



Agriculture Industry Snapshot for Planning South East and Tablelands Region

August 2020

The gross value of agricultural production in the South East and Tablelands (SET) Region is over \$906 million (2015/16). However, expansion of the region's residential and lifestyle development has incrementally pushed farming out of some areas and makes it difficult for remaining producers to operate. Despite these challenges, the region has potential to grow and support all forms of agriculture, even with expected population growth.

Purpose of this profile

To develop effective land use planning policy for agricultural industries it is important to understand their location, the reasons why they exist in that location, the opportunities they take advantage of and the challenges they face. This profile details the key agricultural industries in the South East and Tablelands Region and their interactions with suppliers, processing facilities and markets.

Identifying the significance of agriculture allows its recognition and management in land use planning by Councils. By providing the evidence base for strategic planning, agricultural land and local agriculturally based economies will be protected and supported in planning instruments.

It is important for the region to retain agricultural production in a local setting. The benefits for both farmers and the urban population are evident through reduced food miles and provenance, and also amenity, research and tourism opportunities. The region is unique with proximity to Canberra, the south coast and Sydney.

In terms of rural land, planning is managed by local councils, guided by the South East and Tablelands Regional Plan (2017). The Regional Plan has clear messaging about the need to protect and capitalise on the region's agricultural industries, infrastructure and rural land.

Agriculture in the South East and Tablelands Region

South East and Tablelands local government areas (LGA) include: Bega Valley Shire, Eurobodalla Shire, Goulburn Mulwaree, Hilltops, Queanbeyan-Palerang Regional, Snowy Monaro Regional, Upper Lachlan Shire, Wingecarribee Shire and Yass Valley. The region is a significant contributor to NSW's wool production, supplying 18% of the state's production (based on Gross Value Production (GVP)), with the Region also producing 14% of sheep and lamb production and 15.5% of milk production.. The region is also known for cherry production (38%) particularly in Hilltops Council and is an important producer of seed potatoes. These industries operate in an environment of increasingly global competition and opportunities, external challenges and changing land use.

The region's landscapes vary widely with approximately 335km of southern coastline, large areas of the Snowy Mountains range, tablelands north of Yass and southern highlands south west of Sydney. A large amount of the region in the east is located within the Sydney drinking water catchment area.

Although one of the more populated NSW regions, the South East and Tablelands Region makes a significant contribution to agricultural production in NSW, containing 11% of all farm businesses in NSW. Livestock grazing takes up about 50% of agricultural land. The following table shows the Gross Value of Production and percentage share of agricultural output for the region for each of the top five industries. These industries alone account for 82% of all agriculture in the South East and Tablelands.

Industry	Gross Value of Production (\$)	% share of SET total	Number of businesses	% share of NSW
Beef	\$238.6m	26.3%	1,984	9.3%
Wool	\$171.5m	19%	1,902	18.2%
Lamb, mutton	\$130.5m	14.4%		17.8%
Broadacre crops	\$111.6m	12.3%	504	2.2%
Milk	\$101.5m	10.2%	146	15.5%
All other	\$161.0m	17.8%	-	5.0%
TOTAL	\$906m	100%	2,866	6.9%

Source: ABS 2015 -16 (note: some businesses cover multiple industries).



Wool, sheep and lamb and beef production are the dominant industries in terms of GVP, being subject to recent upwardly rising commodity prices. The South East and Tablelands Region produced 6.9% of the total GVP of agriculture in NSW.

While cherry production is not ranked as a high value producer, the South East and Tablelands has a very high percentage of NSW cherry production at 39%, with the Hilltops Council producing 38% of NSW production. The NSW Agriculture Agfact on cherry growing states that the Hilltops and Orange areas combined produce 70% of cherries grown in NSW and 50% of Australia's production (NSW Agriculture, 2004).

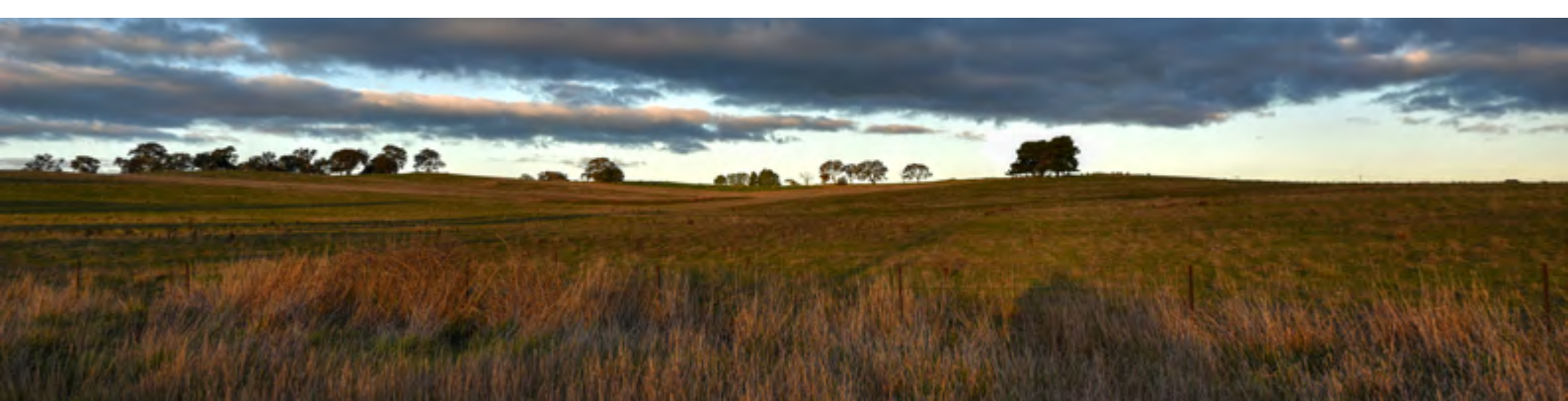
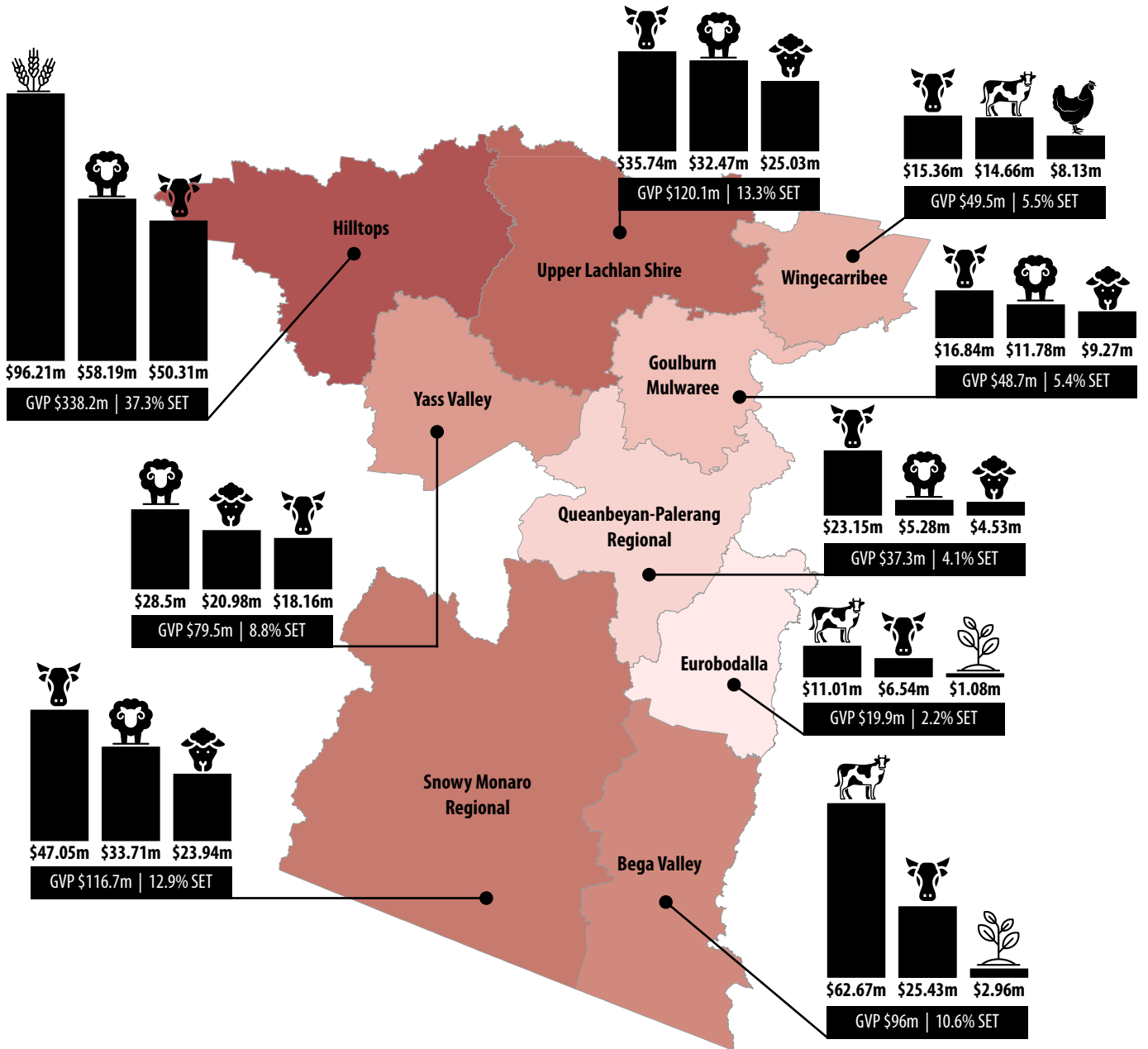
Seed potato production too is not ranked as a high value producer, however the South East and Tablelands has a very important function as a seed potato growing region, with Crookwell in the Upper Lachlan Shire producing high quality certified seed potatoes. The basis of successful potato production is the availability of clean seed. The region celebrates its importance in the potato industry by hosting a potato festival every year.

Employment

Agriculture employs over 5,951 people across the South East and Tablelands Region (ABS, 2015/16). The biggest contributor is the sheep, beef cattle and grain farming (65.0%) followed by the dairy industry (6.6%) and the poultry industry (3.2%). The LGAs with the highest agriculture employment are Hilltops (24.2%) and Snowy Monaro Regional (14.0%). These are people employed in the primary production of agriculture and do not include the vast workforce within the key secondary industries. It does not include employees that are hired on a seasonal basis that were not working in the South East and Tablelands Region at the time of the ABS census.

Local government distribution

The following table lists the LGAs in the South East and Tablelands Region with the top three commodities (ABS 2015/16).



Agricultural highlights of the South East and Tablelands Region

Farming in geographically diverse areas such as the South East and Tablelands Region provides benefits and opportunities for producers and urban residents. By sustaining agriculture close to cities such as Sydney and Canberra, farming advantages are market differentiation and alternative income streams, access to labour, resources and materials, and opportunities to grow high value crops which benefit from market proximity (reduced food miles and spoilage). With population growth of over 45,000 people (South East and Tablelands Regional Plan, 2017) expected by 2030 within commuting distance to Sydney and Canberra, there is even more reason to support agriculture.

This section highlights the prominent industries for the South East and Tablelands Region, with further detail provided in Appendix 1.

Mixed farming

The most important commodities in the region based on GVP were cattle, wool, and sheep and lambs. In the Region there are specialisations in sheep and beef farming, as well as sheep-beef and grain-sheep or grain-beef farming. These industries dominate the regional GVP and employment in the region.



Beef

Beef production is undertaken on a large scale on the 'tablelands', with some production on smaller properties, usually in peri-urban areas. In recent times, beef prices have increased along with global demand for protein. Beef farming often occurs in mixed farming systems with cropping or wool, enabling economies of scale through grazing rotation, feed production and storage. On the coast, dairy farmers who have exited the industry graze cattle for beef production.



Mutton, lamb and wool

As with beef, sheep grazing for meat and wool is usually a large-scale enterprise although some smaller properties can also contribute to regional production. Sheep and wool growing properties are the most common enterprise, making up 32% of all farms in the region and 25% of all sheep properties in NSW.

Wool production is the most prominent industry in terms of number of enterprises and is the second highest value commodity in the region after beef. The southern tablelands region is known for 'superfine', 'ultrafine' and fine-medium wool production from merino sheep. Wool from the region is sought after as an exclusive fibre globally. Wool growing is a specialised industry with a specific set of biophysical (land and climate) and on-farm management requirements (animal husbandry, wool production and value adding). Sheep are particularly vulnerable to attacks from animals such as dogs and foxes, and producers have added costs (eg fencing, eradication) in managing these pests.

Typically, wool growing involves producing lambs for meat as part of the enterprise, however moving wool to lamb enterprises is a longer term trend as wool prices continue to fluctuate. The South East and Tablelands Region is one of Australia's largest lamb-producing areas, with around 1100 lambs sold per property on average annually (ABARES, 2020).

Industry requirements

Livestock production requires unconstrained land with opportunity for producers to increase scale without risk of land use conflict.

Pasture-based cattle and sheep production need access to suitable land and water supply, and a range of infrastructure for livestock handling, husbandry, fodder production, storage and access. Typically, livestock are managed in a system of rotational grazing, with paddocks recuperating after grazing. Some producers may operate more intensive lot feeding on farm, which will increase the amount of stock, feed and transport movements. As with all farmers, producers manage plant and animal pests with a variety of methods.

The region is serviced by sale yards at Yass (South Eastern Livestock Exchange (SELX) and with smaller saleyards located at Bega, Boorowa, Moss Vale and Young. There are also a number of abattoirs throughout the region located at Goulburn, Harden, Young, Polo Flat in Cooma, Moss Vale and Moruya in the Illawarra Shoalhaven Region.

Wool is sold off farm through brokerages, with the Goulburn based Australian Wool Network offering wool rehandling and sales. Wool also generates value adding industries through shearing and other sheep-specific tasks.



Dairy industry

The dairy industry is increasingly more competitive with farm incomes under pressure from milk pricing competition, increasing input costs and slowing productivity growth in recent times. Dairy farmers in the South East and Tablelands Region have responded by consolidating farms through increasing farm size and milk output.

The Bega Cheese processing plant is the main milk processor in the South East and Tablelands Region. The plant employs over 500 staff in the Bega Valley. Around 20% of overall production is exported to over 50 countries around the world. 50,000 tonnes of value-added cheese products are produced annually (Bega Cheese, 2020). It is currently one of the largest companies in the dairy sector in Australia, with a FY2018 base milk supply of approximately 750 million litres (Bega Cheese, 2020).

Industry requirements

The dairy industry is moving towards a more intensive system of production, with efficiencies in establishing 'dairy pads' as well as more traditional fodder-based enterprises. Dairy farmers also have a range of industry and government standards for primary production, traceability, food safety, transport and processing. Because of the intensive nature, fodder and dairy pad-based enterprises need access to farmland with appropriate separation from non-agricultural land uses. Land that is suitable for fodder production, with quality soils and reliable rainfall is traditional dairy land, most often located in coastal areas. Dairy pads do not necessarily have fodder growing requirements and can therefore locate away from traditional dairy localities.

Farmland in the Region is also in demand for rural lifestyle development which is incompatible with dairying. The industry therefore needs policy support through land use planning to manage potential land use conflict from incompatible land uses.



Poultry

While poultry meat is ranked sixth in GVP, it is an industry that has significant potential in the Region particularly with projected national demand and poultry farmers in the region seeking alternative locations.

The key requirements for the poultry meat industry includes locations that have:

- guaranteed water supply
- guaranteed electric power
- access for heavy transport for feed and live poultry
- available labour, depending on the farm size
- available services such as tradespeople
- locations where biosecurity risks are more manageable
- space for processing plant and feed mill for feed grain.

Key secondary industries for the poultry meat industry are:

- processing facilities
- means for disposal of dead birds, litter and manure
- transport services.

In the South East and Tablelands Region there are locations that satisfy these requirements, with already established chicken and turkey farms and potential for further poultry farm development.

The region has sufficient rainfall to provide a reliable water supply for poultry farming. The area is serviced by labour supply, electricity, the Hume and Federal Highways and located within 200km of processing plants in Sydney for live poultry transport.

A hatchery established in Goulburn supplies 70% of breeder stock for Australia and its location within the south east region is of strategic importance for the industry.

South East and Tablelands Regional assets for agriculture



Supporting industries and infrastructure

Before agricultural produce makes it to market, there are inputs such as fertiliser, fuel, technical support services such as agronomists and mechanics, processing facilities such as abattoirs, packing plants, cleaning facilities, transport access and infrastructure, etc. The unfettered access to infrastructure and supporting industries is critical to the ongoing production of food and fibre from agriculture.

The South East and Tablelands Region's agricultural industry specialisation in sheep and beef cattle farming means that there is also support services and infrastructure to support the industry locally. The cherry, seed potato and poultry industries are also supported with inputs and the ability to export product. The interactions of these agricultural industries with their secondary industries is a critical consideration in planning for agricultural land uses.



Climate

The topography of the South East and Tablelands Region results in a large range of climates. It is relatively wet close to the coast and Snowy Mountains and drier inland. The region experiences average daily maximum temperatures from over 30°C in the north west to below 18°C in the Snowy Mountains. In winter the average daily minimum temperature ranges from 4-8°C at the coast, to 2-6°C in the north west and -6 to -4°C in the Snowy Mountains.

Annual rainfall ranges from over 1,600mm in the Snowy Mountains to 400-600mm in the Cooma-Monaro region. Goulburn and the south west slopes receive approximately 600-800mm with the coast receiving 1,000-1,200mm. The region has summer dominant rainfall. In terms of rainfall reliability for the years 1989-2018, spring and summer rainfall has been moderately reliable, in contrast to autumn and winter rainfall.



Soils

There is a wide variety of soils and landforms across the region. In summary agricultural land use across the region generally reflects soil capability, with livestock grazing and wool production on areas around the ACT where soil types are typically shallower and have some higher limitations. Dairy and intensive industries on the coast and cropping and horticulture in the north and north west capitalise on the more productive soils that respond favourably with the high rainfall in these areas too.



Locational advantage

Interest in agriculture has been rising in Australia, linked to awareness of food production systems, reducing 'food miles' and buying locally, as well as increased concern for freshness (seasonality) and the nutritional quality of food consumed ('clean and green'). It is also recognised that agricultural land provides ecosystem services and other benefits for increasingly urbanised communities that warrant its support and preservation through planning instruments, despite inherent difficulties with coexistence with urban sprawl (Brinkley, 2012).

Agriculture also plays a positive role in providing open space amenity landscapes as well as food security. These benefits are available in South East and Tablelands Region with reciprocal advantages for producers of a ready market in regional cities and the ACT, access to the supply chain and value adding.



Infrastructure

The Hume highway provides access to the surrounding regions and Sydney, Canberra and Melbourne. The rail network between Sydney and Albury provides an important link for grain movement. The Port of Eden (Twofold Bay) is a key asset in the region and although it is currently used for non-agricultural export, there is potential to expand the capacity to agricultural produce.

Connections to Port Kembla, Port Botany, the Port of Melbourne and Western Sydney Airport Badgerys Creek give the region a competitive advantage. Demand from middle-class global markets, combined with the ability to transport produce from Canberra Airport to Singapore and beyond to Chinese cities, present opportunities for specific agricultural exports.



Challenges for agriculture in the South East and Tablelands Region

This section highlights some of the challenges faced by agricultural landuses and planning solutions.

Productive rural land is a finite resource, particularly in the South East and Tablelands Region where decades of fragmentation and encroachment of residential development has reduced land available for agriculture. This is the result of historical planning policy not valuing or protecting rural land, instead regarding it as 'urban land in waiting'.

The absence of dedicated planning policy for agriculture has resulted in local environmental plans (LEPs) that do not support agriculture in practice. Agriculture has specific spatial, biophysical and production criteria similar to industrial development, especially intensive industries. However, LEPs manage industrial land in dedicated, discrete zones with development control provisions preventing incompatible development. In contrast, most LEP rural planning provisions allow incompatible development and subdivision below a commercial holding sizes that affect farm amalgamations, expansion or intensification plans and ultimately restrict a farmer's ability to make a living.

When unconstrained land is not available for expansion, producers usually opt to increase productivity via intensification, seek to exit the industry and/or relocate.

The demonstrated impacts of poor planning practice in the region are:

- **Inflated land prices** for farm land based on residential land values, preventing farm expansion.
- **Differing expectations:** Complaints are made to Councils and government agencies from neighbouring residents about legal farming activities such as traffic movements, animal husbandry, dust, noise, odour etc.
- **Loss of critical mass:** Urban encroachment gradually results in the loss of farmland and supporting services (a 'critical mass' required for commercial viability), requiring farmers to source services further afield and adding cost and inconvenience.
- **Uncertainty:** Land use conflict and the variable impacts on farming makes it difficult to plan for future investment in the industry. Pressures of encroaching development often result in farmers either selling land for non-rural uses or continuing to farm with the issues of land use conflict.



Statutory land use decision making

The time and cost involved in the development approval process can constrain the capacity of agriculture industries to quickly respond to market forces. Intensive agriculture land uses often require extensive site and impact assessments from specialist consultants and state agencies, while perceived environmental impacts on neighboring properties can raise concerns in a community about the potential impact of intensive agricultural land use.

Planning solution

Clear development controls which specify requirements for intensive agricultural development, and non-agricultural developments in the vicinity of existing agricultural land uses, are integral to minimizing community concerns and avoiding unnecessary cost and delays. Consistent requirements for information to support development applications can also streamline the application process for proponents and assist consent authorities to manage community expectations. It is important for both the agricultural industry and the community that the development approval process results in well managed agricultural land uses in the right location to enable the continued use of the land for agricultural production for the benefit of the wider community.



Land use conflict

Development not related to agriculture such as lifestyle housing creates land use conflict potential where expectations of amenity are not met, placing pressure on producers to adjust their normal practices. This competition for land often results in dislocation and transfer of agriculture to other areas, sometimes at great personal cost to producers and their industry.

Yass Valley LGA has recorded complaints about vineyards and horticulture from residents in rural zones (RU1 and RU2) where housing density is more akin to residential than agricultural land use (Goodall, 2017). Complaints about agriculture from unrelated households potentially make agricultural operations unviable or deter larger investors.

Planning solution

Planning policy and controls which prevent land uses in rural areas that are incompatible with agriculture can minimize the potential for land use conflict. Planning controls which require adequate buffer distances between land uses can mitigate potential impacts from agricultural land uses.



Urban encroachment and competing land uses

The land use zones that apply to the land on which agriculture occurs permit a wide range of other land uses. As population growth requires increased residential development there will be pressure to use rural land on the periphery of urban areas to accommodate residential development and other urban land uses. This competition for rural land on which agriculture can occur can lead to increased land prices and uncertainty for agricultural industries and investors. This competition for land often results in dislocation and transfer of agriculture to other areas, sometimes at great personal cost to producers and their industry and a greater loss to the region.

Fragmentation of rural land combined with proximity to Canberra, Sydney, Queanbeyan and Goulburn lead to inflated rural property prices (Clarke, 2017). The cost of land in the region is determined by not only agricultural potential but also access to the urban services (employment, schools, hospitals etc.) and the speculative potential for conversion to urban use.

This trend if it continues can mean that:

- over time less land will be available for agricultural production within close proximity to large regional towns and cities of Queanbeyan, Canberra and Goulburn
- the external impacts on the remaining agricultural activities will need a greater degree of management at the urban fringe
- some agricultural activity will be displaced and may leave the region altogether, as evidenced by the poultry industry moving from the Greater Sydney region to other regions.

Planning solution

Planning controls which limit the range of non-agricultural land uses that are permissible in zones applied to agricultural land can prevent the encroachment of urban land uses on agriculture. Clear and robust strategic planning policy and land use strategies are important to guide future urban growth to locations where it will not have adverse impacts on agriculture.



Other challenges

Climate change

Projections for climate change in the South East Tablelands Region include higher temperatures, higher evaporation rates, changes to the distribution and intensity of rainfall, severe and more frequent heatwaves resulting in more severe bushfire weather and a longer bushfire season. These risks will have impacts for agricultural activities in the region, where producers will need to invest in methods and infrastructure to mitigate high temperatures and conserve water.

Biosecurity

Rural land in the region is exposed to pests and diseases that could threaten agriculture, the environment and community safety. Biosecurity hazards are managed by the NSW Government through the South East Region Local Land Services.

The existing level of land fragmentation and resulting small lot sizes in the region means it may be more difficult for agricultural producers to control the activities occurring within the necessary biosecurity buffer.

Social licence

A social licence to operate refers to the perceptions of local stakeholders that an industry that operates in a given area or region is socially acceptable or legitimate

It is important for agricultural industries to maintain a social licence for their operations. The agriculture industry's right to farm agricultural land and retain access to water needs to be balanced with responsible and ethical land and livestock management and adherence to best practice operations to minimise the potential for adverse environmental impacts. Producers can help to protect their social licence by open communication and education and positive contributions to their communities. Connecting with local markets and demonstrating low food miles and the importance of local food security can assist in maintaining a social licence for agriculture in a region. Further detail can be found in the [NSW Government Right to Farm Policy](#).

Changing markets and economic conditions

Agriculture is vulnerable to changes in markets and economic conditions. Long lead times for crop production and the need for extensive capital and infrastructure investment to change commodity or farming systems means agricultural land uses are not capable of quickly adapting to changing markets and economic conditions. Due to the global market for agricultural produce farmers in Australia are often price takers which can have significant adverse impacts on smaller operations.



Land fragmentation

Rural zoned land for agriculture (Primary Production -RU1, Rural landscape - RU2 and Rural Small Holdings -RU4 zones) make up approximately 64% of the South East and Tablelands Region.

Analysis of rural zoned land in the Region found that:

- 16% is comprised of lots between 1 and 5 hectares in size
- 36% is between 5 and 20 hectares
- 19% is between 20 and 40 hectares
- 19% is between 40 and 100 hectares
- 10% is greater than 100 hectares in size.

As noted, where there is a high degree of land fragmentation, adverse impacts on agriculture can occur. Small rural lot sizes result in increased land prices as competition from non-agricultural land uses arise. Small lots also limit the ability of new agricultural enterprises to achieve required buffer distances or expand their operations. The desire to expand agricultural operations in a fragmented rural landscape often means significant investment to purchase additional land. When additional land is not available for expansion, producers usually increase productivity via intensification of operations, a process which can increase the potential impacts on nearby non-agricultural land uses or require significant investment to mitigate potential impacts.



Opportunities for agriculture in the South East and Tablelands and planning levers

Agriculture supports a supply chain that generates substantial productivity and employment across local, regional and national scales. The South East and Tablelands Region has the potential to support more growth from industries displaced from Sydney and coastal areas as well as provide self-sufficiency for a growing population.

It has been suggested (Future Direction International, 2015) that strategic planning needs to consider food production capacity as an essential component in urban planning to create a more resilient food system. This in practice means planners need to ensure that agricultural land is preserved for production through unambiguous policy and support for initiatives such as education, networking and local marketing of produce.

This section identifies opportunities for agriculture in the region and some planning considerations to help implement them.



Intensification

Productivity growth is central to the performance and international competitiveness of Australia's agricultural sector. Where the ability to expand operations onto additional land is not available, intensification of agricultural operations is essential to increasing productivity growth.

Most commercially viable agricultural operations in region are intensive operations such as dairy and poultry. Improvements in technology and reductions in capital costs mean that intensification is viable and necessary. Intensive agricultural operations more closely resemble manufacturing process as they occur in sheds or glass houses where climatic conditions can be better controlled and impacts from noise and odour can be more effectively mitigated.

Poultry meat is the sixth highest value agricultural product in the region with potential to increase, particularly those associated with poultry farming, such as mushroom farming. Controlled-climate glasshouse vegetable production is another feasible proposition particularly close to Canberra. The financial yields are favourable, and their high-tech componentry allows more resilience to environmental fluctuations. The highly intensive nature of these operations enable high revenue generation per given production area making them a viable option for limited-high value land. If integration with onsite energy generation and a circular economy can be achieved they will become increasingly efficient and economically viable and have the potential for significant production increases.

Planning levers for intensification

- a. Certainty in strategic planning policy and land use planning controls for intensive agricultural operations and neighbouring land can provide the appropriate investment environment for industry expansion.
- b. Rural land use strategy development is key to understanding the needs of various agricultural industries and investigating opportunities and mechanisms to support intensive agricultural industries through LEP controls.
- c. c) LEP zones and provisions should be applied over intensive agricultural precincts; with land use tables structured to permit intensive agriculture and related industries while prohibiting incompatible land uses such as residential accommodation, tourist and visitor accommodation, commercial, heavy industrial and recreational activities etc
- d. d) Minimum lot sizes should be large enough to limit fragmentation of agricultural land, incorporate industry requirements, enable expansion of existing agricultural industries and provide for adequate buffers to incompatible land uses.



Food security

Recognition of the importance of the need for fresh food to be available locally for the health of the community is a key opportunity for agriculture in the region. The ability to produce fresh food locally reduces food 'miles', reduces the cost of the food thereby making it more available for more people and avoids the development of food 'deserts' (Dukes, 2019). Peri-urban food security is becoming more vulnerable due to a range of other issues such as land use pressures, competing stakeholder perspectives and a lack of policy response (Sydney Food Futures, 2020).

There is a marketing opportunity for food producers to leverage the benefits of local food production to differentiate their product in the market. The population of Sydney is expected to grow by a further 60% by 2050, and the projected population increase for the South East and Tablelands Region will increase demand for food and fibre. In combination these factors will lead to a higher value of agricultural production in peri-urban areas.

Planning levers to increase food security

- Strategic planning for rural land must ensure productive land is identified and protective mechanisms provided through the planning framework to enable provision for expansion of urban farms for intensive production, food security and education purposes.
- Councils should zone agricultural land for primary production and only permit agriculture and a narrow range of supporting land uses in that zone.
- Some forms of horticulture may be a suitable permissible use in a range of zones, with opportunities for associated agri-tourism and roadside stalls.
- Minimum lot sizes should be large enough to limit fragmentation of agricultural land, incorporate industry requirements, enable expansion of existing agricultural industries and provide for adequate buffers to incompatible land uses.

Non-Planning levers to increase food security

- An education program will assist councils in delivery of planning mechanisms to protect agriculture.



Diversification and value-adding

Proximity to growing metropolitan areas of Canberra and Sydney and biophysical assets of coastlines, alpine areas and productive farm landscapes means that the South East and Tablelands Region is well positioned to capitalise on growing community interest in food provenance and agri-tourism.

Value-adding agricultural produce and farm gate sales provide the opportunity to increase or augment the income generated from agricultural production. Examples in the region are mushrooms, aquaculture, organic beef, intensive horticulture (herbs, vegetables, fruit), poultry (eggs), olives, berries, vineyards, apiary (bees) and wine grapes.

There is also small scale value-added manufacturing and processing of cheese, preserves, gelato, bakery items, organic and free-range production methods, packaging of fresh fruits, vegetables and meats, and dairy products. There are established farmers markets that provide an outlet for agricultural retail sales.

Agri-tourism in the form of low-key farm stays and bed and breakfast establishments can provide an alternative income stream for agricultural producers while also educating the community about the activities that occur on farm. These ancillary land uses should not compromise the agricultural production being undertaken on the land and agricultural production should be the primary land use. The region provides an opportunity to promote NSW's 'clean and green' production to the world through the high levels of tourism by the region.

Planning levers for diversification and value adding

- Farmers markets ('markets' as defined by the Standard Instrument LEP) should be permissible and encouraged by councils in appropriate urban and open space zones.
- Agri-tourism (farm stays, bed and breakfast accommodation) should be associated with and complement the continued agricultural production on the land.
- Agri-tourism should be directed away from intensive agricultural operations or precincts.

Non-planning levers for diversification and value adding

- Intensive agricultural production precincts and businesses may be used for education of the community and tourists around how food supply chains work.
- Roadside stalls, artisan food and drink industries and cellar door premises all offer opportunities to promote NSW's clean green image to the international tourism market.
- Farmers markets could prioritise locally grown or made produce to support local growers.



Peri-urban farming, amenity, promotion and education

The region has access to education facilities, research stations and a skilled and educated workforce meaning agricultural industries are well placed to take advantage of advancements in agro-technology. A new CSIRO research station at Boorowa provides producers with knowledge and advancements in crop science, agronomy and farming systems.

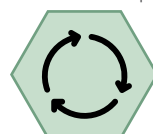
Peri-urban farming is important in promoting the contribution of agriculture to the supply of fresh food. It can also educate communities on food production and the challenges facing farmers.

Planning levers for peri-urban farming

- Urban land capable of small-scale agricultural production should be identified and facilitated through the planning framework. Suitable locations might include flood prone areas and open space networks.
- Information and education facilities should be a permissible land use on agricultural land to enable producers to educate the community on how food supply chains work.

Non-planning levers for peri-urban farming

- Consider encouraging food bearing vegetation in landscape plans and open space networks.



Circular economies

A circular economy is one that exchanges the typical cycle of make, use, dispose in favour of maximising re-use and recycling. The longer materials and resources are in use, the more value is extracted from them. The circular economy concept is best, and most often, applied in relation to resource consumption and regeneration.

For the agricultural industry a circular economy presents possibilities for significant efficiencies and input cost reductions through energy generation and smart grid distribution; innovative off-grid energy solutions; recycled water use; and opportunities for renewables and waste solutions.

Planning levers to facilitate circular economies

- Primary production zones should permit resource recovery facilities as a means of reusing waste products while also restricting incompatible uses to prevent rural land use conflict.
- Minimum lot sizes should account for a potential increase in the need for land area requirements as farming trends towards circular economies. Reuse of effluent and other products on farm to vertically integrate farm inputs and outputs may result in additional and diversified production areas on farm. In the region an example might be the reuse of poultry litter as an input to mushroom substrate, with the mushroom compost ultimately being reused to grow grain crops to feed poultry. In this case either the poultry or mushroom farm may diversify to grow a grain crop with increased land area requirements.



Planning toolkit

Best practice land use planning for agriculture includes recognition of the industry as a significant contributor economically, environmentally and culturally, providing recognition and management through all levels of the planning framework. Dedicated land use zones, provisions and minimum lot sizes are available to Councils and can effectively support primary production even in contested areas. This section highlights the parts of the planning system to facilitate this.



Strategic planning

Local strategic planning statement

A local strategic planning statement (LSPS) identifies the vision and trends for agriculture in an LGA and sets out the direction for agricultural land uses for the next 20 years. It is important that agriculture, the land it depends upon and the infrastructure and other secondary industries which interact with agricultural land uses are considered at this initial strategic planning stage. The LSPS should explain the economic contribution that agriculture makes to the local economy and reflect the community's expectations for the provision of food and fibre locally. Further information can be found in the following DPI guideline [Local Strategic Planning Statements – Agricultural Planning Advice for Councils](#).

Local Rural Land Use Strategy

The South East and Tablelands Regional Plan (SETRP) sets out the framework and expectations for preparation of local land use strategies. The agricultural component of a rural land strategy should identify the agricultural industries in the LGA and the land on which they are located. This is also an effective tool in communicating to the community the scale and importance of agriculture in the LGA. It assists in identifying areas of agricultural land which should be protected from incompatible land uses.

A rural land strategy will identify the linkages primary industries have with secondary industries, infrastructure and other components of the production chain to ensure a holistic picture of the agriculture-related industry. The strategy will clarify the relationship of rural land with residential development and specify the circumstances in which additional fragmentation and residential development may or may not be appropriate. The strategy will also assess the policy framework including existing LEP provisions and make recommendations to retire and/or remove redundant provisions concerning rural subdivision and residential development.

Local environmental plan

The standard instrument local environmental plan (LEP) allows Councils the flexibility to 'tailor' some provisions, such as in the structure of land use tables and minimum lot sizes for a dwelling. In summary the following specific considerations concerning agricultural land in the LEP are:

Land use zones: where strategically recommended, typically the RU1 Primary production or RU4 Primary Production Small Lots zones are applied. This will most probably apply to land which is currently used for agriculture and/or is suited to future agricultural land uses.

Land use tables: The use of specific zones for agricultural land allows the zone objectives to be specific to agricultural land uses and enables permissible land uses to be limited to those that are compatible with agriculture.

Limiting permissible land uses: LEPs can reduce the potential for land use conflict by limiting the number of land uses which are incompatible with agriculture. This is executed by careful construction of land use tables for RU1 Primary Production, RU2 Rural Landscape and RU4 Primary Production Small Lots Zones. Councils should review the permissible land uses in rural zones applied to productive and potentially high quality agricultural land or where agricultural industries are located to prevent inappropriate land uses and limit potential for land use conflict.

Minimum lot sizes: The minimum lot size specified in an LEP for rural land needs to be of a scale to prevent fragmentation into lots which cannot support typical agricultural land uses. Generally larger minimum lot sizes facilitate the establishment of larger and more appropriate buffer distance between potentially conflicting land uses. Larger lot sizes also enable expansion or diversification of the agricultural activities without the need to purchase additional land which can be an economically prohibitive option for farm expansion. Where subdivision can occur without enabling additional dwellings to be created this will promote agricultural land uses and prevent land use conflict.



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Development control plans and other approaches

Development control plans

A development control plan (DCP) for rural zones should include clear and practical guidance for agricultural land uses. A DCP can specify buffer distances to be applied to all land uses, both agricultural and non-agricultural, to ensure that new land uses do not increase the potential for land use conflict with existing neighbouring properties. Guidance on appropriate buffer distances is provided in the Department's [Buffer Zones to Reduce Land Use Conflict with Agriculture - An Interim Guideline](#).

Novel approaches

In some instances councils may need to apply both planning approaches and non-planning advocacy to achieve positive outcomes for the agricultural industries in their LGAs.

For example councils can:

- Set up a rural industry liaison committee to establish links between council and farmers and provide a forum for discussion of the issues facing agriculture in the LGA.
- Consider special planning controls for specific agricultural precincts which restrict land fragmentation and prohibits incompatible land uses.

Industry can provide advocacy through active involvement in land use planning decision making and strategic planning to raise the profile of agriculture. The land use planning system is only one mechanism available to reduce the potential for land use conflict. Agricultural industries can decrease the potential for land use conflict by adopting industry best practice operations which at best eliminate or reduce the impact of their operations on neighbouring land owners.

Similarly, clear communication with neighbouring properties and an education program targeting sensitive neighbours can help increase understanding of the reasons for some agricultural practices and prevent nuisance complaints.

Grazing industries



Grazing industries are a high contributor to the South East and Tablelands Region’s livestock GVP, contributing \$227.3m from beef followed by wool with \$171.5m and lamb and mutton, \$129.5m (ABS, 2015-16).

These statistics are outlined below:

Industry	Gross Value of Production (\$)	% share of Total Agriculture - SET	% share of NSW Agriculture	Number of livestock	Number of businesses
Beef	\$227.3m	25%	9%	434,056	1,789
Wool	\$171.5m	19%	18%	4,706,410	1,872
Lamb and mutton	\$129.5m	14%	18%		

Distribution of grazing industries by local government area

Beef

The main local government areas to produce beef are:

LGA	Gross Value of Production (\$)	% share of SET	% share of NSW
Hilltops	\$50.3m	22%	2%
Snowy Monaro Regional	\$47.0m	21%	1.8%
Queanbeyan-Palerang Regional	\$23.1m	10%	1%
Bega Valley Shire	\$25.4m	11%	1%
Upper Lachlan Shire	\$35.7m	15.7%	1.4%
Total	\$227.5m		

The South East and Tablelands Region beef industry accounts for 25% of total agriculture in the region and 9% of NSW production, highlighting the importance of the area for the cattle industry. Hilltops LGA has the highest percentage of cattle and calves slaughter for the region (22%), followed closely by Snowy/Monaro Regional (21%) and Upper Lachlan Shire (15.7%), showing the importance of that commodity to those LGAs.



Wool

The main local government areas producing wool are:

LGA	Gross Value of Production (\$)	% share of SET	% share of NSW
Goulburn Mulwaree	\$11.7m	6.8%	1.2%
Hilltops	\$58.2m	34%	6.2%
Yass Valley	\$28.5m	16.6%	3%
Snowy Monaro Regional	\$33.7m	19.6%	3.6%
Upper Lachlan Shire	\$32.5	19%	3.4%
Total	\$171.5m		

The South East and Tablelands Region wool industry accounts for 19% of total agriculture in the south east sub region and 18% of NSW production, highlighting the importance of the area for the wool industry. Hilltops LGA had the highest proportion of wool production of the South East and Tablelands Region (34%), followed by Snowy Monaro Regional (19.6%), Upper Lachlan Shire (19%) and Yass Valley (16.6%), showing the importance of that commodity to those LGAs.

Lamb and mutton

The main local government areas to produce sheep and lambs are:

LGA	Gross Value of Production (\$)	% share of SET	% share of NSW
Goulburn Mulwaree	\$9.3m	7.1%	1.26%
Hilltops	\$45.5m	34.8%	6.19%
Yass Valley	\$20.9m	16%	2.85%
Snowy Monaro Regional	\$23.9	18.3%	3.2%
Upper Lachlan Shire	\$25m	19%	3.4%
Total	130.5m		

The South East and Tablelands sheep and lamb industry accounted for 14% of total agriculture in the Region and 18% of NSW production, highlighting the importance of the area for the lamb and mutton industry. Hilltops had the highest proportion of wool production for the region (34.8%), followed closely by Upper Lachlan Shire (19%), Snowy Monaro Regional (18.3%) and Yass Valley (16%) showing the importance of that commodity to those LGAs.

Trends

Cattle and calves

Trend analysis over five years from 2010/11 to 2015/16 (ABS) for cattle and calf industry in the South East and Tablelands Region:

- a decrease in the number of cattle from 465,695 to 434,056, a decrease of 31,639 cattle
- a decrease in the number of businesses from 2963 to 1789; a decrease of 1174 businesses.

Wool and sheep/ lambs

Trend analysis over five years from 2010/11 to 2015/16 (ABS) for the sheep industry in the South East and Tablelands Region indicated:

- a decrease in the number of sheep from approximately 4,761,347 to approximately 4,706,410, a decrease by 54,937 sheep
- a decrease in the number of businesses from approximately 2793 to approximately 1872, a decrease by 921 businesses.

Demand has flourished for wool, with buyers from China showing strong interest in wool auctions over the past two years. A booming middle class in China and rising household incomes has fuelled demand for luxury goods. Chinese consumers are estimated to account for 75% of the growth in luxury spending, including on Merino wool items.

Locational requirements

Breeds of livestock roughly follow rainfall (correlating with elevation) with fine wool on the lower rainfall areas (as overfeeding can affect clip uniformity and quality) and cattle on higher rainfall areas (prefer higher pasture height). The region benefits from an extended grazing season into early summer (Christmas market) when other areas are less productive.

Challenges

Wool is an historical commodity grown on higher altitude native pastures. Value adding industries for wool have declined or closed (i.e. wool processing, milling, manufacture) associated with the decline in the wool market of the 1990s (NSW DPI, 2015) and not re-established in the region.

Opportunities

Merino ewes are retained for wool and as dams for first-cross lambs, which allow for diversification of income. Merino wethers can be run on poorer country. The production on different altitudes and soil types enables diversification on farm.

The region supplies beef weaners (marketed as tablelands weaner sales) to go west for finishing and lot feeding. Some farms finish locally but weaner sales are increasing and there is a greater opportunity to fill that market further. Cattle are important to the region as they require less labour and infrastructure to produce than sheep and can be produced on a range of property sizes. So where agricultural land has been converted into smaller lots, cattle are able to be grazed and finished locally on these lots.

Planning considerations

Strategically important infrastructure such as the South Eastern Livestock Exchange in Yass is a key asset to the sheep and cattle industry as well as being a significant capital investment to the regional community. In order to ensure its continued operation, separation from residential development is required to reduce the risk of land use conflict issues of noise, dust, odour etc. that arise from urban or rural residential development.

Similarly, maintaining separation distances of residential development from major transport corridors (that provide supplies and labour as well as export of sheep, cattle or wool) and from other grazing infrastructure, such as silos, cattle yards etc. will minimise land use conflicts and provide support for the industry.



Broadacre cropping

Broadacre cropping is the fourth highest contributor to the South East and Tablelands Region's GVP valued at \$111.6m, accounting for 2.2% of the total cropping in NSW. Hilltops LGA is the highest producer in the South East and Tablelands Region contributing \$96.2m, followed by Snowy Monaro Regional at \$4.3m and then Yass Valley at \$5.8m.

Distribution of crop producers by local government area

The main local government areas to produce crops are:

LGA	Gross Value of Production (\$)	% share of SET	% share of NSW
Hilltops	\$50.3m	22%	2%
Snowy Monaro Regional	\$47.0m	21%	1.8%
Queanbeyan-Palerang Regional	\$23.1m	10%	1%
Bega Valley Shire	\$25.4m	11%	1%
Upper Lachlan Shire	\$35.7m	15.7%	1.4%
Total	\$227.5m		

Cropping is an important agricultural commodity with the Region around Young being the highest producer. Other important areas include: Harden; Thuddungra; Boorowa - Young – Harden and surrounds; and the Grenfell Area (Bendick to Cowra). Grain is important as a feed source for intensive livestock and important for grain and oil seed produced from crops.

Locational requirements

A mixed enterprise of cropping and grazing in rotation is typical of the South East and Tablelands Region where cropping is important but secondary to sheep and cattle production. Crops are used to feed livestock during the drier months with excess sold off farm. Locational requirements reflect that of grazing requirements.

Further west as land becomes flatter and temperatures warmer around Harden and Young, land used for cropping increases. The flatter land enables access to machinery for sowing, direct drilling, fertilising and harvesting. The richer agricultural soils, the cool dry climate and available infrastructure such as silos and transport routes for supplies and exporting grain from the region making it ideal for growing wheat, oats, canola and lupins. Cereal production dominates, with wheat being the main crop in the area. Oats and barley are also important with lucerne and hay being grown on the alluvial flats and valleys. Winter cropping is also mixed with livestock production (mainly sheep) (ABS, 2015/16).

Challenges

A threat to cropping is the fragmentation of land and associated high land prices, which limits expansion and adjustment of cropping properties. Water supply reliability is also an ongoing threat due to competition from climate change and any natural variability in rainfall. Other threats include:

- fertiliser costs and declining soil fertility (and increasing soil acidity)
- the shortage of skilled labour (due to the competition with mining), especially with the aging farm workforce
- fuel prices and transport costs raising input costs
- lack of grain storage due to the declining rail network
- concern over foreign ownership of lands and the impacts on the local community.

Opportunities

The industry is highly adaptable for varying climatic and market conditions. It has the ability to switch between crop varieties and mixed farming with livestock. The transport links that access good arterial roads and the railway to various ports is significant. There is also established local, domestic and export markets that will continue to demand the produce. The region is well placed to continue to grow in the production of crops. The local and regional demand for food and stock feed, a growing export demand for grains combined with a farming system that is adaptable to climate and market conditions, will enable the region to continue to prosper.

Planning considerations

The cropping and mixed farming industry depends on the ability to provide larger tracts of land to support this ongoing activity. There is also the requirement to provide the physical space for machinery and to enable the economies of scale to be achieved. Land use planning can assist by including planning provisions that will reduce or avoid conflicts between farmers undertaking cropping activities (i.e. ploughing, spraying, fertilising etc.) and neighbours, particularly from rural lifestyle properties. Planning provisions within any LEP will need to ensure that the land highly suitable for cropping is not fragmented into small lifestyle farms.



Dairy



Dairy is the fifth highest contributor to the South East and Tablelands Region’s GVP valued at \$92.1m, accounting for 15.5% of the total milk production in NSW. Bega Valley is the highest producer in the Region at \$62.7m. Approximately 6.9% of milk produced in NSW is produced in the Bega Valley, showing the importance of that LGA in the dairy industry. There are 130 dairies in the region with a total area of 50,682 dairy cows.

Distribution of milk producers by local government area

The main milk producing local government areas in the South East and Tablelands Region are:

LGA	Gross Value of Production (\$)	% share of SET	% share of NSW
Wingecarribee Shire	\$14.7m	1.6%	2.5%
Bega Valley	\$62.7m	6.9%	10.6%
Eurobodalla Shire	\$11.0m	1.2%	1.9%
Total	\$92.1m	10.2%	15.5%

Trends

Trend analysis over five years from 2010/11 to 2015/16 (ABS) for the dairy industry in the South East and Tablelands Region indicated:

- a decrease in the number of dairy cattle from 38,210 to 11,538, a decrease of 26,672 cattle
- a decrease in the number of businesses from 145 to 121, a decrease of 24 businesses.

Following long term industry trends, the number of dairy farms in the region has declined significantly over the last 30 years, but this has largely been offset by a corresponding increase in herd sizes and milking yields as well as more efficient dairying operations.

The current average herd size in the region is typically larger than the state average (ABS,2015/16), particularly in the Bega Valley and Eurobodalla Shire LGAs.

Locational requirements

The Region’s temperate climate combined with the arable, fertile soils and reliable water sources supports highly productive pasture and fodder crop growth. Dairy farms in the region have the following characteristics:

- fertile soils suitable for fodder production;
- reliable water sources (cleaning dairy equipment, yards, for irrigation and livestock water)
- adjoining lands for infrastructure and dry cattle
- ready access to milk transport and markets (Sydney, Canberra, Wollongong)
- a reliable electricity supply (dairy machinery and irrigation equipment)
- good roads, bridges and access to towns (daily delivery of milk to the market, fodder supplements from grain/hay suppliers and feed mills in the central west of NSW).

This has allowed the per farm production on the Far South Coast (Bega Valley and Eurobodalla Shire), to be well above the state average, making it one of the leading dairy farming areas in NSW (ABS, 2015/16).

Challenges

The trends in milk production in the South East and Tablelands indicate that fragmentation of rural land, small lot sizes, the difficulty in expanding farm operations to increase productivity and labour costs for smaller farms are the predominant challenges for the dairy industry. This is because land suited for the dairy industry is also well suited to a range of other enterprises and is or could be potentially used for other agricultural purposes such as beef cattle or horses.

Statewide dairy industry pressures include:

- the increasing cost of fuel and power (affecting irrigation and transport cost, milking operations and feed costs)
- high capital costs to enter the industry due to the infrastructure required and cost of building a quality herd
- the rationalisation of milk processing capacity and the lack of processing capacity for surplus milk (north Sydney)
- supermarket pricing policies that restrict market access and farm milk prices
- urban and rural residential (lifestyle) developments that inflate the price of suitable dairy lands and increase the risk of land use conflicts.

Opportunities

The dairy industry has the potential to grow and thrive through the growing domestic market and global demand for dairy. The growing middle class in China, India and Asia in general will create increasing demand for dairy products from Australia.

The opportunity to grow the dairy business lies in the growing food and beverage industry with the increased consumption of snack food as well as the demand for protein rich food/ snacks.

Bega Cheese's processing and packaging unit in Bega produces 50,000 tonnes of value-added cheese products including cheddar cheese retail packs and processed cheese products as well as individually wrapped slices and slice on slice products for food service outlets. Around 20% of overall production is exported to over 50 countries around the world. The production of low fat cheese is also opening the gateway for the growth markets (Bega Cheese, 2020).

Local dairy farmers continue to improve their environmental and economic sustainability and are well placed to adapt to a changing climate and carbon restricted economy. Dairy farming is an innovative industry that is open to new ideas and opportunities. The SE&T Region has excellent dairy training and extension services that can help local farmers to remain efficient and adapt to future climate variations.

Planning considerations

Specific resource requirements dictate the location of dairy farms. Economies of scale are critical to allow dairy farms to remain competitive; to manage environmental impacts (including nutrient re-use); and to minimise land use conflicts (such as odour, noise and visibility).

Dairy farming is a long term investment (at least 25 years) due to the high levels of on-farm capital investment, low unit prices and reliance on economies of scale. Hence, compatible development of surrounding lands is critical. Critical industry mass (the minimum size or amount required to maintain an industry) is also needed to ensure milk pick up and access to specialist support services (such as refrigeration maintenance). Isolated smaller properties find it increasingly difficult to secure milk contracts.

Land use planning can support sustainable dairy development by:

- Guiding the development of surrounding lands to minimise land use conflict risks. This includes strategically planning for residential and rural lifestyle developments in locations that do not compromise lands highly suitable for dairying.
- Adopting an appropriate minimum lot sizes within important dairy land areas is critical for:
 - adequate buffer distances to other houses
 - the management of environmental impacts
 - efficient operations and adaptation to market pressures.

Poultry



Poultry meat is the sixth highest value agricultural industry in the South East and Tablelands Region contributing \$43.3m, being 4.9% of the share of total agriculture in the South East and Tablelands Region and 10% of the chicken meat industry in NSW.

Distribution of poultry meat producers by local government area

The main local government areas in the South East and Tablelands Region which produce poultry meat are:

LGA	Gross Value of Production (\$)	% share of SET poultry meat	% share of NSW
Hilltops	\$10.1m	1.2%	1.2%
Goulburn Mulwaree	\$7.3m	0.8%	0.8%
Upper Lachlan Shire	\$16.8m	1.9%	1.9%
Wingecarribee Shire	\$8.3m	0.9%	0.9%
Total	\$43.3m	4.9%	4.9%

The South East and Tablelands Region's chicken meat industry accounted for 9% of total agriculture and 10% of NSW chicken meat production, highlighting the importance of this industry. Wingecarribee Shire had the highest proportion of chicken meat production for the South East and Tablelands Region (\$49.5m) followed closely by Upper Lachlan Shire (\$16.7m) showing the potential importance of that commodity as a region where the industry can grow further.

Trends

In the period from 2010/11 to 2015/16 the poultry industry in the South East and Tablelands Region has experienced the following trend:

- an increase in the number of meat chicken numbers from 133,173 to 1,346,686, an increase of 1,213,513 meat chickens
- a decrease in the number of businesses from 10 to 13, a decrease of three businesses.

Chicken meat production continued a steady upward trend to reach an estimated value of \$84.6m in the South East and Tablelands Region. Underpinning this demand was an increase in the health consciousness of consumers who were seeking leaner sources of protein (NSW DPI, 2020).

Locational requirements

Commercial chicken meat production is undertaken in sheds although there is an increasing number of free range operations within the region. There is also a duck farm at Harden (Pepe's Ducks). The chicken meat industry is not reliant on land with favourable biophysical characteristics, however there are specific locational considerations for chicken meat producers which include:

- a trained workforce
- means of disposing of dead birds, manure and other wastes
- access to:
 - grain
 - road access for feed and livestock vehicles
 - reliable supply of suitable quality water
 - electricity
 - processing plant
 - labour
- scope for future expansion
- biosecurity issues.

Specifically, poultry farms need to be located within 150 to 200km of a processing facility. Biosecurity concerns dictate the location and proximity of different types of poultry enterprises with minimum buffer distances from other poultry and pigs farms. This will dictate where a new poultry meat farm can be located.

Processing

There are three major poultry meat processing facilities in Sydney that are within 200km of the South East and Tablelands Region. There are facilities at Girraween and Galston (Cordina/Summertime Chicken) and Windsor. There is a hatchery at Goulburn that supplies stock Australia wide.

Feed and transport

Other industries associated with the poultry industry in the Region include feed mills and feed delivery and live bird transport.

Challenges

The main challenge facing the poultry industry is the amelioration of land use conflicts where the farms are in close proximity to residential development. Eliminating or avoiding complaints from neighbours where housing is planned near to those poultry developments, is challenging. Only the relocation of farms is likely to allow the producer to remain competitive and to eliminate complaints from neighbours. Poultry producers also faced challenges to their cost of production, with feed grain and fodder prices increasing with the dry domestic seasonal conditions.

Opportunities

Urban encroachment is a significant planning challenge for the poultry meat industry. Within the Sydney Region 45 of the 92 farms are located within the identified urban land release areas. The South East and Tablelands Region provides an alternative option for relocating those poultry farms as it has the right conditions and infrastructure to enable their establishment.

Planning Considerations

In order to facilitate the re-establishment of poultry farms in the Region, it will be important to maintain rural land for agricultural use and implement appropriate buffers from residential land uses and other poultry farms to avoid potential land use conflicts with the poultry industry.



Cherries

While cherry production is not ranked as a high value producer, the South East and Tablelands Region has a very high percentage of NSW cherry production at 38% (\$8.7m).

The NSW Agriculture Agfact on cherry growing states that the Hilltops and Orange City LGAs areas combined produce 70% of cherries grown in NSW and 50% of Australia's production (NSW Agriculture, 2004). Young is considered to be the 'Cherry Capital' of Australia and hosts the National Cherry festival each year.

Trends

In the period from 2010/11 to 2015/16 the cherry industry in the Region has experienced the following trends:

- an decrease in the number of trees from 348,367 to 225,989, a decrease of 122,378 trees
- an increase in the production from trees from 670,253kg to 1,154,615kg, an increase of 484,362kg
- a decrease in the number of businesses from 74 to 61, a decrease of 13 businesses.

Locational requirements

The requirements for the cherry industry include:

- medium to highly fertile soils
- cool climate providing ideal climatic conditions
- reliable rainfall to enable irrigation of trees
- ready access to markets and ports for export interstate and overseas
- a reliable electricity supply
- good roads, bridges and access to access local, regional, interstate and international markets.

Challenges

Agrifutures Australia (2017) in their report considers the challenges to the cherry industry is the cherries susceptibility to rain, hail and pest damage, which often requires them to be netted and/or covered, resulting in high operational costs.

The Agrifutures report also states that selling into the export market subjects the grower to some risk through fluctuations in the value of the Australian dollar, relatively high production costs compared to some competitors, and increasing competition from other southern hemisphere producers such as Chile and New Zealand.

Key challenges to the cherry industry are:

- gaining consumer recognition of the produce in local and regional markets
- consumer trends, market demands, commodity price fluctuations and increasing input costs which impact on industry viability
- climate change and water availability
- conversion of specific industries to more intensive systems (to deal with the best practice industry standards)
- Implementing new management practices
- the need for succession planning (and dealing with the expectation of being able to rezone)
- the negative visual impact of bird and hail netting
- biosecurity issues (e.g. Queensland fruit fly) and abandoned and neglected orchards and vineyards which threaten existing and new vineyard developments
- land fragmentation for lifestyle development leading to land use conflicts, such as spray drift.

Opportunities

The Australian cherry industry is mainly focused on the domestic fresh fruit market, the industry is expanding in the export market, with significant increases in cherry tree plantings over the past decade. Exported Australian cherries command relatively high premiums in the international market. There is significant potential for growth in all export markets in the Middle East and Europe, as well as China and other Asian countries such as Vietnam, Philippines and Indonesia. (Agrifutures Aust, 2017).

Horticulture has specific requirements which dictate where this industry can operate. Important factors include a good reliable source of water for productivity, cool conditions so that the fruit does not spoil quickly and moderate to high soil fertility. With limited cool climate conditions throughout NSW, this region could play an important role in future fruit and viticulture production, particularly as conditions become drier and hotter with the changing climate.

Planning considerations

Planning can assist by ensuring that land with these specific features is retained for intensive plant agriculture. Preventing land fragmentation in and around areas highly suited to the cherry industry will avoid any potential land use conflicts. Cherry farms create noise, dust and visual impacts (from netting) as well as chemical impacts from spray drift. To reduce their impacts on neighbours, residential development should be planned in areas that are not near to, or adjacent to, land suitable for intensive plant horticulture.



Seed potatoes

While seed potato production is not ranked as a high value producer, the South East and Tablelands Region has a very important function as a seed potato growing region, with Crookwell in the Upper Lachlan Shire producing high quality certified seed potatoes. The basis of successful potato production is the availability of clean seed. The region celebrates its importance in the potato industry by hosting a potato festival every year.

Distribution of potato seed growers by local government area

The main local government area in the South East Tablelands Region which produce potato seeds is:

LGA	Hectares under production (ha)	Tonnes of produce	Kg/ha under production	Number of establishments
Upper Lachlan shire	118	2,471	21	10
Total	464	5,983	13	39

The area of land under production for seed potatoes in the South East Tablelands Region is 25% of land used for seed potatoes in NSW. The South East and Tablelands Region produces 41% of the total volume (t) of production in NSW and 25% of the number of seed potato establishments. The region produces a higher number of kilograms per hectare (21kg) than NSW (13kg), making it a high producing region for seed potatoes.

Trends

In 2010/11, the number of hectares producing seed potatoes in South East and Tablelands Region was 118ha across 10 businesses. The average production per hectare was 206kg. (ABS 2010/11).

While NSW potato production fluctuates with changing climate and market conditions, the long term trend has been towards increasing grower productivity and gross returns (NSW Industry and Investment, 2010).

Challenges

The main challenge to the seed potato industry is the need to ensure the product is free from pests and diseases. The 'clean' product is vital to its market potential. Protection by a NSW Government Quarantine Proclamation will need to continue to restrict the entry of potatoes into the seed growing areas.

Opportunities

The NSW seed potato industry is mainly focused on the domestic market with seed potatoes being sold to QLD and SA growers. Currently the seed potatoes are exported to Fiji. There is greater potential to expand the export market to South East Asia. As the soils produce a potato with longevity of storage this improves the viability as seed potatoes for export.

Encouraging growers to use new technology will enable them to strengthen and expand local certified seed production.

Planning Considerations

Seed potatoes have specific requirements which dictate where this industry can operate. Important factors include:

- loose organic matter-rich soil
- good reliable source of water for productivity, mild summers and cold winters and moderate to high soil fertility
- control of soil borne diseases: Protection of the potato seed growing areas and isolation from commercial potato growing
- access to new technology to strengthen and expand local certified seed production.

Planning can assist by ensuring that land with these specific features is retained for seed potato growing. Preventing land fragmentation in and around areas highly suited to seed potatoes will avoid any potential land use conflicts. Seed potato farms can create noise and dust. To reduce their impacts on neighbours, residential development should be planned in areas that are not near to, or adjacent to, land suitable for seed potato growing.



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Primary Industries**

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