

**2013 Senior Dairy Quiz Bowl Questions**

**Round 03**

**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. On the average how much time each day does a dairy animal spend ruminating or cud chewing?**

- a) 1 to 2 hours      b) 4 to 5 hours      c) 7 to 10 hours**

ANS: c) 7 to 10 hours

**2. What cell structure is known as the “powerhouse of the cell” because it produces most of the energy in most types of cells?**

ANS: Mitochondria

**3. In humans, what is caused by a lack of the enzyme lactase in the small intestine?**

ANS: Lactose intolerance

**4. After peak milk production is attained, the cow’s milk production starts to decline. What is the rate of decline or the steepness of the slope of the milk production curve called?**

ANS: persistency

**5. Supernumerary teats in dairy cattle:**

- a). help to increase milk production      b). are extra teats that are nonfunctional  
c) means that a teat is infected with mastitis**

ANS: b). are extra teats that are nonfunctional

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. Your veterinarian says that a cow is in the first trimester. What does that mean?

- a) first 3 months of pregnancy      b) second 3 months of lactation
- c) second 3 months of pregnancy

ANS: a) first 3 months of pregnancy

2. What mineral, found in milk, can help prevent osteoporosis in humans?

ANS: Calcium

3. In what state in the national office of the American Jersey Cattle Association located?

ANS: Ohio

4. What component of milk is estimated by the milk cryoscope test?

ANS: water

5. What gas is formed in anaerobic digesters?

ANS: Methane

**6. What is the proper name of the ligament that causes the cleft between the halves of the udder?**

**a) lateral suspensory ligament      b) median suspensory ligament      c) thurl ligament**

ANS: b) median suspensory ligament

**7. How many double bonds are found in a completely hydrogenated saturated fat?**

ANS: None

**8. At the end of a Holstein animal registration name, what do the letters E-T stand for?**

ANS: Embryo Transfer

**9. How many pairs of chromosomes do dairy cattle have?**

ANS: 30

**10. What is the name of the first section of the small intestine that is connected to the abomasum?**

ANS: Duodenum

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

ANS: photoperiod

**12. What is the name of the organic acid that has a strong odor that can develop when grass or alfalfa silages are not ensiled properly?**

ANS: Butyric acid

**13. What does a bull's progeny refer to?**

ANS: the bull's offspring

**14. What is the term for "an inflammation of the lining of the uterus"?**

ANS: endometritis

**15. What major volatile fatty acid (VFA) is increased in the rumen when Rumensin® is included as a feed additive?**

ANS: propionate

**16. What is the term for when an egg from a cow and spermatozoa from a bull are joined?**

ANS: fertilization

**17. Which dairy breed has the most registered animals in the United States?**

ANS: Holstein

**18. A cow has had 4 bull calves in the last 4 years. What is the probability that she will have another bull calf this year?**

ANS: 50%

**19. What is the term for the total amount of energy that a feed contains?**

ANS: Gross Energy

**20. Frost-damaged sorghum often contains what toxic substance?**

ANS: Prussic Acid (also accept hydrocyanic acid)

**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. If refrigerated properly, pasteurized and homogenized milk remains fresh for how many days after the expiration date?**

- a) 2 to 3 days              b) 4 to 5 days              c) 7 to 10 days              d) 12 to 14 days

ANS: c) 7 to 10 days

**2. When a sperm cell with a Y chromosome fertilizes an egg, what will be the sex of the offspring?**

ANS: male

**3. What is the name of the process where legume plants like alfalfa and clover convert atmospheric nitrogen into nitrogenous compounds that are useful to the plants?**

ANS: Nitrogen fixation