SHW 3003
Poultry Production
MALAYSIA - PER CAPITA CONSUMPTION

- 35.34 Kilograms of chicken meat
- 299 table eggs
DAILY OUTPUT of the POULTRY INDUSTRY

• 1.2 Million chickens
  • (10 % Exported)

• 20 Million table eggs
  • (12 % Exported)

*Singapore is a captive market
CURRENT MARKETING STRUCTURE OF THE INDUSTRY

- 70% of broilers go through wet markets
- >99% of table eggs reach customers as fresh in-shell eggs
- Increasing further processed product consumption
POULTRY TYPES
PRODUCTS : Meat related

• Life bird

• Whole carcass
  – Broiler
  – Organic/free ranging (village chicken)
  – Special products: black chicken

• Value added
  – Special cuts
  – Marinated (ready to cook)
  – Boneless/fillet
  – Frankfurter, burger etc
  – Special products: wax duck, liver pate
PRODUCTS : Egg related

- Whole eggs
  - Duck, chicken, quail

- Value added
  - Salted eggs (ducks)
  - Designer eggs : Omega 3, low cholesterol
PRODUCTS : Side-products

- Composted manure
- Spent hen
- Down feathers
**BREEDS**

<table>
<thead>
<tr>
<th>Broiler</th>
<th>Layer</th>
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<tbody>
<tr>
<td>Hubbard</td>
<td>Hisex</td>
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<tr>
<td>Arbor Acres</td>
<td>Lohman</td>
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<tr>
<td>Ross</td>
<td>Isa Brown</td>
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<tr>
<td>Avian</td>
<td>Babcock</td>
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<tr>
<td>Cobb</td>
<td>Hyline</td>
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<tr>
<td>Lohmann</td>
<td>H&amp;N Brown Nick</td>
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<tr>
<td>Shaver</td>
<td>Golden Comet</td>
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<tr>
<td>Hybro</td>
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</tbody>
</table>
SYSTEM OF PRODUCTION FOR BROILER

• Intensive
  – Broiler chicken/quail
  – Coloured chicken
  – Broiler ducks

• Semi intensive
  – Free ranging chicken, village chicken
  – Broiler ducks
HOUSING SYSTEM

- Conventional open sided houses
  - Cheaper
  - Chickens have to adapt to continuous heat stress
- Closed house – environmental control
  - Expensive
  - Chickens feel comfortable
OPEN HOUSE
FREE RANGING/SEMI INTENSIVE
Semi intensive system – Village chicken
Integrated with Oil Palm Trees
Integrated with rubber trees
Intensive system – Coloured chicken
Model Ayamas

Model CP

Triangle House
## Comparison:

### OPEN HOUSE
*(1.0 ft²/b)*

- Temp: 23 - 33 °C
- Temp. diff. = **10 °C**
- DOC = 41.2 g
- Wt. 28 d = **768 g**
- Wt. 42 d = **1514 g**

### CLOSED HOUSE
*(0.8 ft²/b)*

- Temp: 25 - 27 °C
- Temp. diff. = **4 °C**
- DOC = 41.2 g
- Wt. 28 d = **814 g**
- Wt. 42 d = **1558 g**

*MARDI, 2000*
ARTIFICIAL BROODING

Natural Brooding

Conventional method
Brooding period

1 – 3 WEEKS

700 BIRDS

4000 BIRDS
Management of Layer

4 steps
- Housing preparation
- Chicks management  
  - Week 1 to 8
- Pullet management  
  - Week 8 to 16
- Layer management  
  - Week 17 above.
Poultry Management

- Feeding
- Housing
- Equipment
PHYSICAL FORM OF FEED

• Mash
  - balance diet, dry & dusty (easily get wet)

• Pellet
  - mash $\rightarrow$ compressed $\rightarrow$ pellet
  - high feed intake, less wastage
  - highcost
  - high consumption of water $\rightarrow$ wet dung

• Crumble
  - ground pellet
Types of feed

- **Broiler starter crumble/mash**
  - high energy / high protein diet
  - 0-3 weeks of age
- **Broiler finisher pellet**
  - Grade I - high efficient broilers
  - Grade II - less efficient/heavier market
  - 3 weeks to market age
Types of feed

• Poultry starter mash
  – meant for all egg production
  – 4-6 weeks depend on breeder’s recommendation

• Poultry grower mash
  – pullet growing
  – 8 weeks to sexual maturity
Types of feed

- Poultry layer mash
  - for efficient production of table eggs
- Poultry breeder mash
  - for efficient production of hatching eggs
  - Light breed - layer breeder
  - Heavy breed - broiler breeder
Managing Poultry - Chicken

- Hatchery – laboratory
  - Incubator – 1st - 18th days Incubate
  - Hatcher – 19th – 21st days hatching
Housing types – Unit Poultry, Dept. of Animal Science

Deep litter bedding
Housing types – Unit Poultry, Dept. of Animal Science

Battery Cages
3-tier cages
Equipments need in Poultry Management
Feed trough
Water trough
Alat memotong paruh ayam (Debeaker)
Gas brooder
Sanitation
Waste Management in Unit Poultry
Diseases & Parasites of Poultry

- Maintaining poultry health
  - Sanitation - cleaning
  - Waste (solid) handling – gas, odor
- Other health management practices
  - Vaccination
- Controlling disease outbreaks
Diseases and Disorders

- Arthritis/Synovitis
- Aspergillosis (brooder pneumonia)
- Avian Influenza – virus infection
- Coliform infections – caused by E. Coli bacteria
- Newcastle disease
- Fowl pox
External parasites

- Chicken mite
- Northern fowl mite
- Scaly leg mite
- Poultry lice
- Fowl tick
- Fleas and bedbugs
- Flies
- Control of external parasites: Insecticides
Internal Parasites

- Roundworms
- Crop-worms (capillaria)
- Cecal worms
- Tape worms
- Flukes
- Gapeworms
- Gizard worms
Bleeding Quail
Antibiotic administered to chick
Disinfectant
NUTRIVAL POWDER
(STRESS PACK)

CONTAINS:
All Essential Vitamins
Trace Elements (Minerals)
Amino Acids

Dosage:
200 lt water / 100 gm Nutrival
or 100 gallon water / 200 gm Nutrival

Distributed By:
Summary

• The best way of controlling poultry diseases & parasites
  – prevention program

• Prevention involves:
  – sanitation, good management, vaccination and control of disease outbreaks
  – Sanitation: complete cleaning and disinfecting of poultry house & equipment.