

2016 National FFA Dairy Cattle Event

Herd Record Evaluation

Select the one cow that best answers each of the following 10 questions.

For questions 1 through 10, use the “herd record evaluation” which is attached to the quiz.

1. Indicate which first lactation cow is having the least impact on the somatic cell count in the bulk tank.
2. Select the cow which is the most significantly overweight.
3. Determine the first lactation cow with the highest expectation among the cows for the value of a future lactation's production, relative to the herd average.
4. Select which cow will be the next one to be dried off after the testing date, assuming that breeding dates are accurate.
5. Indicate the cow having the most impact on the somatic cell count in the bulk tank.
6. Indicate which first lactation cow is potentially suffering from rumen acidosis.
7. Select the first lactation cow that will transmit the lowest expected breeding value to her offspring for milk.
8. Which cow has the highest mature equivalent for milk?
9. Indicate which cow has the highest index value that selects for the improvement of milk, fat, and protein yield, somatic cell score and productive life.
10. Which cow should be the next one to calve after the testing date, assuming normal gestation length?

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Dairy Management Exercise

Select best answer for each of the following 40 questions.

1. Milk is composed of approximately what percent lactose?
A) 0%, B) 5%, C) 8.25%, D) 13.25%, E) 87.25%.
2. The precursor of this vitamin is beta-carotene and is found commonly in legumes and grasses. A) Vitamin E, B) Vitamin A, C) Vitamin D, D) Vitamin B, E) Vitamin K.
3. Lameness on a dairy farm can lead to higher culling rates, reduced reproductive performance, and lower milk yield. In order to manage lameness on your farm, you implement a locomotion scoring system using a scale from 1 to 5. What score would you give to a cow who is visibly lame, has an arched back and favors one or more feet?
A) 4 or 5, B) 3, C) 2, D) 1, E) All of the above.
4. Fertility, as measured by daughter pregnancy rate, is lowest in which breed?
A) Guernsey, B) Milking Shorthorn, C) Jersey, D) Brown Swiss, E) Holstein.
5. What is the major buffer produced by cows that assists in maintaining optimum rumen pH? A) Cellulose, B) Calcium, C) Phosphorus, D) Lipids, E) Saliva.
6. For lunch you have a glass of milk and notice that it has an oxidized flavor to it. In what part of the milk is this off-flavor found?
A) Butterfat, B) Lactose, C) Protein, D) Water, E) Minerals.
7. Beginning January 1, 2017 this practice will not be permitted under the Farmers Assuring Responsible management or FARM program.
A) Dehorning, B) Castrating, C) Eartagging, D) Taildocking, E) All of the above.
8. Which common ailment of dairy cows is medically known as tarsal hygroma?
A) Swollen hock, B) Dehydration, C) Acidosis, D) Lameness, E) Split toed.
9. It is often said you can't improve what you can't measure. The Brix refractometer is a tool used on many dairy farms to help estimate or measure what?
A) Wither height, B) Light quality, C) Cow's reaction time, D) Amount of bacteria in milk, E) Colostrum quality.
10. The Council on Dairy Cattle Breeding (CDCB) introduced a new genetic trait to the genetic evaluation system. The PTA of this trait indicates that daughters of a sire will be less likely to die on the farm. You will find this trait listed as the following on a sire proof:
A) Daughter pregnancy rate, B) Lifetime net merit, C) Cow livability, D) Productive Life, E) None of these is correct.
11. Historically, during what season is the demand for milk highest?
A) Spring, B) Summer, C) Fall, D) Winter, E) It is the same year round.
12. In 2015 which state had the most new dairy cows?
A) New Mexico, B) Wisconsin, C) South Dakota, D) Washington, E) Michigan.

13. Which of the following are tips that would improve the biosecurity on a dairy farm?
A) Stop unrecognized visitors, B) Accompany nonroutine visitors around during their visit, C) Verify all nonregular inspectors and contractors with picture IDs, D) Post biosecurity and no unmanned aircraft signs, E) All of the above.
14. In the past year a dairy herd has had an increase in the occurrence of milk fever. The nutritionist has recommended feeding anionic salts as a method of prevention. To solve the problem, they should be fed: A) At any time, B) Two weeks after calving, C) At calving, D) Two weeks before calving, E) At dry off.
15. This past winter while you were responsible for feeding the baby calves, you made what change in the normal diet of the calves when the average temperature was 15 degrees F for a few weeks. You supplemented the diet with additional?
A) Warm fresh milk, B) Electrolytes, C) Energy, D) Water, E) Vitamin C.
16. Drought stressed forages often contain toxic levels of what substance?
A) Phosphates, B) Nitrates, C) Butyric acid, D) Lactic acid, E) Potassium.
17. Excessive rates of pneumonia in dairy herds are often due to what?
A) Excessive sunlight exposure, B) Cold weather or drafts, C) Inadequate ventilation, D) Contaminated milk, E) All of the above.
18. The Journal of Dairy Science is the official publication of the international organization of educators, scientists and industry representatives who are committed to advancing the dairy industry. This organization is?
A) American Animal Science Association, B) American Dairy Association, C) International Dairy Producers, D) American Dairy Science Association, E) Dairy Herd Improvement Association.
19. Perinatal calf mortality is a significant problem in the dairy industry. What is this problem more commonly referred to as?
A) DOAs, B) Morbidity, C) Pneumonia, D) Stillbirths, E) All of the above.
20. If the heat detection rate is 50% and the conception rate is 25%, what is the pregnancy rate? A) 9%, B) 12.5%, C) 25%, D) 50%, E) It cannot be determined.
21. After harvesting your alfalfa, you take a soil test. The test shows your field is high in phosphorus and low in potassium. Which of the following fertilizers would you apply in order to meet the potassium requirement while preventing excess phosphorus run-off?
A) 0-0-44, B) 46-0-0, C) 12-12-12, D) 11-52-0, E) 18-14-24.
22. The condition in a dairy cow where the shoulder separates from the side of the cow and juts out sharply at the elbow is considered in what category of the 2009 PDCA Dairy Cow Unified Scorecard? A) Frame, B) Udder, C) Dairy Strength, D) Feet & Legs, E) Body Capacity.
23. When looking at genetic evaluations, the accuracy is expressed as a percentage and goes up as more progeny contribute to records. We refer to this as: A) Repeatability, B) Reliability, C) Predictability, D) Marketability, E) Heritability.

24. Recently your cows have been experiencing less production, lower butterfat, and sick cows that never seem to recover. What could be the cause of these symptoms?
A) Rumen Acidosis, B) Ketosis, C) Milk Fever, D) Johne's, E) Hardware.
25. Which dry period length will maximize production in the following lactation?
A) None, B) 30 days, C) 45 days, D) 50 days, E) 60 days.
26. You are responsible for the calf development program on a dairy farm. The farm's goal is to develop the rumen of the calf as fast as possible. To achieve this goal, you should feed the calves which of the following?
A) Milk only, B) Hay only, C) Grain only, D) Milk and grain, E) Milk and hay.
27. The best temperature for thawing frozen semen is considered to be: A) An ice bath, B) Room temperature, C) 75-80 degrees C, D) 92-96 degrees F, E) 92-96 degrees C.
28. While at the county fair you notice one of your heifers is not feeling well and is in need of treatment. After reading the product label you are using for treatment, you learn that the shot has to be given subcutaneously. Where is the injection site located on your heifer following beef quality assurance recommendations? A) In the muscle of the neck, B) In the vein, C) In the fat layer between the skin and muscle on the neck, D) In the nostril of the nose, E) In the fat layer between the skin and muscle on the rump.
29. Under the current method of pricing, which breed of cows, on average would yield the highest milk price per hundred weight?
A) Brown Swiss, B) Guernsey, C) Ayrshire, D) Jersey, E) Milking Shorthorn.
30. Beginning January 1, 2017 in order to purchase feed that uses medically important antimicrobial drugs such as a medicated milk replacer, you will need to obtain a VFD. What is a VFD? A) Veterinary Food Directions, B) Veterinary Feed Description, C) Veterinary Feed Directive, D) Veterinary Farmaceutical Description, E) None of the Above.
31. In order to obtain a VFD, a farmer must be able to prove what type of on-going relationship with their veterinary? A) Veterinary Client Patient Relationship (VCPR), B) Veterinary Animal Patient Relationship (VAPR), C) Telephone contact only, D) First name basis, E) Veterinary Contact Person Relationship (VCPR).
32. An increase in what compound is the result of rapid degradation of adipose tissue in the cow's body? A) Amino acids, B) Ketones, C) Fatty acids, D) Peptides, E) Ammonia.
33. One indicator that can be used as a sign of good reproduction in your dairy herd is how many cows are pregnant at all times. What percent should be pregnant?
A) 25%, B) 35%, C) 42%, D) 50%, E) 76%.
34. The following information is listed concerning a cow:
365 2X 42,345 3.7 1566 2.9 1228
Which of the following is not correct? A) 305 day lactation, B) Milked two times per day, C) Milk contained 3.7 % milk fat, D) Milk contained 2.9% protein, E) 42,345 pounds of milk produced.

35. What reproductive hormone tends to be high in lactating, pregnant cows?
A) Oxytocin, B) Progesterone, C) Prostaglandin, D) Relaxin, E) Estrogen.
36. If the MUN level is considered high, which nutrient is likely to be in excess?
A) Fats, B) Carbohydrates, C) Vitamins, D) Minerals, E) Protein.
37. Which portion of the cow's digestive tract is most subject to "twisting"?
A) Abomasum, B) Omasum, C) Reticulum, D) Rumen, E) Duodenum.
38. After receiving your DHIA herd summary test data, you are concerned about the increasing number of cows with mastitis. You have the cows cultured and discover that the cause is environmental pathogens. To help decrease this occurrence you invite your veterinarian to visit your farm to make recommendations. Which of the following observations by your veterinarian is the cause of the increased cases of mastitis?
A) Using sand as a bedding source, B) A new employee is prepping the milking cows by spraying the teats with water but not drying the teats to remove water and excess manure, C) Post dip is used after milking, D) Cows are fed after milking to keep them standing at least 30 minutes post milking, E) Cows are treated at dry off.
39. Which of the following is not a primary organism associated with mastitis:
A) Staphylococcus aureus, B) Streptococcus agalactia, C) Streptococcus uberis, D) Mycobacterium Paratuberculosis, E) Klebsiella pneumoniae.
40. An example of a Class III use for milk would be to make: A) Hard cheese, B) Ice cream, C) Milk powder, D) Cottage cheese, E) A class III use does not exist.