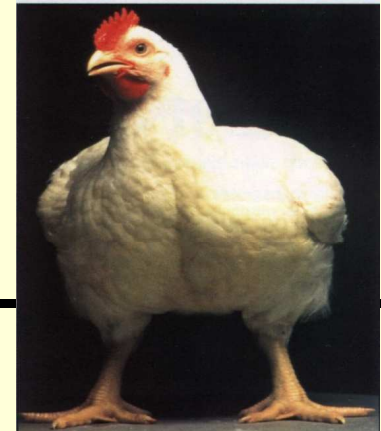


Capacity–Building Workshop on Broiler Production for Secondary Schools Students in Ogun State, Nigeria

**Agricultural Media Resources and Extension Centre,
Federal University of Agriculture, Abeokuta**

Introduction to Poultry Production



By

Dr. O.M. Sogunle
College of Animal Science
Federal University of Agriculture, Abeokuta



What is Poultry?

- ◆ Poultry is a term for domesticated fowl (birds); these are birds used for eggs and meat such as chickens, turkeys, duck, goose and pigeon.

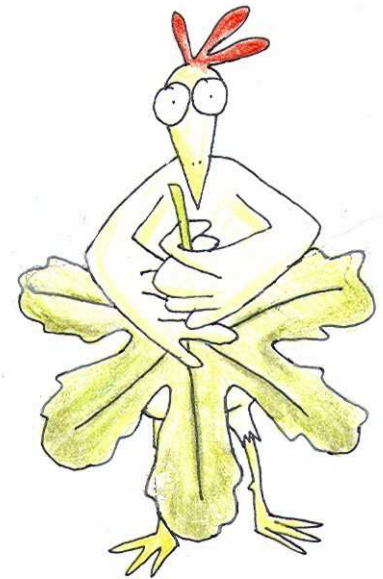


History

1570 – England forbidden of cock fighting.

1840 – Commercial use of poultry products
(eggs, meat, feathers).

1879 – USA- definition of breed and line.





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LEUVEN

The Development of Poultry Industry in the World

The origin of the modern chicken is probably from the Red jungle fowl – *Gallus gallus* (*Benkiba*).

Early rearing of poultry was for:

- ✓ Religious beliefs.
- ✓ Superstition
- ✓ Beauty/aesthetics
- ✓ Fights/Game.





Poultry Industry Characteristics

- ✓ It spreads all over the world.
- ✓ There is no effect for Geographical location or different climates.
- ✓ Distance does not affect growth efficiency.
- ✓ It has short production period.
- ✓ There is early large investments follow by small ones.
- ✓ Feed is a major routine cost.
- ✓ It has tough competition.
- ✓ It has changeable production conditions. (Animals, Equipments, Marketing).
- ✓ It accepts new technology faster
- ✓ It allows shifting to integrative production.
- ✓ There is increase in demand for poultry products.



Problems & Prospects of poultry production

✕ Problems

- ✓ Scarcity & high cost of day-old chicks, poults, etc.
- ✓ Poor quality of birds available for meat & egg prdn.
- ✓ Availability & high cost of poor quality feeds.
- ✓ Poor poultry health care services.
- ✓ Unsuitable poultry houses & poor maintenance of houses.
- ✓ Inadequacy of credits to poultry farmers.
- ✓ Inadequate managerial & technical know-how.
- ✓ Poor marketing, distribution & pricing of poultry prdts.



Prospects: Areas of Poultry Production

- ✓ Poultry egg Prdn: Layers prdn for retail egg sellers, etc.
- ✓ Breeding & hatching of chicks, poults, keets, etc.
- ✓ Poultry equipment manufacturing e.g FACCO®
- ✓ Processing & marketing of poultry production.
- ✓ Feed production.
- ✓ Prduction of drugs & vaccines.

Poultry Production is of importance in Food production, research, industry, income generation & as a hobby.



Interdependence of poultry management





Poultry production



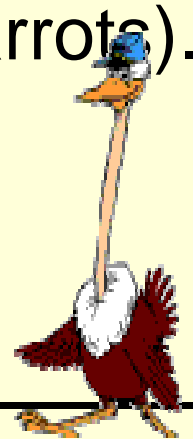
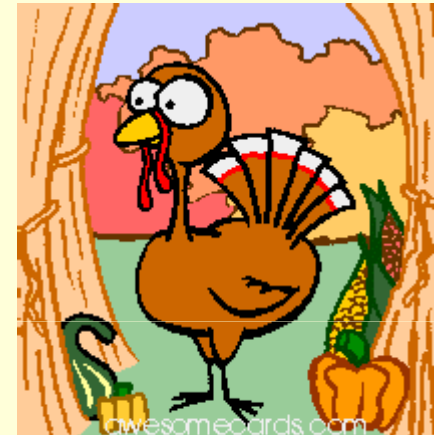
18% out of all agricultural business
40% out of animal production



Poultry Branches

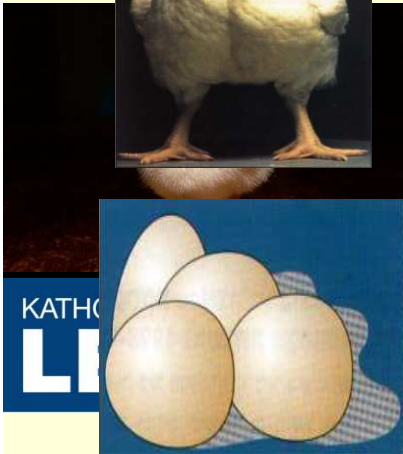


1. Eggs.
2. Broilers.
3. Turkeys.
4. Waterfowls.
5. Aesthetics (Ostriches, parrots).



Poultry Production/year

350,000 Tons



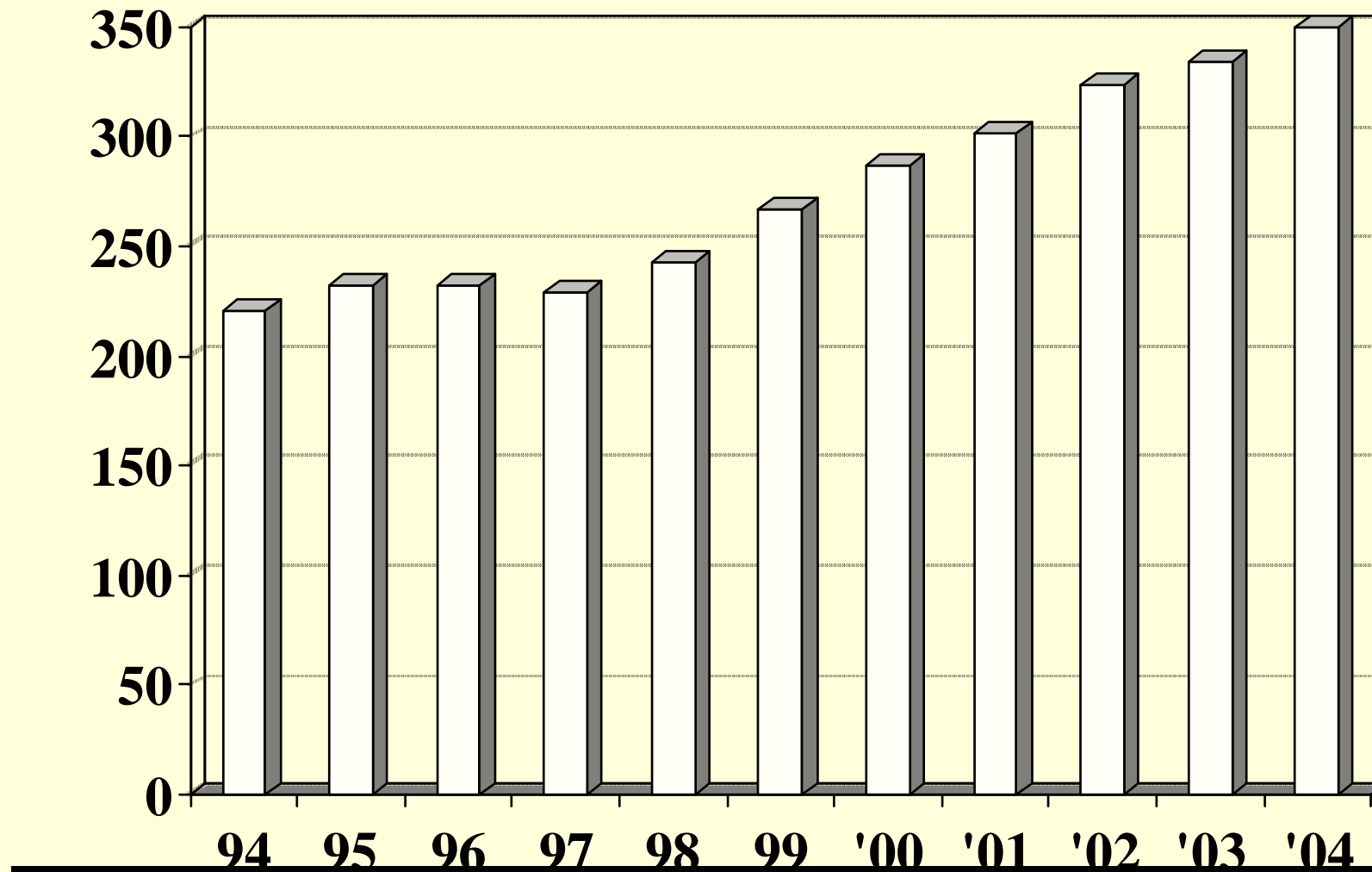
1.671 Billion



115,000 Ton

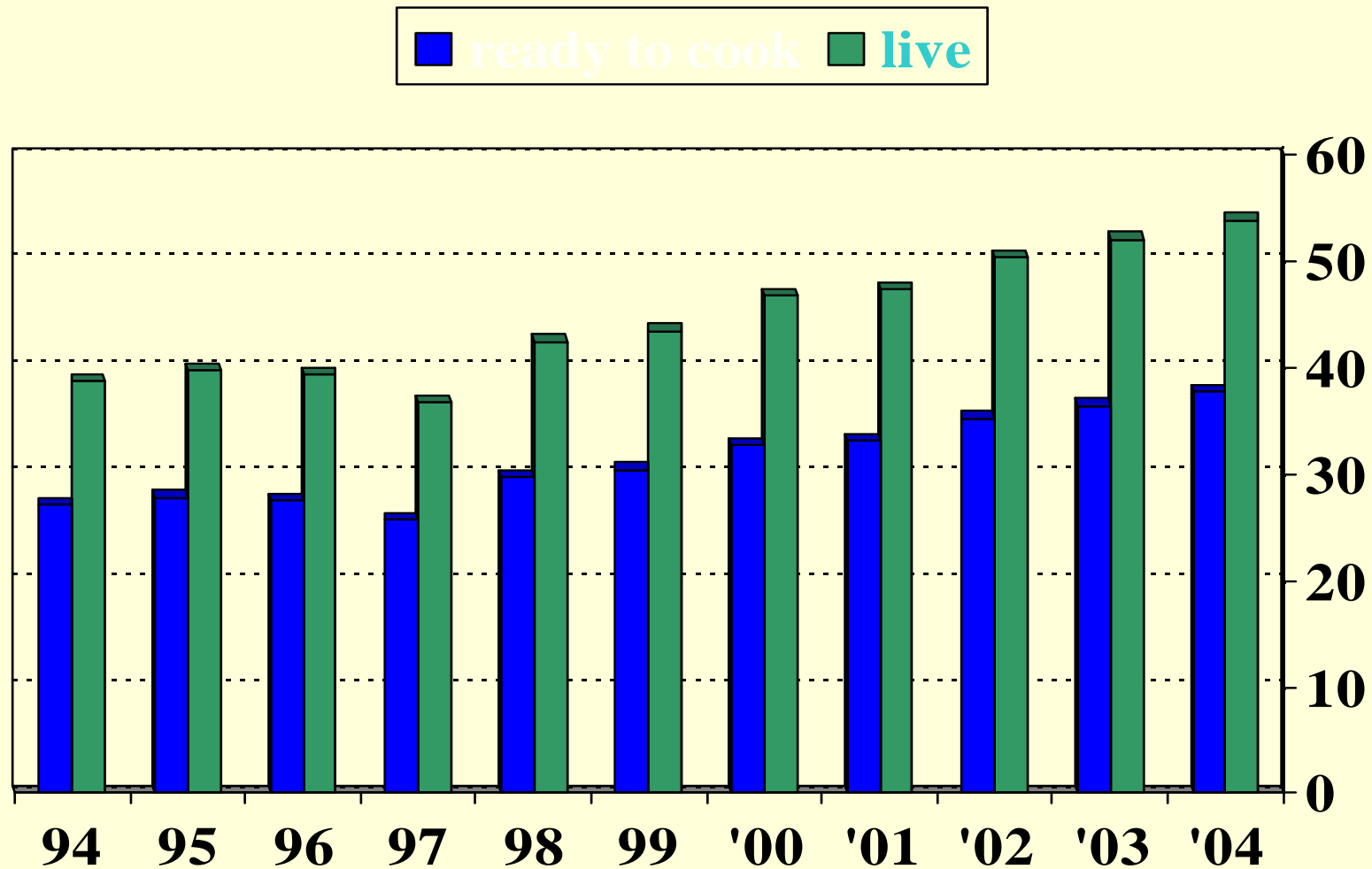


Broiler production (ton)



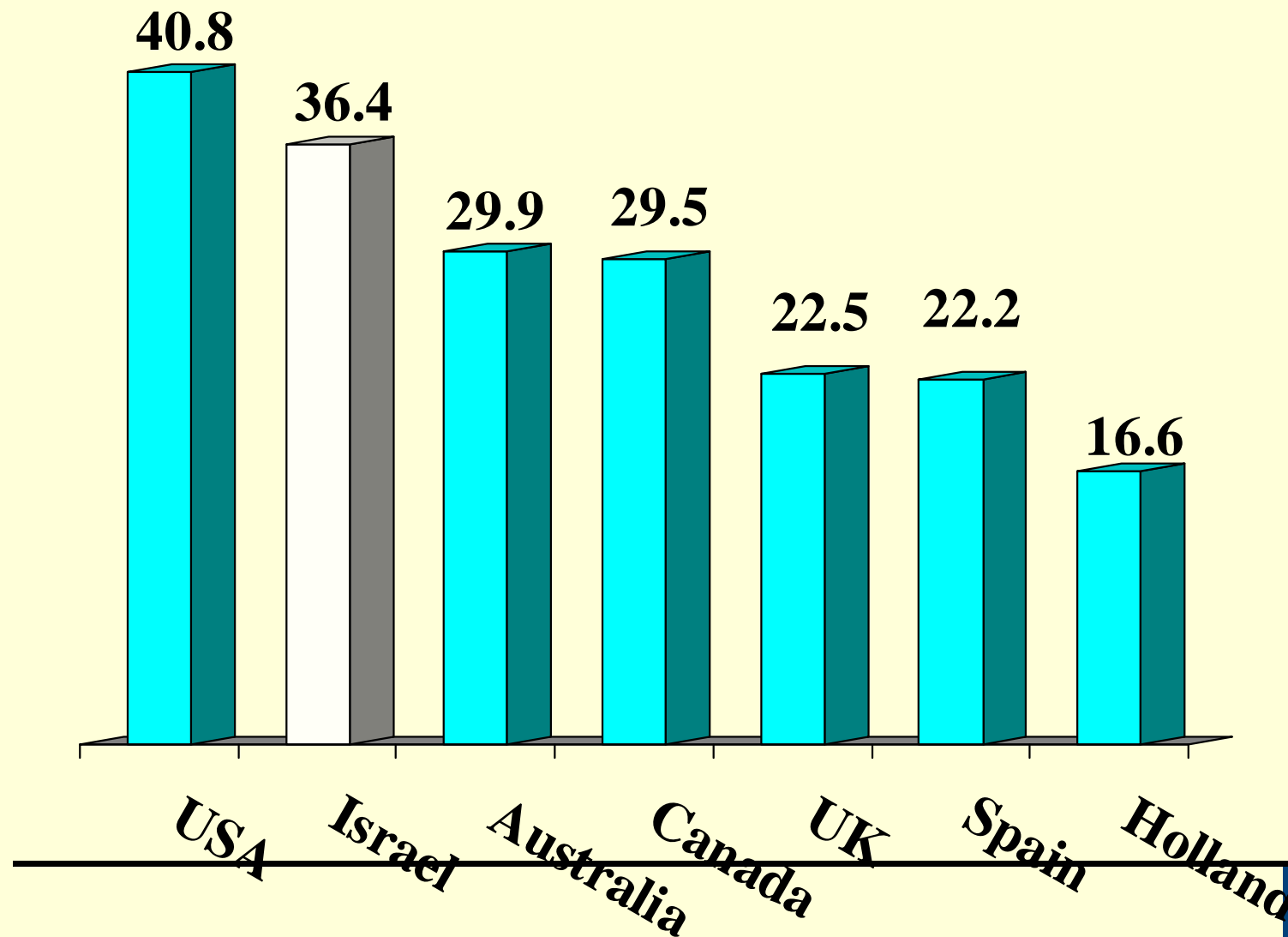


Broiler consumption Kg/capita





Broiler consumption around the world





Broiler Branch

1. Primary Breeders
2. Breeder
3. Hatchery
4. Broilers
5. Process Plant





What are broiler chickens?

- ✓ Broilers are chickens bred and raised specifically for their meat.
- ✓ Selective breeding has meant that only a few strains dominate the modern market and they are named after the companies that genetically developed them.
- ✓ ***These strains are mostly Cornish and White Rock cross genetics that emphasize rapid growth, broad breast, limited feathering and efficient feed conversion.*** There are only two breeds of chicken used as broilers.

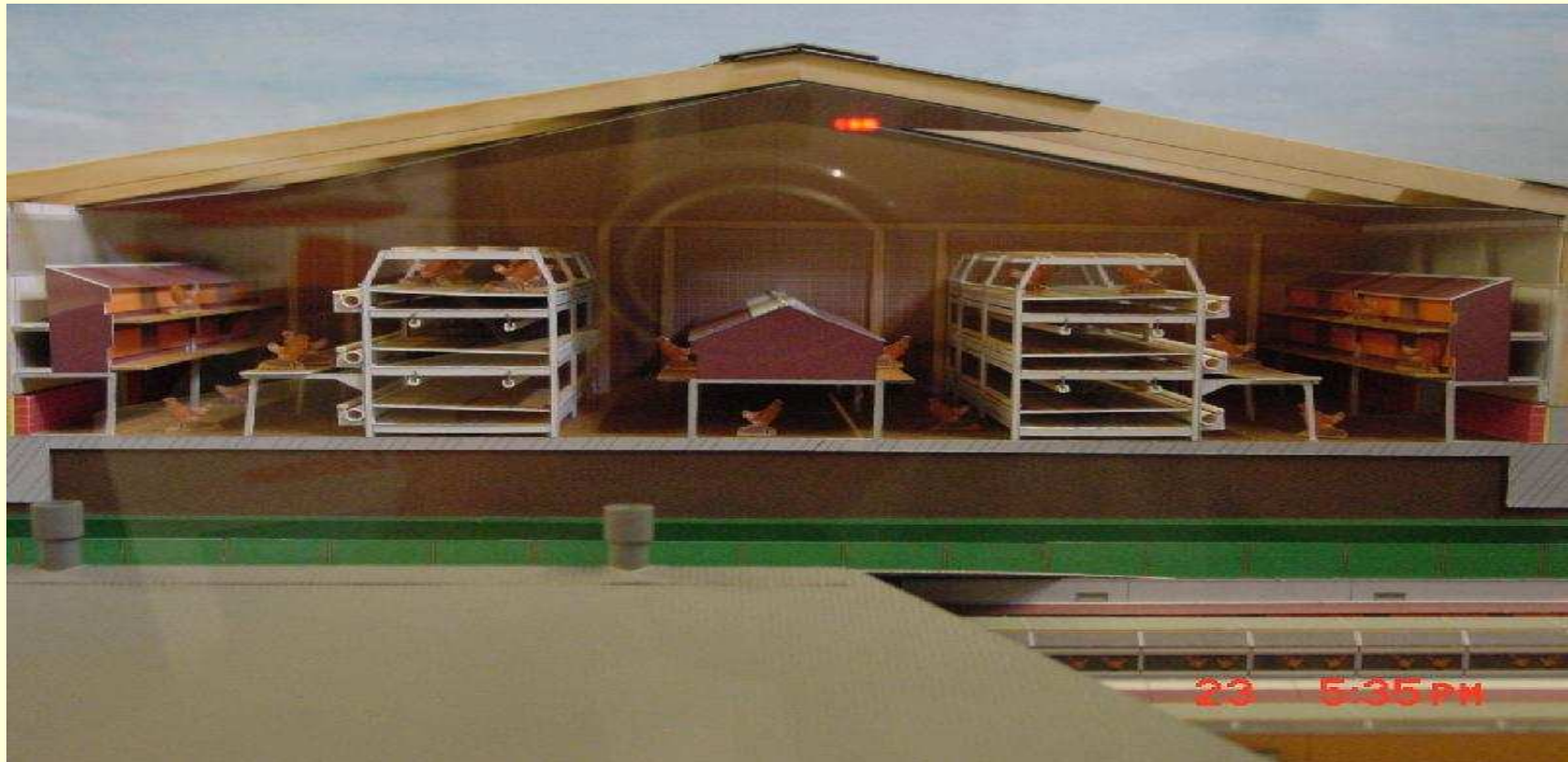


Management Systems

- ◆ Commercial Production System
 - Intensive mgt. E.g. Battery cage and deep litter
 - Semi-intensive
- ◆ Traditional System
 - Free-range

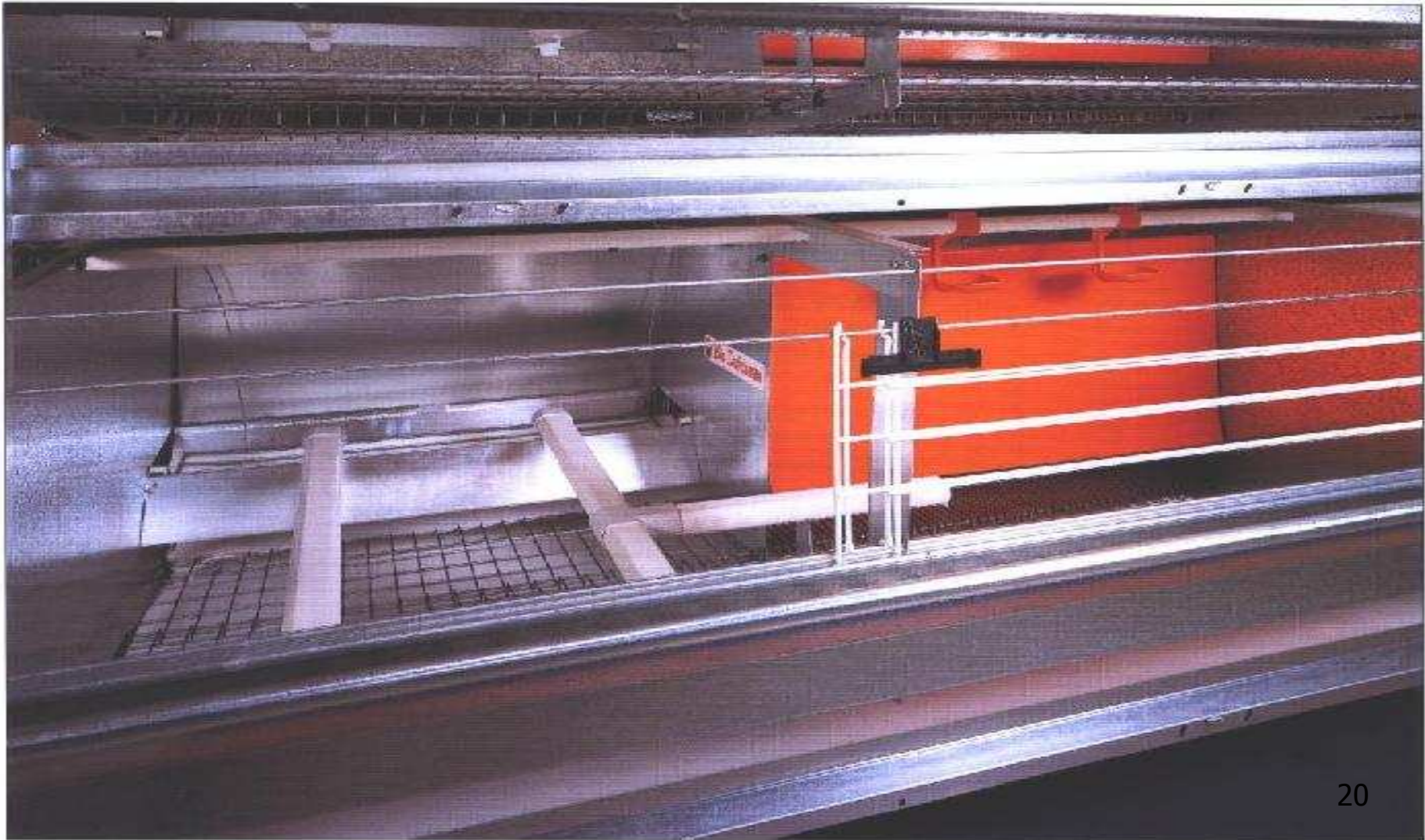


Improved/enriched cages





Improved/enriched cages (Contd)





Improved/enriched cages (Contd)





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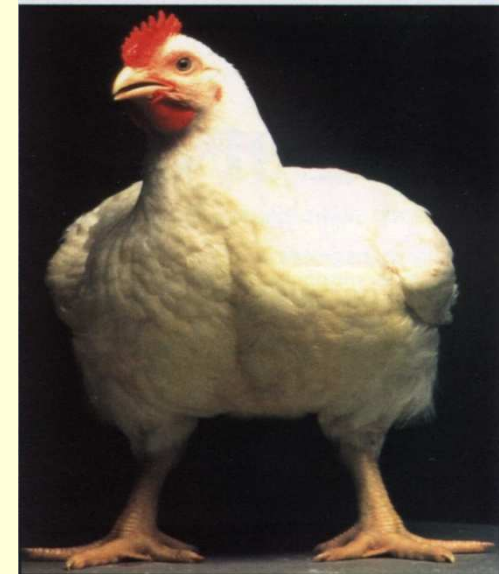






Trends in modern broiler business

- ✓ Increase production and consumption since 1997
- ✓ Massive poultry houses construction
- ✓ Reduction in number of growers - increase unit size
- ✓ Increase professional efficiency
- ✓ Integrative growth method
- ✓ Increase in physiological diseases





Management of Broiler Chicken

- Management similar to that of pullet chicks during brooding but it requires a higher ventilation because they are stocked at a higher density (0.06sq m) from day-old to market weight.
- ***High stocking density informed by the need to ensure profit from floor space and restrict extensive movement which is accompanied by the wasteful dissipation of energy.***
- The birds are fed broiler starter (0-4weeks) with 23-24% CP and 3200Kcal/kg ME and finisher (5-8weeks) with 20-22% CP and 3200Kcal/kg ME.
- A broiler chicken consumes about 2.5 to 4kg or more feeds from day-old to market weight. The FCR is between 2:1 & 5:1.
- Under good management, mortality should not exceed 5%.



SPECIAL CARE OF BROILERS AND LAYERS DURING HOT AND COLD TEMPERATURE PERIODS

✗ CARE DURING HOT TEMPERATURE PERIOD

High temperature and humidity produce stress to the birds leading to

- ✓ Reduction in feed intake
- ✓ Loss of production (including loss of egg production, increased number of thin shelled and small sized eggs, respiratory distress, loss of immunity and heat stroke.
- ✓ In extreme weather conditions, mortality may result.

The most favourable temperature zone in case of chicken is 18-21°C.

To combat the ill-effects of summer stress the following measures are to be taken seriously. Housing Mgt., Water Mgt., Feed Mgt. and Medication.



Housing Management

- ✓ Height of the poultry pen should be 8 to 10ft for proper ventilation in the poultry.
- ✓ Distance between two poultry pens in the farm complex should be at least 60ft for proper air circulation.
- ✓ East-west direction of poultry pen is beneficial to reduce the direct sun light entering inside the pen.
- ✓ Roof is to be white washed (with lime) to reduce heat in the pen.
- ✓ In extreme cases, pedestal or ceiling fans may be used to give comfort to the birds.
- ✓ Water sprinkling over the birds may also save the birds from heat stroke.
- ✓ About 10% birds of the recommended stocking density should be reduced.
- ◆ **Water Management**
 - ✓ Cool the water using ice cubes in water trough
 - ✓ More water troughs are to be provided during the heat of the day or in hot period.
 - ✓ Dosage of medicines administered through drinking water should be adjusted accordingly.



Feeding Management

- ✓ Feeds should be give during the cooler part of the day, i.e., at early morning and at late evening.
- ✓ At noon hours wet mash may be given to the birds to increase the feed intake (overnight soaking of feed is not desirable due to fungal infestation (aflatoxicosis). In other words, the feed is to be mixed with water just before offering it to the birds.
- ✓ More numbers of feeding troughs are to be provided than normal.
- ✓ The energy content of the compounded feed is to be reduced if possible. Protein, vitamin and mineral contents of the feed are to be increased.

♦ Medication

- ✓ Vitamin C may be added to the drinking water (at 10mg per bird for 2-3days)
- ✓ During the noon hours glucose and electrolytes may be given in the drinking water @ 8g glucose + 2g electrobion powder per 100ml drinking ater.
- ✓ Anti stress medicine may be added in the drinking water @ 1ml per 20birds for 7 consecutive days.



▣ CARE DURING COLD TEMPERATURE PERIOD (ambient temperature $<10^{\circ}\text{C}$)

- ✓ To counteract the ill-effects of winter stress, the following measures are to be taken methodically:
 - ✓ Extra heat is to be provided in the house with the help of electric heater or bulb (just like brooding management).
 - ✓ Energy content of the feed is to be increased by about 100-150Kcal/kg of feed.
 - ✓ Depth of deep litter is to be increased (in case of deep litter system of management)
 - ✓ About 10% of the recommended strength of birds is to be increased in the pen.
-



Poultry Breeds



The Asiatic Family

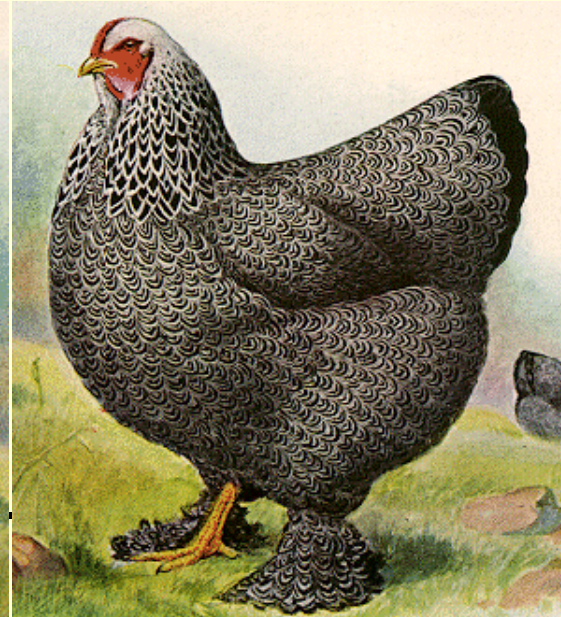
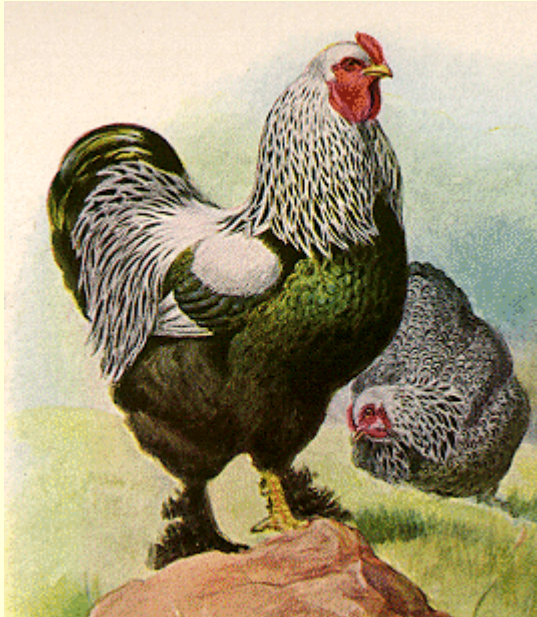
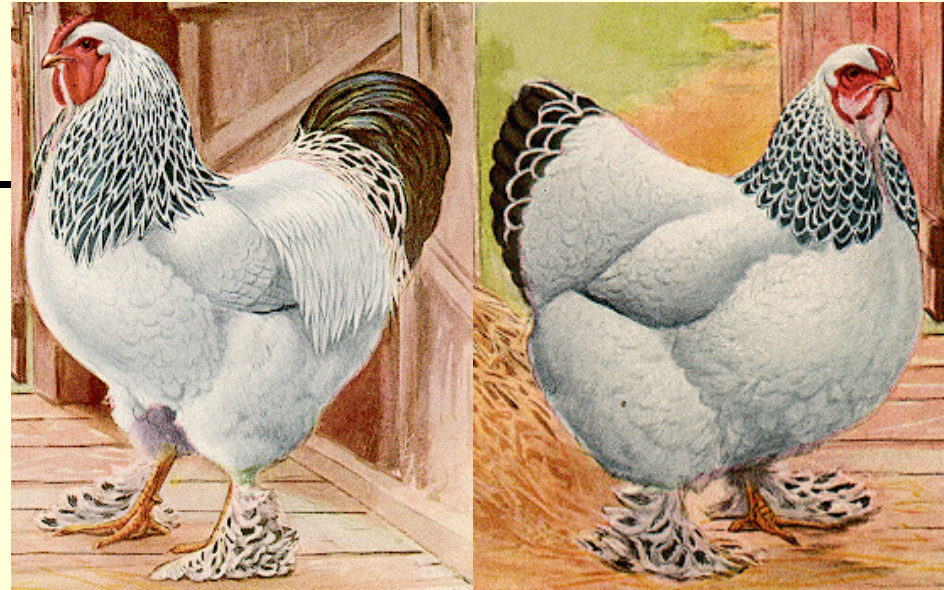
Characterization:

1. Heavy (male 6.5kg, female 4.5 kg)
2. Colorful
3. Shank feathers
4. Low in reproduction
5. Non-aggressive
6. Yellow skin
7. Late maturation



Brahma

White Brahma

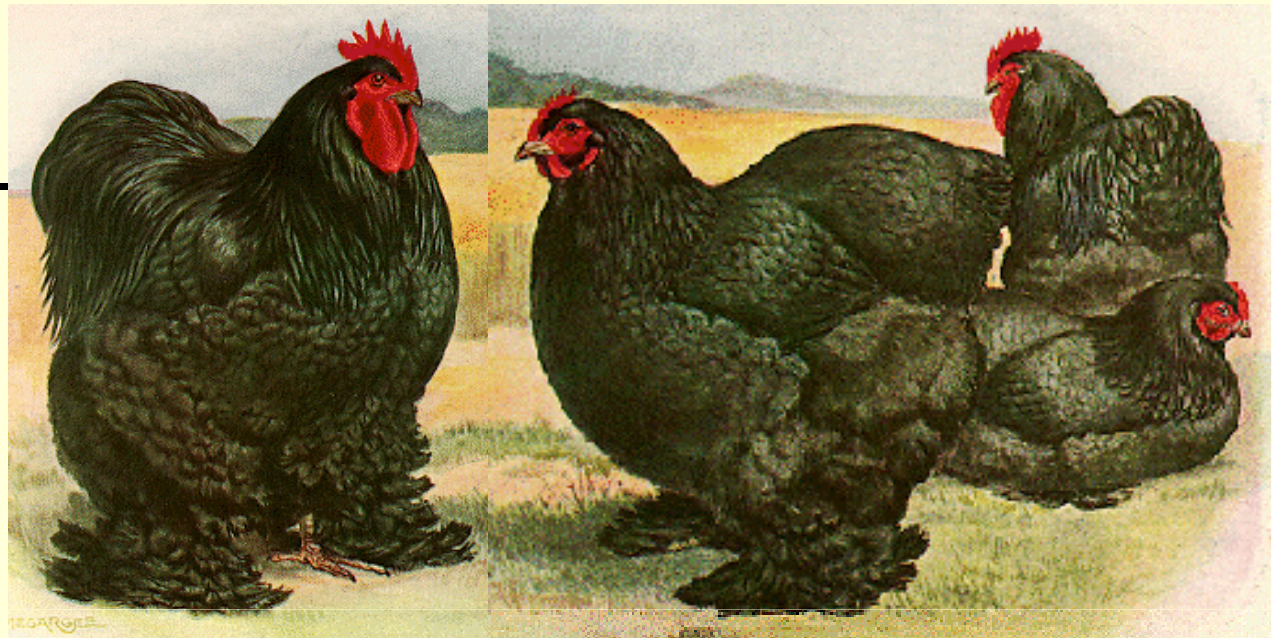


Dark Brahma

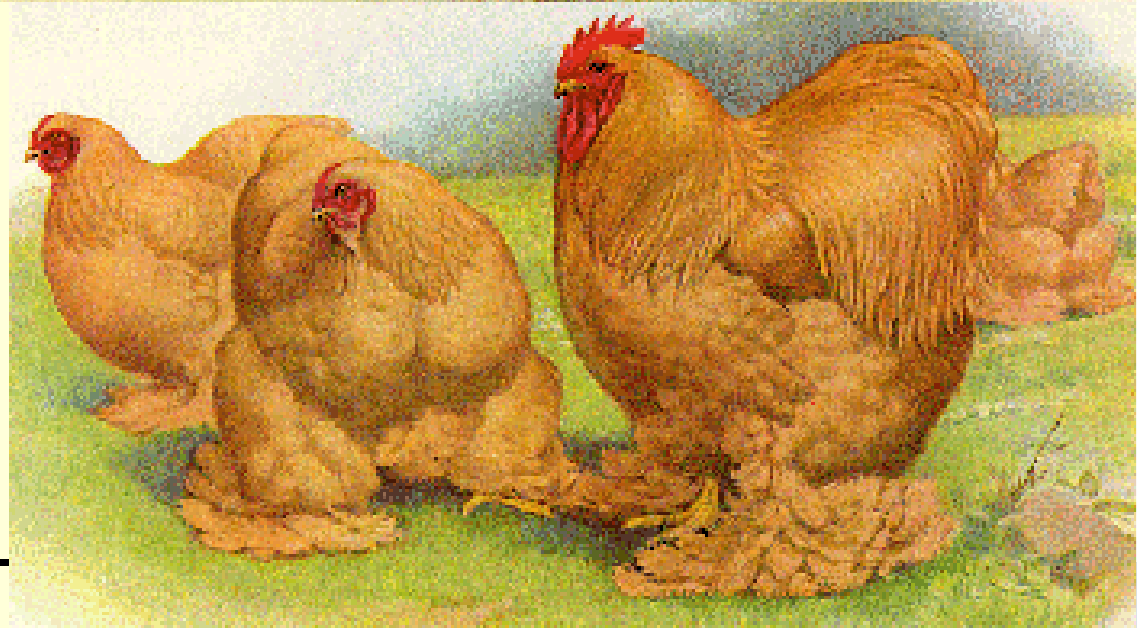


Cochin

Dark

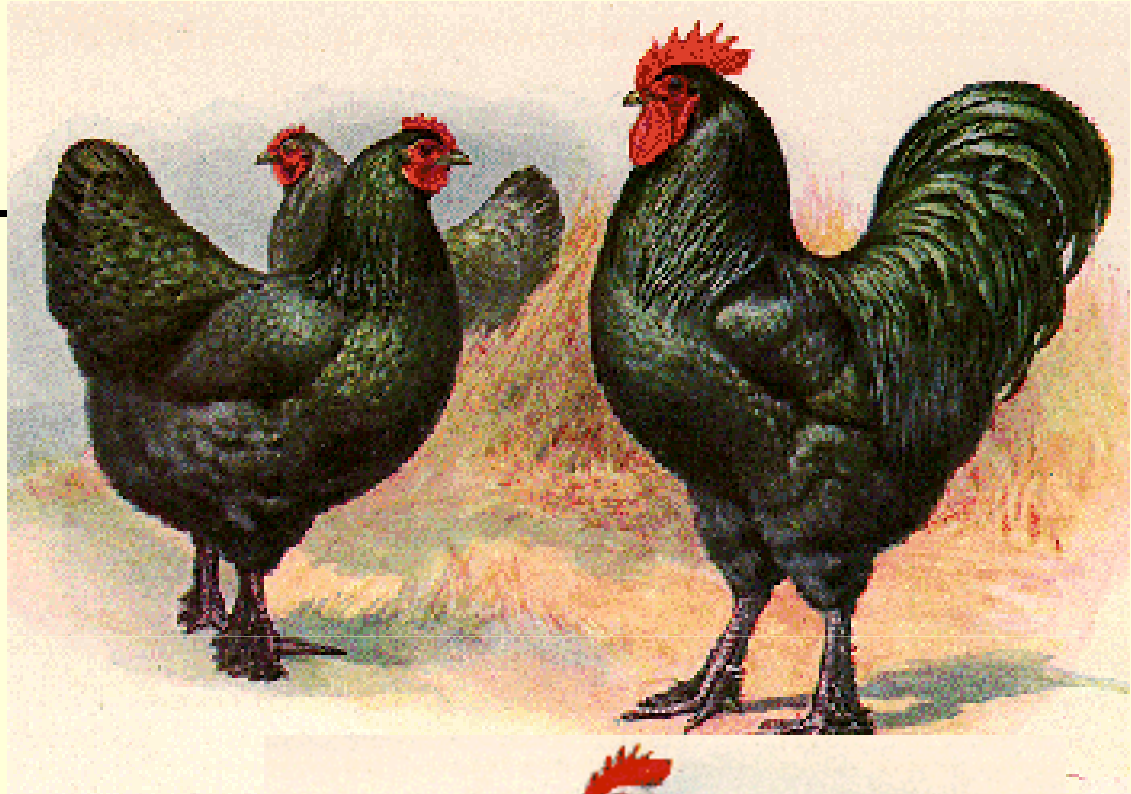


Buff

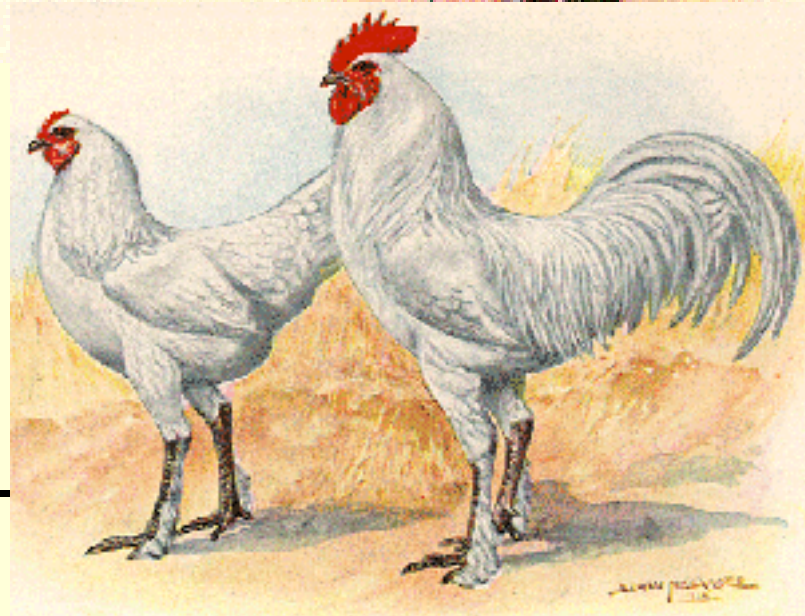




Black Lungsham



White Lungsham





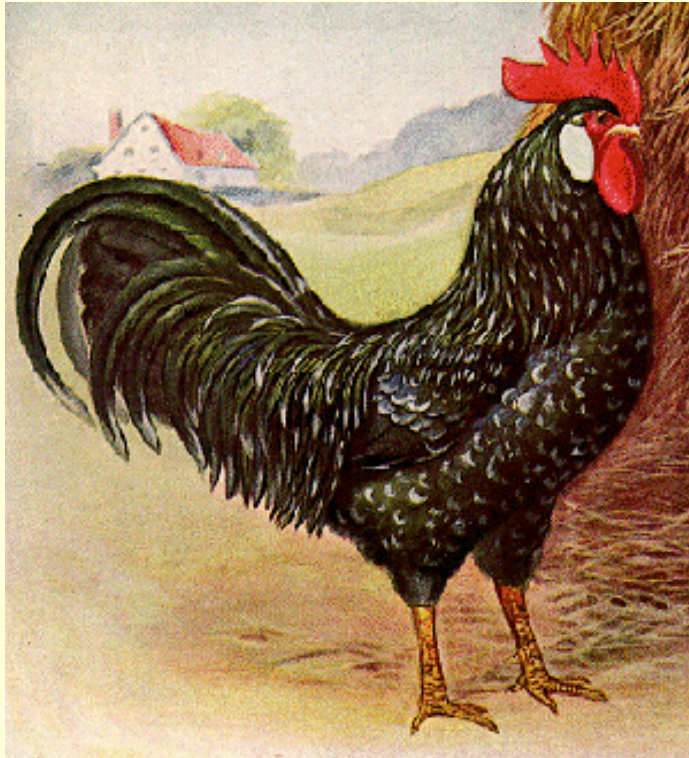
Mediterranean family

Characterization:

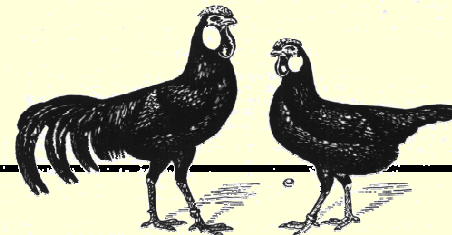
1. Light weight (male 2.5 Kg female 2.0 Kg)
2. High metabolic rate
3. Early maturation
4. High reproduction
5. Cock fight
6. Nervousness



Anaconda – originally from Italy black with white dots, yellow skin

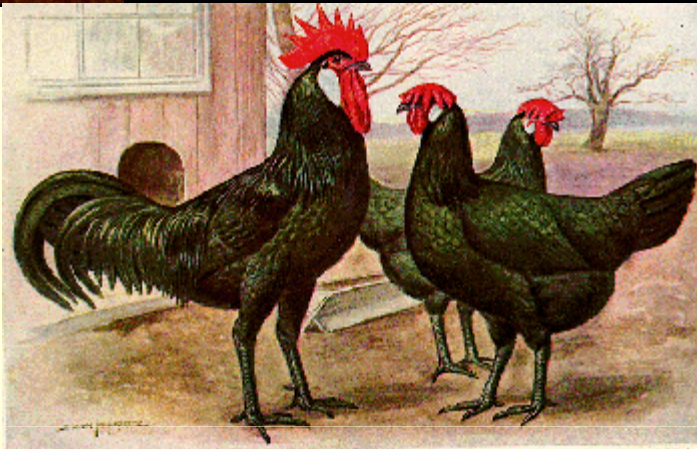


Single comb A., Rose comb A.

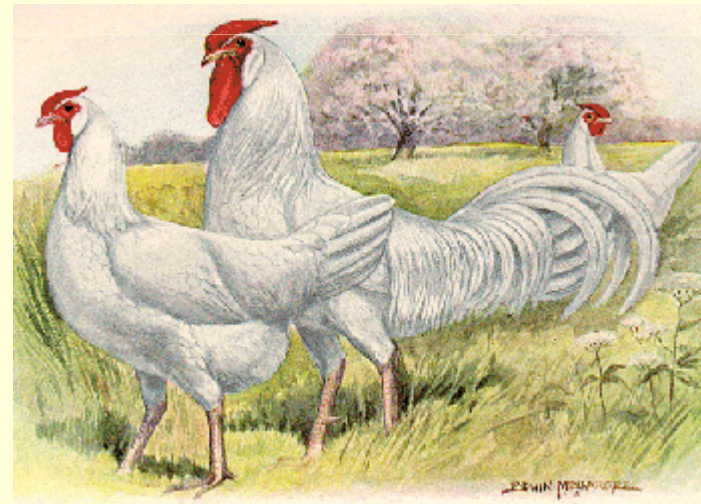




Minorca: originally from Spain. Tall with white skin.



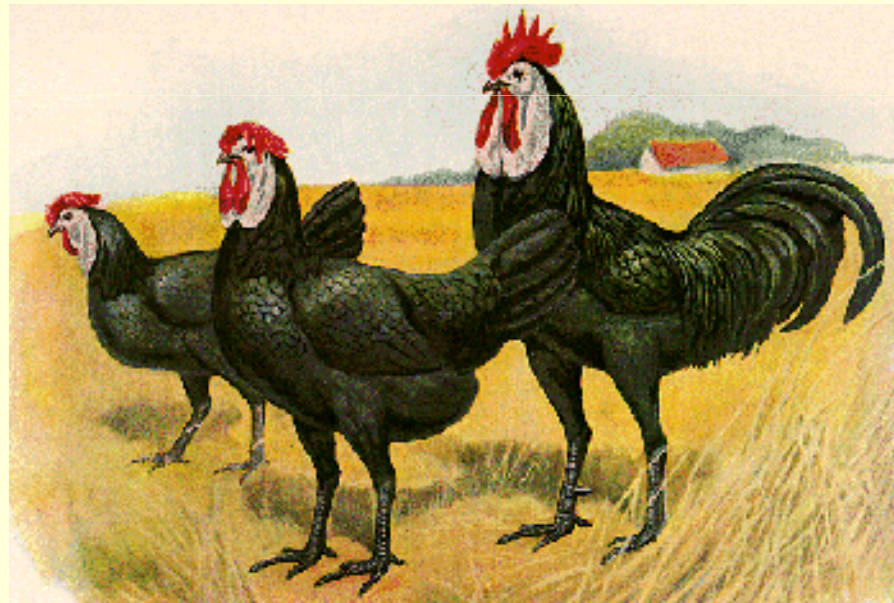
Single, Rose Black Minorca
Single, Rose White Minorca
Single, Rose Buff Minorca





White face black Spanish:

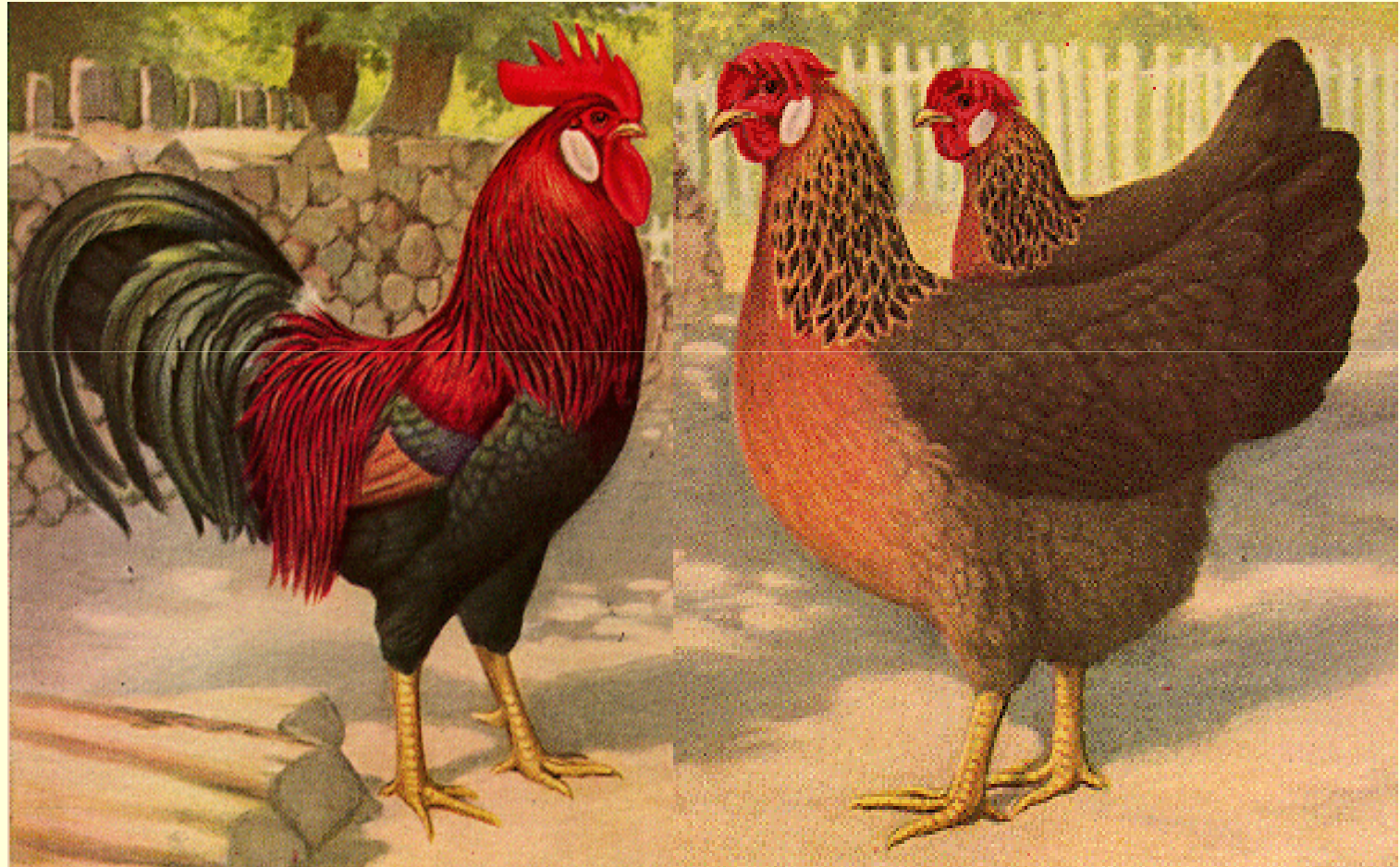
black shank, beak, white face single comb





Leghorn: High productivity (egg production) nervousness,
many colors

Brown

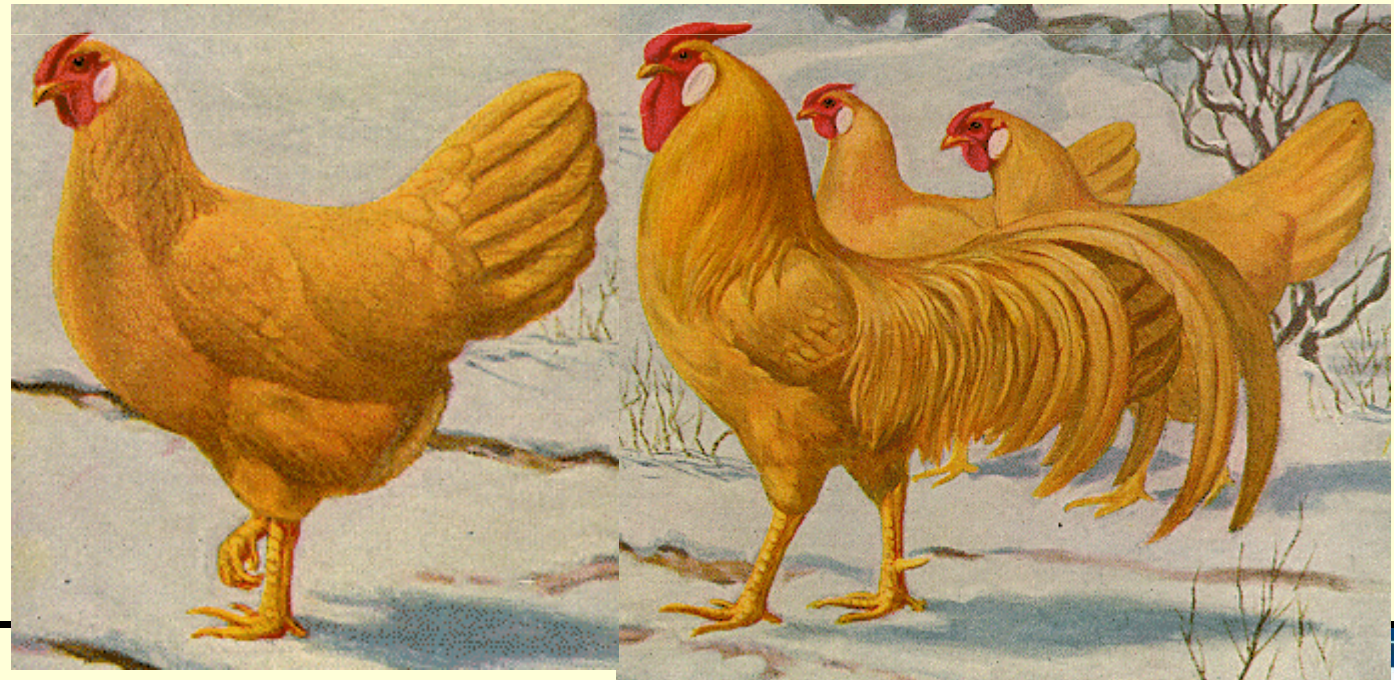




White



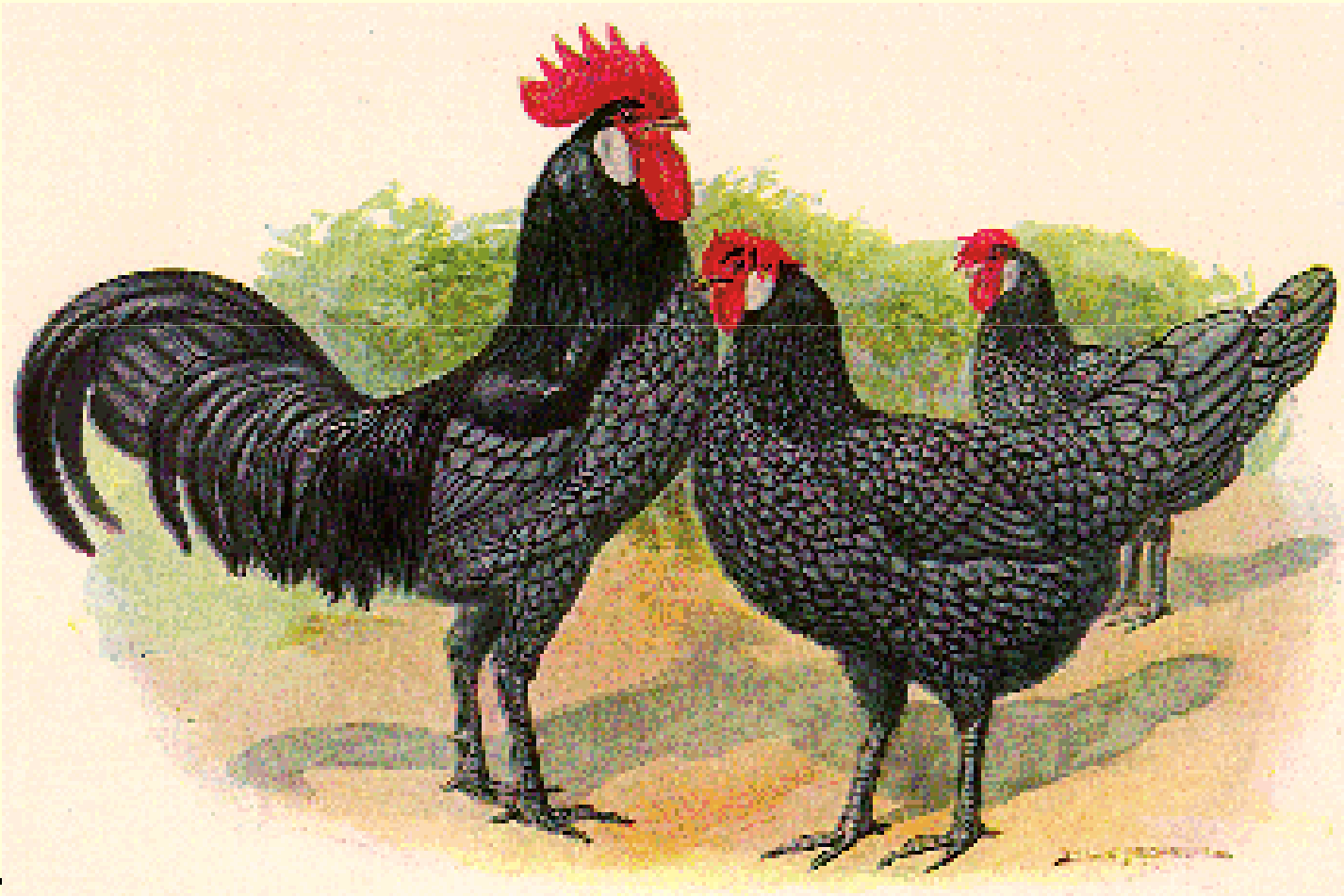
Buff





Blue Andalusian:

bluish color white skin single comb





English family:

Dual purpose breeds brown eggs white skin moderate body weight and egg production

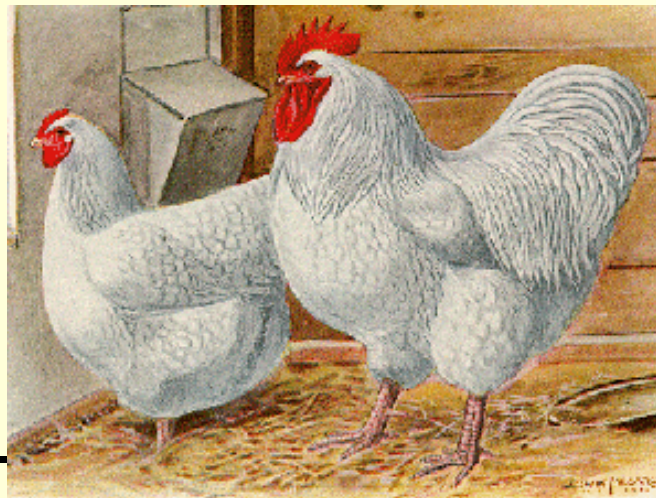
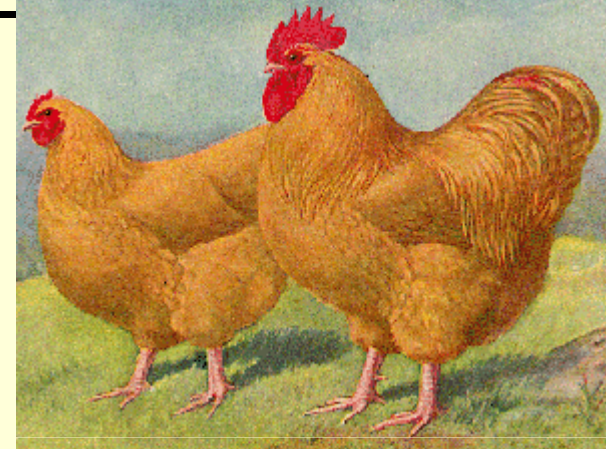
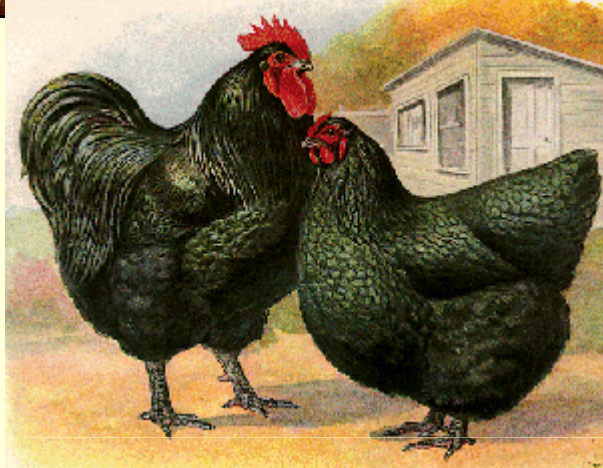


Sussex: large breast, male 4 Kg, female 3 Kg 240 eggs/year





Orpington





Oustralop: Australian development from the Orpington as an egg type bird. High productivity, excellent egg shell quality

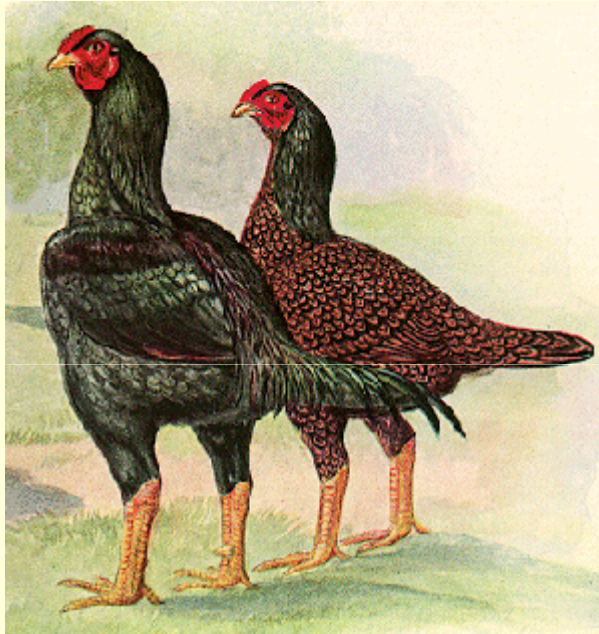




Cornish – Indian game bird



Developed for hunting, low reproduction, high breast muscle yield, being used as the male in broiler breeder.





The Cornish breed originates from Cornwall, England, and also is known as Indian Game. This breed is valued for its meat; a Cornish hen can reach 8 lbs. and roosters can reach 10 lbs. Their egg yield is low, only laying 80 to 100 eggs per year.

Cornish Cross

Cornish Cross, or Cornish X, chickens are the standard broiler meat in the American market. It is a hybrid of breed lines kept secret by the producing companies and gains weight rapidly. A Cornish Cross chicken has very little feathering when it reaches slaughtering age and is fed on a ration of high protein feed. Hybrid meat birds were first introduced in 1930 and dominated the market by 1960. The genetics of each developer's strain is protected by intricate breeding selection. Four chickens are chosen from four different strains, two of which provide the female parent line and two of which provide the male parent line. These two offspring are subsequently mated to produce the broiler.



Droking: 5 fingers

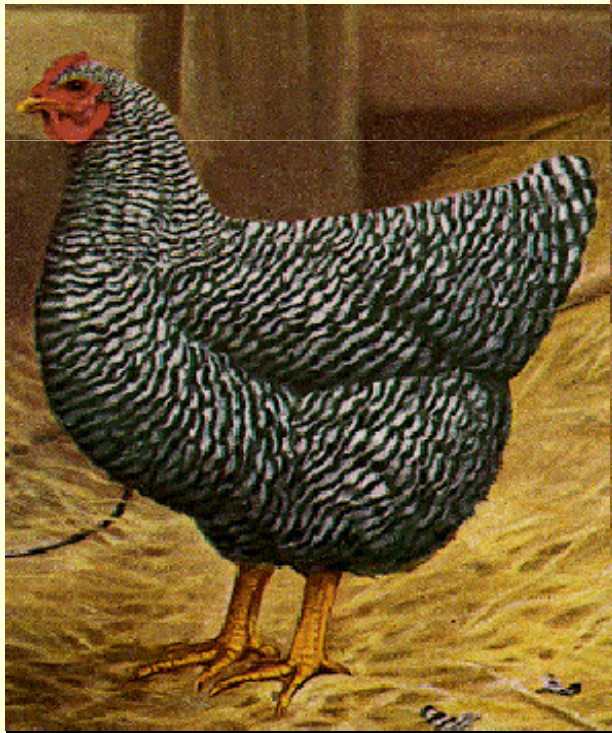




American family: Modern, developed for meat and egg production



Plymouth Rock: Heavy, 150-180 egg/year – female in broiler breeder flocks



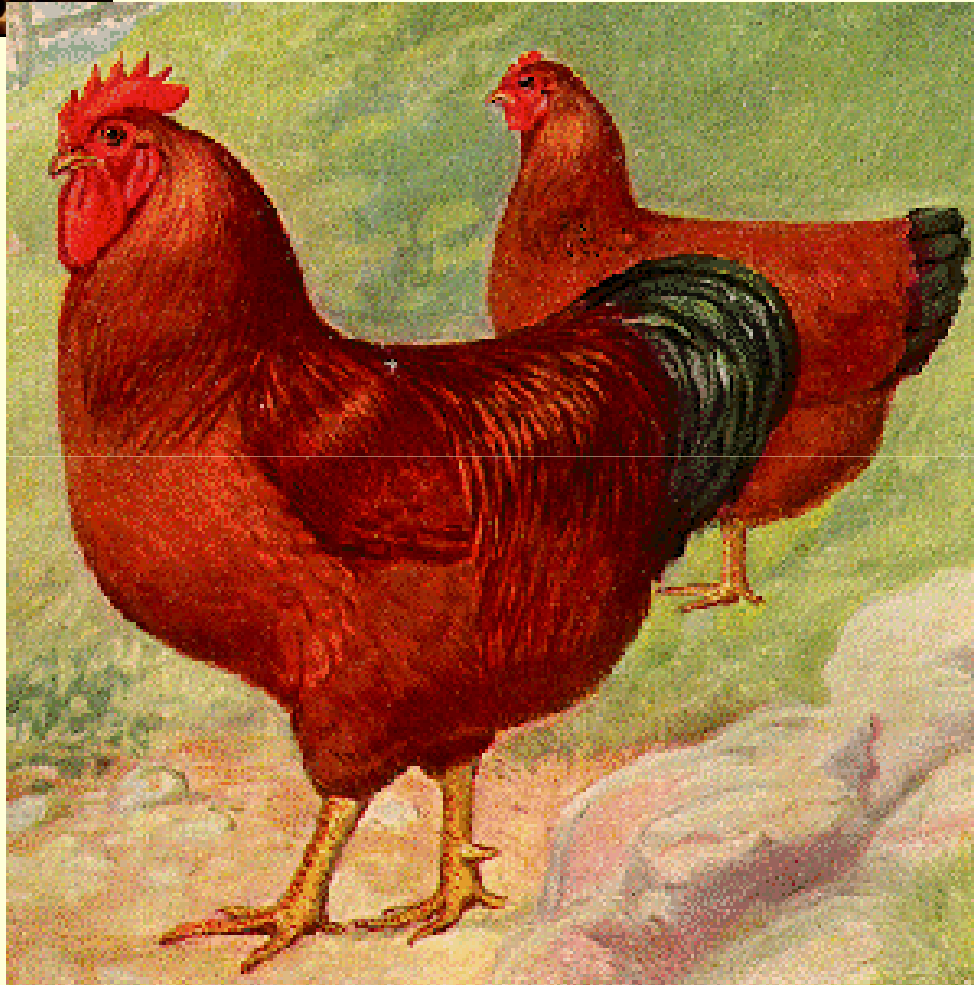


Rhode Island Red: developed as a dual purpose bird, brown shell egg used as genetic source for brown shell egg layers.



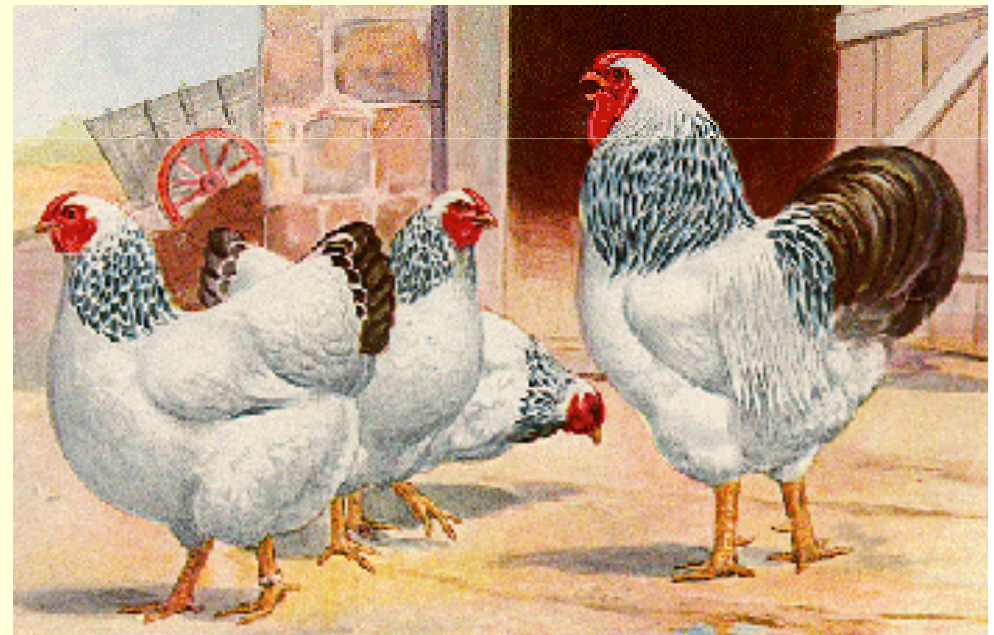
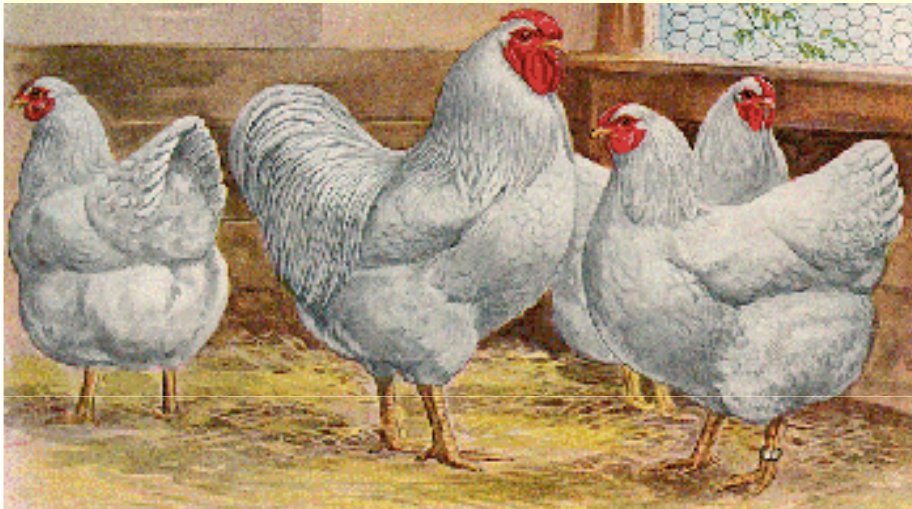


New Hampshire





Wyandotte





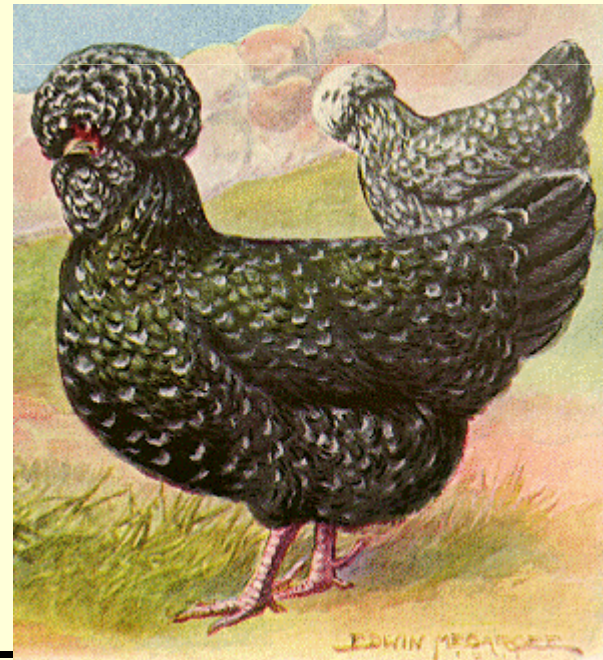
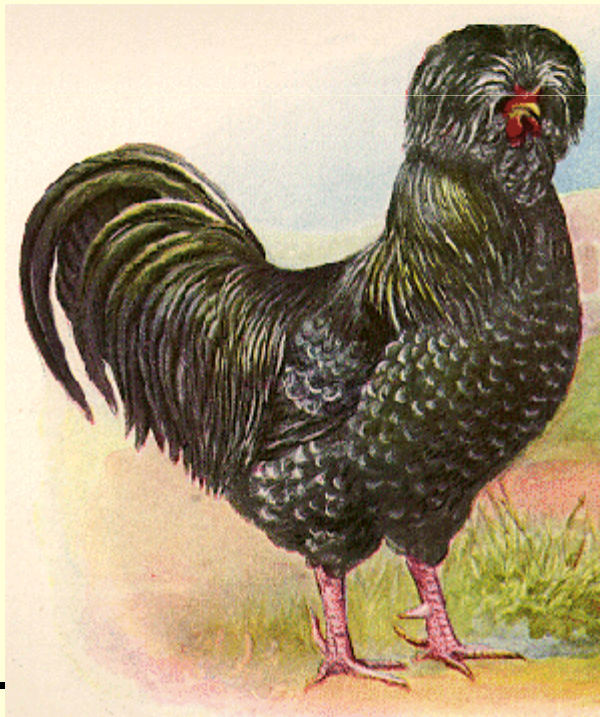
Jersey Black Giant





European family: local European birds, used traditionally in Europe because of meat quality and taste

Houdan: from France



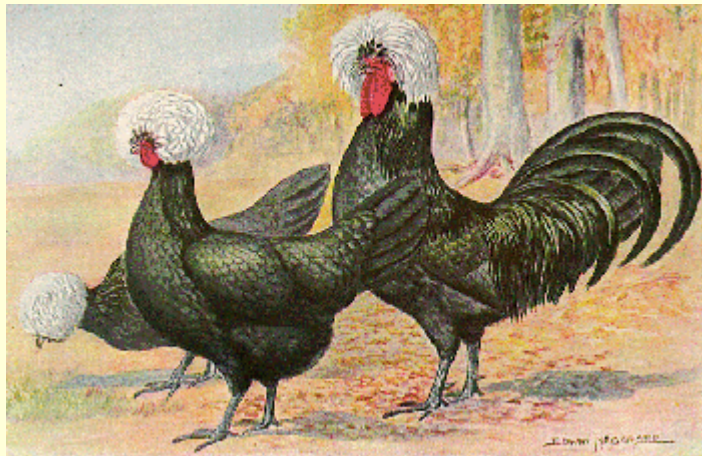


Faverolles





Polish



Matsu, a bbRed proto-Onagadori



Show birds

Phoenix

Chabo



And more and more and more.....



General Definitions

A number of terms are important in the poultry industry. Some of these are:



Hen – Adult female bird.

Rooster – Adult male chicken.

Chick – Newly hatched or very young bird.

Tom – Male turkey.

Poult – Adolescent turkey.

Pullet – Female bird under 1 year old, usually up to 7 months, that has not yet begun to lay eggs.

RTC – “**Ready to cook**” – a bird that has been processed and is ready to be prepared for consumption

Classes of meat-type chickens

A number of different terms are used to the chickens produced by the broiler industry These include:

Broiler – A young chicken, either male or female, grown for its tender meat.

Poussin – A chicken less than 24 days of age and weighing 1 lb or less.



Cornish Game Hen – Approximately 2 lbs ready-to-cook (RTC), less than 30 days of age.



Fast-food Size Broiler – 2 lb 4 oz. – 3 lb 2 oz. (RTC), less than 42 days of age, usually cut-up, without necks and giblets, may have tail and fat removed.

Heavy Young Broiler Roaster – 6 – 8 lb (RTC), less than 10 weeks of age, sold fresh or frozen through retail grocery, both whole and parts. Typical “roaster.”

Broilers for De-Boning – 5 – 9 lb, usually 47 – 60 days of age. Deboned for nuggets, patties, strips, and similar boneless products; most often sold without neck and giblets.

Capon -- Surgically de-sexed male broiler weighing 7 – 9 lb, about 14 to 15 weeks of age. Once common, capons are now seen only as a specialty item.

Heavy Hens – Usually 5 – 5½ lb, about 15 months of age, spent breeder hens that are no longer commercially productive for laying hatching eggs. The meat is flavored but chewy and is used for cooked, diced, or pulled meat.

Stewing Hens – Broiler breeder hens that are now longer needed to produce eggs. The meat is flavored but not as tender as young birds and is used in soup or stew.



Products of the industry

The industry produces a vast range of products. Several product areas stand out:

Fresh retail: Fresh (uncooked) chicken for people to take home and cook. Think of all those chicken parts in foam trays with plastic wrapping.

Convenience: Not much time to cook? No problem! Industry offers all kinds of products that save time in food preparation. Nuggets, patties, boneless strips, and many other “further processed” and “value added” products save time for consumers.

Quick service and casual dining: Fried chicken, chicken fingers, chicken strips, chicken sandwiches, Buffalo wings -- chicken has a huge role in the menus at fast-food and casual dining restaurants and has a growing presence in fine dining. The single most popular chicken item in foodservice? Caesar salad with chicken.



BROILERS MANAGEMENT

By
**Dr. O.M.
Sogunle**

Main Objective:

Increased protein intake.





Resistance

- 1. High Body Weight.**
- 2. Low feed intake.**
- 3. Short rearing period.**

Meat quality

Reproduction

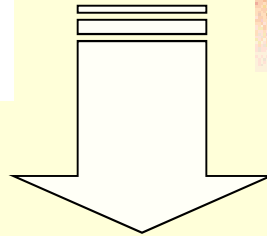
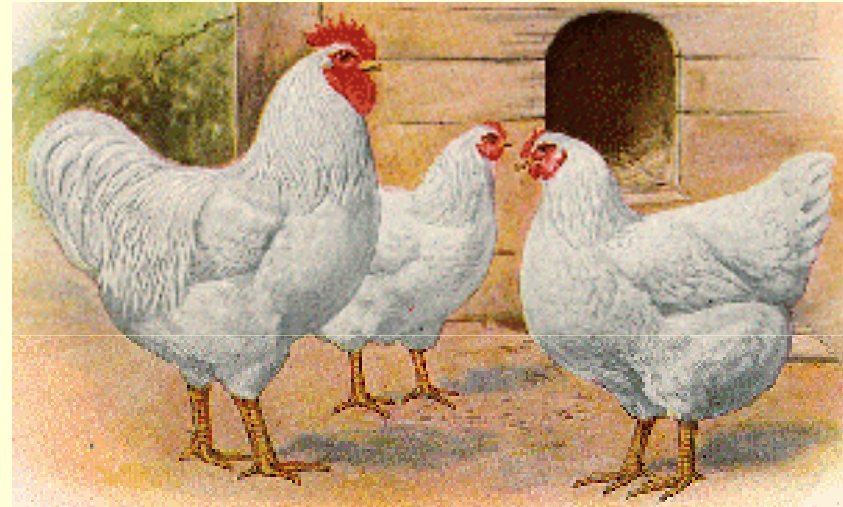




White Cornish - Male line
Plymouth Rock – Female line



X

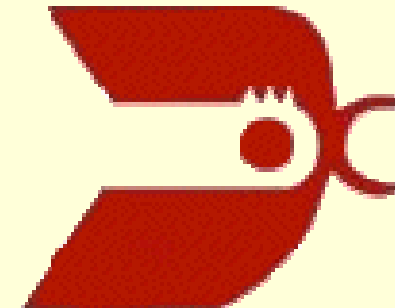




ARBOR  ACRES



AVIAN  FARMS



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Customer preferences:

Skin Color white, yellow.

Feather Color (white, colored).

Body size (small, medium, large).

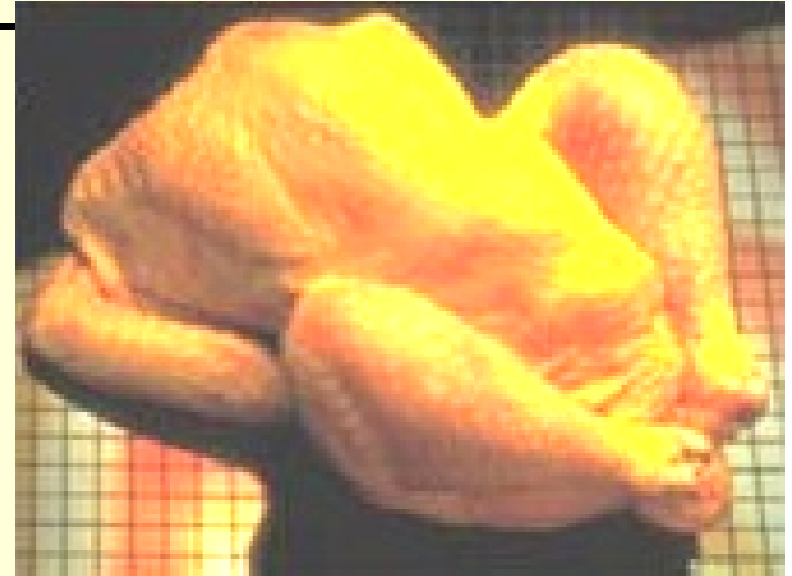
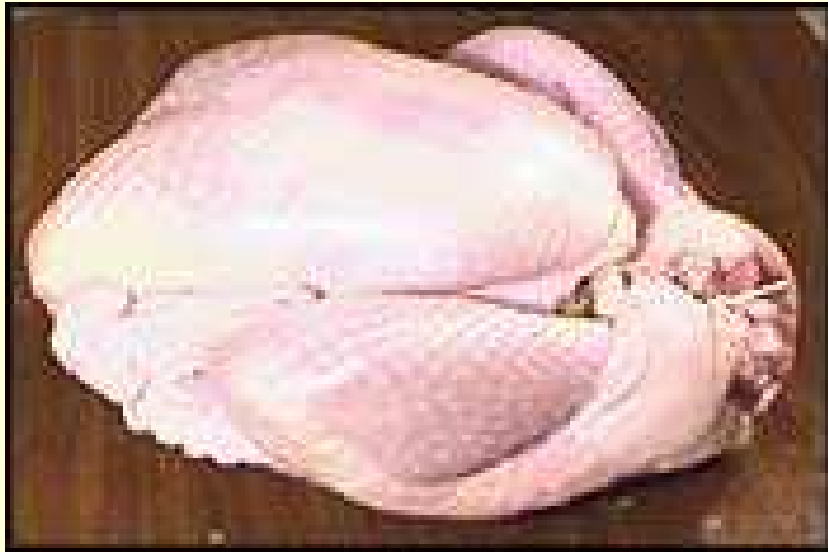
Roasters – above 3.5 kg.

Squab Broilers – up to 1.0 kg.





Skin color: consumer demand – white, yellow, black.
England Europe White



Genetics, nutrition





Roasters

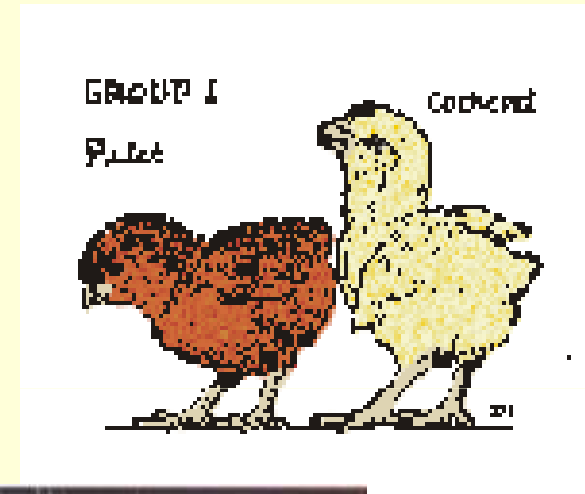


Squab Broilers





Special broiler lines:
Sex linked characteristics: feather color
early feather





Rearing Broilers is a problematic process:

1. Low profit, on many objects.
2. Fast shifting from profit to loss.
3. Many factors affecting product price.
4. Combination of all of the above factors.





Rearing Programs

1. All in All Out

2. Multiple Brooding



Biosecurity!!!!!!!!!!!!

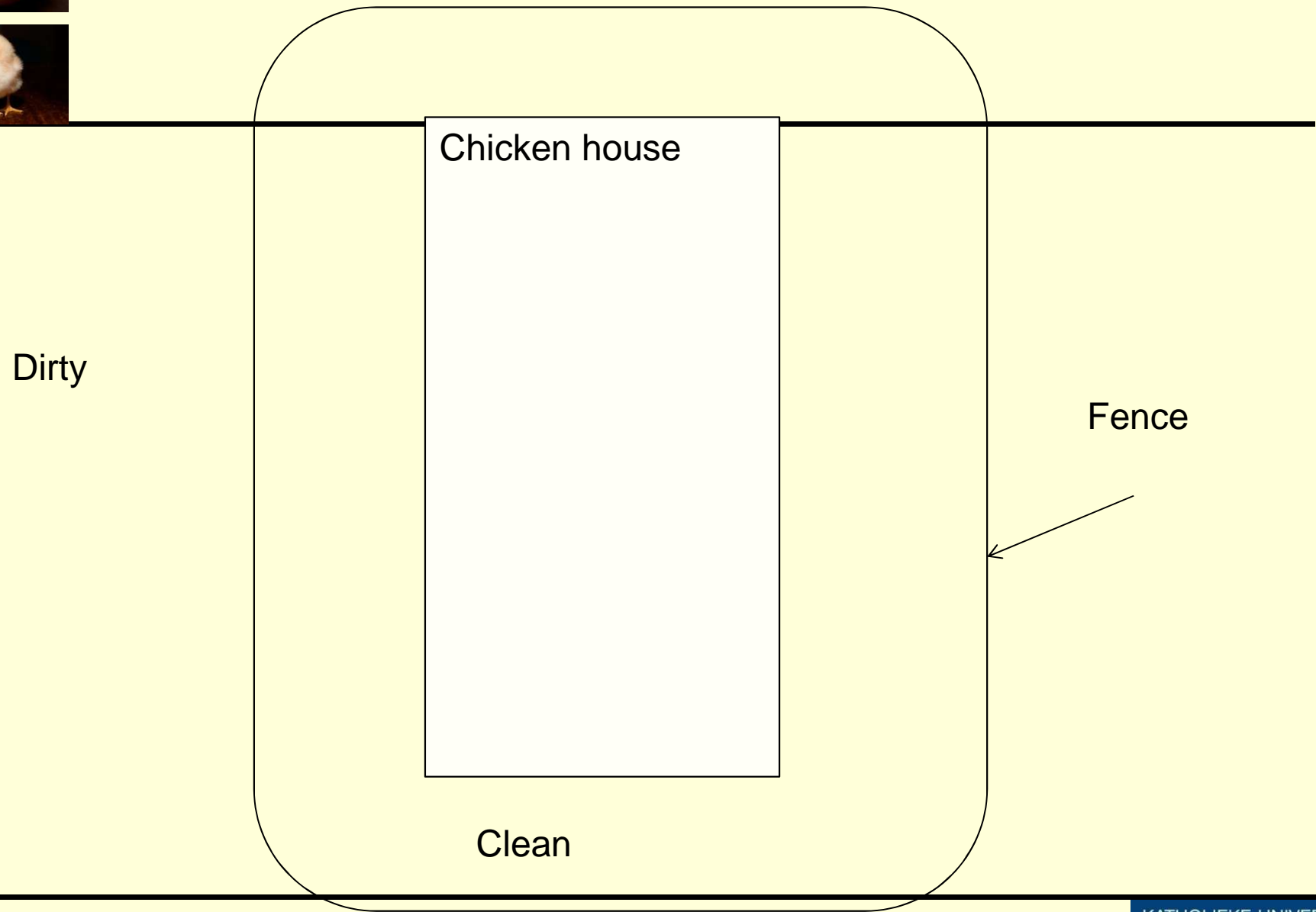
The definition of clean and dirty areas.

Manpower: One person/100K birds.

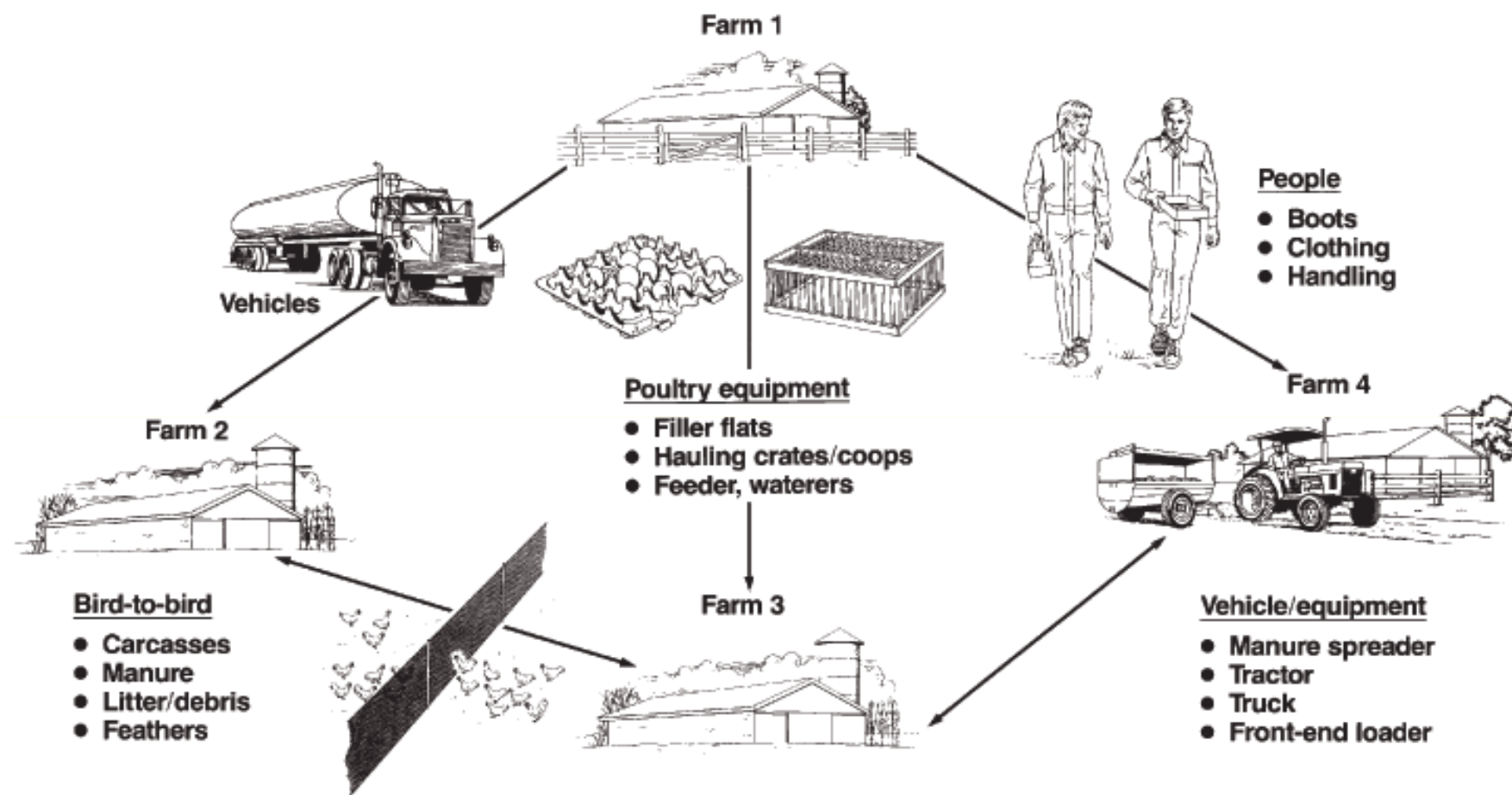


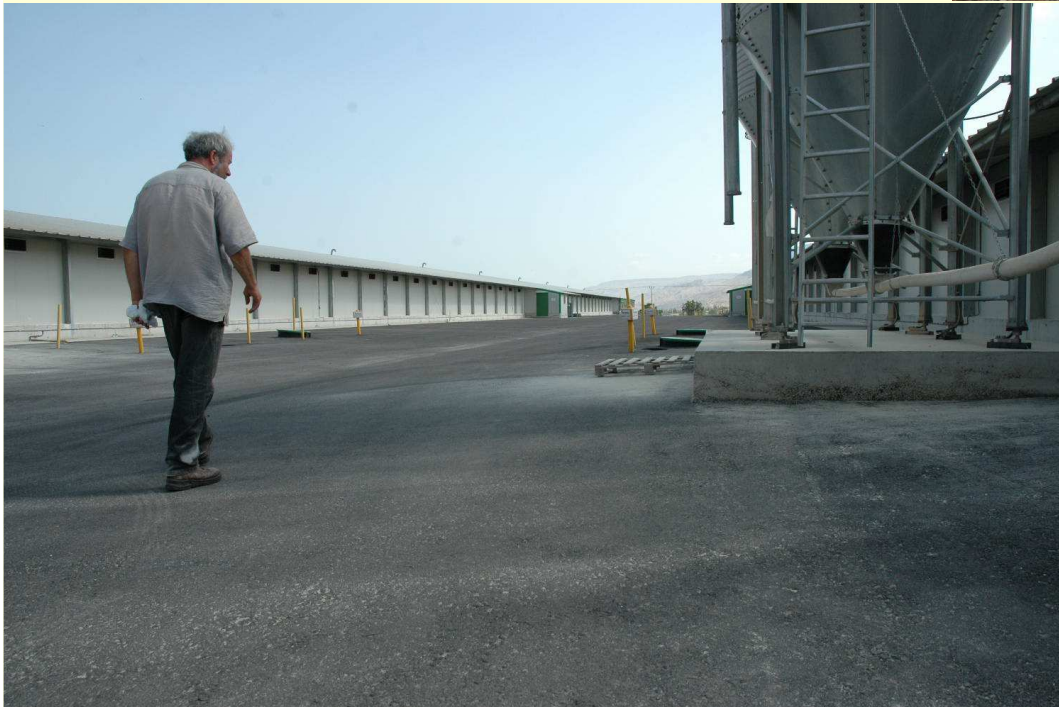
The definition of clean and dirty areas





How Poultry Disease Spreads











Biosecurity guidelines:

Maintain lockable gates or barriers and post "**Restricted Entry**," "Authorized Personnel Only," or "**Do Not Enter- Biosecurity in Effect**" signs at driveway entrances.

Keep poultry houses locked; fasten from inside while inside.

Resident flock manager should have clothing (including shoes, boots, hat, and gloves) when caring for flocks separate from clothing worn off the farm.

Flock manager and other caretakers should not visit any other poultry flocks.

Do not allow visitors in or near the poultry houses.



Essential visitors such as poultry catchers, repairmen, and service personnel must put on protective outer clothing, including boots and headgear, prior to being allowed near the flocks. (showers and cloth changing).

Tools and equipment carried into the poultry houses should be cleaned and disinfected before they enter and upon leaving.

Keep a record (log) of visitors indicating their names, company or affiliation, address, telephone, and place last visited.



After caring for the flock, change clothes completely and wash hands and arms before leaving premises.

Monitor vehicles entering premises for poultry pickup or delivery, feed delivery, fuel delivery, etc., to determine if they have been scrubbed down and the undercarriage and tires spray-disinfected prior to entering. If vehicle does not appear to be properly sanitized, do not admit the vehicle to the property.

Do not go to auctions or sales where chickens and other poultry species are being displayed or sold. These birds could carry AI, LT and other infectious and economically devastating diseases.



Avoid contact with wild water-fowl and backyard chicken flocks.

All coops, crates, and other poultry containers or equipment must be cleaned and disinfected prior to use and following use.

Sick or dying birds should be submitted to a state/university laboratory for diagnosis. Contact your flock supervisor.

Dead birds must be properly disposed of by composting or incineration.



When attending essential grower meetings or seminars:
After your last poultry house visit, shower and change your clothing and footwear before attending meeting.

Travel to the seminar in a vehicle that is not used on your farm.

After returning from the meeting, disinfect footwear and vehicle floor mats and change your clothing. Use different clothing, footwear, and vehicle to re-enter your poultry operation.



Buildings

1. Conventional Houses.
2. Environmentally Controlled Houses.









Conventional house



Side curtains





Conventional house

Ceiling

Mash Walls

Fans

Feeders

Waterer





Environmentally controlled house

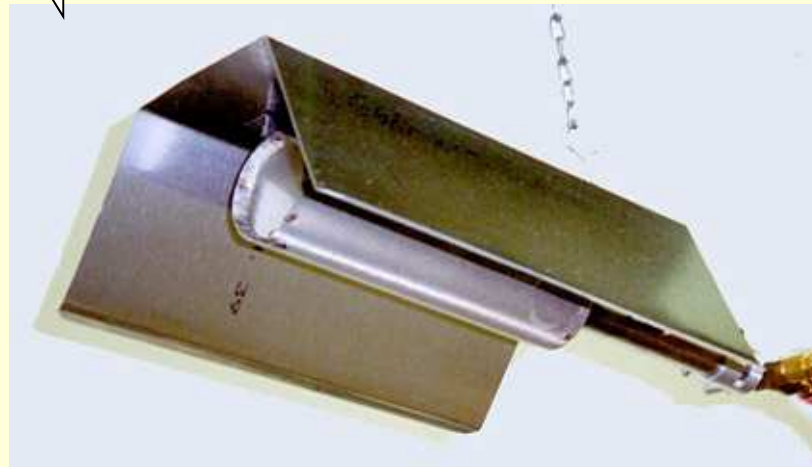
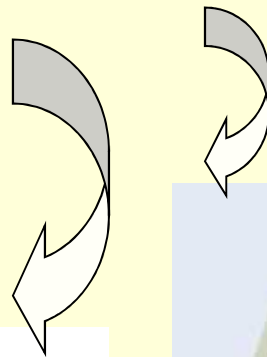
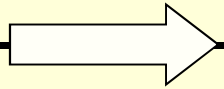




Heating Equipment:

1. Local heating.

2. Space heating.







Space heaters





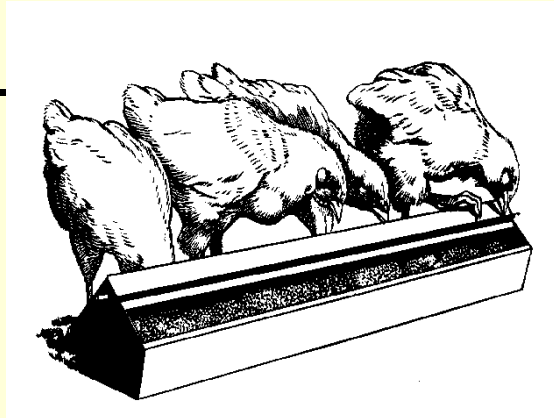
Space heaters





Equipment: (cont')

Manual feeder tunnel

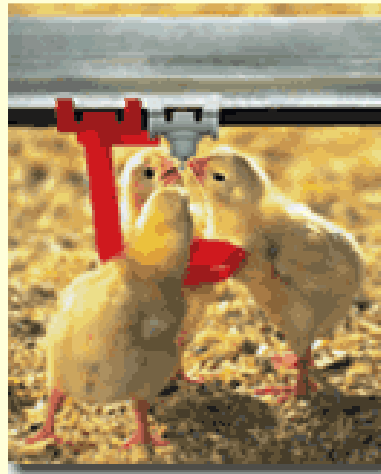
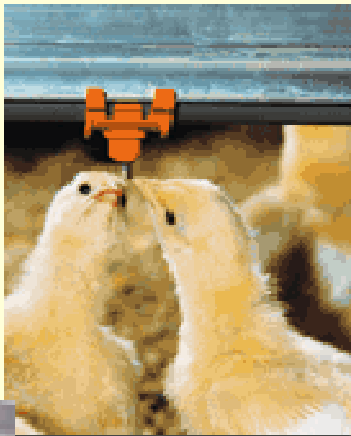


Manual feeder (bell)



Waterers: 2 cm/bird

Nipple



Bell















Crowding

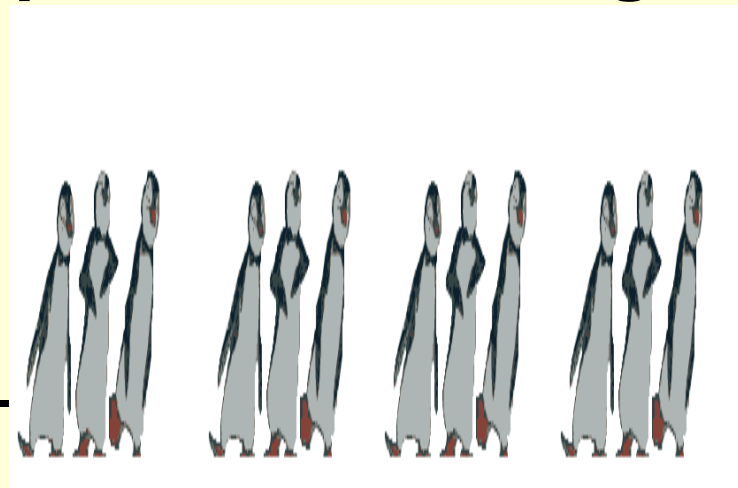




The more you crowd broilers, the poorer the results.

However,

As floor space is reduced per bird, the weight of broilers produced in the





Equilibrium point!!!

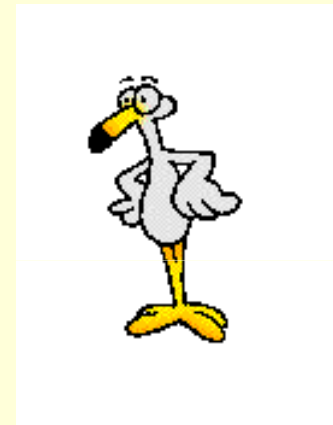
Increased number of birds will reduce performance of the individual bird, but will elevate building output.



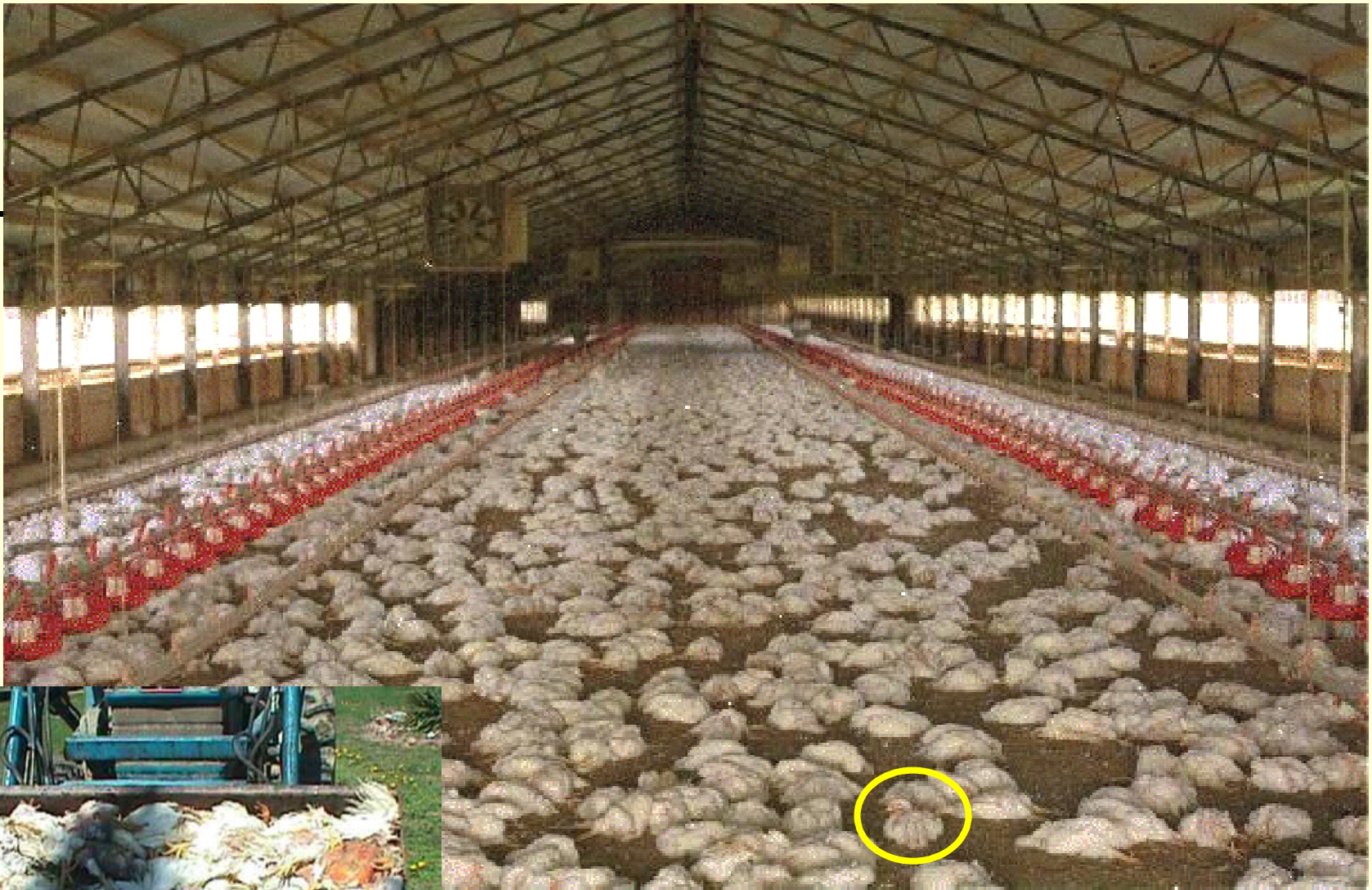


Reducing the floor space will:

1. Decrease feed consumption.
2. Decrease the growth rate.
3. Decrease feed efficiency.
4. Increase mortality.
5. Increase cannibalism.
6. Increase the incidence of breast blisters.
7. Increase the % of birds with poor feathering.
8. Increase the condemnation at the processing plant.
9. Increase the house ventilation requirement.
10. Increase the KG of broilers raised in a given house during one year.









Brooding using Brooder guard

We don't use it anymore.

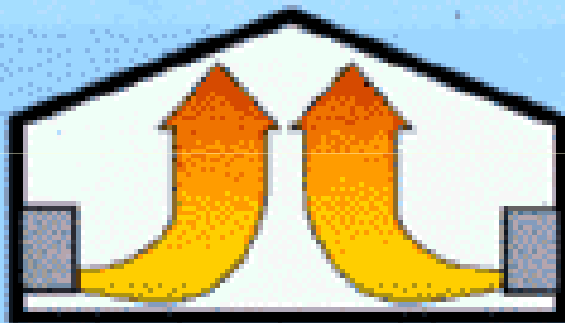
- ◆ It might be too hot for the chicks





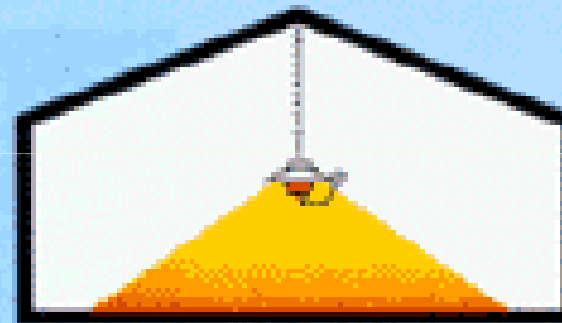
Heating principal

Space heaters



Warms room

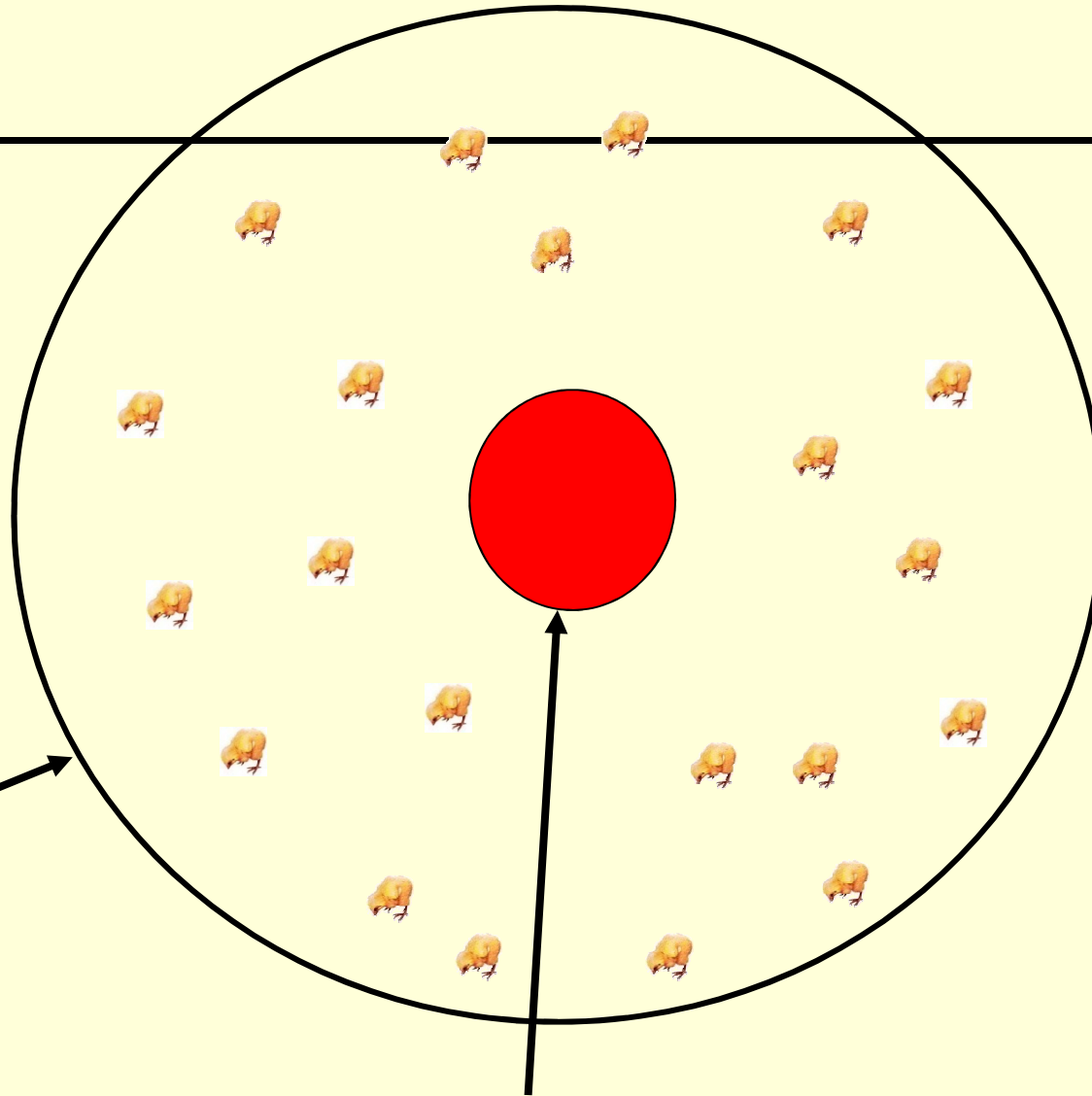
Shen-Glow heaters



Warms floor



Cold

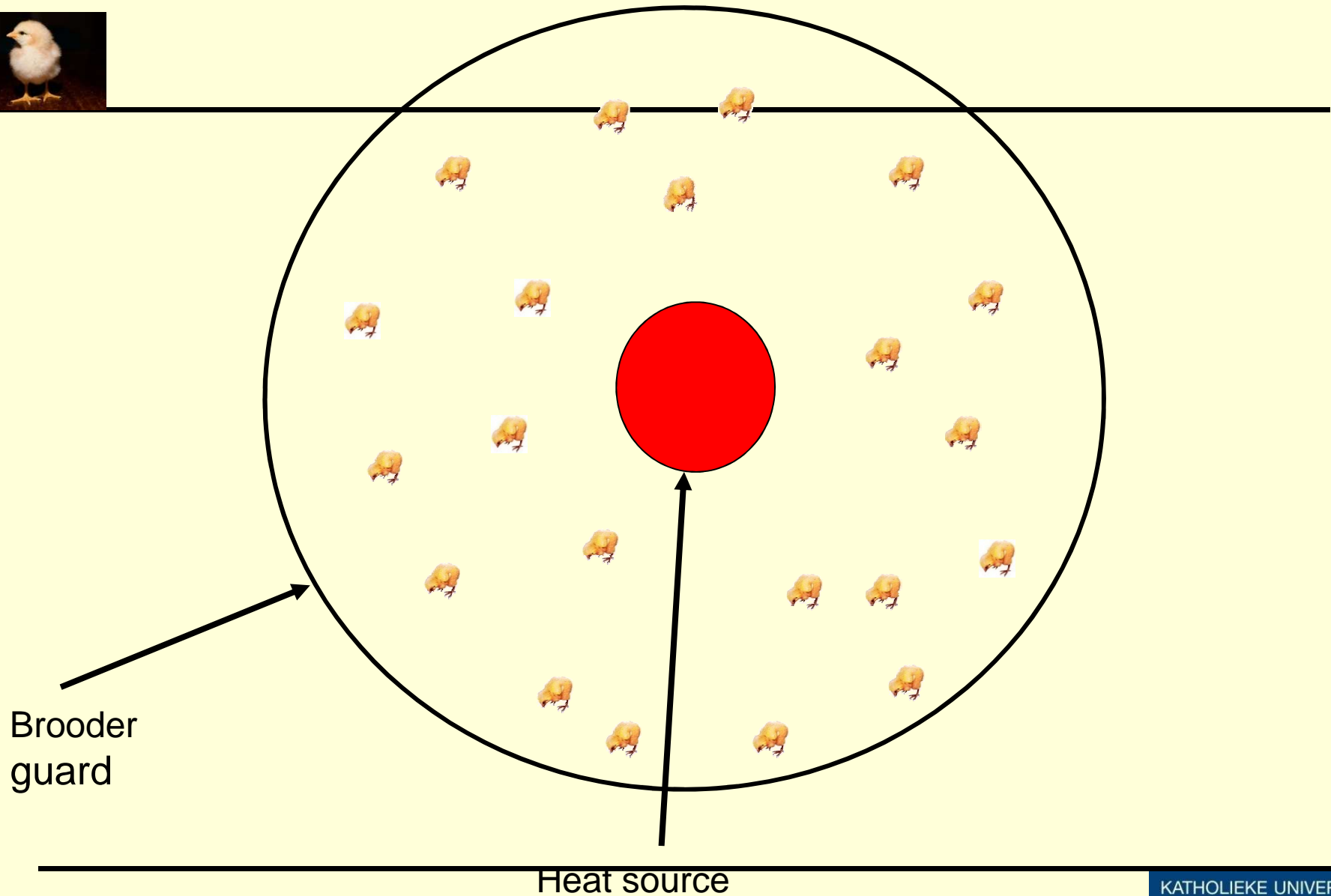


Brooder
guard

Heat source



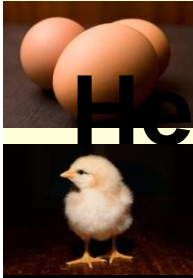
hot





The first 10 days are the most critical days in the life of a broiler





Heating young birds is a critical issue

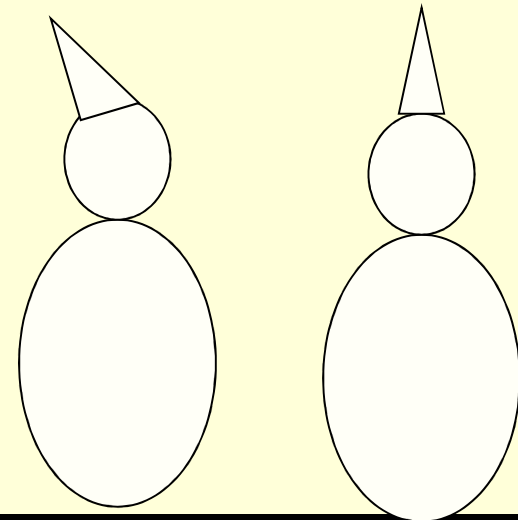


Cold behavior

Stop development

Morbidity

Mortality





Buying broiler chicks – questions to be asked

1. Which strain of broilers will be most profitable?
2. What vaccination program have the breeders undergone?
3. What is the breeder or hatchery disease-control program?
4. What quality of chicks will be delivered?
5. What is the chick size?
6. Is there need for vaccinating at the hatchery?
7. Are the chicks to be sexed?
8. Will the chicks need to have their beaks trimmed?





How to get a bigger broiler





1. Larger Hatching Eggs Produce Larger Broilers.

Every elevation of one gram in egg weight, will result an increase of 7.5 grams in broiler's body weight.

2. Early feeding.

3. Light management.

4. In ovo manipulation.



4. Chicks should arrive early in the day.

Why?





When the chicks arrive...



Early care is essential

*There is nothing like
a good start*





WEEK OF LIFE



KATHOLIEKE UNIVERSITEIT
LEUVEN





When the chicks arrive...



- ◆ Dumping the chicks near the brooder heaters and the waterers





How to dump the baby birds?

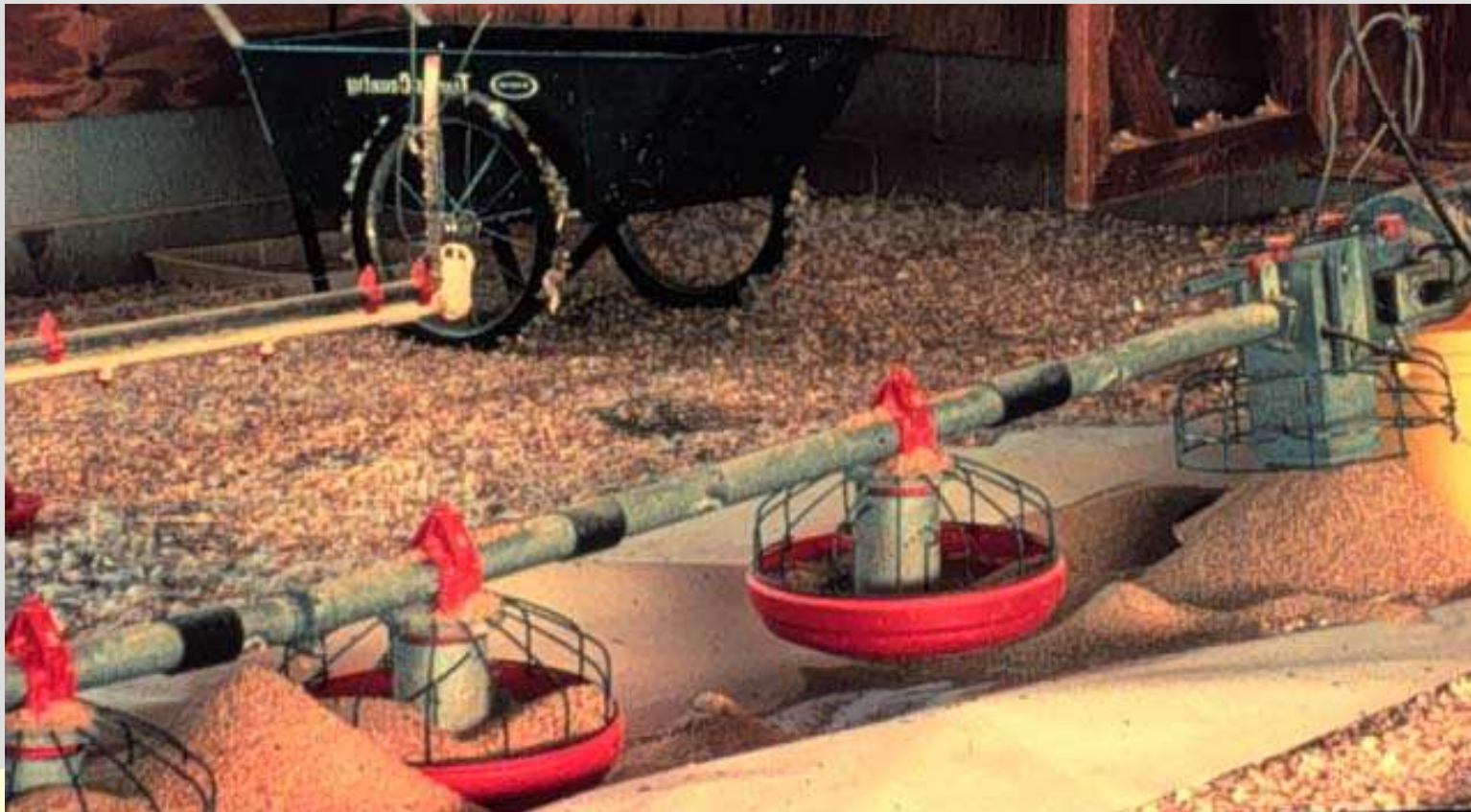
1. Start from the back of the house.
2. Use a barricade to disable chicks to follow workers
3. Do it as fast as you can
4. Get out of the house



When the chicks arrive...



- ◆ Place the first feed 3 hours before the arrival of the chicks. Put access of feed over the entire area of the feeder lid or container and the





Don't be "cheap", put a fair amount of feed to the chicks







Growth and feed efficiency

1. Live body weight
2. Weekly increase in body weight
3. Weekly feed consumption
4. Cumulative feed consumption
5. Weekly feed conversion
6. Cumulative feed conversion







Growing facts

- 1. Chickens do not grow at a uniform rate.**
 - 2. Males grow faster than females.**
 - 3. Weekly increase in weight is not uniform.**
 - 4. Weekly feed consumption increases as weight increases.**
 - 5. First gains require less feed.**
 - 6. Males convert feed to meat more efficiently than females.**
 - 7. The heavier the weight of the straight-run flock, the greater the difference in weight between the sexes.**
-



Poor Product Uniformity

Leads to problems filling the customer weight range requirements, especially in today's competitive broiler market





LACK OF UNIFORMITY: TEN FACTORS

- Male and female differences.
- Uniformity of chick weight on arriving.
- Early dehydration.
- Improper brooding temperatures.
- Lack of ventilation.
- Selective feeding.
- Overcrowding.
- Insufficient feeder and water space.
- Feed quality.
- Disease.



Smaller eggs from younger breeders hatch a few hours sooner than eggs from older breeders.

What does it mean?



Sexing Broilers

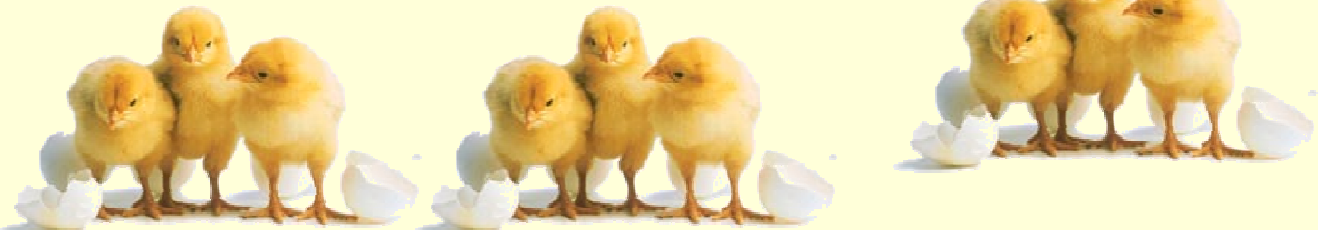
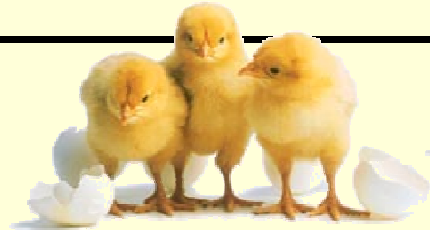
1. In ovo sexing

2. Post hatch sexing

Methods.

Effect on growth.

Nutritional changes.





Feather sexing

Male

Female

Plumage color



Slow/fast feathering

Male

Female



EKE UNIVERSITEIT

LEUVEN



♀



♂

© Picture: Johnny Sørensen Dorking klubben Denmark.



**Production
Index**

>

Good
performance



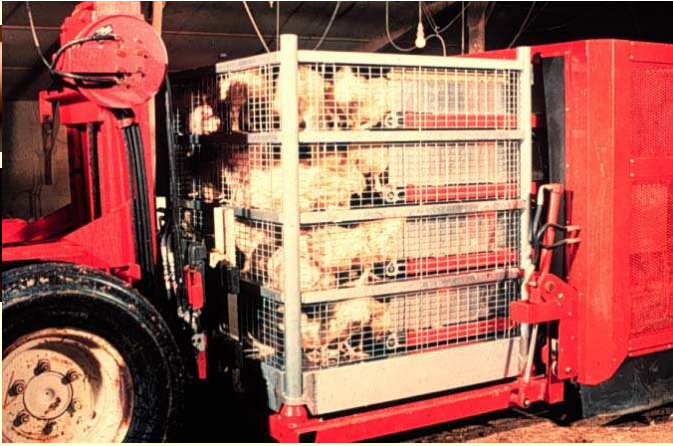
feed conversion

=

Feed consuming

Marketing weight

Marketing





Marketing

1. What kind of product do we want to sell?
2. What are the recommended treatments before marketing?
3. How much money are we going to lose during this process?
4. How many people should be involved in this process?
5. What will be our profit?





Increase profit at market stage by:

- 1. Remove feed 6hr before market.**
- 2. Dim light to minimum.**
- 3. Collect birds at night.**
- 4. Train collecting team.**
- 5. Remove all equipment before catching birds.**



Condemnation and downgrading

1.5-2% are condemned by veterinarians

2-3% are downgraded usually at extreme weather conditions.

Injuries due to poor marketing and process plant managing are the major cause for downgrading.

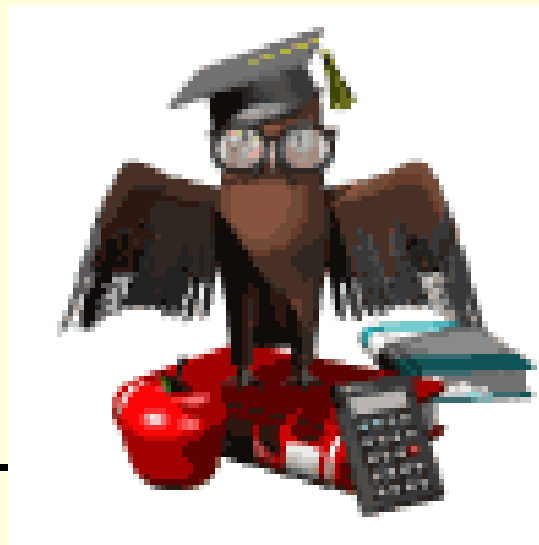
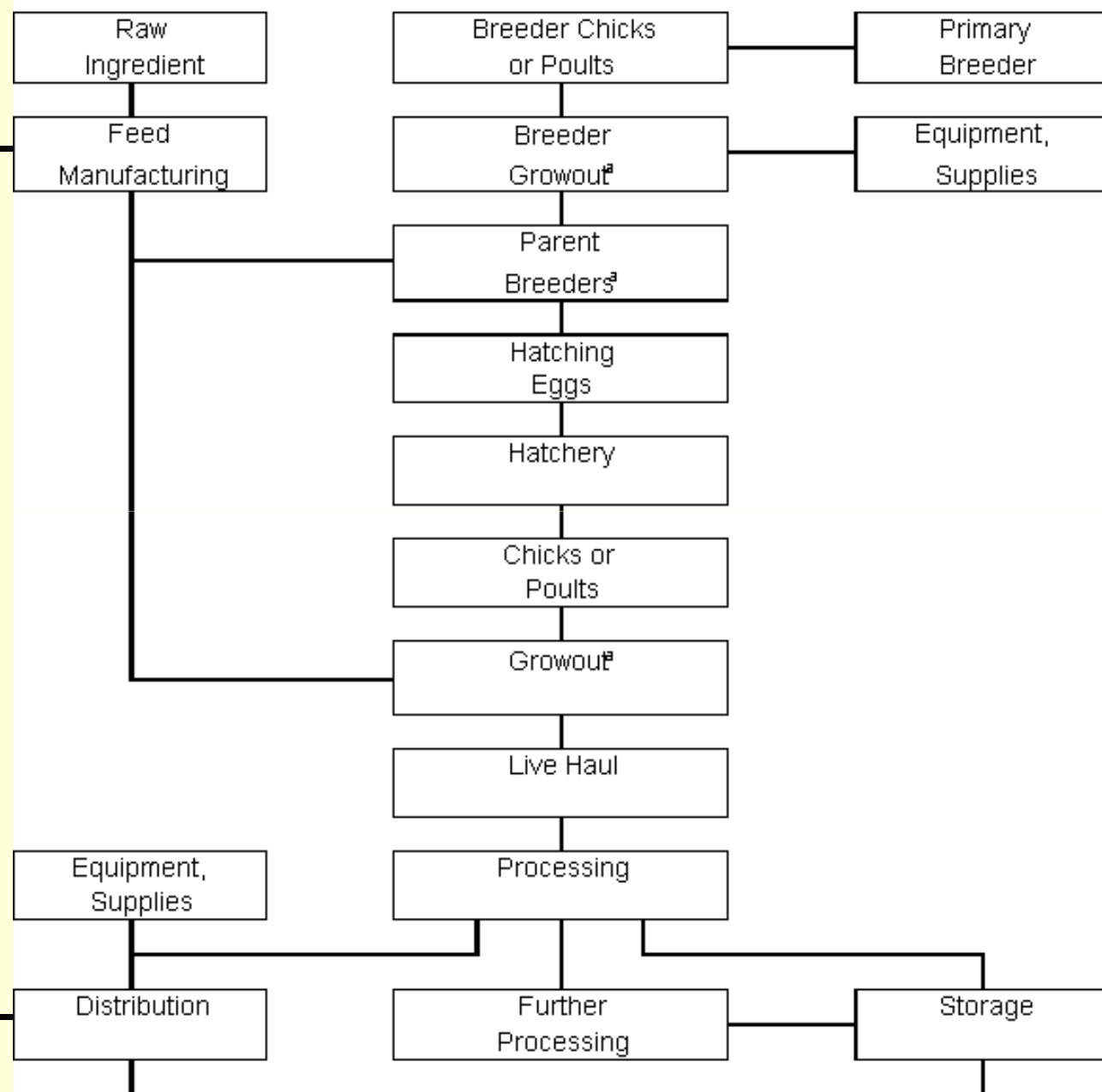




Figure 1.
Flow Chart of a Typical Integrated Broiler or Turkey Operation





Feed Production and Feeding

By

Jegede A. V. Ph.D, MNSAP, RAS

Monogastric Animal Nutritionist,

Federal University of Agriculture,

Abeokuta



Feed production and Feeding

- ◆ Feeding is one of the most important aspects of broiler's production
 - ◆ Feed account for about 60-70% of the total cost of broiler production.
 - ◆ Broilers eat to grow, maintain body processes and produce
 - If the farmer is to minimize cost and optimize gain in broiler production enterprise, feeding is the area to target
-





Feed production and Feeding

- Feedstuff / feed ingredients – These are substances which when ingested are capable of releasing nutrients that are needed for growth, maintenance and production e.g maize, soybean e.t.c
- Nutrients- They are chemical substances that are capable of supporting growth, maintenance and production of animals
- Feed- is the combination of various ingredients in a particular **proportion** designed to meet the need of the animals
- Feed supplies nutrients





Feed Production and Feeding

Nutrients required by broilers and their sources

- Energy (maize, sorghum wheat, etc)
- Protein (soybean, groundnut cake, fishmeal, etc)
- Fats and oils (supplied by most of the oil seeds)
- Minerals and vitamins (present in most fed ingredients, premixes)
- Fibre (wheat offal, corn offal, rice husk etc)
- Additives





Feed Production and Feeding

Energy and Protein Requirements of Broilers

Broiler starter (1-4 weeks)

- Energy 2800MEKcal/kg
- Protein 23% crude protein

Broiler Finisher (5-8 weeks)

- Energy 2800-3000MEKcal/kg
- Protein 20% crude protein





Broiler Disease, Prevention and Cure

- **Disease** - is an abnormal condition that affects the body of an organism
- Disease has been a major cause of mortality in broiler production
- When they do not result in mortality, they bring about poor production and poor quality products
- Consumption of diseased animals pose a great health risk to the consumers





Broiler Disease, Prevention and Cure

Newcastle Disease

- Viral disease and highly contagious
- birds become infected by having contact with secretions and excretions of infected birds
- Symptoms include- paralysis, twisted neck, green faeces, sudden death etc.





Broiler Disease, Prevention and Cure

Infectious Bursal Disease (Gumboro)

- Infectious bursal disease (IBD, Gumboro) is an acute, highly contagious viral infection in chickens
- birds become infected by having contact with secretions and excretions of infected birds
- Symptoms include- diarrhoea, anorexia, depression, ruffled feathers, especially in the region of the head and the neck





Broiler Disease, Prevention and Cure

Coccidiosis

- Coccidiosis is a common protozoan disease in domestic birds.
- characterized by enteritis and bloody diarrhoea. The intestinal tract is affected,
- Symptoms include- bloody faeces, ruffled feathers, anaemia





Broiler Disease, Prevention and Cure

Fowl Pox

- Fowl pox (FP) is a viral disease in chickens
- characterized by cutaneous lesions on the feather-less skin
- The lesions are usually in the region of the head.,





Broiler Disease, Prevention and Cure

Salmonellosis

- Salmonellosis is a bacterial disease in domestic birds.
- The infection is transmitted with eggs and is commonly characterized by a white diarrhoea and high death rate,
- Symptoms include- The affected chickens appear depressed and their growth is retarded. The feathers around the vent in many chickens is stained with diarrhoeic faeces or pasted with dry faeces.





Broiler Disease, Prevention and Cure

- ◆ It is better to prevent diseases than to cure
- ◆ The best way to prevent disease is **biosecurity** and **vaccination**
- ◆ Biosecurity is the combination of all of the actions to limit the entry of the disease causing agents into the farm and reducing the possible roaming of the already entered agents between the houses in the same farm.
- ◆ The word of biosecurity is the combination of the word **BIO** and the **SECURITY**. Bio means life and security means safety.





Broiler Disease, Prevention and Cure

- ◆ Biosecurity include putting in place proper hygiene
- ◆ Control of pest especially mouse and reptiles
- ◆ Change litters frequently.
- ◆ Do not allow people, vehicles or machines entry into your farm
- ◆ Wash feeders and drinkers frequently
- ◆ Dead animals should be disposed far away from the farm





Broiler Disease, Prevention and Cure

- ◆ Effective and proper vaccination programme in poultry is necessary to prevent mortality and losses from many dreadful poultry diseases
- ◆ All birds reared on your farm either for your own stock or for sale to the public must be properly vaccinated.





BASIC BROILER VACCINATION PROGRAMME

AGE DISEASE ROUTE

Age	Vaccine	Route
Day 1 @hatchery	Marek disease vacine	Subcutaneous
Day 1	Newcastle Disease Vaccine	Intra ocular/nasal
Day 9-10	Infectious bursal disease (Gumboro)	Drinking water
Day14	Newcastle disease vaccine (Lasota)	Drinking water
Day 16-20	Coccidiostat	Drinking water
Day 21	Infectious Bursal Disease (Gumboro) (booster)	Drinking water
Day 28	Newcastle Disease vaccine (Lasota) (booster)	Drinking water

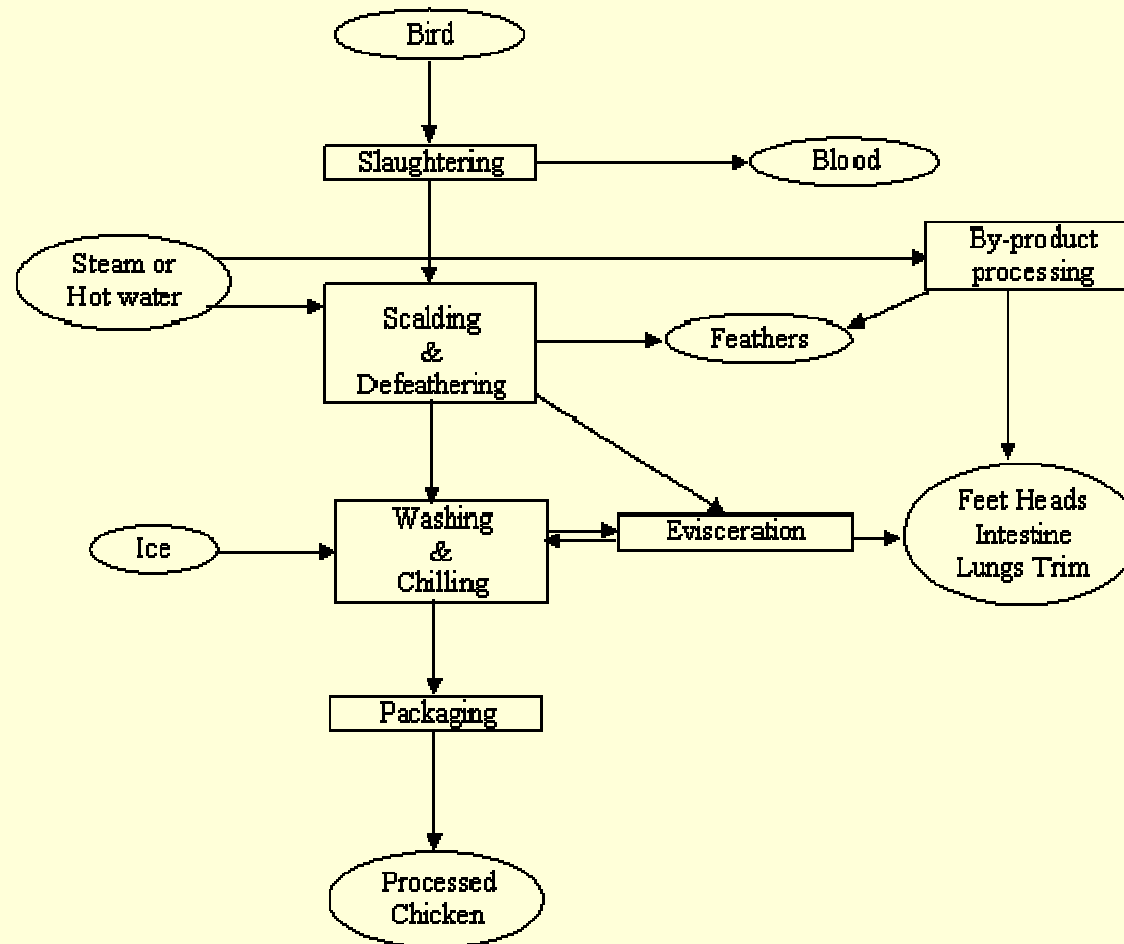




Processing and Marketing of Broilers

- ◆ Broilers at maturity could be sold live particularly during the festive periods
- ◆ It could be processed and sold as fresh and frozen chickens
- ◆ It could be grilled or roasted as chicken suya
- ◆ Sold at eateries such as Mr Biggs, sweet sensation, Chicken republics as roasted /toasted meat
- ◆ It can be incorporated into pastry as chicken sausage, chicken pies and chicken rolls







APPRECIATION

THANKS FOR LISTENING

