FLORIDA 4-H
POULTRY JUDGING MANUAL

PLEASE RECYCLE THIS MANUAL BY RETURNING TO THE 4-H OFFICE

Florida Cooperative Extension Service
Institute of Food and Agricultural Sciences
University of Florida, Gainesville
John T. Woeste, Dean for Extension
Table of Contents

4-H Poultry Judging .............................................. 3
Steps in Judging Poultry ........................................ 3
Production Judging ............................................... 3
Oral Reasons ..................................................... 5
Cull or Keep ...................................................... 6
Judging Live Market Birds ...................................... 7
Judging Dressed Poultry ......................................... 9
Classifying Poultry ................................................ 10
Egg Judging .......................................................... 12
   Terms Descriptive of the Shell ............................... 12
   Terms Descriptive of the Yolk ............................... 13
   Terms Descriptive of the White ............................. 13
Glossary of Technical Terms ................................... 14
Nomenclature of the Male and Female ......................... 15
Nomenclature Key ................................................ 16

This publication was promulgated at a cost of $75.25, or 10 cents per copy, to help teach poultry judging in the educational programs of Florida 4-H. 8 - 750 - 80

COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF FLORIDA, INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES, K. R. Tefertiller, director, in cooperation with the United States Department of Agriculture, publishes this Information to further the purpose of the May 8 and June 30, 1914 Acts of Congress; and is authorized to provide research, educational information and other services only to individuals and institutions that function without regard to race, color, sex or national origin. Single copies of Extension publications (excluding 4-H and Youth publications) are available free to Florida residents from County Extension Offices. Information on bulk rates or copies for out-of-state purchasers is available from C. M. Hinton, Publications Distribution Center, IFAS Building 664, University of Florida, Gainesville, Florida 32611. Before publicizing this publication, editors should contact this address to determine availability.
4-H Poultry Judging

Judging live chickens and dressed chickens and grading eggs can be made a very important part of your 4-H poultry project. If you are a good poultry judge, it will help you in selecting good birds for your flock or for exhibiting at shows and fairs.

In connection with many fairs and poultry shows there are provisions made for a 4-H poultry judging contest. If you work at judging you can have fun in a contest. There is also a possibility you and your team mates may win an out-of-state trip to some national judging contest.

Chickens are judged for production or their egg producing ability and for meat purposes. Breed identification classes are also used in judging contests as well as egg grading classes.

To do a good job of judging live chickens you need to know the common breeds and varieties and be able to handle them properly. This includes knowing the name of the different parts of the bird and the good and poor qualities.

Steps In Judging Poultry

While the birds are still in the coops, look them over very carefully. Observe their health or physical vigor and body conformation. Place the birds in your mind according to these factors. Now you are ready to handle the birds. Open the door of the coop quietly, grasp the left wing with your right hand over the back of the bird and quietly move the bird toward the front of the coop. Place your left hand beneath the bird's body with two fingers between the legs. Let the bird rest on the palm of your hand. In this way you can lift the bird off its feet and out of the cage. Holding the bird in this way you can then examine all parts of the body. Always remove the bird from the coop head first, and replace it head first.

After you have observed the birds in the coops and have handled them, then you should be able to place them in their proper order. It will take only a little practice to select the bird that you will place first. Next look over the remaining three birds and choose the poorest bird. This bird is last. Only two birds are left. Using the same principle, select the better of the two remaining, this bird will be second and the other one third.

When judging, only production and live market classes of birds can be handled. Contestants are not allowed to handle birds in identification classes.

Production Judging

In judging birds for egg production consider three things: (a) Their present production, (b) Their past production, and (c) Their rate or intensity of production. This can be rather accurately determined by closely checking the appearance and condition of certain parts of the bird's body. It is necessary to handle the birds when judging for egg production.

Present Production

It is relatively easy to determine whether or not a hen is in production at the time she is examined. All you need to do is to examine the condition of the comb, wattles, eyes, pubic bones, abdomen and vent. If a hen is laying, her comb and wattles will be large, bright red, soft and waxy; her eyes will be bright and prominent; her pubic bones will be well spread and flexible; the abdomen will be full, soft and pliable; and the vent will be moist, bleached and enlarged.

When a hen is not laying, the comb and wattles will be small, pale and scaly; her eyes will be dull and sunken; her pubic bones will be rigid and close together; the abdomen will be hard and com-
pact; and her vent will be yellow (in yellow skinned breeds), dry and contracted.

Past Production

It is generally a little more difficult to accurately judge hens for past production than it is to judge them for present production, since breed and environment may affect, to some extent, the appearance and condition of those parts of the bird's body which tell past production.

A hen's past production is determined mainly by the amount of yellow pigment that is left in her body, and the time of her molt. If a hen has produced a large number of eggs before she is examined, the yellow pigment will be bleached from her body; her beak, shanks, etc., will appear white; her feathers will be close and somewhat soiled, and she will probably not molt until late fall.

If she has produced only a few eggs, her body will contain more pigment; and her beak, shanks, etc., will appear almost yellow; her feathers will look nice and she generally will molt sometime between midsummer and early fall.

Before starting into production, all healthy yellow skinned birds will have yellow shanks, beaks, earlobes, eyerings and vents. As production progresses, these parts bleach and gradually appear white. The yellow pigment, however, is bleached from the various parts of the bird's body in a very definite order, thus giving you some fairly accurate information about the bird's past production. Bleaching is first noticeable at the edge of the vent where the color disappears just a few days after the bird starts into production. The edges of the eyelids, commonly called the "eyerings," will bleach next. This is followed by a bleaching of the earlobes and beak. The yellow color fades first at the base or corners of the beak, and continues out to the tip of the beak. From four to six weeks is needed to bleach the entire beak. The feet and shanks are last to lose their color. This normally takes 20 to 30 weeks of production.

When a hen stops laying, the pigment returns to the various parts of the body in the same order in which it leaves, but much faster. It first returns to the vent, to the eyerings, earlobes and beak, and last, the feet and shanks.

A hen generally stops laying when she starts to molt; therefore, a hen that molts in July or August will not have laid as long as one that molts in September or October. Hens that molt late in the fall also generally molt more rapidly, and come back into production sooner than the earlier molters, which generally take a longer vacation.

Rate of Production

A bird's rate of production is indicated by the shape and refinement of her head, the width and depth of her body, her abdominal capacity, the softness and pliability of her abdomen, the thinness of her public bones, the thinness and pliability of her skin, and the shape of her shanks.

If a hen's rate of production is high, she will generally have a well balanced head that is moderately broad and deep, a lean clean cut face that is free from wrinkles and coarseness, and comb and wattles of a fine, smooth texture. She will have a deep body and a broad back that carries its width out well to the rear; she will have a deep abdomen that measures four fingers or more between the pubic bones and the tip of
the keel; her abdomen will be soft and pliable and her pubic bones will be thin and somewhat flexible; her skin will be soft, thin and pliable, and her shanks will be rather flat or wedge shaped.

If a hen's rate of production is low, she will generally have a head that is long and shallow, and her back will be rather narrow and tapering.

She will have a relatively small or shallow abdomen that may measure only two or three fingers between the pubic bones and the keel; her abdomen will be rather hard, tight and fatty; her pubic bones will be thick and stiff; her skin will be thick, tight and rather coarse; and her shanks will be more or less round and somewhat rough.

### A Summary of Points to Consider When Judging Birds for Egg Production

<table>
<thead>
<tr>
<th>Head</th>
<th>GOOD LAYER</th>
<th>POOR LAYER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>WELL BALANCED, MODERATELY BROAD AND DEEP</td>
<td>LONG AND SHALLOW OR SHORT AND DEEP</td>
</tr>
<tr>
<td></td>
<td>LEAN, CLEAN CUT, FREE FROM WRINKLES AND COARNESS</td>
<td>PUFFY, COARSE</td>
</tr>
<tr>
<td>Beak</td>
<td>MEDIUM LENGTH, WELL CURVED, WHITE, COMPLETELY BLEACHED</td>
<td>LONG, SHARP, YELLOW</td>
</tr>
<tr>
<td>Comb &amp; Wattles</td>
<td>LARGE, BRIGHT RED, SOFT AND WAXY, OF FINE, SMOOTH TEXTURE</td>
<td>SMALL, PALE, SCALY, SOMETIMES SHRIVELED AND OF COARSE TEXTURE</td>
</tr>
<tr>
<td>Eyes</td>
<td>BRIGHT, ALERT, PROMINENT</td>
<td>DULL, LISTLESS, SUNKEN</td>
</tr>
<tr>
<td>Pubic Bones</td>
<td>WELL SPREAD, THIN AND FLEXIBLE (2 OR 3 FINGERS SPREAD BETWEEN BONES)</td>
<td>RIGID, THICK, CLOSE TOGETHER</td>
</tr>
<tr>
<td>Vent</td>
<td>MOIST, BLEACHED, ENLARGED</td>
<td>YELLOW, DRY, SMALL</td>
</tr>
<tr>
<td>Abdomen</td>
<td>DEEP (4 FINGERS OR MORE BETWEEN PUBIC BONES AND TIP OF KEEL), SOFT, Pliable</td>
<td>SHALLOW (2 OR 3 FINGERS SPREAD BETWEEN PUBIC BONES AND TIP OF KEEL), HARD, TIGHT, AND FATTY</td>
</tr>
<tr>
<td>Body</td>
<td>DEEP BODY, BROAD BACK WITH WIDTH CARRIED OUT WELL TO THE REAR</td>
<td>SHALLOW BODY, NARROW TAPERING BACK</td>
</tr>
<tr>
<td>Skin</td>
<td>SOFT, THIN AND PLIABLE</td>
<td>TIGHT, THICK AND RATHER COARSE</td>
</tr>
<tr>
<td>Feet</td>
<td>BLEACHED OR PARTLY BLEACHED, SMOOTH, FLAT OR WEDGE SHAPED</td>
<td>YELLOW, ROUND, RATHER ROUND</td>
</tr>
<tr>
<td>Plumage</td>
<td>BRITTLE, ROUGH, BROKEN, SOILED, LATE IN MOLTING</td>
<td>SMOOTH, MORE ATTRACTIVE, POSSIBLY NEW PLUMAGE, EARLY IN MOLTING</td>
</tr>
</tbody>
</table>

### Oral Reasons

In most poultry judging contests, individual team members will be required to give oral reasons on a class of birds, usually a production class. It is important to set in your mind a mental picture of the class of birds of which you are to present your reasons, and then to give your reasons as you see them. It may be that you have placed the birds incorrectly, but if you present a good set of reasons telling why you placed them as you did, it is possible to receive a good score on your set of reasons.

The following is a sample of oral reasons:

"I am Contestant No. 12."

"I placed this class of production Single Comb White Leghorn hens 4-2-1-3. I placed 4 over 2 because she is a bird showing less pigmentation throughout, she has a more desirable body type with a wider and longer back and is deeper in the body. The 4 bird has a more prominent
ORDER OF BLEACHING AND TIME REQUIRED TO FULLY BLEACH

1. Vent—one week
2. Eye Ring—seven to 10 days
3. Ear Lobe—seven to 10 days
4. Beak, from corner of beak to tip—four to six weeks
5. Shanks—four to six months
   a. Front of shanks bleaches first . . .
   b. Rear of shanks next, then
   c. Tops of toes;
   d. Hock joint is last area to bleach

HEALTHY READY-TO-LAY PULLET—comb and wattle are large, but eye ring, ear lobe, and beak show yellow pigment (shaded)

PULLET INDICATING TWO TO THREE WEEKS OF LAY—Pigment has bleached from eye ring and ear lobe. Beak has bleached from corners of mouth about halfway toward tip. Outer half of beak still shows yellow pigment (shaded)

THIS PULLET HAS LAID FOR SIX WEEKS OR MORE—All yellow pigment is bleached from eye ring, ear lobe and beak

PULLET THAT STOPPED LAYING TWO TO THREE WEEKS AGO—Yellow pigment (shaded) has returned to eye ring, ear lobe and inner half of beak. Tip of beak is still bleached

eye and head refinements than does the 2 bird. The 4 bird shows more quality in the abdomen, being softer and having less body fat than does the 2 bird.

"I placed 2 over 1 because she shows less pigmentation in the shanks. The 2 bird has a more desirable body, being longer, wider and deeper than does the 1 bird.

"I placed 1 over 3 because she is a bird showing less pigmentation in the shanks and beak. The 3 bird was placed last because she is out of production as shown by small, pale comb and wattles. The 3 bird is lacking in body capacity as indicated by the narrowness between the pelvic bones and the pelvic keel bones.

"For these reasons I have placed this class of production Single Comb White Leghorns, 4-2-1-3."

Cull or Keep

The cull or keep class in poultry judging contests is designed to train 4-H Club members in recognizing poor producers and birds with defects serious enough to warrant removal of the bird
from the flock.

It will be necessary to refresh your memory on the production judging section of this manual and also learn how to recognize indications of disease and deformities.

**Kind of Birds to Keep**

- Good weight
- Good body development
- No sign of disease
- No serious deformity
- Hens should be laying now
- Young pullets should show normal pigmentation and good maturity for age

**Kind of Birds to Cull**

- Excessively thin or underweight
- Poor body development
- Indication of disease such as:
  - Leucosis eye
  - Tumors or sores on the skin
  - Tumor in abdomen
  - Marble bone shanks
  - General lack of vitality
- Serious deformity such as:
  - Badly crossed beak
  - Severely crooked keel or back
  - Crooked toes or legs that interfere with normal walking
- Hens out of production now or showing signs of poor past production. Pullets small and immature for their age or with abnormal paleness of shanks or beaks.

**Indications of Disease**

- **Leucosis eye.**—A misshaped pupil is a fairly definite indication of one type of leucosis. The normal pupil is round with a clear cut, smooth edge. With leucosis the edge of the pupil may become jagged or irregular in shape. It may become very small in size. Gray eye, replacing the normal reddish bay iris, usually accompanies the misshaped pupil.

- **Tumors or sores on the skin.**—A bad blood tumor at a feather follicle, infected sores, or a bumble foot severe enough to cause extreme lameness should justify culling the bird from the flock.

- **Tumor in abdomen.**—This is noticed as a large unnatural fullness of the abdomen. It should not be confused with an overly fat bird. A tumor in the abdomen may feel as if a tennis ball had been placed directly under the skin.

- **Marble bone shanks.**—The shanks are enlarged, often as much as an inch in diameter, and are usually hard. This is another type of leucosis.

---

Infectious diseases.—Indications of an infectious disease such as scabs on comb and wattles (fowl pox) and respiratory troubles (sneezing, running nostrils, watery eyes, etc.) should never be used in a contest due to the possibility of spreading the disease.

**Deformities**

- **Crossed beak.**—A badly crossed beak interferes with eating.

- **Crooked back or keel.**—A severely crooked back or keel may interfere with normal working of the internal organs.

- **Crooked legs or toes.**—Birds having serious difficulty in walking due to crooked legs or toes should be culled.

A slightly crooked beak, a slight crook in the breast or back, or crooked legs or toes that cause no trouble in walking are not serious enough to cause removal of a bird from a flock.

**Judging Live Market Birds**

In judging live market birds, one is trying to determine what the birds will look like or how the birds will appear when dressed. When judging live market birds it is necessary to handle the birds.

Points to consider when judging or grading live market birds are:

1. Health and vigor
2. Feathering
3. Conformation
4. Fleshting
5. Fat covering
6. Degree of freedom from defects
Health and Vigor

Health and vigor are closely related to feathering, conformation, fleshing, and fat covering. The closeness and brilliancy of the plumage are indications of health and vitality. Birds of good health and vigor are more likely to have good body conformation than are birds with low vitality, since low vitality ordinarily results in incomplete or faulty development of the bird. Plump, well-developed breast and leg muscles are usually found in a bird having good health and vigor, as compared with the thin, relatively sharp keel and thin legs of a bird of low vitality. A bird that has been in poor health for a considerable period of time or a bird that is lacking in vitality ordinarily does not have good fat covering. A bird of high vitality usually has a strong, well-proportioned head with full, round, bright, alert eyes.

Feathering

Ordinarily a well-feathered bird will have fewer pinfeathers than will a poorly feathered bird. Since freedom from pinfeathers constitutes one of the factors of quality in dressed and ready-to-cook poultry, it deserves particular attention in judging live birds because the live birds will eventually be dressed and drawn. Well feathered birds are also more attractive in appearance than poorly feathered ones.

Conformation

Conformation refers to the general form or shape of the body of a bird. In considering conformation, the heart girth, length and width of the back, the length and width of the breast and abdomen, and the length of keel or breastbone, are taken into consideration individually and then as a whole.

A bird of good physical conformation has a relatively large heart girth with good length, depth, and breadth of body to permit the proper growth of the vital organs (heart, lungs, etc.) and digestive organs to maintain life and ability to take care of the extra work imposed on the bird in producing sufficient flesh and fat covering.

Fleshing

Fleshing is one of the most important factors in judging live market birds. In the last analysis, it is the flesh of the bird that the consumer pays for. Since the larger muscles of the body are located along the breastbone and on the thighs and legs of the bird, it is particularly important that these parts be well covered with flesh. Fleshing is closely associated with health and vigor, conformation, and fat covering. Without good health, sufficient vigor, and good conformation, a bird cannot grow normally and have enough food-using ability to maintain itself, and at the same time add flesh and a good fat covering.

Fat Covering

From the standpoint of quality, flavor, texture, and tenderness in the cooked bird, fat is one of the most important factors in determining quality. For this reason, a high quality live bird should be well covered with fat on the breast, back, and hips. Fat covering is closely related to good health, vigor and conformation, since a bird must have these features in order to maintain itself and produce sufficient flesh and fat covering, if it is a good meat-type bird.

Degree of Freedom from Defects

The primary defects of a live market bird are: Tears, broken bones and bruises.

Tears and broken bones not only detract from the appearance of the live bird but will lower the quality of the bird when it is processed. The number and extent of defects that are permitted in good quality birds depend on their location. Thus, defects on the breast, thighs and legs of a bird are more serious than those on other parts of the body.

Bruises are caused largely by rough handling. They detract from the appearance and sale value of the processed bird and are important as a factor in grading live birds.

Remember, the primary defects of a market bird are: Tears, broken bones and bruises.
Judging Dressed Poultry

When judging dressed birds, the following points are considered in determining the quality of an individual bird:
1. Conformation
2. Fleshing
3. Fat covering
4. Freedom from pinfeathers
5. Freedom from cuts, tears, and disjointed and broken bones.
6. Freedom from discolorations of skin and from flesh blemishes and bruises
7. Freedom from freezer burn

Conformation

Conformation helps to determine quality since it governs the amount and distribution of flesh and the appearance of the bird. The normal dressed market bird is considered practically free from such deformities as a crooked, notched or peaked breast or a crooked or hunched back, and it has a breastbone that is practically straight and nearly parallel to the backbone.

Fleshing

One of the most important factors of value and quality is the amount of flesh that is on the dressed bird in relation to its size and the age of the bird. A dressed bird should have a well-developed long breast that is moderately broad so that the breastbone is not prominent.

Fat Covering

Perhaps the most important factor of quality from the standpoint of excellence of flavor, texture, and tenderness is the amount of fat covering or "finish" that is present in a dressed bird.

The amount of fat required for a grade A bird will vary with the kind of bird. A well finished broiler, for instance, may appear to have a relatively small amount of fat in comparison with that of a hen. Fat is deposited in the skin and between the skin and flesh of the bird in certain
definite areas. There is a noticeable layer of fat along the two main feather tracts on each side of the body, and an interlacing of fat between these feather tracts. There is also a layer of fat around the crop sac area at the fore part of the breast. A bird having good fat coverage will have a golden yellow appearance, whereas a poorly finished bird will tend to have a gray or dark, bluish appearance.

Freedom from Pinfeathers

The presence of pinfeathers on dressed and ready-to-cook poultry is considered one of the more important quality defects by many consumers. Pinfeathers are of two types—those that stick out of the skin and those that do not stick out of the skin (often seen as dark, “inky” spots under the skin).

Freedom from Cuts, Tears, and Broken Bones

Cuts, tears and broken or disjointed bones detract from the appearance of the bird and, in addition, lower the quality because of bruises and blood clots which occur frequently with broken bones. Tears permit the flesh to dry out during the cooking process, thus lowering the eating quality of the bird. The number and extent of such defects that are permitted depend on their location. The more serious defects are found on the breast, thighs and legs; if found on the back, side or wings, the defects will be less important.

Freedom from Discolorations of Skin and from Flesh Blemishes and Bruises

Discolorations and blemishes occur before and during the dressing operations, and are largely due to rough handling. Bruises occur prior to dressing and are caused largely by rough handling during transportation of the birds from the farm to the dressing plant. Bruises are an important quality factor and detract from the appearance and the sale value of the bird.

Freedom from Freezer Burn

The discoloration and drying out of the skin of birds during storage is commonly called “freezer burn.” This defect detracts from the appearance and sale value of the bird.

Classifying Poultry

Chickens are classified by the American Poultry Association and described in the “American Standard of Perfection.” This is the official or standard classification. The groups in this classification are called Classes, Breeds and Varieties.

A Class is made up of a group of birds which were developed in the same general region and possess many similar characteristics. For example, the Leghorn, Minorca and Ancona belong to the Mediterranean class. They originated near the shores of the Mediterranean Sea and are birds of rather small size, nervous temperament, have non-feathered shanks, seldom become broody and lay white eggs. REMEMBER: Class is determined by origin.

A breed is a group of birds all of which closely resemble one another regarding body shape. The breed name is one given to a well defined and recognized type, such as Rhode Island Red, Plymouth Rock or Leghorn. Birds conforming closely to one of these body types are said to belong to that breed. REMEMBER: Breed is determined by body shape.

A variety is a subdivision of a breed based on kind of comb and color pattern. REMEMBER: Variety is determined by comb and color pattern.

Chickens can also be classified as to economic importance. In this grouping the breeds are placed in two groups—Ornamental and Productive.

The Ornamental group includes such breeds as bantams and games which are usually kept for pleasure or just as curiosities.

The Productive group is further subdivided into three classes: Egg breeds, such as Leghorns; Meat breeds, such as Jersey Black Giant; and Dual-purpose breeds, such as the New Hampshire.

Of the numerous breeds and varieties listed in the American Standard of Perfection, only a few have achieved any economic importance. During the past 15 or 20 years the tendency has been to eliminate more and more of the breeds and to concentrate on the development of the White Leghorn, Rhode Island Red, New Hampshire, Plymouth Rock, and a few others. Various crosses and hybrids have been developed.

Many Poultry Judging Contests will have a section devoted to naming the class, breed, variety and sex of a group of chickens. Members of a 4-H Poultry Judging team should be able to identify the various breeds and varieties of chickens and to name the class to which they belong.

Breed and varieties for the American, English, Mediterranean, and Asiatic Classes

### American Class

<table>
<thead>
<tr>
<th>Breeds</th>
<th>Varieties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plymouth Rocks</td>
<td>Barred, White, Buff, Partridge, Silver-Penciled, Columbian, Blue</td>
</tr>
<tr>
<td>Wyandottes</td>
<td>Silver-Laced, Golden-Laced, White, Black, Buff, Partridge, Silver-Penciled, Columbian</td>
</tr>
<tr>
<td>Javas</td>
<td>Black, Mottled</td>
</tr>
<tr>
<td>Rhode Island Reds</td>
<td>Single Comb, Rose Comb.</td>
</tr>
<tr>
<td>Rhode Island Whites</td>
<td></td>
</tr>
<tr>
<td>Chanticleers</td>
<td>White, Partridge</td>
</tr>
<tr>
<td>Jersey Giants</td>
<td>Black, White</td>
</tr>
<tr>
<td>Lamoras</td>
<td></td>
</tr>
<tr>
<td>New Hampshires</td>
<td></td>
</tr>
</tbody>
</table>

### English Class

<table>
<thead>
<tr>
<th>Breeds</th>
<th>Varieties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dorkings</td>
<td>White, Silver-Gray, Colored</td>
</tr>
<tr>
<td>Redcaps</td>
<td></td>
</tr>
<tr>
<td>Orpingtons</td>
<td>Buff, Black, White, Blue</td>
</tr>
<tr>
<td>Cornish</td>
<td>Dark, White, White-Laced Red, Buff</td>
</tr>
<tr>
<td>Sussex</td>
<td>Speckled, Red, Light</td>
</tr>
<tr>
<td>Australorps</td>
<td></td>
</tr>
</tbody>
</table>

### Mediterranean Class

<table>
<thead>
<tr>
<th>Breeds</th>
<th>Varieties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minorcas</td>
<td>Single-Comb Black, Rose-Comb Black, Single-Comb White, Rose-Comb White, Single-Comb Buff</td>
</tr>
<tr>
<td>Spanish</td>
<td>White-Faced Black</td>
</tr>
<tr>
<td>Blue Andalusians</td>
<td></td>
</tr>
<tr>
<td>Anconas</td>
<td>Single-Comb, Rose Comb</td>
</tr>
<tr>
<td>Buttercups</td>
<td></td>
</tr>
</tbody>
</table>

### Asiatic Class

<table>
<thead>
<tr>
<th>Breed</th>
<th>Varieties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brahas</td>
<td>Light, Dark, Buff</td>
</tr>
<tr>
<td>Cochins</td>
<td>Buff, Partridge, White, Black</td>
</tr>
<tr>
<td>Langshans</td>
<td>Black, White</td>
</tr>
</tbody>
</table>
Egg Judging

The egg section of a 4-H Poultry Judging Contest is usually devoted to the candling and grading of a number of white shelled eggs, brown shelled eggs, or a combination of the two.

In the grading of eggs it is necessary to candle each individual egg to determine whether the egg is a Grade AA, Grade A, Grade B, Grade C or an inedible egg.

The following U.S. Standards and Florida Standard for quality of individual eggs with clean unbroken shells will be used as a guide in determining the grade of individual shell eggs.

Grade AA

The shell must be clean, unbroken and practically normal. The air cell must not exceed \( \frac{1}{8} \) inch in depth and be practically regular. The white must be clear and firm so that the yolk appears well centered and its outline only slightly defined when the egg is twirled before the candling light. The yolk must be free from apparent defects.

Grade A

The shell must be clean, unbroken and practically normal. The air cell must not exceed \( \frac{2}{8} \) inch in depth and must be practically regular. The white must be clear and at least reasonably firm so that the yolk appears at least fairly well centered and its outline only fairly well defined when the egg is twirled before the candling light. The yolk must be practically free from apparent defects.

Grade B

The shell must be clean, unbroken and may be slightly abnormal. The air cell must not exceed \( \frac{3}{8} \) inch in depth, may show unlimited movement, and may be free but not bubbly. The white must be clear but may be slightly weak so that the yolk may appear off center with its outline well defined when the egg is twirled before the candling light. The yolk may appear slightly enlarged and slightly flattened and may show other definite but not serious defects.

Grade C

The shell must be clean, unbroken and may be abnormal. The air cell may be over \( \frac{3}{8} \) inch in depth and may be bubbly or free. The white may be weak and watery so that the yolk may appear off center and its outline plainly visible when the egg is twirled before the candling light. The yolk may appear dark, enlarged, and flattened and may show clearly visible germ development but no blood due to such development. It may show other serious defects that do not render the egg inedible. Small blood clots or spots may be present.

Terms Descriptive of Shell

Clean.—A clean shell is one that is free from foreign matter and from stains or discolorations that are readily visible. Eggs with only very small specks or stains may be considered clean if such eggs are not present in sufficient number in a package to detract appreciably from its appearance. Eggs that show traces of processing oil on the shell are considered clean when classified as "processed," or "shell treated," unless the shell is otherwise soiled.

Dirty.—A dirty shell is one that has stained, soiled, or dirty spots of considerable size that may affect more than \( \frac{1}{4} \) of the shell surface, or that has less than \( \frac{1}{8} \) of the shell surface stained, soiled, or dirty to such an extent that it is more than slightly stained, slightly soiled, or slightly dirty.

Unbroken.—An unbroken shell is one that is free from actual checks or breaks.

Checked or Cracked.—A checked or cracked shell is one that has an actual break in the shell, but where the shell membrane is unbroken and there is no exuding of the contents from the egg.

Leaker.—A leaker is an egg in which the shell and shell membrane are broken to the extent that the egg contents are exuding or are free to exude through the shell.

Normal.—A normal shell is one that approximates the usual shape and that is of good even texture and strength and free from distinct ridges, rough areas, thin spots or other conditions not common to good shells. Slight ridges and rough areas that do not affect materially the shape, texture and strength of the shell are permitted.

Slightly Abnormal.—A slightly abnormal shell is one that may be somewhat unusual in shape or that may be somewhat faulty in texture or strength. It may also show distinct, but not pronounced, ridges, thin spots, or rough areas.

Abnormal.—An abnormal shell is one that may be decidedly misshapen or that may be decidedly faulty in texture or strength or that may show pronounced ridges, rough spots or other defects.
Depth of Air Cell.—The depth of the air cell when in its natural position, is the distance from the large end of the egg to the plane passing through the egg at the point where the lower air cell membrane touches the shell.

Regular.—A regular air cell is one that retains a fixed position in the egg and that shows a practically even, smooth outline without any movement when the egg is twirled.

Slightly Wavy.—A slightly wavy air cell is one that retains a practically fixed position in the egg but shows a slight movement, not to exceed \( \frac{1}{8} \) inch, at any one point where its lower shell membrane touches the shell.

Movement Not In Excess or \( \frac{3}{8} \) inch.—An air cell that shows a total movement not in excess of \( \frac{3}{8} \) inch from the line where its lower shell membrane touches the shell.

Bubblly Air Cell.—A bubblly air cell is one that has several rather small bubbles, within or beneath it, that give it a bubblly appearance.

Free Air Cell.—A free air cell is one that moves freely about in the egg. Such an air cell will seek the uppermost point in the egg, regardless of the position the egg is held.

Terms Descriptive of the Yolk

Outline Slightly Defined.—A yolk, the outline of which (when viewed before the candle) is indistinguishably indicated and tends to blend into the surrounding white.

Outline Fairly Well Defined.—A yolk, the outline of which (when viewed before the candle) is discernible but that has not become definite and distinct.

Outline Well Defined.—A yolk, the outline of which (when viewed before the candle) is quite definite and distinct.

Plainly Visible.—A plainly visible yolk is one that has a distinctly discernible outline before the candle and that may appear dark.

Free from Defects or Blemishes Visible Before the Candle.—A yolk that, when viewed before the candle, shows no spots or areas on its surface indicating the presence of germ development or other defects or blemishes.

Practically Free from Defects and Blemishes Before the Candle.—A yolk that (when viewed before the candle) may show very slight blemishes within the yolk shadow.

Definite but not Serious Defects Visible Before the Candle.—A yolk that may show definite spots or areas on its surface, when viewed before the candle, indicative of defects but with no definite indication of germ development or other pronounced or serious defects or blemishes.

Other Serious Defects.—A yolk that shows well-developed spots or areas of a character that constitute serious defects or blemishes, but do not render the egg inedible.

Clearly Visible Germ Development.—A development of the germ spot on the yolk of a fertile egg that has progressed to a point where it is plainly visible before the candle, as a rather definite, deeper colored circular area, or as a distinct spot on the yolk, with no blood in evidence.

Blood Due to Germ Development.—Blood caused by development of the germ in a fertile egg to the point where it is visible before the candle. Such eggs are classified as inedible.

Blood Clots (Blood Not Due to Germ Development).—Spots or clots of blood usually on the surface of the yolk but sometimes floating in the white. If they are small (not over \( \frac{1}{8} \) inch in diameter), the egg may be classed as U. S. Grade C. If larger and/or showing a diffusion of blood in the white surrounding them, the eggs should be classified as inedible.

Terms Descriptive of the White

Clear.—A clear white is one that is free from discoloration or from any floating foreign bodies. Prominent chalazae should not be confused with foreign bodies such as meat spots or blood clots.

Firm.—A firm white is one that is sufficiently thick or viscous to permit only limited movement of the yolk from the center of the egg when it is whirled.

Reasonably Firm.—A reasonably firm white is one that has a reasonably good viscous condition but not as strong a condition as a firm white. A reasonably firm white permits the yolk to move somewhat more freely from its normal position in the center of the egg and thus to approach the shell more closely when the egg is twirled. A reasonably firm white may, therefore, cause the outline of the yolk to be fairly well defined.

Slightly Weak.—A slightly weak white is one that has lost its firm (or even its reasonably firm) condition, has become less viscous and is not as clearly differentiated from the thin white when the egg is broken out.

Weak and Watery.—A weak and watery white is one that is thin and generally lacking in viscosity and, therefore, permits the yolk to move freely from its normal position in the center of the egg and to approach the shell closely when the egg is twirled.
Small Blood Clots or Small Meat Spots.—Spots or clots of blood usually on the surface of the yolk but sometimes floating in the white. These blood clots may have lost their characteristic red color and appear as small spots of foreign material commonly referred to as meat spots. Such blood clots or meat spots are incorporated in the egg during its formation as, or after, the yolk leaves the ovary. Such blood spots are not due to germ development.

Bloody White.—An egg, the white of which has blood diffused more or less generally through it. Such a condition may be present in new-laid eggs. Eggs with bloody whites are classed as inedible.

General Terms

No Grade.—Eggs of possible edible quality that fail to meet the requirements of an Official or Tentative U.S. Grade or that have been contaminated by smoke, chemicals or other foreign material that has seriously affected the character, appearance or flavor of the egg are classed as “No Grade.”

Loss.—Eggs that are inedible, smashed, contaminated or contain bloody whites, large blood spots or large or unsightly meat spots, or other extraneous or foreign material are classed as “Loss.”

Inedible Eggs.—Under the Federal Food, Drug and Cosmetic Act, eggs that are filthy, putrid, or decomposed, or otherwise unfit for food in whole or in part are adulterated. Eggs of the following descriptions are classed as inedible; Black rots, white rots, mixed rots (addled eggs), sour eggs, eggs with green whites, eggs with stuck yolks, moldy eggs, muddy eggs, eggs showing blood rings, eggs containing embryo chicks (at or beyond the blood ring state) and any other eggs that are filthy, decomposed or putrid.

Glossary of Technical Terms
(From American Standard of Perfection)
A number of technical terms are used by judges in describing poultry. You should have a working knowledge of these terms in order to use good judgment in placing the bird and in giving reasons for placing.

Barring: Bars or stripes extending across a feather.
Blade: The rear part of a single comb, usually extending beyond the crown of the head, should be smooth and free from serrations.
Buff: A medium shade of orange color having a rich, golden cast. A color term used in describing the plumage of all standard buff varieties of poultry, that is not so intense as to show a reddish cast, or so pale as to appear brassy or light yellow.
Carriage: The attitude, bearing, or style of a bird.
Cock: A male fowl one year old or more.
Cockerel: A male fowl less than one year old.
Condition: The state of a fowl in regard to health, and in regard to state and cleanliness of plumage, head and legs.
Enamel: The quality of white found in the ear-lobes of Mediterranean varieties.
Foreign: Any color that differs from the basic color prescribed by the Standard for the specimen under consideration.
Hen: Any domestic female fowl one year old or more.
Keel-Bone: Breast bone or sternum.
Luster: The special brightness of plumage that gives brilliancy to the surface color.
Mealy: Applied to the plumage of buff or red varieties if the ground color is stippled with a lighter color.
Mossy: Irregular dark markings appearing in feathers and destroying the desirable contrast of color.
Parti-Colored: Fowls having feathers of two or more colors or shades of color.
Plumage: The feathers of a fowl.
Pullet: A female fowl less than one year old.
Quill: The hollow, horny, basal part or stem of a feather.
Serration: A V-shaped notch between the points of a single comb.
Shafting: The shaft of the plume portion of a feather that is lighter or darker in color than the web of the feather.
Surface: The color of that portion of the plumage of the fowl that is visible when the feathers are in their natural position.
Symmetry: Perfection of proportion; the harmony of all parts or sections of a fowl, viewed as a whole with regard to the Standard type of the breed it represents.
Ticking: The specks or small spots of black color on the tips of the neck feathers of Rhode Island Red Females. Small specks of color on feathers that differ from the ground or body color.
### NOMENCLATURE KEY

<table>
<thead>
<tr>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 — Shoulder</td>
<td>1 — Points</td>
</tr>
<tr>
<td>2 — Back</td>
<td>2 — Comb</td>
</tr>
<tr>
<td>3 — Wing Coverts</td>
<td>3 — Beak (Base)</td>
</tr>
<tr>
<td>4 — Secondaries</td>
<td>4 — Beak (Point)</td>
</tr>
<tr>
<td>5 — Sickles</td>
<td>5 — Throat</td>
</tr>
<tr>
<td>6 — Lesser Sickles</td>
<td>6 — Wattle</td>
</tr>
<tr>
<td>7 — Main Tail Feathers</td>
<td>7 — Plumage on front of neck</td>
</tr>
<tr>
<td>8 — Saddle Feathers</td>
<td>8 — Cape</td>
</tr>
<tr>
<td>9 — Fluff</td>
<td>9 — Wing-Front</td>
</tr>
<tr>
<td>10 — Hock Plumage</td>
<td>10 — Wing-Bow</td>
</tr>
<tr>
<td>11 — Shank</td>
<td>11 — Wing-Coverts</td>
</tr>
<tr>
<td>12 — Spur</td>
<td>12 — Breast</td>
</tr>
<tr>
<td>13 — Foot</td>
<td>13 — Primary Coverts</td>
</tr>
<tr>
<td>14 — Toe Nail</td>
<td>14 — Lower Thigh Plumage</td>
</tr>
<tr>
<td>15 — Toe</td>
<td>15 — Hock Joint</td>
</tr>
<tr>
<td>16 — Hock Joint</td>
<td>16 — Spur</td>
</tr>
<tr>
<td>17 — Primaries</td>
<td>17 — Toe</td>
</tr>
<tr>
<td>18 — Wing Front</td>
<td>18 — Toe Nail</td>
</tr>
<tr>
<td>19 — Breast</td>
<td>19 — Foot</td>
</tr>
<tr>
<td>20 — Cape</td>
<td>20 — Shank</td>
</tr>
<tr>
<td>21 — Hackle</td>
<td>21 — Rear Body Feathers</td>
</tr>
<tr>
<td>22 — Plumage on Front of Neck</td>
<td>22 — Fluff</td>
</tr>
<tr>
<td>23 — Wattle</td>
<td>23 — Primaries</td>
</tr>
<tr>
<td>24 — Throat</td>
<td>24 — Secondaries</td>
</tr>
<tr>
<td>25 — Beak (Point)</td>
<td>25 — Main Tail Feathers</td>
</tr>
<tr>
<td>26 — Beak (Base)</td>
<td>26 — Main Tail Feathers</td>
</tr>
<tr>
<td>27 — Head</td>
<td>27 — Tail Coverts</td>
</tr>
<tr>
<td>27 — Base of Comb</td>
<td>28 — Cushion</td>
</tr>
<tr>
<td>29 — Points</td>
<td>29 — Sweep of Back</td>
</tr>
<tr>
<td>30 — Blade</td>
<td>30 — Back</td>
</tr>
<tr>
<td>31 — Eye</td>
<td>31 — Shoulder</td>
</tr>
<tr>
<td>32 — Ear</td>
<td>32 — Neck Feathers</td>
</tr>
<tr>
<td>33 — Ear Lobe</td>
<td>33 — Ear Lobe</td>
</tr>
<tr>
<td>34 — Crest</td>
<td>34 — Ear</td>
</tr>
<tr>
<td>35 — V-Shaped Comb</td>
<td>35 — Face</td>
</tr>
<tr>
<td>36 — Muffs</td>
<td>36 — Eye</td>
</tr>
<tr>
<td>37 — Beard</td>
<td></td>
</tr>
</tbody>
</table>