Dairy Cattle Evaluation Practice Exam (Sample)

Study Guide

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Questions

1. What is the goal of adhering to standard mating systems in the dairy industry?

A. To increase the number of calves

B. To improve genetics and enhance herd performance

C. To reduce feed costs

D. To minimize labor use

2. What does the term "prepartum" mean in dairy cattle management?

A. After calving

B. Before calving

C. During lactation

D. During gestation

3. How does the General Agreement on Tariffs and Trade impact dairy exports?

A. It enhances tariff rates on dairy products

B. It provides a framework for reducing tariffs

C. It restricts dairy export opportunities

D. It regulates dairy farming practices

4. Why is assessing a dairy cow's temperament essential?

A. It determines the cow's weight

B. It aids in improving handling and overall health

C. It predicts the cow's lifespan

D. It has no significant impact

5. What is a primary consequence of poor udder quality?

A. Increased profitability

B. Higher likelihood of mastitis

C. Better handling of cows

D. Longer productive lives

6. How is a dairy's RHA calculated?

- **A. By dividing total milk produced by the number of dairy farms**
- **B. By averaging the milk output of each cow in the herd**
- **C. By dividing the total amount of milk produced in the past 365 days by the total number of cow years in the herd last year**
- **D. By measuring the annual growth of each dairy cow**

7. What percent calcium should a dry cow ration contain according to the NRC?

- **A. 0.29 percent**
- **B. 0.39 percent**
- **C. 0.49 percent**
- **D. 0.59 percent**

8. What is the scientific term for milk fever?

- **A. Hypocalcemia**
- **B. Parturient Paresis**
- **C. Cowside Collapse**
- **D. Calcium Deficiency Syndrome**

9. In a comparison of milk parlors, how did parallels perform relative to herringbones?

- **A. Parallels performed worse**
- **B. Parallels performed the same**
- **C. Parallels outperformed herringbones by nearly 8 percent**
- **D. Parallels outperformed herringbones by nearly 12 percent**

10. What does the term "productive life" indicate in dairy cattle?

- **A. The total number of calves a cow has**
- **B. The duration a cow stays in the herd while producing milk**
- **C. The health status of the cow**
- **D. The cow's breeding history**

Answers

1. B
2. B
3. B
4. B
5. B
6. C
7. B
8. B
9. C
10. B

Explanations

1. What is the goal of adhering to standard mating systems in the dairy industry?

A. To increase the number of calves

B. To improve genetics and enhance herd performance

C. To reduce feed costs

D. To minimize labor use

The goal of adhering to standard mating systems in the dairy industry is primarily to improve genetics and enhance herd performance. Standard mating systems are designed to make informed breeding decisions that can systematically improve desirable traits in dairy cattle. This includes selecting for higher milk production, better health, improved fertility rates, and overall herd sustainability. By following established mating protocols, farmers can more effectively manage genetic diversity and assess the performance of sires and dams, ensuring that the best genetic combinations are chosen to produce offspring that meet or exceed industry standards. This results in a herd that is more productive and efficient over time, ultimately benefiting the dairy operation both economically and in terms of animal welfare. The other options, while potentially beneficial outcomes of good genetic management, do not directly capture the primary goal of mating systems. Increasing the number of calves may occur, but it is not the main objective. Similarly, reducing feed costs and minimizing labor use are operational efficiencies that may arise from improved herd performance but are secondary to the primary aim of genetic enhancement.

2. What does the term "prepartum" mean in dairy cattle management?

A. After calving

B. Before calving

C. During lactation

D. During gestation

The term "prepartum" refers specifically to the period that occurs before calving in dairy cattle management. This term is commonly used to discuss practices and considerations that should be taken into account as cows approach their calving date. Prepartum management is crucial for ensuring the health of both the cow and the calf, as well as for optimizing milk production following calving. During the prepartum phase, several important management practices are typically employed, such as dietary adjustments to support fetal growth, monitoring for signs of impending labor, and ensuring that the cow is in an optimal body condition score to reduce the incidence of calving difficulties. This phase is critical for preparing the cow's physiology for lactation and ensuring a smooth transition into motherhood. Understanding the significance of the prepartum period helps dairy managers implement strategies that promote better outcomes for the herd, including enhanced colostrum quality and increased production levels once lactation begins.

3. How does the General Agreement on Tariffs and Trade impact dairy exports?

A. It enhances tariff rates on dairy products

B. It provides a framework for reducing tariffs

C. It restricts dairy export opportunities

D. It regulates dairy farming practices

The General Agreement on Tariffs and Trade (GATT) plays a significant role in facilitating international trade by providing a framework aimed at reducing tariffs and other trade barriers among member countries. This reduction in tariffs is particularly beneficial for dairy exports, as lower tariffs typically lead to increased market access for dairy products in foreign markets. By fostering an environment of free trade, GATT encourages countries to negotiate and reduce the tariffs they impose on imports, including dairy products. This can lead to increased competitiveness for producers in countries that rely heavily on dairy exports, enabling them to expand their market presence internationally. In essence, the agreement helps create a more equitable trading environment by addressing tariffs, thus allowing for smoother trade flows and enhancing the overall export potential of dairy products across borders.

4. Why is assessing a dairy cow's temperament essential?

A. It determines the cow's weight

B. It aids in improving handling and overall health

C. It predicts the cow's lifespan

D. It has no significant impact

Assessing a dairy cow's temperament is essential because it significantly aids in improving handling and overall health. Understanding a cow's temperament allows farmers and caregivers to develop appropriate management strategies that ensure the animal feels safe and comfortable. Cows that are calm and manageable are easier to handle during milking, feeding, and veterinary care, which can reduce stress for both the animal and the handler. Moreover, a positive temperament is often associated with better health outcomes. Stressful situations can lead to a decline in health, increased susceptibility to diseases, and overall lower productivity. By identifying and addressing temperament issues, interventions can be put in place to improve the welfare of the cows, which directly correlates with their milk production efficiency and longevity in the herd. This focus on temperament not only enhances animal welfare but also benefits the economic performance of the dairy operation, making it a critical aspect of dairy cattle evaluation practices.

5. What is a primary consequence of poor udder quality?

A. Increased profitability

B. Higher likelihood of mastitis

C. Better handling of cows

D. Longer productive lives

A primary consequence of poor udder quality is a higher likelihood of mastitis. Udder quality is critical in dairy cattle as it impacts both the health of the cow and the efficiency of milk production. When udder quality is subpar, the risk of infections such as mastitis increases significantly. Mastitis is an inflammatory condition of the udder, often caused by bacterial infections, which can lead to reduced milk production, increased treatment costs, and potential culling of affected cows. In addition, poor udder quality can affect the ability of cows to be milked effectively and may lead to physical discomfort, both of which can further compound issues related to mastitis. Maintaining good udder health is crucial for the overall well-being of the animal and the profitability of a dairy operation, making it essential for producers to evaluate and select cattle based on udder quality.

6. How is a dairy's RHA calculated?

A. By dividing total milk produced by the number of dairy farms

B. By averaging the milk output of each cow in the herd

C. By dividing the total amount of milk produced in the past 365 days by the total number of cow years in the herd last year

D. By measuring the annual growth of each dairy cow

The correct approach to calculating a dairy's RHA, or Rolling Herd Average, involves determining the total amount of milk produced over the past year relative to the total number of cow years within that period. Specifically, this calculation entails dividing the total milk output from the last 365 days by the total number of cow years—effectively accounting for each cow's contribution to the herd's overall production. This method accurately reflects both the quantity produced and the labor factor involved in dairy farming, providing a clearer picture of the herd's productivity. Cow years take into account the number of cows and how long they have been part of the herd, which ensures that the calculation represents a true average of production over the entire herd, inclusive of pregnancies and other factors that may affect individual cow productivity. Other methods, such as averaging individual cow outputs or dividing total milk by the number of dairy farms, do not provide a comprehensive view of herd performance as they either fail to consider the total production from multiple cows or do not account for the variability and management of each farm. Thus, RHA calculations based on cow years provide a more precise metric for evaluating and comparing dairy herd productivity.

7. What percent calcium should a dry cow ration contain according to the NRC?

A. 0.29 percent

B. 0.39 percent

C. 0.49 percent

D. 0.59 percent

The correct percentage of calcium that a dry cow ration should contain, according to the National Research Council (NRC), is 0.39 percent. This recommendation is based on the nutritional requirements that support the overall health and development of the dry cow, particularly in preparation for the lactation period. Adequate calcium is crucial for bone health and metabolic functions, which are especially important in the later stages of gestation. While other percentages might appear close, they do not align with the NRC's established guidelines for the nutritional needs of dry cows. Using the specific recommendation of 0.39 percent ensures that the cow receives sufficient calcium without risking imbalances or deficiencies that could affect her health and milk production during lactation. It is important to adhere to these guidelines to ensure optimal performance and well-being of dairy cattle.

8. What is the scientific term for milk fever?

A. Hypocalcemia

B. Parturient Paresis

C. Cowside Collapse

D. Calcium Deficiency Syndrome

The scientific term for milk fever is "Parturient Paresis." This condition typically occurs in dairy cows around the time of calving and is characterized by a sudden onset of paralysis and muscle weakness, primarily due to a sharp drop in blood calcium levels. The term "Parturient" refers to the cow's state of giving birth, while "Paresis" indicates a partial loss of motor function. Understanding that milk fever is closely associated with the calcium demands of lactation provides insight into its underlying causes. During late pregnancy, cows have increased calcium requirements for milk production, and if dietary calcium is inadequate or if the body fails to properly mobilize calcium stores from the bones, it can result in milk fever. Recognizing "Parturient Paresis" as the scientific term captures both the timing and the physiological aspects of the disorder. In contrast, while hypocalcemia accurately describes the low calcium condition and is often used in a broader sense, it does not specifically refer to the condition occurring around parturition. The term "Cowside Collapse" is more colloquial and lacks the scientific specificity needed. "Calcium Deficiency Syndrome" loosely describes the consequences of low calcium but does not carry the established scientific terminology that

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Parallels, or parallel milking parlors, typically allow for a more efficient milking process compared to herringbone designs. The design of parallel parlors enables cows to stand side by side, which can facilitate more rapid cow entry and exit, ultimately reducing milking time. This layout often allows for better visibility and accessibility for the milker, contributing to increased cow comfort and effective management during the milking process. Research and industry studies have indicated that parallel milking systems can lead to substantial improvements in milking efficiency, often surpassing the performance of herringbone systems. The statistic indicating that parallels outperformed herringbones by nearly 8 percent reflects such findings, confirming their efficiency. This performance difference can stem from factors such as reduced labor time, increased cow throughput, and possibly higher milk yields per milking session due to the effective milking strategy employed. Overall, the indicated percentage underscores the advantages associated with the design and operation of parallel milking parlors, making it a favorable choice for dairy operations looking to optimize their milk production system.

10. What does the term "productive life" indicate in dairy cattle?

A. The total number of calves a cow has

B. The duration a cow stays in the herd while producing milk

C. The health status of the cow

D. The cow's breeding history

The term "productive life" in dairy cattle refers specifically to the duration a cow remains in the herd while actively producing milk. This measure encapsulates not only the number of lactation cycles a cow may have but also the overall longevity of her ability to contribute to milk production within her productive years. A longer productive life is generally indicative of a cow's ability to produce milk efficiently over time, which can be influenced by factors such as genetics, nutrition, management practices, and health status. This concept of productive life is essential for dairy producers because it impacts profitability. Cows that can remain productive for an extended period reduce replacement costs and enhance overall herd efficiency. A cow with a short productive life might not only yield less milk but could also incur higher costs in terms of replacement and management. While the other options relate to various aspects of a cow's reproductive and health status, they do not define "productive life" as accurately as the duration of active milk production within a herd does. The emphasis on milk production duration captures the core component of what makes a cow productive in a dairy operation context.