Blueberry Industry Business Barriers Review

NSW Northern Rivers

Regional Development Australia
NORTHERN RIVERS NSW

NSW GOVERNMENT
Department of Industry

Prepared by Regional Development Australia – Northern Rivers on behalf of the
NSW Government Department of Industry and Regional Development

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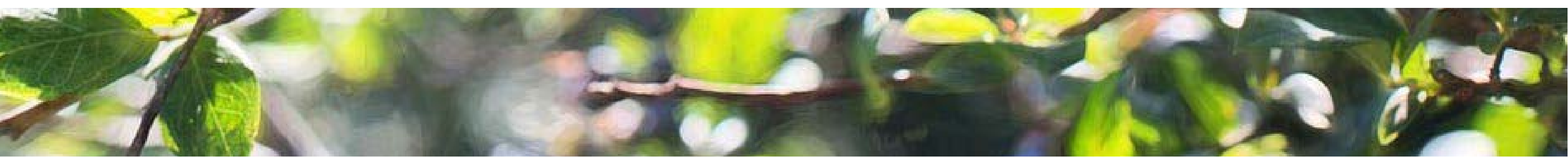


SUMMARY

The objective of this report is to review and outline economic risks and the major barriers to industry growth for the blueberry growing industry in the Northern Rivers of New South Wales and the Woolgoolga area near Coffs Harbour.

The blueberry industry has grown significantly in trying to meet both Australian domestic demand for fresh berries and the emerging export markets of Asia. As the industry has expanded with both new farming entrants and growth of the existing co-operative grower group and existing corporate-owned farms, several issues potentially detrimental to the overall industry have become apparent.

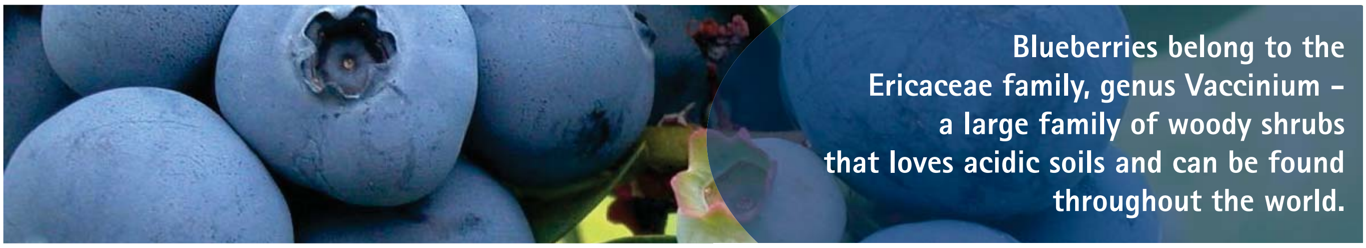
This report has gathered input and information from growers, the NSW Department of Primary Industries blueberry industry working group, local government representatives, trade and export officers and government service providers. The report is focused on industry economic issues and does not seek to define or comment on specific aspects of crop growing or other horticultural matters for the industry.

Growing areas can be segmented into three main geographical groups. The first is the established Woolgoolga growing area comprising smaller individually owned farms which are members of a grower co-operative, and a large horticulture business at nearby Corindi. Another growing area is the Clarence Valley with several large farms either newly established or being planned. These farms are establishing on under-utilised grazing properties that were either beef or dairy cattle properties. The third major area is the Richmond Valley region with a range of smaller farms and a large family owned business established in 1978 at Lindendale.

Blueberry production in the region is likely to continue to expand and follow the developmental stages of horticultural industries, larger more sustainable farms adapting to export and domestic market fluctuations and operating on a larger agribusiness basis.

The report has identified some success factors and risks to industry success. Blueberries are a manually picked orchard fruit and a large workforce is needed to hand-pick the crop several times per growing season. This raises employment issues including basic wage regulations and visa access for overseas workers as well as accommodation issues for itinerant workers in the regions. Continued export market access is also a vital issue. Reintroduction into Japan, the opening of the China market, and additional niche market access in India and other southern hemisphere countries all emerge as important. A third key issue is the proximity of some orchards to residential areas. At the time of this report several local government areas were considering introducing development consent regulations for new orchards. This also highlights, for existing orchards, the need for awareness or monitoring in relation to land use matters near residential housing. This has specific relevance in the Woolgoolga area where chemical trespass and noise issues are potential concerns.

Research suggests growing public interest in environmental aspects of the blueberry industry specifically in the Woolgoolga/Corindi area where proximity to residential areas is more pronounced. This could lead to public debate or moves that potentially restrict growers close to residential areas and impact the economic viability of these farms. Additionally, there is potential for broader negative public opinion to be of this perspective, thereby impacting on the blueberry industry overall. Feedback from some growers raised questions about their right to a social license for farming and their right to farm within the existing regulations.



1 BLUEBERRIES AND NORTHERN NEW SOUTH WALES

Growth of the blueberry industry in northern New South Wales has been driven by demand for fresh, punnet-packaged blueberries as domestic consumers favourably viewed taste and health characteristics. New South Wales accounts for more than 90% of Australia's blueberry production, with most of the industry located in the state's north-east region. The blueberry industry continues to be a high growth and high value industry with many new farms being established or planned in the Northern Rivers. It is expected that as new export markets are established the international demand for Australian blueberries will continue to grow. Significant growth and new larger scale farms in the north-east present issues for stakeholders.

Report objective

The NSW Department of Industry, Skills and Regional Development has engaged Regional Development Australia–Northern Rivers (RDA–Northern Rivers) to conduct this business review. The objective of the report is to establish current and potential business barriers facing the blueberry industry in the Northern Rivers and Coffs Coast. Financial viability, regulation, access to domestic and international markets, and matters related to transport requirements (e.g. cool chain logistics) at harvest time are considered.

This report examines industry economic issues and does not seek to define or comment on specific aspects of growing or other horticultural matters within the industry. It is noted that the NSW Department of Primary Industries currently has a blueberry industry working group focusing on issues such as growing guides, soil nutrients and pest management. This report endeavours to "interlock" with this working group on industry economic issues and provide a perspective on business barriers facing the industry.

Region covered by report

The report looks at established or planned growing areas in the Richmond Valley and Clarence Valley regions and the Corindi/Woolgoolga area. The main blueberry growing areas in northern New South Wales are:

- the Clarence Valley, including the Grafton area (Grafton and Clarence Valley LGAs)
- Tabulam on the Clarence River in the north (Kyogle LGA on one side and Tenterfield LGA on the western side of the Clarence River)
- the Richmond Valley, including growing areas at Lindendale and Casino (Richmond Valley and Lismore LGAs)
- Corindi Beach (Coffs Harbour LGA)
- Woolgoolga, with a concentrated small-grower area (Coffs Harbour LGA)
- Brooklet, Fernleigh and Tweed Valley all with smaller orchards (Byron and Tweed LGAs).

Larger orchards are planned for broader acreage areas in the Clarence Valley and the Tabulam area.

Regional stakeholders involved

Input came from growers, councils and other government stakeholders. A list of individuals and organisations contacted for comment is at Appendix Three. Grower feedback or meetings included input from six regional growers, these ranged from growers with small owner-operated single farm orchards to larger agribusiness farm managers covering several properties and crops such as raspberries and blackberries in addition to blueberries.

Feedback from councils has been crucial to the formulation of this report as local government is a key point of crossover between growers and the public. Councils providing feedback were Clarence Valley Council, Richmond Valley Council, Tenterfield Shire Council and Lismore City Council. Information also came from other government service provider stakeholders including the NSW Department of Industry, Skills and Regional Development, the Department of Primary Industries, the Department of Trade and Investment and the Commonwealth Department of Industry. RDA–Northern Rivers is a member of the NSW Department of Primary Industries blueberry working group. Background information has also come through this association and discussions on local land services, environment and heritage matters, water management, land clearing, horticultural management and export requirements.

Overview of the industry

Blueberry growing was first attempted in Australia in the 1950s by the Victorian Department of Agriculture. Cultivating this crop in Australia was unsuccessful until the 1970s when the Department finally succeeded. This led to the establishment of the Australian Blueberry Growers' Association in the mid-1970s. It wasn't until the mid-1980s that consumer demand began to grow and has continued to grow.

The blueberry industry in the NSW North Coast region generates more than $250 million annually in revenue from produce and comprises several hundred growers across Australia. After many years of endeavouring to supply the public's general demand for blueberries supermarkets may now, in line with a substantial proportion of the overall horticulture industry in Australia, be moving from being price-takers to price-makers. That is, from the grower setting the price to the supermarket setting the price. Supermarket buyers have indicated they are potentially reaching "peak supply" for blueberries and decisions on quality and punnet price could be set by supermarkets in the near future.

The NSW Department of Primary Industries published in September of 2015, Primefact 133 (Phillip Wilk and Melinda Simpson) a paper outlining the costs and variables covering the blueberry industry on the NSW North Coast. The cost summary for per hectare per year is included below.

Subsequent reviews with blueberry industry growers indicates that in 2016 the average per kilogram rate for fruit sent for processing was $18 - $20 resulting in an average of $28 per tray (1.63 Kg/tray). Also highlighted is the marginality of some farms that do not take into account family or grower labour costs and start to lose money below $24 per tray. This highlights the sensitivity of some farms to price fluctuations and competition particularly as larger farms are established that deliver better economies on pre-farm gate costs.

The blueberry is the most famous – and tasty – berry in the Vaccinium genus. Others you may have heard of include the bilberry, cranberry and ligonberry. Then there are the sparkleberry, farkleberry, whortleberry and partridgeberry. Imagine adding a handful of farkleberries to your muesli each morning!

Table 1: Cost summary/hectare/year – Northern NSW*

Cost Summary	Total	Cost/tray (12)	% Cost
Irrigation	$78.00	$0.01	0.0%
Disease control fungicides	$1,627.04	$0.19	0.7%
Insect control insecticides	$966.04	$0.11	0.4%
Weed control herbicides	$1,530.38	$0.18	0.69%
Nutrition	$1,590.38	$0.18	0.7%
Prunning and thinning	$4,687.90	$0.54	2.1%
Machinery	$5,811.54	$0.67	2.6%
Marketing	$47,360	$5.43	21.5%
Packing materials	$32,560.00	$3.74	14.8%
Picking and packing	$124,581.18	$14.31	56.4%
Total	$220,792.33	$25.36	100%

**Table from NSW DPI Primefact 133, Blueberry establishment and production costs, P. Wilk & M Simpson, Wollongbar Primary Industries Institute, September 2015: Table 3 page 6*

Table 2: Sensitivity analysis for blueberries in northern NSW – effect of yield and price on gross margin/ha*

Yield tray/ha	$20.00	$25.00	$30.00	$35.00	$40.00	$45.00	$50.00	$60.00
2000	-$180,792.33	-$170,792.33	-$160,792.33	-$150,792.33	-$140,792.33	-$130,792.33	-$120,792.33	-$100,792.33
3000	-$160,792.33	-$145,792.33	-$130,792.33	-$115,792.33	-$100,792.33	-$85,792.33	-$70,792.33	-$40,792.33
4000	-$140,792.33	-$120,792.33	-$100,792.33	-$80,792.33	-$60,792.33	-$40,792.33	-$20,792.33	$19,207.67
5000	-$120,792.33	-$95,792.33	-$70,792.33	-$45,792.33	-$20,792.33	$4,207.67	$29,207.67	$79,207.67
6000	-$100,792.33	-$70,792.33	-$40,792.33	-$10,792.33	$19,207.67	$49,207.67	$79,207.67	$139,207.67
7000	-$80,792.33	-$45,792.33	-$10,792.33	$24,207.67	$59,207.67	$94,207.67	$129,207.67	$199,207.67
8000	-$60,792.33	-$20,792.33	-$19,207.67	$59,207.67	$99,207.67	$139,207.67	$179,207.67	$259,207.67

**Table from NSW DPI Primefact 133, Blueberry establishment and production costs, P. Wilk & M Simpson, Wollongbar Primary Industries Institute, September 2015 Table: 4 page 6*

Regional economic growth

The industry in the NSW North Coast for this report generates more than $250 million of revenue from produce and employs approximately 5500 workers. Most of these workers are seasonal fruit pickers who are employed in increasing numbers up to peak harvest time. The overall harvest period is across several varieties that fruit at different times during a 12-month period. The total time that fruit is harvested can last up to 10 months.

The standard economic multiplier of 3.4 being applied to the industry in the Northern Rivers and Woolgoolga results in more than a billion-dollar contribution to the regional economy.

One of the key findings from the recent Regional Economic Growth Enablers report (Centre for Economic Development, December 2016) is: "The future of individual regional economies is inexorably linked to their endowments, and attempts to retain or establish industries without an underpinning endowment are unlikely to succeed." Available features or "endowments", natural or human, assist a regional economy's development of key industry sectors and specialisations.

The "enablers" report indicates that, considering local endowments, the Lismore and Coffs Harbour regions can with the addition of local knowledge view fruit and tree nut growing, which includes berries, as a probable key industry sector. This report on blueberries considers the blueberry industry to be a key industry sector or specialisation for the relevant regions and as such can be "enabled" to grow and provide positive economic impact on the regional economy.

2 A SEASONAL WORKFORCE

Fresh fruit product is susceptible to bruising so manual harvesting is essential in Australia as the bulk of the industry harvests for fresh fruit product only. As the harvest can last up to a total of 10 months per year, with peaks at particular times, this can mean several work groups are employed across that timeframe. This does not include workers required in packing houses as part of this process.

The handpicking requirement is unlike berries harvested for frozen berries and berries for juicing which can be mechanically harvested. Mechanical harvesters are used in North America and have been tested on some farms in the region but resulted in bruising of fruit and stripping of flowers. Machine harvesting could occur in the future when the right plant variety and the right equipment intersect. However, the bulk of the harvesting for fresh, punnet-packaged fruit is done by individual pickers – both local and itinerant workers.

Seasonal worker and working holiday programs

The bulk of the itinerant workforce is foreign nationals working as seasonal labour. Foreign workers are not Australian citizens or permanent residents and may include, for example, backpackers, seasonal workers or international students. Particular programs can assist foreign nationals to engage in seasonal work, and all seasonal workers require appropriate visas. Seasonal worker programs provide a workforce where seasonal labour needs can't be met with a local workforce. The federal Department of Employment has online information on seasonal worker and harvest labour services.

One group of the seasonal labour workforce are young backpackers or holiday makers coming to Australia through a Working Holiday Maker program. This program enables young adults 30 or younger from eligible countries to work while having an extended holiday. Many growers accept applications from a variety of countries pending visa approvals. At the time of writing, South Korean and Hong Kong Chinese applicants were becoming a significant presence. European and South American working holiday travellers were present but less numerous.

Another group within the seasonal workforce are those who apply for a temporary work visa. Temporary work visas with a particular provision for seasonal work can be applied for by applicants from eligible countries. The federal Department of Employment also offers a specific seasonal work program for people from the Pacific region and Timor-Leste to work in Australia on a short-term basis.

The Seasonal Worker Program stream, under a particular temporary work visa (visa 403), is open to employers in agricultural industries including the horticulture, aquaculture, cane sugar and cotton growing industries in certain locations and accommodation industries in certain areas. To get involved in the program employers must apply and be approved by the Department of Employment and enter a sponsorship arrangement with the Department of Immigration and Border Protection. Seasonal worker programs can provide a workforce which may return season after season.

Visas

To work in Australia, temporary, long stay or permanent visas are required. Temporary work visas are a mainstay for the blueberry industry seasonal workforce. This section outlines relevant visa subclasses.

The 12-month Working Holiday visa (subclass 417) allows 18 to 30-year-olds without dependants and from eligible countries to work in a temporary or casual capacity, with up to six months permitted with each employer. At the time of writing the government was considering increasing the upper age to 35 years. A second year is permitted on this Working Holiday visa provided that during the second year at least three months is worked in regional Australia in "specified work", which includes blueberry picking, packing and processing. Work and Holiday (Temporary) visa (subclass 462) is for young people aged 18 to 30 without dependant(s), from a separate list of eligible countries, and offers up to six months work with one employer.

The Temporary Work (International Relations) visa (subclass 403) offers a Seasonal Worker program stream with sponsored seasonal workers from selected countries. Under this program workers can return season after season. The Special Program visa (subclass 416) for the Seasonal Worker program has closed.

Other temporary visas include the following. The Temporary Work (Skilled) visa (subclass 457) for a skilled worker in an approved business for up to four years, with the worker sponsored by the employer. The Temporary Work (Short Stay Specialist) visa (subclass 400) for highly specialised, short-stay work in Australia that is not ongoing. The Temporary Graduate visa (subclass 485) allowing international students who have recently graduated from an Australian educational institution stay in Australia temporarily. The Skilled-Regional (Provisional) visa (subclass 489) is for skilled workers and their families to live, work and study in specified regional areas in Australia for up to four years. There are two pathways for this visa. Specific requirements pertain to visas and need to be checked.

In addition, Special Category visa (subclass 444) allows New Zealand citizens to visit, study, stay and work in Australia. The Skilled Independent visa (subclass 189) is for points-tested skilled workers not sponsored by an employer or family member or nominated by a state or territory government. It allows work and permanent residency. The Regional Sponsored Migration Scheme visa (subclass 187) is a permanent residence visa for skilled workers who want to work in regional Australia.

Visa–issues

Australian immigration law is enforced by the Department of Immigration and Border Protection.
The website is at www.border.gov.au and includes specific visa information.

Employers engaging foreign workers must comply with both Australian workplace laws and immigration laws.
It is apparent strict visa checking is only carried out on some farms prior to temporary workers being employed.
Visa verification and checking should be the industry practice as immigration abuse brings disrepute to the industry.
This report recommends that the NSW Department of Industry in northern NSW works with the industry to develop a practice of visa checking and asks the industry to adhere to this practice prior to employing seasonal workers.

Employers have the capacity to check visa details online. With the Department of Immigration and Border Protection's 24-hour online service called Visa Entitlement Verification Online(VEVO), visa details and conditions can be checked. Visa holders can check their own details online and give permission for organisations registered with VEVO to have access to limited information for visa checking purposes. VEVO website is at www.border.gov.au/Busi/visas-and-migration/visa-entitlement-verification-online-(vevo)

Employment conditions

Workplace laws in Australia apply equally to all workers. All people working in Australia, including foreign workers, are entitled to basic rights and protections in the workplace. Blueberry farm workers are employed under the Horticulture Award 2010 [MA000028]. The Award outlines full-time, part-time, and casual (25% loading) rates. As at early 2017 the minimum casual hourly rate was $22.13 for employees 20 years or older, junior age rates apply for those aged 19 and younger.

The Award permits, through a signed agreement, award rates to be replaced by piecework rates where earnings are contingent upon productivity. A pieceworker is not guaranteed a particular rate of earning, and overtime, meal allowance and ordinary hours for work/rostering will not apply. Piecework rates must enable the average competent employee to earn at least 15% more than the full-time, part-time or casual hourly rate they would otherwise earn, as prescribed in the Award. Employers can, by agreement, vary the per kilo rate in fast or slow picking conditions.

Many growers offer employment through their own websites and through specific horticulture labour force hiring services companies. Specifications in the Award also apply to employers supplying labour on an on-hire basis and employers providing group training services.

Many of the larger agribusiness owned corporate farms pay award wages of $23 per hour equivalent plus a premium for on costs. The algorithm is determined by the volume picked but it generally is equivalent to award wages. In many cases the larger agribusiness farms can provide more substantial facilities and working conditions for seasonal workers.

An additional business barrier for the industry is the access to mobile broadband services for a workforce that is made up of a large proportion of digitally savvy workers on tourist visas. Therefore having access to a mobile telephone and broadband signal, and communication via mobile and internet services is a key aspect to attracting workers to some more remote properties. The business opportunity for phone services providers is simply that with up to 600 workers at peak harvest time a service provider has potentially 600 new users. Many of these users are also utilising high revenue roaming services.

Employment conditions–issues

With the crop handpicked and hand pruned, labour costs along with worker accommodation, which is discussed below, are important areas. The cost of the labour force is also important to the viability of operations. Attention and ongoing monitoring is needed for issues associated with regional seasonal worker remuneration. This is particularly pertinent as larger new farms are being established and the need for labour will grow in larger increments.

The Commonwealth Government through the Department of Employment provides substantial information on seasonal worker remuneration and award requirements for fruit pickers working in Australia. For the industry, there is a risk that some farms, unlawfully, may not adhere to award wages bringing the attention of the Fair Work Commission and unwanted negative media. Coupled with this are instances of poor practice from exploitative labour hire companies. These examples adversely affect, in general, the image of labour hire practice and the industry nationally. It also adds risk through creating potential for added regulation and monitoring to enforce employment standards.

Rural worker accommodation

Current approaches to accommodation include temporary camping permits granted to "mining camp" type operators, backpacker hostel permits in regional towns and specific rural worker accommodation sites on rural properties. The NSW Camping and Caravanning Association was approached for comment and indicated a desire to work with growers to provide affordable temporary housing for seasonal workers. Local councils have shown a desire to work with all parties to ensure planning regulations are considered.

Councils in the Northern Rivers and Mid North Coast are trying to accommodate requests from some growers for seasonal worker accommodation permits. Development applications and developments suggest a lack of clarity over accommodation types and requirements. Rural worker accommodation can be confused with tourist and visitor accommodation or considered as "backpacker" hostel developments.

Historically rural worker accommodation goes back to shearer accommodation. Definitions for accommodation types are well established. A rural worker dwelling is a building or place, additional to a house and on the same lot, used as the main place of residence by persons employed in a rural industry on that land, whether the employment is long-term or short-term. Whereas tourist and visitor accommodation refers to a building or place with temporary or short-term accommodation on a commercial basis, including: backpacker accommodation, hotels or motels, serviced apartments, bed and breakfast or farmstay accommodation. In some LGAs the definition of tourist and visitor accommodation does not include camping grounds, caravan parks and eco-tourist facilities.
State planning regulations in New South Wales use the following to indicate rural land use zones: RU1 (primary production), RU2 (rural landscape) and RU3 (forestry). Tourist and visitor accommodation is not permitted in an RU1 zone in Clarence Valley, Kyogle and Richmond Valley LGAs nor in an RU2 zone in Coffs Harbour LGA (where there is no RU1 zone), but is permitted in Tenterfield LGA. Requirements for Tenterfield LGA are written as open zone, that is, unless listed a development type can occur. In contrast, other Councils have the rural zones as closed zones, listing what can occur and prohibiting anything else.

Rural worker dwellings are permitted in RU1 zones in Clarence Valley, Kyogle and Richmond Valley Council areas however not in Coffs Harbour. Where they are permitted, they are subject to the above definition requiring rural worker dwellings to be on the land where the rural industry is located. However, it seems there could be flexibility here through amalgamating the production land with the accommodation site, even if they are remote from each other, where the sites have the same owner.

Rural worker accommodation–issues

Rural worker accommodation is an issue that will grow over time especially with the absence of mechanical harvesting. The matter requires development approval consistency across local government areas. The blueberry industry in north east New South Wales, and horticulture in general, would benefit from the NSW Government seeking to bring uniformity across the region by ensuring a common standard for rural worker accommodation through Councils working towards agreement. Standards could cover both on-farm accommodation and hostel accommodation in country towns, taking LGA differences into account.

In relation to planning, there has been initial discussion between local Councils about converting to the open zone approach. The NSW Department of Planning may support amending LEPs to the open zone approach given further review. This would allow for development to then be considered as tourist and visitor accommodation and remove the requirement for "being upon the land".

Issues specific to seasonal worker accommodation require ongoing monitoring. This is particularly pertinent as larger new farms are being established and the need for labour grows in larger increments. In some cases, when a new farm comes into production this can mean there is a need to accommodate 600 to 700 workers from the start of the first harvest. This report recommends that a "best practice" model be developed for accommodation requirements for the industry in the region and that grower groups are closely involved in the development and dissemination of this material.

Early in 2016 several instances of rural workers camping on Crown Lands were reported to the NSW Government. The growth in volume of these reports led to the matter being raised at both a political and a cross departmental level in NSW. As at February 2017 the number of instances has decreased considerably and The Department of Industry – Crown Lands is now monitoring the number of events being reported. Enforcement of regulations regarding camping on Crown Land will continue and will need to form part of the overall "best practice" model communicated to all growers.

Several initiatives have contributed to this apparent lessening of illegal camping. These are an increase in the availability of accommodation either on larger farms or provided by other farmers as a means of income generation closer to larger growing properties. There has also been an increase in property made available in the Grafton city area for rural worker accommodation. These developments are at an early stage and will continue to develop and address the need for this type of solution to rural work accommodation. The size of the industry will continue to grow and as such the size of the workforce needed to harvest the crop will continue to grow. Accommodation, that adheres to the regulatory framework covering this environment, needs to continue to be made available to avoid recurrences of illegal camping.

3 INDUSTRY DEVELOPMENT

Markets

With supply of blueberries reaching saturation consumers will increasingly "pick and choose" on quality and price in the next 12 to 24 months. Major supermarkets indicate demand for blueberries is close to being satisfied, considering market size and available supply in 2016. An historic premium price was absorbed as Australians demanded more blueberries over the past decades as consumer fresh fruit markets rapidly developed.

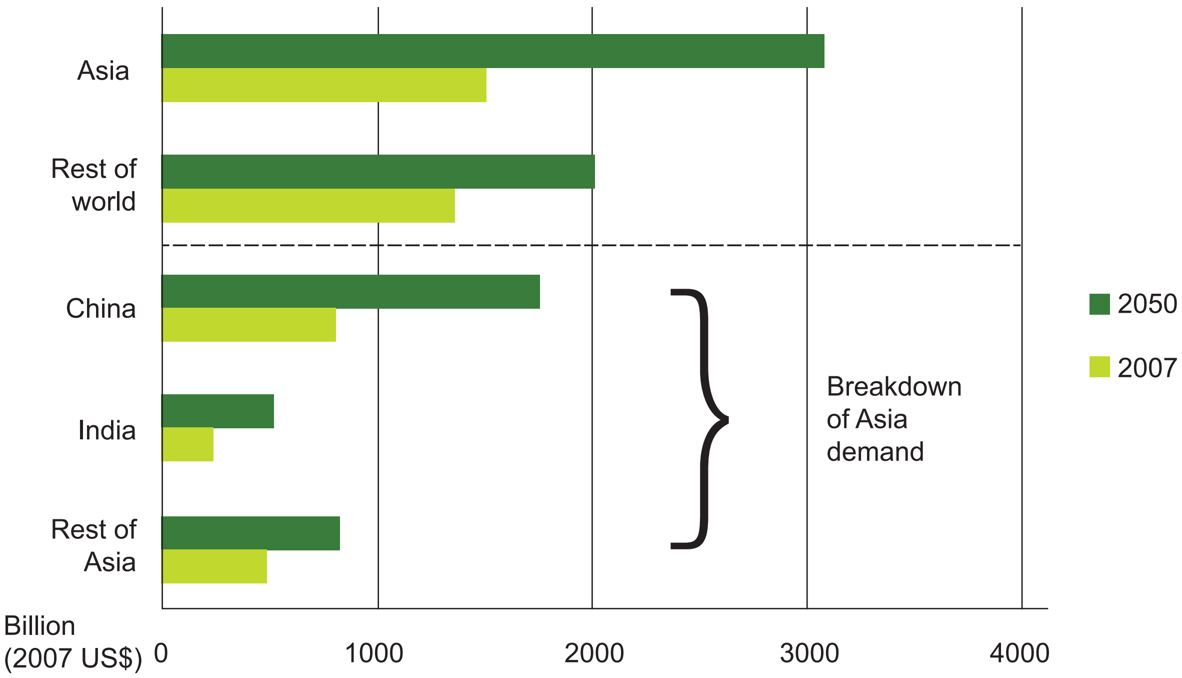
Blueberry production at the end of 2012 was 6,000 tonnes and it is expected that there will be 10,000 tonnes grown nationally for fiscal year 2017 which represents 30% growth. New South Wales is the largest producer with 90% of the overall Australian crop. The domestic retail market value of blueberries in 2013 was $132 million representing a total fresh consumption per person of 363 grams. The wholesale price paid per kilogram of fruit varies between $18 and $20 depending on supply and growing conditions. This puts the market size based on current estimates at more than $250 million.

China Market

The China Free Trade Agreement, signed by Australia, began in December 2015. Blueberries are as yet not a listed protocol for Australia. It is expected that this protocol announcement is imminent but could take several years with Chinese import requirements for fruit needing to be reviewed and regulations satisfactorily met. The General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China AQSIQ will be the governing body to manage that process. The AQSIQ also publishes a list of countries able to export blueberries to the People's Republic of China. Chile, Peru and Canada have established protocols and Argentina is known to be close.

New South Wales lost the Japan market to Queensland, which has fruit fly regulation. In September 2011, Japan banned the importation of Australian blueberries, because of concern about Mediterranean fruit fly. This has led to an increase in available supply in the domestic market. It has also meant that major export growers have been evaluating the adoption of fumigation techniques that could satisfy Japanese authorities.

World agri-food demand by region



Markets–issues

There is a risk of a shake-out in the blueberry industry given the trajectory of new plantings and the volume of fruit being produced. New larger farms will need to have the right product to satisfy the market or look to processed fruit (juice and frozen) as their mainstay. Australian domestic demand may not grow substantially beyond its current performance and this will affect the viability of some marginal producers. Berry variety and farm management will play a dominant role in determining the success of blueberry growing in the future as larger sweeter varieties are more in demand by consumers.

Potential for weakening returns over time and price fluctuations may occur, especially for smaller growers as supply increases and the domestic market saturates. It is essential that export markets continue to grow in number and expand in demand in individual markets. Currently protocols for blueberry exports to China are not in place and a delay could seriously expose this growing industry. For export to China, protocols such as those on storage, packaging and cooling, need to be established and implemented.

Export market development is essential, including reopening the Japanese market. For new access to Japan markets cold storage disinfestation, if accepted, is one possible solution. A process called cold disinfestation or cold sterilisation where fruit is kept at a low temperature for a prescribed period of time to eradicate insects in the consignment is of most relevance.

Research of market development in other ASEAN countries is also an ongoing priority.

Compliance for existing and new farms

The farming community around Woolgoolga traditionally grew bananas, but due to the downturn in the industry began replacing bananas with blueberries in the late 1990s. Today this farming community is a substantial contributor to the blueberry industry in that area. However, in the Woolgoolga area the intensity of the farming and the steep plantings has risks.

New and larger blueberry orchards are either being established or land is being sought to establish new properties. In the Clarence Valley, Golden Eagle Farms has accumulated more than 100 acres of land with accompanying water rights with the intention of cultivating blueberries. Golden Eagle is a large Canadian corporation with substantial holdings in blueberries in British Columbia. The company focuses mainly on juice and packaged frozen blueberries for the North American marketplace. This is a substantial investment in the region and in the blueberry industry, and the move has been reinforced by the company's acquisition of the old Grafton abattoir site and its cold storage capability.

Relevant legislation and regulations govern, for example, land uses, use of chemicals, intensity and timing of lights, and noise and odour management. Rules apply equally to land users, including rural lifestyle landowners who, like farmers, have obligations in relation to managing weeds, pests and other biosecurity risks. The NSW Government supports primary producers in their right to farm, to the extent that it is lawful.

In rural and agriculture areas residents can be near productive agricultural land and standard farming practices can lead to impacts such as residual noise, light or dust. Disputes about use of agricultural land occur when activities of one land user are perceived to, or actually do, infringe upon the rights, values or amenity of another. In rural areas land use conflicts occur, for example, when agriculture impacts on residential use, when other land users impact on farmers, or when differing agricultural industries impact on the other.

Compliance Issues

Concerns and issues relating to compliance tend to be raised in two main areas.

(a) Land use conflict

Land use conflict can be a considerable issue for local government. In some LGAs complaints occur frequently – in some areas on a weekly basis. The basis of complaints across several LGAs was environmental issues and criticisms about chemical spray use and noise. In some areas, dairy farmers and cattle growers voice concerns about chemical trespass (overspray) and general practices in relation to new blueberry farms developed alongside their traditional holdings. The established smaller orchards in the Woolgoolga area are under public scrutiny as many are adjacent to residential properties. From the growers perspective, land use conflict creates uncertainty for farm businesses, can increase costs and exert pressure on some farmers to relocate or leave the industry.

(b) Land and water regulation

Growers commented that there was no review process if they did not agree with findings by local officers on land and water matters for their farm. In addition, they had limited recourse against adverse findings in water storage disputes adjudicated by the Office of Water.

Local government and New South Wales agencies chartered with environment and land management continue to raise concerns and report grappling with establishment of farms that do not comply with regulations. Several growers voiced concerns about non-enforcement or "make good" on farms developed in contravention of NSW Government environmental regulations. Concerns relate to an approach where, some years after prosecution for illegal practice, farms still operate and grow blueberries without addressing the illegal practice such as native vegetation clearing or dam-building on creeks without permission. This can lead to diminishment of the industry's reputation and outcry from other farmers and the community. Enforcement of vegetation and water management is seen as an ongoing and longer-term issue.

Intellectual Property Protection

The development of advanced blueberry varieties through breeding has resulted in very positive results, with specific new varieties leading the way in sweetness and larger fruit size.

Intellectual property protection for plants can be gained, in Australia, through plant breeder's rights (PBR) or standard patents. Obtaining both is possible for the same variety of plant breed. Being granted PBR protects plant variety names or synonyms, important for marketing, and obtaining a patent can offer some further rights protection beyond PBR.

Through the Plant Breeder's Rights Act 1994 (Cwlth), the PBR scheme protects breeder's rights, a form of intellectual property, enabling a commercial monopoly for a new plant variety. For blueberries this is 20 years provided fees and conditions are met. Overseas rights need to be applied for in each separate country. Registration takes several years depending on growing trials. Once rights are expired the variety reverts to the public domain. Full details on plant breeder's rights are on the Intellectual Property Australia website at www.ipaustralia.gov.au along with a link to the legislation.

A standard patent can cover a range of plant subject matter including new plant varieties, seeds, cuttings, fruit and flowers. The patent can be granted for an invention that is a new idea, represents a practical solution to a technological problem, and meets a range of conditions.

Intellectual property – issues

There is some concern amongst growers on the definitions and enforcement of intellectual property rights to define and quantify protection for Australia-developed varieties. The industry needs to consider and accept that privately developed and patented varieties are intellectual property. This protection may extend to international use of protected varieties by other national exporters.

Berry Facts

Australian blueberries a packed full of antioxidants and deliver a range of health benefits including:

FIGHTING AGAINST OVARIAN AND COLON CANCER – Antioxidants like anthocyanins and phenolics, along with Vitamins C and E – which are all in abundance in blueberries – help to protect the body against the damaging effects of free radicals, which are the unstable oxygen molecules associated with cancer.

PROTECTING YOUR HEART – A daily handful of blueberries will help protect against coronary heart disease and stroke. In fact, blueberries are 38% more cardio protective than red wine.

BOOSTING YOUR BRAIN POWER – Not only will a handful a day help to improve your memory, but the antioxidants in blueberries have been shown to help prevent the onset of brain diseases like Alzheimer's, senile dementia and age-related memory loss.

IMPROVING YOUR VISION – The humble blueberry has high levels of anthocyanin thanks to its blue skin. This wonder compound is linked to a reduction in eyestrain, improved night vision and an improved ability for the eye to adjust to glare and sudden changes in lighting.

REDUCING THE RISK OF DIABETES – Blueberries are low in sugar, high in essential phytonutrients and contain myrtillin and pterostilebene, which can lower excess blood sugar – to help to reduce the risk of diabetes. They're also great for promoting healthy circulation.

Credit: Australian Blueberries
www.australianblueberries.com.au/does-good/berry-nutrition

4 INFRASTRUCTURE

A review of infrastructure requirements for all industry across the region over the next decade is being defined by Regional Development – Northern Rivers at the time of this report. The development of this strategy will include freight and supply chain logistics for the Blueberry industry. Overall the industry is well served in the region for major arterial roads through the continued upgrades to the Pacific Highway and the announcement of the new Clarence River Bridge at Grafton.

Infrastructure that is closer to actual growing properties continues to be hampered by the need for bridge replacements and telecommunication black spots. The replacement of older timber bridges is a necessity for the continued growth of the larger growing areas such as Tabulam and parts of the Clarence Valley. The use of semitrailer trucks and ultimately B Double trucks will need specific focus on all aspects of road weight ratings and bridge load capacities. The metric used by NSW Roads and Maritime Services is based on the volume of traffic passing through an area or over a specific bridge to measure the need to review the load weighting or the overall health of the structure.

However, the blueberry industry, as a high dollar value crop producer, can mean that a fully loaded semi-trailer of fresh blueberries may be valued at over $1 million. This economic impact should be considered when farming infrastructure is evaluated on a cost benefit basis.

A barrier to attracting sufficient pickers to make up the total workforce for harvest is having access to acceptable telecommunications infrastructure and services. Several "mobile blackspots" exist in growing areas limiting the capacity to receive mobile phone signals and utilise internet connections and applications. This is a factor for workers continuing on some properties before they seek roles closer to the east coast where an adequate mobile signal is more likely. Highlighting the "business opportunity" to service providers may be necessary to bring their attention to this hindrance for growers.

Berry Facts

Blueberries have three common varieties: lowbush, highbush and rabbiteye.

LOWBUSH BLUEBERRIES – This variety, which produces a big harvest of intensely flavoured blueberries, is not grown in Australia's milder climate. It thrives in colder climates in the northern hemisphere.

HIGHBUSH BLUEBERRIES – This is the most common variety in Australia, with many cultivars suited to the Australian climate. The two most popular cultivars grown here are the Northern Highbush and the Southern Highbush. Just to confuse things, the Northern Highbush is grown in Victorian, Tasmania and Southern NSW; while the Southern Highbush is grown in milder regions like Northern NSW and Southern Queensland.

RABBITEYE BLUEBERRIES – This is another late season variety, which can endure warm and humid summers and tolerate dry conditions like no other, making it right at home in Northern NSW and Queensland. Its name comes from the calyx, which when ripening looks just like little rabbit eyes looking back at you.

Credit: Australian Blueberries
www.australianblueberries.com.au/is-good/berry-facts

5 CONCLUSIONS

This report was commissioned to investigate and highlight business barriers to the further growth and resilience of blueberry growing in the Northern Rivers and surrounds. The blueberry growing industry in the region is a valuable contributor to the overall regional economy delivering more than $250 million of farm revenue and employing more than 600 full-time and approximately 5000 seasonal workers across the North Coast of New South Wales.

The industry will continue to grow in revenues and in numbers of orchards planted. This orchard growth is expected to be a result of an increasing number of larger agribusinesses entering the area looking to develop substantially sized farms as the export opportunity for blueberries becomes clearer. The growing areas to the north of the region in the Clarence Valley and around Tabulam should be encouraged as they are likely to be located away from populated areas thereby avoiding many of the issues confronting landlocked orchards such as those in the Woolgoolga area to the south.

The Woolgoolga area is likely to come under increasing public pressure from environmental and resident groups as the scrutiny of specific farm practices increases and this monitoring is made public. Chemical trespass (overspray), boundary management and worker accommodation are likely to attract increasing controversy in this area. The knock-on effect of this type of public scrutiny is that the overall industry is seen in the same light with larger farms located well away from populated areas also being questioned about farm practices.

Exploration of issues

One of the major issues the industry faces is maintaining continued growth of market access as the domestic marketplace approaches saturation for fresh fruit. This market access is centred around a reopening of the Japan market for Australian blueberries and the signing of the blueberry protocol with China. The potential issue is that if access to these markets is delayed substantially and plantings for new farms continue, then the local fresh fruit domestic market will potentially reach saturation point leaving marginal farms unable to meet input costs.

The above scenario is a worst-case scenario but could occur. In addition, alternative markets and value adding of fruit for new products such as juicing and frozen berries should be developed. It should be noted that Chile is supplying substantial amounts of frozen blueberries to the Australian domestic market through the major supermarkets.

Another issue highlighted by this report is management of operational issues faced by growers. These include seasonal worker accommodation and employment conditions, compliance with land regulations for new and existing farms and adherence to farm practice regulatory frameworks such as chemical management.

Exploration of options

Australian Government trade commissioners and other advisors are working on new market access particularly to the China fresh fruit marketplace. However, measures should be developed to investigate the potential pressures on existing growers from these delays and also measure the opportunities for other added value products, should an oversupply of fruit eventuate. The Department of Primary Industries in New South Wales could prepare potential business cases that outline processes and infrastructure necessary for local value added frozen and juiced berries. This advice and planning may be invaluable to the industry in the long run.

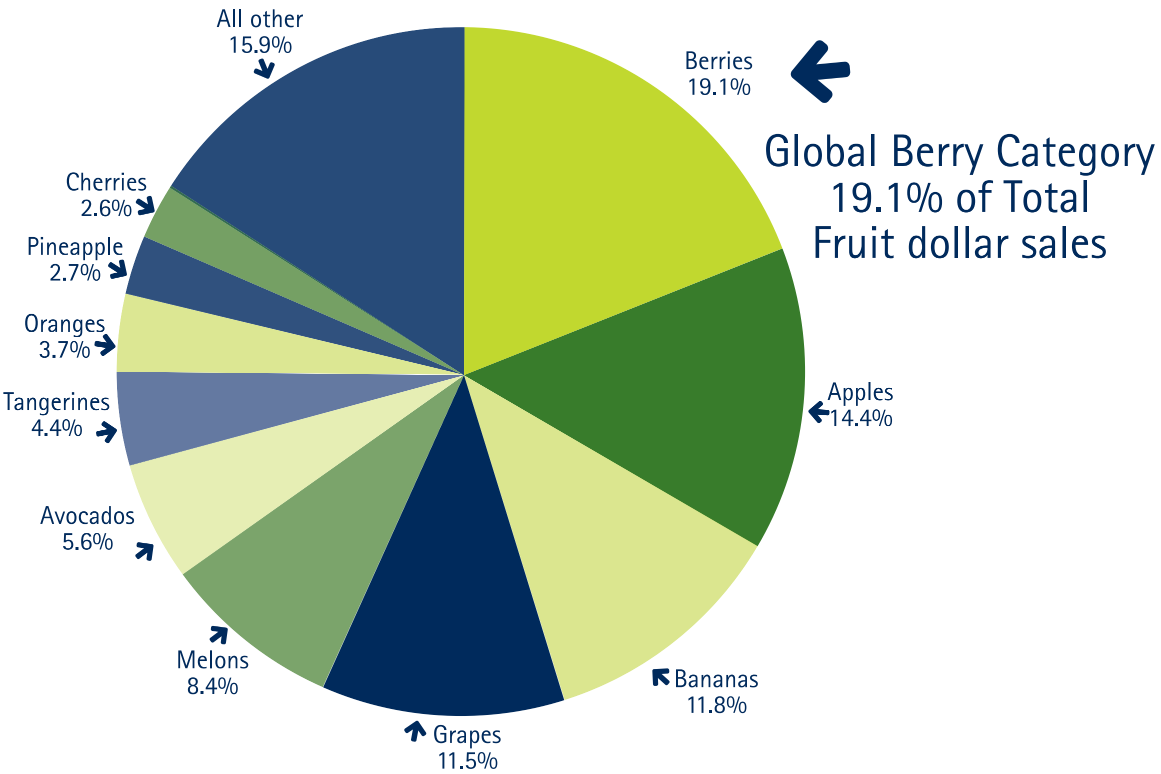
Many of the larger growers have developed best practice models for their own properties or as part of a larger corporate system. Many of these frameworks drive effective management practice as well as practices designed to ensure regulatory compliance. In some cases, this "best practice" implementation is only beginning on smaller farms. Of potential benefit to the overall industry could be certification of smaller growers through programs or systems that aim to help lift farm practices. TAFE New South Wales has indicated that they may be able to work with these smaller growers or grower groups to develop such a certification program for best practice implementation.

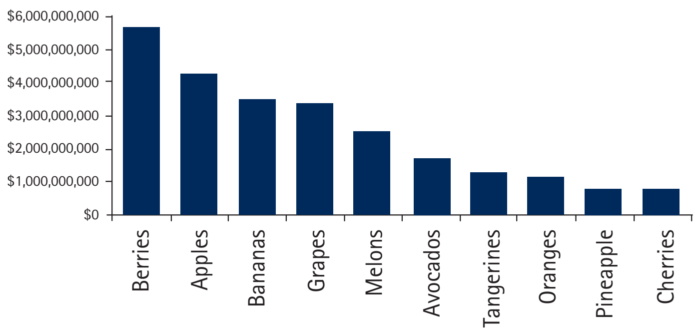
Rural worker accommodation will continue to be an issue as the seasonal workforce grows. Worker accommodation alliances in, for example, the Tabulam area are proving to be successful for those farms that are outside the populated areas. However, accommodation in regional towns needs to be developed in partnership with local councils to ensure compliance and ongoing management.

Given the issues that are apparent in managing and housing a growing seasonal workforce a need exists to bring together several of the local councils and grower groups and endeavour to reach a consensus on seasonal worker practices. This may also be an opportunity to reinforce visa standards and compliance and farm management practices. This report suggests that the Department of Industry and Regional Development and the Department of Primary Industries hold a summit of growers (large and small) and regulatory bodies to bring a focus on issues for resolution, and these could well be resolved for the longer term through adopting a best practice framework to be implemented by the blueberry industry.

6 APPENDICES

APPENDIX 1 – GLOBAL BERRY MARKET SIZING





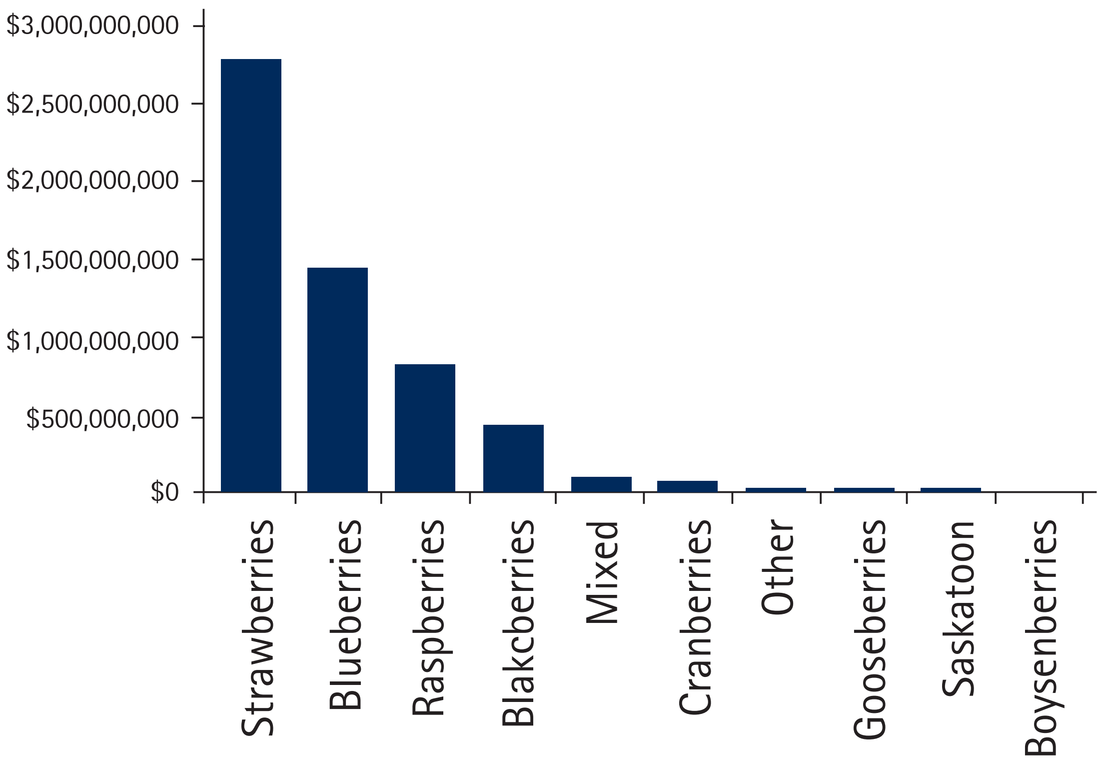
Dollars	Current 52 wks	% Chg
Berries	$5,637,507,200	6.8%
Apples	$4,244,093,938	0.3%
Bananas	$3,478,540,600	-0.4%
Grapes	$3,400,357,503	-0.1%
Melons	$2,468,851,357	8.6%
Avocados	$1,654,171,611	12.6%
Tangerines	$1,285,160,783	9.5%
Oranges	$1,101,051,355	-7.3%
Pineapple	$796,853,880	10.5%
Cherries	$760,701,123	-4.6%
Total Fruit	$29,532,884,511	3.8%

52 Weeks ending 2/22/2015 - IRI/FreshLook Marketing, Multi-Outlet

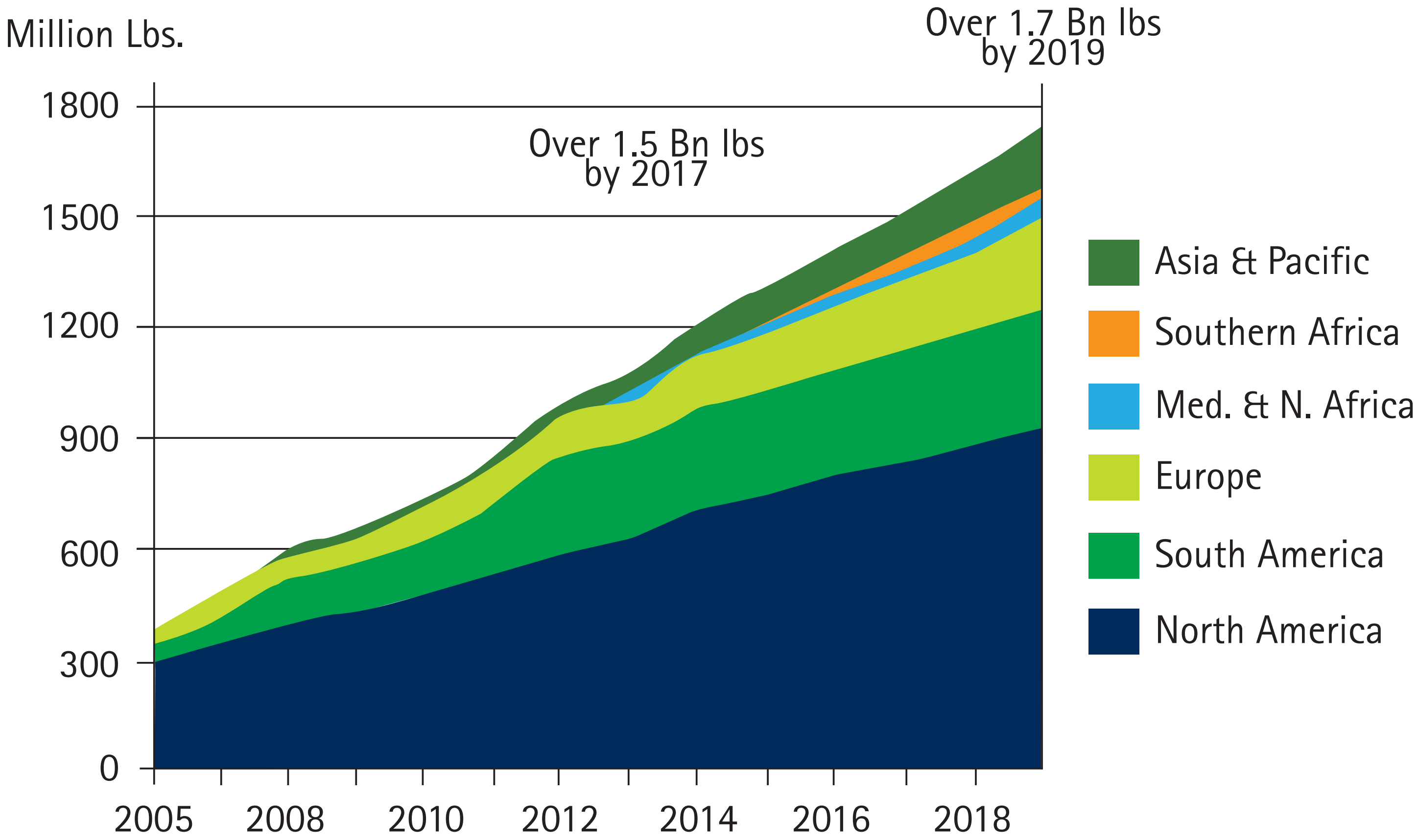
Global Berry Consumer Demand

Dollars	Current 52 wks	% Chg
Strawberries	$2,787,170,301	5.0%
Blueberries	$1,437,761,042	7.5%
Raspberries	$826,458,237	12.9%
Blackberries	$430,174,528	2.9%
Mixed	$99,694,902	23.9%
Cranberries	$50,825,516	2.7%
Other	$4,153,544	9.9%
Gooseberries	$1,263,843	-0.7%
Saskatoon	$5,080	53.5%
Boysenberries	$207	24.8%
Total Berries	$5,637,507,200	6.8%

52 Weeks ending 2/22/2015 - IRI/FreshLook Marketing, Multi-Outlet



2014 World Highbush Production Growth Prediction



Tables and graphs sourced from presentation *Producing the goods – What the best performers in fresh food do well*, Peter McPherson, Costa Group

APPENDIX 2 – CHINA FRESH FRUIT IMPORT LIST

Exporting Country /Region	Category
Argentina	Orange, Grapefruit, Mandarin and Hybrid, Apple, Pear
Australia	Mandarin, Orange, Lemon, Grapefruit, Lime, Mango, Apple (Tasmania), Grape, Cherry
Belgium	Pear
Canada	Cherry
Chile	Kiwifruit, Apple, Grape, Plum, Cherry, Blueberry, Avocado
Colombia	Banana
Costa Rica	Banana
Cyprus	Orange, Lemon, Grapefruit, Tangor
Ecuador	Banana
Egypt	Citrus
France	Apple, Kiwifruit
Greece	Kiwifruit
India	Mango, Grape
Indonesia	Banana, Longan, Mangosteen, Salacca
Israel	Orange, Pomelo, Mandarin, Lemon, Grapefruit
Italy	Kiwifruit
Japan	Apple, Pear
Malaysia	Longan, Mangosteen, Litchi, Coconut, Watermelon, Papaya, Rambutan
Mexico	Avocado, Grape, Blackberry, Raspberry
Morocco	Citrus (Orange, Mandarin, Clementine, Grapefruit)
Netherland	Pear
Myanmar	Longan, Mangosteen, Rambutan, Litchi, Mango, Watermelon, Melon, Indian Jujube (Last four fruits only can be imported at ports of Ruili and Daluo, Yunnan Province)
New Zealand	Mandarin, Orange, Lemon, Apple, Cherry, Grape, Kiwifruit, Plum, Pear, Prune
Pakistan	Mango, Citrus
Panama	Banana
Peru	Grape, Mango, Citrus (Grapefruit, Mandarin and Hybrid, Orange, Lime)
Philippine	Pineapple, Banana, Mango, Papaya
South Africa	Mandarin, Orange, Grapefruit, Lemon, Grape, Apple
Spain	Mandarin, Orange, Pomelo (Grapefruit), Lemon
Taiwan (China)	Pineapple, Banana, Coconut, Sweetsop, Papaya, Carambola, Mango, Guava, Wax-apple, Betelnut, Mandarin, Pomelo, Plum, Loquat, Persimmon, Peach, Date, Prune, Lemon, Orange, Dragon Fruit, Cantaloup, Pear
Tajikistan	Cherry
Thailand	Tamarind, Mandarin, Sweetsop, Orange, Pomelo, Papaya, Carambola, Guava, Rambutan, Wax-Apple, Jackfruit, Longkong, Pineapple, Ginseng Fruit, Banana, Passionfruit, Coconut, Longan, Durian, Mango, Litchi, Mangosteen
Uruguay	Citrus
U.S.	Plum (California), Cherry (Washington, Oregon, California, Idaho), Grape (California), Apple (Red Delicious & Golden Delicious from Washington, Oregon, Idaho), Citrus (California, Florida, Arizona, Texas), Pear (California, Washington, Oregon)
Vietnam	Mango, Longan, Banana, Litchi, Watermelon, Rambutan, Jackfruit, Dragon fruit

APPENDIX 3

Stakeholders and contact

George Jessett	National Blueberry and Innovation Manager, Costa Blueberry Exchange
Harj Singh	General Manager, Golden Eagle Farms
Andrew Bell	Managing Director, Mountain Blue
Gurmesh Singh	Chairman, OZ Group
Kameldeep Singh Clair	CEO, Oz Group
Rik Whitehead	NSW DPI Regional Director North Coast
Melinda Simpson	NSW DPI Blueberry Development Officer
Graham Kennett	General Manager, Kyogle Council
Manfred Boldy	Director Planning and Environment, Kyogle Council
Scott Greensill	General Manager Clarence Valley Council
David Morrison	Strategic and Economic Planning, Clarence Valley Council
Mike Perkins	Manager Property and Development Projects, Richmond Valley Council
Vaughn Williams	General Manager, Richmond Valley Council
Kerrie Grace	CEO, RDA Mid North Coast
Tim Gilbert	NSW Department of Finance Better Regulation Policy Group
Harry Bolton	Tenterfield Shire Council

APPENDIX 4

Links

Presentation from Costa Group to Australian Banana Industry Congress 2015 "Producing the goods – What the best performers in fresh food do well" http://bananacongress.org.au/wp-content/uploads/2015/06/ABIC-Producing+the+goods-what+the+best+performers+in+fresh+food+do+well-Peter+McPherson.compressed.pdf

NSW Department of Agriculture article "In a world of blueberries" http://www.dpi.nsw.gov.au/content/archive/agriculture-today-stories/ag-today-archives/october-2008/world-of-blueberries

Mountain Blue Farms – The Blueberry Orchard http://www.mountainblue.com.au/Our-Farm/the-blueberry-orchard.html

Australian Blueberries – Blueberry History http://www.australianblueberries.com.au/is-good/blueberry-history

Oz Group http://www.ozgroupcoop.com.au/about/

Costa Group http://costagroup.com.au/Berries

Australian Blueberry Growers submission to Australian Government's Working holiday maker visa review http://www.agriculture.gov.au/SiteCollectionDocuments/ag-food/working-holiday/submissions/australian-blueberry-growers-assoc.pdf

Blueberry Market Profile (Tasmanian Government) http://dpipwe.tas.gov.au/Documents/Blueberry%20Profile%20updated%20March%202014.pdf

IP Australia. "Plant Breeder's Rights." Retrieved December 2016 from https://www.ipaustralia.gov.au/plant-breeders-rights