Sample Assessment

Dairy Goat Scenario

Bullet points presented first & then a summary sample (such as what might be given to the judges follows)

1. Overview: No comparison
2. Animals: No comparison
3. Personnel: A over B due to both education and experience. Worker turnover and training are clearly a problem for Farm B.
4. Pastures: A over B. While both have problems with their pasture, Farm A can supplement to be sure goats get enough Co and Se, while Farm B cannot really reduce salinity in pastures which will affect forage growth. Farm B seems somewhat small for a 200 doe milking herd as well while there is more than enough space on Farm A for 20 does.
5. Doe Housing: B over A. Farm B allows animals more space in the dry lot and more sheltering options and has shavings over a dirt floor. In California, open ended hoop houses are adequate to protect goats from the environment. Farm A places all animals to in the same pen, and the size is at the low end of recommended space, though the addition of a dry lot helps. Straw bedding is not a preferred floor substrate for goats, and care must be taken to have bedding deep enough over concrete. Ventilation in an old dairy barn might not be ideal, particularly when the barn is closed up over the winter months. Light could also be a problem since they are housed on the lower level.
6. Breeding: B over A by a slight slight margin. AI breeding on Farm B using bucks who pass health checks, helping to control disease. Does on Farm B also have more kids per year which could indicate better welfare. However, doe longevity on Farm A is better. Natural breeding on Farm A using a buck could potentially result in injury. Not possible to compare conceptions rates directly since rate for Farm A is overall rate and for Farm B it is first conception rate. A 75% first conception rate using AI is good.
7. Birth: B over A. Frequency of doe checks is better on Farm B. Goats are hardy and able to give birth on pasture, and Farm B has small pastures and goats are checked frequently. Time of birth is good in both cases, as the weather in California is mild and kids can be indoors during inclement weather if Vermont. Both farms dip navels. Farm B also vaccinates for tetanus, which is particularly good since they are castrating. Dehorning should be done between 3-7 days of age, so Farm A dehorns too early. Farm A does not castrate, but Farm B uses an acceptable method of banding with an elastrator (though this will still cause some pain). Methods of ID were equivalent. Lamancha kids may have very small ears making it difficult to give them visible tags.
8. Colostrum: B over A by a slight margin. Both make sure kids receive colostrum, but Farm A does this sooner. However, Farm B still gives colostrum within an acceptable time range and uses pasteurized colostrum which may reduce the incidence of CAE.

9. Pre-Weaning: B over A. Farm A gives the kid a full 24h with dam which might allow the kid to receive colostrum over multiple nursing bouts but will make separation more stressful for both dam and offspring. Farm B separates kids into small same sex groups, which also allows for better monitoring. Farm A allows outdoor access weather permitting to give kids more space and fresh air. Farm B starts giving kids access to solid food at 2 weeks which is generally recommended in order to give the rumen and digestive system adequate time to develop. Type of pellets given at Farm B is better for growth. Nutritional content of feed at Farm A is unknown and could be variable. Adding a coccidiostat prior to weaning will help the kids build immunity to coccidiosis before they are stressed by weaning.
10. Young Stock: B over A. Kids on Farm B have had more time with solid feed, though weaning at 2 months is probably the lower limit for weaning to solid food. Feed is better for growth at Farm B since pellets contain 12% CP to help with growth. Continuing to house kids in mixed sex groups until 4 months of age on Farm A may not be ideal, since males are not castrated can become sexually active by 4 months. Disposition of males on Farm B involves more stress due to transport. Replacement females are introduced to main doe herd at a younger age on Farm A which may mean they receive more bossing from older does.
11. Milking Practices: Both farms are acceptable. Farm B has a more thorough sanitization procedure but Farm A uses glycerin in the post teat dip to prevent chapping (probably more important in Vermont than in California).
12. Milk Production: B over A. Farm B has a lower incidence of mastitis. The SCC average at Farm B is in is the acceptable range for milk sale. Goats have much more variability in SCC on average and current standards are that SCC is acceptable below 1,000,000/ml due to more epithelial cells as well as other organisms. Dry off date for Farm B gives all does 2 months of dry time compared to 1-2 months at Farm A. A dry period of at least 2 months is recommended.
13. Nutrition: B over A. Farm B has better guaranteed feed by using hay and pellets while A relies more on pasture which could be variable and provides corn or oats as concentrate (and so is not formulating to meet nutrition needs). Farm B also provides a salt block.
14. Health: B over A. Farm A has problems with CAE, mastitis, milk fever and ketosis while Farm B has more problems with foot rot. Vet care is more consistent at Farm B. Hoof trimming is needed in Vermont, but not likely as needed in California due to more natural wear based on housing situation, soil type, and more walking to and from the parlor. Antibiotic injection at dry off for Farm B is a good practice. Worming needs to be done more on Farm A.
15. Morbidity/Mortality: B over A. Farm A has problems that likely result from CAE and anemia while Farm B has problems that result from predation and kidding. Doe mortality at Farm A in particular seems a bit high.
16. Human-Animal Interactions: A over B. Goats at Farm A readily approach people and have many positive interactions. Goats at Farm B receive few positive interactions and flee from people, though their flight distance decreases as they age and have been handled more.

Overall:

- Farm A was strong in: 1) personnel, 2) pastures, and 3) human-animal interactions.
- Farm B was strong in : 1) doe housing, 2) breeding, 3) birth, 4) colostrum, 5) pre-weaning, 6) young stock, 7) milk production, 8) nutrition, 9) health, and 10) morbidity/mortality.
- Milking practices were relatively equal (both good).

Farm B over A. Farm B provides does and kids with better natural living and health. However, affective states in terms of personnel and human-animal interactions are better at Farm A.

Actual Presentation-Style Reasons:

I placed this dairy goat welfare scenario as Farm B over Farm A, finding the placing to be very close. Overall Farm B provides does & kids with more favorable nutritional and health care. However I recognize that the human-animal interactions represent a more positive affective state in Farm A animals.

Farm B provides does with more dry lot space, more sheltering options and preferred bedding substrate (shavings over dirt versus straw over concrete, as demonstrated by Boe & others). It also appears that Farm B provides more suitable ventilation and lighting.

It would appear that the productivity measure of number of kids per doe gives Farm B an edge regarding breeding, however, this may be due to a breed difference. Doe longevity appears to favor Farm A, however, there is a possibility this is simply due to a difference in culling rate styles.

Frequency of doe checks during kidding season favors Farm B in case of any dystocias which might present. Dehorning practices on kids slightly favor Farm B, as evidence by Grant would support that Farm A is dehorning a bit too early (this however extrapolates lamb data onto kid data).

Regarding the provision of colostrum, Farm B has the edge in that they use pasteurized colostrum (which the FASS Guide states can reduce the incidence of CAE), however it is a plus for Farm A that the colostrum is provided sooner.

Farm B is more rigorously following industry guidelines for health control during pre-weaning of kids, however Farm A allows for greater opportunities to engage in natural behaviors and spend more time out doors.

One factor weighing heavily into my placement was the lower rate of mastitis observed in Farm B. This is a very painful condition, in many cases, so farms that minimize this pathology are likely to provide a higher standard of welfare. However, foot rot can also be a painful condition and, in this case, Farm A was favored. Nonetheless, Farm B also

had the advantage with regards to CAE, mastitis, milk fever & ketosis. These various conditions lead to a higher rate of doe mortality than what would normally be observed.

As stated earlier, this was a very close placement, but, overall, I would favor the welfare level of goats at Farm B over Farm A.