Food Futures
Opportunities and Constraints for Small scale production, processing, marketing and distribution on the Sunshine Coast
This research was funded by the Queensland Government - South East Regional Services as part of the South East Queensland Short Supply Chains Initiative.

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Executive Summary

The Queensland Government, South East Regional Services funded this project as part of the South East Queensland Short Supply Chains Initiative which aims to; increase the economic value of the contribution from local food producers, processors and retailers to the region and analyse and develop strategies to support the increase of local distribution networks and increase food based tourism.

This report is the result of an investigation that was undertaken in two parts. The initial survey sought to identify food producers and processors in the Sunshine Coast region with particular attention to smaller producers. This research aimed to establish what was being produced and how much; and to examine issues associated with production, marketing, capacity and interest in meeting local demand and future trends for food production in the region. The second part, a workshop engaging participants across the food value chain, was held to explore in more detail issues associated with food distribution in the region and potential functions and models for the development of a local food distribution hub.

70 food producers engaged in primary producers and food processors agreed to participate in the survey. The majority of respondents were engaged primary producers, with a median age of 41-55 years. The median time in operation of respondents was 6-10 years just over half having entered food production in the last decade. The median land under production was 1-5ha while median property sizes were 11-20ha.

Whilst a large variety of fruits and vegetables were produced by respondents, fruit production dominated with avocados, bananas, strawberries and lychees being the most commonly grown crops. The most commonly produced processed food included jams and preserves and baked goods. The study has identified opportunities to fill gaps in the local food supply chain, finding opportunities for diversification and improved linkages between food producers and processors.

This study found many farmers were shifting from sole dependence on central wholesale markets and large processors to engagement in local direct and intermediate markets. Amongst respondents there was high level of interest in both participating in a local food value chain and in the concept of a local distribution hub. However, producers did express caution about the need to research and develop a model that was fair, and workable given the volumes and availability of produce in the region. The development of a regional brand was overwhelmingly supported by the producers with an understanding that a brand would promote local food production as an industry, speaking to both local consumers and tourists.

There were concerns around maintaining profitability, aging farming population and the impact of residential development on agriculture. However, there was also a strong positive belief in the potential for food production in the region provided that the importance of the industry is recognized and appropriate support is given and maintained.

The examination of the themes coming out of workshop in conjunction with the survey, confirmed that most distribution issues could be addressed by the facilitation of better relationships and collaboration between value chain members rather than new infrastructure. There was strong support for an online information and distribution system.
Sunshine Coast Regional Overview

For the purposes of this analysis the Sunshine Coast Region refers to the entirety of the Sunshine Coast Local Government Area. The Sunshine Coast Region has a total area of 3,126.3 km², comprising 0.2% of the total area of Queensland. The population of the Sunshine Coast has grown to 306,909 (ABS, 2012).

Figure 1  Sunshine Coast Region (Source: OESR, 2012)

Sunshine Coast Agriculture: An Historical Perspective

Food production in the Sunshine Coast region has been marked by experimentation and diversification as a means of adapting to the challenges, of weather, transport to markets and the impacts of global commodity markets. The agricultural history of the Sunshine Coast began with the grazing industry in the 1850s with pastoral leases extending across the Sunshine Coast area with the exception of the central Maroochy area. The central Maroochy area where Bunya pines grew was an important Indigenous food and cultural resource and was protected by a proclamation by Governor Gipps until the 1860 (Gregory, 1991). Crown lands were opened for the purposes of selection from the 1860s which lead to settlement in the region and to the early unsuccessful attempts to produce sugar in the Mooloolah River area. However, grazing prevailed (Gregory, 1991). In the 1870s land selection increased and many early selectors adopted a mixed
farming approach that focused on cash crops including the production of maize, sugar cane, bananas, and pumpkins with cattle grazing (Gregory, 1991). The advancement of agriculture was particularly hampered by lack of road access to markets and processing facilities. The development of small scale sugar milling facilities in Buderim during the 1870s encouraged the expansion of sugar production. However, the vagaries of sugar prices lead to the development of fruit growing as a means of diversification (Gregory, 1991).

Diversification and experimentation were necessary for Sunshine Coast farmers to survive. Coffee, an early experimental crop, was successfully grown in the Buderim area in the 1870s and became Queensland’s leading coffee growing area by 1911 (Gregory, 1991). However, profitability was hampered by high cost of labour and lack of a local market (Skerman, Fisher, & Lloyd, 1988). From the 1880s to World War 1 saw the expansion of settlement and agriculture in the region. The railway line, completed in 1890, established reliable transport enabling the expansion of agriculture. This period was marked by the introduction of strawberries, cape gooseberries sold fresh and for jam and citrus for the domestic and export market. Pineapples were also successfully established leading to a number of small private canneries emerging at this time. Between 1880s and World War 1, the Sunshine Coast hinterland became one of the most productive fruit growing regions in Queensland. During this time sugar production became well established with the launch of the Moreton Central Mill in 1896 (Gregory, 1991). The development of dairying in the region was fostered in 1890s by the Department of Primary Industries travelling dairy which demonstrated scientific dairying practice (Skerman, Fisher, & Lloyd, 1988). Dairying was based on the supply of cream for the production of butter. Prior to World War 1 Cooperative Butter factories were set up in Kin Kin, Cooroy, Pomona, Maleny and cream railed to Caboolture and Gympie (Lloyd, 1981).

The interwar period was characterized by rapid growth in fruit production and subsequent issues with over supply, marketing and transport issues. A great influx of returned soldiers took up small fruit blocks for the growing of bananas (Lloyd, 1981). By the 1930s banana growing was in decline due to poor prices and dairying replaced banana production as a more profitable enterprise (Lloyd, 1981). During the 1920s the green bean industry was pioneered in Cooroy. It was during this period that producer cooperatives were established to assist with the marketing, distribution and transport to local, domestic and export markets (Gregory, 1991). The development of cooperative processing enterprises post World War II saw an enormous expansion in ginger and pineapple production. During this period, dairying declined due to the falling demand and reduced prices for butter associated with the advent of the European Market. By the late 1960s there was a decline in the number farms and increase in size due a shift to bulk milk production.

The 1970s marked the beginning of a transition from a predominantly rural and agricultural region to a peri-urban region driven by land subdivision and an influx in population. Some of the newcomers came to the Sunshine Coast with funds to invest in agriculture. This period saw the growth of tropical fruit production notably avocados and macadamias. During the 1990s the Sunshine Coast became one of the fastest growing regions in Australia that was reflected in the subdivision of farmland for rural residential development. Dairy deregulation in 2000 and the closure of Moreton Central Sugar Mill in 2003 marked a decline in traditional agriculture in the Sunshine Coast Region.

This brief overview of food production in the Sunshine Coast region shows that the food producers have always faced challenges with distribution, marketing, transport and the impact of national and global economic forces. It is encouraging to see that as some forms of food production
decline new enterprises evolve. This industry continues to find innovative ways to deal with the change through diversification, experimentation and cooperation.

**Current State of Food Production**

The total value of agricultural production in the Sunshine Coast Region in 2005–06 was $198.3 million, 2.3% of the total value of agricultural production in Queensland ([ABS], 2008). The value of agricultural production for 2005-2006 represented 3.1% of the Gross Regional Product for the Sunshine Coast Local Government Area (Sunshine Coast Regional Council, 2008). The value of the Sunshine Coast as an agricultural region is highlighted by the fact that it produces 2.3% of the State’s agricultural production on an area that accounts for 0.2% of the State’s land.

The value of the region’s intensive production is derived predominantly for crops which accounted for $1.31.2 million (66%), followed by livestock slaughtering producing $48.7 million (25%) and livestock products valued at $17.8 million (9%) (ABS, 2008). Intensive fruit and vegetable production was valued at $90.1 million (45%) of the total value of agricultural production in the region ([ABS], 2008). The majority of this value was derived from fruit production, the most valuable crops being strawberries, pineapples, macadamias and avocados, followed by bananas, stone fruit, mandarins and limes. The most valuable vegetable crops in the region in order were ginger, mushrooms, zucchini, pumpkin, Asian green, lettuce, cucumbers and tomatoes (ABS, 2008). Even though the majority of the value of agricultural production is derived from crops, Shelton and Freiser (2009) note the Sunshine Coast produces only 20% of the fruit and vegetables consumed in the region. This would indicate that there is potential for increased local vegetable production and marketing within the region.

**Trends over time**

Agriculture and food processing has been transformed on the Sunshine Coast over the previous decades by shifting global and national economic policy and population trends. Migration to the Sunshine Coast has placed upward pressure on land values and when combined with rising production costs and diminishing market value, industry deregulation and loss of local processing capacity, many industries such as fruit and vegetable growing, dairying and sugar have declined within the region.

Estimates of the contribution that Agriculture Forestry and Fisheries make to the Sunshine Coast Local Government Area have declined from 3.1% of GRP in 2005/2006 (Sunshine Coast Regional Council, 2008) down to 2.0% of GRP in 2007/2008 which was estimated at $8.9 Billion (Sunshine Coast Regional Council, 2009). This indicates the relative contribution of agriculture as a percentage of GRP has declined when compared to the growth areas of property and business services and construction.

**Project Background**

The Sunshine Coast needs to develop an effective local food system encompassing, food production, distribution, marketing and processing to support economic development, local food security and to support the maintenance and preservation of rural lands on the Sunshine Coast through active engagement in primary production. One of the key barriers to promoting food production and developing all elements of local food system value chains on the Sunshine Coast is
an absence of available information regarding current food producers, products, production, marketing and processing specific to this region. This information is critical to,

- the identification and development of new linkages in food value chains within the Sunshine Coast Region,
- assist in the expansion and development of a consistent diverse supply of produce to serve the growing number of farmers markets on the Sunshine Coast,
- inform the development of a Sunshine Coast Regional Food Hub and new local distribution and marketing systems, and
- enable the development of a local food producer’s network allowing for the dissemination and sharing of information between food producers on the Sunshine Coast.

Existing research on Sunshine Coast Regional Food Security completed by Shelton and Frieser (2009,) for the Sunshine Coast Regional Council, utilised ABS data to compare food production on the Sunshine Coast to the food consumed on the Sunshine Coast across a range of agricultural commodities, finding that consumption outstripped production in all commodities except milk and poultry. Shelton and Frieser (2009) also developed case studies around interviews with a single farmer representing each of the agricultural commodities. Whilst this information is instructive in determining the food security vulnerability and opportunities on the Sunshine Coast, it does not capture or represent detailed information regarding production, marketing and processing for the majority of farmers and food producers in region. However, Shelton and Frieser (2009) did recommend that Sunshine Coast Regional Council help to overcome the barriers to farmers engaging in food production by establishing and maintaining a data base of food producers as a resource for data collection and dissemination of information.

Bradley (2011) conducted more recent research examining food production in the Mary Valley for the Sunshine Coast Food Futures Project, an initiative of Sunshine Coast and Gympie offices of the Queensland Department of Employment, Economic Development and Innovation. Bradley (2011) surveyed 98 producers to establish the types of food produced and quantity, and discussed the issues that affect production and marketing of the produce, future plans and capacity; and views on the current trends associated with food production in this area. Bradley (2011) identified a diverse range of fruits and vegetables produced in the Mary Valley with avocados, mangoes and macadamia nuts the most prevalent. The study also has identified opportunities to fill gaps in food supply chains and to improve ways to link growers/producers with potential customers. The study also found there was overwhelming support for regional branding and keenness to participate in local food supply chains.

The research conducted by Bradley represents only the Mary Valley and needs to be replicated across the whole of the Sunshine Coast Region to accurately capture and represent food production for the whole of the Sunshine Coast. Although Bradley establishes the desire of farmers to be involved in local food supply chains and identifies issues associated with marketing and distribution, the research cannot address these issues from the perspective of consumers, both individual and commercial consumers, such as restaurants and local food outlets. In order for more effective linkages to be developed between producers and consumers in local food value chains, the issues of production, marketing and distribution need to be understood from the consumers’ perspective and other stakeholders in the food value chain.

Within the Sunshine Coast context, DEEDI commissioned two pieces of research concerning local food chains; the first focusing on growers and the second on restaurants and cafes. Smith (2011) conducted a semi-structured grower survey based on the same survey instrument utilized by
Bradley (2011) examining local food chain gaps and opportunities for the Sunshine Coast. Smith (2011) surveyed 34 medium to large scale food producers who were known to DEEDI. Of the wide range of food production sectors surveyed, the largest sectors represented were producers of lychees, strawberries, avocados and custard apples. Although the largest group of food growers sold their produce through centralized wholesale markets, 41% sold some of their produce locally and more than half of those not selling food locally were interested in participating in local food supply chains, although this interest was tempered by caution. The principal limitation of this study was the limited sample size and the fact that there was no coverage of small and niche growers who were identified by the survey as the future of food production on the Sunshine Coast. Micro to small scale growers are ideally suited to the direct and intermediate marketing and distribution associated with local food supply chains and warrant more detailed investigation.

The second study for DEEDI by Lawrence and Cheung (2011) surveyed 100 chefs and restaurant managers across the Sunshine Coast and Gympie to examine their attitudes and behaviours in relation to purchasing local food. Although the majority of respondents stated a strong preference for local food this was not reflected in purchasing patterns (Lawrence and Cheung 2011). The key barriers identified as contributing to this disparity included price and competition, insufficient knowledge of origin of produce or where to purchase, inconsistent supply and no central access point from which to source produce (Lawrence and Cheung 2011). This study highlights distribution and marketing as critical issues for the development of a robust local food economy and targets the opportunity and need for all sectors engaged in the local food supply chain to address these issues collectively.

**Project Description**

**Research Aims**

This project aims to examine the current state of production, marketing, distribution and processing in the Sunshine Coast Region and explore the marketing and distribution issues and possibilities from the perspective of both small scale food producers and participants in the local food supply chain.

The research,

- Examines existing and desired supply chain linkages and gaps;
- Identify the gaps in the supply chain that present opportunities for existing and new growers to fill;
- Determine what is needed to help producers fill these gaps, such as further training or business support;
- Examine issues of co-ordination of transport, storage, processing and distribution incorporating the perspectives of all players across the local food supply chain.

**Research Methods**

For the purposes of this study the term local will refer to the Sunshine Coast Regional Council Area. This project involved the administration of a food producer survey targeting people engaged in primary and secondary food production on micro to small scale. Food producers encompassed
anyone involved in primary production producing food and those undertaking some form of processing and value-adding. The survey was based on the survey conducted of Bradley (2011) and Smith (2011) to complement the existing data and to ensure comparability across the Sunshine Coast region and across food production sectors.

The food producers were accessed,

- Through the current database of Seasons of the Sun,
- Attending a hinterland food event as part of the Noosa Food and Wine Festival,
- By approaching stallholders at 8 local Farmers Markets,
- By approaching growers known to the researchers,
- Snowballing – being referred to other food producers known to the participants,
- Through invitations to participate disseminated through community organisations and businesses such as Montville Village Association and Barung Landcare, Maple Street Coop, Mapleton and District Association, Nutritech Solutions, Beerwah Fruit growers Coop.

Surveys were administered by the researcher in person or over the telephone. An electronic version of the survey was prepared for distribution through third party channels such as businesses to maintain privacy of their client or supplier base.

Notes were taken during survey of ad hoc comments of particular relevance to the project, and summarised as support for the analysis of the survey. The survey data was entered into PSPP and Excel and statistical analysis of frequencies conducted.

The second stage of this research involved a workshop to explore the issues associated with the development of a local food distribution system that is integral to the development of a robust local food value chain. Individuals from the following sectors were invited to participate,

- the retailing of food and food service, such as green grocers, cafés, restaurants, caterers, institutional food service providers
- farmers market managers
- food processors
- food producers
- other local food system stakeholders

The workshop was conducted according to the process (See Appendix 2) by the facilitator with the observer recording the key issues and ideas raised in the course of the discussion. Workshop participants were selected to represent a cross section of the food value chain to enrich the discussion and awareness of the needs and issues experienced by other sectors of the local food supply chain and encourage collaborative problem solving and ideas generation regarding distribution and the development of local food supply chains.

The distribution workshop was attended by nine people representing primary producers, food processors; retail outlets and farmers market managers. Although eager to attend and assist, on the day food service operators and distributors were unable to attend. Amongst the primary producers there was a cross section ranging from well-established larger growers, with effective established and diverse distribution channels, and a newer grower exploring distribution options. This group reflected the growing complexity and diversification of food production with four
members of the group engaged in primary production as well as farmers market, retail outlets and distribution.

**Participant Profile**

**Food Producer Survey**

The survey was completed by 70 food producers. Of the people directly approached 35 did not wish to complete the survey whilst others could not be successfully contacted. Electronic surveys were distributed to five outlets to be distributed to suppliers and clients. From these channels we received only one response.

The respondents included both primary producers and food processors. *Error! Reference source not found.* indicates, of the respondents, the largest group was full-time primary producers followed by food processors. With the overlapping nature of the categories, 36% of respondents were engaged in some form of food processing and 77% were involved in primary production.

The median age of respondents was 41-55 years. Figure 3 Food Producer Status by Ag indicates full time primary producers tended to be older than median age, with the single largest group surveyed aged between 56 and 65 years old. Nearly half of full-time primary producers surveyed were over the age of 55 years old. The part-time primary producers and primary producer/food processors tended to between 41-45 years, in contrast to the food processors with the largest group under the age of 40 years old. This younger group of food processors may be associated with the lower barriers to entry and the greater interest in this form of food production for younger people. Into the future full-time primary producers will face the highest levels of attrition due to aging and retirement.

![Figure 2 Food Producer Status](image-url)
Figure 3 Food Producer Status by Age

Figure 4 Hours Worked by Food Producer Status shows the majority of respondents worked in excess of 40 hours per week on food production activities. Comments relating to this question revealed that it was not uncommon for primary producers to work in excess of 12 hours per day and longer in peak production times. For many producers long hours limit their capacity to participate in activities outside production.

Figure 4 Hours Worked by Food Producer Status

Figure 5 Food Producer Status by Time in Operation indicates more than half of respondents had entered into food production within the previous decade. The majority of these recent entrants
into the industry were food processors. This concentration of food processors in the last decade coincides with the rise of food culture and the recognition of the need to diversify to incorporate value-adding as a part of primary production.

The single largest group was the primary producers who had been in operation for more than 30 years. This group has adapted to declining prices and changing markets to sustain long term engagement in primary production. Amongst longer term primary producers there was a group that had diversified into food processing to complement their primary production as a means of sustaining their businesses.

Only 2% of food producers started their operation in the decade between 1982 and 1992. This may indicate a lack of entrants into food production or higher levels of attrition amongst producers entering at this time. This decade was marked by high interest rates and recession that may have impacted on capacity to enter production and their capacity to sustain debt. This decade is also associated with increasing population on the Sunshine Coast and subdivision of rural land for residential development which coincided with a decline in primary production businesses. In spite of this there appears to be a sufficient optimism in the industry to encourage new entrants in the last decade.

**Figure 5  Food Producer Status by Time in Operation**
Median property size was 11-20 ha whilst the median land area under production was 1-5 ha. Figure 6 shows the contrast between property sizes and the much smaller areas under active production. Amongst respondents, food production is undertaken across a range of scales but the most common was intensive production associated with horticulture as reflected by the Agricultural Census 2005-2006 for Sunshine Coast where vegetable production areas averaged 3.4 ha and orchard and nut crops 7.9 ha. The small and intense nature of primary production currently practiced in the region suggests there is potential for peri-urban areas to be more fully utilized for food production. The difference between the area of properties and the area under production indicates that there is also land capacity for expansion of production.

Figure 7 Land Uses
Figure 7 Land Uses indicates that the predominant land uses on properties engaging in food production were primary production and food processing. This group excludes people engaged solely in food processing. Whilst there was some evidence of tourism, accommodation and farm shop activities, respondents expressed a strong interest in diversifying from primary production into these areas. The implementation of these diversification plans to establish farm shops and commercial kitchens were hampered by local government planning issues and state government regulations.

**Principal Findings**

**Current State of Food Production**

**Primary Production**

Figure 8 Primary Production

Figure 8 Primary Production shows the wide range of produce grown in the Sunshine Coast region with a prevalence of subtropical fruit production. The greatest single group of producers grow avocados followed by bananas, lychees, persimmons and strawberries. The prevalence of these crops reflects high levels of support, research and development and extension provided by the Queensland Department of Primary industries from the 1970s to the 2000s. These crops represent a legacy of earlier investment in primary production. These industries have also been beset by issues of seasonal gluts that have been associated with increasing numbers of strawberry producers, declining export markets for persimmons and reduction in sales to traditional processors such as Heinz (formerly Golden Circle). More recent entrants into orchard production include olives, feijoas and native foods; these represent a new wave of horticultural crops that
have emerged without the support of the Queensland Government. These new enterprises represent a shift to combining primary production with value-adding.

With the exception of a small number of larger growers of tomatoes and mushrooms, most vegetable production was undertaken on a market garden scale growing a diverse range of seasonal vegetables and herbs. These producers are more recent entrants into the industry and are connected to the local food value chain by growing for farmers markets and local retailers.

There were a small number of animal based primary producers focused on niche markets such as organic beef production through direct sales to the public as opposed to traditional supply chains. The milk producer represents a new post-deregulation enterprise where dairy farmers have diversified into small scale milk processing.

**Figure 9 Vegetable Production**

![Vegetable Production](image)

Figure 9 Vegetable Production and Figure 10 Fruit and Nut Production illustrate the quantities produced by participants in this study. It should be noted these statistics do not provide a comprehensive overview of production due to a reluctance to provide this information. A more comprehensive overview of local production can be gained from Appendix 3 where 2005-2006 Agriculture Census data shows levels of fruit and vegetable production.
The seasonal availability of food produced in the region is illustrated in Appendix 4 Produce Availability Calendars. The produce availability calendar collates the availability of food produced by respondents during the course of a year. This calendar forms a starting point for a more comprehensive local produce calendar that can be expanded and regularly updated to assist inform purchasing and growing decisions of food value chain participants.

**Food Processing and Manufacturing**

The Sunshine Coast produces a wide variety of processed food products. The first group falls into the more traditional category encompassing value adding of primary product such as jams and preserves, dairy products and beverages. The second group is characterized by the development of niche food products that meet emerging trends such as raw and functional foods, gluten free and other dietary needs and organic products that are not readily available through conventional outlets. This group of producers does not come from a primary production background but from a diverse range of professional backgrounds. They come into food production with specific ethics and values and create food businesses that emerge from their own food and lifestyle needs, enabling them to identify new opportunities and niches.
Gaps

The Sunshine Coast Region produces 20% of the fruit and vegetable and 33% of the beef and veal consumed in the region, whilst producing more than 1.7 times the poultry consumption (see Appendix 3). These figures indicate large gaps across all areas of particularly fruit and vegetable production. The obvious gaps are production of staples vegetables as revealed in ABS figures (See Appendix 3) that indicate asparagus, carrots, cauliflower, rock melons and peas were not grown at all while small quantities of broccoli, beetroot, garlic, leeks, onions, potatoes, snow peas and sweet corn were produced. Many of these staple crops such as potatoes and carrots are produced in large production systems where economies of scale make them profitable for the relatively low prices received. When examining production and consumption data in Appendix 3 it is apparent that even those crops the Sunshine Coast produces, mostly such crops as tomatoes and leafy greens amount to 7.5% and 18.2% of consumption. Other crops such as asparagus and garlic have not historically been grown in the region but can be cultivated in the region. There is particular scope for garlic production which is now being successfully grown on a small scale meeting a growing interest in Australian garlic. The gaps in fruit production coincide with fruits that grow outside the subtropical climate of the Sunshine Coast including pome fruits such as apples and pears, stone fruit with high chilling requirements such as apricots and cherries and berries including raspberries and blueberries (see Appendix 3). Fruit grown in limited quantities include grapes, olives, plums and grapefruit. It is important to note that two crops that are grown commercially in the region, lychees and feijoas, were not included in the ABS Agricultural Census.
A majority of primary producers and food processors expressed a belief that demand exceeded supply and that there was opportunity to expand production. Foods produced by these growers included bush foods, feijoas, mushrooms, leafy and green vegetable, citrus, beans, passion fruit, strawberries, herbs, honey, beef and chicken.

Comments from Food Processors regarding ingredients that they would like to source locally revealed a commitment to buying as locally as possible, first within the region, then within Australia with a desire to source,

- Functional/super foods including unprocessed coconuts, cacao, goji berries
- Grains and flour
- Organic dried fruit
- Bush/native foods for the production of preserves and condiments (it should be noted that one processor wanted to buy locally produced native foods regardless of price)
- Buffalo milk and milk for cheese production.

Potential gaps in food production

- The opportunity for processing seasonal excesses in production e.g. persimmons, strawberries
- The production of ready meals and convenience foods not well represented amongst the food processors. Despite recent trends for reduced spending on eating outside the home, there is increasing scope for processed meal solutions that deliver convenience to consumers (Spencer & Kneebone, 2012).

**Marketing and Distribution**

**Market Channels**

Of the respondents 25% presold part or all of their production to a wholesaler ranging from 0.05% to 100% of their production with a mean 16.33% of their production being sold to a wholesaler.
Figure 12 Market Channels

Figure 12 Market Channels reveals that amongst respondents the majority of produce is sold into the local food value chain. Of the respondents, 78% marketed their product directly to the public through an increasing number of farmers markets and farm gate sales; the mean production sold through these channels amounted to 60%. Even longer term growers are expanding their markets and establishing access to local outlets. This is evident in relatively low dependence on the central wholesale markets that are used by 14% of producers who sell a mean 10% of their produce through this channel. The higher level of engagement in the local food value chain is a response to the low prices received by growers using central wholesale markets and large processors. In an environment of declining returns and rising labour and input costs, producers have been attracted to local and direct markets by the potential margins. Engagement in the local food value chain by these growers is a decision based on economics and has been integral in retaining this group in primary production. Online sales is an emerging marketing channel currently used by food processors and not at this stage utilized by for sales of primary produce.

Transport

The transport choices of the respondents are differentiated according to the markets that produce is being delivered into and the type of product.

Figure 13 Transport shows 71% of producer owned their own transport to deliver product into the farmers markets and local retail outlets. Of the respondents sending produce to Brisbane and interstate, 30% used transport companies; the most commonly used were Turners and Lindsay Brothers. Food processors tended to use either local transport or couriers and Australia Post to transport their product outside the region. The vast majority of food producers were happy with their transport arrangements. A small group expressed concern regarding the cost of transport and the need to have sufficient volume to make transport viable. Food processors also expressed problems with getting couriers to deliver and pick up from their premises if they were not on major roads of the courier’s route. A lack of transport to customers in towns to the north of the Sunshine Coast was also highlighted by one food manufacturer.
Marketing, Understanding of Product and Consumers and Branding

Table 1 Marketing Strategies

<table>
<thead>
<tr>
<th>Marketing Strategy</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word of mouth /reputation</td>
<td>60%</td>
</tr>
<tr>
<td>Direct Contact with Public at markets,</td>
<td>19%</td>
</tr>
<tr>
<td>None</td>
<td>14%</td>
</tr>
<tr>
<td>Print Media</td>
<td>6%</td>
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<tr>
<td>Website/Facebook</td>
<td>6%</td>
</tr>
<tr>
<td>Relationship with wholesaler /agent</td>
<td>7%</td>
</tr>
<tr>
<td>Relationship with local retailer</td>
<td>4%</td>
</tr>
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When asked to describe their marketing strategy 60% relied on word of mouth and repeat sales. This group did not proactively engage in marketing, rather they depended on the product speaking for itself. Another 14% stated they did not have marketing strategy. Those people who engaged a specific active marketing strategy often engaged more than one strategy. Nearly one fifth of producers depended on direct contact with the public at markets and food events to promote their product depending on the development of direct relationships with consumers. A small group producers use print media particularly coverage in newspapers and food related magazines. Websites and Facebook were utilised by a small group. The limited use of active marketing strategies suggests that there is potential need for assistance in this area.
When asked to describe their consumer characteristics nearly one third of producers either had no answer or gave a non-specific response indicating a low level of awareness of who their customers were. Other popular responses were local people and visitors. Comments from food processors revealed a more clearly developed understanding of their consumers. This may relate to the niche character of these products and the need to find markets and educate customers about less familiar products.

Table 3 indicates the local nature of produce was the key selling point, followed by freshness and taste. The focus on ‘local’ as a characteristic may reflect the strong dependence of producers in this survey on direct marketing to the public. Producers may also be responding to a growing local food movement and increasing media attention to local food. The focus on local also contrasts to the consumer survey of Sunshine Coast residents and visitors that indicated consumers valued Australian produced over locally produced foods (Birch, 2012).
However there is some disconnect between the stated preferences of local restaurants to use local product and the reality of restaurateurs often opting for convenience and price of non-local products delivered by a distributor over the local product (Lawrence & Cheung, 2011). This was particularly the case for niche products such as snails and cheese. It is important to note that just over one fifth of respondents were not able to answer this question indicating that there is a limited understanding of consumers amongst some producers.

**Group Membership**

When asked if they were involved in any business grouping external to the farm which facilitated shared infrastructure, purchasing or marketing of their products, 69% of producers stated they were not members of any group. Many of these people had been involved in grower organisations or suppliers of cooperative processors that had ceased or reduced operations. Of the 31% of producers that did belong to organisations most belonged to Seasons of the Sun followed by crop specific industry groups representing strawberries, avocados, custard apples, passionfruit and native foods. Only two people were members of Growcom and another two listed belong to packing and marketing groups such as Nature’s Fruit Company and Sunrise Fresh. Of the food producers, only three belonged to their local Chamber of Commerce. There was an expressed need for more support and networking. However, some producers maintained they did not have the time to deal with committees.

**Capacity for Expansion**

**Perception of Business – Supply and Demand**

When asked to comment on their perception of their business opportunities and supply and demand, just over half of respondents stated that supply exceeded demand or that there was opportunity to expand. Interestingly of the respondents, 14% acknowledged there were opportunities to expand but would not expand. The reasons for this reluctance included age, health, time, land availability, lifestyle and the lack of economic return to justify the expansion. A third of respondents felt they could supply enough to meet the demand; however some commented that this was subject to weather as recent floods and rains had impinged on the capacity of some growers to meet demand. This group was largely satisfied with the scale of their enterprises. Only 3% of respondents felt that supply exceeded demand. This group included producers of avocados and pineapples. There was a predominantly positive outlook for the potential of food production across both primary producers and food processors.
Figure 14 Perception of Business Opportunities
The most prevalent factor impinging on producers’ capacity to expand was labour. The costs associated with employment including wages, superannuation and Work Cover were cited as barriers to expansion particularly for producers who have experienced declining returns relative to costs. One strawberry grower maintained that,

‘Cost of labour was not keeping pace with the returns.
Ten years ago pickers had to pick 21 kg at $7/hr.
Now it is 31kg at $20/hour to cover costs.’

The availability of skilled labour was an issue particularly in the areas of machinery operation. One farmer voiced concern about getting people who can do what they say they can do and felt that this was a safety and machinery maintenance issue.

Regarding land availability, there was a group of growers who believed they could expand if they had access to land. One of the key barriers to accessing more land was high land prices driven by demand for residential and rural residential land as opposed to agricultural land values. The encroachment of residential development and the subsequent fragmentation of agricultural land use in the region were also cited as limitations to expansion.

Access to funding and capital was an issue for some producers. The long hours the majority of food producers worked and the reluctance to employ people may have contributed to the many producers who list lack of time as an impediment to expansion. Transport was a minor issue overall but a particular concern for food processors was lack of small freight and courier services prepared to deliver and pick up off main route.

Aging and succession were issues for older farmers. This suggests there is a need to develop alternative land access models to enable land to be leased to others willing to expand. This could assist older farmers to retire with enough income and avoid selling their land at residential land prices.
Engaging in the in Local Food Value Chain

Interest in Supplying Local Demand

An overwhelming majority of respondents (76%) were interested in exploring opportunities to engage in the local food value chain. Of the 18% answering ‘no’ to this question, many maintained that they were happy with their existing markets or felt they were already well engaged in the local food value chain whilst others did not want to expand to meet additional demand for the reasons listed above.

Figure 16 Level of Influence on the Decision to Supply some or all Produce to Meet Local, shows the responses to question 27 ranked from highest to lowest mean score and reflects the overall high level of interest in exploring local food value chain opportunities. In excess of 60% of respondents maintained that each factor listed would greatly influence their decision to supply local demand.

Amongst the most influential factors, demand for quality produce and knowledge about levels of local demand would greatly influence 85% and 83% of producers to supply local demand. This reflects a real need for the development of relevant, accurate and current market intelligence to help producers plan production to meet local demand.

The existence of a distribution and marketing facility and an efficient distribution system would greatly influence 83% and 75% of respondents respectively to supply local demand. This indicates a high level of interest in the concept of a local distribution system or facility. However respondents expressed caution due to uncertainty about the model for such a system.

The promotion of local food figured highly, greatly influencing 77% of respondents and somewhat influencing another 14% to supply local demand. Respondents commented that consumer education needed to be an important part of promotion. Pricing was also an important factor greatly influencing 81% of respondents with to supply local demand.

Of the remaining factors the existence of an online market or system of e-commerce for local produce would greatly influence 70% of respondents to supply local. The idea of an online market did not appeal to those people who had established their own e-commerce systems and those who felt they were too old to change their existing practices and not comfortable with computers.

Reliable ordering from restaurants would greatly influence 67% of respondents to supply local demand. Respondents also raised concerns about being paid by restaurants and the need for loyalty to the producer once the producer had committed to supply. The importance of trust and building strong relationships were seen as key to working successfully to meet local demand.
Local Food Distribution System

When questioned specifically about a local distribution facility 70% said they would be able to supply a local distribution centre, whilst 14% replied ‘no’ and another 10% were unsure. A distribution centre would stimulate the production to meet demand for 64% of respondent while 22% said it would not and another 14% were not sure. This would indicate that the majority of producers would have produce to supply a distribution centre; however fewer would be prepared to expand production.

When asked what commission the producer would pay for the services of a distribution centre responses ranged between 5% to 40% with the one third of respondents preferring a 10-15% commission and another 17% preferring 15-20%. One third of respondents who were either not sure or not answering the question, show an unwillingness to commit to a figure without understanding more about the model and service provided by a distribution centre.
Whilst there was a high level of interest in and a capacity to supply a distribution centre, comments revealed concerns that would have to be addressed to develop this concept further.

Respondents were interested in participating in a distribution centre provided that they clearly understood the model, service and pricing structure and producers would receive a fair and equitable price for their product and that the distribution centre provides a reliable service.

Some producers were concerned that the Sunshine Coast would not have sufficient volume of product or market size to support a distribution centre. Other producers felt they would supply a distribution centre if they had enough produce but would not sacrifice established markets.

Maintaining quality standards for produce was viewed as critical to the success of a distribution system.

Some producers perceived that a distribution centre would enable them to gain access to local markets and expand production whilst another could see the costs associated with transport could be reduced thus reducing their exposure to increases in costs associated with the carbon tax.

Producers not wishing to participate in a local distribution system cited a lack of capacity or interest to expand due to age, time and labour whilst others wanted to support their existing markets, their current direct marketing strategies as more profitable than that of a distribution centre.

These comments highlight the need for any distribution initiative to establish

- Trust
- ownership over the model
- transparency regarding fee structures and costs
- quality control mechanisms
The comments also highlight the need for reliable supply and the potential vulnerability of a distribution centre to reliable supply of volumes particularly if a distribution centre is not used as the primary market for local produce and it is used only when there is enough left after satisfying other markets.

**Regional Branding**

There was overwhelming support for a regional branding campaign with 90% of respondents perceiving a regional branding campaign as being beneficial. Respondents viewed regional branding as a means to build a sense of connection and belonging to the Sunshine Coast region as a food producing community. Regional branding was perceived as benefiting smaller producers and food processors by connecting them to a larger collective brand that would enable them to talk about their produce as part of a regional story. This could provide smaller producers with a competitive advantage in the regional and national food markets. It was anticipated that regional branding would promote a positive image of farming and food production, expanding the public’s awareness beyond the ‘surf and sand’ image of the Sunshine Coast. Producers were very aware of other successful regional branding campaigns and see regional branding as an effective means of increasing local and tourist expenditure on local produce and value-added products.

It was proposed that a regional branding campaign should focus on the local community to establish a strong local food buying culture. As a secondary target, any campaign should target the interstate and tourist markets. A campaign should raise recognition of the Sunshine Coast as a valuable food production region and a food tourism destination. Respondents articulated a range of regional attributes that need to be recognized and promoted. These attributes include the unique beauty of the region, the natural advantages of the climate and growing conditions and the clean, green and natural image the region. It was also suggested that a branding campaign needs to encompass sub-regional localities and identities.

Respondents felt that a regional branding campaign must be of high quality and involve effective promotion and be supported by local and state government. A campaign would also need to establish and maintain quality standards. A campaign would need to deliver public education that not only informs consumers about where their food is produced, but also providing farmers with a fair return for their product.

**What do Producers need to engage in the local food value chain**

**Networking**

Producers expressed an overwhelming need for networking and a support for collaboration rather than competition between producers. Given the limited number of active producer organisations and low levels of membership, some producers felt isolated and unsupported. Producers felt they would benefit from business networking where producers could come together to discuss business, share experiences and issues and develop strategies to help participating business grow, for example, organising farm visits with other producers in the same area and developing collective marketing strategies. Producers also saw merit in developing networks across the food value chain where producers, processors, food service operators and retailers can communicate, develop supply arrangement and refine their product to meet the needs of the end user.

**Mentoring, Education and Support**

Food Producers identified the need for education and mentoring in the areas of primary production business and consumer education. Primary producers felt the lack of agronomy
support currently available in the region and identified the need for agronomists able to assist growers with problem solving in horticultural production systems. Some producers felt business mentoring and assistance with business planning would be useful. Some producers also identified the need to for assistance with establishing and effectively utilizing an online presence through social media. Producers also identified the need for education directed towards consumers and food service operators. It was felt that consumers needed to be educated about the importance of local food and how to access it whilst food service operators need to be educated about the local products and how to use them. This was particularly the case with products such as snails and cheese.

**Branding and Promotion**

Producers identified the need for branding and promotion of local food to build community awareness and support for the establishment food tourism in the region. It was felt that any branding needed to uphold quality standards, promote the regions green reputation and define what was considered local produce.

**Marketing and Distribution**

Many producers felt they needed help with marketing as they were too busy producing to be able to effectively market their product and needed assistance with the management of supply and demand. A distribution centre was seen as a means of addressing these needs. In relation to farmers markets it was felt there was a need for transparency regarding the source of food and for standards to be established around what is local.

**Information**

There was a need for a centralized information hub that was able to maintain a current database of suppliers and restaurateurs outlining products, availability and needs. To help effectively manage production producers expressed a need for market intelligence that informs them about supply and demand, gaps in the market, requirements of end users and reliable consumer information. Producers also felt that there was a need for more effective communication of initiatives and events to enable greater participation.

**Government Support**

Government support across both state and local government was needed to assist producers to grow and diversify their businesses. Both primary producers and food processors had experienced delays and barriers related to the local government regulation and licensing of commercial kitchens and farm shops as an impediment to the expansion and diversification of their businesses. It is suggested that licensing and application processes need to be reviewed and assessments processes streamlined to minimize impediments to small business expansion and diversification. Some producers feel the cumulative effects of increasing compliance and administrative particularly in the area of workplace health and safety, quality assurance and food safety. There were a number of calls for the reduction of red tape. Although it is acknowledged that regulation is there to protect people, governments need to do more to assist small businesses to meet their compliance obligations and take an educative rather than punitive approach.

**Equipment and Services**

Food processors identified the need for access to packaging equipment whilst primary producers were interested in finding a way to deal with gluts in production and assistance to obtain harvesting equipment. It was suggested by one producer that there would be value in collective equipment purchasing and use whilst others felt that government assistance for this was required.
Reliable cost effective and flexible transport was also a need for a small group of producers particularly food processors who depend on courier services.

**Future Perspectives**

When asked what they thought about the future of food production on the Sunshine Coast the most common response was one of guarded optimism where producers felt there was great potential and a positive future on the Sunshine Coast for food production provided there was support for the industry and the people involved. However there were also many producers who could not envision a positive future for food production largely because of the cumulative impacts of the challenges facing the industry in the Sunshine Coast region.

Producers identified a range of issues and challenges influencing the future of the Food Production in the Sunshine Coast region. The foremost issue was the aging of the farmers and the lack of succession to transfer farming operations to subsequent generations. There was great concern over the failure of primary production to attract young people into the industry and retain producers. Producers associated this with high land prices driven by residential development in the region and the falling returns relative to costs of production. Producers felt that as price takers they did not have power to fight the downward pressure on prices in traditional markets that producers believed are unduly influenced by the powerful retail chains and food imports. The cumulative impact of these factors has diminished the perceived viability and importance of food production in the region relative to the residential development and acts as a deterrent to new entrants.

Producers strongly expressed the need to increase food production with farmers citing the importance of maintaining our food production capacity into the future where global population growth will place greater demands on food supplies. Producers felt that the importance of food production to the regional economy needed to be recognized and without supportive government policy attempting to address the challenges facing the industry, the region runs the risk of losing the future benefits and potential of food production in the region. The need to enhance profitability and develop reliable marketing mechanisms that ensure a fair return to producers was a necessity for producers.

Many producers felt the education of consumers about eating locally and seasonally, paying a fair price to producers and the importance of local food production was vital to maintaining food production and enhancing profitability. Additional needs identified included the need for facilities to process gluts in production and to protect agricultural land.

Whilst some respondents focused on the challenges for the future of food production others identified the potential to see food production as an asset to the region. Underutilized farm land and aging farmers were seen as an opportunity to find alternative land access arrangements such as leasing and share farming whilst smaller parcels of land were identified as opportunities to develop intensive niche crops. There was support for a distribution facility to expand outlets for food producers, provide retailers with a means of accessing local produce and enable food processors to more readily access local produce and plan production. Greater collaboration between producers and other participants in the food value chain was needed for mutual support and to plan production and marketing to avoid overproduction.
Local Food Distribution

The following information was derived from the participant discussions and responses to the questions explored in the Distribution Workshop.

In your experience, what aspects of local food distribution are currently working well? What are the biggest impediments to distribution of local product in the region?

What works well?

- Face to face producer consumer relationships with feedback direct to the producer (Farmers Markets and events)
- One grower was happy with his distribution based on personal relationships with buyers and sets his price according to the cost of production. This enables him to manage supply to meet demand.

Impediments

- Not many producers
- Cynicism regarding industry initiatives
- “It’s been tried before what’s different”
- Concern that the demographic was not high enough on the Coast to support a distribution system
- Large supermarkets (Coles and Woolworths) have reduced customer seasonal food knowledge

Central Markets

- There are too many steps in the traditional supply chain involving the central wholesale market system. “You can’t replicate inefficiencies of the existing system”
- Consumer convenience and regularity of supply
- No control over transaction costs or prices for produce

Farmers Markets

- No transparency regarding origin of produce
- Difficulty supplying the volume and diverse range of products e.g. staples and non-seasonal products
- Markets are forced to compromise to maintain stallholder numbers and supply demand
- No other outlets for product during week
- Customers don’t know where to access local food when no market
- Capacity of farmers to attend farmers markets limited by the time it takes away from production
Retailers

- We don’t know who the local growers are. We need to access information about who and what is being grown.

What functions could you anticipate a local food distribution hub would serve? Could a distribution hub benefit your business?

There is widespread support for a distribution hub in some form.

A distribution hub was seen to particularly benefit the micro and smaller operators who are just getting started and don’t have established ready access to markets or support.

People were not fixed on a particular entity structure for a distribution hub, but were able to articulate what possible functions a hub/hubs would serve. The concept of multiple connected hubs and or a virtual hub or portal was strongly articulated.

Those who have had some experience with distribution were adamant that any distribution initiative should stay away from physical infrastructure.

Functions Envisaged

- Marketing and finding customers – increasing the market
- Manage information flows and relationship building
- Aggregation
- Diversification of supply
- Supply to secondary producers and restaurants
- Possible aggregation/retail function in Box scheme like Food Connect
- Utilizing gluts
- Networking
- Developing an e-map of production
- Branding and product identification – provenance of local food is important
- Consolidation of costs, one-stop-shop for information, technical advice, packaging, etc.
- Education and awareness, promotion of local food – promoting farmers and the growing of food, and costs of production; seasonality, timing, benefits of local food, where to get it; provide market updates
- Quality Assurance – Food standards, managing/maintaining quality, freshness
- Co-ordinating logistics – transport, packaging
- Run as a private enterprise

The following benefits of these functions were identified

- Provenance of food
- Creation of a Virtual Market
Drive demand for local food
Getting value for the product
Encourage new growers with an outlet for their produce
Provide consistent and regular supply
Farmers can concentrate on growing food because they don’t have time nor are they particularly good at marketing.

What are the issues/challenges/opportunities associated with establishment of a food distribution hub?

The diverse perspectives of the participant group provided a comprehensive range of issues and challenges that warrant consideration.

Issues and challenges associated with the development of the food hub

- Growers tend to be suspicious of collaboration and view other growers as competitors “Producers are very protective of their share of the pie”
- The need to build better relationships between growers and buyers
- If local consumption does not increase a distribution hub may impinge on existing markets “If we don’t grow the pie it will impact on other local food markets.”
- Concern with hub taking a wholesale vs. retail function; participants did not want the hub to impinge on the existing retailers who promote local food
- However there were some areas where the hub could add to the retailing of food e.g. supplying farmers markets to reduce reliance on Rocklea.
- Fairness and equity getting value for your product
- Need to ensure cost of production is covered and profitability
- To encourage new producers they need confidence in the industry and the market
- Product availability and quality
- The need to determine who is producing what and availability
- The need to access volume and diversity of product
- the need to provide consistent quality, transparency and food provenance
- Systems change is a difficult process for producers and impinges on their ability to change marketing and distribution practices
- Getting the message out
- Using the media to promote local food
- The need to communicate the benefits of the system to producers and buyers

What are some possible solutions to these distribution challenges and opportunities?
**Opportunities**

- Getting people together to work collaboratively
- Shared distribution e.g. Mary Valley Produce aggregates produce from multiple growers to sell at the markets and fill orders
- Creating an identity for small family farmers and their importance to the food value chain
- Coordination of information regarding who is growing what
- Seasons of the Sun needs to play a greater role in creating and disseminating information about the growers are what they are producing; promoting local food production and conducting consumer education.
- Need for a website as a virtual local food hub

**General Issues Raised**

- Food Safety compliance too expensive for small producers who ask ‘Why bother?’
- The buying power of Woolworths and Coles – how can growers access these markets

**Participant Recommendations**

- Website portal as the initial stage in the development of distribution system
- Seasonal food availability calendar
- Mapping local food network
  - Growers
  - Retailers
  - Value Adders
  - Food Service Operators
  - Local markets
- Education and awareness
- Educate consumers and value chain participants
- Information (technical support, business support, market intelligence)
- Connect growers (including small growers) to retailers, food services industry and consumers
- Needs to be interactive, dynamic and updated regularly
- Needs a paid person to develop the site and maintain it as a dynamic and interactive tool
- Networking and connection to build opportunity and help grow local food production and processing businesses
- Local networking between
  - Primary and secondary food producers
  - Producers and markets
• Regional and National
• Between small farmers across Australia creating identity and brand for small family farms like the National Heart Foundation Tick

• Rebuild primary production capacity on the Sunshine Coast
• Making opportunities for new and younger people to enter farming
• Educating the public
• Importance of local food
• Value and trust local farmers
• Seasons of the Sun need to take a more proactive role in education and promotion of local producers
• Regional branding
• Definition of locality
• Upholds food quality standards
• Needs to be high profile and incorporate a media strategy (profile producers on TV e.g. the local news)
• Need to determine a business model to ensure viability as an enterprise.
• Develop business plan and scenarios
• Structure and scope of potential distribution systems
• Requires engagement from different levels of government
• Success depends on a consistent and dedicated long term commitment from government
• Paid positions to drive the development of a distribution system and maintain food value chain networks
• Develop business model scenarios
• Skilled research and extension (agronomy, horticultural)
• Further research is required to establish specific needs and distribution priorities of different participant groups in the food value chain

The workshop revealed that most of the distribution issues small producers and processors face could be addressed by the facilitation of better relationships and collaboration between value chain members rather than new infrastructure. There was strong support for an online system and a central coordination role.

Traditional distribution mechanisms such as central wholesale markets had failed to deliver returns to Sunshine Coast Food producers resulting in many exploring alternative marketing channels. The pressures associated with this transition have left producers with a degree of cynicism regarding industry and government initiatives due the lack of success of proposals that replicate existing inefficient and inequitable systems and the lack of continuity and commitment from government to local food production initiatives.

There was a widely held perception that the food hub should be an online service, not another place for people to have to pick up from. The virtual hub should allow people to trade with each
other directly and help ease some of the seasonal “gluts” that currently occur with over-supply. A business case would need to be made for a coordinating role in communicating the benefits of the system and getting it up and running.

There was strong support for collaboration, networking opportunities, relationship building, education and awareness as critical to the first stage in the development of local distribution system. Business labelling and a business case would need to be developed along with further research into the specific requirements of different sectors of the food value chain for the establishment of a distribution system.

There is strong support for 37 labelling and brand standards to be established for regional produce and family farmed produce. It is envisaged that Seasons of the Sun should take a greater leadership role in promotion local producers and consumer education regarding local food. There was widespread recognition of the need for assistance with marketing and consumer education among small producers and processors.
Opportunities and Constraints

Both the survey and the distribution workshop revealed similar constraints and issues being faced by food producers and the broader food value chain. The recurring themes are arranged in terms of constraints and related opportunities.

Land and Demographics

The aging of primary producers and the attrition associated with people leaving primary production to retire leads to a decline in land under production, loss of skills, capacity and a lifetime of investment in infrastructure and equipment.

The difficulty attracting young people into the food production due to negative perceptions of food production and high land prices.

Relatively small size of Sunshine Coast properties and smaller areas under production and the perception that large areas are need to be profitable

Underutilized land in peri-urban areas

Rising urban/residential development encroachment on farm land

To explore alternative land access arrangements such as leasing and share farming to provide new entrants into industry access to land and older producers with some income and maintain land in production.

To develop farming mentor relations between experienced and new primary producers

Not all land is being used – there is land available for primary production

Alternative land access arrangements to ensure people willing to farm and looking for more land are able to access it

Smaller land areas are appropriate for intensive small scale horticulture and niche crops

Potential for amalgamation of land and collective management agreements

Rising regional populations represent an opportunity supply a larger local market

Support the continuation of protection of agricultural land including smaller peri-urban land under local and state government planning instruments

Production

Mismatch between supply and demand leading to over and under production

Sunshine Coast produces only 20% of fruit and vegetables consumed in the region.

Gaps in production of staple vegetables cold climate fruit and grains

Develop accurate and current market intelligence that establishes levels of demand, products and specifications required by local food service operators, retailers and possibly institutional buyers to enable producers to plan to meet demand.

Establish a seasonal calendar of production
Seasonal gluts of produce to track who is producing what and when
Lack of processing and packaging facilities on the Sunshine Coast Further analysis of gaps in production
Limited access to skilled labour Pre-production planning conducted collectively between producers to match production with demand.

Potential to expand share of local market and production of fruit and vegetable production suited to the climatic conditions and land
Develop marketing relationships directly with other regions to access produce not able to be grown in the Sunshine Coast region
Potential to set up shared processing and packaging facilities e.g. driers, bottling, conveyor packaging lines
Potential for a program to develop and document transferrable skills across the food value chain e.g. Work Force Development Plan for the Agrifoods sector in this region

Profitability, Marketing and Distribution

The failure of returns from traditional markets (central markets and processors) to keep pace with increases in cost of production including labour
Expanding and promote awareness of direct marketing opportunities such as farmers markets for producers as a means of shortening the supply chain and delivering higher profit margins
Major retailer’s ability to unduly influence the market placing downward pressure on prices which producers are forced to absorb. Develop intermediate marketing mechanisms that connect producers with local buyers (Distribution Hub or virtual market)
Major retailers establish an expectation that food prices will continue to be reduced
High level of interest in participating in the local food value chain and developing and supporting a local food distribution system
Producers are time poor and focused on production rather than marketing.
To engage producers in the development of a distribution system to ensure transparency, ownership, trust and quality control are established.
Reluctance to commit to a distribution system without an understanding of structure and pricing system and fears such a system would replicate the problems of the central markets and fail to deliver fair and equitable returns
Develop distribution and marketing system based on an online platform incorporating information about producers and buyers products and product specification and
High cost of maintaining and operating distribution infrastructure
A distribution system would require reliable

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supply and volumes to ensure viability demand. This platform could also incorporate a virtual market
Requires commitment from participants and preproduction planning with the distribution system and buyers.
Potential to attract new producers into the industry providing small scale producers with a means of accessing local markets

**Consumer, Product Knowledge and Marketing**

Low levels of awareness about consumer and product characteristics
Develop marketing knowledge amongst producers

Low levels of engagement in active marketing strategies
Collect consumer information and communicate this to producers to enable producers to better meet consumer demand and pursue business opportunities

Limited capacity to meet consumer needs and understand product specifications

**Regional Branding**

Limited recognition of the Sunshine Coast as a food producing region and food tourism destination
Need to establish regional branding for Sunshine Coast food and Sunshine Coast as food tourism destination

Limited consumer understanding of the importance of local food, what local food is and how to access it
Requires a definition of what is local and standards to be maintained

Due to demand outstripping supply of local food at Farmers markets produce bought in from the central markets and not differentiated form local produce
Season of the Sun to take a lead role in the regional branding and promotion of local food

Smaller producers not having the capacity to engage in extensive promotion of their product
Effective high profile promotion of the regional brand and local food production

**Promotion and Education**

Lack of awareness regarding seasonality of local food
Consumer and restaurateur education about local food, how to use it and the need for producers to receive a fair price

Lack of awareness amongst restaurateurs about availability of local food and how to use some specialist products
Produce and maintain an accurate seasonal food calendar

Connect food service operators to local
Networking and Business Support

Producers feel isolated from other producers
Producers were not well informed about what is happening in the industry and business development
Producers do not feel well connected with other participants in the food supply chain

Strong support for greater collaboration required to support the proposed initiatives
Develop producer-to-producer networks
Develop networking opportunities for producer and food service operators
Communicate to producers marketing events, networking and training opportunities via a centralized information hub
Business development and mentoring

Government Support

Disinvestment in Government funded support for agronomy and research in the Sunshine Coast region
Producers lack the capacity to independently solve complex production issues
Cynicism regarding government’s commitment to ongoing and consistent support of food production in the region.
Barriers and delays experienced negotiating government ‘Red Tape’
The time and money associated with complying with regulation particularly Workplace Health and Safety is perceived by some producers as an onerous responsibility

Greater recognition by all levels of government and industry groups of the importance of food production and the contribution to the development of a diverse regional economy
Investment in programs that support food production in the region
Government to make long term commitment investing funding and human resources into the development a local distribution system and to the provision of agronomy support
Reviewing and streamlining development assessment and licensing processes to reduce impediments to small business expansion diversification
Potential for government to take a more educative rather than punitive approach to compliance
Conclusions

Findings from this survey indicate that despite the retreat of older producers from the industry, there have been new entrants into the food production sector in this region with over half of the people surveyed having entered the industry in the last decade. These new producers have seen the need to value-add their product and have also adopted alternative marketing strategies with diversification away from traditional marketing and distribution systems.

There is cautious optimism within the industry with a great deal of interest in producers exploring opportunities to be involved in the local food value chain. This level of optimism needs to counter the retreat from the industry with the building of a positive perception of food production for the future.

Initiatives which build connection across the food value chain and between participants are required to ensure producers and consumers fully understand the challenges and opportunities for production and use of local food in the region. This includes grower networks, consumer education and support from levels of government and industry to grow the local food economy in the region.

Branding and establishment of identifiers of local food were seen as a key measure to promote local food and assist consumers access locally grown and produced food.

The results of this survey provide evidence of unmet demand for production and consumption of local food. Evaluation of food production against the present consumption of local food indicates an opportunity for growers to gain greater access to the food production ‘pie’.

Although many producers express a cautious optimism for the future of food production it is quite apparent that if support for the industry and assistance to address key barriers to entry and expansion into the industry the potential of this industry will not be realised.

The following recommendations can support the recognition and growth of food production in the Sunshine Coast region.

Recommendations

1. Opportunities for networking, connection and collaboration between producers and across the food value chain need to be pursued and supported to build stronger relationships, improve capacity conduct business mentoring and pursue business opportunities within the food value chain.

2. Establish an online local food information hub that is dynamic, interactive and regularly updated incorporating;
   - Seasonal food availability calendar
   - Information about food value chain participants (Producers, Food Processors and Manufacturers, Markets, Food Service and Retail outlets)
   - Education and awareness (consumers and value chain participants)
   - Information (technical support, business support, market intelligence, events and initiatives)
- This can be developed to incorporate an online marketing and distribution system connecting growers (including small growers) to retailers, food services industry and consumers.

3. Develop and maintain current and market intelligence establishing consumer need and level of demand for food in the local food value chain. This information needs to be communicated and shared with local food producers.

4. A paid role to be created to coordinate the development and maintenance of a local food information hub and the gathering and updating of market intelligence.

5. Improve government support for local food value chain initiatives by providing consistent dedicated staffing and funding to ensure long term benefits and potential of initiatives are realised and knowledge and capacity maintained.

6. Develop and actively promote a regional food brand that is targeted both at consumers and the tourist markets. Regional branding must define what is local, promote and raise awareness of local food production and create an awareness of the region as food tourism destination.

7. As part of promoting local food, conduct consumer and restaurateur education about local food, how to use and access local food.

8. Seasons of the Sun to take a stronger leadership role in the promotion and marketing of the local food industry.

9. Government to undertake business modelling in consultation with value chain participants to develop a business case for a local distribution system.

10. State and local government and local food value chain stakeholders to work collaboratively to develop and implement these recommendations.
References


Appendix 1 Questionnaire

Sunshine Coast Local Food Survey

Micro to Small Scale Enterprises

<table>
<thead>
<tr>
<th>Producers Name:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Name:</td>
<td></td>
</tr>
<tr>
<td>Address:</td>
<td></td>
</tr>
<tr>
<td>Phone numbers:</td>
<td></td>
</tr>
<tr>
<td>Email:</td>
<td></td>
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</tbody>
</table>

I am interested in finding out more about the results of this project. (Yes /No)

I would like to be kept informed about future developments in the local food supply chain (Yes/No)

1. Age
   a. 25-40 years
   b. 41-55 years
   c. 56-65 years
   d. over 65 years

2. Select the option that best describes your food production activities
   a. Full time primary producer
   b. Part time primary producer
   c. Engaged in primary production as a hobby
   d. Primary producer and food processor
   e. Food processor

3. How long have you been in operation?
   a. Less than 5 years
   b. 6-10 years
   c. 11-20 year
   d. 21-30 years
   e. More than 30 years

4. If you are engaged in primary production, how much time each week would you spend on farm work?
   a. 0-10 hours/week
   b. 11-20 hours/week
   c. 21-30 hours/week
   d. 31-40 hours/week
   e. More than 40 hours/week
5. What is the total area of your farm?
   a. Less than 1 ha
   b. 1-5 ha
   c. 5-10 ha
   d. 10-20 ha
   e. 20-50 ha
   f. More than 50 ha

6. What area of land do you have under primary production?
   a. Less than 1 ha
   b. 1-5 ha
   c. 5-10 ha
   d. 10-20 ha
   e. 20-50 ha
   f. More than 50 ha

7. What land uses do you have on your property? (Select the more than one answer if appropriate)
   a. Primary production
   b. Food processing
   c. Tourist Facilities
   d. Accommodation
   e. Farm Shop
   f. Extractive Industries
   g. Other (please specify)

8. Based on your property, please list your products from most significant to least.
   1.
   2.
   3.
   4.

9. Please list your main products and tick each of the months the product is available.

<table>
<thead>
<tr>
<th>Product</th>
<th>J</th>
<th>F</th>
<th>M</th>
<th>A</th>
<th>M</th>
<th>J</th>
<th>J</th>
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</tbody>
</table>
10. Please estimate the quantities (weight) that you produce for your main products?

<table>
<thead>
<tr>
<th>Product</th>
<th>Quantity</th>
</tr>
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<tbody>
<tr>
<td></td>
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</tbody>
</table>

11. Are there restrictions to expanding production? If so, describe.
   a. Water availability  
   b. Land availability  
   c. Infrastructure (e.g., transport, communication)  
   d. Resources (including ingredients)  
   e. Labour  
   f. Funding/access to capital  
   g. Expertise  
   h. Confidence  
   i. Interest  
   j. Other, please specify

<p>| | |</p>
<table>
<thead>
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<tbody>
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</tbody>
</table>

12. What percentage of your produce is presold or on quota to a wholesaler/retailer?

<table>
<thead>
<tr>
<th>Product</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
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</tr>
</tbody>
</table>

13. Please tell us how you sell your produce?

<table>
<thead>
<tr>
<th>%</th>
<th>Outlet</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Central wholesale markets</td>
</tr>
<tr>
<td></td>
<td>Direct to national retailer</td>
</tr>
<tr>
<td></td>
<td>To local retail or wholesalers</td>
</tr>
<tr>
<td></td>
<td>Direct to public via Farm gate, markets or agritourism</td>
</tr>
<tr>
<td></td>
<td>To restaurants or food service sector</td>
</tr>
<tr>
<td></td>
<td>To food processing company</td>
</tr>
<tr>
<td></td>
<td>Other (please specify)</td>
</tr>
</tbody>
</table>
14. What are your current local outlets?

15. How do you market and distribute your product?

16. Do you know who your main consumer group/s is /are?

17. Do you know if there is any particular product or characteristics of the products you sell (e.g. local, organic, healthy, fresh, taste, gourmet, price) that are particularly popular with your consumers?

18. What is your perception of the current market relating to your own business and opportunities? i.e. supply / demand

19. If you process or value-add produce where do you source your main ingredients?
   a. I grow all my main ingredients.
   b. I grow some of my main ingredients and source some from other Sunshine Coast producers
   c. I source some ingredients produced on the Sunshine Coast and source others from outside the region
   d. I source all of my ingredients from outside the Sunshine Coast

20. If you process food, would you like to source more of your ingredients from Sunshine Coast producers? If so, what would you like to source?
21. Please describe how your produce is transported off your farm or property to the point of sale.


22. What problems or challenges in transporting or distributing your goods do you experience? Please rank them in order starting with the most challenging

1. 
2. 
3. 

23. Are you involved in any business grouping external to the farm which facilitates shared infrastructure, purchasing or marketing of your products? (e.g. cooperatives, packing shed consortiums, marketing groups) If yes list:


24. If a distribution centre for local produce was established centrally on the Sunshine Coast to supply the local market e.g. markets, foodservices, providores retail outlets etc. ...

a) are you likely to have sufficient produce on current production levels to supply to the centre? Yes No

b) is it likely to stimulate you to increase production to meet demand? Yes No

c) What % of sale price would you be willing to pay for use of the centre?


25. Do you see benefits in Sunshine Coast based branding for local or regional produce? 

| Yes | No |

| Why? Or why not? |

|     |

|     |

26. Are you interested in investigating opportunities to connect to local food supply chains?

| Yes | No |

|     |

|     |
27. In considering whether to supply some or all of your produce to satisfy local demand, please indicate what level of influence the following factors would have if

<table>
<thead>
<tr>
<th>Factor</th>
<th>A great Influence</th>
<th>Somewhat of an influence</th>
<th>Neutral influence</th>
<th>Of little influence</th>
<th>No Influence at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>If I knew more about the level of local demand</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>If the price was more attractive</td>
<td></td>
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<tr>
<td>If there was demand for my quality produce</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>If local restaurants could be more reliable in ordering</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>If there was an efficient local distribution system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If there was more promotion of local food</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>If there was demand for a variety of produce</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If other farmers were selling their goods locally</td>
<td></td>
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<tr>
<td>If there was some support to learn how to be part of a local food supply chain</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>If there was a distribution or marketing facility for local food on the Sunshine Coast</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If there was some form of online or e-commerce market for local food</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Comment or other:

28. What support (if any) do you feel would enable you to participate more fully in satisfying local demand?

29. What are your thoughts regarding the future of food production on the Sunshine Coast?
# Appendix 2 Workshop Format and Questions

## Investigation of Issues and potential for a food distribution hub on the Sunshine Coast

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Facilitator</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00</td>
<td>Welcome and introductions: Who are we and why are we here? Session objectives</td>
<td>Alice Howard-Vyse</td>
</tr>
<tr>
<td>9:15</td>
<td>Overview of issues and the research: What are the issues? What do we already know? What else do we need to find out?</td>
<td>Alice Howard-Vyse, Deborah Davis</td>
</tr>
<tr>
<td>9:30</td>
<td><strong>Focus Question 1:</strong> In your experience, what aspects of local food distribution are currently working well? What are the biggest impediments to distribution of local product in the region? (Prompts: Barriers and obstacles – which are outside of our control and which can we influence?) Small group activity to respond to the question (3 or 4 per group mixed).</td>
<td>Ann Michael, Deborah Davis</td>
</tr>
<tr>
<td>09:50</td>
<td>Report back and discuss: Facilitators summarize emerging themes.</td>
<td></td>
</tr>
<tr>
<td>10:10</td>
<td><strong>Focus Question 2:</strong> What functions could you anticipate a local food distribution hub would serve? Could a distribution hub benefit your business? And if so, in what ways? Small group activity –</td>
<td></td>
</tr>
<tr>
<td>10:30</td>
<td>Report back, discussion, facilitators collate emerging themes</td>
<td></td>
</tr>
<tr>
<td>10:50</td>
<td>Morning tea</td>
<td></td>
</tr>
<tr>
<td>11:05</td>
<td><strong>Focus Question 3:</strong> What are the issues/challenges/opportunities associated with establishment of a food distribution hub? What are some possible solutions to these distribution challenges and opportunities? Small group activity</td>
<td></td>
</tr>
<tr>
<td>11:25</td>
<td>Report back, discussion, facilitators collate emerging themes</td>
<td></td>
</tr>
<tr>
<td>11:45</td>
<td>Review emerging themes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Discussion: What are your recommendations for the establishment of a food distribution hub and how, if at all, would you use it? (Prompt: What would make the hub more accessible to you and what might make it less accessible?)</td>
<td></td>
</tr>
<tr>
<td>12:00</td>
<td>Light lunch provided</td>
<td>Deborah Davis, Alice Howard-Vyse</td>
</tr>
<tr>
<td>12:30</td>
<td>Close</td>
<td>Deborah Davis, Alice Howard-Vyse</td>
</tr>
</tbody>
</table>
### Appendix 3 Sunshine Coast fruit and vegetable production

#### Figure 18 Sunshine Coast Vegetable Production

<table>
<thead>
<tr>
<th>Produce</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>ginger</td>
<td>6,075,727</td>
</tr>
<tr>
<td>mushrooms</td>
<td>1,624,351</td>
</tr>
<tr>
<td>tomatoes - processing and fresh market</td>
<td>582,000</td>
</tr>
<tr>
<td>zucchini and button squash</td>
<td>440,530</td>
</tr>
<tr>
<td>pumpkins (including butternut)</td>
<td>416,000</td>
</tr>
<tr>
<td>sweet potatoes</td>
<td>390,000</td>
</tr>
<tr>
<td>Asian vegetables</td>
<td>177,165</td>
</tr>
<tr>
<td>herbs - other herbs (e.g. basil, coriander etc)</td>
<td>10,801</td>
</tr>
<tr>
<td>lettuce - outdoor and undercover</td>
<td>82,000</td>
</tr>
<tr>
<td>cabbages - production</td>
<td>56,000</td>
</tr>
<tr>
<td>melons - watermelons</td>
<td>51,000</td>
</tr>
<tr>
<td>cucumbers - outdoor and undercover</td>
<td>50,233</td>
</tr>
<tr>
<td>Beans french and runner</td>
<td>45,874</td>
</tr>
<tr>
<td>potatoes - processing and fresh market</td>
<td>24,000</td>
</tr>
<tr>
<td>herbs - parsley</td>
<td>22,837</td>
</tr>
<tr>
<td>silverbeet and spinach</td>
<td>18,138</td>
</tr>
<tr>
<td>beans butter (processing and fresh market)</td>
<td>15,078</td>
</tr>
<tr>
<td>spring onions, shallots and bunching onions</td>
<td>9,855</td>
</tr>
<tr>
<td>onions - total production</td>
<td>5,000</td>
</tr>
<tr>
<td>radish (red and white)</td>
<td>4,768</td>
</tr>
<tr>
<td>sweet corn - processing and fresh market</td>
<td>2,000</td>
</tr>
<tr>
<td>broccoli</td>
<td>1,560</td>
</tr>
<tr>
<td>chillies (excluding capsicums)</td>
<td>1,255</td>
</tr>
<tr>
<td>beetroot</td>
<td>1,000</td>
</tr>
<tr>
<td>celery</td>
<td>949</td>
</tr>
<tr>
<td>snow peas and sugarsnap peas</td>
<td>609</td>
</tr>
<tr>
<td>leeks</td>
<td>474</td>
</tr>
</tbody>
</table>

Source: ABS 2006-2007 Agricultural Commodities Small Area Data Australia
Figure 19 Sunshine Coast Fruit and Nut Production

Sunshine Coast Fruit and Nut Production 2005-2006

- pineapples (t): 43,456
- strawberries (kg): 3,430,959
- macadamia (kg): 1,898,106
- avocados (kg): 1,454,660
- oranges (kg): 1,394,559
- bananas (kg): 280,000
- lemons (kg): 266,457
- peaches (kg): 233,843
- nectarines - (kg): 188,242
- limes (kg): 335,059
- papaws/papaya (kg): 28,601
- mangoes (kg): 25,880
- grapes - (fresh weight) (kg): 9,000
- plums and prunes (kg): 7,754
- grapefruit (kg): 949
- olives (kg): 46

Source: ABS 2006-2007 Agricultural Commodities Small Area Data Australia
Lychees, Feijoas, Bush Foods are not specifically counted in this data
Figure 20 Sunshine Coast Production vs. Consumption

Sunshine Coast Production vs Consumption

- Poultry
- Beef & Veal
- Citrus
- Non Citrus
- Fruit
- Potatoes
- Tomatoes
- Leafy and green Vegetables
- Vegetables

Source: derived from ABS data cited by Smith 2011, Shelton & Freiser 2009

Figure 21 Sunshine Coast Production as a Percentage of Consumption

Sunshine Coast Production as a Percentage of Consumption

- Poultry: 174.7%
- Beef & Veal: 33.6%
- Citrus: 6.9%
- Non Citrus: 43.0%
- Fruit: 20.5%
- Potatoes: 0.1%
- Tomatoes: 7.5%
- Leafy and green Vegetables: 18.2%
- Vegetables: 20.3%

(Source: derived from ABS data cited by Smith 2011, Shelton & Freiser 2009)
Appendix 4 Produce Availability Calendars

Produce Availability Calendars indicating the numbers of growers and product availability each month.

**Fruit and Nuts**

<table>
<thead>
<tr>
<th>Produce Type</th>
<th>J</th>
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<th>M</th>
<th>J</th>
<th>J</th>
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</thead>
<tbody>
<tr>
<td>Avocados</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td>7</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Bananas</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
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</tr>
<tr>
<td>Custard Apples</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Feijoas</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finger Limes</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<td>Figs</td>
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<tr>
<td>Kiwifruit</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<td></td>
<td></td>
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<tr>
<td>Kaffir Limes</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<td></td>
</tr>
<tr>
<td>Lemons</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Limes</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Lychees</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>1</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Macadamia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<td></td>
<td></td>
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<tr>
<td>Mandarins</td>
<td></td>
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