Report

Sydney Harvest Pilot Project

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Executive Summary

The *Sydney Harvest* brand development pilot was conducted from early November 2013 to the end of January 2014. The project was funded by Regional Development Australia, Sydney.

The objectives were:

1. Conduct a scoping study to build the foundation of a "Sydney Harvest" brand under which selected agricultural products grown in the Sydney basin would be marketed to Sydney consumers, via retail stores in Sydney and directly (including online) via a retail strategy and test its consumer appeal.
2. Gauge support of a *Sydney Harvest* marketing brand and concept from which farmers and consumers in the Sydney basin can benefit
3. Determine which products will be available for a pilot test of the brand
4. Secure retail distribution and operational timings
5. Put in place the operational systems that would enable the delivery of the consumer value proposition to consumers.

The objectives of the pilot project were achieved since:

- The brand, concept and retail strategy were tested across whole-of-value-chain
- A clear understanding of the attractiveness of the strategy was established
- The product types most suited to this strategy have been identified
- The lessons learnt, and particularly what didn't work in the process will be most valuable to growers and retailers in the future.
- The pilot project outcomes could contribute to laying the foundations for the development of an alternative supply chain for agricultural products grown in the Sydney basin.

Horticultural produce was selected as the pilot product group simply because there was an obvious business model that could be implemented. Whereas with other agricultural produce, such as meat, lawn, poultry products, no business model was immediately obvious to fund and manage the marketing and necessary administrative activity.

The pilot involved three growers, four retailers, and a logistics supplier (wholesaler), and was timed to coincide with the stone fruit season to maximise the chance to have product in volume flow through the system.

The specific conclusions reached in response to these objectives are:

1. The consumer value proposition of the *Sydney Harvest* brand has considerable appeal to a segment of the market that has an interest in product freshness and

provenance, and is prepared to pay a bit extra for it. However the interest is in the proposition, not necessarily in the brand.

2. The operational systems put in place to reverse the current supply chain, converting it into a demand chain worked in theory, but in practice had process difficulties that we could not resolve over the course of the pilot. The time and capability-building effort necessary to implement the solutions was beyond the scope of the pilot.

In summary, the lessons emerging from the pilot are as follows:

- Effective communication and collaboration are key to the conversion from the current supply-driven chain (Flemington model), to the *Sydney Harvest* demand driven model. For a demand driven model to be successful, the communication practises are vastly different to those that exist in a supply model. The scope of the changes necessary were greater than was anticipated at the commencement, and did not have the time or resources allocations to evolve. Over time, and with capability building efforts, the model can evolve, and the benefits flow.
- Ingrained behaviour patterns are extraordinarily hard to change, even when there is a good reason to do so. This became a significantly bigger challenge than was expected, and the motivation to change, even for the duration of a pilot was insufficient.
- The trust required to engineer a demand chain from a supply chain will be a long time developing.
- The existing wholesale model (Flemington model), with all its acknowledged shortcomings, is something the pilot participants are comfortable with, and were reluctant to move away from without strong reasons.
- Physical involvement in the purchase process is extremely important to the retailers to whom produce is a foundation of their retail business. The "touch, smell and look" of the produce provides a foundation not easily replaced.
- The dominating factor in the existing supply chain is price, and finding a mechanism that will partially replace that utter transactional domination by price could present more difficulties than anticipated. Consistent with every other collaborative exercise, a "champion", will be needed, someone with some "skin in the game" to drive the collaboration between the different players past the initial stages. That champion did not emerge during the pilot.
- Digital capability is essential for the supply chain re-engineering, but was lacking in the pilot. Mobile phones are almost universally used, but they are mostly used as telephones, verbal devices, not as devices to communicate information beyond price and availability that would add to the "value" dimensions of a transaction.
  Mobile phones are not being used as they could be to communicate a much wider range of data that could add value in whole range of ways

Note.

A pilot is a small scale operation, akin to qualitative research. Whilst it may be attractive to consider the acquisition of a set of reliable statistics, the samples needed to be reliable were simply outside the scope of practicality. In any event, qualitative research is better at telling us why things happened, rather than just what happened. In this case it is the "Why" that is important, way more important than gathering a statically significant data set, from which we would learn very little we did not already know.

Current strategic environment.

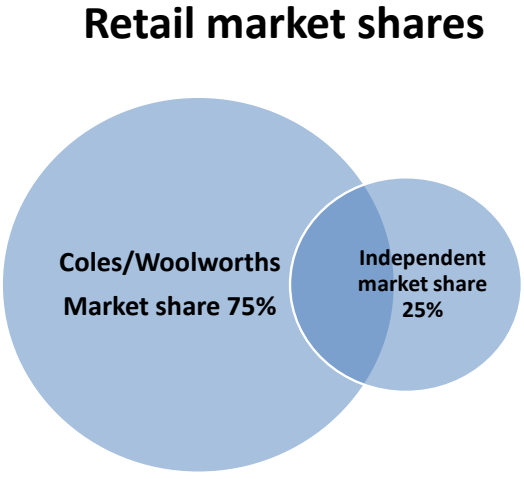
Farming for consumer produce is becoming increasingly difficult, as costs and competition increase and the opportunities for farmers to recover those costs are reducing, as a direct result of the changes that have occurred in the competitive environment in which they operate.

The current produce distribution model has two extremes. At one end, there is the model evolving to service the major retailers, which is a direct relationship between retailers and large farming enterprises, facilitated by logistics providers with various levels of involvement in contracting growers. At the other extreme, there is the old wholesale model where each grower sends his produce to a wholesaler at Flemington, who on-sells to retailers, food service, and providores on a percentage basis.

Whilst there is still some overlap, with the large retailers "topping up" from Flemington and taking advantage of their scale to leverage promotional prices as opportunities arise, over the last 20 years, the direct model has come to dominate volumes and drive prices.

In the last few years, a further model has evolved, with growers going direct to consumers via farmers markets, and finding ways to attract consumers to their farms with self pick, farm tours, and various other marketing devices." Hawkesbury Harvest" has evolved as an umbrella brand for some of this activity, successfully coordinating and executing marketing activity in the lower Hawkesbury district.

- There is a virtual retail duopoly (Coles and Woolworths) whose proposition to consumers is all about low price. Given the scale of their operations, their market power absolutely dominates the price drivers in the supply chain, and the value perceptions of the consumer. Most of the produce suppliers in the Sydney basin are on too small a scale to be able to actively supply Coles and Woolworths.

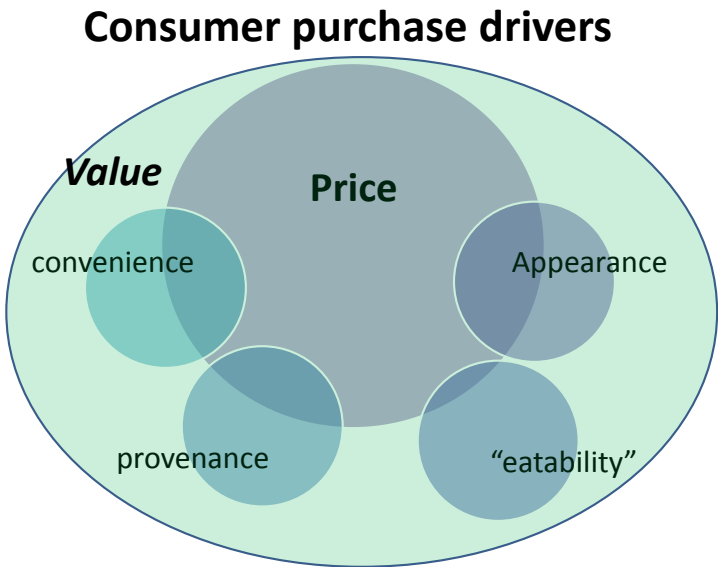


- The rise of the $A has significantly contributed to the reduction of horticultural exports from around 10 per cent of production a decade ago to a dribble now. This has resulted in more product being made available in the domestic market, reducing prices.
  Concurrently, South Africa and South America have increased both the quality and quantity of their horticultural exports to the northern hemisphere, further reducing the price competitiveness and supply windows for Australian exports.

- In response to these pressures of scale and price, the average scale of production has increased in an effort to reduce costs, and increase volume to recover the cash difference. This has left the small family farm extremely vulnerable.

- The average age of farmers is increasing, so we are not only losing the ideas and energy of the youth that is not entering the industry, but we are losing the generational understanding of the nuances of a local environment that is so important to extract that last 5 per cent of farm productivity that can often make the difference between profit and loss.

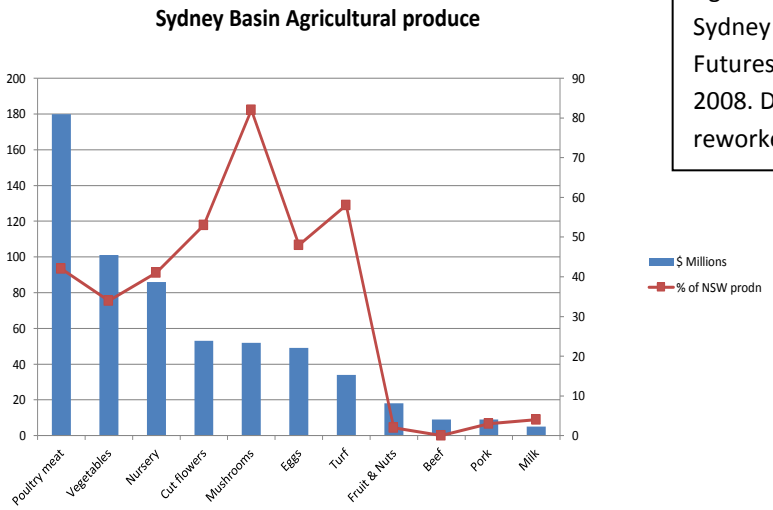
- Apparently emerging is an increased concern by consumers of factors in their purchase decisions other than price. Whilst price remains the dominating and deciding factor in most purchases, in some sections of the community, other considerations are gaining traction. This is evidenced by the growth of farmers markets, home delivery systems, and the renewed success of specialist retailers in many categories, including produce. The consumer definition of "Value" is still evolving, and is very personal.



As well as these general factors, there are several more that are impacting against Sydney basin growers more than across the farming community generally.

- Proximity to Sydney whilst theoretically bringing logistic savings, is in reality a cost burden as the infrastructure costs, power, water, waste removal, and labour are driven by the semi-urban location rather than by the farming activity.

- The scale of farming in the Sydney basin, with a couple of significant exceptions, is relatively small, and has lost significant volume over the last 25 years, making it irrelevant to the major retailers.



Source: ABS 2006, used in "Review of Agriculture in the Sydney basin" for the Futures forum Dec 2008. Data table reworked by A Roberts

- Seasonality of produce combined with the relatively small scale means the windows of supply of first grade produce are reducing, as volumes increase from outside the basin.

- Urban growth has significantly increased the capital value of the land in the Sydney basin. This leads to the situation that a large part of the farming community sees the land not as a productive asset to be passed down through the family as a farming enterprise, as has been the case in the past, but as profit to be realised for their retirement

- Peri-urban farming land comes under Local Government areas dominated by the concerns of an urban population, which differ from those of farmers. Farming

investment suffers as a result, although the change benefits those who see the land as superannuation.

- However, those same urban concerns are evolving. The definition of "land value" being applied is shifting, from being driven just by price, to a wider definition that includes: product provenance, assurances of sustainable farming practises, freshness, and new and interesting product varieties which favour small scale farming rather than larger scale "factory farming", and there is an increased interest in the nature of the produce.

These factors should benefit Sydney basin growers. This is evidenced by the growth of farmers markets, and the media weight put behind all sorts of cooking and food oriented activities from newspaper columns and supplements, websites and social media, to TV shows.

The piloted reversal of the supply chain into a demand chain is a response to these growing consumer concerns and preferences.

Project objectives.

The project objectives as set out in the original proposal were:

"RDA Sydney has the long term objective of establishing a brand, presumed at this point to be "Sydney Harvest" (SH) that is commercially sustainable as a foundation strategy to support farming in the Sydney basin".

To achieve this objective the pilot set out to:

- Create the foundations of a brand that could reflect the value proposition for Sydney sourced produce as being fresh, value for money, sustainably farmed, with low food miles, and tailored to the particular demands of individual consumers.
- Re-engineer the specialist retail supply chain from a production-push model to one where consumer demand is the driving force to better enable the specialist retailers to service the needs of their consumers.

1. Create the foundations of a "Sydney Harvest" brand.

It has been long thought that what growers in the Sydney Basin lacked was a brand to which Sydney consumers could relate to, and hopefully favour with their household purchasing dollars. However, building a brand requires a long-term commitment of resources and a robust, differentiated customer value proposition (CVP). Before significant resources were allocated, a pilot to test the various hypotheses was considered essential.

Growers in the Sydney basin suffer from the lack of scale in the face of a retail duopoly (Coles and Woolworths) that relies on scale to minimise their costs and maximise their margins.

A number of steps were required to start putting in place the foundations of a brand:

- Liaison and extensive consultations with growers, retailers and wholesalers, as well as key local councils, DPI and other key stakeholders
- A logo was developed to represent the "Sydney Harvest" brand,
- A series of videos were made that were tailored to each of the individual retailers engaged in the project, which were played on screens installed in the stores, and used for other promotional opportunities as they arose.
- Point of sale material was developed, printed and displayed with the "Sydney Harvest" logo, and producers
- The customer value proposition was expressed as: .

  Fresh, because it is locally grown

  Known and transparent provenance

Sustainably grown, low food miles,

These three elements anecdotally represented a powerful value proposition for a small segment of the market, services by the retailers selected to be a part of the pilot.

2. Re-engineer the supply chain.

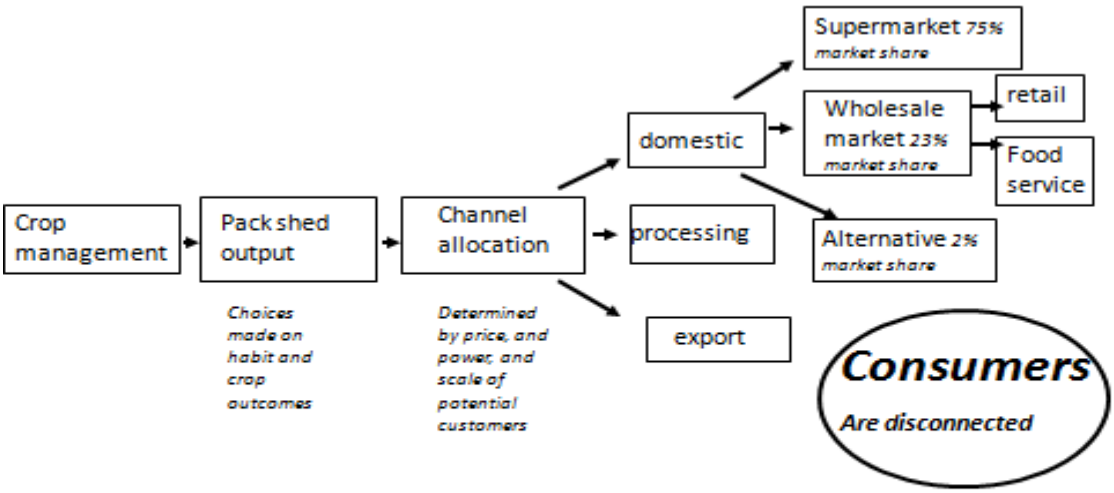
Testing the hypothesis required collaboration and communication between all the pilot participants, as the messages from consumers were relayed back to the growers, who then responded with product supply.

The central hypothesis is that removing the "communication choke point" in the supply driven chain represented by the wholesale link, and substituting consumer messages as accumulated by the retailers direct contact with their customers, as the driver of activity in the chain would result in better servicing those consumer needs. The specialist retailers who were able to offer such a level of product integrity and sourcing transparency would build a competitive advantage over their chain competitors, benefiting both themselves and the Sydney basin growers.

Turning the existing and entrenched supply chain around 180 degrees to become a demand-driven chain is a major exercise and was an integral part of the test. A core part of the success or otherwise of such an undertaking is the challenge of collaboration, which can be difficult to achieve in a short period of time, particularly without the presence of some sort of sanctioning force. In this case, the motivation was simply a recognition that "something had to change" and that this pilot was going to at least partly answer the question, 'What".

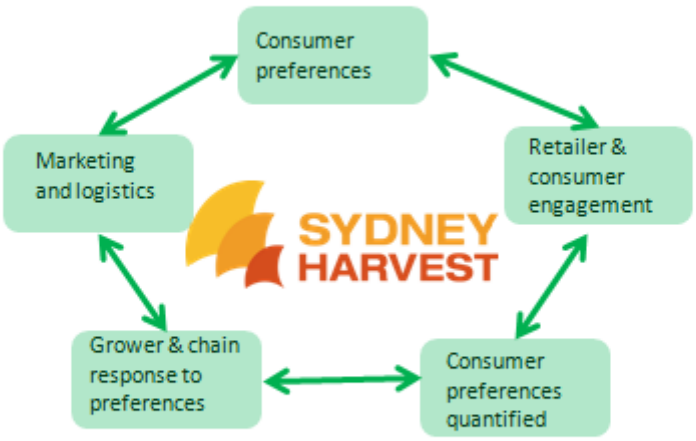
Below is a representation of the existing supply driven chain that outlines the steps and choices made by growers, and the approximate market shares held by the various options. Nowhere in the chain does the consumer have a say, it is wholly driven by the availability of stock and the resultant prices that are offered.

Current supply chain



By contrast, the demand driven chain that was the subject of the pilot has two way communications built into the model. Consumers have evolving preferences, which are communicated to the retailers, and on to the growers who respond to demand for specific products, with detailed specifications. Activity is coordinated by the Sydney Harvest management company, but at no time does Sydney Harvest control the conversations and flow of information, as happens in the current chain.

Proposed Demand chain



Pilot methodology

The pilot was intended to test the actions required to swing the existing supply chain 180 degrees and create a collaborative demand chain. This required a major change in behaviour and business processes for each link in the chain. Reversing the chain would have made little difference unless consumers were engaged, which necessitated the marketing activity to deliver the value proposition to consumers, on which relies the long-term success of the whole chain.

A number of potential participants were informally interviewed, with a number of parameters being important.

Retailers

- Were independent in the sense that they made all the decisions relating to the management and performance of their business. No chain store group disciplines which have the effect of "averaging" product due to large volumes and centralised decision-making could be involved.
- Were retailers to whom fresh produce had a core role in the success of their businesses.
- They physically inspected, and bought the produce themselves, either direct from growers, or via Flemington, and did not use middlemen in those transactions.
- They clearly were well regarded by their customers because of their expertise, and rapport with their customers. This was a judgement I made by standing around and talking, observing, and speaking to a few customers as they came and went.
- Were prepared to have a go at something different, and collaborate with other members of the supply chain in ways they had not done before.
- Were prepared to share their sales data with suppliers and service providers.
- Were digitally conversant, if not necessarily advanced.

Growers

- Were seeking channels other than chain supermarkets and commodity sales to wholesalers
- Able to mix and match product specifications to customer requirements that would be differentiated
- Prepared to have a go at something different, provide sales data, and collaborate. Each of the three growers selected was already experimenting with various models of direct sale, either by having their own van runs to local customers, attending farmers markets, running consumer self pick programs and farm tours, or a combination of these.
- They were digitally conversant, if not necessarily advanced.

Logistics provider (wholesaler).

- Was prepared to receive from growers, and assemble retail orders for a fixed fee rather than a percentage of the sale price.
- Was prepared to experiment with a business model that had the potential to disrupt the current supply chain model that has delivered very large profits over a long period.

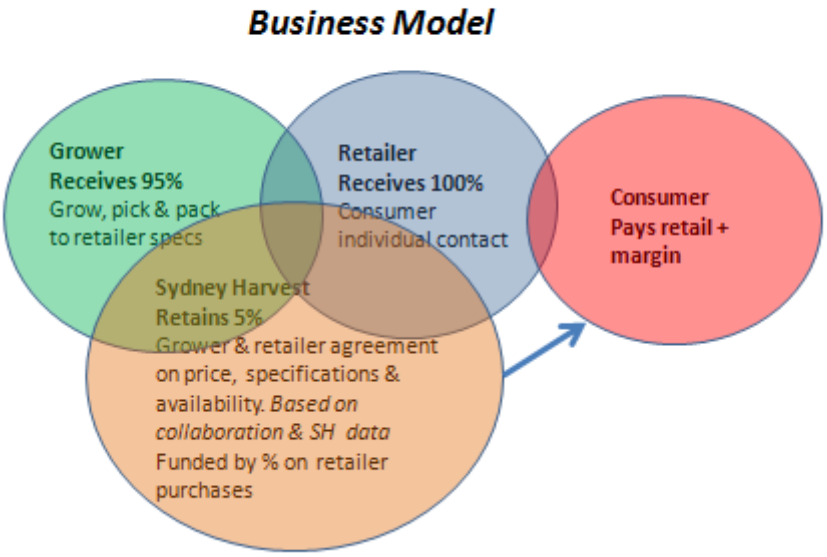
Business model.

Consideration of commercial sustainability needed to be built into the pilot for testing, as public funding simply will not be available on anything other than a short-term basis.

There appeared to be an obvious business model relatively easy to implement in the horticulture categories, though less so in other agricultural categories that are produced in the Sydney basin. Therefore the focus was placed on horticulture.

The business model has two core components:

- Retailers and growers agree a price, based on market conditions and other relevant considerations.
- Retailers pay Sydney Harvest management the agreed price, and Sydney harvest in turn pays the growers after deducting an agreed percentage to fund the marketing and logistics costs.



The mechanics of the pilot.

The pilot involved three growers, four retailers, and a logistics supplier, and was timed to coincide with the stone fruit season to give the best chance to have product in volume flow through the system. These participants were selected and engaged following discussions with them where they expressed a willingness to engage and a capability to change. There was only one logistics supplier (wholesaler) considered, they being the first who expressed a willingness to participate.

Following are the mechanics of the re-engineered chain under pilot.

- Agreement on the specific requirements of the retailers necessary to meet the consumers' requests and preferences.
- Agreement on the price the retailers would pay the growers with regard to both, the overall expected supply/demand situation in the market, the availability, and what both parties considered "reasonable" for the filling of a specific set of specifications.
- Growers specify what will be available immediately, and forecast the availability in the short term.
- Retailers place orders direct with the growers, cc to Sydney harvest.
- Growers harvest, pack orders, and ship selected produce to JW Kirkwood in the market.
- Kirkwoods assembles the retailers' orders from the receipted product from growers.
- Retailers pick up the assembled orders next day for sale.
- Retailers pay the growers via Sydney Harvest which retails 5 per cent to pay Kirkwoods and fund marketing and brand admin.

Detailed findings

As a short term selling exercise, the demand chain did not reach the hoped-for levels, but as a learning exercise, it was a success, as we have gained considerable knowledge and insight which we did not have previously, that will prove to be extremely valuable over time.

1. Operational

There were a number of practical and detailed operational issues uncovered by the pilot.

- Logistics were problematic. The model we used seems to be the best available, as it is the lowest cost option, and promised to deliver the consumer signals back through the chain to the growers. However, lack of scale of the small volumes involved multiplied the complexity considerably:

    - The small scale of the pilot created difficulty on the floor of the market agent used to provide the service with wholesaler staff
    - Order assembly proved difficult to manage as did drop-off and pick-up.
    - The paper trail necessary to track inventory and order/invoice/payment reconciliation is different from the one used elsewhere, so it proved hard manage, control, and reconcile.

- Pricing proved to be extremely challenging. Finding a price that both retailers and growers were happy with in the face of daily fluctuations on the market floor was a problem that was not solved.
  Both retailers and growers are used to risk management behaviour, to maximise their potential margin, with an opaque wholesaler in the middle orchestrating the intersection of daily supply and demand.
  Both parties set out to make an added margin on the timing of supply and demand, in a win/lose game, and price-setting for a period without the benefit of a close and long-standing collaboration between growers and retailers, it remains a problem to be addressed. It would seem however, that only by providing a history of price/volume metrics, and a robust forecast, where gains and losses were averaged, can this problem be successfully mitigated, if not solved completely.

    - An independent service was employed to add a neutral view, and provided some insight into the likely prices in the coming week, but failed to provide the foundation required.

- Fee-for-service logistics. Associated with the low volumes, the fee-for-service model proved to be unsatisfactory to both, retailers and suppliers. Whilst conceding the idea was right, the practical problem of absorbing a fixed charge/case on a low value

item, like lettuce at $10/case when the same charge applies to a case of plums at $35 a case, caused angst. Over time, and with success of the model, it may be that a sliding scale would naturally evolve to mitigate some of the problems, but to me it seems unlikely.

- Communication presented some difficulty, and ended up being largely verbal. With one exception, the pilot participants were short of the anticipated level of competence, and could benefit from a better understanding of the potential productivity increases that may be made using digital technology. This is a conclusion inconsistent with the understanding at the outset. Digital communication is a key component of the chain re-engineering exercise, and there is no substitute for it.

- The addition of another product option requires the addition of another inventory item, to farmers' operational systems. This was not welcome, as it was adding costs and increasing risk to an already stretched cost base.

- The allocation of rewards for added cost and risk, by both growers and retailers, was a significant item uncovered by the pilot. For a grower to pick fruit or vegetables at their best, their ripest (as requested by retailers), requires added labour costs and a higher risk of wastage, both for what is left unpicked that may have been ok if picked earlier, and for the ripe-picked product compromised by the through chain logistics For a retailer, table-ready products have a shorter retail shelf life, so wastage is increased as unsold product is heavily discounted or dumped, and the amount of product damaged in transit increases, again leading to dumping.

- "Product quality" parameters need considerable thought, and input. Each individual in the supply chain has a different set of standards in relation to the produce they buy which they apply in a variable manner.
  The supply chain re-engineering requires that there is clarity and shared understanding by all parties. This requires that a clearly -understood jargon evolves to accommodate the qualitative nature of the specifications. This can only happen with personal interaction.

- To a considerable degree, the lack of consumer understanding of the different components of the notion of "quality" is the source of the retail chain's ability to manage expectations, as they place much importance on the appearance of the produce, rather than the "eatability" of the produce. Changing the emphasis of "quality" towards a more consumer-value oriented "eatability" is where the competitive advantage of independent retailers, not subjected to the averaging of product via operational scale, lies.

2. Behavioural

The behavioural changes necessary to make the trial work were substantial. In the process a number of challenges became evident:

- Instigating the required changes in the face of ingrained behaviours became a very demanding task. The existing chain relations exhibit almost intractable lock-in factors that surface as resistance to change and risk aversion. Even when at an intellectual level the changes were understood, when the time came, all parties acted and reacted automatically, in the "old" way. Summarised, the changes necessary require each person in the chain to recognise that their best interests are best served by serving the best interests of the whole chain first. This always proves very hard to achieve, and was beyond the capability of the pilot.

- Making the changes in a small part of their business while it was business as usual for the bigger part of their business proved challenging. Operating the business in two different ways, even for the purposes of the pilot proved to be way too difficult. This is an outcome that was completely unanticipated.

- The key to success in this supply/demand chain re-engineering is trust, as we know. Trust is built up over time. It is earned, based on extended personal interaction, and there are no short-cuts. There was not a readily available forum for that trust to evolve. Suggestions of a "workshop" and "meetings" were met with little enthusiasm by grower and retailer participants and would not have been attended.

- For the retailers, there is a subjective element to the choice of product for their shops. The look, feel, smell, and consistency in a box is important to them and the choice of prime product varied between the retailers, depending on their perception of what their customers wanted. There is also an element of "John West" in their choices. They like to be able to say "No" to any product that they do not want without having to justify that decision to anyone. This option was removed from them due to the requirement to order without seeing the product. This was also a completely unanticipated finding, but with the benefit of hindsight, is understandable.

- The retailers do not want to collaborate. Whilst recognising that they are not really competitors, they are competing with the chains. They nevertheless appeared to like to have their own "business secrets".
- The growers are very conditioned to the way they present product. Uniformity is highly valued, and their growing practises are geared to deliver that uniformity. We set out to deliberately play with the uniformity by adding the options that delivered

a differentiated product to consumers. These changes are difficult operationally, as noted, but also behaviourally.

3. Marketing and strategy

- There is certainly a niche in the market. Consumers are excited by the option of fresh, local product. However, it remains to be seen if there is a market in the niche that is accessible through retail.

- Food service sales are an alternative to retail sale for Sydney basin growers. Chefs are looking for fresh, local and differentiated produce. This is evidenced by the interest (perhaps curiosity) *Sydney Harvest* generated amongst a number of food service operators, and from a few chefs I spoke to in the course of the pilot.
  During the course of the research, discussions were held with the management of Food Orbit, a start-up with very similar aims to Sydney Harvest, although they were not restricting themselves to Sydney produce, and were aiming at the food service market, primarily quality restaurants. At the end of January, Food Orbit backed away from their stated aim, failing to get the necessary support from farmers that enabled them to successfully deliver ordered product.

- There is a crying need for Point of Sale (POS) marketing, and all parties welcomed it. However, the costs and logistics of maintaining effective POS are considerable. The videos were a "hit" with retailers and consumers, but the retailers became very tired of it very quickly, so keeping the content fresh, relevant and entertaining, whilst playing a selling role, would be a major undertaking. Similarly the printed POS was welcome, and was used, but it ages quickly, and tends to be discarded easily. As has been proven in chains, maintenance of POS at retail requires "boots on the ground".

- The changes occurring in the competition are most evident, as they always are, at the fringes. In this case, the commercial challenges faced by Sydney basin growers, who lack the scale to supply chain retailers directly, and in any event do not have the cost base to make that a sustainable option are being met by these growers taking advantage of the growing consumer concerns about sustainability, food miles, and product provenance.
  These growers face some challenging strategic choices should they choose to stay in the business, as many will not. The easy option is to hold the land and sell to developers. Should they choose to stay, their options are one or a combination of the following:

    - Focus on the 30 per cent of non-chain retailers and find a way to service them cost effectively.

- Differentiate from the chains in a manner that some consumers find adds value. Again the *Sydney Harvest* value proposition of product provenance, sustainable farming practices, freshness based on proximity and eatability, seems credible and useful.
- Evolve down the distribution chain to doing sales and logistics to effectively cut out the middleman, via home, and food service delivery.
- Sell direct to consumers via farmers markets, farm visits, and event creation.
- Build their own individual brand. This will require marketing resources and capabilities most farmers do not have, and largely do not value.
- Be a part of a collaborative brand building, such as Hawkesbury Harvest. As Hawkesbury Harvest have found, building the engagement necessary, and funding the brand-building activity, is challenging and ends up being reliant on a few volunteers. (Hawkesbury Harvest is not alone in facing this dilemma)

- Experience suggests that a radical change to a set of behaviours such as attempted in the pilot usually emerges from within a group. Somebody with a level of credibility takes "ownership" and becomes an advocate for the changes, which lead to the evolution of the group that facilitates and evolves with the changes. In the pilot, these dynamics were missing, the "champion" for change with skin in the game did not emerge, and the group itself was a structure imposed, rather than an evolution from within the group. Even though growers were very vocal about the need for change and their commitment to it, this did not evolve in practice.
  We can speculate further that:

  - The pilot was too short, and the participants did not really know each other well, so there was little in common on a personal level, for such collaboration to evolve.

  - Participants all have currently successful businesses. They have successfully managed to differentiate themselves from their chain competition, and engaged with their customers in such a way that they return to their produce, rather than shopping in Woolies or Coles. In hindsight, these may have been the wrong participants, because change is often spurred by the absolute lack of an alternative, whereas these participants were still surviving, and to some degree prospering.

- Whilst it is not an outcome of this pilot in the sense that we can point to something happening, we can observe that nobody in the pilot took any responsibility to progress the changes they all signed up to. Perhaps an outcome by its absence, or simply an indicator that they were not desperate enough to

make the changes necessary. The participants were simply there for the ride, "ownership" of the pilot and its outcomes was missing. The thinking and development work had been done for them, so they had no "investment" in the process."

Implications.

The current wholesale model of supplying agricultural products to consumers has worked well for a long time, but is fraying around the edges. The last 20 years have seen the evolution by chain retailers to a model that uses wholesale only as a top up and last resort supplier, removing perhaps 50 percent of the volumes from wholesale.

At the same time, consumer preferences have been evolving, and a significant number now want more than the old model can supply in the way of information. As these trends continue and evolve, as they certainly will with the advent of technology servicing alternatives, it is wise for those on the fringes, as are many Sydney basin growers, to take some initiative so they have a chance of controlling their futures.

So, we need to build on what we know: the trends that are in place and obviously the things that led us to the pilot in the first place.

The key question is if, and in what form, should agriculture co-exists in urban and peri urban environments.

This question is both highly emotional, and has long-term strategic implications for the way we allocate land around our burgeoning cities.

It is emotional because we really do not understand the long-term social impact of losing agriculture in our immediate environment. We can look at the impact of community gardens both here and overseas, and the increasing attraction of local produce as a tool for restaurants and food service operators, the growth of farmers markets, and groups like Hawkesbury Harvest as harbingers of the future. But the economic arguments keep on getting in the way, as commercial sustainability remains a challenge for all these activities.

In some regards, what we set out to replicate is what the majors do with their chains, to discover if it would work for the alternative channels too, that is, to capture as much of the value within as few players as possible, a shortened, tight, trusting and closed channel. The majors secure cooperation through contracts that contain sanctions, we were testing relationships and open real-time communication as drivers of trust that would substitute for the contracts. We confirmed that trust takes time to build, and is earned, not given lightly, and easily withdrawn.

The need for factory farming to feed ourselves is obvious, we cannot individually feed ourselves as "man" has done for all our history apart from the last 100 years. The equation then becomes an economic one. Factory farming is a term with two parameters:

1. Large scale, broad acre farming where economies of scale are realised, and by definition, it is generally on land well outside population centres. This trades the up-front capital costs on the land for the logistics costs of managing the distances.

2. Capital intensive farming. This style of farming is now increasingly dominating many categories in Europe, requires less land, but is more capital intensive supporting the application of technology to speed up the seed to harvest cycle, remove farming risk, and control all aspects of the farming, harvesting and packing of produce. In Australia, it is represented by relatively few enterprises, the Costa's tomato investment in Guyra, and some of the investments made in the Virginia district outside Adelaide.

Recommendations

1. Digital capability building.

The pilot and various conversations during the process highlighted the lack of digital capability that exists from the growers through the chain to the specialist retailers. This lack of capability is not associated with the ability to write HTML, or build/repair a computer, but is about the lack of understanding of the productivity and connectivity benefits that digital technology can deliver, and the means by which this capability can be harnessed for their long-term commercial benefit.

This capability building has several dimensions:

- It must be incremental, medium term, and geared to the individual needs of those in the agricultural supply chain. A few 'how to" workshops over a fixed period of time may not be attractive. The effort needs to be more focused on mentoring, and perhaps subsidised hands-on activity. "Learning by doing" is the usual phrase. Having a website in place as a communication and business productivity tool is a good place to start. But more important is the understanding of the role the site and associated activities bring, and the willingness to embrace the change that they can bring. The metaphor that best illustrates the situation is learning to swim. It does not matter how many books you read, or have read to you about swimming, it is only as you hit the water that you really understand

- It must have a commercial focus. If we are to assist the building of understanding and changes in attitude towards digital, we must provide assistance to change behaviour so the benefits can be seen.

2. Build on the Hawkesbury Harvest base.

Hawkesbury Harvest (HH) has been operating for the last 14 years, with a combination of some seed funding grants and the voluntary efforts of a number of people. There are a number of programs under the HH umbrella, farm sales and tours, farmers markets, pick your own, supported by a well-developed web presence, expanding into mobile apps.

This activity is aimed at and is seemingly reaching the markets targeted by the Sydney Harvest pilot. Rather than accepting that the definition of "Hawkesbury" is confined to the lower reaches of the river, essentially from Richmond to the mouth, and setting out to duplicate much of what has gone before, it seems easier, more cost effective, and strategically consistent to extend the definition of "Hawkesbury" to the upper reaches of the river and its tributaries in the southern highlands.

An expanded program of Hawkesbury Harvest branded presence at farmers markets would seem worth a trial, particularly in the Eastern suburbs.

There is already a regionalisation of the Hawkesbury Harvest brand, Wollondilly harvest, Penrith harvest, Hills and Brooklyn harvest, as well as Sydney harvest, with some level of commitment to the tourism and regional produce in those areas.

Leveraging the "Hawkesbury Harvest" brand as a marketing umbrella supporting branded and local activity makes more sense than expending scarce resources to duplicate much of what is already there.

3. Data availability

The lack of much accumulated, collated, maintained and useful data on the extent and nature of agriculture and agricultural enterprises around Sydney is an impediment to the development of agricultural enterprises. The lack of such a resource makes the process of assembling a business case supporting investment extremely difficult. There is a need to:

- Build a data resource that articulates the scope and nature of agricultural activity in the Hawkesbury-Nepean river basin. This needs to be a collaborative activity between the various LGAs encompassed by the geography. All councils have economic development officers with a brief that should include the development of such data in one way or another. But the priority is way too low. Some additional specifically targeted resources may be required. The information could be to some extent "crowdsourced", in itself a strategy that could contribute to build awareness and engagement with agriculture in the wider community, beyond just the farming community.

- Make the data widely available for use by individuals and businesses to encourage entrepreneurial investment and innovation.

4. Modelling

It is clear that the value of land as a productive agricultural asset is being outweighed by the value of that same land as accommodation of the urban sprawl occurring as Sydney expands. The experience of the Windsor road is illustrative. Thirty years ago, Windsor road beyond Castle Hill and Seven Hills was a "dog track", surrounded by agriculture up to the boundary of Windsor, with a couple of minor villages along the way.

Now, this area has been transformed. A similar sight to Windsor road thirty years ago greets a driver going towards Picton along the original roads, rather than the freeway, but those roads are rapidly following the path of their sibling, Windsor road down a path of intensive urban development.

The impacts of this development are twofold:

- Economic: Agriculture will be squeezed out by this development as the land values increase, and farmers cash in their "super"

- Social: We are unsure of the social value of having agricultural enterprises and activities in our midst, although the anecdotal evidence from community gardens here and elsewhere suggests it is substantial.

If we are to balance the two, we need some sort of framework that articulates the value of land as an agricultural resource, versus the value of that same land as a "bedroom". To be credible and carry the weight necessary to be a policy development input for all levels of government is needed. This exercise needs to be a serious one, built on the data available from the previous recommendation, as well as the existing data that informs the development of "bedrooms".