

# **POULTRY SCIENCE**

**VI Sem B.Sc. Zoology – Elective paper**

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# **EGG PRODUCTION & TABLE BIRD PRODUCTION**

# EGGS AND MEAT



# **EGG PRODUCTION**

**PRODUCTION OF EGG IS MAIN ECONOMIC FACTOR OF  
POULTRY BREEDING**

**TABLE BIRD PRODUCTION – BYPRODUCT OF EGG  
PRODUCTION**

**BREEDING PROGRAMME – INCREASING EGG LAYING  
CAPACITY**

**POOR LAYERS ELIMINATED FROM THE STOCK**

**WHITE LEGHORN – WORLD'S NO.1 EGG PRODUCER**

# LEGHORN



# CHARACTERS CONSIDERED

## PEDIGREE SELECTION

- A good individual with good ancestry is preferred to an equally good individual with poor ancestry
- Ancestral quality measured – rate of egg laying, age at sexual maturity, size of egg, etc
- Breed of fowl with average record of 250-280 eggs preferred.

# CHARACTERS CONSIDERED

## APPEARANCE

- Indicate the egg laying capacity
- Vigour – good health and vigour
- Head – clear cut, rugged and alert heads lay more eggs than those with coarse, phlegmatic and masculine heads
- Eyes – large prominent and bright eyes
- Beaks – relatively short, strong, well curved and in proportion to the head of the bird
- Comb and wattle – full, red and glossy – because of good circulation
- Shape of abdomen and body capacity – expanded, triangular, soft, pliable and covered by large thin and velvety skin

# **CHARACTERS CONSIDERED**

**CONDITION OF VENT – increased dimension of vent indicates good egg laying habit. During laying periods vent should be large, smooth, moist and elliptical in shape**



# CHARACTERS CONSIDERED

**BREED TYPE** – brooders should be pure breeds

## **PIGMENTATION**

- Chicken have yellow skin due to presence of Xanthophil
- Colour seen around eyes, the vent and shanks
- On producing eggs these pigments given to eggs
- Increase in egg production more pigment removed from the body
- Yellow vent – non layer

# CHARACTERS CONSIDERED

**MOULTING** – Inherent powers to grow new feathers every year.  
Moult order – head – neck – body – (breast, back and abdomen)  
– wing – tail.

**SEXUAL MATURITY** – Bird attain sexual maturity and start laying  
eggs are good layers.

**INTENSITY OF EGG LAYING** – It is the number of eggs  
produced by a bird in a given period of time. Hens with large  
number of eggs per clutch – better layers – clutch size – important  
genetic factor

# CHARACTERS CONSIDERED

**BROODINESS** – Tendency of hen to sit over the eggs – Sex-linked trait – birds lay long will not brood much – non-brooding variety selected for increased egg production. Eggs- Leghorns, Plymouth Rocks

**EGG CYCLE** – defined as persistency or continuity of egg laying during a period. Good breed will lay one egg per day for long period then short break of 1 or 2 days then resume laying. Cessation of laying 7 or more days is called PAUSE in laying.

# CHARACTERS CONSIDERED

## TRAP NEST RECORDS

- Trap nesting is correct method of determining the egg production of an individual hen.
- Provides opportunity to study size, colour, texture and shape of egg, production intensity and persistency
- Trap nesting for 3 days a week – give index of the breed for use in selection of birds

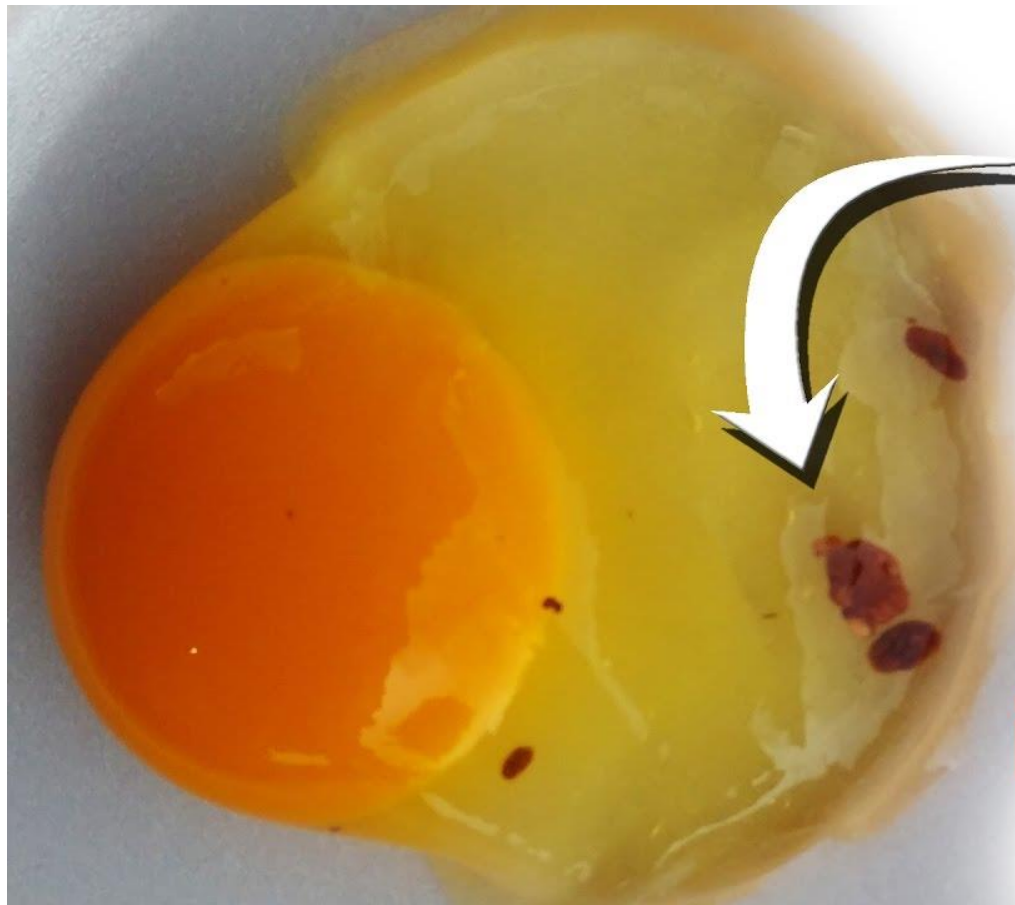
# **ABNORMAL EGGS**

- **Double Yolked Eggs**
- **Meat Spots**
- **Blood Spots**
- **Soft Shelled Eggs**
- **Small Yolkless Eggs**
- **An Egg Within An Egg**
- **Foreign Matter In Eggs**
- **Pale Yolks**
- **Rotten New Laid Eggs**

# DOUBLE YOLKED EGGS



# MEAT SPOTS



Look,!

*Meat*  
**Spot**  
in Fresh Eggs

# BLOOD SPOTS





# SOFT SHELLED EGGS



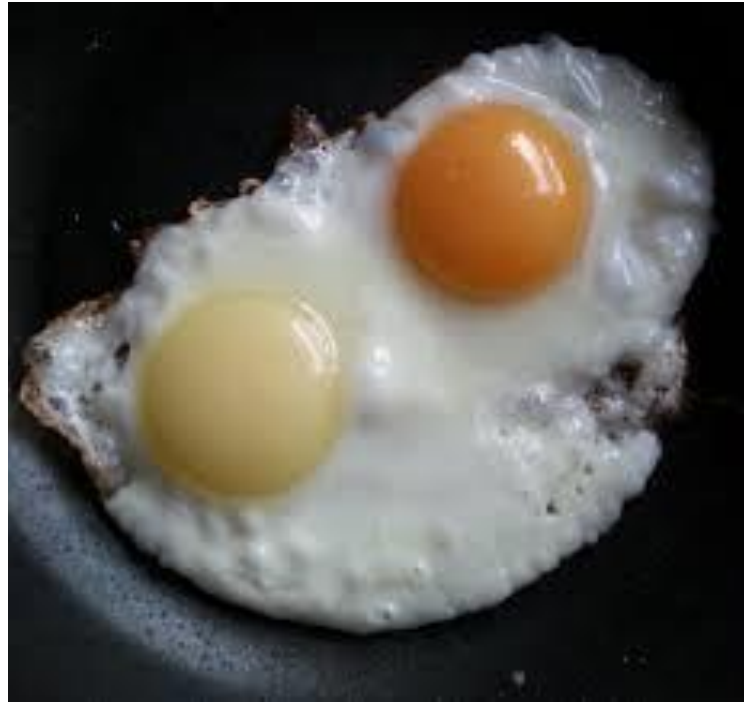
# SMALL YOLKLESS EGGS



# AN EGG WITHIN AN EGG



# PALE YOLKS



# ROTTEN NEW LAID EGGS



# **TABLE BIRD PRODUCTION**

# **MEAT PRODUCTION**

**Chicken grown exclusively for meat production – Broiler chicken**

**Good body conformation with abundant breast muscles over a long keel**

**Birds with high meat to bone ratio selected as broilers**

# **BROILER CHICKEN**



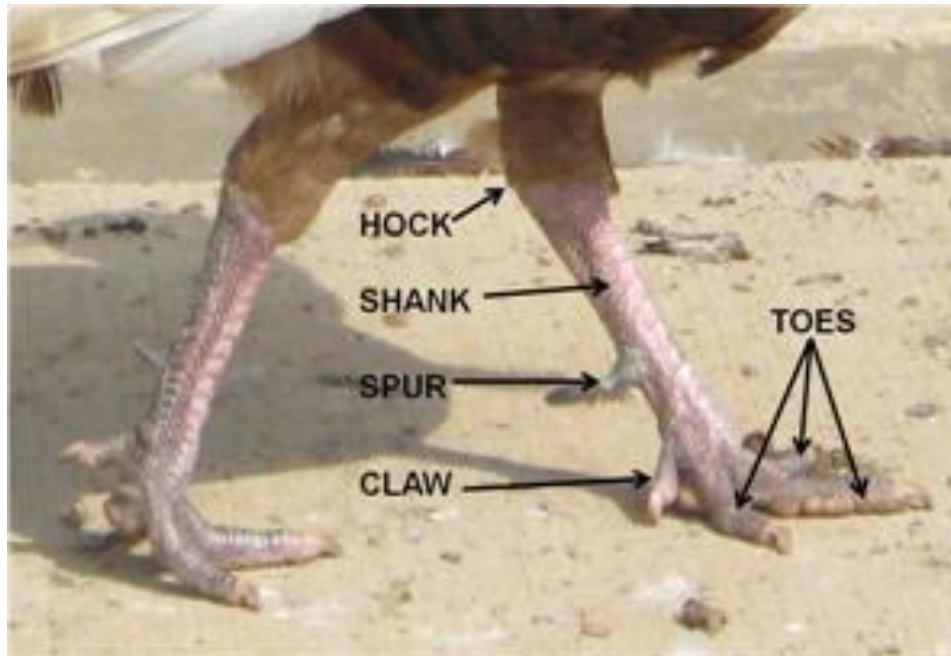


# CHARACTERS CONSIDERED

## GROWTH RATE

- Most important factor-depends on factors-diseases, rearing condition, diets.
- Rate of growth of shank-good index of rate of growth of body.
- Males grow faster than females.

# SHANK OF CHICKEN



# CHARACTERS CONSIDERED

## FEED EFFICIENCY

- Connected with rate of growth
- Cost of feed represents about one half of the cost of raising broilers.
- Breeds- convert consumed feed into meat- can gain maximum weight in short time- saving feed costs.
- Males are more efficient.

# CHARACTERS CONSIDERED

## BODY CONFORMATION-

- Selection on this basis done at about 12-14 weeks of age
- Birds with broad and deep bodies and relatively long and straight keels should be selected.
- Rate of feathering also effected with rate of body growth
- Early feathering chickens tend to grow more rapidly than late.

# CHARACTERS CONSIDERED

## FLESHING ON BREASTS AND THIGH

- should be examined for fleshing especially over breasts and thigh
- These parts constitute 45% of dressed weight
- Influenced by diet and management during growing season
- Fleshing ability is inherited



**THANK YOU**