Small Agricultural Enterprise Logistics

Getting from paddock to plate
A project investigating the extent of need in Central West NSW for a domestic freight model that enables small agribusinesses to deliver irregular, low volumes of agricultural produce to clients in an efficient, timely and affordable manner.

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In this report, RDA Central West, with the support of the NSW Department of Industry, investigated the extent of need in Central West NSW for a domestic freight model that enables small agribusinesses to deliver irregular, low volumes of agricultural produce to clients in an efficient, timely and affordable manner. The role of RDA Central West was to foster discussion, manage stakeholder communication with industry players and investigate potential solutions and freight models.

The need for this project was identified in the RDA Central West Value Adding to Agriculture in Central West NSW report, published in 2016, in which connectivity to market was identified as a key challenge for Central West agricultural small and medium enterprises (SMEs).1

Freight and logistics was nominated as one of the three greatest impediments to value-adding and supply chain efficiency in the agriculture sector in the Region. Packaging and freight were the fifth most frequently nominated cost imposts for SMEs.2

Many small to medium sized agribusinesses and niche producers, including wineries and horticultural producers, report significant difficulties in distributing products directly to clients such as retailers, cafes and restaurants in metropolitan areas like Sydney and Canberra. These businesses need to get small quantities (for example, one or two cases of wine) directly to high expectation clients in a timely manner. Freight into Sydney goes to single distribution points but needs to be distributed further to individual clients.

Some producers find Australia Post, though very costly, the best direct solution; however, Australia Post is not appropriate for products needing cold storage such as cheese, dairy and milk. Many producers in the region drive and distribute their products into metropolitan areas themselves, resulting in high fuel and time costs to the business. To date, it would appear that no freight business has been able to set up a cost-effective business model in this region to solve this niche market distribution problem.”

RDA Central West commenced research and stakeholder consultations for the Small Agricultural Enterprise Logistics project in July 2016, establishing a regional Industry Advisory Group in August 2016. An online survey was designed to collect information regarding freight needs and barriers, which was distributed through multiple channels to small agricultural producers throughout the region. The research, stakeholder engagement and survey process culminated in a SME Logistics Workshop in November 2016, convened by subject matter experts from Institute for Supply Chain and Logistics (Victoria University).

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1 RDA Central West (2016) Value Adding to Agriculture in Central West NSW p74
2 Ibid. p70
The project identified a number of key findings and potential solutions;

Lack of scale is the key challenge facing small agribusinesses in the Central West when it comes to delivering their product to market in an affordable, efficient manner.

Forming regionally based, producer driven collaborations or alliances to consolidate freight, storage and delivery, is a possible solution.

The complexity of logistics, and the lack of expertise and time for producers, means attempting to vertically integrate supply chain into the small agribusiness can be difficult and costly.

Small agrifood producers need to be realistic about logistics. While the notion of a shortened supply chain is attractive, the functions to plan and execute the flow of products must occur. New digital tools to facilitate consolidation, e-commerce and traceability will assist small agrifood enterprises in their freight and logistics. Collaboration and alliances may reduce the cost burden.

Cold chain logistics is a significant issue for agricultural producers.

It is also critical for the pharmaceutical industry and could have implications for the growing biotech industry in Central West NSW. Few freight operators in the region provide refrigerated transport and those who do may not handle small, irregular quantities for economic reasons. There may be scope to explore opportunities from small agrifood producers to leverage backloads of pharmaceutical transport from Sydney. There may be opportunities for a collaborative approach to establishing a centralised refrigerated storage hub in the region linking to Sydney.

The conflicting needs and lack of understanding between producers and freight operators is a barrier to change.

In some cases, producers may rely on freight companies to find solutions, while freight companies may have a “not my problem” attitude. Improved communication and connection building, as was achieved at the Workshop, could improve opportunities to find solutions. There is a real need to find economic solutions that work for both producers and freight operators.

This report concludes with a case study detailing the formation of a producer driven alliance, formed as a direct result of the learnings and networking of the project Workshop. This success has led to a recommendation that the significant learnings of this project, the willingness of participants to share those learnings, and the capacity of the RDA network to bring the right stakeholders together, be leveraged to develop an incubator-style workshop to be extended to a larger number of agrifood producers across the broader region/s.

There is no one size fits all solution for small agribusiness logistics. Solutions will differ depending on the type of alliances formed, the type of products produced in the region, the mode of transport and storage needed, the existing infrastructure available, and the location of customers. The willingness of individuals to collaborate may also differ from regional to region. However, the Workshop model used in this project, bringing together producers, buyers, regional freight operators and subject matter experts, examining existing alternative freight models and informing participants of potential support programs, has proven potential to create incubators for much needed change in this space.

Opportunities and solutions to small agribusiness freight and logistics issues can emerge by considering new channels and problem solving in new ways, such as through digital platforms, new alliances and taking a logistics perspective.
**RDA CENTRAL WEST MISSION:**
Encourage initiatives that enable the Central West region to continue to grow sustainably

**BACKGROUND TO REGIONAL DEVELOPMENT AUSTRALIA — CENTRAL WEST**

Regional Development Australia — Central West (RDACW) is one of 55 independent, not-for-profit Incorporated Associations that form the Regional Development Australia national network. It comprises a small team of dedicated staff and a committee of local people jointly funded by both Australian and State Governments. RDACW provides input to the Australian, State and local governments on regional development issues and priorities, promotes investment and regional prosperity and raises awareness of programs and services available to regional communities.

The RDACW Mission is to ensure long-term sustainable growth and development of the region by driving and contributing to initiatives that will support economic and community development, social inclusion and environmental sustainability.

**THE RDACW REGION**

The Central West region of New South Wales covers an area of 63,000 square kilometres and is home to 177,000 people within the 11 local government areas (LGAs) of Bathurst, Blayney, Cabonne, Cowra, Forbes, Lachlan, Lithgow, Oberon, Orange, Parkes and Weddin. Figure 1.0 illustrates the geographic location of the eleven LGAs within the NSW Central West region.

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**Figure 1.0 Map of the NSW Central West region illustrating the 11 LGAs**

(Source: Regional Development Australia — Central West 2016)
Context

AGRICULTURE IN CENTRAL WEST NSW

Agriculture comprises 73% of Central Western NSW’s GRP, making it the region’s third most significant sector after mining and manufacturing. Historically the backbone of the regional economy, agriculture in Central Western NSW experienced a growth of 5% in GRP between 2006 and 2013.

The majority of businesses actively trading in Central West NSW are in agriculture.

DEFINING SMALL AGRIFOOD BUSINESSES

Agrifood businesses who participated in this project are defined as “small” or “micro”. For the purpose of this report, “small” is defined as employing fewer than 20 people and with an annual revenue of less than $2 million, and “micro” as employing between 1 and 4 people including non-employing businesses (micro businesses include start-ups in transition).

Medium businesses – those with a revenue of over $2 million and employing between 19 – 100 employees, would likely achieve better economies of scale and not experience the same freight and logistics barriers as small agrifood businesses.

Small agrifood businesses in Central West NSW include businesses which predominantly trade through farm gate, Farmers’ Markets (regional and metropolitan), regional and metropolitan cafes and food and wine merchants and online. Produce is usually value added through packaging and/ or processing to some degree.

Small agrifood enterprises may be farm based, such Down to Earth Produce in Oberon or Carbeen Pastured Produce in Manildra, or non-farm based, such as the Second Mouse Cheese Co. in Orange.

Tim Salmon and his partner Emily grow and sell 100% grass-fed lamb under their “Down to Earth Produce” label from the family property, Ambleside, in the high country of Oberon, NSW.

Tim estimates he spends approximately 20 hrs/week co-ordinating and delivering his product to and from the abattoir (in Cowra), to butchers in Bathurst and Penrith, and delivering to customers.

/ 3 RDA CW (2014) Economic Profile NIEIR, A.P. SHEERE CONSULTING
/ 4 RDA CW, (2014) NSW Central West Export/Import Contribution Study
/ 5 RDA CW (2016) Value Adding to Agriculture in Central West NSW p49

// 6 Business size is defined differently by regulators in Australia depending on the laws they administer. In 2015, the Federal Government’s Chief Economist acknowledged that business size structure varies between regions as well as between industries within each region in Australia (Business Council of Australia (2015) Building Australia’s Comparative Advantages; a 21 Century Agrifood Sector, p3). The Australian Tax Office, for example, defines a small business as one that has an annual revenue of less than $2 million. The Australian Bureau of Statistics (ABS), however, defines businesses by number of employees. A small business is defined by the ABS as a business employing fewer than 20 people.

/ 7 Australian Securities and Investments Commission website
WHAT IS SMALL AGRIBUSINESS WORTH TO CENTRAL WEST NSW?

ECONOMIC VALUE

Small businesses make a significant contribution to the regional economy. Small businesses support employment, communities and are incubators of new ideas, processes and products.

National figures reflect the value of small agricultural businesses. According to the ABS, in 2010–11, around 80% of total Agriculture, Forestry and Fishing “industry value added” is attributable to “small businesses” (actively trading and employing less than 20 people), compared with around 39% in the Services sector, over 20% in the Manufacturing sector and around 9% in the Mining sector.

Of the 5,175 registered Agriculture, Forestry and Fishing businesses known to have been operating in 2015 in the RDA Central West region, 33% had a turnover of $50,000 per annum or less, leaving 67% of businesses earning over $50,000 per annum.

Table 2: Agriculture, Forestry and Fishing businesses with a turnover of $50K or less per annum

<table>
<thead>
<tr>
<th>LGA</th>
<th>No. in 2015</th>
<th>If each business had a turnover of $25k/yr</th>
<th>If each business had a turnover of $50k/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bathurst Regional</td>
<td>262</td>
<td>$6.55M</td>
<td>$13.10M</td>
</tr>
<tr>
<td>Blayney</td>
<td>124</td>
<td>$3.10M</td>
<td>$6.20M</td>
</tr>
<tr>
<td>Cabonne</td>
<td>270</td>
<td>$6.75M</td>
<td>$13.50M</td>
</tr>
<tr>
<td>Cowra</td>
<td>148</td>
<td>$3.70M</td>
<td>$7.40M</td>
</tr>
<tr>
<td>Forbes</td>
<td>129</td>
<td>$3.22M</td>
<td>$6.45M</td>
</tr>
<tr>
<td>Lachlan</td>
<td>140</td>
<td>$3.50M</td>
<td>$7.00M</td>
</tr>
<tr>
<td>Lithgow</td>
<td>147</td>
<td>$2.67M</td>
<td>$7.35M</td>
</tr>
<tr>
<td>Oberon</td>
<td>115</td>
<td>$2.87M</td>
<td>$5.75M</td>
</tr>
<tr>
<td>Orange</td>
<td>169</td>
<td>$4.22M</td>
<td>$8.45M</td>
</tr>
<tr>
<td>Parkes</td>
<td>133</td>
<td>$3.32M</td>
<td>$6.65M</td>
</tr>
<tr>
<td>Weddin</td>
<td>56</td>
<td>$1.40M</td>
<td>$2.80M</td>
</tr>
<tr>
<td>Total for region</td>
<td>1,693</td>
<td>$42.32M</td>
<td>$84.65M</td>
</tr>
</tbody>
</table>

Table 3: Agriculture, Forestry and Fishing businesses with a turnover of over $50k per annum

<table>
<thead>
<tr>
<th>LGA</th>
<th>No. in 2015</th>
<th>No. in 2014</th>
<th>No. in 2013</th>
<th># Change between 2013-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bathurst Regional</td>
<td>350</td>
<td>344</td>
<td>329</td>
<td>+21</td>
</tr>
<tr>
<td>Cabonne</td>
<td>532</td>
<td>505</td>
<td>497</td>
<td>+35</td>
</tr>
<tr>
<td>Lachlan</td>
<td>478</td>
<td>475</td>
<td>441</td>
<td>+37</td>
</tr>
<tr>
<td>Orange</td>
<td>196</td>
<td>188</td>
<td>178</td>
<td>+18</td>
</tr>
</tbody>
</table>

Using two simple scenarios, it is possible to estimate the potential total turnover of those smaller businesses (i.e. with a turnover of $50k or less per annum). This is illustrated in Table 2, which shows that if a conservative estimate is used whereby these businesses earned only $25,000 per annum, this would equate to a total turnover of over $42 million per year within the region in 2015. This would increase to nearly $85 million per annum if the turnover figure used was $50k per annum, per business.

The greatest turnover increase between 2013 and 2015 was predominantly found with those Agriculture, Forestry and Fishing businesses with a turnover of over $50,000 per annum. The top 4 LGAs experiencing this growth in Agriculture, Forestry and Fishing business turnover are shown in Table 3.

Source: 8165.0 - Counts of Australian Businesses, including Entries and Exits, Jun 2011 to Jun 2015; A.P. SHEERE CONSULTING

/ 8 Data Limitations: The Australian Business register (ABR) data provided by the ABS was limited due to privacy issues resulting from small data numbers. As a result, data assessment at ANZSIC levels 2, 3 and 4 were not possible. Assessment of more specific turnover ranges by industry sector was also not possible.

/ 9 “Industry value added (IVA) is the measure of the contribution by businesses in each industry to gross domestic product”. Source: 8155.0 – Australian Industry, 2009-10 Explanatory Notes


/ 11
SOCIAL VALUE

Small businesses are the heart of communities and form part of the local identity – they are often family based, generate employment opportunities and innovative business thinking.

Tim Mazzarol, Professor of Entrepreneurship, Innovation, Marketing and Strategy at the University of Western Australia, describes small businesses as “the engine room of the national economy” and notes that “the majority of small firms are little more than self-employed people or the leaders of small teams (often families).”¹³

A 2013 Australia-wide Galaxy Poll found that over half (58%) of respondents agreed that small businesses provide their community with an identity.¹⁴

Start-ups, in their early stages, can also be defined as small businesses and bring innovation and employment opportunities to rural and regional areas.


¹⁴ Galaxy Research conducted online among a representative sample of 1,003 residents, 18-64-year-old, throughout Australia including both capital city and non-capital city areas. Galaxy Research (Oct 2013) Shop Small Business Strategy, prepared for Ethical Strategies
Methodology

A five-phase approach was used to develop this project:
/ Research and literature review, exploring freight models
/ Formation of Industry Advisory group
/ Surveys, interviews and consultations with stakeholders
/ SME Logistics Workshop
/ Analysis of findings and development of report

RDA Central West commissioned subject matter experts from the Institute for Supply Chain and Logistics (Victoria University) to convene the SME Logistics Workshop in November 2016 to explore the problems and potential solutions. This report includes details of the Workshop proceedings. It also includes case studies and survey results from agrifood SMEs in the region.

INDUSTRY ADVISORY GROUP

In August 2016, an Industry Advisory Group was formed to provide industry insight, direction and networking capability to the project. The Industry Advisory Group included:
/ Greg Kocander – horticultural producer
/ John Reynolds – orchardist
/ Kai Woltman – cheese producer
/ Tim Hansen – venison producer
/ Ed Fagan – horticultural producer
/ Rodger Shannon – Carbeen Pastured Produce
/ Reg Kidd – RDA Central West Committee Member and Orange City Councillor
/ Georgie Neal – Former produce buyer for boutique hotels in Canberra and Sydney
/ Chrys Gunasekara –School of Management and Marketing, Charles Sturt University
/ Alvaro Marques – NSW Department of Industry

The Industry Advisory Group agreed that a one day workshop should be organised to bring together producers, buyers and freight operators to identify and work through the issues, get a better understanding of perspectives, needs and barriers for each group, and potentially to form new connections that may lead to solutions.

ONLINE SURVEY

An online survey was developed and distributed via email and social media channels Facebook and Twitter. The survey was shared by individuals and organisations with significant reach, including the NSW Department of Primary Industries (DPI) and regional marketing agency AdLoyalty.

The survey included questions on location, turnover, number of employees, agricultural sector and product, frequency of transport, product quantity and destination, customer type, current freight services and methods.

The modest response rate to the survey (18 respondents) can be attributed, in part, to ‘survey fatigue’, with many businesses reporting a level of frustration with the number of online surveys they are being sent from various sources over recent years.

Despite the modest response rate, the survey provided a useful overview across the region of a diverse cross section of agricultural producers. The majority of respondents came from Orange, Cabonne, Cowra and Oberon LGAs, with a smaller number from Bathurst, Forbes and Weddin LGAs. No responses were received from Lachlan, Blayney, Lithgow and Parkes LGAs.

Participants represented a diverse range of value added regional produce including:
/ Fruit and Vegetables
/ Honey
/ Cut flowers
/ Eggs
/ Livestock (including venison, free range pork and chicken, beef and lamb)
/ Grain
/ Smoked trout
/ Wine, beer and cider
/ Olive oil
/ Cheese

Note: respondents could select multiple answers.
Quantity — between 1-10 standard cartons or boxes was the most common load size
76% of respondents needed to transport, on average, between 1-10 cartons per load.
18% needed to transport, on average, greater than one pallet (eg <64 wine cartons) per load.

Frequency — weekly transportation was the most common frequency required
45.5% of respondents needed to transport produce weekly.
28% needed to transport produce a few times per week.
11% needed to transport produce monthly.
11% needed to transport produce very irregularly.
5.5% needed daily transport.

Mode of transport — the vast majority used their own vehicle to transport produce
83% of respondents transported their product in their own vehicle.
33% use multiple services.
33% use Australia Post.
22% used only one freight service.
While “own vehicle transport” was the most common, this was not the preferred option of respondents as it was costly and took them away from the business for extended periods of time. Also, providing their own transport means empty backloads returning to the region.

Refrigeration — the majority of products required to be kept cool and transferred quickly
73% of respondents said products were “time critical”, meaning they did not require under 5-degree Celsius refrigeration, but did need to be kept cool and transferred quickly, for example, leafy vegetables and flowers.
54.5% said refrigeration under 5 degrees Celsius was required, most of these were meat producers.

Experience
When asked to describe their experiences with freight transport, respondents made the following comments;
“Tried numerous (freight operators), most either won’t work for small customers or are not economical”
“Too expensive”
“Postage… is unreliable and expensive”
“Majority of local refrigerated service providers are aligned (to) or partly owned by other meat processors (and) won’t accept competitor produce. Loss of cold chain control as product has been left at depots unrefrigerated and spoiled, or not co-ordinated with the local courier transporting from depot to client.”
“…courier service no longer do single case wine into Sydney

Collaboration
When asked if respondents had attempted collaboration as a solution to freight issues, respondents made the following observations:
“Haven’t found a way. Occasionally I have managed to piggyback with others, but mostly, bigger operators go to freight terminals and then I still have to get a courier to my end point. Too expensive” (dairy)
“As yet have been unsuccessful as we all have different timeframes and schedules” (meat and eggs)
“Collaborating with other producers is difficult because of varying requirements in regard to destinations, delivery times etc.” (meat)
“Yes, we share deliveries with a few others” (beverage)
“Yes. This is good if you are talking small quantities of produce, but if its bulk there is often not enough room or our clients are too far apart from where the different products are going” (horticulture)
“Yes. ORVA (Orange Region Vigneron Association) re Australia Post” (beverage)
“Everyone has own schedule, different destinations, and are time poor. It appears there is insufficient volume for new operator to be fully cost effective on a smaller scale.” (meat)

Half of the respondents said they had not attempted collaboration to solve freight issues. This may reflect a negativity among producers. It may also reflect a “too busy working in the business to work on the business” paradigm.
INTERVIEWS AND CASE STUDIES

Interviews and case studies formed a significant part of the qualitative analysis for this report. A level of disengagement was experienced from most freight operators approached for comment or involvement in the project. This may reflect the conflicting needs and possible lack of understanding between producers and freight operators.

Some producers identified through the Industry Advisory Group and Worksop have been included as case studies in this report to provide a more nuanced perspective of these issues.

An additional 21 producers surveyed in person at the Orange Regional Farmers in October 2016, expressed significant enthusiasm for the project, with the majority confirming that freight and logistics are a significant frustration and/or a barrier to growth. Two said they had made a conscious decision not to expand their business because the freight and logistics issue was “too hard and expensive”.

“I have spoken to three freight guys this week and four other producers. One obstacle standing in the way of progress is negativity by some producers and a “not my problem” attitude by freight companies. We need to create or find economic solutions.” —Cabonne LGA producer\(^{15}\)

\(^{15}\) Cabonne LGA horticultural produce in email correspondence with author

CARBEEN PASTURED PRODUCE, MANILDRA, CENTRAL WEST NSW

Carbeen was first purchased by Rodger Shannon’s great grandfather, a German immigrant, in the 1920s. Like so many modern farmers, Rodger realised the conventional farming methods of his grandparents were not going to work for him in the modern economy.

“We had to look at a different way of doing things,” explains Rodger. “We have a three-pronged approach to our business – it must be economically viable, it must enhance the environment, and it must be of benefit to our community.”

The Shannon’s actively encourage the employment of people over using machinery, wherever viable. “We want to live in a community where we are not losing teachers and others and towns aren’t depleting. Creating jobs is part of our goal.”

“We do embrace technology, but our business is primarily based on animals and to do that requires eyes,” says Rodger.

Carbeen currently employs one full time employee and one casual. Rodger says they would like to be employing up to 10 people in the next five years.

“We use a different employment model,” says Rodger. “For example, one of our employees is about to become the contract grower for our new duck business. We have a number of different enterprises we want to incorporate into the business and we want to give our employees opportunities to be invested. We are creating a culture.”
Rodger says he has tried to collaborate with others but “as yet have been unsuccessful as we all have different timeframes and schedules.”

“It’s not a short-term fix. Case in point, I have an order for chicken I’ve had to cancel this week because I can’t get it into Sydney on a Friday. Refrigerated transport won’t go into the middle of Sydney on a Friday – it will only get as far as the depot at Moorebank. This refrigerated transport company is the only option we have because no-one else will take it by the carton (others want pallet loads). Some companies won’t even bother returning my calls.”

“I know a model that would work, but I just need to get all partners to agree. We need a warehouse and logistics hub specifically for the smaller, niche producers in the Central West. There is plenty of potential.”

“I’m frustrated by how short term profit driven agriculture is. So many people in agriculture can’t change what they are doing (even if they wanted to) because they are too busy trying to repay people.”

“It’s not a short-term fix. Case in point, I have an order for chicken I’ve had to cancel this week because I can’t get it in to Sydney on a Friday.”

—Rodger Shannon

Interview with Rodger Shannon (and his daughter Willi) in Manildra 23 Nov 2016

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On Tuesday 15 November 2016, RDA Central West co-ordinated the Agricultural SME Logistics Workshop, bringing together local producers, buyers and regional freight operators to understand the current issues and barriers from each perspective, and to consider possible alignments, collaboration and solutions. The workshop was facilitated by the Institute for Supply Chain and Logistics (Victoria University) and focussed on the key question – how can the Central West region create a sustainable, cost effective distribution model for goods produced by small to medium sized agribusinesses?

Twenty-three people participated in the workshop, including six representing the freight and logistics industry and eight agrifood producers. Representatives from the NSW Department of Industry and Central NSW Councils also attended.

Workshop Content & Speakers

Individual Introductions & What Is Your Biggest Problem?
Peter McMillan, Executive Officer, Regional Development Australia Central West
Hermione Parsons, Director, Institute for Supply Chain and Logistics, Victoria University

Session 1 — The Nuts & Bolts of Supply Chain & Logistics
/ Definitions
/ The Geography of Supply Chain & Logistics
/ The Real World – Supply Chain Systems & Competitiveness
/ Costs, Risk & Traceability
/ Value Chain & Customer Orientation

Session 2 — Guest Speakers
1. Lorraine Gordon, former NSW Rural Woman of the Year; and Program Director, Federal Government’s Farm Co-operatives and Collaboration Pilot Program, Farming Together (via Zoom)
2. Monique Barwell, Client Services Manager, Australia Post Farmhouse Direct (in person)
3. Buyers - Grant Hilliard, Feather & Bone; and Georgie Neal, Sift Produce. (via Skype)
4. Martyn Hann, CTO, Freight Exchange. (in person)

Overview, Summary & Conclusions – What does this mean for you?

Session 3 — Best Practice Agri-food SME Supply Chain and Logistics Models and Practices
/ Global Perspectives Models & Case Studies
/ How are Agri-food SMEs tackling Supply Chain and Logistics?
/ What was successful? What didn’t work?
/ Reflection of Models offered in Session 2
Rose Elphick, Industry Research Fellow, Institute for Supply Chain and Logistics, Victoria University

Session 4 — Our Biggest Problems? Future Options & Practical Solutions
/ Producer and Supplier Perspectives
/ Option Exploration – Geography, Markets, Multimodal Logistics
/ What currently exists that can help?
/ Supply vs Demand Led Solutions – Thinking Anew!
Hermione Parsons, Director, Institute for Supply Chain and Logistics, Victoria University
Rose Elphick, Industry Research Fellow, Institute for Supply Chain and Logistics, Victoria University
SME Food Producers
IDENTIFICATION OF THE SME LOGISTICS CHALLENGES

The key logistics challenges identified at the Workshop included:
/ The need to improve farm gate returns by managing transport more efficiently;
/ Finding a cost-effective model to service Sydney customers and Sydney Airport;
/ Refrigerated transport of small volume beef carcases and fresh cuts to wholesalers;
/ How producers in the region might explore the opportunity of direct flights to Asia via Canberra Airport;
/ Overcoming the limitations in cost and time of undertaking door-to-door deliveries into Sydney restaurants/food service venues;
/ Getting vegetables to wholesale markets in Sydney and Brisbane;
/ Logistics for farmers’ markets;
/ Understanding the potential for regional logistics service providers to optimise line haul to capital cities;
/ How to balance control and cost in the supply chain for each product.

The key characteristics of supply chain development were identified as:
/ Complexity. Many different channels exist for many different types of suppliers;
/ Supply chains in a continual state of structural change (globally, nationally and locally);
/ Increasing competition and speed of change;
/ Traceability and “total cost” mindsets;
/ Many logistics tasks will still need to be done by third party providers. Outsourcing may not necessarily reduce costs for producers in these instances.
/ Productivity involves ensuring companies and people do what they do best, which may or may not include logistics;
/ Successful logistics is a key to stronger sales and stronger business;
/ Control is the key, ongoing issue and therefore new forms of mature, commercially constructed agreements and cooperation are required;
/ Enduring trusting relationships lie at the heart of supply chain success.
THE NUTS AND BOLTS OF LOGISTICS

The distribution channels available for agrifood SMEs to access markets and the characteristics of each channel are as follows:

**Export**
- Full container loads
- Use of international forwarder
- Terms of trade determine complexity
- High value products make airfreight viable

**National distribution to major customers**
- Palletised product
- Efficiency is dependent on full truck load (FTL)
- Focus is on getting product to Customer distribution centre
- Logistics with national reach
- Risk is shifted to logistics service provider (LSP) to meet delivery windows

**Wholesaler**
- Multiple small consignments
- Buffer stock required (factor in the cost of storage)
- Focus on inventory control
- Risk resides with the supplier/producer

**B2B E-commerce**
- Forecasting demand key to profitability
- Determining locations for distribution nodes and storage
- Pick and pack operations/product sortation required for more item level shipments
- Compressed delivery schedules
- Multiple interactions with customers

**Foodservice**
- Multiple repeated route cycles
- Just in Time (JIT) delivery model

**Retailer/specialty outlets**
- Multiple small consignments
- Use of courier transport with premium price
- Loss of scale economies
- Ordering systems as the key to assembling logistics
- On-site storage required at producers’ sites

**Direct to end consumer**
- e.g. drop shipment, farmers market, B2C on-line sales
- Multiple small consignments
- Multiple product lines (SKUs) to manage
- Back of house administration costs
- Use of delivery vans (LCVs)
- Cost of refrigeration in storage and transport
- Forecasting demand key to minimising wastage and assuring supply
- Management of product wastage/commission sales/surplus stock and returns
- Potential to combine distribution with on-line ordering

Source: VU ISCL, 2016
THE TRANSPORT OPTIMISATION PERSPECTIVE

Freight Exchange is an on-line transport booking platform which enables regional carriers to offer transport and shippers to book their transport. The aim is to optimise truckloads and reduce environmental and social impacts of trucks. Backed by major companies and government agencies, FreightExchange has a relationship with HiveXchange, which offers a platform for producers to sell in the Sydney region.

FreightExchange offers technology to create bookings, complete paperwork, handle quotes and payments. It enables carriers to set their own prices and transact on the regular and spot markets. Consignors can check the transport company’s accreditations.

“We believe there are opportunities for freight collaboration/alliances in Orange and other similar areas. We’re very interested in exploring the options around scheduled services into major markets such as Sydney where producers can see when the service leaves and take an allocation of space on either a one-off or regular basis. This will allow more certainty around transport arrangements and costs.”
—Martyn Hann, FreightExchange

THE BUYERS’ PERSPECTIVE

Feather and Bone Pty Ltd sources whole, pasture-raised livestock, poultry and eggs directly from farms committed to genuinely sustainable soil, plant and animal health, and supplies produce through retail outlets, farmers’ markets and direct-to-customer from its on-line store which services the Sydney region.

Sift Produce sources fruit and vegetable products within 1-2 hours reach of Sydney, delivering food boxes direct to customers. The aim is to provide a market opportunity for smaller growers, guaranteeing that the consumer receives very fresh product.

Georgie Neal has experience as a buyer for hotel chains and is aware of the importance of the relationship between the grower and B2B/B2C buyers. Sift Produce collects from farmers and distributes via a farmers’ market stall.

“I see it becoming increasingly necessary for a group of like-minded producers and chefs to be working together to consolidate freight. It’s really the only answer. There’s no question there is a market for quality produce.

Volumes are then worthwhile for producers and freight is spread across pallets, making it viable for costs to be shared. The question becomes deliveries within the city... but I really think someone going to Flemington twice a week and distributing is completely possible.

As far as I know there is no carrier that goes direct to the CBD. All goods are unloaded and “decanted” into smaller vehicles at depots on the outskirts of Sydney or at Flemington etc. Overall it often comes back to volume to make any kind of regional freight viable, but someone has to cover the costs and often it makes things unaffordable / too hard at my end... very few people will go to the extra effort and cost faced especially when there is an option closer and cheaper to home.

I choose these producers because I believe in what they are doing and I have great respect for their produce, but I do believe that the freight nightmare has had a significant impact on my ability to source all I would like from them and other likeminded operators.

The other question is who is delivering/the quality of the drivers and freight company. I know pretty well that the produce leaves these farmers in mint condition unless I hear from them.

If a freight company is involved and then another courier into the city, what happens? I have seen first-hand the complete lack of care taken and the outcome is that the produce may well arrive in a very different state than when it left.

The whole point of this is to have the freshest, best quality produce and in a few seconds this can be completely compromised. I don’t mean to sound precious, but otherwise what is the point of going to this trouble?”
—Georgie Neal, Sift Produce
Quantities of product which are less than a pallet load (e.g. a few cartons of ducks), are difficult to distribute due to the freight costs per unit and finding a supplier to handle smaller consignments of perishable product. Whilst abattoirs will process and deliver larger animals, smaller animals and eggs are more difficult to distribute, again due to cost and finding a logistics partner.

Both buyers suggested that the consolidation of product in the Central West Region may address the needs of producers, especially if bookings could be made on-line and buyers know what product is coming and at what time. Meat often needs to age so it has different logistics requirements to highly perishable fruit and vegetables. If producers are able to consolidate product at pallet level, this can reduce costs. Booking on-line would also help the logistics supplier to assemble pallets of compatible products or requirements (e.g. to protect the cold chain).

Regular deliveries would also help to manage logistics, say twice weekly on a set delivery schedule. Grant Hilliard felt that there was no need to build a new system or distribution network, but it was essential to work out how to hook into existing logistics. Critical mass is the key.

He contends that “shortening of the logistics chain” is desirable at every level, as producers, chefs and consumers want a direct relationship with the producer, as provenance and food integrity underlie the marketing of a premium product.

**THE E-COMMERCE PERSPECTIVE**

Farmhouse Direct is an Australia-wide on-line farmers’ market, hosting 400 producers across five major product categories. Producers vary in size. Producers selling for the first time on-line are reported to find Farmhouse Direct an easy means to test E-commerce, with or without their own website.

Monique Barwell demonstrated the Farmhouse Direct platform and explained that farmers with their own website can put their payment gateway through Farmhouse Direct, so they do not need to manage payments.

Bigger producers usually have their own website – e.g. Fresh Citrus Direct – which is entirely an on-line business; however, they also list product on Farmhouse Direct to enable an additional sales channel.

45% of sales on-line are done through marketplaces, which supply security for consumers. Last year the online spend of Australians grew to $8.4 billion, doubling the spend over a few years.

Australia Post also has an on-line sales platform with logistics for ecommerce sales to China via the two major platforms Tmall and JD China.

“I think there is an incredible opportunity (with RDA Central West support) to create a regional pilot with a collection of eager producers to offer “A Taste of the Central West”. We have always thought that this would be really successful.

One of our challenges is offering Farmhouse customers a mixed offering with only one postage cost associated with it, as we are the marketplace not warehouse facility, and we want to if possible remain this way so that the relationship remains directly from producer to consumer. Therefore, this needs to be led by the producers. This could be highly beneficial for the producers, depending on the model they create and of course we would provide guidance on what product mix would work well and assist them with trials and manage the marketing.

This could become a regular income stream, particularly if the mixed offering was a selection of meat, fruit and veg that a household might order on a regular basis...Some of our producers do already collaborate, for example, they mill another producer’s rice and sell the rice flour, or, they supply the olives that go into another producer’s herb and olive salt. However, we haven’t managed to encourage producers to work together to supply customers directly a mixed offering from their locality...with the right local producers, with our guidance and the existing Farmhouse platform, plus the Auspost network — we could do this!

There is also no reason once we have one group up and running we couldn’t replicate it with groups of mixed producers across the region.”

—Monique Barwell, e-commerce specialist, Australia Post Farmhouse Direct
Farming Together is an initiative of the Australian Government Agriculture White Paper. The Program is about collaboration, and aims to return more farmgate value to rural producers who would like to value-add to their produce and move away from commodity export. It is geared around groups of producers, is grassroots in nature, and is driven by the farmers themselves.

It is expected that around 2,000 groups will come into the Program. Each group undertakes a needs assessment with staff or consultants. The diagnostic tool to determine each farmer group’s needs is posted on the program website. Groups will then be matched with the expert advice they require.

A number of these groups will then be funded to develop their initiative to increase farmgate value. These are the collaborations that demonstrate the ability to transfer their model elsewhere or to create a legacy or be a “game changer”. There are now 480 farming groups connected since commencing the program three months ago, and it is reported that small producers have not had this level of investment before.

The program is not prescriptive about the need to establish a co-operative structure. While Australia meets a high standard in farming practice, it records low levels of collaboration. The aim of this program is to put the power back into the family farms and help them to avoid being a price-taker.

The program will help groups to set up a co-operative or alliance to provide a foundation to the value-adding initiative. A number of models, other than co-operatives, were described. The group needs to demonstrate collaboration, and it is recognised that the initiatives may be based on simple ideas that might have the potential to turn industries around in the longer term.

“If you were to picture a funnel with the interested farmer groups at the top, the Farming Together Program will act as the centre of the funnel to channel ‘gold’.”
—Lorraine Gordon

Lorraine Gordon, Director of Farming Together, noted at the Workshop that while some negative publicity around co-ops has occurred, these concerns relate to governance and not necessarily to the entity model. A co-op needs a constitution that will protect members from producers switching between better deals and the co-op. It is vital to protect members and supply volumes to keep the entity strong. This issue often determines the success or failure of cooperatives, hence the advice to focus on larger volume, lower value products, for example selecting juicing apples rather than premium apples.

Participants discussed the pros and cons of co-operative models.
The following points were made –
/ Co-ops are often set up when an area is under stress with commodity pricing;
/ More co-ops have not worked versus the number that have worked;
/ Appledale is a regional juice co-op which has operated for 37 years. Over that time the Board has developed strong trust with shareholders.

Lorraine Gordon stressed that transport and logistics is vital to these collaborative ventures, as was recently shown by the Mid North Coast Logistics Study.17 The participants discussed the possibilities of the Farming Together Program embracing collaborative projects with the transport sector.

WORKSHOP INSIGHTS
/ One producer had a vertically integrated business supplying organic meat and poultry to retail outlets through an online platform. The business had invested in its own processing facility, cold storage and refrigerated transport fleet for Sydney, and regional and interstate deliveries. This business has been able to eliminate intermediaries in its supply chain.
/ Another producer spoke about the co-op model and how it had successfully operated for many years in the region. One drawback experienced has been the inability of co-ops to attract government funding due to the governance structure compared with individual companies. The success of this co-op had been in the quality of decision-making from the Board, clear and common objectives, and taking the long-term view. A current co-op challenge is extending supply to a six-month period, which involves investment in storage and harvesting in the shoulder season. Another producer involved in a co-op indicated that members could be challenged by alternative channel offers with higher rewards, putting the stability of a co-op at risk.
/ Producers indicated they like to make their own presentation of their product to chefs – “my passion-my story.” Producers are concerned they lose their identity if selling via wholesale.
/ Producers pointed out that supplying their own transport makes it harder to get backloads.
/ Workshop participants agreed that infrastructure solutions, such as roads, take time and cannot be relied on in the short term to resolve logistical problems.
/ Some producers have responded to the logistics challenge by establishing minimum consignment size, realistic delivery timeframes where possible for the product, or limiting the geography they serve.
/ A regional freight operator commented that producers tend not to understand the freight operators’ cost base (fuel/wages/maintenance) which creates an inability to provide the on-demand service producers desire. The freight operator said that for producers need to collectively organise full pallets of freight to obtain lower freight costs.

Exploring Alternatives

A number of international and Australian case studies demonstrate different approaches to tackling local, regional, city and farm delivery systems for small producers, based on the level of control and investment that each group of producers saw as being appropriate for their situation.

Bruny Island Cheese (Tasmania)

Bruny Island is remote – 35 minutes south of Hobart and accessible only by ferry and air. Yet despite the tyranny of distance, Bruny Island Cheese company has managed to develop a “cheese club” of over 21,000 members, which ships cheese in under 48 hours at a flat rate of $15.

Bruny Island Cheese overcame the logistical nightmare of a lack of a refrigerated door-to-door service in Australia by building its own complex freight network by contacting various carriers across the country. They use specially designed ‘chill boxes’, pack all online orders on a Monday and get them to the airport on Tuesdays. Orders arrive within 2 days. The cheese club now makes up 50 per cent of the Bruny Island Cheese business.

ETELÄ-SUOMI (Southern Finland)

This case study demonstrates how two groups of small producers in meat and bakery products were able to collaborate to lower the costs of delivery to the metropolitan market. The initiative was formed with the Vikki Food Centre at the University of Helsinki, food and logistics experts, the Finnish Food Information Association and the Finnish Ministry for Transport. Two logistics solutions were developed across four areas 150-250km from the city.

The first stage was to assess the logistics needs of over 200 SMEs in the region. The potential logistics solutions to match these requirements were then assessed, both in the region and in Helsinki. The Finnish Food Information Association had an on-line platform that was adapted from an unsuccessful “business to customer” (B2C) operation to a “business to business” (B2B) sales and ordering platform for the SMEs, allowing them to sell to hotels, restaurants and specialist retailers. Common collection points were set up in the region for consolidating loads, and also in the city for backloading supplies for the producers. In addition, an ‘energy passport’ enabled calculation of how ‘green’ each supply rated, and this was used by the SMEs in their marketing.

Eleven producers are involved in the two collaborative groups. This was the first time that these companies had worked together, and the cooperation has now extended beyond transport to collaborative sales and marketing.
**FORK TO FORK (TASMANIA)**

This Hobart-based on-line farmers’ market connects producers and consumers via a B2C platform, with deliveries made direct to consumers on a set schedule Monday to Friday year-round. The logistics is operated by the farmers and 22 volunteers. Farmers nominate their delivery days on the site and pick to order. Fork to Fork is an initiative of Sprout Tasmania, a not-for-profit organisation. The organisation crowd-sourced $30,000 to establish the platform and commenced operations in 2015. Products include fruit, vegetables, meat, fish and pantry goods.

**FOODKO (SLOVENIA)**

Based on the Uber and AirBNB philosophy, Foodko connects farmers, transport companies and consumers via an online platform aimed at optimising farm gate prices, freshness and accessibility of produce delivered direct to consumers via truck loadings. This local delivery system can deliver direct to consumers or to delivery points/freight kiosks using local transport companies or via scheduled deliveries from suppliers themselves.

**DISTRIKEMPEN (BELGIUM)**

A group of five farmers from the Kempen region began a transport company to undertake regional deliveries. Distrego provides packing slips, pricing, taking orders and invoicing for the farmers through a simple and affordable IT platform. The farmers sell direct to consumers through “short supply chains”. The farmers enter an agreement to collaboratively bundle their logistics. Orders are consolidated and sent through to individual producers. Products are prepared, picked up and delivered to the end customer. Administration and finances for logistics are also consolidated on the platform. Collection and delivery to/from the farms is done at the same time, reducing wastage, kilometres, stocks and risks. Distrego works for the farmers on a fixed cost percentage. It is crucial that the transporter shares the values and acts as ambassador for the total partnership. Support to establish this concern came from Rurant, which specialises in regional craftsmanship and entrepreneurship, Co-opburo which provided legal advice in setting up, and ViL which is a logistics specialist.
This not-for-profit co-op provides marketing and distribution for 40 farmers to grocers and distributors in north eastern USA. It began as a promotion mechanism for local food, and soon realised that logistics was the key problem. It developed a full food distribution model based on leasing its own trucks and warehouse in Boston. It struggled to make the logistics cost-effective and eventually decided instead to broker existing transport and storage on behalf of the co-op. It handles sales, marketing and administration involved in getting product from farm to retail buyers. It facilitates a network of farmers, trucking companies, transport brokers to handle storage, grading, packing, aggregation and transport. In the off-season, it coordinates contracts and liaises with this network to plan for the next season’s demand. Growers are paid an extra rate per case if they bring their produce to the aggregation point. Some highly sensitive products such as strawberries and lettuce are sent direct from the farm, while other products are shipped via the aggregation point. Farmers with their own trucks ship not only their own product, but can complete their truckload with other farmers’ products, making their own shipment affordable as the transporter will get US$1.50 per case transported. The cost is calculated from the truck rental costs, the number of pallets and cases per truck, and is added to the buyer’s invoice.
Project Outcomes

This project confirmed the findings of the Value Adding to Agriculture in Central West NSW report that freight and logistics is a real barrier to growth for small agrifood enterprises. This project built on that finding, by bringing a group of diverse stakeholders together to create an environment for new ideas and solutions to incubate.

RDA Central West provided professional research and analysis, and facilitated networking opportunities for relationship building, investment and project partnerships. The project successfully connected small agricultural producers, freight operators, entrepreneurs and government programs and created tangible outcomes. The project identified a number of key findings and potential solutions:

**CENTRAL WEST FRESH**

As a direct result of the Project, and connections formed at the Workshop, a group of three Central West NSW producers is collaborating under the Federal Government’s Farming Together program to form a collaborative structure called “Central West Fresh” to:

- Focus on the supply of fresh produce direct from farmers in Central West NSW into metropolitan Sydney
- Research and negotiate advantageous bulk freight rates from Central West NSW to Sydney through combined palletisation opportunities
- Establish and operate a centralised refrigerated storage hub in Central West NSW
- Operate or link to a flexible refrigerated storage hub in Western Sydney
- Operate or link to customised, quality delivery networks or services throughout Sydney that allow producers to track their produce from farm gate to customer;
- Employ a Project Manager/ Business Development Manager who would manage logistics arrangements, generate sales leads, monitor quality assurance and strengthen links between the customer and the farm gate.

The “Central West Fresh” project has the potential to multiply the economic benefits for the Central West region, by bringing on board other producers who can supplement the volumes produced by the current proponents, or by supplying complementary products. It is expected that, as the cooperative is bedded down and the benefits of collaboration become apparent, the number of participating producers will at least double. The success of the collaboration would enable greater vertical integration of producers’ businesses and also further diversity of produce grown, this would provide significant employment opportunities directly and indirectly.

In addition, the success of the project is expected to encourage other farmer groups in the Central West and elsewhere to pursue similar outcomes through collaborative models. The project is also likely to generate economic benefits for Central West NSW by strengthening the region’s profile as a culinary tourism destination.

The participating producers have indicated they would like to share their learnings with other producers.
**RECOMMENDATION**

The significant learnings of this project, the willingness of participants to share those learnings, and the capacity of the RDA network to bring the right stakeholders together, should be leveraged to develop an incubator style workshop to be extended to a larger number of agrifood producers across the broader region/s.

There is no one size fits all solution for small agribusiness logistics. Solutions will differ depending on the type of alliances formed, the type of products produced in the region, the mode of transport and storage needed, the existing infrastructure available, and the location of customers. The willingness of individuals to collaborate may also differ from regional to region. However, the Workshop model used in this project, bringing together producers, buyers, regional freight operators and subject matter experts, examining existing alternative freight models and informing participants of potential support programs, has proven potential to create incubators for much needed change in this space.

“*For producers to obtain lower freight costs would require them collectively organising an entire pallet of freight... Great opportunities exist with co-operatives maybe as a sole freight solution to gain better buying power creating volume to achieve better pricing.*”

—Matt Corby, General Manager, *Mid State Freight, Bathurst*
Lack of scale creates expensive distribution models.

The complexity of logistics, and the lack of expertise and time for producers, means attempting to vertically integrate supply chain into the small agribusiness can be difficult and costly. Small agrifood producers need to be realistic about logistics. While the notion of a shortened supply chain is attractive, the functions to plan and execute the flow of products must occur.

“Last Mile” delivery models to restaurants and food services in Sydney

Cold chain logistics is a significant issue for agricultural producers. It is also critical for the pharmaceutical industry and could have implications for the growing biotech industry in Central West NSW.

Few freight operators in the region provide refrigerated transport and those who do may not handle small, irregular quantities for economic reasons.

Conflicting needs and possible lack of understanding between producers and freight operators.

Form collaborations or alliances.

New digital tools to facilitate consolidation, e-commerce and traceability will assist small agrifood enterprises in their freight and logistics. A feature of successful models is the use of digital platforms to moderate product flows and logistics supply.

Organisations such as Farmhouse Direct (Australia Post) can support a tailored logistics solution for the region and a district branding for the region’s produce on its platform.

Small agrifood producers need to be realistic about logistics. While the notion of a shortened supply chain is attractive, the functions to plan and execute the flow of products must occur.

A platform could be developed that could assemble full pallet loads for set delivery schedules twice a week to Sydney restaurants.

There may be scope to explore opportunities from small agrifood producers to leverage backloads of pharmaceutical transport from Sydney.

Opportunity for a collaborative approach to establishing a centralised refrigerated storage hub in the region linking to Sydney.

Improved communication and connection building, as was achieved at the Workshop, could improve opportunities to find solutions. There is a real need to find economic solutions that work for both producers and freight operators.
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