



Intensive Animal Industries

Poultry

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History of Poultry Production



History of Poultry Production

- The poultry industries are a diverse mix of bird species farmed in countries throughout the world.
- Primarily farmed for meat or eggs, the “domesticated” species can include but are not restricted to chickens, ducks, turkeys, geese, quail and guinea fowl.

History of Poultry Production



The Domestic Chicken

Kingdom	Animal
Phylum	Vertebrae
Branch	Gnathostomata
Class	Aves
Sub Class	Neornithes
Sub Division	Carinatae
Order	Gallinae
Genus	Gallus
Species	Gallus domesticus

Origins of the Domestic Chicken

- Jungles of SE Asia
- Gallus gallus of Thailand
- Red Jungle Fowl



Evolution of the Poultry Industry

- Domestication of the chicken took place at least 4000 years ago, providing meat, eggs, feathers, sport and medicines (Pliny 4BC & Aldrovandi 1598).
- In striving to produce food for an ever increasing human population, intensification of the domestic chicken occurred in the 1950s.
- Significant advances were made in breeding programs, nutrition, poultry & veterinary science.
- Specific industries developed for the production of eggs and meat with a majority of the advances made in the USA.

Egg Industry - Australia

- 203 million dozen eggs in 2005
- In excess of 13 million hens (423 producers)
- \$288 million at the farm gate
- 75% caged production
- 20% free range production
- 5% barn production

Caged Layers



Free Range Layers



Barn Layers



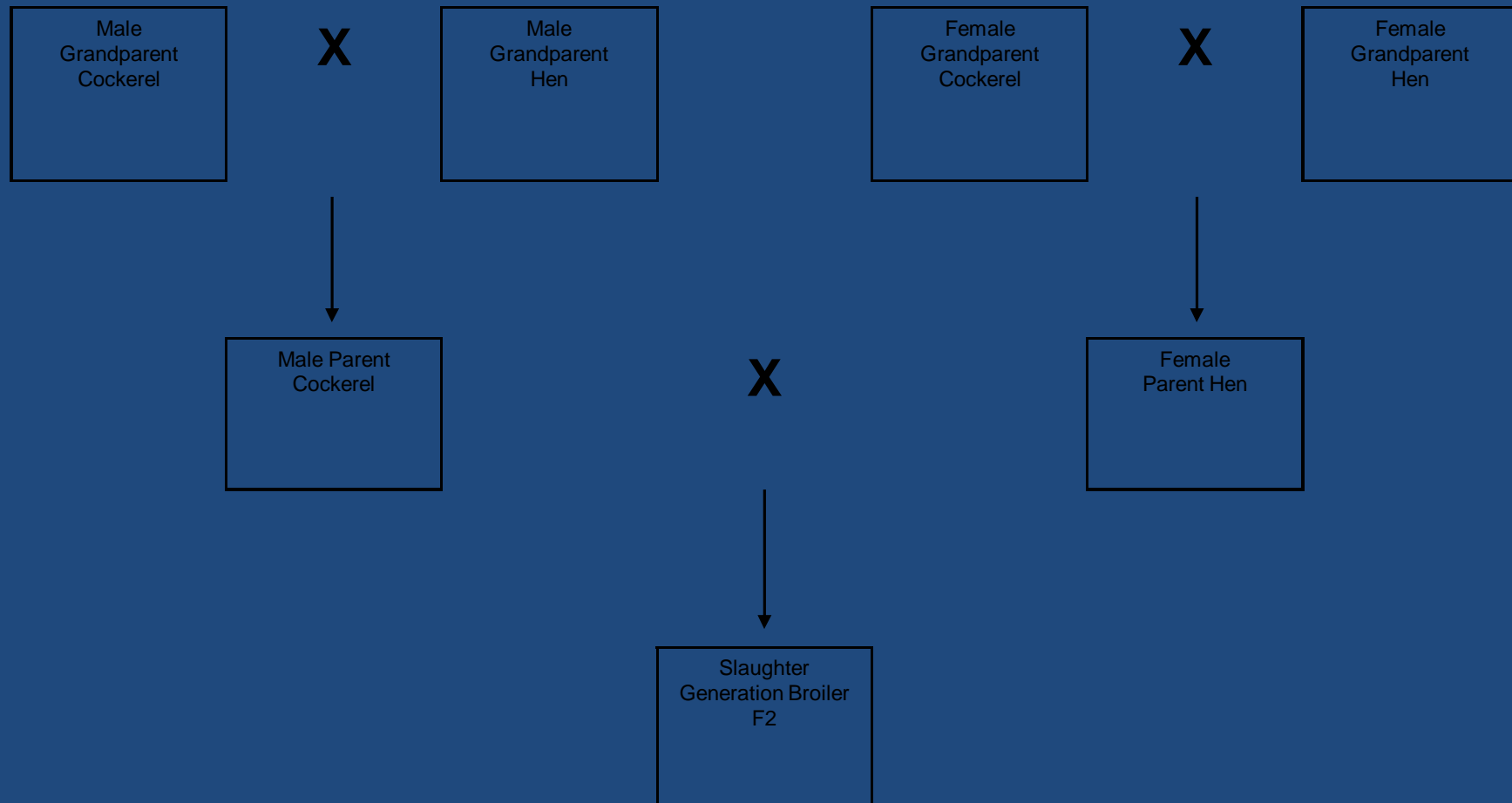
The Broiler Chicken Industry

- Meat birds were traditionally a byproduct of the egg industry (cockerels)
- Chicken meat was therefore scarce, expensive and considered a luxury food
- Development of specific broiler breeds decoupled meat production from the demand for eggs
- Subsequent advances in nutrition and incubation technology increased productivity and drove down costs

The Broiler Chicken Industry

- Original broiler was a cross between the white Cornish male and the Barred Rock female (dominant in the 1960S)
- Problems with slow growth, poor fertility and disease susceptibility
- Modern day broilers are a third generation offspring (F₂)

Modern Broiler Chicken



Production Strategies of the Poultry Industry in Australia

- Genetic material brought into Australia via Torrens Island (5 year waiting period)
- Grandparent breeder flocks are on dedicated farms run on an all in all out basis
- Parent breeder flocks are on dedicated farms run on an all in all out basis
- Broiler flocks are on dedicated farms run on an all in all out basis
- Commercial egg layers tend to be multiage operations

Broiler Industry



Broiler Industry



Broiler Industry



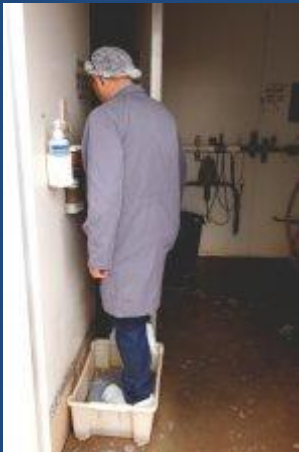
Veterinarians working with poultry

- Principles are the same regardless of the species involved
- Biosecurity
- Knowledge of the health issues
- Management
- Nutrition

Biosecurity

- Potential pathogens
- Means of introduction
- Methods of prevention

Biosecurity



Biosecurity



Management

- Environment & Hygiene
- Livestock health
- Feed
- Water

Environment & Hygiene

- Temperature
- Humidity
- Ventilation
- Reducing pathogen load

Livestock Health

- Breeder Flock Health/Performance
- Vaccinations
- Medications in feed/water

Feed and Water

- Specifications
- Availability/Access
- Palatability/Potability
- Cross Contamination

