Quality Standards for Beef, Pork and Poultry

Objective
I CAN: __________________________________________________________
I WILL: __________________________________________________________

General Information
A. The United States Department of Agriculture sets forth quality features for beef, pork and poultry.
B. The quality features are classified into grades as determined by the USDA.
C. Grades indicate quality NOT sanitation.

Beef Classes
A. Beef animals are classified according to their purpose.
B. Animals are grouped by age and sex.
   1. ____________________
      i. Calves- less than one year of age.
      ii. Cattle- one year or older.
      iii. Veal calves- less than 3 months old.
      iv. Slaughter calves- 3 months to one year old.
      v. Feeder calves- 6 months to one year old.
   2. ____________________
      i. Steer- male castrated before reaching sexual maturity.
      ii. Heifer- female that has not had a calf or matured as a cow.
      iii. Cow- female that has had one or more calves or is mature.
      v. Stag- male castrated after reaching sexual maturity.
C. ____________________ (6 months and older)- graded based on visual appraisal. The frame size, muscle thickness and thriftiness of the animal are scored and animals are grouped according to a USDA scale.
   1. USDA Feeder Steer & Heifer Grades
i. USDA No. 1.
ii. USDA No. 2.
iii. USDA No. 3.
iv. Each USDA grade also has a large, medium and small frame category.

2. ____________________ - also evaluated visually, but they are also graded according to USDA standards. All animals are assigned quality and yield grades when they are slaughtered.

3. Quality Grades
   i. Prime.
   ii. Choice.
   iii. Select.
   iv. Standard.
   v. Commercial.
   vi. Utility.
   vii. Cutter.
   viii. Canner.

4. Yield Grades
   i. Yield Grade 1.
   ii. Yield Grade 2.
   iii. Yield Grade 3.
   iv. Yield Grade 4.
   v. Yield Grade 5.

Quality Features of Beef
A. ____________________
   1. Animals are divided into three groups- calves, yearlings and older feeders based on their age and weight.
   2. Feeder animals weigh between ____________________.
   3. Feeder cattle grades are the basis for reporting market prices for cattle.
4. Three factors are used to determine the grade of feeder cattle:
   
i. ____________________ - the apparent health of the animal and its potential to fatten and grow normally.

   ii. ____________________ - the size of the animal’s skeleton (height & body length).

      1. Large- tall and long bodied for their age.
      2. Medium- slightly large in size for their age.
      3. Small- shorter bodied and not as tall as medium frame cattle.

   iii. ____________________ - development of muscle in relation the size of the skeleton.

      1. US No. 1- slightly thick throughout, moderate width between legs.
      2. US No. 2- narrow throughout, legs set close together, back and loin have sunken appearance.
      3. US No. 3- less thickness & width between legs than No. 2.

5. ____________________ - uses the three factors discussed above to assign a “grade” to the animal.

   i. Large Frame No. 1- animal that is taller in size compared to others and displays thick muscling throughout body.

   ii. Large Frame No. 2- same frame size as No. 1, but has slightly less muscling. Back and loin have a sunken appearance.

   iii. Large Frame No. 3- same frame size as No. 2, but has less thickness and width than No. 2.

   iv. Medium Frame No.1- animal with a moderate or average frame size and thick muscling throughout.

   v. Medium Frame No. 2- same frame size as No. 2, but less muscling as compared to No. 1. Loin and back have a sunken appearance.

   vi. Medium Frame No. 3- same frame size as No. 2, but less thickness and width than No.2.

   vii. Small Frame No. 1- the size of the animal is smaller than other grades,
but animal displays thick muscling throughout.

viii. Small Frame No. 2- same frame size as No. 1, but less muscled. Back and loin appear sunken in.

ix. Small Frame No. 3- same frame size as No. 2, but less thickness and width than No. 2.

x. Inferior- feeder cattle that are unthrifty and not expected to grow or fatten normally. Usually indicative of disease, parasites, etc.

B. Slaughter Steer & Heifers Quality Grades

1. ____________________ grade is determined by:
   i. Age or maturity of animal.
   ii. Muscling or firmness of meat tissue.
   iii. Amount of marbling or fat distribution in the lean meat.

2. ____________________ is the dispersal or intermingling of fat among the muscle fiber in the ribeye between the twelfth and thirteenth ribs.

3. ____________________ is the yield of closely trimmed, boneless retail cuts that come from the major wholesale cuts of carcass.

4. Maximum age of Standard, Select, Choice or Prime grades is ________________ months.

5. ____________________ grade is over 42 months.

6. Utility, Cutter or Canner grades have ________________ age limit.

7. There is no ________________ grade for slaughter cows.

8. Adequate marbling must be present for tenderness in the higher quality grades.

9. Prime grades have maximum ________________.

10. Low choice or higher grades are the most desirable.
11. About ________________ of grain fed grade beef is graded as choice.

C. Slaughter Steer & Heifers Yield Grades
   1. Yield grade is determined by the ________________ of the carcass that is boneless, closely trimmed retail cuts from the round, loin rib, and chuck
   2. Yield grades are affected by ________________ and amount of fat.
   4. Yield 2, 3, 4- grades that are in between the highest percentage of yield versus the lowest grade.
   5. Yield 5- worst grade, less muscle and more fat waste.

Swine Classes
A. _________________ Classes
   1. Slaughter- to be killed and sold as meat.
   2. Feeder- to be fed to heavier weights before slaughter.

B. _________________ Classes
   1. Barrow- male castrated before sexual maturity.
   2. Gilt- young female that has not had pigs.
   3. Sow- older female that has had pigs.
   4. Boar- uncastrated male.
   5. Stag- male castrated after reaching sexual maturity.

Quality Features of Swine
A. _________________ Pig Grades
   1. Potential for feeding out to slaughter weight and thriftiness affects feeder pig grades.
2. USDA No. 1 Feeder Pig - large frame, thick muscled animal that is trim. Legs set wide apart and ham is wider than loin.
3. USDA No. 2 Feeder Pig - moderately large frame with moderate muscling. Animal is slightly fatter than No. 1.
4. USDA No. 3 Feeder Pig - slightly smaller frame with thin muscling. Ham and loin are about the same width. Legs are fairly close together.
5. USDA No. 4 Feeder Pig - small frame with thin muscling. Ham and loin are same width. Back is flat. Ham will show signs of too much fat.
6. USDA Utility Feeder Pig - animal shows unthriftiness because of disease or poor care. Skin is wrinkles and head appears too large for the rest of the body.
7. USDA Cull Feeder Pig - animal is “unthrifty.” It has poor appearance that indicates improper care and disease. The head appears too big for the body and has wrinkled skin.

B. ____________________ Barrows & Gilts
1. Quality grade is determined by quality of lean meat and yield.
2. Quality of lean is determined by firmness of lean, firmness of fat, and distribution of external finish (fat).
3. Yield is evaluated by thickness of backfat and degree of muscling.
4. Thick muscling helps offset backfat thickness.
5. United States No. 1 hog must have at least average muscling.
6. United States No. 1 should yield 60.4% or higher.
7. Grade is determined by the percent of carcass weight made up of ham, loin, ____________________butt and picnic shoulder.
8. Backfat and degree of muscling are used to evaluate live hogs for yield.
9. USDA slaughter barrow and gilt grades:
   i. U. S. No. 1.
   ii. U. S. No. 2.
   iii. U. S. No. 3.
   iv. U. S. No. 4.
10. Calculating _________________ Barrow & Gilt Grades
   i. The estimated backfat thickness over the last rib and the muscling score are used to determine the USDA slaughter barrow and gilt grade.
   ii. Degrees of muscling are thick, average and thin.
      a. Thick Muscle Score = 3.0.
      b. Average Muscle Score = 2.0.
      c. Thin Muscle Score = 1.0.
   iii. The formula used to calculate slaughter barrow & gilt grades is:
      a. Grade = (4.0 x backfat) – (1.0 x muscling score).

Poultry Quality Factors
A. Conformations- ideal is normal breastbone, back, legs and wings.
B. _________________- well fleshed or muscled is ideal.
C. _________________- well covered is ideal.
D. Exposed Flesh- none is ideal, to grade A – breast and legs cannot have more than 1/4" exposed flesh (under 6 lb. carcass) from cuts, tears. Other parts such as back and wings can have from 1” to 3” depending on weight of carcass with larger carcasses able to have more and still be grade A
E. Discolorations- bruises are not allowed on breast and legs of grade A, some from other causes allowed.
F. _________________ and Broken Bones- no broken and one disjointed allowed for grade A.
G. _________________ Parts- wing tips and tail can be missing on grade A.
H. Freezing Defects- slight ones allowed for grade A.

USDA _________________ Poultry Grades
A. USDA Ready to Cook Poultry Grade A.
B. USDA Ready to Cook Poultry Grade B.
C. USDA Ready to Cook Poultry Grade C.
D. USDA Ready to Cook Poultry: No grade.

E. Ready-to-cook means the head, feet feathers, blood and viscera (soft internal parts) have been removed.