Acknowledgements

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Executive Summary

This report is the third update of the 2015 “Building the Links” project profiling the Sunshine Coast food and agribusiness sector for the Sunshine Coast Council Agribusiness Taskforce.

In the 2018 update, the value of agricultural production on the Sunshine Coast is estimated at around $310 million (based on 2015-16 government data referred to as 2016 data) and the value of the processing sector is estimated at around $390 million (based on self-reported turnover for the 2016-17 financial period). The total value of the Sunshine Coast food and agribusiness sector is estimated at around $700 million. This is a 4% increase over the previous reporting period.

Compared to previous reports, changes in this update include the addition of climate data due to the recognition of the impact of climate on local production volume; and discussion of significant commodities not previously highlighted, including cultivated turf, tomatoes and outdoor cut flowers.

In the 2015-16 period, the value of agricultural production increased by 9% over the previous reporting period. Growth varied across industries. Strong growth in strawberries, cultivated turf, dairy milk, cattle and calf slaughtering, macadamias and tomatoes was counteracted by decline in ginger, eggs, pineapples and pig slaughtering. Major causes of decline included stricter regulations, weather patterns, logistics, a general shift towards more ethically and environmentally sound practices, and relocation of farms beyond the Sunshine Coast.

The processing sector reported stable growth between 2016 and 2017, with some processors experiencing significant increases, other experiencing significant decline and some experiencing flat growth. Main causes of growth included entry into major supermarkets and increased consumer support, whilst major causes of decline included reduced raw product supply due to poor weather conditions and business restructuring.
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Abbreviations and Definitions

ABARESAustralian Bureau of Agricultural and Resource Economics and Sciences
ABSAustralian Bureau of Statistics
AUDAustralian dollar
Beach priceThe price paid for seafood before on-costs, such as transportation
DAFDepartment of Agriculture and Fisheries
ETBFEastern Tuna and Billfish Fishery
EVAOEstimated value of agricultural operations
dozdozen
hahectares
mmillion
nnumber of
QLDQueensland
ttonnes
TVAOTotal value of agricultural operations
Value-addThe process of adding value to the primary produce (i.e. packaging, processing, incorporation into other products)
1 Introduction

This report is part of a continuing project undertaken for the Sunshine Coast Council Agribusiness Taskforce profiling the Sunshine Coast food and agribusiness sector using production and value metrics. This is the third annual update following the initial 2015 “Building the Links” report (Hastings and Lawley 2015) and the 2016 (Hastings and Lawley 2016a) and 2017 (Whittaker et al. 2017) updates.

2 Method

Continuing the methodology from previous reports, the Sunshine Coast food and agribusiness sector is profiled according to agricultural production (reported in tonnes, hectares, and numbers of) and value ($AUD reported in millions). The 2016 figures are derived as follows:

i. Production volume and value data are predominantly based on the most recent (2015-16) Australian Bureau of Statistics (ABS) data for Agricultural Commodities (Cat No. 7121.0), Value of Agricultural Commodities Produced (Cat No. 7503.0) and Livestock Products (Cat No. 7215.0). The ABS data has up to a 50% margin of error.

ii. Ginger production volume and value calculations are derived from the 2015-16 gross production volume and value figures for the Australian ginger industry (9331 tonnes; $29.1 m), with Queensland representing 98% of this industry (Plant Health Australia 2017) and the Sunshine Coast representing 20% of the Queensland industry (pers. comm. Katarina Keating, Australian Ginger Industry Association).

iii. Wild caught seafood volume and value figures are calculated in the same manner as the previous update. Queensland (QLD) fisheries statistics from the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) Australian Fisheries and Aquaculture Statistics are combined with the Commonwealth-controlled Eastern Tuna and Billfish Fishery (ETBF) figures presented in the ABARES Fishery Status Reports to produce total QLD production volume and value figures. Sunshine Coast production has been estimated at around 13% of the QLD fisheries production and 75% of ETBF production (Hastings and Lawley 2016b). From the sum of the respective values, Sunshine Coast production and value is estimated at around 26% of the total QLD production and value.
iv. Value-add data was obtained through contact with 10 major processors from the Sunshine Coast value-add/processing sector to obtain estimates relating to the 2016-17 financial year. Data for an additional processor was gained through company annual reports. Considering major processors to represent around 73% of the sector, the total estimates were scaled up accordingly.

The total value of the food and agribusiness sector is a composite of 2015-16 figures for production and 2016-17 estimates of total processing sector value. The 2016 agricultural production data and the 2017 processing sector data is compared to data compiled in the previous reporting periods to highlight industry trends. To provide an understanding of why changes have occurred within industries, we consulted major processors, as well as industry associations, and media stories and reports to determine key factors affecting operations.

Changes present within the 2017 update:

1) Commodities removed from the report due to unpublished ABS figures for 2015 include mushrooms, undercover nurseries and undercover cut flowers.

2) Commodities are listed and discussed in order of Sunshine Coast value. The order of commodities has been altered since the last update due to changes in relative Sunshine Coast value since the 2014-15 period (see Table 2a).

3) Commodities discussed in detail for the first time include cultivated turf (Section 3.6), tomatoes (Section 3.10) and outdoor cut flowers (Section 3.12).

4) A section relating to climate data has been included in the appendix for the first time to highlight the potential relationship between climate and production. This section provides monthly rainfall measurements and mean monthly minimum and maximum temperatures from 2007 to 2017. Different agricultural commodities require specific conditions for maximum production volume. We note in each of the commodity discussions where climate may have impacted agricultural production.
3 The 2015-16 Agricultural Sector

This section reports agricultural commodity production volumes and values for the Sunshine Coast, both as an isolated region and as a proportion of QLD production volume and value. Commodities are listed in order of descending 2016 Sunshine Coast value (as per Table 2a). An overview of production volume and value statistics is presented, followed by a discussion of major commodities, highlighting and explaining major trends.

3.1 Overview of production volume

Key findings from the Sunshine Coast 2015-16 production volume statistics (Table 1a, Figure 1a):

- Stability in the wild caught seafood (-1.9% to 6358 t), poultry slaughtering (-2% to 25.7 m) and macadamia (-3% to 2015 t) industries.

- A resurgence in the dairy cow (up 280% to 10,309 head), outdoor cut flower (up 186%) to 20 ha) and strawberry (up 185% to 5435 t) industries following major falls in production in 2015.

- Continued increase in the cultivated turf industry (up 26% 492 ha) following a fall in production in 2014.

- A significant increase in the tomato industry (up 272% to 3457 t) following relatively stable figures of around 700 to 900 tonnes since 2013.

- Considerable falls in ginger production (-57% to 1823 t) and pig slaughtering (-58% to 9877 head) following large increases in the previous reporting period.

- A considerable fall in egg production (-18% to 4.3 m doz) following relatively stable figures in 2014 (5.6 m doz) and 2015 (5.3 m doz).

- Continued significant decline in the pineapple industry (-39% to 10,925 t), and in meat cattle stocks, down 34% to around 14,000 head from a high of around 41,000 head in 2013.
Table 1a. Production volume of Sunshine Coast agricultural commodities 2007 to 2016.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Agricultural commodity</th>
<th>Sunshine Coast production volume</th>
<th>Change from 2015 to 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Poultry slaughtered (n)</td>
<td>10.8m</td>
<td>13.3m</td>
</tr>
<tr>
<td>2</td>
<td>Wild caught seafood (t)*</td>
<td>12464</td>
<td>11367</td>
</tr>
<tr>
<td>3</td>
<td>Strawberries (t)</td>
<td>3430</td>
<td>2451</td>
</tr>
<tr>
<td>4</td>
<td>Cultivated turf (ha)</td>
<td>136</td>
<td>331</td>
</tr>
<tr>
<td>5</td>
<td>Dairy cow (n)</td>
<td>22092</td>
<td>9420</td>
</tr>
<tr>
<td>6</td>
<td>Meat cattle (n)</td>
<td>39776</td>
<td>34717</td>
</tr>
<tr>
<td>7</td>
<td>Outdoor nurseries (ha)</td>
<td>127</td>
<td>149</td>
</tr>
<tr>
<td>8</td>
<td>Macadamias (t)</td>
<td>1898</td>
<td>2224</td>
</tr>
<tr>
<td>9</td>
<td>Eggs (doz)</td>
<td>9043</td>
<td>22145</td>
</tr>
<tr>
<td>10</td>
<td>Pineapples (t)</td>
<td>43156</td>
<td>16308</td>
</tr>
<tr>
<td>11</td>
<td>Tomatoes (t)</td>
<td>582</td>
<td>1295</td>
</tr>
<tr>
<td>12</td>
<td>Ginger (t)**</td>
<td>6075</td>
<td>3216</td>
</tr>
<tr>
<td>13</td>
<td>Pigs slaughtered (n)</td>
<td>13958</td>
<td>8321</td>
</tr>
<tr>
<td>14</td>
<td>Avocados (t)</td>
<td>1454</td>
<td>1000</td>
</tr>
<tr>
<td>15</td>
<td>Outdoor cut flowers (ha)</td>
<td>5.71</td>
<td>38</td>
</tr>
<tr>
<td>16</td>
<td>Bananas (t)</td>
<td>280</td>
<td>90</td>
</tr>
<tr>
<td>17</td>
<td>Mandarins (t)</td>
<td>1112</td>
<td>134</td>
</tr>
<tr>
<td>18</td>
<td>Oranges (t)</td>
<td>1391</td>
<td>1430</td>
</tr>
<tr>
<td>19</td>
<td>Mangoes (t)</td>
<td>26</td>
<td>4</td>
</tr>
</tbody>
</table>

* new methodology from 2015.
** based on industry sources.

Figure 1a. Percentage change in Sunshine Coast production volume from 2015 to 2016.

Source: ABS Agricultural Commodities (Cat. No. 7121.0) and Livestock Products (Cat. No. 7215.0) (error margin up to 50%); ABARES Australian Fisheries and Aquaculture Statistics, and Fishery Status Reports.
Key findings relating to 2015-16 Sunshine Coast production volume as a proportion of QLD production volume (Table 1b, Figure 1b):

- Industries that contributed most significantly to QLD production volume in 2016 include wild caught seafood (26.05%), strawberries (22.97%), cultivated turf (22.85%), ginger (20%), poultry slaughtering (18.78%) and pineapples (15.23%).
- Stability in poultry slaughtering (-6%) and the wild caught seafood industry (0.2%), contributing around 19% and 26% to QLD production, respectively.
- Continued strong increase in the outdoor nursery industry, up 66% to contribute around 11% of QLD production.
- Significant increase in the tomato industry (up 244% to contribute 5.16% of QLD production) following moderate increases since 2013.
- Significant increases in the dairy cow (up 314% to contribute 6.66%), strawberry (up 129% to contribute 22.97%) and outdoor cut flower (up 126% to contribute 5.51%) industries following sharp falls in 2015.
- A decrease in the pineapple industry (-30% to contribute 15.23%) following stagnated growth in 2015 and a previous decline of around 30% in 2014.
- A notable decline in pig slaughtering (-59% to contribute 0.87%), continuing the trend of annual volatility in production figures over the past decade.
- Continued significant decline in the egg industry (-16% to contribute 4.58%), which fell by similar rates in 2015.
- Continued significant decline in the meat cattle industry (-28% to contribute 0.14%), where production has fallen by two thirds since 2013.
- Cultivated turf production increased by 25.51% despite Sunshine Coast production as a proportion of QLD production only increasing by 9%. This indicates increased production elsewhere in QLD.
- Similarly, whilst production volume of macadamias (-3.4%) and avocados (-7.14%) fell slightly, Sunshine Coast production as a proportion of QLD production fell considerably (-15.25% and -24.06%, respectively).
Table 1b. Production volume of Sunshine Coast agricultural commodities as a proportion of Queensland production volume 2007 to 2016.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Agricultural commodity</th>
<th>Sunshine Coast volume as proportion of Queensland volume (%)</th>
<th>Change from 2015 to 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Poultry slaughtered (n)</td>
<td>12.0, 50.01, 8.44, 19.97, 19.99, 18.78</td>
<td>-6%</td>
</tr>
<tr>
<td>2</td>
<td>Wild caught seafood (t)*</td>
<td>50.01, 50.03, 56.3, 26, 26.05</td>
<td>0.2%</td>
</tr>
<tr>
<td>3</td>
<td>Strawberries (t)</td>
<td>4.98, 11.64, 24.52, 16.71, 20.93, 22.85</td>
<td>129%</td>
</tr>
<tr>
<td>4</td>
<td>Cultivated turf (ha)</td>
<td>13.69, 17.09, 8.49, 9.12, 6.58, 10.95</td>
<td>66%</td>
</tr>
<tr>
<td>5</td>
<td>Dairy cow (n)</td>
<td>11.7, 5.81, 3.48, 5.21, 1.61, 6.66</td>
<td>314%</td>
</tr>
<tr>
<td>6</td>
<td>Meat cattle (n)</td>
<td>0.35, 0.28, 0.33, 0.22, 0.19, 0.14</td>
<td>-28%</td>
</tr>
<tr>
<td>7</td>
<td>Outdoor nurseries (ha)</td>
<td>24.07, 16.84, 12.45, 12.13, 10.91, 9.25</td>
<td>-15%</td>
</tr>
<tr>
<td>8</td>
<td>Macadamias (t)</td>
<td>0.02, 0.003, 6.01, 5.46, 4.58</td>
<td>-16%</td>
</tr>
<tr>
<td>9</td>
<td>Pineapples (t)</td>
<td>26.2, 19.6, 29.71, 21.46, 21.89, 15.23</td>
<td>-30%</td>
</tr>
<tr>
<td>10</td>
<td>Tomatoes (t)</td>
<td>0.48, 1.03, 0.78, 1.2, 1.5, 5.16</td>
<td>244%</td>
</tr>
<tr>
<td>11</td>
<td>Ginger (t)**</td>
<td>75.52, 50, 50, 50, 50, 20</td>
<td>-60%</td>
</tr>
<tr>
<td>12</td>
<td>Pigs slaughtered (n)</td>
<td>1.1, 0.77, 2.73, 1.16, 2.11, 0.87</td>
<td>-59%</td>
</tr>
<tr>
<td>13</td>
<td>Avocados (t)</td>
<td>4.37, 4.93, 1.90, 2.66, 2.2, 1.67</td>
<td>-24%</td>
</tr>
<tr>
<td>14</td>
<td>Outdoor cut flowers (ha)</td>
<td>1.24, 8.68, 3.67, 4.32, 2.44, 5.51</td>
<td>126%</td>
</tr>
<tr>
<td>15</td>
<td>Bananas (t)</td>
<td>0.15, 0.05, N/A, 0.002, 0.003, 0.03</td>
<td>800%</td>
</tr>
<tr>
<td>16</td>
<td>Mandarins (t)</td>
<td>1.61, 0.19, 0.11, 0.08, 0.06, 0.03</td>
<td>-53%</td>
</tr>
<tr>
<td>17</td>
<td>Oranges (t)</td>
<td>19.37, 14.45, 24.56, 26.31, 1.24, 0.07</td>
<td>-94%</td>
</tr>
<tr>
<td>18</td>
<td>Mangoes (t)</td>
<td>0.06, 0.02, N/A, 0.03, 0.05, 0.001</td>
<td>-99%</td>
</tr>
</tbody>
</table>

*new methodology from 2015.
**based on industry sources.

Figure 1b. Percentage change in Sunshine Coast production volume as a proportion of Queensland production volume from 2015 to 2016.

Source: ABS Agricultural Commodities (Cat. No. 7121.0) and Livestock Products (Cat. No. 7215.0) (error margin up to 50%); ABARES Australian Fisheries and Aquaculture Statistics, and Fishery Status Reports.
3.2 Overview of production value

Key findings from the Sunshine Coast 2015-16 production value statistics (Table 2a, Figure 2a):

- Poultry slaughtering remains Sunshine Coast’s most valuable agricultural commodity, worth approximately $111 million. However, growth (-5%) has been relatively stagnant since 2014 ($110 m), following a considerable rise in value in 2013 ($39 m).
- The second most prominent commodity on the Sunshine Coast is wild-caught seafood, valued at approximately $58 million.
- Strawberries have re-emerged as a major commodity on the Sunshine Coast, valued at $33.7 million, almost tripling in value following a significant fall between 2014 and 2015 (from $23.9 m to $11.5 m).
- Similarly, dairy milk has also showed significant gains (up 252% to $16.5m), following a major fall between 2014 and 2015 (from $11.4 m to $4.7 m).
- Sunshine Coast cultivated turf has increased in value for a third year running, valued at $17.4 million in 2016, a 29% increase over the previous year.
- The value of the Sunshine Coast cattle and calves slaughtering industry has increased for the first time since the 2012-13 period, valued at $13.36 million in 2016 (a 25% increase since 2015). This is despite continued significant decreases in the number of meat cattle (down by around 33.5%) (Table 1a).
- The Sunshine Coast macadamia industry has achieved a further 29% increase in value in 2016 (now worth $10.65 m), continuing its long term annual growth trend. This is despite a 3% decrease in local production (Table 1a).
- Sunshine Coast ginger, which was the 3rd most valuable commodity in 2015, fell in value by 69% in 2016 and is now estimated at a value of $5.7 million.
- Of the lower value commodities, significant increases were recorded in tomatoes (up 247% to $6.42 m) and outdoor cut flowers (up 187% to $0.89 m).
Table 2a. Production value of Sunshine Coast agricultural commodities from 2007 to 2016.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Agricultural commodity</th>
<th>Sunshine Coast production value ($m)</th>
<th>Change from 2015 to 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Poultry slaughtered</td>
<td>28.89  47.1  38.94  100.12  117.03  110.8</td>
<td>-5%</td>
</tr>
<tr>
<td>2</td>
<td>Wild caught seafood**</td>
<td>103.5  97.24  97.67  107  55.12  58.09</td>
<td>5%</td>
</tr>
<tr>
<td>3</td>
<td>Strawberries</td>
<td>22.98  16.4  13.51  23.86  11.45  33.72</td>
<td>194%</td>
</tr>
<tr>
<td>4</td>
<td>Cultivated turf</td>
<td>3.9    10.4  19.97  11.87  13.46  17.4</td>
<td>29%</td>
</tr>
<tr>
<td>5</td>
<td>Dairy milk</td>
<td>26.01  15.7  8.79  11.41  4.68  16.47</td>
<td>252%</td>
</tr>
<tr>
<td>6</td>
<td>Cattle/calves slaughtered</td>
<td>14.74  15.1  12.75  11.07  10.69  13.36</td>
<td>25%</td>
</tr>
<tr>
<td>7</td>
<td>Outdoor nurseries</td>
<td>15.07  19.4  12.19  14.05  10.38  11.99</td>
<td>16%</td>
</tr>
<tr>
<td>8</td>
<td>Macadamias</td>
<td>4.25    6  6.66  7.06  8.26  10.65</td>
<td>29%</td>
</tr>
<tr>
<td>9</td>
<td>Eggs</td>
<td>0.02    0  0.01  11.45  11.02  9.62</td>
<td>-13%</td>
</tr>
<tr>
<td>10</td>
<td>Pineapples</td>
<td>23.92  9.8  13.37  12.23  11.55  7.69</td>
<td>-33%</td>
</tr>
<tr>
<td>11</td>
<td>Tomatoes</td>
<td>0.89    2.4  1.7  1.55  1.85  6.42</td>
<td>247%</td>
</tr>
<tr>
<td>12</td>
<td>Ginger**</td>
<td>25.16  N/A  10  16  18.5  5.7</td>
<td>-69%</td>
</tr>
<tr>
<td>13</td>
<td>Pigs slaughtered</td>
<td>2.6    1.7  5.9  3.04  16.5  2.79</td>
<td>-51%</td>
</tr>
<tr>
<td>14</td>
<td>Avocados</td>
<td>3.48    2.6  2.13  3.7  2.71  2.7</td>
<td>0%</td>
</tr>
<tr>
<td>15</td>
<td>Outdoor cut flowers</td>
<td>1.7    1.5  0.61  0.78  0.31  0.89</td>
<td>187%</td>
</tr>
<tr>
<td>16</td>
<td>Bananas</td>
<td>1.13    0.1  N/A  0.01  0.02  0.11</td>
<td>620%</td>
</tr>
<tr>
<td>17</td>
<td>Mandarins</td>
<td>1.59    0.2  0.09  0.06  0.06  0.03</td>
<td>-41%</td>
</tr>
<tr>
<td>18</td>
<td>Oranges</td>
<td>0.66    0.8  0.79  1.26  0.03  0.002</td>
<td>-94%</td>
</tr>
<tr>
<td>19</td>
<td>Mangoes</td>
<td>0.05    0  N/A  0.02  0.03  0.001</td>
<td>-98%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>280.54  246.44  245.08  336.54  282.85  308.44</td>
<td>9%</td>
</tr>
</tbody>
</table>

* new methodology from 2015.
** based on industry sources.

Figure 2a. Percentage change in Sunshine Coast production value from 2015 to 2016.

Source: ABS Value of Agricultural Commodities Produced (Cat. No. 7503.0) (error margin up to 50%); ABARES Australian Fisheries and Aquaculture Statistics, and Fishery Status Reports.
Key findings relating to 2015-16 Sunshine Coast production value as a proportion of Queensland production value (Table 2b, Figure 2b):

- Industries that contributed most significantly to QLD industry value in 2016 include wild caught seafood (26.05%), cultivated turf (23.18%), strawberries (22.97%), ginger (20%), poultry slaughtering (18.78%) and pineapples (15.24%).

- Sunshine Coast poultry slaughtering has slightly decreased (-6%), now contributing 18.78% of QLD value.

- Sunshine Coast strawberries recovered to pre-2015 levels, up 130% to comprise around 23% of QLD industry value. This reflects the considerable increase in local production (up 185%) (Table 1a).

- Dairy milk also had significant increases, up 251% to represent around 7% of the QLD industry compared to the 2015 low of around 2%. This reflects the considerable increase in dairy cow numbers (up 280% since 2015) (Table 1a).

- There was a 9% increase in Sunshine Coast cattle and calve slaughtering as a proportion of the QLD industry, now contributing 0.23%. This reflects a 25% increase in Sunshine Coast value (Table 2a), despite a 34% reduction in production (Table 1a) and a 28% decline in meat cattle numbers as a proportion of the QLD industry (Table 1b).

- Despite a 29% increase in the value of the Sunshine Coast macadamia industry between 2015 and 2016 (Table 2a), the local macadamia industry continued its long term downward trend in its share of QLD value (down 15% to contribute only 9.24% compared to previous highs of 24% in 2007).
Table 2b. Production value of Sunshine Coast agricultural commodities as a proportion of Queensland production value 2007 to 2016.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Agricultural commodity</th>
<th>Sunshine Coast production value as proportion of Queensland production value (%)</th>
<th>Change from 2015 to 2016</th>
</tr>
</thead>
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<tr>
<td>1</td>
<td>Poultry slaughtered</td>
<td>12.1</td>
<td>11.9</td>
</tr>
<tr>
<td>2</td>
<td>Wild caught seafood*</td>
<td>50</td>
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</tr>
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<td>3</td>
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</tr>
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<td>4</td>
<td>Cultivated turf</td>
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</tr>
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<td>5</td>
<td>Dairy milk</td>
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</tr>
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<td>6</td>
<td>Cattle/calves slaughtered</td>
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<td>0.4</td>
</tr>
<tr>
<td>7</td>
<td>Outdoor nurseries</td>
<td>13.69</td>
<td>17.09</td>
</tr>
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<td>8</td>
<td>Macadamias</td>
<td>24</td>
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</tr>
<tr>
<td>9</td>
<td>Eggs</td>
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<td>0</td>
</tr>
<tr>
<td>10</td>
<td>Pineapples</td>
<td>26.2</td>
<td>20</td>
</tr>
<tr>
<td>11</td>
<td>Tomatoes</td>
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</tr>
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<td>12</td>
<td>Ginger*</td>
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<td>4.9</td>
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<td>15</td>
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<tr>
<td>19</td>
<td>Mangoes</td>
<td>0.1</td>
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</tr>
</tbody>
</table>

*new methodology from 2015.
**based on industry sources.

Figure 2b. Percentage change in Sunshine Coast production value as a proportion of Queensland production value from 2015 to 2016.

Source: ABS Value of Agricultural Commodities Produced (Cat. No. 7503.0) (error margin up to 50%); ABARES Australian Fisheries and Aquaculture Statistics, and Fishery Status Reports.
The 2016 Sunshine Coast agricultural production value is dominated by three key industries: poultry ($110.8 m), seafood ($58.1 m) and strawberries ($33.7 m). Combined, these industries constitute more than 60% of the total value of commodities identified within this report. Other significant commodities include cultivated turf ($17.4 m), dairy milk ($16.5 m) and meat cattle ($13.4 m) (Figure 3).

Figure 3. Production value of Sunshine Coast agricultural commodities 2016.

![Sunshine Coast agricultural commodity production values for 2016](image)

Source: ABS Value of Agricultural Commodities Produced (Cat No. 7503.0) (error margin up to 50%); ABARES Australian Fisheries and Aquaculture Statistics, and Fishery Status Reports.

Commodities that have experienced continuous growth in the three years up to 2016 (Figure 4) include cultivated turf, macadamias, tomatoes and bananas. The strawberry, dairy milk, cattle slaughtering and outdoor cut flower industries have increased considerably since 2015, whilst outdoor nurseries show more moderate growth during this period.

Conversely, commodities that have experienced continual decline since 2014 include eggs, pineapples, avocados, mandarins and oranges. Of particular concern is the considerable decline in the local ginger and pig slaughtering industries between 2015 and 2016. Also concerning is the lack of growth of the two major industries over this period: poultry slaughtering and wild caught seafood.
Figure 4. Value comparison of Sunshine Coast agricultural commodities 2014 to 2016.

Source: ABS Value of Agricultural Commodities Produced (Cat No. 7503.0) (error margin up to 50%); ABARES Australian Fisheries and Aquaculture Statistics, and Fishery Status Reports.
3.3 Poultry

Despite a slight decline in Sunshine Coast poultry production volume (-2%) and value (-5%) between 2015 and 2016, this commodity remains the most valuable on the Sunshine Coast (worth $111 m) (Figure 5).

The local industry comprises around 19% of the QLD industry, down around 6% on the previous year. This decline is contrary to general growth in Australian chicken meat production, averaging around 3% annually over the five years up to 2016 (Whitnall 2017).

Figure 5. Value of poultry slaughtered 2007 to 2016.

Source: ABS Value of Agricultural Commodities Produced (Cat No. 7503.0) (error margin up to 50%).

Chicken is Australia’s most consumed meat, with annual consumption estimated at 48.5 kilograms per person during the 2015-16 period, a 6.6% increase on the previous year and almost twice the level of consumption compared to pork or beef (ABARES 2017). Consumption is largely driven by the competitive pricing of chicken compared to other commonly consumed meats (ABARES 2017).

The decline in Sunshine Coast production is potentially due to stricter regulations surrounding poultry farming in the region, particularly the required distance from residences, potential odour and the impact of traffic generation on road networks (Gardiner 2016; Sunshine Coast Council 2017). In addition, local councils are concerned that poultry farming contradicts the sustainability values of the local area and may tarnish the tourism appeal of the Sunshine Coast (Gardiner 2015).
3.4 Seafood

In the 2015-16 period, the Mooloolaba Spit, the Sunshine Coast’s hub of fishing activity, yielded a total estimated seafood value (i.e. beach price) of $58.09 million, around 5% higher than the 2014-15 period ($55.12 m).

The local industry delivers high quality fresh and chilled products. The local industry is vertically integrated, with a strong down-channel orientation (from boat to retail stores) providing a unique competitive advantage. However, limited up-channel communication presents an opportunity to improve integration in the future. An additional opportunity for the sector is value-adding to obtain higher margins.

Seafood production volume and value on the Sunshine Coast was relatively stable compared to the 2014-15 period. This lack of growth reflects continued logistical problems faced by the seafood industry on the Spit, including geographical constraints that prevent expansion, and continual upgrades of the Bruce Highway that have affected transportation links (Hastings and Lawley 2016b). In addition, a decline in the number of boats and licenses granted have led many Sunshine Coast businesses to increasingly source seafood from outside the region (e.g. from North QLD, NT and WA). Reduced rainfall compared to the previous years has also caused lower catch volumes, particularly of prawns (McCarthy 2016).

"The previous three or four years have been pretty good due to the fact that we had good rains, good floods in the river systems and the recruitment of the product was quite good. This year there wasn't as much rain."

Tony Pinzone, Mooloolah River Fisheries

Source: McCarthy 2016
3.5 Strawberries

The volatility of the Sunshine Coast strawberry industry continued in 2016, with significant increases in production volume (up 185% to 5,425 tonnes) and value (up 194% to $33.72 m), leading to the highest local strawberry production figures over the past decade (Figure 6). This resurgence has re-established Sunshine Coast strawberries as a major contributor to the QLD industry, comprising around 25% of QLD volume and value in 2016.

Figure 6. Value of strawberry production 2007 to 2016.

There are two major causes for this increase. Weather conditions on the Sunshine Coast during the 2015-16 period were generally warmer and slightly drier than the previous year (BOM 2017), when heavy rains destroyed large proportions of crops (Russell 2017). In addition, a new locally-adapted variety of strawberry (Red Rhapsody), trialled by the QLD Department of Agriculture and Fisheries (DAF) in 2015, became popular in 2016, particularly in southern QLD (Red Jewel Nursery 2016). This early season variety is less susceptible to wilt and other conditions that damage strawberry plants. This, in addition to the better weather conditions, produced larger amounts of good-sized, high quality fruit.

Further increases in value are due to increased exports, growing organic strawberries in line with current consumer trends, diversifying into other types of berries (McCarthy 2015b), and identification of markets for ‘ugly’ fruit (imperfect strawberries), which comprises around 30% of crops (McCarthy 2015c; Nichols 2016b).

“You can’t get mother nature to be perfect so we need an outlet for these things too because they’re really large fruit, they’re heavy weight and if we have to throw them out, that makes our cost of production that much higher.”

Di West, Strawberry farmer, Beerwah

Source: Nichols 2016b
3.6 Cultivated turf

Cultivated turf is the 4th most valuable commodity on the Sunshine Coast and has experiencing continued growth since 2014 (Figure 7). In 2016, the industry was estimated at a value of $17.4 million, a 29% increase since 2015. Production similarly increased, rising from 392 tonnes in 2015 to 492 tonnes in 2016. Sunshine Coast cultivated turf comprised around 23% of the QLD industry in 2016, up from around 16.7% in 2014.

Figure 7. Value of cultivated turf production 2007 to 2016.

Source: ABS Value of Agricultural Commodities Produced (Cat No. 7503.0) (error margin up to 50%).

A third of all turf growers in Australia are located in Queensland, where the weather is more tropical, and in areas where there are a large number of residential properties, sporting venues and institutional buildings that require landscaping.

This increase is contrary to national trends, which have declined by an average annual rate of 1.7% over the past five years. This decline has been explained as being due to volatile dwelling commencements (up around 6.3% in the 2015-16 period compared to the previous year) (IBISWorld 2017), growth in multi-unit construction and high-density living, lack of water availability, reduction in consumers’ discretionary incomes, the increasing cost of fertiliser, and the use of self-planted turf seed and alternative ground coverings, such as paving, stones, decking and artificial turf (Allday 2017).

In contrast to national conditions, the thriving Sunshine Coast cultivated turf industry reflects considerable new home construction in the region, with the value of building approvals in the 2015-16 period up 114% since the 2012-13 period (Sunshine Coast Council 2016b). This includes major development projects, such as ‘Aura’, which is currently the largest residential development project in Australia (Sunshine Coast Council 2016a). Increased demand for landscaping following severe weather events may also have boosted the local industry (Allday 2017).
3.7 Dairy cows and milk

Sunshine Coast dairy cow numbers increased by 280% in 2016, now estimated at 10,309 head. The value of Sunshine Coast milk production similarly increased, up 252% to $16.47 million, compared to $4.68 million in 2015 (Figure 8). In 2016, the Sunshine Coast comprised 7% of the QLD dairy industry, a considerable increase on the previous year (2%).

This growth is significant considering Australian milk production decreased by 2% in the same period. This reflects reduced production in southern states due to severe flooding (Dairy Australia 2016) and slashed prices paid to farmers by Murray Goulburn and Fonterra (Bathersby 2016). Many farmers left the industry resulting in reduced milk supply and closure of milk processing plants (Smith 2016). Dairy farmers also face other challenges that impact farm profitability, including high input costs, variable farmgate milk prices, extreme weather events and polarised wet-dry seasonal conditions (McNamara 2017).

Figure 8. Value of milk production 2007 to 2016.

Source: ABS Value of Agricultural Commodities Produced (Cat No. 7503.0) (error margin up to 50%).

Increased Sunshine Coast production is predominantly due to soaring local milk sales following consumer boycott of cheap supermarket milk and backlash over farmer payments (Bathersby 2016). Maleny Dairies, an award-winning milk processor on the Sunshine Coast, reported a 70% increase in sales, working closely with IGA and Woolworths to increase sales through major outlets. In addition, they attracted more milk supplying farms by paying a higher rate per litre of milk than their competitors (Moffat 2017; Nichols 2017b).
### 3.8 Eggs

Sunshine Coast egg production had a second successive annual decline in 2015-16, falling by 18% to 4,297,141 dozen. The Sunshine Coast egg industry is valued at $9.62 million, down 13% on the 2013-14 period (Figure 9). Sunshine Coast egg production volume and value comprised around 4.6% of the QLD industry in 2015-16, falling by around 15% compared to the previous year.

**Figure 9. Value of egg production 2007 to 2016.**

![Graph showing the value of egg production from 2007 to 2016.](image)

*Source: ABS Value of Agricultural Commodities Produced (Cat No. 7503.0) (error margin up to 50%).*

This decline in growth is contradictory to state-wide and national trends, where egg production increased by 4.1% and 3.1%, respectively, in the 2015-16 period, following a bounce back from the avian flu outbreak in 2013-14 that resulted in widespread chicken culling and a national loss of production of around 4% (Ruhnke 2015; Cloutman 2017). Whilst per capita annual consumption of eggs has fallen slightly (from 174 in 2012-13 to an expected 167 in 2017-18), egg demand has increased, with consumers progressively using eggs as an alternative source of protein in lieu of meat due to dietary preferences and needs, and due to the greater rate of price increase in meat compared to eggs (Cloutman 2017).

The shift towards free-range eggs is continuing, with consumers increasingly concerned about animal welfare in cage egg production systems, and with major supermarkets and food service establishments phasing out caged eggs (Cloutman 2017). In 2016, there were over 200 commercial free-range egg producers in Australia (Ruhnke 2015). Free-range eggs now represent around half of all table egg production, up from around 30% in 2009 (Locke 2017).

However, growth in the free-range egg industry has been limited due to the new mandatory legal definition of free-range eggs, introduced in March 2016, which sets the maximum
stocking density at 10,000 birds per hectare (Cloutman 2017). In addition, cage eggs still comprise the majority of the market (around 51%) due to their cheaper average price per dozen ($3.24) compared to free-range eggs ($5.40) (Locke 2017).

"The reason that many egg producers continue to produce caged eggs is because there’s strong demand for them. If there was more demand for free-range eggs then they’ll respond to that and you’ll see a continuation over time."

Rowan McMonnies, managing director of Australian Egg Corporation Ltd (AECL)

Source: Locke 2017

The decline in the Sunshine Coast industry may reflect a shift towards smaller free-range farms, rather than large-scale cage and barn operations. In addition, warmer climate is known to cause chickens stress, reducing egg production. Therefore, it is possible that the generally drier and warmer conditions throughout 2016 may have impacted production volume (Hulzebosch 2005).
3.9 Pineapples

Sunshine Coast pineapple production experienced a third successive year of decline, with around 11,000 tonnes of produce valued at around $7.7 million in 2016 (Figure 10). This is a 40% fall in production and 33% fall in value compared to the previous year, and almost half the value recorded in 2013 (21,009 t; $13.37 m). A major concern is the fall in the Sunshine Coast industry as a proportion of QLD, from 22% in 2014/2015 to 15% in 2016.

Figure 10. Value of pineapple production 2007 to 2016.

Source: ABS Value of Agricultural Commodities Produced (Cat No. 7503.0) (error margin up to 50%).

Australian pineapple production has been negatively affected by domination of the processing sector by single enterprise, high costs of entry and imports of lower cost produce. This has particularly reduced the cost of processed pineapple, making it difficult for fresh produce providers to compete (Hort Innovation 2017b). In QLD, reduced pineapple production may reflect longer term consequences of the severe storms that destroyed crops and disrupted production cycles in early 2015 (ABC Rural 2015; McCarthy 2015a). Pineapple plants can take two to three years to produce fruit and, therefore, these storms adversely affect production figures in subsequent years.

The Sunshine Coast is particularly prone to heavy rainfall causing fertiliser leaching. A new fertiliser trialled in the Sunshine Coast over the past year is providing a solution. Farmers have noted bigger, greener fruit, and reduced fertiliser requirements, saving time and money, and minimising water contamination (Nichols 2017c).

"The problem with normal fertiliser practice is that if you have a very large storm you can lose a lot of your nutrients through leaching. With the slow release trial ... you don't lose the nutrients through leaching, so saving the environment and saving the cost to the farmer."

Robert Frizzo, Pineapple Farmer, Sunshine Coast

Source: Nichols 2017c
### 3.10 Tomatoes

Sunshine Coast tomato production and value increased by around 260% in 2016, with 3,457 tonnes valued at $6.24 million (Figure 11). In 2016, the Sunshine Coast industry comprised around 5.2% of the QLD industry, up from around 1.5% in 2015. The growth rate in the Sunshine Coast industry far exceeded the QLD industry rates, where production increased by around 9.2% and value remained stable (up 0.02%).

**Figure 11. Value of tomato production 2007 to 2016.**

Tomatoes are part of the staple diet for many Australian households. In the 2015-16 period, households purchased on average 558 g of tomatoes per shopping trip and annual per capita consumption was estimated at 10.25 kg (Hort Innovation 2017a). Under cover tomatoes, typically marketed as truss or vine-ripened tomatoes, have increased in their share of tomato industry revenue, due to the establishment of large-scale tomato greenhouses (Johnson 2017).

In the 2015-16 period, QLD produced 57% of the fresh market tomatoes in Australia, growing tomatoes all year round. Nationally, around 53% of tomatoes are sent for processing (Hort Innovation 2017a).

Increase in the Sunshine Coast industry may reflect more sustainable practices aimed at reducing product waste and a focus on product quality over quantity (Noosa News 2016).

> “We have no plans to expand in more production because that could lead to loss in quality”

*Peter Seghers, Owner of Noosa Reds Tomatoes*

*Source: Noosa News 2016*
3.11 Ginger

In the 2015-16 period, the Sunshine Coast ginger industry recorded significant falls in production (down 57% to 1,823 t) and value (down 69% to $5.7 m), comprising only 20% of the QLD industry compared to an estimated 50% in the previous period (Figure 12). Katarina Keating from the Australian Ginger Industry Association (AGIA) explains this decline as predominantly due to the movement of production beyond the Sunshine Coast region to Gympie, Maryborough and Bundaberg.

Figure 12. Value of ginger production 2007 to 2016.

Local decline in value mimics the QLD-wide downturn from $37 million to $28.5 million between 2015 and 2016, despite an 8.2% increase in production. The fall in value reflects the major price drop in ginger due to oversupply (Nichols 2016a, Nichols 2017a).

"Last year there were a lot of long faces at meetings because the prices were so poor."
Shane Templeton, Templeton Ginger, Eumundi

Source: Nichols 2017a

One of the main aims of the AGIA is to exploit export markets for Australian ginger (Keating 2016). In line with this aim, Sunshine Coast ginger has been made accessible to Japanese markets, with the first seven tonne shipment delivered in December 2016 (TIQ 2016). Next years’ update will highlight whether the Japanese market has a significant impact on ginger production in the region.
3.12 Outdoor cut flowers

Whilst the contribution of the Sunshine Coast outdoor cut flower industry to the local food and agribusiness sector is relatively small (around $890,000), production volume and value increased considerably in 2016, almost doubling since 2015 (Figure 13). In 2016, the local industry comprised around 5.5% of the QLD industry, up from around 2.4% in the previous year. This reflects lack of growth in the overall QLD industry comparative to the local industry (DAF 2017).

At the national level, floriculture experienced an average annual decline of around 3.3% between 2012 and 2017 (Kelly 2017). This decline is explained as due to reduced household discretionary income, rising imports from Colombia, Ecuador and Kenya, reduced export earnings and decreasing consumer demand, with flowers increasingly replaced by alternative products, such as chocolates and gift vouchers (DAF 2017; Kelly 2017). In addition, many established growers are retiring and those in peri-urban areas are increasingly selling land to housing developers (DAF 2017).

Growth in the Sunshine Coast industry reflects increased production of Australian native flowers and wild flowers in line with current consumer trends (DAF 2017), and the highly successful Queensland Garden Expo held annually on the Sunshine Coast that attracts over 35,000 visitors each year (NGIQ 2018).

Figure 13. Value of outdoor cut flower production 2007 to 2016.
4 The 2016-17 Processing Sector

The Sunshine Coast processing sector comprises a diverse group of processors, each with different business strategies and objectives, and dependent on different local and non-local resources and supply chains. Based on the weighted basket of processors, who have consistently reported turnover and who represent around 73% of the processing sector, the total value of the 2016-17 Sunshine Coast value-add sector is estimated at around $390 million. Within the group of processors there is considerable volatility in growth, with some experiencing major increases and others experiencing major decreases.

In general, value-add industries not dependent on production in the region exhibited strong positive growth. Processors who achieved growth also cited increased consumer support for locally grown produce; increased consumption of health products; increased range in capabilities and products; construction of new facilities; and improved marketing and promotional activities as contributing factors. One processor, who experienced significant growth (80%), explained growth as due to the launch of their products within major retailers. This increased their customer base and raised awareness of their business and their products.

Industries dependent on supply of raw local resources (i.e. macadamias and seafood) generally experienced negative growth over the 2017 period due to supply issues resulting from poor weather conditions. Processors who experienced negative growth also cited purposeful attempts to reduce productivity due to the cost of production; change in ownership; business restructuring; and change in business strategy as contributing factors. Despite loss of product lines mentioned as a significant factor in the previous update, processors did not refer to this as being significant in the 2016-17 period.

The overall stable growth of the processing sector is partly due to many businesses focussing on investment in new facilities and product development. The 2019 Update will identify whether these initiatives have been successful.
5 Conclusion

Combining the total 2015-16 value of agricultural commodities tracked in this report ($308.44 m) and the 2016-17 value-add figure ($390 m), the total value of the Sunshine Coast food and agribusiness sector is estimated at $698.44 million, an increase of around 4.2% on the previous update ($670.54 m).

The value of tracked agricultural commodities on the Sunshine Coast has increased by 9% from 2015 to 2016, a moderate increase compared to the previous reporting period (up 23% from 2014 to 2015). This reflects variable growth in the major industries. Whilst, there was strong growth in several higher-value industries (e.g. strawberries, cultivated turf, dairy milk, cattle and calf slaughtering, macadamias and tomatoes), others recorded significant decline (e.g. ginger, eggs, pineapples and pig slaughtering). Of particular concern is the decline in the local ginger industry, now comprising only 20% of the QLD industry compared to 50% in the previous period.

The two most valuable commodities (poultry: -5%; and wild caught seafood: +5%) recorded relatively stable production values compared to the previous period. This lack of growth is largely due to restrictions imposed by heavier regulations on the former and logistical issues facing the latter. Another area of concern is the decline of the poultry and egg industries, reflecting the general shift towards more ethically and environmentally sound practices.

The processing sector exhibited variable growth, with some processors experiencing significant falls due to reduced yields and restructuring, and others experiencing significant increases due to placement of products in major retailers, and increased consumer support and demand for products. Overall stable growth in the processing sector reflects the beginning of several new initiatives, including investments in product development and new facilities aimed at increasing returns in the future.

The tracking of major agricultural commodities on the Sunshine Coast and an assessment of value added by major processors within the region is essential for understanding the overall value of the local food and agribusiness sector. This report discusses several commodities in detail, in particular those that contribute significantly to the sector and those that have experienced major changes in production volume and value since the previous reporting period. This, in addition to explanations of growth in the local processing sector, provides a solid basis for further research into various local commodities and local processing capabilities.
References


Nichols, J., 2016b, Strawberry growers on Sunshine Coast diversify with 'ugly' fruit and boosting exports. ABC Rural, 15th September 2016,


Appendix: Climate Data

The Bureau of Meteorology (BOM) 2016 climate data recorded at the Sunshine Coast Airport Station (BOM 2017) was compared to the average monthly data collected since 2007 to highlight the potential influence of weather patterns on production volume.

The data indicate generally drier and warmer conditions throughout 2016. The total annual rainfall in 2016 (1,226.6 mm) was considerably less than that recorded in 2015 (1,501 mm). Higher than average rainfall was recorded in January (up 29.5%) and June (up 92.9%), whilst significantly lower than average rainfall was recorded throughout the majority of the year.

The mean monthly temperature in 2016 (16.1 - 26.6 degrees) was marginally higher than 2015 (15.9 - 26.3 degrees). Considerably higher than average maximum temperatures were recorded in April (up 4.8%), May (up 10.1%) and July (up 6%), and considerably higher than average minimum temperatures were recorded in April (up 6.9%), August (up 12.8%) and September (up 8.7%).

Different agricultural commodities require specific weather conditions at different times of the year. For example, on the Sunshine Coast, strawberry production occurs in winter and early spring (June to September), where temperatures are cooler and rainfall is moderate. Pineapple production occurs during the summer months, with temperature being the most important variable (requirements: day - 32°C; night - 20°C). However, over exposure to sun can cause sun damage (DAF 2018).

Very wet weather and severe storms commonly disrupt agricultural production cycles on the Sunshine Coast. Agricultural commodities most susceptible to storm and flood damage include strawberries, cultivated turf, outdoor nurseries and cut flowers, macadamia, pineapples and ginger. During the ginger planting period (August to October), excessive rainfall often causes rotting (DAF 2018).
Climate data from the Sunshine Coast Airport Station (BOM 2017)

### Monthly mean maximum temperature

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### 2016 difference from mean (%)

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#### Additional notes:
- **Rain** values are negative percentages indicating rainfall below the mean.
- **Max temp.** values are negative percentages indicating maximum temperature below the mean.
- **Min temp.** values are negative percentages indicating minimum temperature below the mean.