Welcome to the course Applied

Zoology and in this unit on poultry,

we are going to study the module,

culling the flock and

selection of good layers.

In this module we will study

culling and its advantages,

good and poor layers of poultry

birds. At the end of this course,

the students will be able to

cite the importance of culling,

explain different criteria for

selection of birds for culling,

differentiate between good and

poor layers of poultry birds,

and classify hens depending

on egg production.

Culling is removal of undesirable

birds from the flock.

Now when we say undesirable birds,

we are referring to birds whose

egg production may be reduced

or those birds may be unhealthy,

or they could have some genetic disorder.

So removing these birds from

the flock is known as culling.

Now this practice helps to save

the feed and also helps in

preventing spread of disease.

It brings about uniformity

in the stock of fowl.

Therefore,

it is recommended that poor layers

should be culled from the flock.

Culling is a continuous process.

It could be done at every stage of

birds life, right from a one day old

chick to growing chicks to laying birds.

It is more effective if done with hens

in the first year of their production.

Head points, body weight and freedom

from disease are the main points to

use when we are culling the flock.

Now these are the factors and tests which

are used to determine good and poor layers.

By layers we mean the birds

which are laying eggs.

The factors are pedigree information,

appearance, moulting, pigmentation,

early maturity, egg cycle, broodiness,

disposition and temperament.

And the tests we use

are the handling

quality test and the Trapnest record.

Pedigree information is the

record of ancestry of the bird.

So the farmer maintains a record of

the bird and of the breeds of the fowl,

and this record includes factors

like rate of egg laying,

size of egg produced,

the preferred annual egg range is

250 to 280 eggs. Complete and continuous

record of performance of different

generations of a breed help

tremendously to obtain the information,

and therefore to know which breed

is going to yield a good layer bird.

Appearance is another characteristic

of a good laying hen.

Good health and vigour, clear cut, rugged, alert

heads, prominent

well placed bright eye, short beak which

is proportionate with the head size,

upper and lower mandibles closing neatly,

full soft bright red colored comb

are important characteristics

of a good laying hen.

If you look at the image you

can see the comb,

you can see the comb base,

the beak, the wattles,

the hackles, the ear,

the ear lobe,

a prominent eye as well as the comb points.

Appearance wise the pubic bones are

also set apart by a distance of two to

three fingers in a good layer hen.

The vent is moist, wide and expanded

and the eggs are large and the

abdomen is heavy and triangular.

Next characteristic is molting.

Molting is the process in the

fowl where in the old feathers are

shed to replace with new ones.

Feathers may be shed from the head region,

neck, breast ,the body wings,

as well as the tail region.

The good layers are going to

moult late but quickly and then

begin egg production and when the

wing feathers shedding starts,

the bird will stop laying eggs.

The next characteristic is pigmentation,

which is seen in the yellow

shanked and yellow skinned birds.

So birds obtain this pigment xanthophyll

primarily from their feed,

and it concentrates on the skin.

The vent, eye, ear, beak, shank also shows

pigmentation. Now, in the egg production time,

the birds will use this reserve,

therefore the good layer birds,

in their egg production time the

skin and shank becomes light color.

The next characteristic is the

early maturity, so fowls which

show early maturity lay more eggs.

The food length of the day,

climate as well as season, play

a big role in egg production.

The next characteristic is the egg cycle.

Persistency of egg laying during a period

will show which bird is a good layer bird.

A good breed will lay one egg a

day for a long period of time,

and then they may pause for a day or

two and then resume laying again.

Next characteristic is broodinesss.

It is the tendency of the laying

hen to sit over the eggs to hatch.

Prolonged broodiness is going to

lower the production capacity of

eggs by the hen, hence the fowl,

which shows less broodiness is

going to be a good layer bird.

Next characteristic is the disposition

and temperament of the bird.

Good laying hens arealways friendly.

They are active and they are ambitious.

They roost late at night,

but they are off the roost

early in the morning and they

are good and hearty eaters.

Now coming to the

test we have a trapnest record

wherein the egg production of

a hen is recorded by trapping

it for three to four days to

obtain the required information.

And the next test is the

handling quality test.

Here the abdomen of the bird and the pelvic

bones of the birds are felt. A good quality

birds have pliable abdominal which is

free from hard fat and the skin is lose.

The pelvic bones are thin,

They are pointed, pliable and they are

free from hard patches of fat.

The shanks are thin, smooth,

flat with close fitting scales.

Based on whatever characteristics

that we have studied,

we can now classify the hens according

to their egg production into poor layers,

medium good layers,

and good layers.

Poor layers are those birds which

lay less than 135 eggs per year.

Medium good layers are birds which

are capable of producing from 135

to 184 eggs per year and good

layers are birds which have a record

of 185 or more eggs per year.

This is all in this module and this

are the references which have been used.

Thank you.