

## **2008 National FFA Dairy Cattle Event**

### **Dairy Management Exercise**

Select the best answer for each of the following 50 questions.

**For questions 1 through 15, use the "herd reports" which are attached to the quiz.**

1. Which herd currently has the lowest average genetic level for protein yield?
2. In which herd will calves born over the next year have the highest estimated genetic merit for milk yield?
3. Which herd shows the greatest change in genetic producing ability for milk from current cows to that for the daughters expected from current matings?
4. In which herd did the cows have the highest average protein test for the last year?
5. Which herd has the lowest percentage of cows with high somatic cells in the second lactation?
6. Which herd currently has the most successful breeding program in terms of getting cows pregnant again quickly after calving?
7. Which herd shows the best mammary health within the first lactation cows?
8. Which herd has had the most success in getting heifers to calve at an early age?
9. Which herd has the longest calving interval for the next year?
10. Which herd produced the least energy-corrected milk for second lactation milking cows in the month of August?
11. Which herd appears to have the smallest decrease in size over the past year?
12. In which herd would you expect the highest nutrient demand when balancing a current ration for the milking cows?
13. Which herd has the highest proportion of dry cow days for the current month?
14. Which herd appears to have the oldest cows on average?
15. Which herd has the highest average milk yield on an age corrected basis?

16. On the PDCA Unified Dairy Cow Score Card, the category "feet and legs" accounts for how many points? a) 10, b) 15, c) 20, d) 30, e) 40.
17. Which one of the following is the largest dairy milk marketing cooperative in the U.S.? a) Maryland and Virginia Milk Producers, b) Land O'Lakes, c) Dairy Farmers of America (DFA), d) California Dairies, e) Foremost Farms.
18. When comparing bulls for artificial insemination, what does "SCR" stand for? a) sire conception rate, b) service conception rate, c) sibling conception rate, d) sperm conception rate, e) none of the above.
19. Which one of the following is not classified as a water soluble-vitamin? a) biotin, b) folic acid, c) niacin, d) Vitamin A, e) Vitamin C.
20. When using sexed semen, conception rates are about what percent of the conception rates achieved when using unsexed semen under the same conditions? a) 25 %, b) 50 %, c) 80 %, d) 95 %, e) 100%.
21. In the ruminant digestive system, which of the following is the name of the first section of the small intestine that is connected to the abomasum? a) reticulum, b) jejunum, c) duodenum, d) ileum, e) colon.
22. Research has shown that by formulating lactating cow rations with proper amounts of certain amino acids, we can decrease the crude protein content of the ration and reduce which one of the following: a) phosphorus, b) bloat, c) acidosis d) metritis, e) nitrogen excretion to the environment.
23. In order to prevent bloat, the feed additive Poloxalene is often added to feed rations for cows that are grazing. Which of the following grazed forages are most likely to cause bloat? a) fescue and orchardgrass, b) wheat and barley, c) turnips and sudan grass, d) alfalfa and clover, e) pearl millet and teff grass.
24. Rumen bacteria enable dairy cattle to utilize which feed supplement? a) sodium bicarbonate, b) urea, c) calcium carbonate, d) defluorinate phosphate, e) magnesium oxide.
25. Heritability for milk production in dairy cattle is: a) 5%, b) 30%, c) 50%, d) 80%, e) it cannot be measured.
26. If the heat detection rate is 30% and the conception rate is 30%, what is the pregnancy rate? a) 9% b) 15, c) 30%, d) 60%, e) it cannot be determined.
27. Which of the following are the three primary volatile fatty acids (VFA) produced in the rumen? a) methionine, lysine, and tryptophan, b) acetate, propionate and butyrate, c) methane, ammonia and choline, d) methionine, propionate and acetate, e) ammonia, butyrate and acetate.
28. Which of the following is an infectious disease? a) milk fever, b) hardware disease, c) ringworm, d) bloat, e) all of the above.

29. What female hormone causes follicles to begin to development? a) luteinizing hormone, b) follicle stimulating hormone, c) prolactin, d) estrogen, e) none of the above.
30. In dairy cows, what is the name of the disease caused by the organisms Staph. Aureus, Strep. uberis and Klebsiella? a) metritis, b) listeriosis, c) mastitis, d) brucellosis, e) black leg.
31. What stomach compartments are not developed in a newborn calf? a) abomasum and omasum, b) abomasum and rumen, c) rumen and omasum, d) rumen and reticulum, e) abomasum and reticulum.
32. When compared to normal corn silage, brown mid-rib corn silage has more energy and higher digestibility. This is due largely to its lower content of what? a) starch, b) lignin, c) fat, d) potassium, e) corn.
33. Which one of the following describes biotin? a) an amino acid, b) a source of energy, c) a trace mineral, d) a B-vitamin, e) a source of fiber.
34. Material used in a footbath for cows with foot rot problems is: a) copper sulfate, b) calcium carbonate, c) sodium chloride, d) monosodium phosphate, e) iron oxide.
35. Approximately, how many gallons of blood pass through the udder for each gallon of milk produced? a) 50-100 gallons, b) 150-200 gallons, c) 300 gallons, d) 400 to 500 gallons, e) 600 gallons.
36. Subcutaneous injections are placed: a) in the mouth, b) deep in the muscle, c) in fatty tissue, d) under the skin, e) in the rump.
37. Which of the following dairy products use bacterial cultures? a) sour cream, b) yogurt, c) cottage cheese, d) buttermilk, e) all of the above.
38. Which of the following has the greatest impact on improving producer income? a) raising your own feeds, b) increase calving interval, c) increasing % of registered cows in herd, d) decreasing SCC, e) all of the above.
39. What class of nutrients are the highest in energy? a) protein, b) minerals, c) fats, d) water, e) carbohydrates.
40. The normal lactation of dairy cows is how many days? a) 130 b) 175, c) 205, d) 305, e) 365.
41. What direction should calf hutches be positioned facing in the winter? a) north, b) south, c) east, d) west, e) does not matter.
42. Milking time is best reduced by: a) increasing vacuum, b) using more units, c) speeding up pulsators, d) preparing cows properly, e) all of the above.

43. How many hours does the egg have a fertile life after it is released before it must be fertilized? a) 30 minutes – 1 hour, b) 6-10 hours, c) 12-15 hours, d) 16-18 hours, e) 20-24 hours.
44. Generally, which group of animals on a farm will have the best genetics? a) yearlings, b) old cows, c) first calf heifers, d) calves, e) there is no difference between these groups.
45. The CWT program stands for Cooperatives Working Together. Which of the following describes the function of this program? a) an international program used to market whey protein, b) a national dairy farmer-funded program that is used to help stabilize milk prices, c) a state-wide program that addresses the cost of dairy feeds, d) all of the above, e) none of the above.
46. Which dairy product's minimum percentage of fat is 80%? a) cheese, b) butter, c) ice cream, d) milk, e) yogurt.
47. Which one of the following components of a corn plant is not digestible by the dairy cow? a) lignin, b) leaf, c) cellulose, d) corn kernel, e) hemicellulose.
48. Which of the following is the name of the part of a cow's back that lies between the withers and the loin? a) rump, b) thurl, c) poll, d) chine, e) barrel.
49. What is the name of the term for a farm's unique identification number that is part of the National Animal Identification System? a) Zip Code, b) RFID, c) registration ID, d) farm number ID, e) premises ID.
50. Which of these breeds is from the English Channel Islands is known for producing milk highest in protein and fat? a) Ayrshire, b) Jersey, c) Guernsey, d) Holstein, e) Milking Shorthorn.