Abstract

Despite their growth and desirability, several major barriers preclude the development of Local Food Systems (LFS) including the reluctance of wholesale operators to deal with LFS suppliers. We examine the contribution of Limehouse Produce to the development of the Charleston, S.C. LFS. Survey results indicated that both supplying farmers and buyers (such as restaurants) had a positive view of the firm and felt it was a major contributor to growth of the Charleston LFS. Limehouse Produce also supports local entrepreneurs through a farm incubator and Good Agricultural Practice (GAP) certification efforts and provides support for a variety of philanthropic causes.

Keywords: local food system marketing channels, entrepreneurs, and partners; overcoming local food barriers

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Introduction

Local Food Systems (LFS) are a small but growing element of the U.S. food supply. LFS have many possible benefits including economic growth due to import substitution, development of entrepreneurs and beneficial social capital, improvements in the general quality of life (Boys and Hughes 2013) and obesity reduction (Hardesty 2010).

Despite such possible benefits, however, several major barriers preclude the development of LFS in many locations including the reluctance of wholesale operators to deal with LFS suppliers. While many small scale farmers market directly to consumers, such food sales are dwarfed in volume by those made through intermediated marketing channels such as grocery stores and restaurants. A lack of physical and institutional infrastructure currently precludes much of the output from local food systems from entering conventional food distribution systems and reaching large food buyers (Vogt and Kaiser 2008). Despite interest, institutional food buyers often do not purchase locally produced items because of undeveloped distribution channels. Lack of information about local farmers, variable quality, quantity and primarily seasonal supply, difficulty in negotiating agreements, delivery challenges, and the inability to employ established convenient ordering systems are among the many reasons identified for not buying from small, local farmers (Vogt and Kaiser 2008).

Food wholesalers can help bridge the gap between farmers and business buyers of food. Wholesalers fulfill several marketing functions that facilitate the exchange of products from farms and buyers such as supply aggregation, storage, and distribution. Such firms also may undertake light food processing and enforce food quality and safety standards. Most wholesalers, however, do not support LFS probably because of the additional time, effort, and costs that it requires. To grow a LFS, a local wholesaler must be willing to identify and most importantly establish relationships and ultimately source products from local, usually small, farms. They must be willing to insure that these local suppliers meet quality and timely delivery standards. Buying from numerous small farms in all probability increases the need for greater input supply coordination and infrastructure (such as increasing the size of their refrigerated truck fleet). A LFS wholesaler must also ensure that foods sourced within and outside of the region do not co-mingle and that buyers receive timely information concerning local suppliers. (The latter allows the buyers to advertise the use of specific local farm products in their marketing efforts.) Those who are willing to do so can serve a vital role in developing their region’s LFS. In this case study we examine the role that a unique food wholesaler, Limehouse Produce, has played in developing the Charleston, S.C. LFS

Limehouse Produce-History and Company Profile

Limehouse Produce Company was started in 1940 by H.B. Limehouse. Its distribution area is primarily within the three county Charleston, S.C. Metropolitan Statistical Area (Figure 1), while their input supply chain ranges throughout the southeast United States (Limehouse Produce, 2014). Limehouse Produce buyers consist primarily of institutional buyers such as the U.S. Military and school systems, restaurants, grocery stores, food trucks and other retail outlets.
Limehouse Produce provides several marketing services as summarized in Table 1. By creating a dependable high quality supply of local and regional produce, Limehouse Produce has enabled many businesses to grow and thrive in the flourishing Charleston, South Carolina tourism trade. Through Limehouse Produce, small local growers are better able to supply a growing local market demand. Limehouse Produce has also developed relationships with regional growers in the Southeast U.S. thereby they are able to provide businesses with fresh produce year round.

Table 1. Services offered by Limehouse Produce

<table>
<thead>
<tr>
<th>Transportation: On-farm pick-up within a 25 mile radius. Distribution to:</th>
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</thead>
<tbody>
<tr>
<td>Buyers</td>
</tr>
<tr>
<td>Aggregation</td>
</tr>
<tr>
<td>Packaging assistance: Provide boxes</td>
</tr>
<tr>
<td>Light Processing: Some freezing</td>
</tr>
<tr>
<td>Farmer Assistance: Food Safety (Good Agricultural Practices), production recommendations</td>
</tr>
<tr>
<td>Buyer Assistance: Procurement of non-standard items</td>
</tr>
<tr>
<td>Market Promotion</td>
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</tbody>
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Limehouse Produce currently employs almost 70 mostly full-time workers. Their workforce has grown steady in recent years along with current annual revenue that are well in excess of $20 million. They deliver produce to all customers and provide pick-up for all supplying farms within a 25 mile radius of their warehouse. In season, local suppliers account for roughly one-third of total produce purchases. Most, but not all, of their produce comes from a 150 mile radius so they are an important market for several larger farms in other parts of South Carolina. Limehouse Produce has 36 delivery trucks making daily deliveries over approximately 30 routes Monday through Saturday.
From an economic perspective, it is important to measure key indicators to identify control points that might strengthen the local economy and identify strategies that could be replicated in other locations. It is also important to identify barriers to growing the LFS and how organizations such as Limehouse Produce could help overcome such barriers.

**Business Situation: Interface with Charleston LFS**

Demand for locally sourced foods stems from a variety of sources. Consumers can obtain these products directly from farmers, in raw or processed form through standard retail settings (primarily grocery stores), or as a prepared meal through a foodservice establishment.

Two survey instruments were developed to assess the effectiveness of Limehouse as an element in the local food system in the Charleston area. Buyers of Limehouse Produce products were asked to fill out a survey as were suppliers (farmers). Among responding buyers, 10 restaurant and two grocery stores provided responses. Survey responses were received from ten suppliers of Limehouse Produce. The following contains a discussion of these survey results.

**Perceptions Held by Local Supplying Farmers**

Based on our observation that Limehouse has worked with many local farmers in helping them overcome business challenges, it is our contention that they have developed a positive image among most producers. Among the ten responding farmers, most have been in business for a long time (an average of 37.2 years across all respondents). Respondents varied in size with annual sales of $10,000-$20,000 for two respondents to $100,000 or more for four responding farms. Virtually all responding farms indicated strong growth in sales over recent years with the majority indicating annual growth in sales of 25%-50% or greater.

Relationships with Limehouse Produce and their supplying farms are generally long-standing and positive. On average, suppliers have had a business relationship with Limehouse Produce for 22.3 years. Limehouse is a major market for most of the survey respondents. Two respondents indicated that Limehouse Produce purchased 5%-15% of their produce, three respondents indicated Limehouse was responsible for 15%-25% of their produce sales, one respondent stated Limehouse purchased 25%-50% of their produce and three respondents indicated that Limehouse was responsible for 75%-100% of their produce sales. Survey respondents had a mixture response to the related question, “should Limehouse stop operating, where would you sell your produce”. Several respondents indicated they had no current alternative market outlet (with the responses “good question” or “I would stop planting”). Others indicate they would increase direct sales to consumers or grocery stores or other market intermediaries.

Survey respondents stated that barriers to growing their business ranged from government regulations, lack of access to labor, capital or land, product distribution, and unfair competition (non-local sellers posing as local). Among nine respondents, four indicated that Limehouse Produce had at least to a large extend assisted them in overcoming the barrier in question and three respondents indicated that Limehouse had assisted to some extent. Despite the diverse and non-market access nature of at least some of the barriers, Limehouse Produce to at least some extent has assisted the typical producer in overcoming barriers.
Responding suppliers tended to be very positive in their evaluation of Limehouse Produce. For example, in response to the question regarding the contribution of Limehouse to their business success, four respondents indicated that “our success is due to them” two respondents stated that Limehouse has made a large contribution toward their business success while two respondents indicated that Limehouse Produce has to some extent contributed to their success. Comments by survey respondents highlighted this generally positive relationship. One survey respondent characterized their relationship with Limehouse Produce as one of “teamwork” and another as “very good” and one other as “a close business relationship”. Another respondent indicated that Limehouse “has been a tremendous help in establishing myself in farming” in part by providing advice and even equipment.

The few complaints about Limehouse Produce usually centered on price. One respondent wished that the prices they received from Limehouse Produce would increase given the growth in their own input costs while another suggested higher purchasing prices for very small growers. In terms of changes in how Limehouse Produce operates, one producer wished for a salesman devoted to locally grown produce and another similarly wished for greater involvement in their farm activities.

Producers also tended to feel that Limehouse Produce plays a major role in the Charleston area local food system. With respect to the statement, “Limehouse Produce has played a major role in growing the local food system in the Charleston area”, two producers agreed and six respondents strongly agreed with the statement (Figure 2). This set of survey results provides support for our contention that Limehouse Produce is generally seen as a major player in the local food system in Charleston and an important element in that growth. Comments by suppliers also backed up this assertion. For example, one respondent indicate they would “like to thank Limehouse for all they do for the small local farmers” while another indicated that “Limehouse Produce has been a very good asset to the farmers in the community.”

![Figure 2](image_url)

**Figure 2.** Agreement by Suppliers with with Lime House Produce has Played a Major Role in Growing the Charleston Area LFS.
Serving as a supplier to Charleston’s Foodservice Operations

In general and consistent with results of Limehouse Produce suppliers, the survey results from buyers indicated the Limehouse fills an important role in Charleston’s LFS. The 12 responding buyers have been in business for an average of 10.8 years and on average have done business with Limehouse Produce that same length of time. Buyers indicated a broad range in terms of using Limehouse Produce versus firms or organizations as their source of local produce; several buyers use Limehouse exclusively, while others indicated they use several other businesses or operations to source locally.

Buyers were also asked the percentage of produce that they sourced locally. As a group, respondents indicated that local produce formed a major component of all produce purchases. Among the seven respondents who knew the degree to which they sourced locally, two respondents indicated they sourced 1%-5% of their produce locally, one indicated they sourced 15%-25% of their produce locally, three indicated they sourced 25%-50% of their produce purchases from local sources, and one indicated they sourced 50%-75% of their produce locally.

Limehouse Produce usually played an important role in local sourcing for responding buyers. In responding to the question regarding the degree to which they have used Limehouse Produce for local sourcing, responses ranged from minor (5%) to complete (100%). Six out of the eleven respondents to this question sourced at least half of their local produce through Limehouse and the numeric average across all respondents was 50%. However, in response to the question “what would be your expected percentage decline in local sourcing of produce if Limehouse ceased operations”, the results were more mixed. Among the ten respondents to this question, three indicated no decline, four indicated only slight percentage declines (ranging from 0.5% to 3%) and three respondents indicated significant declines (one 30% and two 50%).

Respondents also had mixed opinion regarding the extent to which they felt Limehouse had contributed to the success of their business. Among ten respondents to that question, two respondents indicated to a small extent, five indicated to some extent, and three indicated to a large extent. None of the respondents indicated that “our success is due to them”.

Survey respondents also had differing opinions with regard to the role that Limehouse Produce plays in the local food system in Charleston. Specifically, with respect to the statement, “Limehouse Produce has played a major role in growing the local food system in the Charleston area”, two disagreed with that statement while one respondent neither agreed nor disagreed. On the other hand, three respondents agreed with the statement, and three respondents strongly agreed with the statement (Figure 3). Accordingly, two-thirds of respondents felt that at least to some extent Limehouse Produce has been a major player in the development of the Charleston area LFS. Hence, while the results are somewhat mixed and not as strong as the support expressed by Limehouse Produce suppliers, this set of survey results provides support for our contention that Limehouse Produce is generally seen as a major player in the local food system in Charleston and an important element in that growth.
Agreement of Buyers that Limehouse Produce has Played a Major Role in Growing the Charleston Area LFS.

Entrepreneurial Focus of Limehouse Produce (Supporting LFS Development)

Limehouse Produce is facilitating a marketplace that enables more local actors to become creative in their product development and strategies. Many food businesses in the Charleston area have some type of relationship with Limehouse Produce. For example, as one responding supplier indicated, Limehouse Produce had provided direct assistance to their operation in terms of lending equipment and advice. Other suppliers are highlighted on the Limehouse Produce website and on their Facebook Page.

Efforts to support the development of the LFS include the Dirtworks Farm Incubator housed on their farm property, financial and other forms of assistance in helping supplying farms obtain good agricultural practice (GAP) certification working in conjunction with local Clemson University Extension personnel. They have also provided financial support for the construction of a certified GAP Shed on their property that producers can use to pack their produce in a manner that meets GAP standards. (GAP certification, a set of farm practices required to insure safe food, is increasingly being required by buyers.) Among responding suppliers, for example, five respondents indicated that Limehouse Produce had assisted with their GAP certification process to at least some extent. The support of GAP activities by Limehouse is win-win for all in that Limehouse Produce and its suppliers can experience growth in their markets and local buyers have increased access to high quality and safe locally provided produce.

Limehouse Produce has facilitated the development of a local incubator farm in cooperation with LowCountry Local First (a regional LFS organization) and Clemson University Extension. Specifically, Limehouse Produce has leased 10 acres of land to LowCountry Local First for $1 annual rent, to conduct the Dirtworks Farm Incubator to train a new generation of local food
suppliers. The incubator farm is helping to ensure that local markets will have new growers entering the local supply chain in the future. Limehouse Produce leadership also conducts training courses on produce purchasing procedures for an academic culinary program at the regional technical school (Trident Technical College 2014). Limehouse Produce leadership expects to provide similar training for a (local) Dorchester County sponsored culinary training program later this year.

The training efforts (especially the GAP training) and the GAP shed are examines of Limehouse Produce providing specific technical and infrastructure support to a new generation of entrepreneurs in the Charleston area.

**Limehouse Produce: Positive Outcomes and Benefits to the Community (Philanthropy)**

Limehouse Produce has also contributed to the development of the Charleston LFS in other ways. Limehouse has provided support for the local food bank (Lowcountry Food Bank) and local faith-based feeding the poor efforts. For example, they provide produce to a regional crisis ministry three times a week and supply the local food bank with produce weekly. They have also introduced the local food bank to possibly sources of local produce.

Support is also provided to other organizations involved in the Charleston Area LFS including board membership for LowCountry Local First, the Trident Technical College Foundation, the Lowcountry Food Bank, and Eat Smart Move More (a nonprofit with the goal of reducing obesity levels especially among children). Limehouse produce also provides sponsorship for several local events including but not limited to Lowcountry Food Bank Chef’s Feast, Charleston Food and Wine Festival, and Taste of Charleston. In total, Limehouse Produce Leadership estimates that they provide 100 hours in staff time annually supporting local philanthropic and LFS advocacy efforts.

**Services Provided by Other Companies and Partners**

Limehouse Produce works with several key partners in providing support for the Charleston LFS. As previously discussed, the relationship with Clemson University Extension has been key in facilitating the development of the GAP certification and GAP shed efforts. Limehouse provided the financial backing for both efforts; currently, 16 local farmers have received GAP certification through the Clemson certification effort, seven of whom are Limehouse Produce suppliers. Limehouse Produce provided the farmer contacts for the certification effort with Clemson; non-suppliers have accessed this program based on word of mouth.

LowCountry Local First is a nonprofit dedicated to supporting small local businesses and the LFS (LowCountry Local First 2014). LowCountry Local First manages the Dirtworks Incubator that is housed on the Limehouse Property. LowCountry Local First has a close working relationship with Limehouse Produce in the day-to-day management of the Incubator.

Trident Technical College is part of the state government supported post-k-12 training system in South Carolina. The community college is responsible for two year technical degree programs in
the Charleston area (Trident Technical College 2014). As discussed, Limehouse Produce has assisted Trident Technical College in its culinary arts program with training in food buying procedures.

Limehouse Produce has also established a relationship with the South Carolina Farm-to-School Effort, which is a S.C. Department of Agriculture effort to supply local schools with fresh produce grown on S.C. farms (Farm to School 2014). The program has become a major market for Limehouse Produce. Besides enhancing the market for Limehouse and its suppliers, the effort hopefully is contributing to a reduction in the state’s high childhood obesity rate.

**Summary and Conclusions**

LFS are a small but rapidly growing component of the U.S. food system. Arguably, LFS provide disproportional benefits to local communities and may even provide part of the solution to national issues such as the obesity epidemic. Wholesale firms, such as Limehouse Produce, that are willing to market locally grown foods sourced from smaller farms can play a vital role in the development of LFS, such as found in the Charleston, S.C. region. In particular, they can serve as a bridge between small farmers and large institutional buyers by filling a gap between supply demand as what local food producers can provide on their own does not meet the needs of potential institution based local food buyers. Limehouse Produce arguably provides additional support to the Charleston area LFS through support of GAP training and a GAP packing shed, and by hosting a farm incubator. In this respect, Limehouse Produce can serve as a model for wholesalers in other regions who may be interested in developing their LFS.

Our analysis of survey results of buyers indicates that Limehouse is an important but usually not sole source of locally provided produce. Surveyed buyers also in general felt that their relationship with Limehouse Produce was important but not essential to their operations. Buyers also indicated that they had a very good relationship with Limehouse Produce, although some issues do exist. Finally, a strong majority of surveyed buyers felt that Limehouse Produce was at least to some degree an important player in the Charleston LFS.

Analysis of local suppliers (farmers) to Limehouse Produce showed an even more positive picture. All responding suppliers saw Limehouse Produce as a major reason for the growth of the Charleston area LFS. Several stated that the existence is due to Limehouse Produce and others indicated that replacing Limehouse Produce as a local buyer could be highly problematic.

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