Lesson 5

BRSV & Cattle Vaccination

Hilleman & Vaccines

Student Pages

STUDENT WORKSHEET
Lesson 5: BRSV & Cattle Vaccination

Name: _____ **Date:** _____

Student Worksheet

1. On your ranch, you have _____ heifers and you have just purchased 10 more heifers at the sale barn and brought them to the ranch.

2. Choose a percentage from your teacher. Write your percentage below.

3. One of the new heifers has BRSV. Now, _____ percentage of the herd has died. Have your teacher check your math. Use your Google Sheet or other program to create a pie chart to represent this. Make sure you label your categories and give the graph a title. Include a legend or labels where needed. Show your math here.

Number of Deaths = _____

4. Brainstorm in which ways can this virus spread and spread easily amongst cattle? Write your ideas here.

5. Make up a scenario where you describe how your new heifers were introduced, transported, and housed to cause the kind of disease spread you witnessed. Write about your scenario here and be prepared to present it to the class.

6. Now, you are beginning with a herd that is vaccinated but the vaccines had different percent efficacies. Choose your percent efficacy (between 50-75%) and write it below. Now, there is one new heifer that has BRSV. Predict how many heifers will be lost by using the mortality percentage or fraction that you drew above. Show your math below.

Percent Efficacy: _____

Number of cattle you could expect to lose: _____

7. Make another pie chart on the same spreadsheet, which shows the percentage of cattle that died when you started with a vaccinated herd. Show your math below:

8. Calculate the monetary losses in numbers three and five. Show your math here. Assume that a heifer is worth $843.53 (USDA 2021) .

Monetary loss from number 3: _____

Monetary loss from number 5: _____

9. Below, discuss ways in which you could reduce exposure when introducing new cattle.

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