



Investment Guide

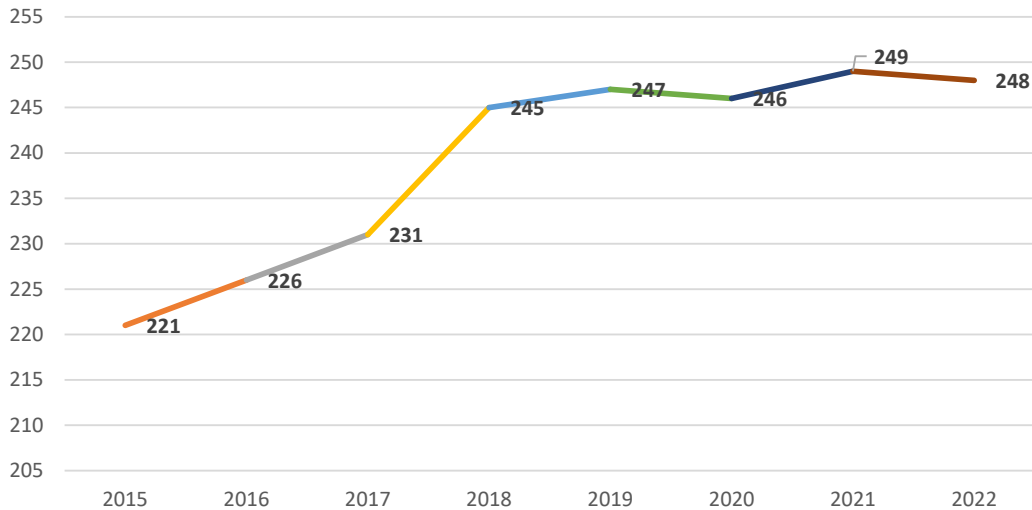
Table Eggs

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Overview of the Egg Industry

The Australian layer egg farming industry produces 6.3 billion eggs¹ and has farmgate gross revenue of \$1.124 billion per year², with an average annual growth of 2.5% over the past decade. Growth is expected to continue at an annual rate of 1.5% per year over the next five years³. Australians, on average, consume 248 eggs per year and this has stabilised over the past few years after rising rapidly between 2000 and 2018.

Australian per capita egg consumption trend



¹ Australian Egg Corporation Annual Report 2021
² Australian Bureau of Statistics (2022) Agricultural Commodities Australia 2020-21
³ IBISWorld Egg Farming in Australia Industry Report (March 2022)



There are 558 farm establishments producing table eggs (of which 28%, or 156, are located in Victoria), paying \$108.6 million in wages and achieving net profit of \$35.4 million (before tax).

In the last ten years with advances in transport and production technologies, urban development pressures in existing locations, and growth in free range and organic production, the industry is now looking to expand in bio-secure, broadacre locations.

Victoria is under-represented in table egg production with a layer flock of 19.2% of the national total but 25.8% of the national resident population: Buloke Shire is well placed to assist in meeting the needs of the table egg industry in the coming decades.

Why Buloke Shire?

Buloke Shire, in Victoria's Loddon Mallee region, has a significant existing poultry industry which is increasing as growers and processors look to secure sustainable operations in broadacre locations. Buloke Shire Council is encouraging the expansion of the poultry industry in the Shire and is actively seeking to attract further investment in poultry and related business activities.

Buloke has several natural advantages including a quality water supply (now very secure as a result of GWMWater's Wimmera Mallee pipeline system), affordable land, large broadacre sites (8,001 square kilometres predominantly used for grain production) and a population (6,000 residents) of less than one person per square kilometre. Buloke also has a temperate, dry climate minimising risk of many diseases.

Buloke's climate, broadacre farming environment and the ability to provide adequate separation distances contribute to giving the Shire a strong bio-security profile.

Free-range egg production has rapidly grown as the dominant production system in Australia, having increased from 8% of the Australian flock in 2000 to almost 50% in 2022. The free-range flock will undoubtedly increase as a consequence of the decision to phase out caged layer systems by year 2036 (following recommendations of "The Independent Poultry Welfare Panel" in August 2022⁴). All of Buloke's existing table egg producers operate free-range systems. Current estimates for table egg production in Buloke Shire⁵ are:

- 221,500 commercial layer hens.
- 65.616 million eggs produced (or 5.468 million dozen eggs)
- \$14.53 million per annum in gross value of free-range table egg production.

Free-range egg production has been increasing rapidly throughout the 21st Century and the decision to phase out caged layer systems by 2036 will encourage a continuation of this trend. All existing table egg producers in Buloke Shire operate free-range systems.

Buloke's communities are generally supportive of the poultry industry, understanding that it will help to drive the economy, add to local diversity, and provide new local jobs.

⁴ Australian Broadcasting Commission (ABC), August 2022 "Battery caged eggs to be phased out in Australia over the next decade" Victorian Country Hour/Jane McNaughton.

⁵ Based on the 2021 ABS Agricultural Census and known developments.



Proactive real estate agents in Buloke help to secure land for new investors planning to establish poultry businesses in the Shire. Land prices for poultry farming operations lots are in the range \$20,000 to \$25,000 per hectare (or \$8,000-\$10,000 per acre) with very few sales of properties less than 80 hectares (200 acres). Larger areas enable bio-security and planning requirements to be more easily met, making the planning application process easier to navigate. Land should be located near a local sealed road with three phase power and water access. A site where there are no dwellings within three kilometres of the poultry facilities is desirable, and readily available in Buloke.

Egg Production Systems

There are three types of layer production system currently used in Australia:

Free Range: As the name implies, free range systems allow birds to roam freely over an outdoor environment during daylight hours. The national information standard for free range eggs (introduced in 2016) requires hens to have meaningful and regular outdoor access with an outdoor stocking density of no more than one hen per square metre (10,000 hens per hectare). However, many Australian free range growers operate with densities of 1,500 birds per hectare or less. Lower stocking rates are used by some growers as a marketing feature to consumers and to demonstrate maximum concern for both environmental management and animal welfare.

Free range farms typically carry fewer birds than barn or cage farms and are more labour intensive in return for a price premium.

Adoption of free-range systems introduces new operational and environmental challenges for the industry in terms of biosecurity, production efficiencies, bird genetics (for free range performance) and nutrient management.



In smaller systems access to free ranging areas are controlled manually by the farmer who will let birds out in the morning and close them in at night. Larger systems have automated doors which release birds from their overnight housing. The main reasons for enclosing birds at night is to keep them safe from predators and intemperate weather conditions, while also assisting in training them to lay eggs in nesting areas inside the shed.

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Caged: In traditional cage environments, chickens are kept undercover in cages. Under the Egg Industry Welfare Code of 2001 all cages commissioned or installed must provide a minimum floor space allowance of 550 square centimetres per bird (or about 18 birds per square metre).

Caged systems of production are usually the lowest cost method of egg production. Demand for cage eggs is declining as a share of industry volume and revenue, but it remains a major source of product (especially when food service and manufacturing consumption is considered, in addition to retail supermarkets). Caged systems will be phased out of use in Australia over the next decade and will be eliminated by 2036.



Barn Systems: Hens in barn systems are housed in large open sheds which may have more than one level. The birds are confined to a covered and enclosed area, and a maximum stocking density of 15 hens per square metre. The environment in barn systems is highly controlled, in a similar fashion to caged systems, and hens are not exposed to diseases and predators from the outside world.

The cost of growing eggs in this system is lower than free range due to the controlled environment however there is a limited premium for barn laid eggs. Barn laid systems usually are similar in size to large free range systems with 30,000 to 40,000 birds to an average farm.

The overwhelming majority of table egg farmers are now free-range system producers (78.7%), with 11.2% having caged layer systems and 10.2% barn systems. The average flock size by growing system is in contrast to the number of producers, with:

- Caged layer farms accommodating an average of 86,030 layers and 31.9% of the national flock.
- Barn layer farms accommodating an average of 57,722 layers and 19.4% of the national flock.
- Free-range farms accommodating an average of 18,623 layers and 48.6% of the national flock⁶.

	% of layer hens	% of growers	Average number of layers per farm
Caged	31.91%	11.17%	86,030
Barn	19.45%	10.15%	57,722
Free-Range	48.64%	78.68%	18,623
Total	100.00%	100.00%	33,644

Becoming a Poultry Egg Farmer

The largest businesses in the table egg industry are those with more than \$10 million in annual income. They account for 79.5% of industry revenue, and there are 26 businesses in this category. It is these large businesses which tend to be the main options for a new grower who intends to grow under contract. The biggest corporate operators in the industry⁷ are Sunny Queen Australia Pty Ltd (with a range of brands such as Sunny Queen Farms, Meggles, Organic Egg Farmers, McLean’s Run, and Simply Eggs), Alim Fresh Pty Ltd (branded as Pace Farm), Farm Pride Foods Ltd, and Manning Valley Free Range Eggs Pty Ltd.

Current Markets for Australian table eggs are:

- \$715.12 million in farmgate gross value (or 63.6%) is sold to retailers, predominantly full-service supermarkets.
- \$206.89 million in farmgate gross value (or 18.4%) is sold to wholesalers.
- \$118.06 million in farmgate gross value (or 10.5%) to food service outlets (ie restaurants, cafés, caterers).
- \$76.46 million in farmgate gross value (or 6.7%) to food manufacturers.
- \$7.87 million in farmgate gross value (or 0.7%) to export markets (mostly to Singapore and Hong Kong).

⁶ SOURCE: National Poultry Newspaper Vol 5. No. 9 September 2022

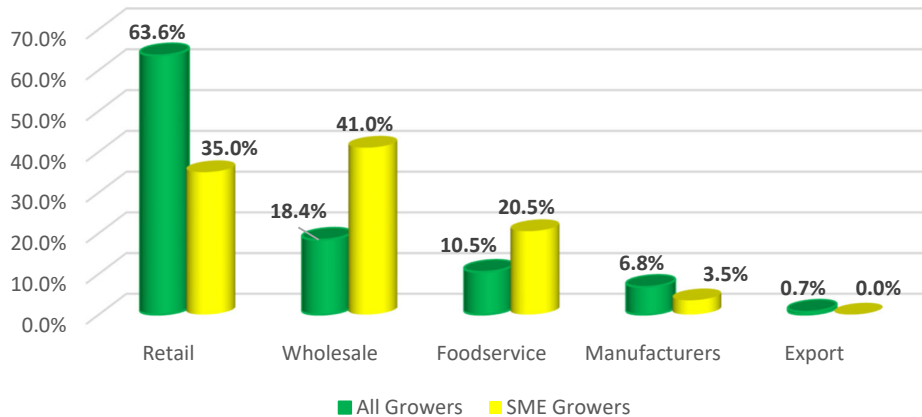
⁷ IBISWorld Egg Farming in Australia Industry Report (March 2022)



However, for the 20.5% of sales made by small-to-medium egg producers (ie those with less than \$10 million per year in annual sales) the distribution of sales is quite different, with:

- 41.0% of sales made to wholesalers
- 35.0% of sales made to retailers (including direct retail sales by growers through farmers markets or farmgate outlets)
- 20.5% of sales to food service outlets
- 3.5% of sales to food manufacturers.

Egg Markets, 2022



Small-to-medium growers do not have the scale of production to supply to downstream markets, such as specialty and independent grocers, restaurants, cafés and fast-food establishments. Consequently, they use wholesalers (agents and distributors) to find markets and provide logistics. Many supermarkets and grocery stores have become increasingly keen to by-pass wholesalers and buy direct from growers. This can be particularly the case with smaller independent stores (IGA, FoodWorks or unbranded stores) in regional areas.

Food service markets account for a larger share of income for small-to-medium egg businesses compared with the overall industry. Food service establishments increasingly focus on buying local fresh produce, especially benefiting the small-to-medium regional free-range suppliers. Understandably food service sales declined significantly during the COVID pandemic, while retail sales increased, but food service markets are expected to rebound in the next five years.

To become an egg producer, farmers can either grow and market their own birds as an independent niche grower or produce eggs under contract to a larger table egg business (which has its own marketing, egg labels/brands and distribution arrangements in place).

- **Independent Growers:** The entry level operational size for a full-time poultry farmer on a commercial basis, as an independent free-range grower, would be a minimum of 2,000 birds (with direct marketing of egg products). Entry at this level would require the farmer to have no pre-existing debt and to be very careful with management systems as the income level will be modest. Capital costs for establishing an independent free-range egg farming system vary widely, from less than \$50,000 if mobile sheds (such as converted caravans) or A-frame nesting structures are used to \$1 million+ per shed if fully automated and climate controlled.



- **Contract Growers:** A contractor controls the supply chain for their product. Contract growers receive a relatively fixed fee for eggs produced (although there may be incentives and bonuses for performance above a base level) while the contractor stipulates the production system and may provide a range of production inputs, including point-of-lay pullets. The contractor organises logistics support, egg processing and marketing. Normally a contractor will expect the contracted grower to invest in a production facility (shed(s), feed and water system, climate control, egg conveyors, waste management, etc) for at least 20,000 birds. The capital costs associated with a system at this minimum level is likely to be \$1-\$1.2 million.

Workload

Work required in operating a layer farm is neither overly difficult nor strenuous, but all scales of egg production farming involve regular tasks seven days per week, 365 days of the year. The exception can be planned break periods in between batches of layers if the grower has a 'single aged flock'. Layer hens are retired (or 'spent') after reaching 78-90 weeks of age and are replaced with new point-of-lay pullets.

The seven days per week continuous workload in this industry can be a deterrent to attracting new producers. Not only is it seven days per week, but also good practice to have someone on site at all times "just in case".



Operating Costs

The average Australian egg farming business (establishment) has an estimated income of \$1,483,250 in 2021-22. The average business expends an estimated;

- 54.0% of annual income on input purchases (feed, chicks/layers, vaccinations, etc)
- 11.7% of annual income on wages
- 5.0% of annual income on utilities (power, water, and waste)
- 25.5% of annual income on all other costs (depreciation, insurance, repairs and maintenance, marketing expenses, levies, etc),

and achieves 3.8% an annual net profit (before tax)⁸.

The average small-to-medium egg farming business (ie all those egg farming enterprises with sales less than \$10 million per annum), which constitute 95% of all growers, has an estimated income of \$361,200 in 2021-22. The average small-to-medium business an estimated:

- 64.0% of annual costs on input purchases (feed, chicks/layers, vaccinations, etc)
- 19.5% of annual income on wages
- 6.3% of annual income on utilities (power, water, and waste)
- 8.6% of annual income on all other costs (depreciation, insurance, repairs and maintenance, marketing expenses, levies, etc),

and achieves 1.6% an annual net profit (before tax)⁹.

⁸ IBISWorld Egg Farming Industry Report 2022

⁹ IBISWorld Small to Medium Enterprise Egg Farming Industry Report 2022



Logistics

Most companies offering egg contracts are willing to travel long distances for eggs provided they have a critical mass of at least 80,000 birds in the area; this allows them to pick up two semi-trailer loads per week. Obviously the closer to the processing/packing factory the better, however recent trends and realities (of placing higher priority on secure farming operations and investments) have resulted in a wider catchment area being accepted by the packing companies. With the existing level of local production, and depending on choice of processor, all districts within Buloke Shire are potentially suitable for contract egg laying production.

Choice of Layer Breed

Genetically elite stock varieties are Hyline Brown, Isa Brown, HiSex or Lohmann bird strains which produce around 300 eggs per hen per year and are always the choice of contractors. Specialised Breeders Australia (SBA) is the company which supplies elite birds (the HyLine Brown and Lohmann) to the Australian market and is located near Buloke Shire; just north of Bendigo. Some independent growers are choosing traditional breeds (eg Australorp, Rhode Island and Sussex) which produce considerably fewer eggs but their eggs can be larger and distinguishable by consumers.



Isa Brown

The Isa Brown is one of the oldest breeds of commercial layer. Initially bred by crossing Rhode Island Reds and White Leghorns, the Isa Brown is an efficient layer which can adapt to a wide range of climates and environments.



Hy-Line Brown

Renowned for its persistent egg laying ability, the Hy-Line bird has a calm temperament, excellent feather retention and produces eggs with robust shells. They start laying early and have a long, productive life.



HiSex

The HiSex Brown is sexable at hatching by its colour. It produces a brown quality egg with excellent shell strength and is suited to both cage and free range environments.

SOURCE: Poultry CRC, Chicken Breeds in Australia

Shed Logistics

Chickens are delivered to the shed at about 16 weeks of age (a few weeks prior to point-of-lay) and are removed from the shed between 72 and 90 weeks of age depending on the model being used by the grower or the contract company, and the layer breed.

After the 72-90 weeks cycle, sheds are de-stocked and spent hens are sold or given away to home growers or sent to a processing plant (for smallgoods, commercial meat or other rendering process). Birds are hand-loaded at night, when the birds are not stressed onto B-double transports (which take about six to eight thousand birds per load). It is preferable to de-stock the shed/farm as quickly as possible and hopefully on the one day. Once the shed is destocked it is cleaned and disinfected ready for the next batch.



De-stocking an average contracting farm would require four or five loads and because it has to be done at night it might happen over a few days. This process is scheduled at night-time, when the birds are partially asleep, and are less stressed by the process. In Buloke, at present, teams of catchers are organised by the grower and arrangements and cost involved are paid by the grower.

When sheds are empty they are cleaned and disinfected in preparation for the next batch to start. This is a big job in an egg layer shed where birds have been housed for over 12 months. All flooring slats are removed and skidsteer loaders or other excavators are used to clean all waste manure. Once this is complete the whole shed is cleaned with high pressure washers and then disinfected.



Processors plan for each farm to have at least a few days with no birds as a further bio-security measure, to allow proper cleaning and aeration to take place and thereby ensure no contamination is left in the shed which could spread any disease from batch to batch. During this period any damaged equipment is repaired so that it is ready for the next batch to come in.

Following the cleaning and aeration process, a new batch of layer pullets can be delivered. The new batch can be arranged to arrive two or three weeks after being de-stocked. More time can be allowed so that the owners and staff can have a scheduled vacation.

The cleaning process must follow standards of cleanliness of sheds and prevention of cross-contamination as stipulated by either a qualified veterinarian, major customer or egg contractor company.

Markets

It is important for potential farmers to have worked out in detail how they are going to sell their eggs before entering the industry, especially if the grower will operate as an independent. Egg farming is much less vertically integrated than broiler farming. There are many opportunities for individual farmers to manage the sale of their eggs. This can be done wholly on farm where the farmer processes and packages the eggs and then takes them to market, or by arranging a processor to clean and pack.

The opportunity still exists for individual farmers to negotiate sales to individual households, local cafés or local supermarkets right through to direct supply arrangements with larger supermarket and foodservice chains.

Contract growing can vary from:

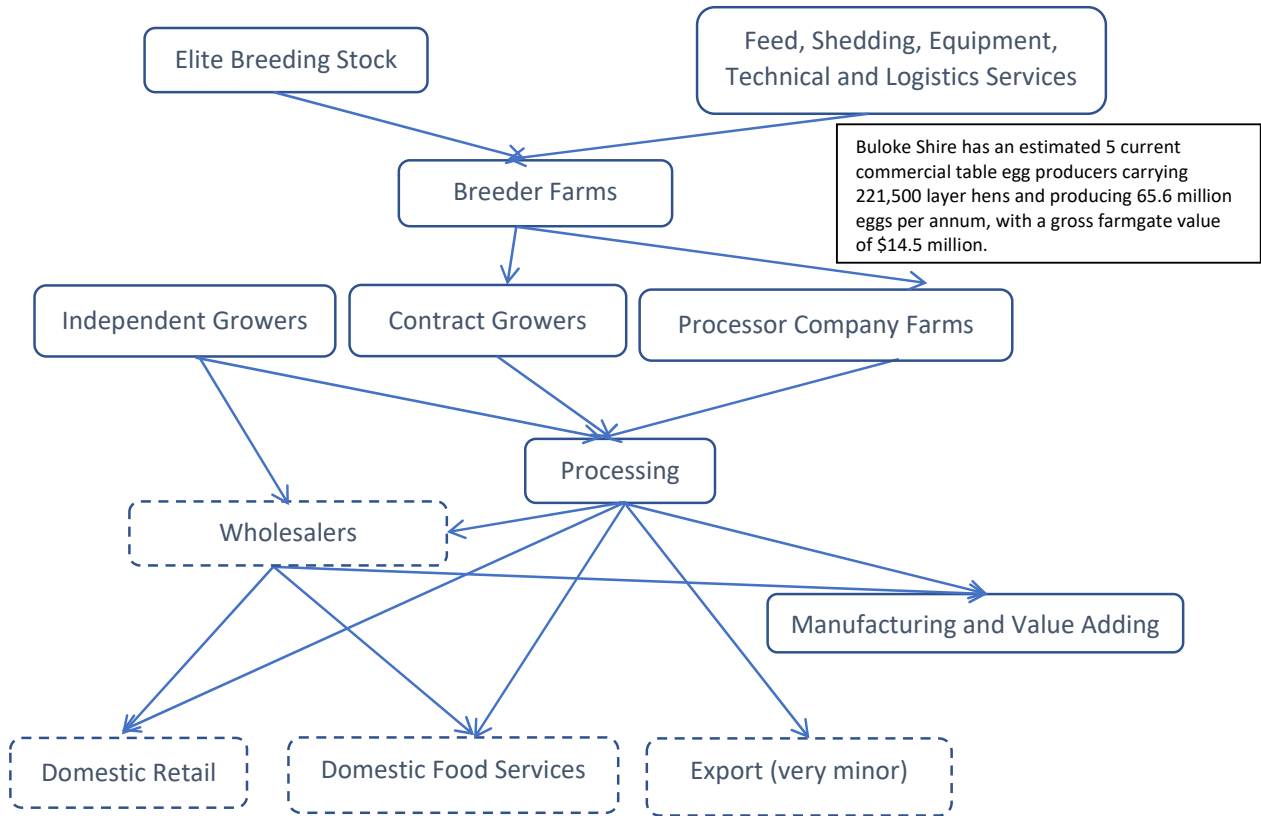
- Simply supplying eggs to the contractor while carrying all the costs (and the risks) in purchasing and managing the birds and delivering the eggs to the processing plant.
- The contracting company supplying the birds and stockfeed while the farmer provides the infrastructure, labour power and water and grows eggs according to the contracting company's requirements. This system is much less costly for the farmer and involves reduced risk, but with lower financial returns.



The table egg industry supply chain has seven distinct levels: Input suppliers (genetic stock, equipment and service suppliers), breeder farms, farmers/growers, processors, wholesalers, manufacturers, and markets/customers. Potential farmers and investors should note that all the links in this chain, up to the final customer stage (of domestic and export supermarkets and food service outlets) are available within transportable distance, no further than 4 hours by road from Buloke Shire.



Egg Industry Supply Chains in Buloke Shire and Northern Victoria



Note: Unbroken lines indicate this supply chain function exists within Buloke Shire or the broader Northern Victorian (Loddon Mallee) region. Broken lines indicate that the function is outside the region



Statutory Requirements

It makes good business sense to engage a specialist consultant to work through the process of planning and building for a commercial poultry enterprise as there are a myriad of rules and regulations that need to be addressed. A layperson should have the ability to work through the requirements, however it may take considerably longer and lead to mistakes needing correction which will add to the cost of the project compared to engaging a consultant from the outset.

Planning permits must be obtained if the farm will accommodate more than 26 chickens in a farming zone. The planning permit process takes about 3 months provided there are no objections to the proposal. The plan must be advertised publicly for 28 days in local papers to allow people to object to the proposal. If there are objections this can create large extensions to the timelines. If there are no objections and the plan meets all conditions required for this industry a permit will be issued once ratified by Council.

It may also be sensible to engage a specialist consultant to work through the building permit process for a commercial poultry enterprise as there are myriad rules and regulations to be followed.

Building permits cannot be issued for a poultry shed until a planning permit has been issued. Building permits are less onerous than planning permits in that they do not have the capacity for public comment. Provided the building permit adheres to the regulations for buildings and meets all statutory requirements, a permit will automatically be granted.



Planning Check List

1	Consider engaging a consultant specialising in planning poultry developments to ensure everything on this checklist is delivered on time and accurately – This could save time and money
2	Preliminary meeting with Council planning department
3	Sight analysis and design response to zones and overlays:
4	Report on Special Features - e.g. technology to reduce buffers or deviate from the code
5	Master Plan Describing stages and implementation timing
6	Locality Plan at a scale of at least 1:10,000 showing: sheds, houses, water, drainage, roads etc...
7	Locality plan to also include buffers, separation distances and biosecurity
8	Site plan at a scale of at least 1:100 showing: showing: sheds, houses, water, drainage, roads etc...
9	Development Plan Showing - elevation, excavation, power, water, sewerage, ventilation
10	Landscaping plan
11	Environmental Management Plan
12	Proposed Planning, Design and Construction Measures to meet design criteria (for example odour, dust and noise) and to minimise off-site environmental impacts for each risk event including:
13	Proposed Day-To-Day operational and Management Practices and contingency plans (including trigger points and target response times for critical incidents) from each risk event for:
14	Farm Wates (operating systems and practices for managing wastes) especially:
15	Report on comparison with Generic EMP
16	Environmental Risk Assessment (using the Broiler Code including modelling to demonstrate):
17	Environmental Auditing
18	Aerial Photograph
19	Other Information lodged with the application (for example, animal welfare report)

Planning checklist supplied by Northern Poultry Cluster Ltd

Building Checklist

1	Consider engaging a consultant specialising in planning/building poultry developments to ensure everything on this checklist is delivered on time and accurately – This could save time and money
2	Preliminary meeting with Building Inspector/ Surveyor
3	Earthworks inspection
4	Inspection prior to pouring concrete
5	Wall inspection
6	Inspection of all mirrors
7	Final Inspection to issue certificate of occupancy