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CSC315

2.14.2023

Topic 5:

What data the group will gather for incorporation into their database.

- We will be developing a point rating system for each doe to rate their performance.
 - Doe's Birth weight if 6 pounds or less = 3 pts
 - Doe's Birth weight if 6 pounds or more = 5 pts
 - Milk Rating Good = 5 pts
 - Milk rating Bad = 1 pt
 - Weans the same number of kids she birthed = 5pts, if less than the number she birthed = 0 pts
 - Mothering rating: Good Mom = 5 pts, Anything below good = 1pt
 - Vigor Score 1 = 5pts, 2 = 2pts, 3 or lower = 0pts
 - Sore Mouth, yes = 0 pts, no = 1pt.
 - Average Daily Gain Weight, positive = 1, negative = 0
 - Chlamydia vaccination status: vaccinated = 1 pt, not vaccinated = 0pts

What questions they will explore with the data.

- With the point system established we will rate all the goats, the higher the points the better the goat and their bloodline are presumed to be. We will also be looking if the goats received the chlamydia vaccine to see what effect it plays on the goats overall health. We expect to see goats who are withheld from the vaccine will have a lower health rating.
- Does vaccination status affect the goats milk rating?
- Does vaccination status affect their children's weight?
- Does vaccination status affect their fertility rate overall?

How the data could help them identify sustainability problems, and opportunities to propose positive change.

- Depending on the outcome of our data, there seems to be two opportunities for positive change in either the economics of the goat farms or the goats' health themselves.
- If the chlamydia vaccine shows that there is little to no difference with the goats overall health, then perhaps it is a waste of time and money. If this vaccination status shows no correlation to ranking of the goats then perhaps the vaccine is not working as intended or not necessary for the purposes of the farm.
- If the chlamydia vaccine shows that there is a significant difference in ranking between those vaccinated and unvaccinated then perhaps this is an area for further research. This correlation would promote more regular vaccination. It

would also help to ensure that the resources are allotted to the most efficient goats, further increasing the sustainability and economic viability of the farm.

An overview of the sustainability issue you will be exploring, offering background on the problem, why it persists, the various stakeholders affected by the problem, and ethical issues presented by the problem.

- Chlamydia is one of the leading causes of reproductive failure in goats. This problem persists because chlamydia is a prevalent disease throughout the Doe's on the farm and can be spread in the absence of high vaccination status and herd immunity. The absence of herd immunity might pose challenges to the sustainability of the goat population. With more goats vulnerable to the disease that could cause a higher amount of dead kids or miscarriages which is in both cases unsustainable and a loss of resources. Then also, having a point system we can see if there is a correlation between the different doe's that were and were not vaccinated. The stakeholders would be interested in this because with this information the farm will have more insight into how effective the vaccination is and whether it is vital and will help to keep more doe's alive resulting in more money and healthy goats or if it is not vital and the cost of vaccinations can go down, perhaps increasing sustainability in other areas. The only ethical issues that are prevalent are if the vaccinations don't affect the Doe's then they won't be vaccinated and may have to live with an STD. Also if the cost of vaccination

outweighs the benefits, there may be more miscarriages because of the cost incentive.

Choose two representative user interactions with your completed project. Write a detailed textual use case for each. See:

<https://casecomplete.com/lessons/writing-use-cases>

<https://casecomplete.com/learn/write-use-case-extensions>

Use Case: Individual Goat Ranking Lookup

1. User selects individual goat
2. When individual is selected the user will be prompted to input ID
3. User enters ID
 - 3.a. Invalid Id entered
 1. Systems tells user invalid id
 2. Use case starts at step 3 again
4. ID will display all health information and ranked points of the goat in a list with the correlated information.
5. Users will be able to see the total ranking points for the goat ID entered and the individual points in each category
6. User can chose to check another individual goat or to main page

Use Case Goat Group Ranking Lookup:

1. System prompts user for group lookup

2. Guest selects which group they want to see, Total, Vaccinated, Unvaccinated
3. When vaccinated is selected, users will be able to see the overall ranking of points for the vaccinated goats.
4. When unvaccinated is selected, users will be able to see overall ranking of points for the non vaccinated goats.
5. When total is selected, users will be able to see overall ranking of points for all the goats entered in the database.
6. User can chose to check another group or to main page