2017 U.S. Apple Crop
Outlook and Overview

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U.S. Apple Association
This presentation summarizes USAApple’s 2017 Production and Utilization Analysis.
2017 USDA APPLE CROP FORECAST

248.7 Million Bushels

11th Largest Crop

Source: USDA - August 10, 2017
TOTAL U.S. APPLE PRODUCTION
(MILLION) 42-LB. UNITS

Down 7% from 2016

2014: 281.3
2015: 239.0
2016: 268.4
2017 F: 248.7
 TOTAL U.S. APPLE PRODUCTION
(MILLION) 42-LB. UNITS

Two of the last four crops have been in the top five years of historical production.

- 2014: #1 (281.3)
- 2015: #2 (239.0)
- 2016: #4 (268.4)
- 2017 F: (248.7)

Down 7% from 2016.
Bearing Acres (000's)

- 252.0 million bu production
- 323 (2016)
- 268 million bu production (2016)
- 6 percent higher production
- 31 percent fewer acres

Source: USDA
YIELD PER ACRE
2003-16

Yield Per Acre (42 lb units)

50% Increase in 13 years

Source: USDA
MIDWESTERN APPLE PRODUCTION

(000) 42-LB. UNITS

Source: USDA and USApple

Down 27%
EASTERN AND MIDWESTERN APPLE PRODUCTION
(000) 42-LB. UNITS

Source: USDA

Down 5%

2014: 87,302
2015: 88,586
2016: 82,188
2017 F: 78,286
EAST & MIDWEST
PERCENT OF TOTAL PRODUCTION

Source: USDA and USApple
WESTERN APPLE PRODUCTION
(000) 42-LB. UNITS

Down 9%

F = Forecast
WASHINGTON FRESH APPLE CROP
(MILLION 40-LB. BOXES)

5 Year Average = 127

## 2017 USDA Crop Forecast

<table>
<thead>
<tr>
<th>States</th>
<th>2016</th>
<th>2017 F</th>
<th>% fr 2016</th>
<th>5 yr av</th>
<th>from 5 yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td>28,095</td>
<td>28,571</td>
<td>2%</td>
<td>28,238</td>
<td>1%</td>
</tr>
<tr>
<td>Appalachia</td>
<td>17,629</td>
<td>20,238</td>
<td>15%</td>
<td>19,563</td>
<td>3%</td>
</tr>
<tr>
<td>New England</td>
<td>2,507</td>
<td>3,429</td>
<td>37%</td>
<td>3,304</td>
<td>4%</td>
</tr>
<tr>
<td>North Carolina</td>
<td>2,488</td>
<td>2,500</td>
<td>1%</td>
<td>2,488</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total East</strong></td>
<td><strong>51,533</strong></td>
<td><strong>55,786</strong></td>
<td><strong>8%</strong></td>
<td><strong>54,439</strong></td>
<td><strong>2%</strong></td>
</tr>
<tr>
<td>Michigan</td>
<td>27,976</td>
<td>19,048</td>
<td>-32%</td>
<td>21,762</td>
<td>-12%</td>
</tr>
<tr>
<td><strong>Total Midwest</strong></td>
<td><strong>30,655</strong></td>
<td><strong>22,500</strong></td>
<td><strong>-27%</strong></td>
<td><strong>25,937</strong></td>
<td><strong>-13%</strong></td>
</tr>
<tr>
<td>Washington</td>
<td>174,286</td>
<td>159,524</td>
<td>-8%</td>
<td>158,333</td>
<td>1%</td>
</tr>
<tr>
<td>California</td>
<td>5,976</td>
<td>5,476</td>
<td>-8%</td>
<td>5,867</td>
<td>-7%</td>
</tr>
<tr>
<td>Oregon</td>
<td>4,952</td>
<td>4,167</td>
<td>-10%</td>
<td>3,556</td>
<td>17%</td>
</tr>
<tr>
<td><strong>Total West</strong></td>
<td><strong>186,229</strong></td>
<td><strong>170,381</strong></td>
<td><strong>-9%</strong></td>
<td><strong>169,860</strong></td>
<td><strong>0%</strong></td>
</tr>
<tr>
<td><strong>Total US</strong></td>
<td><strong>268,417</strong></td>
<td><strong>248,667</strong></td>
<td><strong>-7%</strong></td>
<td><strong>250,236</strong></td>
<td><strong>-1%</strong></td>
</tr>
</tbody>
</table>

**2017 USDA Crop Forecast**
New England: 37% above 2016 and 4% above the 5 yr av

New York: Up 2% from 2016 and 1% above the 5 yr av

Michigan: Down 32% from 2016 and 12% below the 5 yr av

Washington: 8% below 2016 and 1% above the 5 yr av

California: 8% below 2016 and 7% below the 5 year av

Appalachia: 15% above 2016 and 3% above the 5 yr av

USApple 2017 Regional Estimates
AVERAGE U.S. GROWER PRICES
ALL APPLE SALES - 2016 CROP
(CENTS PER POUND)

Down 5%

Source: USDA
AVERAGE U.S. GROWER PRICES
FRESH SALES - 2016 CROP
(CENTS PER POUND)

Source: USDA

Down 7%

44.1

41.2
AVERAGE U.S. GROWER PRICES FOR PROCESSING - 2016 CROP
(DOLLARS PER TON)

Source: USDA
TOTAL U.S. FRESH APPLE EXPORT VOLUME – 2016 CROP
(000 42 LB. UNITS)

Crop Year

Source: USDA FAS-Global Agricultural Trade System (GATS) August 4, 2017
Exports reported on July – June marketing year
TOTAL U.S. FRESH APPLE EXPORT VALUE – 2016 CROP
(MILLION U.S. DOLLARS)

Source: USDA FAS-Global Agricultural Trade System (GATS) August 4, 2017
Exports reported on July – June marketing year

Up 3% from 2015 Crop

Crop Year

Source: USDA FAS-Global Agricultural Trade System (GATS) August 4, 2017
Exports reported on July – June marketing year
## TOP FIVE APPLE EXPORT DESTINATIONS - 2016 CROP

**TOP 5 COUNTRY SHARE OF TOTAL EXPORTS**

<table>
<thead>
<tr>
<th>Country</th>
<th>MT (000)</th>
<th>42 lb Bu (000)</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mexico</td>
<td>260,716</td>
<td>13,680</td>
<td>30%</td>
</tr>
<tr>
<td>Canada</td>
<td>135,369</td>
<td>7,106</td>
<td>16%</td>
</tr>
<tr>
<td>Taiwan</td>
<td>64,799</td>
<td>3,401</td>
<td>8%</td>
</tr>
<tr>
<td>India</td>
<td>45,142</td>
<td>2,370</td>
<td>5%</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>38,596</td>
<td>2,026</td>
<td>4%</td>
</tr>
<tr>
<td>Others</td>
<td>314,304</td>
<td>16,498</td>
<td>37%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>858,926</strong></td>
<td><strong>45,085</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: USDA FAS-Global Agricultural Trade System (GATS) August 4, 2017

Exports reported on July – June marketing year
**US-CHINA TWO WAY TRADE**

- US-China trade agreement finalized in early 2015 called for mutual market access for fresh apples
- Second year of two way trade (July – June 2016-17)

<table>
<thead>
<tr>
<th></th>
<th>Volume</th>
<th>Value</th>
<th>Per BU ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(000 42 lb units)</td>
<td>(000’s)</td>
<td></td>
</tr>
<tr>
<td>Exports</td>
<td>961</td>
<td>$22,793</td>
<td>$23.71</td>
</tr>
<tr>
<td>Imports*</td>
<td>164</td>
<td>$4,328</td>
<td>$26.44</td>
</tr>
</tbody>
</table>

* Imports from China comprised 2.1 percent of total imports (2016 Crop Year)
APPLE BALANCE OF TRADE
(U.S. DOLLARS IN MILLIONS)

Apples contributed a net positive trade balance of $708 million from the 2016 crop.
UTILIZATION OF THE 2016 APPLE CROP

- Fresh: 67%
- Processed: 33%

Source: USDA, National Agricultural Statistics Service.
UTILIZATION OF THE 1994 APPLE CROP

- Fresh: 51%
- Not Marketed: 2.0%
- Total Canned: 14.0%
- Juice: 27%
- Other Products: 1.0%
- Dried: 4.0%
- Frozen: 1.0%
- Fresh Slices: 0.0%

Source: USDA, National Agricultural Statistics Service.
GROWTH IN FRESH MARKET DRIVES GROWER INCOME

1994

Fresh 51%
Juice 27%
Total Canned 14.0%
Not Marketed 2.0%

Fresh Slices 0.0%
Frozen 1.0%
Dried 4.0%
Other Products 1.0%

Source: USDA, National Agricultural Statistics Service.

2016

Fresh 67%
Juice 11.9%
Total Canned 10.6%
Not Marketed 3.9%

Fresh Slices 1.2%
Frozen 1.0%
Dried 3.0%
Other Products 1.2%

Source: USDA, National Agricultural Statistics Service.
At $3.46 billion, farm gate value of the 2016 crop was up 3% over 2015.

<table>
<thead>
<tr>
<th>Crop Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value of Fresh Production (000)</td>
<td>$2,792,848</td>
<td>$2,577,739</td>
<td>$3,041,358</td>
<td>$3,113,626</td>
</tr>
<tr>
<td>Value of Processing Production (000)</td>
<td>$340,088</td>
<td>$293,006</td>
<td>$308,737</td>
<td>$348,834</td>
</tr>
<tr>
<td>Total Farm-Gate Value of Production (000)</td>
<td>$3,132,936</td>
<td>$2,870,745</td>
<td>$3,350,095</td>
<td>$3,462,460</td>
</tr>
</tbody>
</table>

Source: USDA, National Agricultural Statistics Service, Noncitrus Fruits and Nuts Summary, various years. na = not available

Noncitrus Fruit and Nuts 2016 Summary, released June 27, 2017

2 Total revenue to growers from fresh and processing sales.
### MORE INCOME FROM SIMILAR SIZE CROP

**1994 CROP – 273.8 MILLION 42 LB UNITS**  
**2016 CROP – 268.4 MILLION 42 LB UNITS**

Comparing 1994 and 2016 crops - Season-Average Prices Received by Growers

<table>
<thead>
<tr>
<th>Inflation adjusted</th>
<th>2016</th>
<th>1994</th>
<th>1994 ADJ</th>
</tr>
</thead>
<tbody>
<tr>
<td>M bu</td>
<td>M bu</td>
<td>to 2016</td>
<td>vs.</td>
</tr>
<tr>
<td>2016</td>
<td>1994</td>
<td>1994 ADJ</td>
<td></td>
</tr>
</tbody>
</table>

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>All sales (cents per pound)</td>
<td>32.0</td>
<td>12.8</td>
<td>20.7</td>
<td>35%</td>
</tr>
<tr>
<td>Fresh consumption (cents per pound)</td>
<td>41.2</td>
<td>18.2</td>
<td>29.5</td>
<td>28%</td>
</tr>
<tr>
<td>All processing (dollars per ton)</td>
<td>213.0</td>
<td>112.0</td>
<td>181.4</td>
<td>15%</td>
</tr>
<tr>
<td>Canned (dollars per ton)</td>
<td>244.0</td>
<td>148.0</td>
<td>239.8</td>
<td>2%</td>
</tr>
<tr>
<td>Juice and cider (dollars per ton)</td>
<td>163.0</td>
<td>89.7</td>
<td>145.3</td>
<td>11%</td>
</tr>
<tr>
<td>Frozen (dollars per ton)</td>
<td>244.0</td>
<td>148.0</td>
<td>239.8</td>
<td>2%</td>
</tr>
<tr>
<td>Dried (dollars per ton)</td>
<td>202.0</td>
<td>82.0</td>
<td>132.8</td>
<td>34%</td>
</tr>
<tr>
<td>Fresh slices (dollars per ton)</td>
<td>390.0</td>
<td>na</td>
<td>na</td>
<td>na</td>
</tr>
</tbody>
</table>

**Value of Fresh Production (000)**  
1994: $1,207,270  
1994 ADJ: $1,955,777  
Increase: 36%

**Value of Processing Production (000)**  
1994: $1,207,270  
1994 ADJ: $1,955,777  
Increase: -15%

**Total Farm-Gate Value of Production (000)**  
1994: $2,414,540  
1994 ADJ: $3,911,547  
Increase: 33%

Source: USDA NASS Noncitrus Fruits and Nuts Summary, various years. na = not available.

Even after adjusting the 1994 crop for inflation, growers received 33% more from the 2016 crop.
APPLE PRODUCTION (000 42 LB. UNITS)
5 YEAR ROLLING AVERAGE 1943-2017

APPLE PRODUCTION (000 42 LB. UNITS)
5 YEAR ROLLING AVERAGE 1943-2017

101,411

254,648
(1994 – 98)

257,148

USApple Association
INVENTORIES REFLECT MARKET ACTIVITY
DRIVING VARIETY REBALANCING

6 Years of Market News Inventories from November 1 and June 1 were analyzed (Crop Years 2011 – 2016)
MARKET NEWS 6 YEAR VARIETY COMPARISON
JUNE 1 INVENTORY AND NOVEMBER 1 – JUNE 1 MOVEMENT BY VARIETY

12.4 million
June 1 Inventory
(Millions 42 lb. units)

Nov – Jun % Inventory Moved 93%

Red
Granny
Golden
Gala
Fuji
Rome
Cripps Pink
Honeycrisp
McIntosh

Source: USApple Market News
MARKET NEWS 6 YEAR VARIETY COMPARISON
JUNE 1 INVENTORY AND NOVEMBER 1 – JUNE 1 MOVEMENT BY VARIETY

12.4 million

June 1 Inventory (Millions 42 lb. units)

Nov – Jun % Moved

Red Delicious (6 year average)
71 % of Nov 1 Stocks Were Moved by June 1
29% of Nov 1 Inventory Remained on June 1

Source: USApple Market News
INVENTORIES REFLECT MARKET ACTIVITY

MARKET NEWS INVENTORY ANALYSIS

- 6 Years of Market News Inventories from November 1, 2016 and June 1, 2017 were analyzed
- Red Delicious June 1 inventory averaged 29% of November 1 inventory
- Red Delicious June 1, 2017 inventory represented 47% of all June 1 variety inventories (6 year avg was 38%)
U.S. RED DELICIOUS PRODUCTION
(MILLION 42-LB. UNITS)

Source: USApple  F = Forecast
U.S. GOLDEN DELICIOUS PRODUCTION
(MILLION 42-LB. UNITS)

Source: USApple  F = Forecast
RED AND GOLDEN DELICIOUS AS A PERCENT OF TOTAL PRODUCTION

Source: USAApple
WESTERN U.S. FUJI PRODUCTION
(000 42 LB. UNITS)

Source: USApple  F = Forecast
WESTERN U.S. GRANNY SMITH PRODUCTION
(MILLION 42-LB. UNITS)

Source: USApple  F = Forecast
HONEYCRISP AND CRIPPS PINK (PINK LADY™) (MILLION 42-LB. UNITS)

<table>
<thead>
<tr>
<th>Year</th>
<th>Honeyscrisp</th>
<th>Cripps Pink</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>9,492</td>
<td>5,160</td>
</tr>
<tr>
<td>2014</td>
<td>10,899</td>
<td>6,556</td>
</tr>
<tr>
<td>2015</td>
<td>13,192</td>
<td>6,981</td>
</tr>
<tr>
<td>2016</td>
<td>15,206</td>
<td>8,482</td>
</tr>
<tr>
<td>2017</td>
<td>16,649</td>
<td>8,346</td>
</tr>
</tbody>
</table>
Washington State Variety Mix 2005 - 17

“Variety Rebalancing”

- **Red Delicious**: 33.4% in 2005, 23.7% in 2017
- **Gala**: 16.6% in 2005, 22.5% in 2017
- **Fuji and Granny Smith**: 14.1% in 2005, 8.0% in 2017
- **Golden Delicious**: 5.0% in 2005, 5.3% in 2017
- **Honeycrisp**: 2.1% in 2005, 1.4% in 2006, 5.0% in 2017
- **Cripps Pink**: 0.0% in 2005, 1.4% in 2006, 5.3% in 2017

Source: Washington State Tree Fruit Association (WSTFA)
2017 APPLE CROP - SUMMARY

• When considering the advances made by the industry in recent years–
  • The ability to effectively market larger crops
  • Increased productivity
  • Better postharvest management – improved quality
  • New varieties aimed at consumer preferences
  • Innovative marketing programs
  • Export prospects

There is real reason to be optimistic about the 2017 crop
Thank You!