

Turkey Breeder House Project

Aviagen Turkeys Ltd ®



Definition

- This document is designed to help in the general specification for a new turkey breeder operation.
- The recommendations should be adapted to meet local requirements.

Location

- Distant from open water or other attractions for wild bird aggregations.
- Isolated from other poultry, including non-commercial poultry, other livestock facilities (minimum 2km) and away from major poultry transport routes.
- Infrastructure access: roads, utilities, labour source.
- Low flood risk.



Production System

- The preferred production system is to have separate rearing and laying facilities.
- Some operations may prefer to use day old to death production systems to avoid the risk associated with transport from rear to lay.

Site Facilities

- Perimeter fencing, staff amenity and showering area, storage for litter material and equipment.
- Sheds sealed to prevent wild bird and rodent access.
- Alarm system to cover mains electrical failure, high/low temperature and water failure.
- Standby generator in case of mains electrical failure.

Female Rearing House: Day old to 29 - 29.5 weeks

- Closed house, sealed from external light sources i.e. capable of light control.
- Stocking densities: Medium breeds 3.5 birds/m², Heavy breeds 3.2 birds/m².
- 12 – 16m wide.
- Ventilation able to give a minimum ventilation rate of 1m³/kg/h (minimum ventilation rate) for gaseous extraction.
- Additional ventilation may be required depending on the local climate in order to be able to manage temperature and humidity within the shed. Up to 5 – 6m³/kg/h may be required. The impact of light baffling on ventilation needs to be taken into account when calculating ventilation requirements.
- In hot climates, tunnel ventilation with or without pad cooling may be required.
- Heat source suitable for brooding in rings e.g. gas brooders (One 4.7kW brooder per 300 poults).
- 25 litre capacity feeders fed from a ceiling auger. 2cm feeding space is required for each bird. One feeder for 60 – 80 females. The feeders need feed saver rings which can be added for older ages to prevent feed waste.
- Each feeding system needs 2 separate feed silos outside the shed wall.
- Lighting system capable of achieving a minimum of 100lux, warm white light (2700K – 3000K), even distribution. Timer and dimmable controls with light on/off indicator on external wall.
- One bell drinker for every 80 – 100 birds.
- Panels (gates) for vaccinations and recovery pen.
- Scales for routine bird weighing.
- One water meter per house.



Male Rearing House: Day old to 28 – 29 weeks

- Closed house, sealed from external light sources.
- Separate from females.
- Stocking density at 1.5 males/m² (from 1 to 16 weeks). Then 1.2/m² after selection (from 17 weeks to end of rearing).
- Ventilation is the same for females.
- Heating equipment is the same for females.
- Automatic distribution of feed requires 5 cm of feeding space per bird at 29 weeks. When manual feeding 30 cm of feeding space is required per bird with tube feeders or linear troughs at the same age.
- 2 separate feed silos outside the shed.
- Panels (gates) for vaccinations and recovery pen.
- Bell drinkers 1 for 50 birds minimum.
- Lighting system capable of achieving a minimum of 100lux, warm white light (2700K – 3000K), even distribution. Timer and dimmable controls with light on/off indicator on external wall.
- Separate clock systems from the females.
- Water meter.

Female Laying House: after 29 – 29.5 weeks

- Open or environmentally controlled house (preferred).
- 12 – 18m wide. The house width used depends on: nest box type, nest box to floor area ratio, configuration of the nest boxes and available floor area for the birds. Nest box type and size (width) needs to be appropriate for the breed to be used.
- Nest box ratio of 1 nest for 4.5 – 5.5 females depending on the breed.
- Ventilation able to give a minimum ventilation rate of 1m³/kg/h (minimum ventilation rate) for gaseous extraction.
- Additional ventilation may be required depending on the local climate in order to be able to manage temperature and humidity within the shed. Up to 5 – 6m³/kg/h may be required.
- In hot climates, tunnel ventilation with or without pad cooling may be required.
- Stocking density from 2 – 2.2 females/m² based on available bird space.
- 25 litre capacity feeders fed from a ceiling auger. One feeder for 80 females. The feeders need anti-waste equipment (feed saver rings). Two separate silos outside the farm wall.
- Lighting system capable of achieving a minimum of 140lux, warm white light (2700K – 3000K), even distribution. Timer controls independent from males with light on/off indicator on external wall.
- Panels (gates) for insemination and broody control pen.
- One bell drinker for 80 – 100 birds minimum.



Breeder Male House: 28 – 29 weeks onwards

- Males should be kept in a controlled environment house.
- Stocking density of 1 breeder male/m².
- Ventilation able to give a minimum ventilation rate of 1m³/kg/h (minimum ventilation rate) for gaseous extraction.
- Additional ventilation may be required depending on the local climate in order to be able to manage temperature and humidity within the shed. Up to 5 – 6 m³/kg/h may be required.
- In hot climates, tunnel ventilation with or without pad cooling may be required.
- Manual feeding with tube feeders or linear troughs (35cm per bird).
- Male feed silo outside the farm wall.
- Pens of 12 – 24 birds.
- Dimmable lighting system capable of achieving a minimum of 60lux, warm white light (2700K – 3000K), even distribution. Timer controls independent from females with light on/off indicator on external wall.
- One bell drinker per 24 birds, minimum of two drinkers available per pen. One water meter per house.
- Scales for weighing birds and feed.



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