Dairy Herd Management Notesheet

C. Kohn, Waterford WI

Name: _____ Hour_____ Date: _____

Date Assignment is due:_____ Why late? _____ Score: + ✓ −

   Day of Week   Date   If your project was late, describe why

Directions: Use the accompanying PowerPoint (*available online*) to complete this sheet. This sheet will be due upon the completion of the PowerPoint in class. These assignments are graded on a +/✓/- scale.

1. What are five ways in which a producer can practice effective management immediately after a calf is born?

    1 _____

    2 _____

    3 _____

    4 _____

    5 _____

2. When should a calf be removed from the birthing pen? _____

    Why? _____

3. One of the most significant risks to a newborn calf is _____. What is this?

    _____

    _____

4. What are two signs of this disease? _____

5. What are the two main ways in which a calf could be infected by this disease? _____

    _____

6. Besides Johne's, what is another common disease of calves? _____ What is this? _____

    _____

7. What are two common causes of scours? _____

8. Newborn calves should be housed in _____ that are free of _____ but provide good _____.

9. What else could cause diarrhea in a calf? _____

10. Calf scours can result in the loss of _____ and _____ from the calf's body.

    What are electrolytes? _____ such as _____

    that are necessary for _____

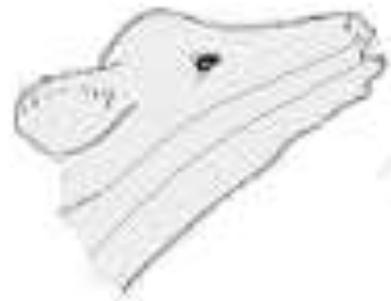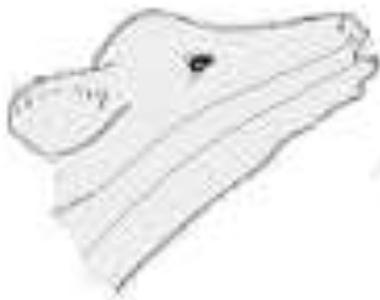11. What are three key signs of scours? 1_____

    2_____   3_____

12. Treating a calf with scours consists primarily of _____

13. How is this treatment administered? _____

14. What is an esophageal feeder? _____

    _____

15. For each image, **draw & describe** how you would properly administer electrolyte therapy using an esophageal feeder.

    _____   _____   _____

    _____   _____   _____

    _____   _____   _____

16. Most calves are housed in _____. What is this? _____

    _____

17. Calf hutches should prevent calves from _____

    and should allow for _____

18. Often calf hutches can also include a _____ .

19. True or false: the nutrition a new calf consumes comes mostly from the milk they drink.

20. True or false: almost all calves are fed whole milk from cows. Explain: _____

    _____

21. A calf is born early and weighs 50 lbs. How many quarts of milk should it for its morning feeding? _____
    Show your math in the space below.

22. Besides milk, what does a calf consume besides milk when it is under two months of age? _____

    What is this? _____

23. If most of the nutrition that a calf consumes comes from milk, why is the calf starter necessary? _____

    _____

24. How much starter should a calf get when 4 days old? _____ How much after this? _____

    _____ .

25. How much water should a calf get? _____

26. When can calves start getting hay? _____

27. Of the information provided, what would you conclude are the three most important management practices in order to ensure that newborn calves remain health?

    _____

    _____

    _____

28. What is a fresh cow? _____

29. Milk production is so high after calving that a cow will have a _____

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30. What does this mean? _____

31. What are two key strategies for managing fresh cows in order to prevent problems? _____

_____

_____

32. Proper milking procedures reduce the likelihood of _____ of the _____

(known as _____) and ensure that a _____

reaches the consumer.

33. What are three key management techniques to ensure that a milking parlor functions hygienically?

1 _____

2 _____

3 _____

34. T or F: a milking machine functions by using a vacuum to suck the milk out of the cow's udder. Explain: _____

_____

_____

35. To stimulate the _____, the teats of the cow

must be _____. How long must the teats of a cow be

stimulated? _____ This causes what to be released into the bloodstream?

_____ What is this? _____

_____

36. What are three effects caused by the release of oxytocin the enable milk letdown?

_____

_____

_____

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37. How does stress affect the release of oxytocin and the milk letdown process? Include *cortisol* in your answer:

38. What are four things to avoid in order to minimize the release of cortisol and maximize the release of oxytocin?

39. Summarize the four most important things that must occur before a milking unit can be attached to the udder:

40. When stripping a cow's teats, how would you know if a cow had mastitis?

41. What is predip? Why is it necessary?

42. What are signs that a milking unit was improperly applied?

43. T or F: human hands will never touch milk for human consumption when a cow is milked properly.

44. When should the milking unit be removed?

45. T or F: milking machines sense when the cow's udder is emptied and automatically remove the milking machine.

46. T or F: because milking machines are automated, they do not need to be watched once the unit is attached.

47. What should happen after the milking unit is removed?

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48. What temperature should milk be cooled to? _____ How quickly? _____

49. What is used to cool and store the milk? _____

50. T or F: a bulk tank will separate the milk with antibiotics from the milk without antibiotics.

51. What should be done with milk from cows treated with antibiotics and milk from sick cows? _____

52. Summarize what you think are the three most important things that must occur when milking a cow:

    1 _____

    2 _____

    3 _____

53. When should a cow be re-inseminated? _____

54. What is the earliest that a cow could be inseminated after calving? _____

55. Match each of the following terms to examples of the term:

    Accuracy of Selection _____   Selection Intensity_____   Genetic Variation_____   Generation Interval _____

    A. This will increase if a Holstein cow is bred with a Jersey bull.
    B. This is maximized when a bull is selected for mating that helps to address weaknesses found in the cow.
    C. This would be improved by breeding animals as soon as they are reasonably mature enough to do so.
    D. This is improved when animals with genetic flaws are removed from the herd instead of being re-bred.

56. Define Heritability in your own words: _____

    _____

57. The color of the hair of a cow would get what kind of heritability score? _____

    The likelihood of a case of mastitis would get what kind of heritability score? _____

58. How do genetic evaluations of cattle benefit farmers and breeders? _____

    _____

59. Who conducts genetic evaluations of cattle? _____

60. How often are genetic evaluations conducted? _____

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61. What are four things that a genetic evaluation might measure?

62. What is an SCC count?

63. If a farm's bulk tank had a high SCC count, what would this indicate?

64. Currently almost _____ of the cows in the ____ (or over _____ cows) are

    analyzed by _____. Why is this helpful to farmers? _____

65. The genetic information collected in genetic evaluations is recorded as a _____. A PTA is an

66. A PTA is simply a _____ used to _____ bulls.

67. If Bull X has a PTA for milk yield of +2000, and Bull Y has a PTA for milk yield of +1500, what does this tell us?
    a. Bull X's daughters will all produce 500 lbs. more milk per year than the offspring of bull Y.
    b. Bull X's daughters will produce 2000 lbs. more milk than all other cows.
    c. Bull X's daughters will produce an average milk yield that is 2000 lbs. greater than the average of the cows of all the bulls in this genetic database.
    d. All of the above.
    e. None of the above.

68. How should the different PTA's for different traits of bulls be used by a producer when making breeding

    decisions? Explain in your own words.

69. How does a PTA differ from a STA?

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70. T or F: a PTA is basically the same thing as an EPD.

71. Why might an STA be easier to read and understand in comparison to a PTA? _____

_____

72. A bull w/ a score of 0 for milk yield would be _____ while a bull w/ a +3 would be _____

73. STA's are based on standard deviation; what is this? _____

_____

74. A bull with a score of +1 would be better than _____% of bulls in that data base. *(Hint: add up all of the*

percentages found between -3 and +1). A bull that scores a +2 is better than _____% of other bulls.

75. EBV stands for _____. An EBV is _____ the value of a PTA.

76. Why is the EBV double the value of a PTA? _____

_____

77. Why do PTA, STA, and EBV values keep changing? _____

78. How often are these values updated in the US? _____. What is likely to

happen to the PTA/STA/EBV of a bull over time? _____

79. What is a sire summary? _____

80. Look at the sire summary for Juror John – ET. This animal scored best for what trait?_____

This animal score worst for what trait? _____ This animal is closest to average for what trait?

_____ (*Hint: it is easiest to focus on the STA scores ↓ to determine this info.)*

HOLSTEIN JUROR JOHN-ET TPI +1619

USA 2287161 100%RHA-NA TV TL 86 06-18-03
Sire: KED JUROR-ET +1306M
USA 2124357 100%RHA-NA TV TL TD 82 GM
Dam: HOLSTEIN BETTY +1480
USA 14266198 100%RHA-NA BL 90 EEEEV GMD DOM

PRODUCTION		%	%R	SIRE	DAM	DAU	GRP
Milk	+1491		93	+797	+1229	25977	24409
Fat	+47	-.03		+24	+47	953	903
Pro	+37	-.03		+23	+41	773	735
01-2008	181 DAUS		124 HERDS			56 %RIP	100 % US
PL	+3.2		69	+1.0	+1.5	SCE 7%	99 %R
SCS	3.11		81	3.16	3.15	DCE 6%	65 % R
NM$ +454	CM$ +446		FM$ +509			DPR 0.5%	67 %R

TYPE			%R	SIRE	DAM	DAU SC	AASC
Type	+2.51		84	+1.90	+1.56	77.3	80.4
UDC	+2.39			+2.10	+1.18		
FLC	+.65			-.13	+2.00	BD +1.16	D +2.07
01-2008	57 DAUS		45 HERDS	EFT D/H 1.6			

Breeder Bill & Betty Breeder
Owner AI Company ACTIVE
Controller AI Company 1HO3872/S: 1
JOHN

TRAIT	STA		2	1	0	1	2
Protein	1.19	High					
Fat	1.74	High					
Final Score	4.15	High					
Productive Life	0.63	Low					
Somatic Cell Score	0.54	Low					
Stature	1.60	Tall					
Strength	1.66	Strong					
Body Depth	1.51	Deep					
Dairy Form	1.01	Open Rib					
Rump Angle	0.84	Sloped					
Thurl Width	1.96	Wide					
R Legs-Side View	0.20	Curved					
R Legs-Rear View	0.92	Straight					
Foot Angle	0.32	Steep					
Feet & Legs Score	1.72	High					
Fore Attachment	2.49	Strong					
Rear Udder Height	2.93	High					
Rear Udder Width	3.24	Wide					
Udder Cleft	3.12	Strong					
Udder Depth	2.03	Shallow					
F Teat Placement	2.68	Close					
R Teat Placement	2.99	Close					
Teat Length	0.34	Long					

81. Summarize each of the following techniques:

Embryo Transfer: _____

_____

In Vitro Fertilization: _____

_____

Genomics: _____

_____

Unit Wrap-up C. Kohn, Agricultural Sciences - Waterford WI

1. What is a topic or concept from this unit that you found to be more challenging? Write or describe below:

_____

In the space below, create a mnemonic, rhyme, analogy, or other strategy to help you remember this particular concept:

_____

2. What is a 2nd topic or concept from this unit that you found to be more challenging? Write or describe below:

_____

In the space below, create a mnemonic, rhyme, analogy, or other strategy to help you remember this particular concept:

_____

3. What is a 3rd topic or concept from this unit that you found to be more challenging? Write or describe below:

_____

In the space below, create a mnemonic, rhyme, analogy, or other strategy to help you remember this particular concept:

_____