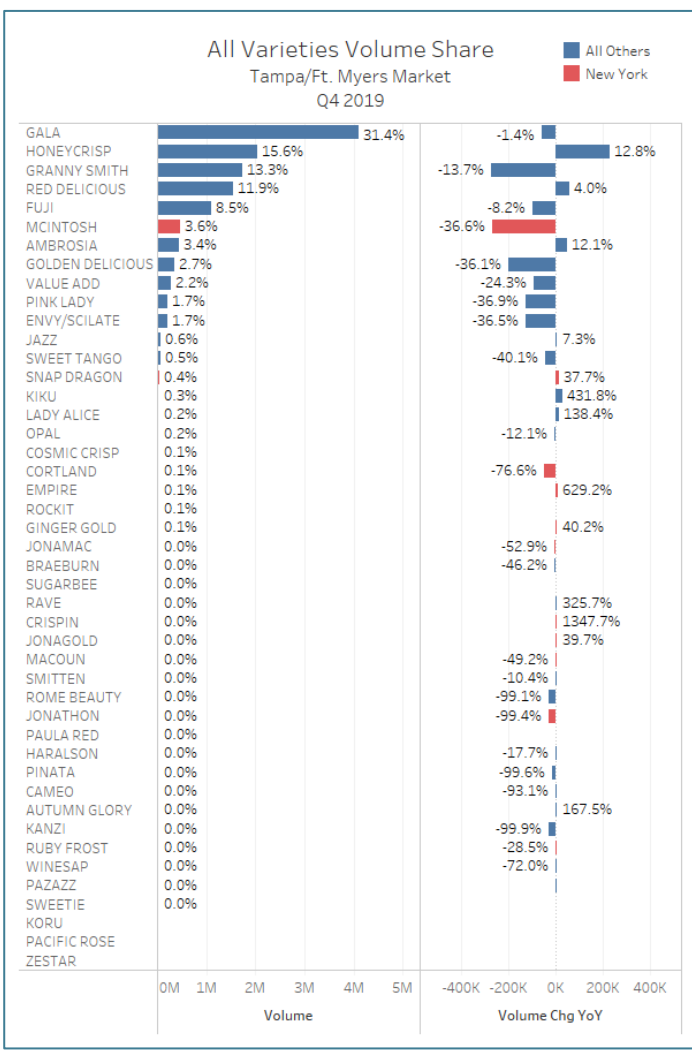
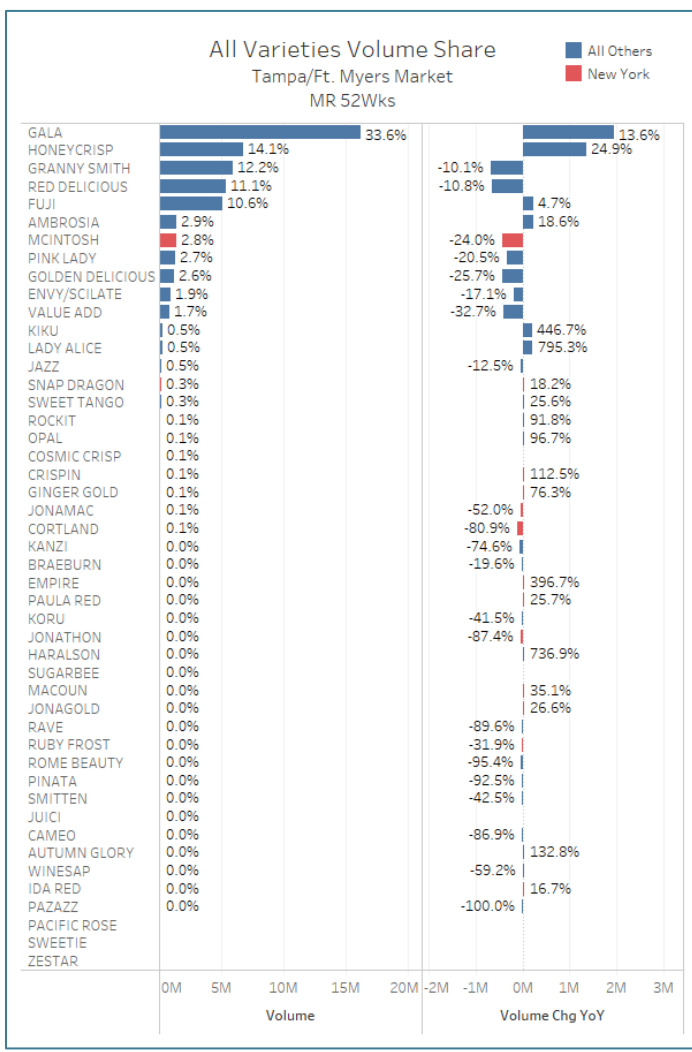
Miami/West Palm Beach Market Volume Share by Variety

- Miami performance is slightly below average for category development. Overall, the market is also weak in the performance of New York varieties. Only McIntosh (#10) volume was sufficient make the top 10.
- McIntosh volume declined -21.2% over 52 weeks and declined -32.9% during Q4.
- Over 52 weeks, Gala (15.4%) and Granny Smith (13%) led category volume growth although #4 Honeycrisp (27.3%) was also strong.
- Snap Dragon performed well and over 52 weeks was the 13th best selling variety. Ruby Frost also generated volume gains off a small base.



Tampa/Ft. Myers Market Volume Share by Variety

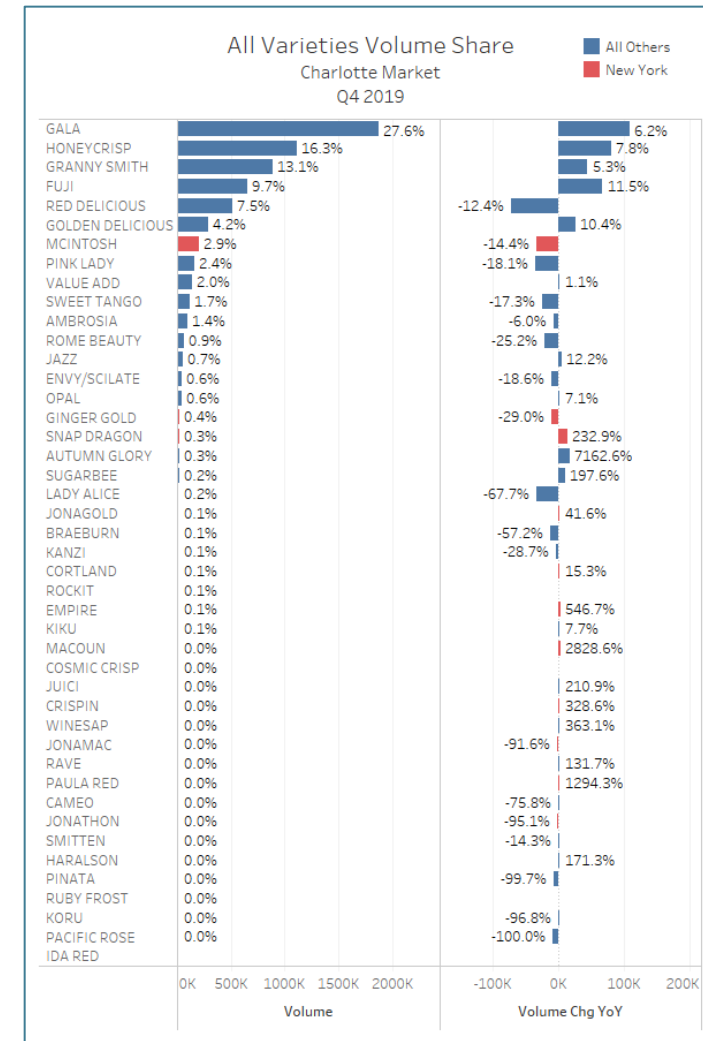
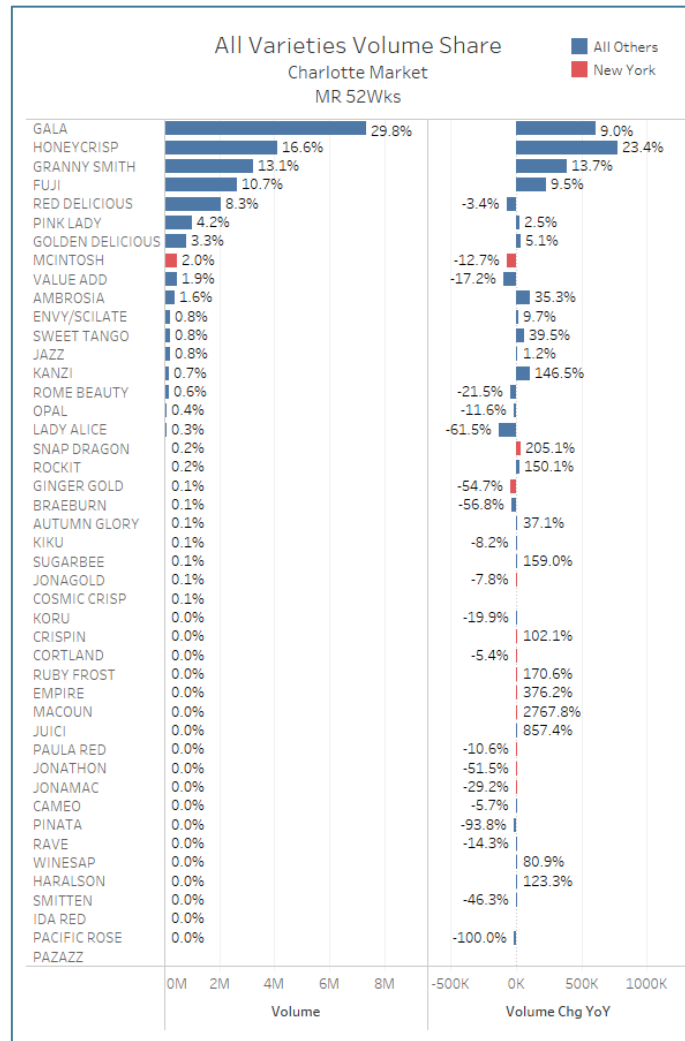
- Tampa performance is slightly below average for category development. Overall, the market is also weak in the performance of New York varieties. Only McIntosh (#7) volume was sufficient make the top 10.
- McIntosh volume declined -24.0% over 52 weeks and declined -36.6% during Q4.
- Over 52 weeks, Gala (13.6%) and Honeycrisp (24.9%) led category volume growth.
- Snap Dragon performed well and over 52 weeks was the 14th best selling variety and was the 12th best seller during Q4.
- Ruby Frost lost volume off a small base.



Source: Nielsen Supermarket Scan Data, 52 weeks 10-6-2019 to 10-3-2020 vs. same period last year

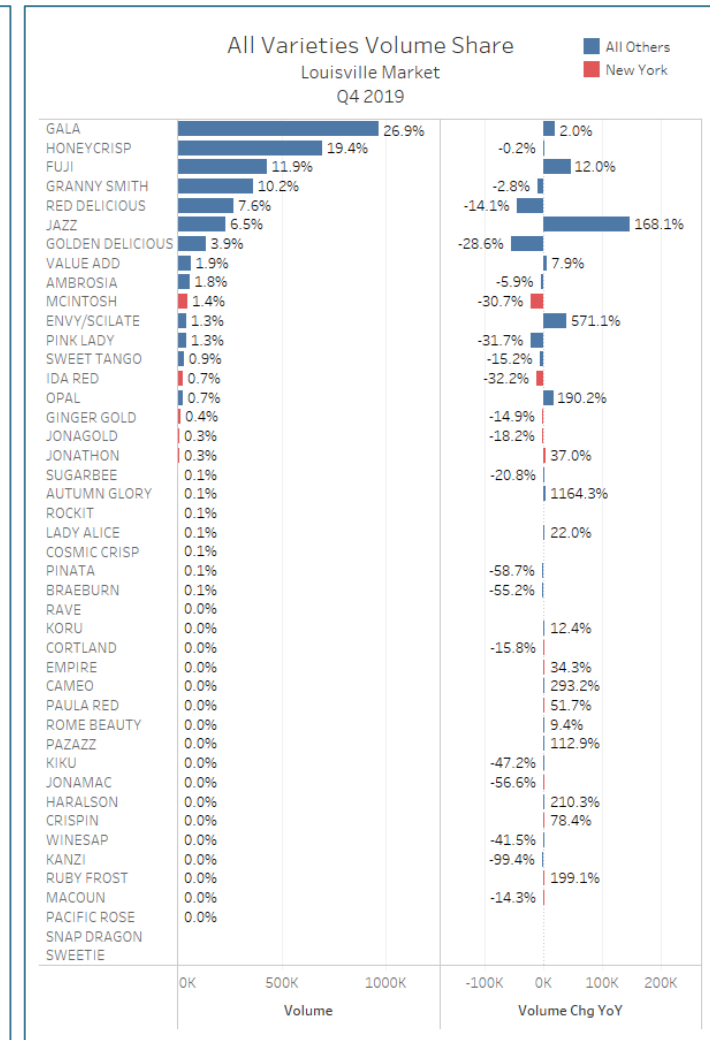
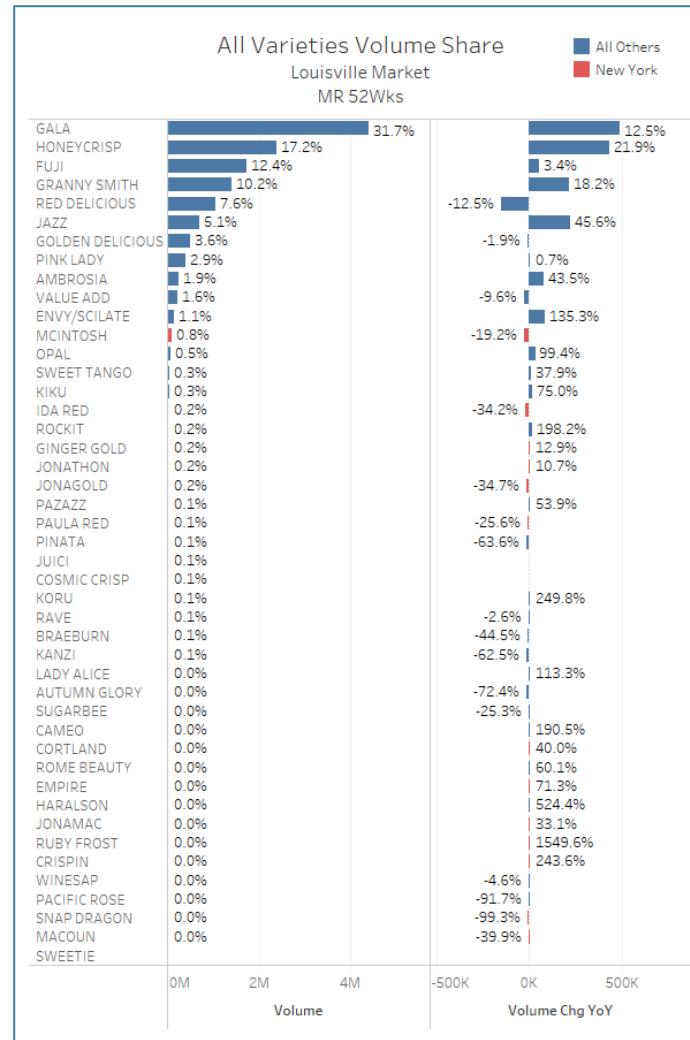
Charlotte Market Volume Share by Variety

- Charlotte performance is average for category development. Overall, the market is also weak in the performance of New York varieties. Only McIntosh (#8) volume was sufficient make the top 10.
- McIntosh volume declined -12.7% over 52 weeks and declined -14.4% during Q4.
- Over 52 weeks, Gala (9.0%) and Honeycrisp (23.4%) led category volume growth.
- Snap Dragon performed well and over 52 weeks was the 17th best selling variety and was the 16th best seller during Q4.
- Ruby Frost gained volume off a small base over 52 weeks.



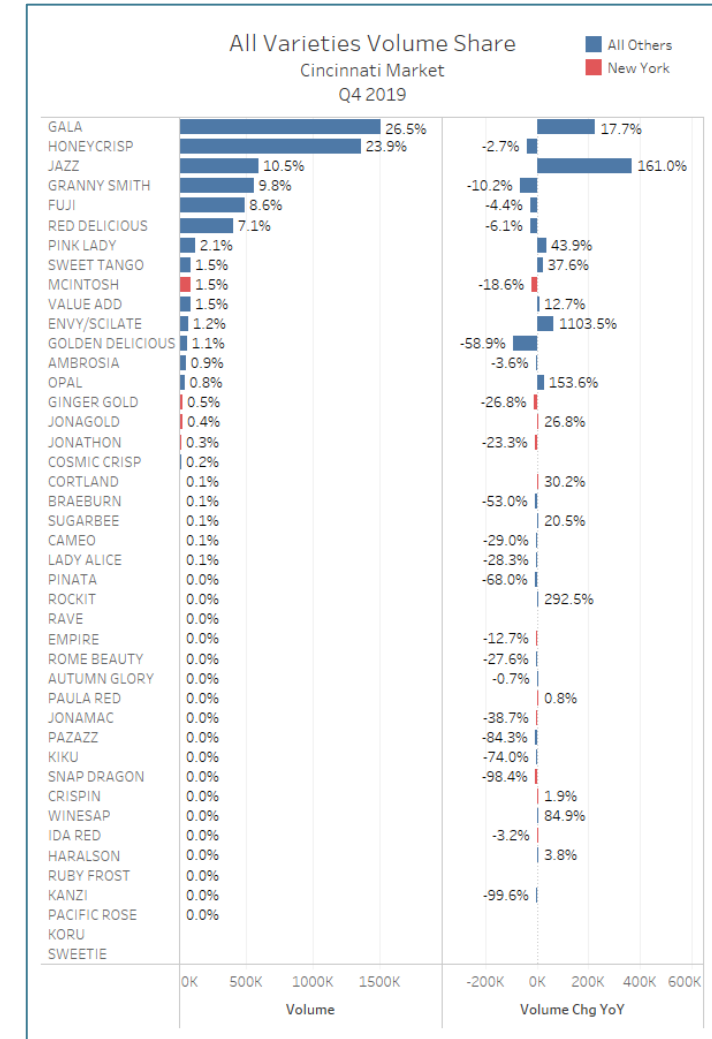
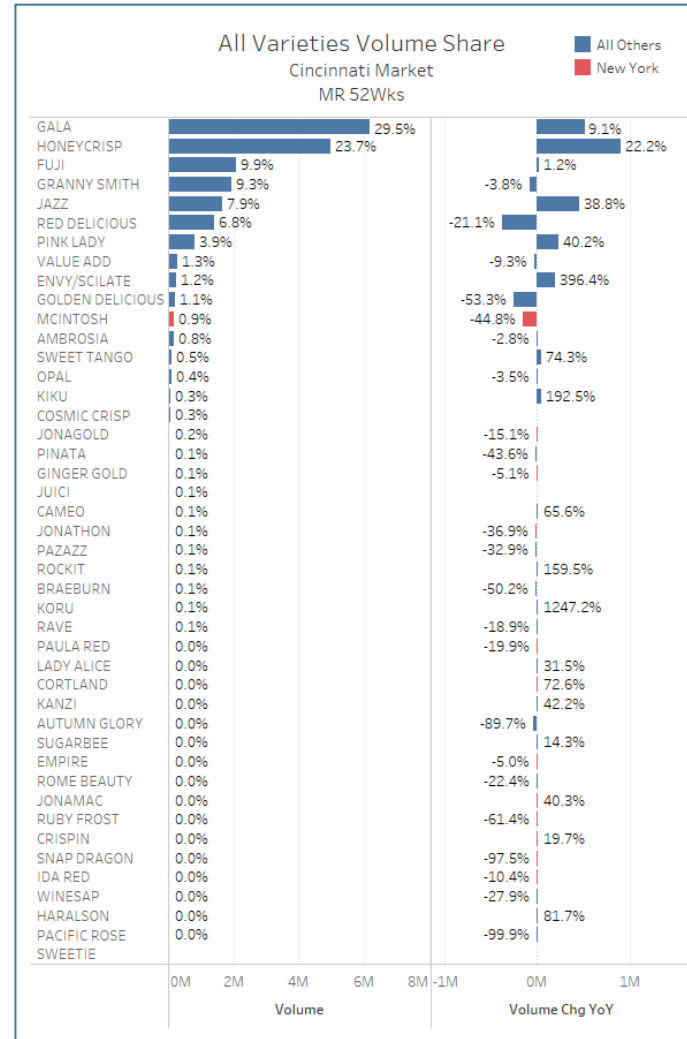
Louisville Market Volume Share by Variety

- Louisville performance is average for category development. Overall, the market is very weak in the performance of New York varieties with none sufficient make the top 10.
- McIntosh volume declined -19.2% over 52 weeks and declined -30.7% during Q4.
- Over 52 weeks, Gala (12.5%) and Honeycrisp (21.9%) led category volume growth.
- Ruby Frost gained volume off a small base over 52 weeks while Snap Drago lost nearly all volume vs. the previous year.



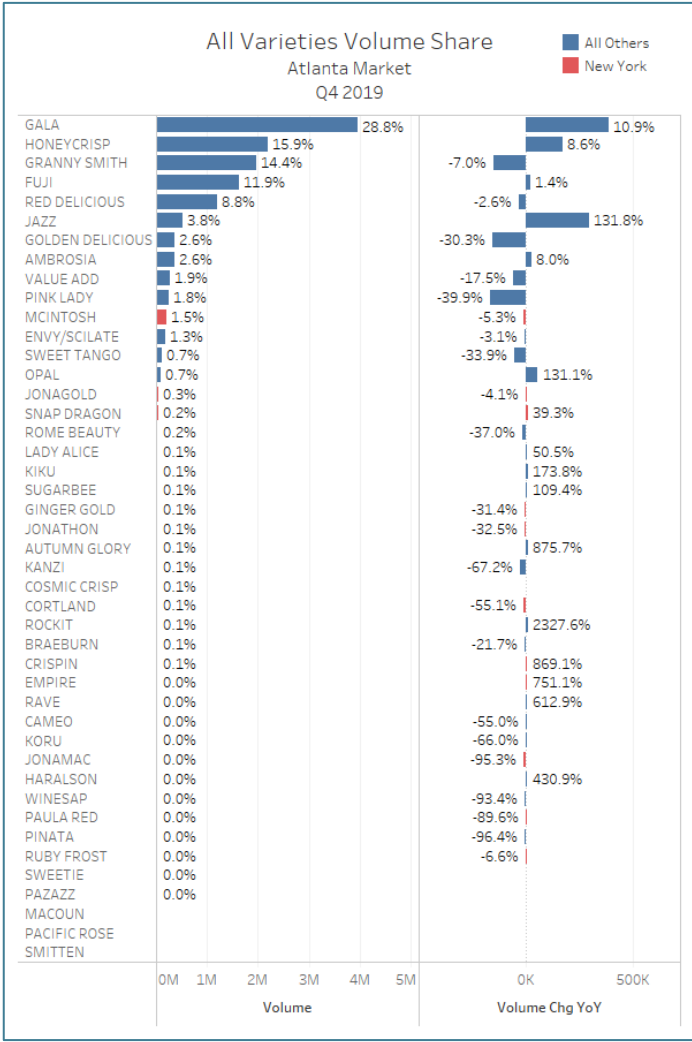
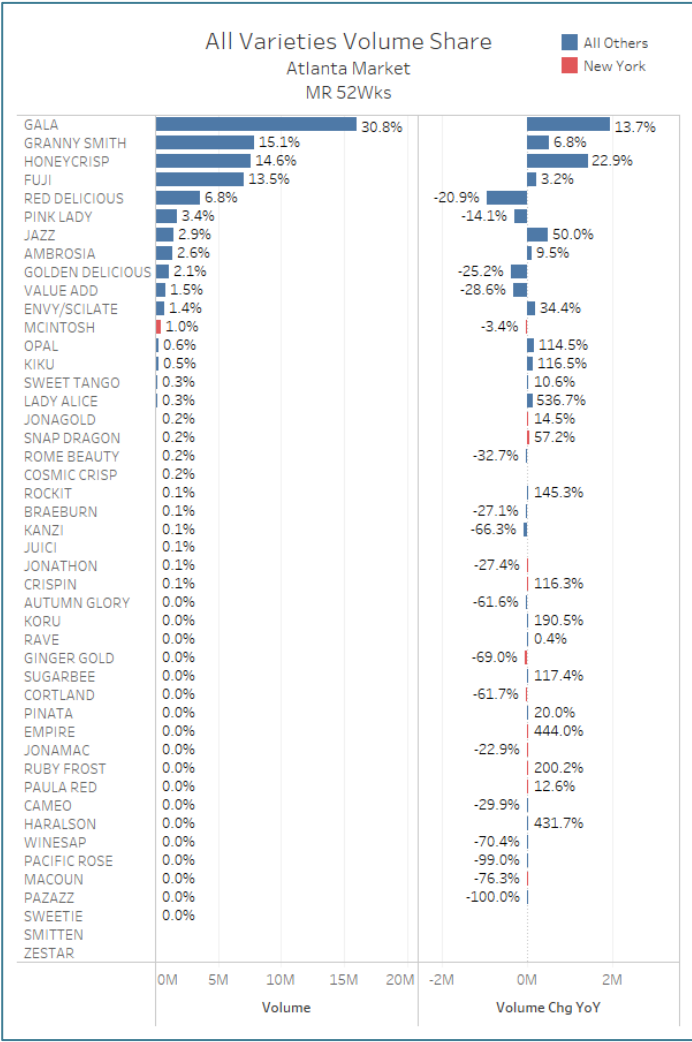
Cincinnati Market Volume Share by Variety

- Cincinnati apple performance for category development was actually quite strong with the market ranking #5 of the 20 markets reviewed in this study. However, the market is very weak in the performance of New York varieties with none sufficient make the top 10.
- McIntosh volume declined -44.8% over 52 weeks and declined -18.6% during Q4.
- Over 52 weeks, Gala (9.1%) and Honeycrisp (22.2%) led category volume growth.
- Neither Snap Drago or Ruby Frost gained traction in this market.



Atlanta Market Volume Share by Variety

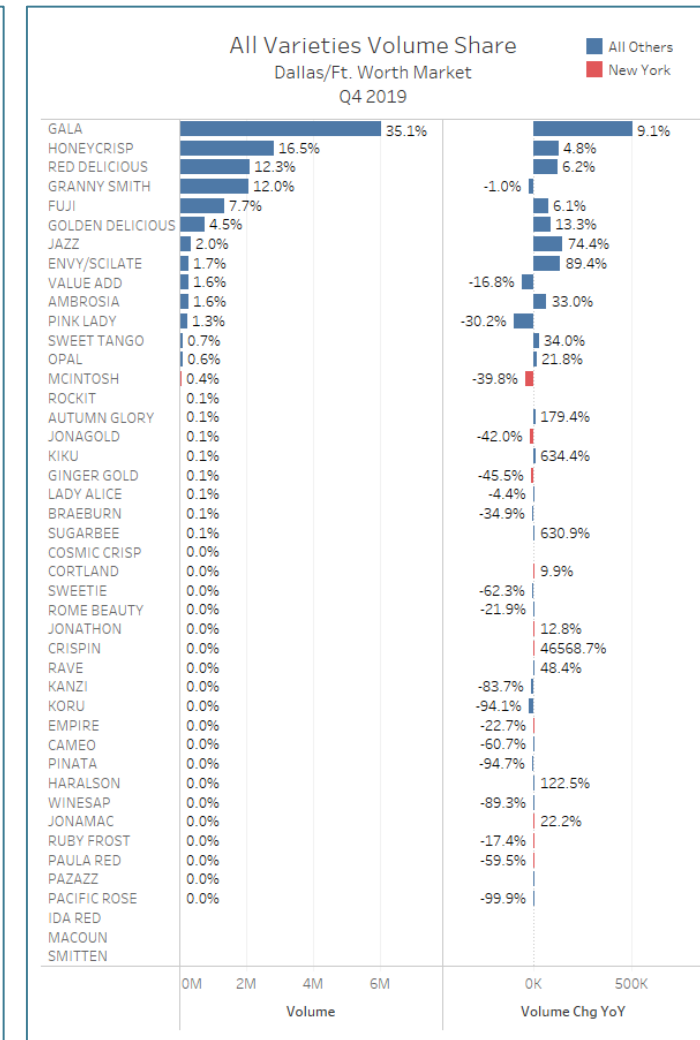
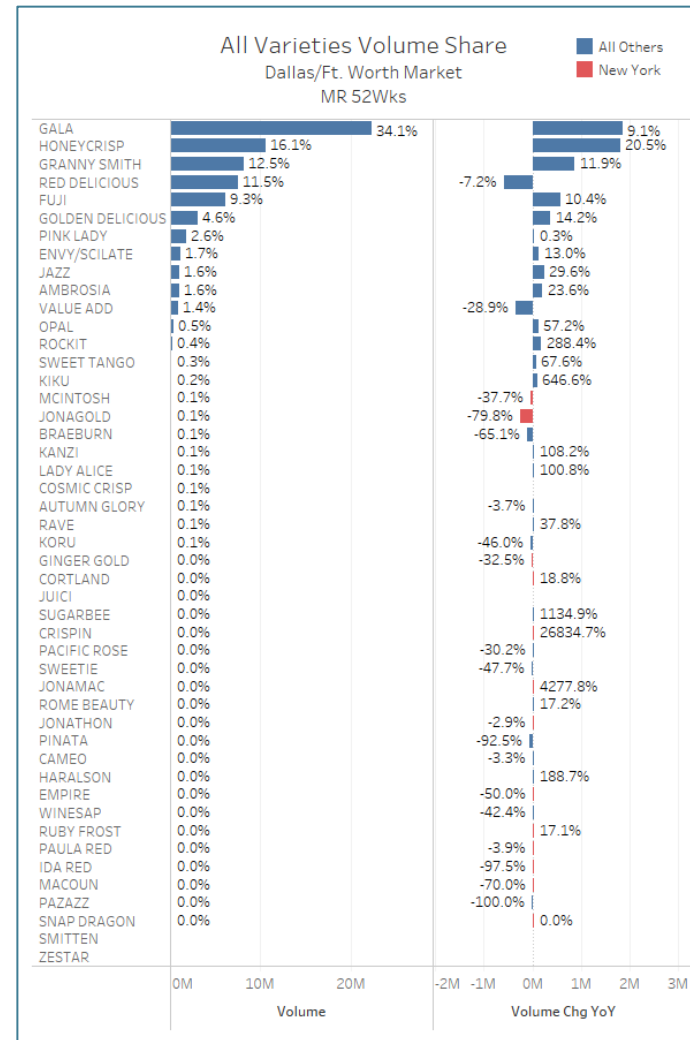
- Atlanta apple performance is slightly below average for category development. Overall the market is very weak in the performance of New York varieties with none sufficient make the top 10.
- McIntosh volume declined -3.4% over 52 weeks and declined -5.3% during Q4.
- Over 52 weeks, Gala (13.7%), Granny Smith (6.8%) and Honeycrisp (22.9%) led category volume growth.
- Snap Dragon was the 17th best selling variety over 52 weeks and generated a gain of 57.2%.
- Ruby Frost also gained volume off a small base over 52 weeks.



Source: Nielsen Supermarket Scan Data, 52 weeks 10-6-2019 to 10-3-2020 vs. same period last year

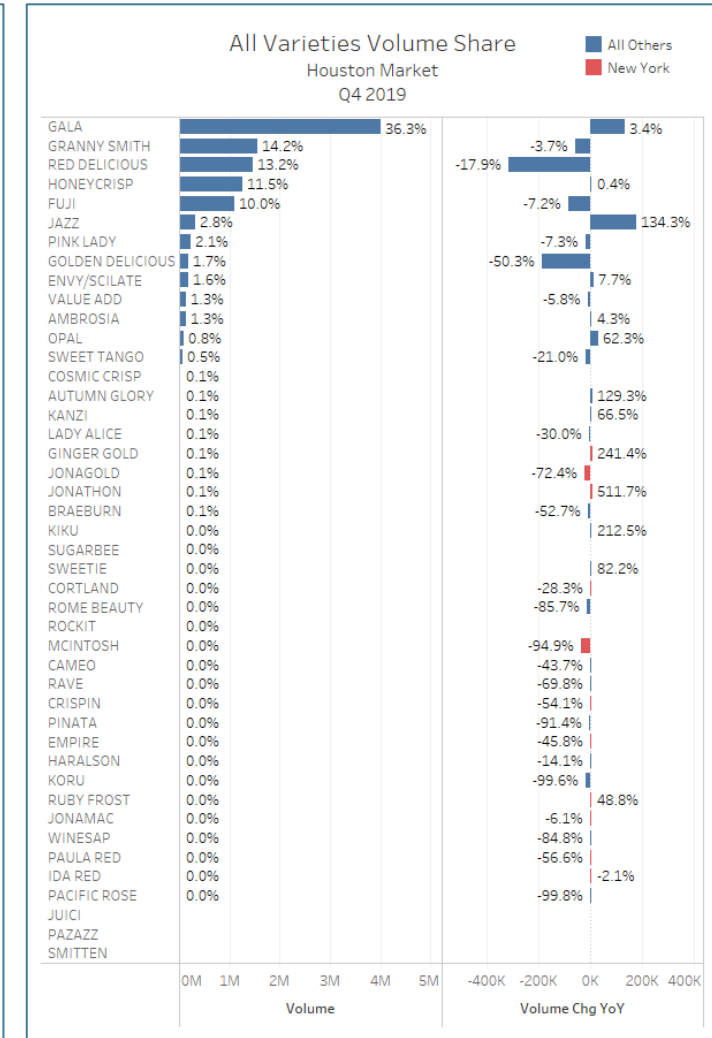
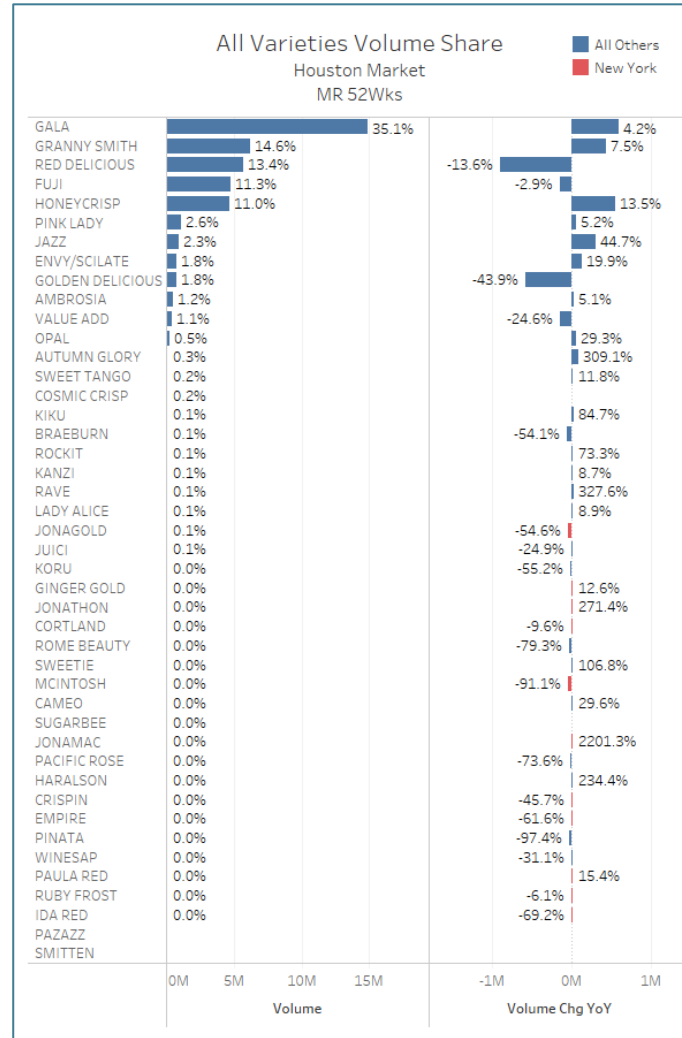
Dallas/Ft. Worth Market Volume Share by Variety

- Dallas apple performance is slightly above average for category development. Overall, the market is very weak in the performance of New York varieties with none sufficient make the top 10.
- McIntosh volume declined -37.7% over 52 weeks and declined -39.8% during Q4.
- Over 52 weeks, Gala (9.1%), Honeycrisp (16.1%) and Granny Smith (11.9%) and led category volume growth.
- Snap Dragon had almost no sales in the market while Ruby Frost generated a small volume gain off a small base over 52 weeks.



Houston Market Volume Share by Variety

- Houston apple performance is significantly below average for category development. Overall, the market is among the weakest in this study in the performance of New York varieties with none sufficient make the top 20.
- McIntosh had almost no volume over 52 weeks.
- Over 52 weeks, Gala (4.2%), and Granny Smith (7.5%) and led category volume growth although Honeycrisp (#5) generated volume growth of 13.5%.
- Snap Dragon had almost no sales in the market while Ruby Frost generated a small volume gain off a small base over 52 weeks.



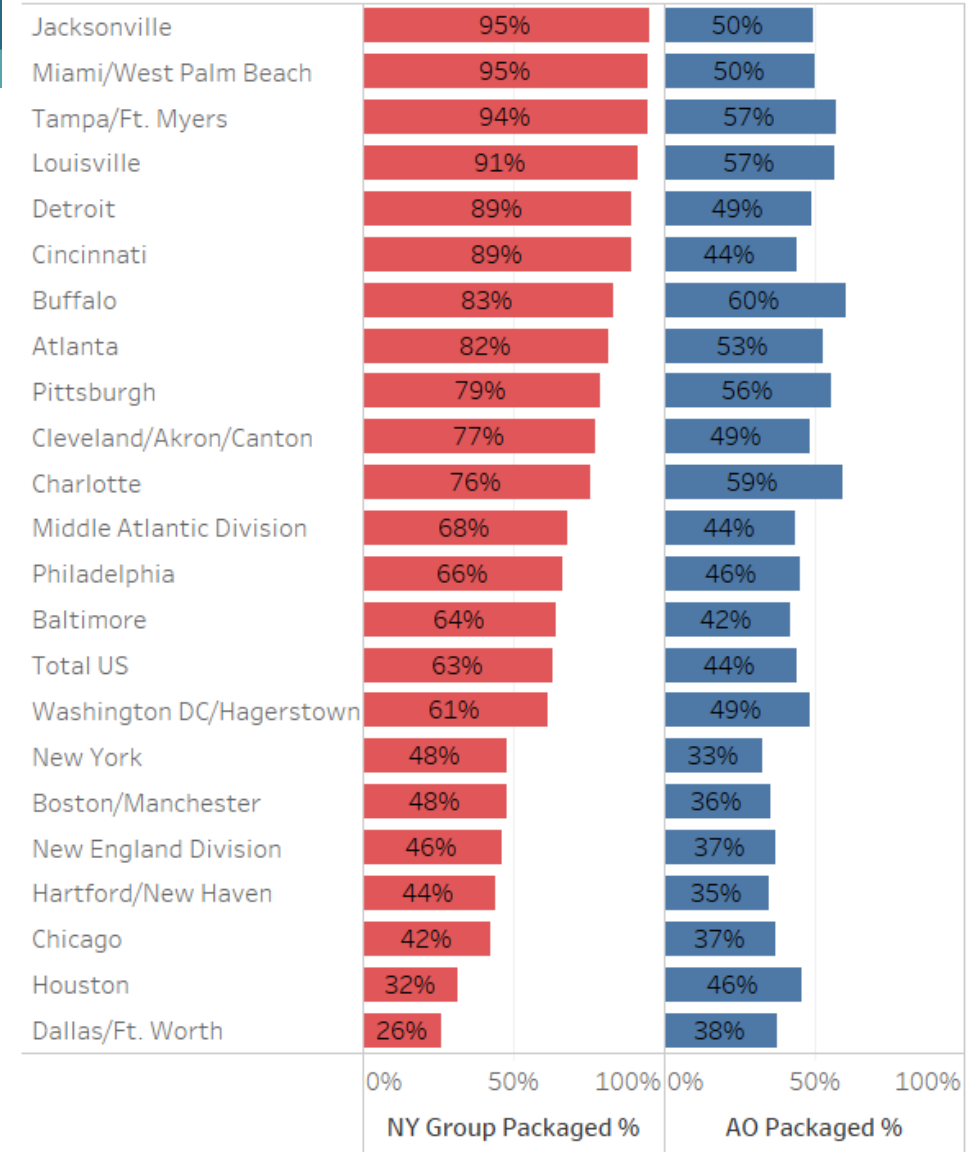
Bag/Bulk Ratio



New York Variety Bag ratio by Market

Packaged % of Volume
MR 52Wks

■ All Others
■ New York



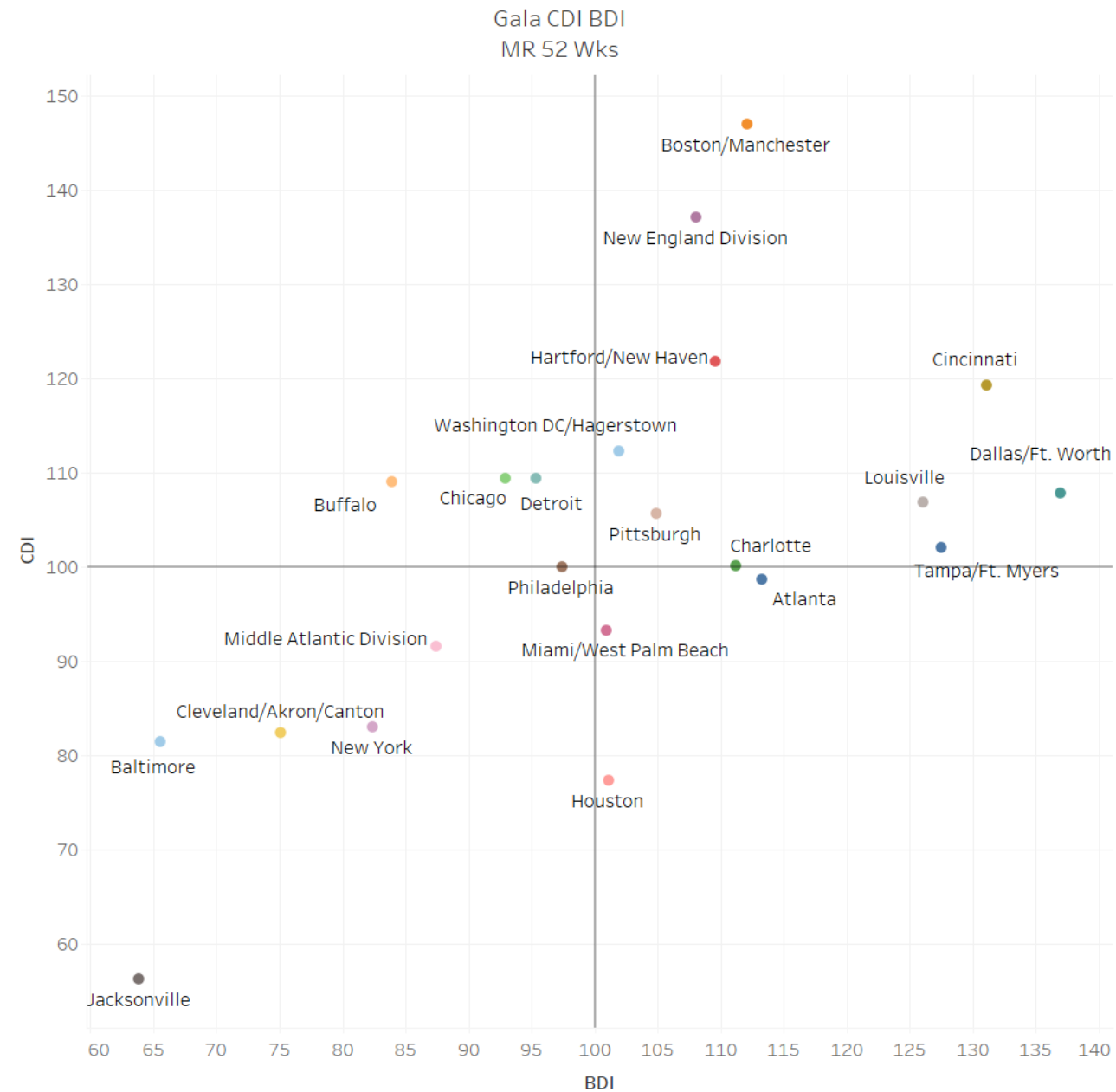
- Nationally, bag/bulk volume ratio is approximately 63% bag vs. 37% bulk. However, New York varieties are far more likely to be sold in bags or packages than “All Other” varieties which average only 44% in bags.
- To increase market share in non-core regional markets, New York growers must offer a competitive mix of bag/bulk apples in “All Other” varieties.
- Many of the lowest performing markets in New York varieties carry the highest share of these apples in bags. This indicates an opportunity to increase share by shifting the bag/bulk ratio in these markets.

Varietal Opportunities



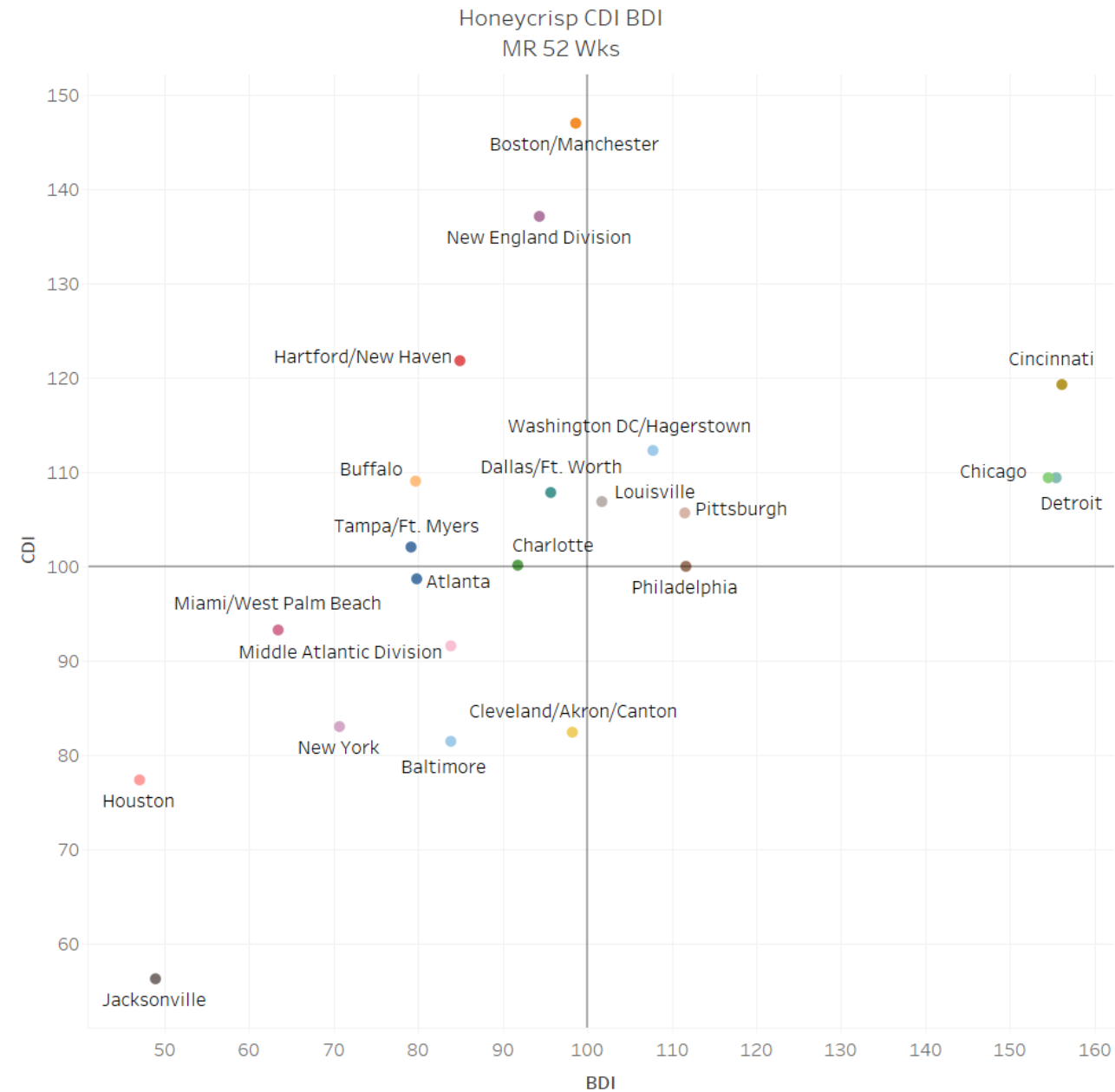
Gala Apple Development

- Gala performance across markets shows development of a strong core apple variety with performance levels widely distributed.
- Gala performs well in markets with high category development. Eight markets (plus the New England Region) with above average category development have above average brand development for Gala.
- Only three markets that have above average category development have below average development of Gala.
- Dallas has the highest Gala index of the 20 markets included in this study indicating the market is likely under-developed with other varieties.



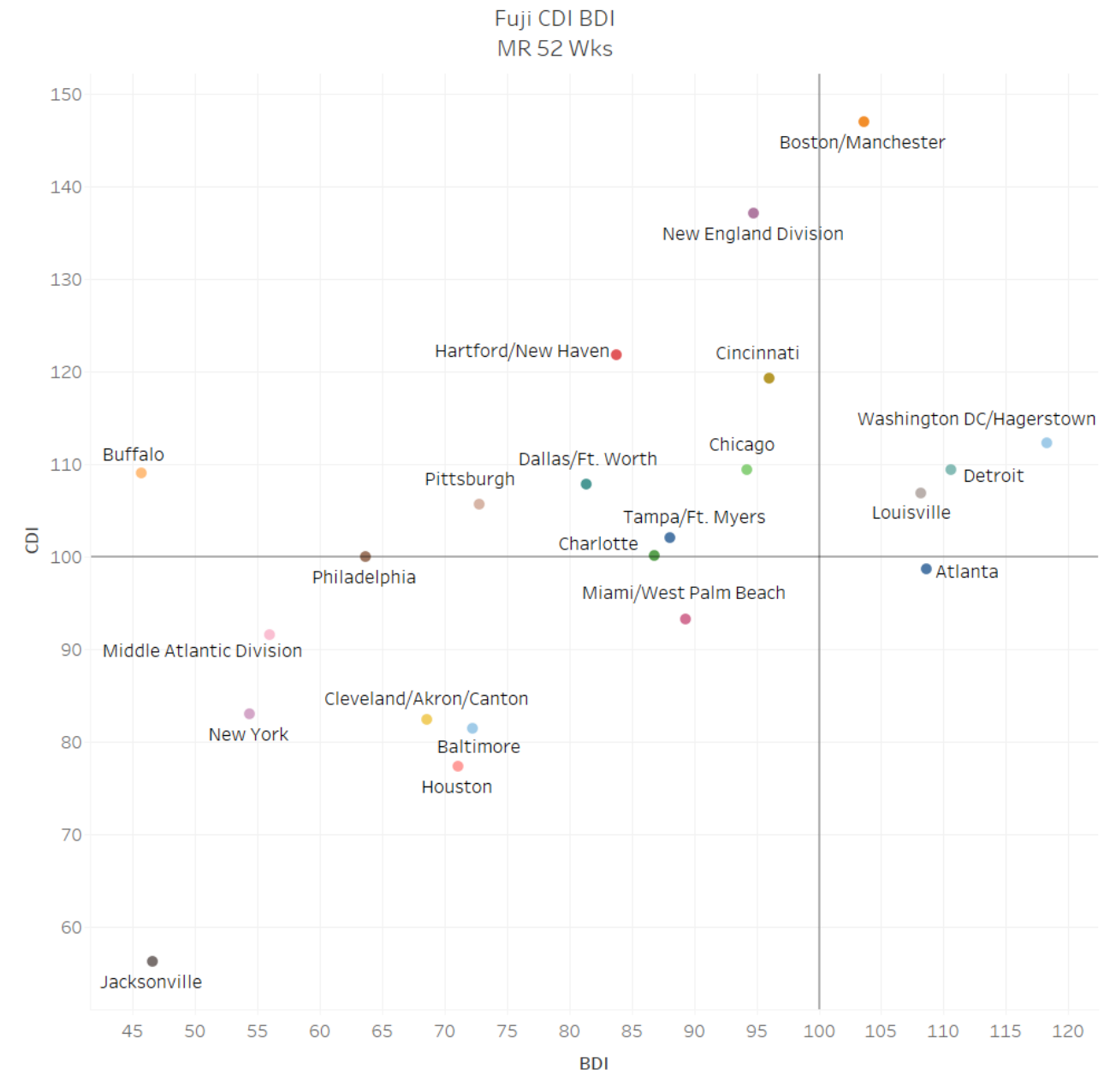
Honeycrisp Apple Development

- Honeycrisp shows additional opportunities for market development. Three key high CDI markets in the Northeast as well as the New England division are below average in Honeycrisp performance.
- In total, 13 markets plus the New England and Mid Atlantic divisions are below average for Honeycrisp market development.



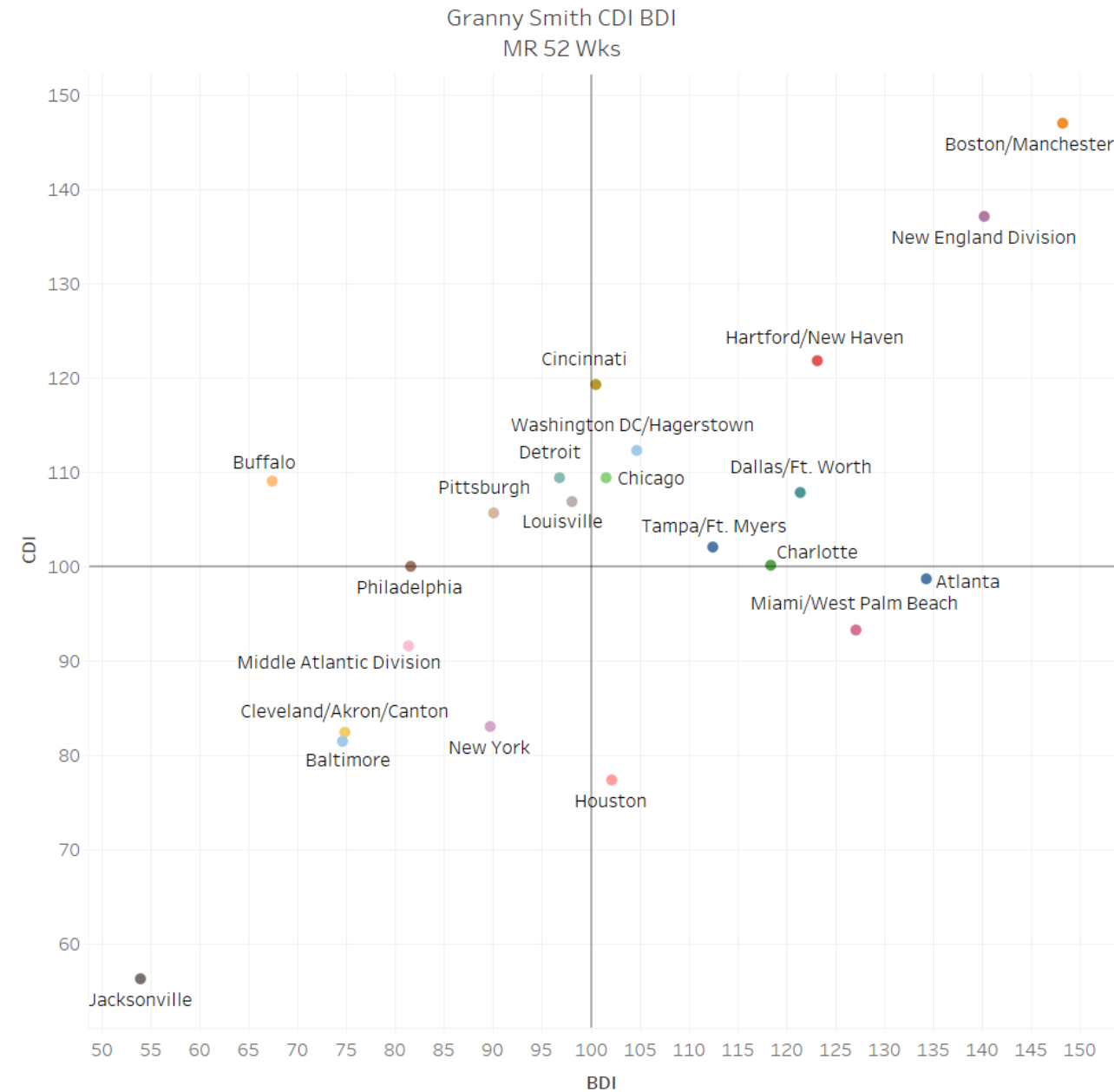
Fuji Apple Development

- Fuji market development in the East is generally below average due to strong performance in markets west of the Mississippi. Only four markets were above average in BDI.
- Washington, DC showed the highest brand development index in Fuji of any Eastern market yet nearby Baltimore was at the lower end of BDI indexes.
- BDI for Fuji across the Mid-Atlantic division was comparatively low falling under 60.
- Boston is often identified as primarily a “tart apple” market. Yet Fuji also indexes slightly above average.



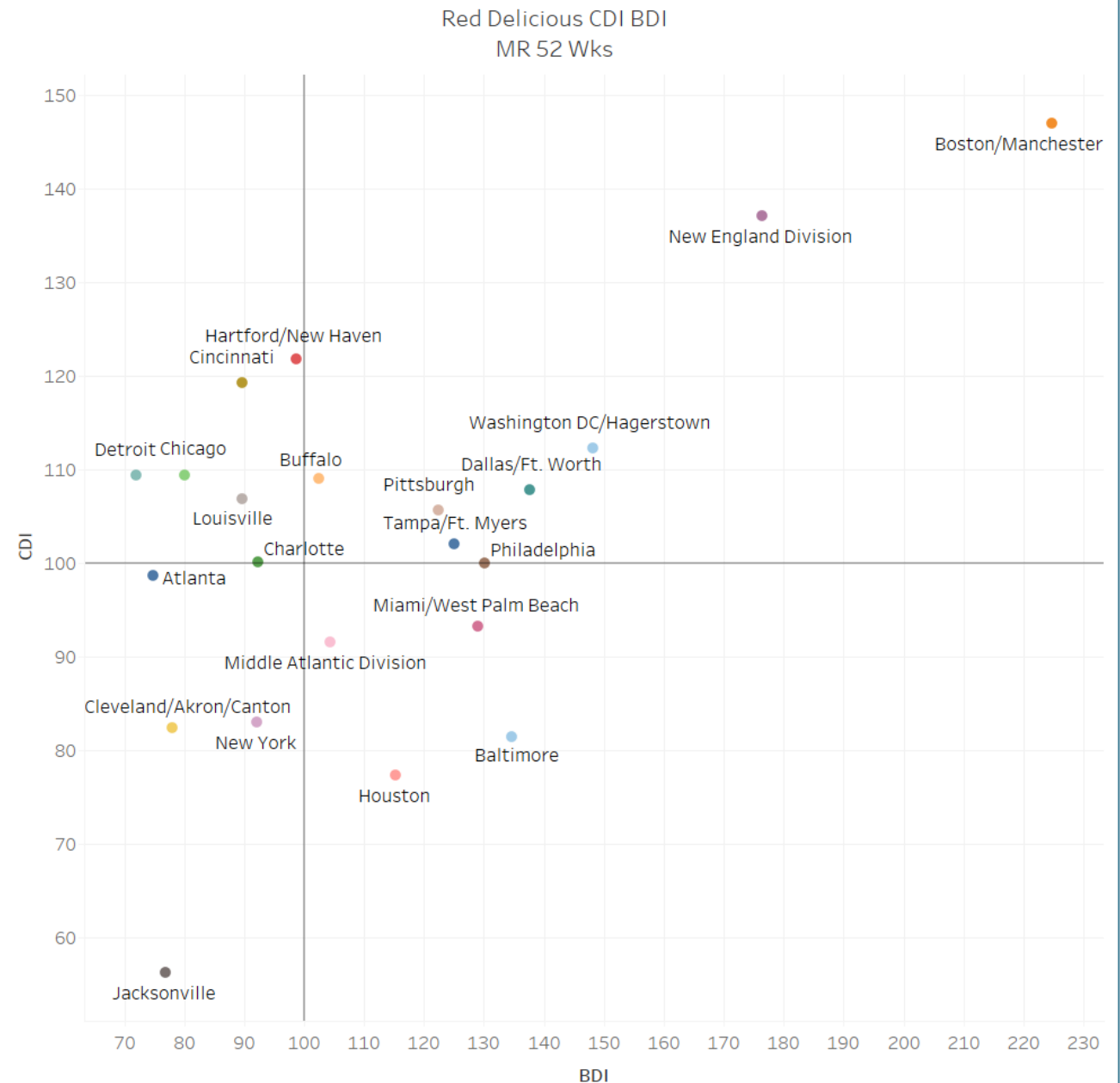
Granny Smith Development

- Granny Smith development is broad across a variety of markets as well as those with a range of category development. For example, Granny Smith index well above average in Boston, Dallas, Atlanta and Miami.
- The New England division shows a strong preference for this tart apple. Boston and Hartford and the New England division index well above average.
- Buffalo, a market with a strong preference for apple varieties with a tart profile indexes quite low for Granny Smith. This is likely a reflection of preferences among retailers and consumer for New York grown varieties.



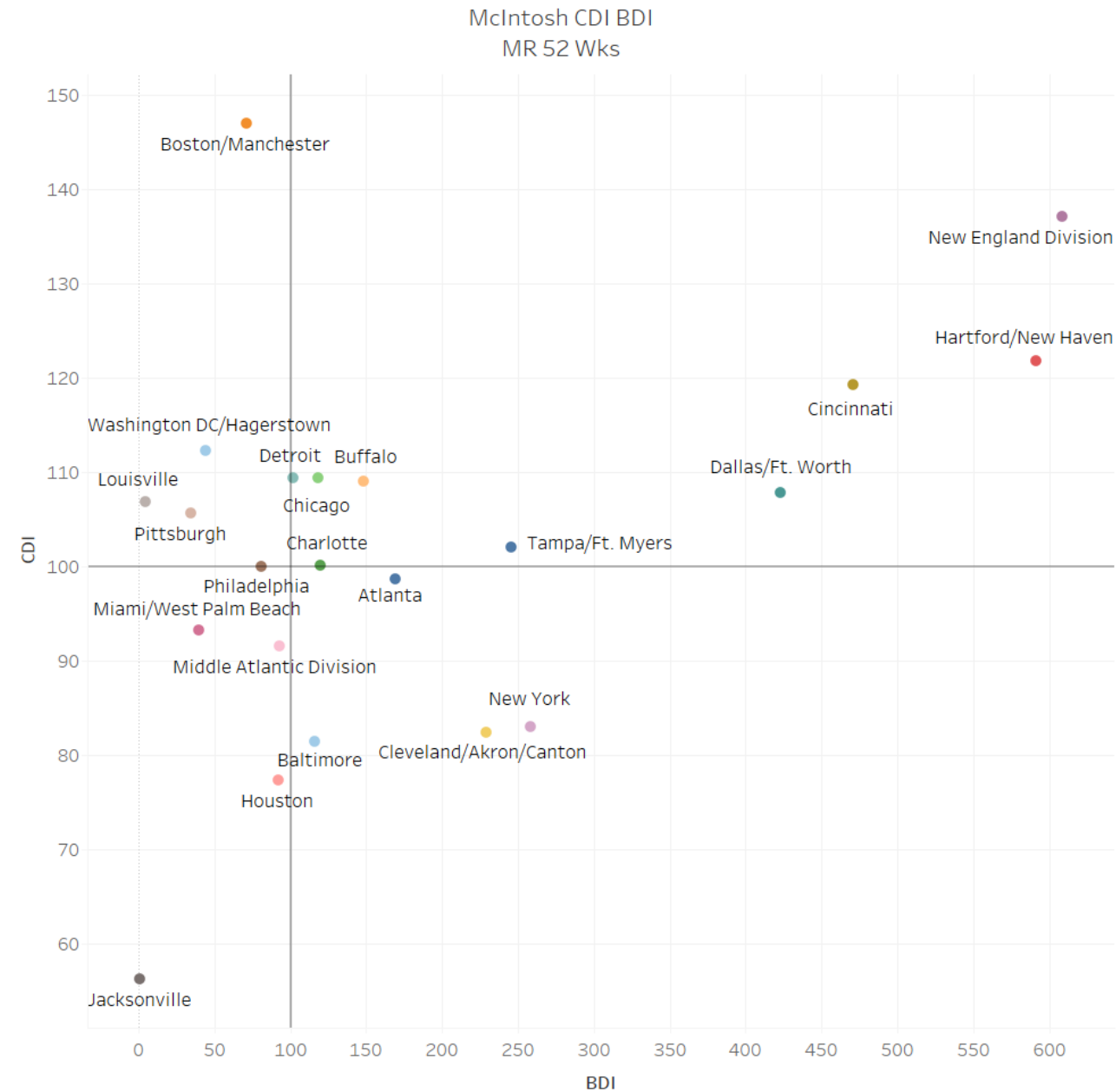
Red Delicious Development

- Red Delicious development reflects a legacy variety with performance variations spread across markets with both high and low development: 10 markets have above average BDI while 10 are below average.
- Boston and the New England division show the highest brand development for Red Delicious. It is notable that these areas were low in Honeycrisp BDI indexes.
- Midwestern markets generally show lower BDI on Red Delicious including Cincinnati, Detroit, Chicago, Louisville and Cleveland which all had BDI indexes under 100.



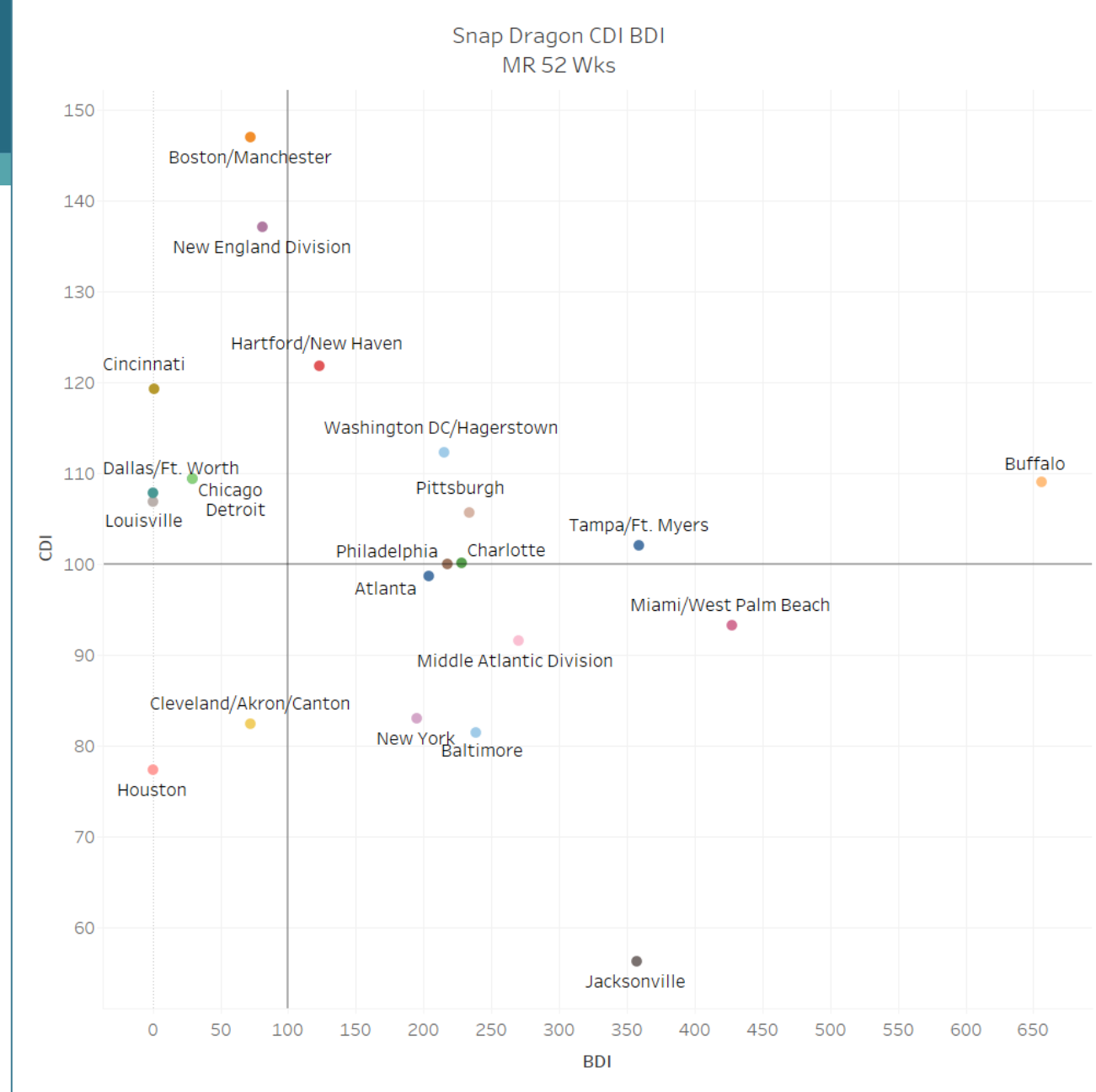
McIntosh Development

- McIntosh development reflects a legacy variety with production isolated near high performing markets. Performance variations are spread across markets with both high and low development: 11 markets have above average BDI while 9 are below average.
- Hartford and the New England division show the highest brand development for McIntosh. It is notable that these areas were low in Honeycrisp BDI indexes.
- Boston is notable for a very high CDI but below average BDI.
- Several midwestern markets show higher BDI on McIntosh including Cincinnati, Detroit and Cleveland. Even Dallas had notably high BDI indicating a potential opportunity for New York growers to expand development of other varieties.



Snap Dragon Development

- Not surprisingly, given limited distribution, Snap Dragon BDI is higher in eastern markets than Midwest markets.
- Consistent with strong local preference for McIntosh and Empire apple varieties, Buffalo leads all markets in brand development.
- On a comparative basis, Boston and the New England division are low as both index below 100 indicating future opportunities.
- After Buffalo, three markets in Florida had the highest BDI.



Ruby Frost Development

- Ruby Frost development looks much different than Snap Dragon with higher indexes across a mix of markets in both the East as well as Midwest.
- Dallas and Chicago had the highest BDI's of the 20 markets in this study.
- Quite unlike the local preference for McIntosh, Empire and Snap Dragon, Buffalo was below average in Ruby Frost brand development.
- On a comparative basis, Boston is a key market opportunity, with an index below 100.
- The Ruby Frost BDI index for the Mid Atlantic division was below 50. Given the preference for New York varieties and proximity to the growing regions, markets in the Mid Atlantic region appear to offer opportunities.

