



تغذية أبقار الحليب

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اللجان الطلابية-كلية الزراعة
الجامعة الأردنية

تابع اللجان
على منصاتها



اللجان الطلابية تتمنى لكم دراسة موفقة

Q1. Choose ONE best answer:

(25 P)

- ~~A~~ 1. Which of the following terminology is defined as the act of a cow giving birth to a calf:
(a) Parturition (b) Calving interval (c) Freshening (d) None
- ~~B~~ 2. The scientific name of dairy cows?
(a) *Capra haircus* (b) *Bos taurus* (c) *Ovis aries* (d) *Gallus gallus domesticus*
- ~~D~~ 3. In Jordan, which is the following governorate has the second highest dairy cattle number in 2020?
(a) Aqaba (b) Amman (c) Karak (d) Mafraq
- ~~B~~ 4. The average world milk supply per capita per day is?
(a) 120 g (b) 242 g (c) 1900 g (d) 500 g
- ~~A~~ 5. Ruminants cannot consume non-protein nitrogen? *waste*
(a) True
(b) False
- ~~A~~ 6. The more protein content in the milk of any mammals, less time needed for a newborn to double its weight.
(a) True
(b) False
- ~~B~~ 7. Dairy cows have better feed efficiency than laying hens
(a) True
(b) False
- ~~B~~ 8. The smaller size of fat globule aids in easier separation of cream from milk
(a) True
(b) False
- ~~C~~ 9. Which of the following milk components is important for bone formation? *Family 5*
(a) Fat _y (b) Protein _y (c) Minerals _{Fe/Ca} (d) Vitamins _{P/K/D/E}
- ~~A~~ 10. As cows get older, the fat content of their milk increases
(a) True
(b) False

~~B~~ 11. Increasing the % of nonfiber carbohydrates leads to increase milk fat%

- (a) True
- (b) False

~~A~~ 12. During hot conditions, cows tend to decrease feed sorting:

- (a) True
- (b) False

~~C~~ 13. The types of dairy records are:

- (a) Individual cow records
- (b) Farm business
- (c) answers a and b are correct
- (d) None

~~A~~ 14. Ankle strap is an example of nonpermanent animal identification method:

- (a) True
- (b) False

~~D~~ 15. Freeze branding is done by exposing the skin to:

- (a) Alcohol
- (b) Dry ice with Alcohol
- (c) Liquid nitrogen
- (d) Answers b and c correct

~~A~~ 16. The principle of freeze branding is destroying----- to grow white hair in the branded area:

- (a) Melanocytes
- (b) Melatonin
- (c) Monensin
- (d) None

~~B~~ 17. Hot branding method reduces risk of infection from the burn:

- (a) True
- (b) False

~~A~~ 18. Which of the following traits is the major trait for genetic improvements in dairy cows?

- (a) Milk yield
- (b) Udder depth
- (c) Mastitis
- (d) Milk composition

~~B~~ 19. Which of the of the terminology is defined as introducing new genetic materials into the population:

- (a) Migration
- (b) Gene frequency
- (c) Genotype
- (d) Selection

~~A~~ 20. ^{Cattle} Cows are an example of roughage grazers within the classes of herbivores

- (a) True
- (b) False

concentrate
microfibre
roughage
Cattle / camel

~~C~~ 21. This type of cells synthesizes and secretes chymosin in abomasum:

- (a) Parietal cells
- (b) Mucous cells
- (c) Chief cells
- (d) Neural cells

~~B~~ 22. Another name of ruminants is post-gastric fermenters

- (a) True
- (b) False

Question 4. Explain in detail the functions of reticulum in ruminant animals?

(5 P)

- No secretion " No digestive "
- feed to esophagus
- absorb useful product.
- Second stage after rumen.
-

(-1)

Question 5. What are the characteristics of an ideal rumen fermentation?

(5 P)

- papillae structure.
- Contains bacteria / Protozoa / Little fungi
- Fermentation fiber
- Storage
- Physical mixing and breakdown.
- produce VFAB
- NH_3
- CO_2 / NH_3 / H_2

(-1)

(-2)

Question 3:

(15 P)

-5

A dairy farmer wants to select Holstein cows on the bases of three traits: -

Milk yield (MY) body weight and cystic ovary. One of his cows calved in July at the age of 50 months was milked 2X per day and produced 8500 kg of milk of 3.9% fat in 220 days and BW 750 kg. The herd average for milk production was 6500 kg and for BW was 650 kg. The price of milk was 0.50 JD/kg. The cow had a cystic ovary. One standard deviation of body weight was worth to the farmer 55 JD and one standard deviation of cystic ovary was equal to the loss of 200 kg of milk.

What is the selection index for that cow?

Holstein

July

50

2x

8500 kg / 3.9 %

220 d

$$1) FCM = \mu (0.15 \times F\% + 0.4) = 8500 (0.15 \times \frac{3.9}{100} + 0.4) = 8372.5$$

$$2) 305 = 8372.5 \times 1.22 = 10214.45$$

$$3) 305 - 2x - ME = 10214.45 \times 1.11 \approx 11338$$

$$1138.0395$$

$$\text{Milk yield } h = 0.25$$

$$\text{body weight } h = 0.35$$

$$\text{cystic ovary } h = 0.05$$

$$SD_1 = 2400 \text{ lb} / 2 = 1200 \text{ kg}$$

$$SD_2 = 100 \text{ lb} / 2 = 50 \text{ kg}$$

$$SD_3 = 0.03 \text{ (1) None (2) Cystic ovaries}$$

$$V_1 = 2(-)$$

$$V_2 = 55$$

$$V_3 = -200 \times 0.50 = -100$$

$$P_1 = \frac{11338 - 7500}{1200} = 8.82$$

$$P_2 = \frac{11338 - 650}{50} = 213.76$$

$$P_3 = \frac{3 + 1 + 2}{2} = 50$$

$$I = U_1 h_1^2 P_1 + U_2 h_2^2 P_2 + U_3 h_3^2 P_3$$

$$= 2 \times 0.25 \times 8.82 + 55 \times 0.35 \times 213.76 + (-100) \times 0.05 \times 50$$

$$+ 4114.8 + 250$$

-5

~~C~~ 23. In the rumen microbes, protozoa are characterized by:

- (a) Rapid turnover (b) accounts for 60-90 of microbial mass (c) Large size (d) None

~~B~~ 24. In cows, large amounts of carbohydrates reach to the small intestine

- (a) True
(b) False

~~B~~ 25. In rumen, the presence of oxygen is essential for fermentation

- (a) True
(b) False

Q. K

Question 2: Explain in detail Why are fat content and fat composition are influenced more by fiber intake? (5 P)

X (-5)

(-5)