

4-H Poultry Judging

- Past egg production (reasons class)
- Interior egg quality – candling
- Interior egg quality - broken out
- Exterior egg quality
- Poultry carcass parts identification
- Poultry carcass quality

Past egg production

1. If possible, place the class based on loss of pigment (bleaching) from the skin.
2. If a pair of hens has equal loss of pigment, then use handling qualities to decide which hen is best.
3. If a pair of hens has equal loss of pigment and equal handling quality, then use abdominal capacity to decide which hen is best.
4. If a pair of hens has equal bleaching, handling quality and abdominal capacity, then use molt condition to decide which hen is best.

Order of bleaching as egg production

increases:

1. Vent
2. Eye ring, ear lobe, beak (corner of mouth to tip of beak)
3. Bottom of feet, entire shanks, hock and top of toes.

When a hen ceases to lay (molt), pigment returns in the same order as it was lost (vent to top of toes) but returns about 3X quicker than it was lost.

Vent



Head



Legs and feet



Handling quality

The desirable hen has thin pubic bones and soft, pliable abdomen



Abdominal capacity

The most desirable hen will have a large abdominal capacity – a good layer will have a 3 finger (wide) by 4 finger (deep) capacity.



Molt

The hen that has lost the fewest feathers is the more desirable.

A hen has 10 primary flight feathers. Start at the tip of the wing and count the number of feathers to the axial feather.



Practice

Egg grading - exterior

- Grade A – Clean, unbroken, practically normal shape. Ridges and rough spots that do not materially detract from the appearance of the egg are ok.
- Grade B – Unbroken, clean to moderately stained ($1/32$ of surface if localized, or $1/16$ of surface if scattered). Maybe somewhat unusual to misshapen, or show pronounced ridges or thin spots.
- Dirty – Unbroken. Adhering dirt or foreign material, prominent stains, or moderately stained if in excess of B grade.

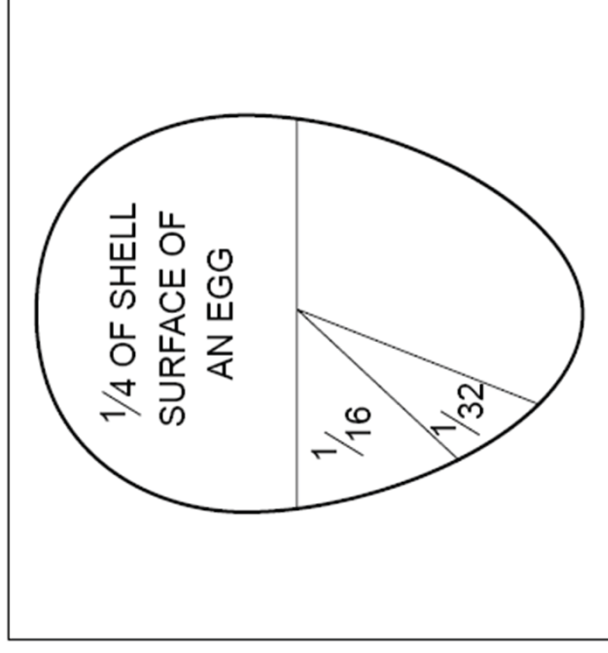
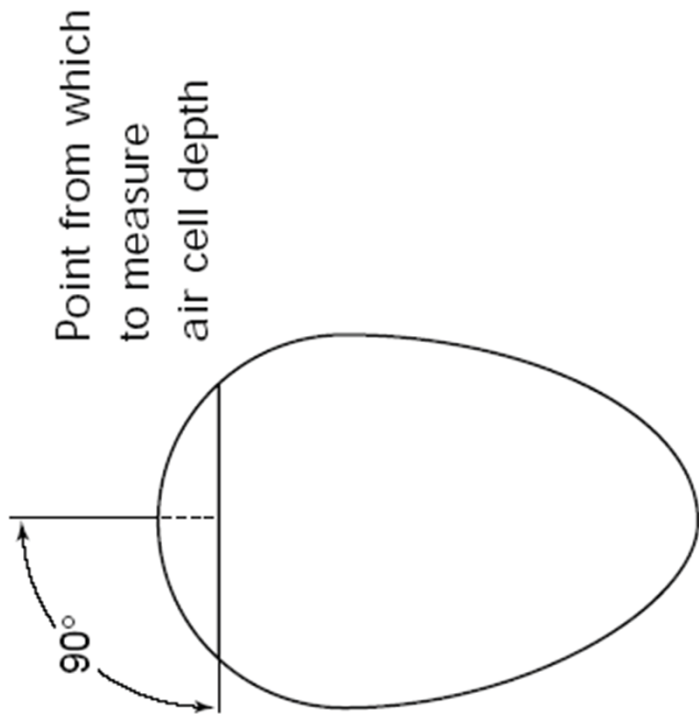


Figure 36. One thirty-second, one-sixteenth, and one-fourth of the shell surface of an egg (areas shown are approximate).

Practice

Egg grading – interior (candling and broken out)

Quality factor	Grade AA	Grade A	Grade B
Air cell	1/8 inch or less depth	3/16 inch or less depth	Over 3/16 inch depth
White	Clear and firm	Clear and reasonably firm	Weak and watery. Small (< 1/8 inch diameter) blood and meat spots may be present
Yolk	Outline slightly defined	Outline fairly well defined	Outline plainly visible, enlarged and flattened. May have clearly visible germ development but no blood.



● Hold gauge over egg in front of light.
● For information regarding the U.S. Standards and Grades For Eggs, write:


Poultry Programs, Grading Branch
AMS, U.S. Department of Agriculture
P.O. Box 56455
Washington, D.C. 20090-6455

OFFICIAL EGG AIR CELL GAUGE
FORM PY-35 (Rev. 6-99) (over)

AA QUALITY
1/8 inch

A QUALITY
3/16 inch

3/8 inch



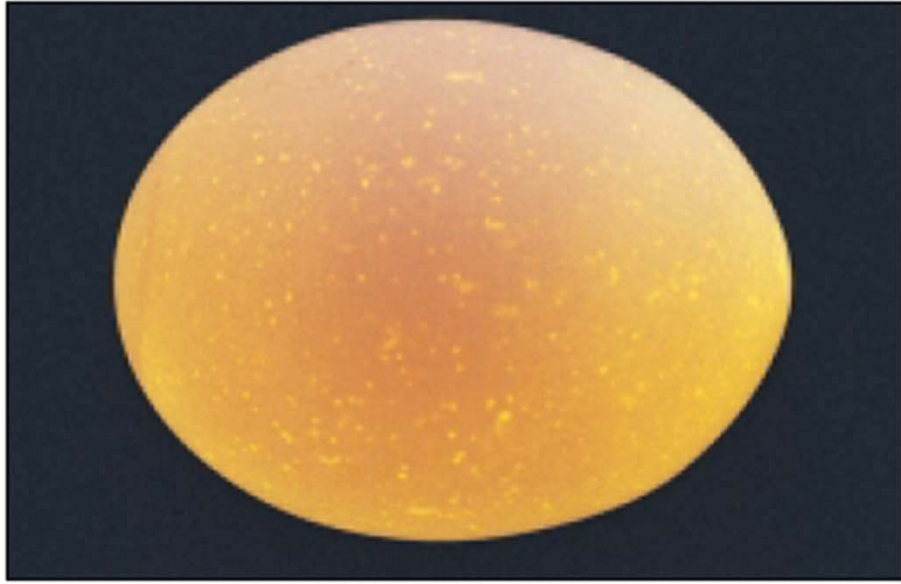


Figure 40. Yolk outline slightly defined.
(99-CS-1610)

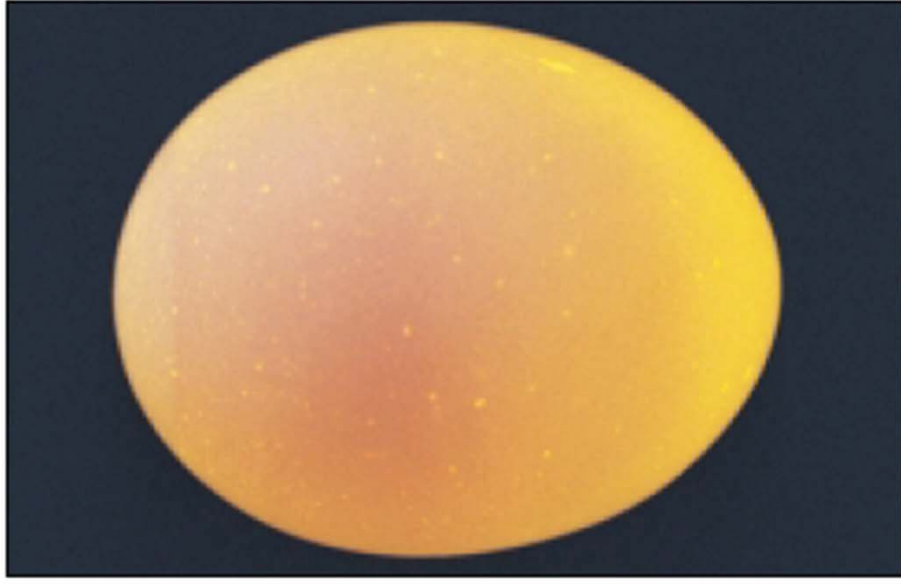


Figure 41. Yolk outline fairly well defined.
(99-CS-1611)

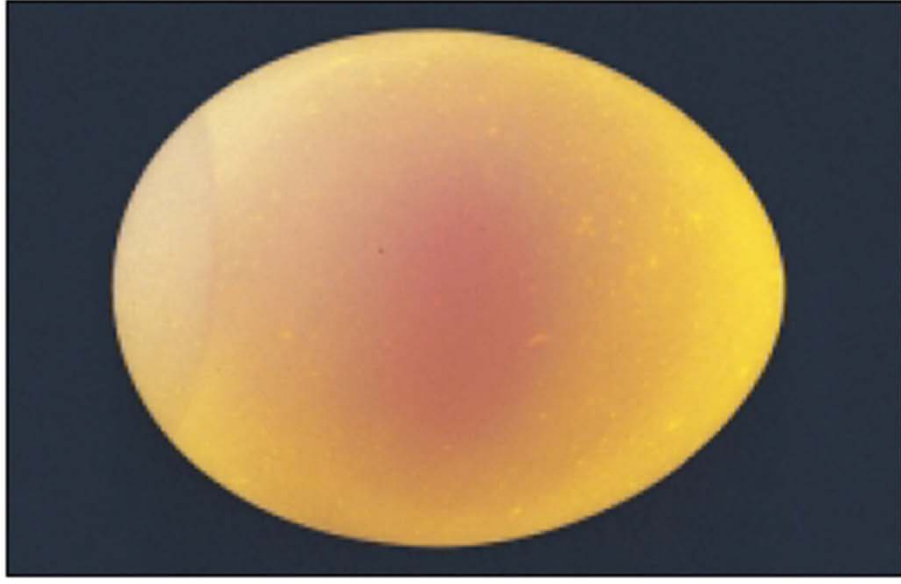
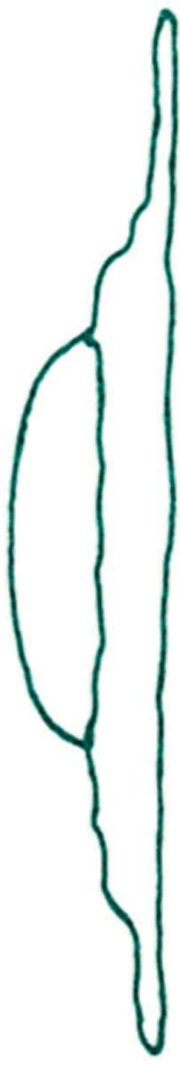


Figure 42. Yolk outline plainly visible.
(99-CS-1612)

Interior egg grading

- It's my feeling that this probably requires the greatest amount of practice to master.
- Unfortunately, grade AA eggs are a bit hard to find in the market.
- To obtain grade B eggs need to hold eggs at room temperature for a few weeks.
- A good way to practice is to candle the eggs, then break them out.

A Grade AA egg will stand tall. The yolk is firm and the area covered by the white is small. There is a large proportion of thick white to thin white.

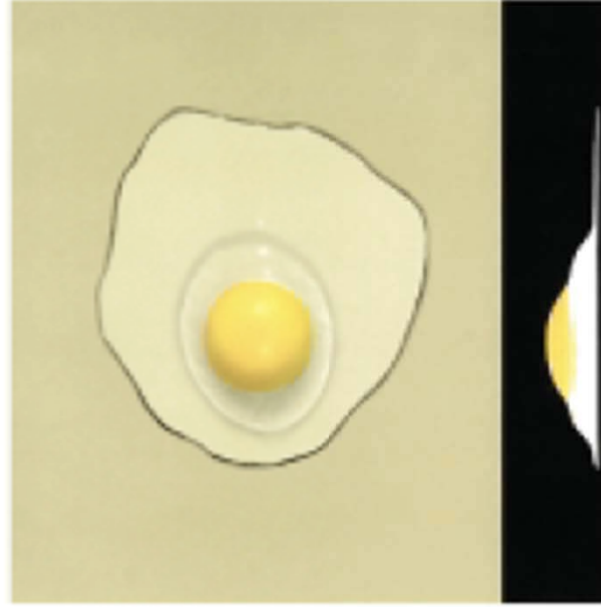


Grade A egg covers a relatively small area. The yolk is round and upstanding. The thick white is large in proportion to the thin white and stands fairly well around the yolk

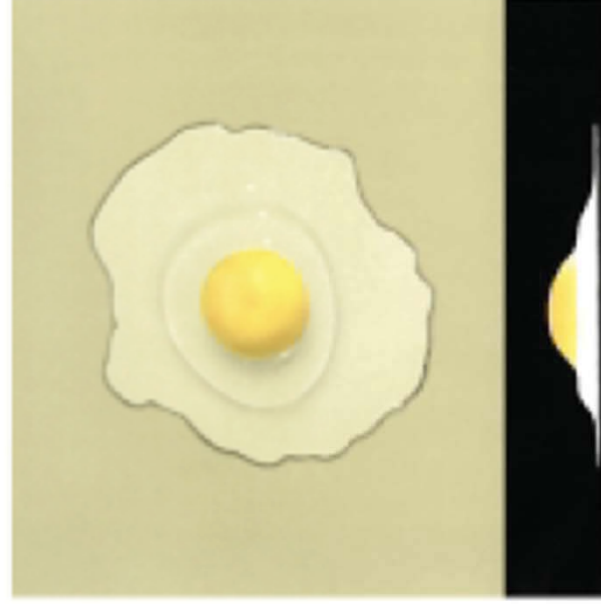


A Grade B egg spreads out more. The egg yolk is flattened and there is about as much (or more) thin white as thick white

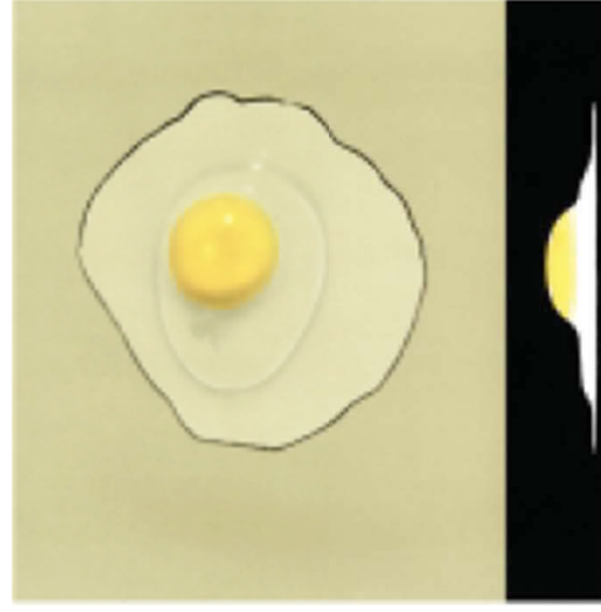




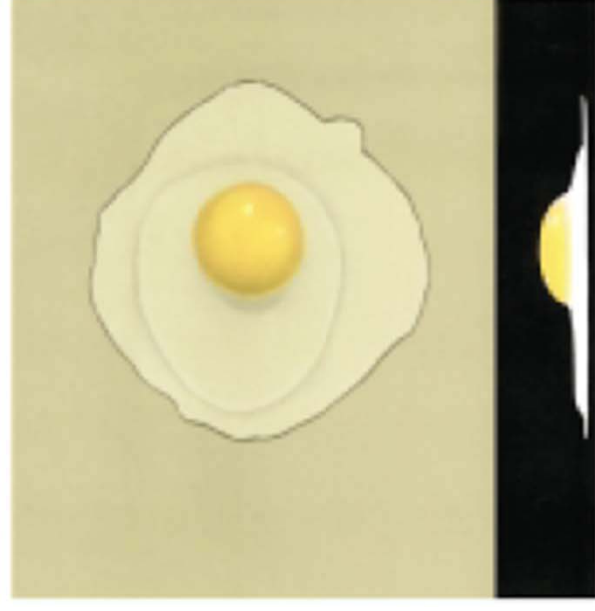
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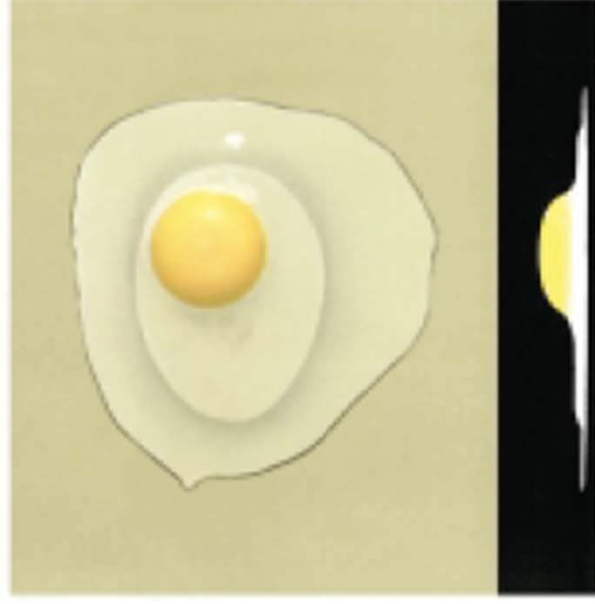
2. Average "AA"



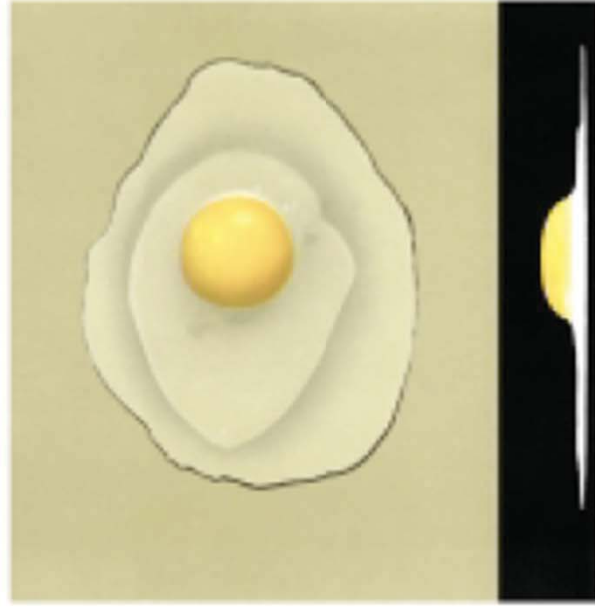
3. Low "AA"



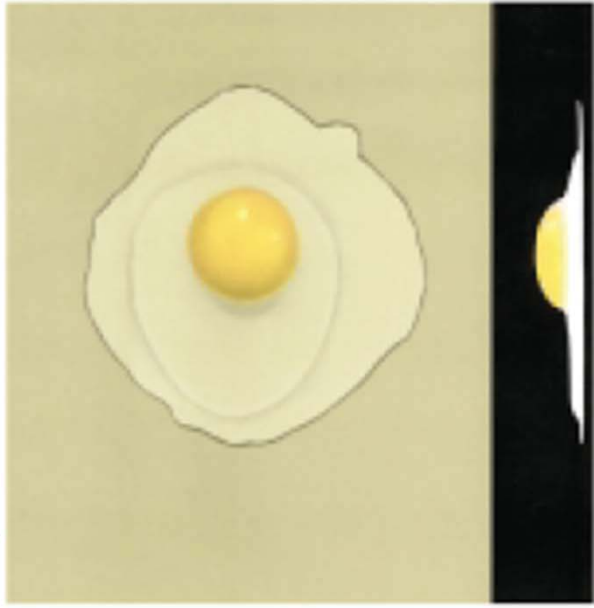
4. High "A"



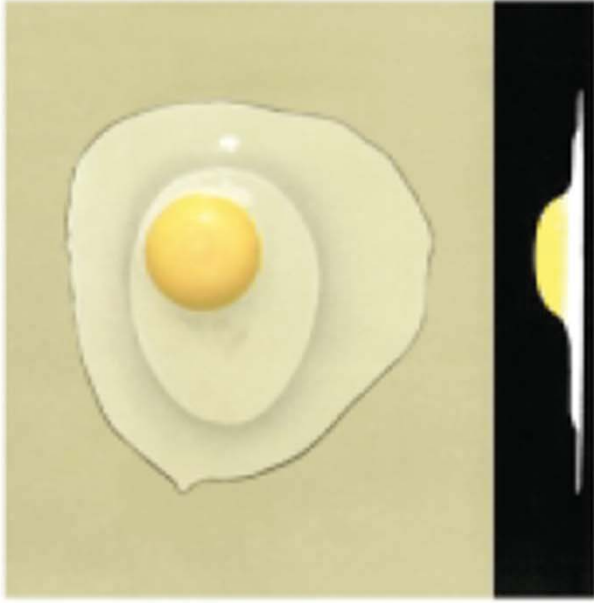
5. Average "A"



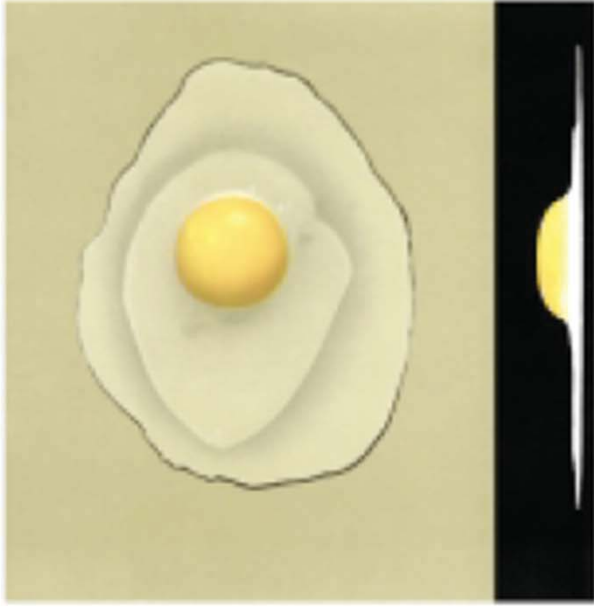
6. Low "A"



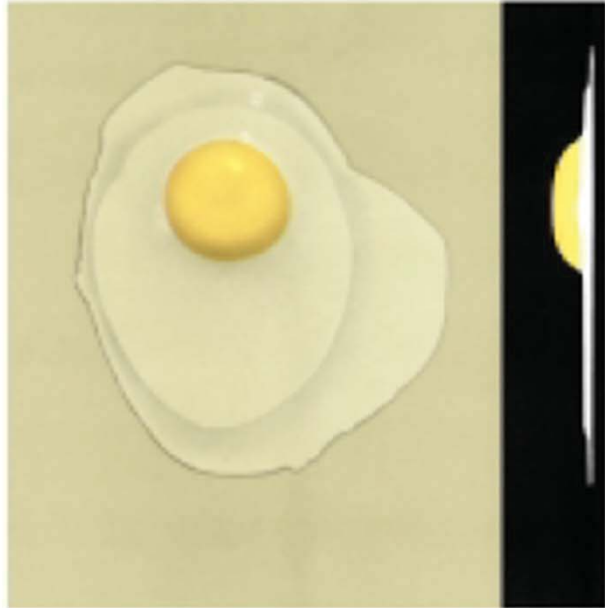
4. High "A"



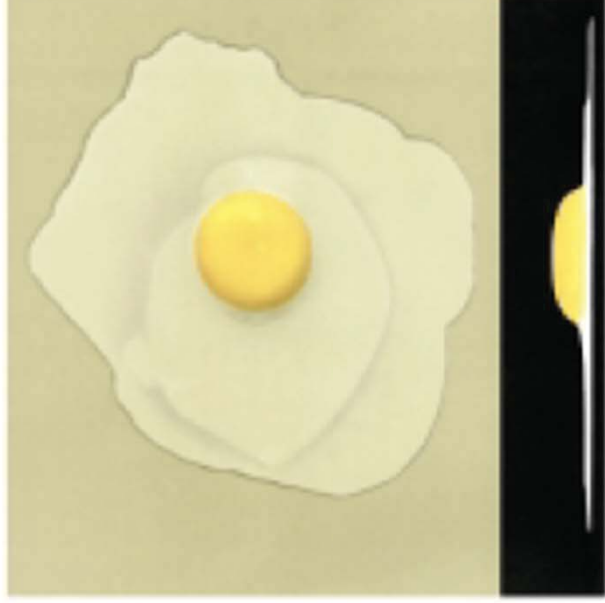
5. Average "A"



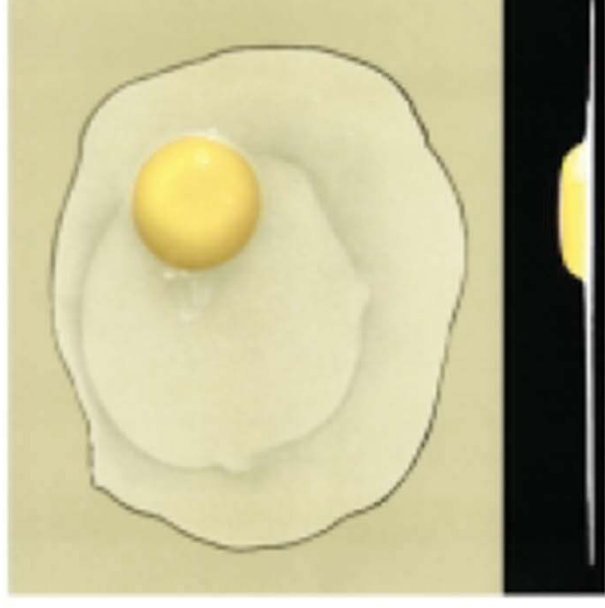
6. Low "A"



7. High "B"



8. Average "B"



9. Low "B"

Practice

Carcass parts identification

- Contestant must properly identify the carcass part as displayed.
- A part can be displayed skin side up or down. Wings might be “folded.” Can be bone-in or boneless.

Parts will include:

- Whole breast, split breast, breast with ribs, boneless breast, breast quarter, tenderloin
- Leg quarter, whole leg, thigh, boneless thigh, drumstick
- Wing, flat, drummette
- Giblet (liver, heart, gizzard)
- Neck
- Back









Practice

Specifications for grading individual carcasses of ready-to-cook chicken (2 to 6 lbs)

Factor	A grade	B grade	C grade
Exposed flesh	0.25 " on breast and legs, 1.5" elsewhere	One third of flesh on each part provided meat yield not affected	No limit
Disjointed and broken bones	1 disjointed, none broken	2 disjointed and not broken, or 1 disjointed and 1 nonprotruding broken	No limit
Missing parts	Tail and wing tips	Tail, wing tips and 2 nd wing joint. Back not wider than tail and extending half way to hip joints	Tail and wings. Back not wider than tail and extending to hip joints

Practice

Judging pullets for the local pullet show and sale

- The goal in raising a group of pullets is to achieve maximum, uniform growth and development. Want to the pullets to start laying at about the same time and at the age at which the strain can be expected to become sexually mature.

The most common errors in raising pullets are:

- Not providing feed *ad libitum*. “Meal” feeding can result in the more dominant pullets consuming more than their share.
 - Variability in water quality. A bird that does not have access to clean water is apt to reduce feed consumption
 - Poor quality grower/developer feeds or providing scratch feed (this simply dilutes the nutritional value of the grower feed).
 - Inadequate feeder space, limiting consumption by more submissive pullets.
 - Health problems such as mites or worms.
 - In judging the pullets we want to recognize and reward those 4-Her’s who have demonstrated best management practices.
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- First survey the pens within each strain (genotype). If within strains you see some pullets with bright red combs and wattles (an indicator of sexual maturity), then you should assume that all birds of that strain could have achieved sexual maturity had they been better managed. Those pens of pullets that are sexually immature (small, pale combs and wattles) should be assigned a red ribbon.

- Some strains (often the larger-bodied Black Sex Link) are later maturing. You may not see any pullets within a strain that exhibit sexual maturity. This is not due to poor management, but due to genetics. In this case you must identify those pens of pullets that are smaller bodied (should to shoulder width and shoulder to keel body depth) or that are highly variable in body size. Those hens that are small bodied or quite variable should be assigned a red ribbon, since these two criteria are indicative of a feed management failure

- To distinguish B+ from B pullets evaluate (listed in priority):
 1. Body width (shoulder to shoulder) and depth (shoulder to keel).
 2. Pen uniformity.
 3. Abdominal handling quality (soft pliable abdominal skin)
 4. Abdominal capacity (width between pelvic bones, and depth between pelvic bones and keel)
- The best pen(s) of pullets will have bright red wattles and combs, a large body size, a uniform group of pullets, soft pliable abdominal skin, and a 3 x 4 finger abdominal spread