

**2012 Senior Dairy Quiz Bowl Questions**

**Round 02**

**Phase B      5 Questions      Correct answers are worth 10 points each.**

**Only the team being asked the questions is to be in the room. Each team will be asked these 5 questions. Answers are to be given by a team captain, but assistance may come from any team member. A question may be repeated only once. Answers must be started within 20 seconds. Partial credit may be given at the discretion of the judges. After one team has been questioned, the other team will enter the contest room and be asked the same 5 questions.**

**1 . In reference to milk processing, what describes “the cost of turning milk into cheese”?**

- a) income over feed costs                      b) somatic cell counts**  
**c) “make allowance”                      d) amount of waste milk from treated cows**

ANS: c) “make allowance”

**2. What part of the cell is known as the powerhouse of the cell because of the amount of energy produced in this part?**

- a) villi                      b) cell membrane                      c) mitochondrion (or mitochondria)**

ANS: c) mitochondrion (or mitochondria)

**3. Cellulose, hemicellulose and lignin are the components of:**

- a) acid-detergent fiber (ADF)**  
**b) crude protein**  
**c) neutral detergent fiber (NDF)**  
**d) rumen-undegradable protein (RUP)**

ANS: c) neutral detergent fiber (NDF)

**4. What normally happens to the milk fat percentage when we feed a low fiber, high grain diet to lactating dairy cows?**

ANS: It decreases (milk fat percentage in the milk drops)

**5. Which of the following terms refers to scours or diarrhea in calves?**

- a) brucellosis                      b) enteritis                      c) pneumonia                      d) acetonemia**

ANS: b) enteritis

Phase C

20 Questions

Correct answers are worth 15 points each.

Both teams are in the room for Phase C. The first contestant to signal will answer the question within 5 seconds after being acknowledged by the moderator. Failure to do so will cost that team 10 points. Any contestant answering a question without being acknowledged by the moderator will lose 10 points. If an answer is incorrect, members of the other team will have the opportunity to answer the question without having it reread except for true/false, either or and yes or no type questions. If an answer is given in these types of questions, the question will be replaced with a tie breaker question, and given to the other team. No points are deducted for giving an incorrect answer. Team members are not allowed to discuss the answers in this phase. No partial credit is available in Phase C, except for bonus questions. If neither team can offer an answer to the question within 10 seconds, the moderator will give the answer and the question will be dropped but neither team will forfeit points.

1. Which Vitamin is known as B<sub>3</sub>?

ANS: Niacin

2. In addition to carbon dioxide, what other main gas is formed in the rumen?

ANS: methane

3. What compartment of the ruminant stomach functions to squeeze water from the digested contents so the feed material is drier before it enters the rest of the digestive tract?

ANS: Omasum

4. What toxic compound is often formed when sorghum forage is damaged by frost?

a) nitrates    b) prussic acid (also called hydrocyanic acid)    c) lactic acid

ANS: b) prussic acid (also called hydrocyanic acid)

5. When compared to normal corn silage, brown midrib or BMR corn silage has more energy and higher digestibility. This is due largely to its lower content of what?

ANS: lignin

6. What term describes the duration of light that an animal is exposed to in a day?

a) photosynthesis

b) photoperiod

c) photolumination

ANS: b) photoperiod

7. Which of the following is a C4 or warm season grass?

a) fescue

b) alfalfa

c) bermuda

d) orchardgrass

ANS: c) bermuda

**8. Four hundred (400) pounds of milk should yield about how many pounds of hard cheese?**

ANS: 40 pounds of hard cheese

**9. Gregor Mendel is considered to be:**

- a) the first person to discover pasteurization
- b) the father of modern genetics
- c) the person who invented the first automatic milking machine

ANS: b) the father of modern genetics

**10. What vitamin is needed for blood clotting?**

ANS: Vitamin K

**11. How many points are allotted for Rear Feet and Legs on the new PDCA Dairy Cow Unified Score Card?**

ANS: 20

**12. Which one of the following classes of nutrients are the highest in energy?**

- a) protein
- b) carbohydrates
- c) fats

ANS: c) fats

**13. What term is used to describe a calf that is born dead?**

ANS: Stillbirth or Stillborn

**14. What is the precursor for Vitamin A?**

ANS: Carotene

**15. In which season of the year is Pinkeye most prevalent in dairy cattle?**

ANS: Summer

**16. When showing a dairy HEIFER, where should the rear leg nearest to the judge be placed when setting up the animal in the show ring?**

- a) farther forward than the other
- b) farther back than the other
- c) either way is fine

ANS: b) farther back than the other

**17. Which of the following is the main reason that dairy cattle nutritionists get concerned about the amount of lignin in forages?**

- a) cellulose                      b) hemicellulose                      c) lignin is not digestible by the dairy cow

ANS: c) lignin is not digestible by the dairy cow

**18. Each cell contains how many pairs of chromosomes in dairy cows?**

ANS: 30

**19. In the dairy cow's reproductive tract, where are the muscular rings found?**

ANS: cervix

**20. What hormone is released by the pineal gland in response to longer day length?**

ANS: Melatonin

**Bonus Questions      Each bonus question is worth 20 points.**

**Bonus questions may be earned in the toss-up round. To receive a bonus question, 3 different team members must correctly answer the toss-up questions. Bonus questions are not passed to the other team, nor are points deducted for an incomplete or incorrect answer to the question. Bonus question will be asked whenever 3 team members have answered toss-up questions correctly with the count kept individually for both teams within a match. Eligibility for bonus questions does not carry over to another match. The answers must come from the team captain but assistance can come from the other team members. Only the number or answers required by the bonus question will be accepted. Example: If the bonus has a four-part answer - the first four answers given by the team will be accepted. Answers to a bonus question must start within 20 seconds and be completed within 60 seconds.**

**1. Who invented the continuous cream separator in 1878?**

- a) Dr. Westphalia                      b) Dr. Babcock                      c) Dr. DeLaval                      d) Dr. Pasteur

ANS: c) Dr. DeLaval

**2. What links the embryo to the placenta?**

ANS: naval cord or umbilical cord

**3. The uniting of the sperm and egg to create a new calf is called?**

ANS: fertilization