



ERA 4. Poultry Farming

Environmental Protection Act 1994

DEFINITION>>

Poultry farming including farming for egg production including fertile eggs; rearing hatchling, starter pullets or layers; and rearing birds for meat where there are more than a total of 1000 birds.

SITE SELECTION>>

Ensure long term operation and minimise potential environmental impacts

- Only sites approved under the Town Plan can be developed for use as a poultry farm
- Have regard for adjacent and nearby land uses when choosing a new site for a poultry farm
- Plan to include buffer zones around the poultry farm and with neighbours. These zones attempt to minimise potential nuisance impacts on neighbouring land uses
- The shape and size of the block should enable sheds to be built with the following set-back and separation distances recommended by the Department of Primary Industries (DPI). *(The following points are guidelines only and the operator should refer to the Development Approval Conditions)*
 - > 300m from settlements of more than 10 houses
 - > 100m from well trafficked public roads
 - > 20m from other boundaries of the land and dry gullies and channels
 - > 100m from watercourses, wells and bores

- > 150m from neighbouring houses
- > 500m from poultry sites on adjoining land

- Choose a site with the following characteristics:
 - > suitable elevation to provide better ventilation and drainage
 - > access to adequate supply of good quality water and three phase electric power large enough to accommodate any future planned expansion.

LAYOUT AND MAINTENANCE OF BUILDINGS>>

Plan for adaptable design and the uptake of changing technologies

- The scale of environmental impact is closely linked to shed design, the materials used in the construction of the shed and management of the sheds. All new poultry farm developments should incorporate the latest in animal welfare and environmental management technologies.
- Permanent buildings should be designed to enable management to 'update' with new technology when it becomes available. This approach would extend the life of buildings beyond their original lifespan and enable the poultry farm to operate efficiently.
- All materials used for foundations, flooring, external and internal wall linings, roofs, columns, beams, trusses and insulation should have some degree of design flexibility for efficient later modification.

- Interior linings should be impervious, smooth, easily cleaned surfaces of materials non-toxic to poultry. Floors should be concrete or other impervious material that will permit efficient removal of litter and manure.

Minimise stock losses from heat stress and provide physical comfort

- The most suitable orientation for sheds is with the length of the building running from east to west. This arrangement minimises solar absorption during hot weather.
- Poultry sheds should be built with good ventilation. This will be helped by building the sheds with the following DPI recommended separation distances:
 - > 15m from parallel meat chicken sheds, pullet sheds and breeding sheds
 - > 20-25m from parallel high rise layer sheds
 - > 1m from laying sheds and rearing sheds.
- Design the poultry shed to minimise stock losses from heat stress:
 - > provide adequate ventilation control and ensure ventilation openings are shaded and clear of obstructions
 - > install fans, high pressure fogging systems and roof sprinklers at strategic locations
 - > ensure the availability of adequate emergency water supply
 - > landscape the surrounding ground with tall shade trees and lawns.

Protection soil and water quality

- The shed floors must be impervious to water:
 - > compacted clay is the minimum requirement
 - > concrete is preferred.
- The sheds must be adequately roofed and the floor levels raised above the surrounding land or suitably bunded. This will prevent the incursion of rain and stormwater into the production areas.

Landscaping and screen planting

- Plant quick growing species around sheds and the boundary of the property to enhance the environmental amenity.

Farm maintenance

- Maintain constructed roadways, by-product and waste storage areas, and drainage in good working order.
- Keep product storage and handling facilities clean and hygienic.
- Maintain the exterior of all buildings to keep the appearance, security and functioning of the structures up to a high standard. Keep walls, roofs and gutters in good condition to maintain effective ventilation, appearance and function of all buildings.
- Maintain the overall site including roads, fences, grass, vegetation, grassed channels, contour banks and dams to ensure the continued aesthetic quality of the area.

Minimise odour and dust nuisance and protect soil and water quality

- Materials used as litter must be dry and highly absorbent, such as coarse sawdust, wood shavings or shredded paper.
 - > Such litter can be re-used as a fertiliser to avoid the problem of disposal.
- Litter residues must be removed from sheds in a nuisance free manner - do not generate excessive levels of dust.
- The frequency of removal is to be determined by the poultry application.
 - > In the long term, nutrient accumulation may change the chemical balance and cause soil degradation. Monitor manure levels in free range farms and take steps to ensure that manure concentrations do not become excessive. Maintain adequate groundcover.

Minimise odour generation and impacts on the health of livestock and employees

- Excessively wet litter or manure causes odour and fly problems. Manure must be removed if it becomes excessively wet or the build-up blocks ventilation. You may allow a dry residue base of approximately 10 centimetres to remain under cages to provide an adequate absorption medium for wet manure.

- Take adequate precautions to prevent odour and dust nuisances when soiled litter or manure is removed, particularly under windy or rainy conditions. Residues left outside sheds may create odour and disease or fly problems if allowed to become wet.

Minimise environmental nuisance from improper procedures

- Never stockpile litter and manure in the open.

Protect air quality and minimise dust and odour nuisance

- Operators / growers are to supervise the removal of litter and manure. This will ensure environmental harm or nuisance is not caused and that proper environmental practices are followed. Records must be kept of each removal.
- Transport soiled litter and manure in covered vehicles to minimise odour and dust nuisance on roadways.

Re-use of soiled litter and manure

Poultry litter and manure can be used as valuable fertiliser. The recommended methods for use of litter and manure as fertiliser include:

- direct land application (although land application is discouraged and must be assessed by a suitably qualified consultant to determine land suitability for nutrient accumulation and application rates of soiled litter and manure)
- off-site removal to commercial processors such as composting/pelleting operations, the nursery industry and market gardens
- composting

Protect water quality

- Surface runoff from land application or composting areas must be collected and treated. Litter and manure must not be spread within 20m of waterways, wetlands, open drains, boundaries or residences.

Prevent odour nuisance

Avoid applying manure on weekends, public holidays, and when the prevailing wind direction is towards neighbours or public roads.

Disposal of dead poultry and unhatched eggs

- Remove dead birds and unhatched eggs from the sheds or brooders daily. Place in a vermin and odour proof container prior to disposal.
- Dispose of:
 - > wastes every 24 to 48 hours to minimise odour and health problems. Keep records of these removals; and
 - > dead birds and other associated waste by a licensed waste removalist to a fertiliser plant for conversion into fertiliser, an approved Council facility or by other nuisance free method satisfactory to Council (e.g. composting).
- Where dead poultry is composted, all measures must be taken to prevent odour nuisance and the attraction of vermin. That is, materials must be composted effectively (minimises odour generation) and securely sealed. Leachate must be collected and recycled (back into the compost heap), or treated/disposed.
- Dead poultry and associated wastes must not be buried on site without approval from Council. The suitability of the site must be assessed in terms of water catchment, possible contamination of groundwater or stormwater and possible odour nuisance.
- In the event of mass death of poultry Townsville City Council must be alerted on phone: 4727 9000.

Protect air quality and prevent odour nuisance

- Poultry sheds must be managed and maintained to ensure that litter does not become 'wet' and cause an odour problem.
- Avoid overstocking and keep sheds well ventilated (see *Code of Practice for the Welfare of Domestic Fowl*).
- Keep ammonia concentrations to an acceptable level by maintaining suitable conditions of temperature, ventilation and humidity.

- Correctly position and properly maintain watering systems such as waterers and drinker nipples. This will minimise the moistening of manure through drips and spillage and prevent odour nuisance.
- Roofs must be watertight. Divert rainwater, irrigation sprinklers and surface water from the sheds to avoid wetting the production areas and causing an odour nuisance.
- Excessively moist (>50%) of wet poultry litter must be replaced or replenished with fresh litter to reduce the moisture content to an acceptable level (30-40% in well managed litter and aged manure).
- Good ventilation must be provided to dilute odour strength during the removal of dead poultry, soiled litter and manure from the property. Where passive airflow is insufficient, mechanical ventilation must be provided.
- Ventilation fans should be directed away from neighbours or screened by a vegetative buffer or other suitable barrier.
- Mechanical ventilation must be adjusted to ensure sufficient air flow to provide adequate cooling and oxygen to the birds without creating a dust problem.

CLEANING>>

Prevent flock health problems and protect worker health and safety

- Empty sheds should be washed down with high pressure hoses, hot water, foaming or steam cleaning. Any detergents used should be biodegradable with a low phosphate concentration.

Minimise odour nuisance

- Ensure that the use of biocides does not cause an odour nuisance and is in accordance with manufacturers' and Workplace Health and Safety requirements. These activities must not be conducted in unsuitable environmental conditions.
- Where fogging systems are used, install high volume low pressure (HVLP) foggers and adjust them to minimise the amount of moisture reaching the litter. This will minimise ammonia generation from bacterial action within the litter and reduce risk of odour nuisance to neighbours.

Protect water quality and ensure proper disposal of material

- Wastewater from washdown and equipment cleansing and other activities must be directed to the sewerage system under the conditions of a **Trade Waste Permit**, or
> collected for recycling or disposal by a licensed waste removalist.