

Cal Colistra

Introduction to Data Science

Project 1

1/24/2022

Purpose of the Project:

Problem 1 - To analyze the data that was provided and decide which chicken food results in the healthiest chickens based on their weight.

Problem 2 - To analyze the data that was provided and decide which insurance provider is the best based on various ratings out of 10.

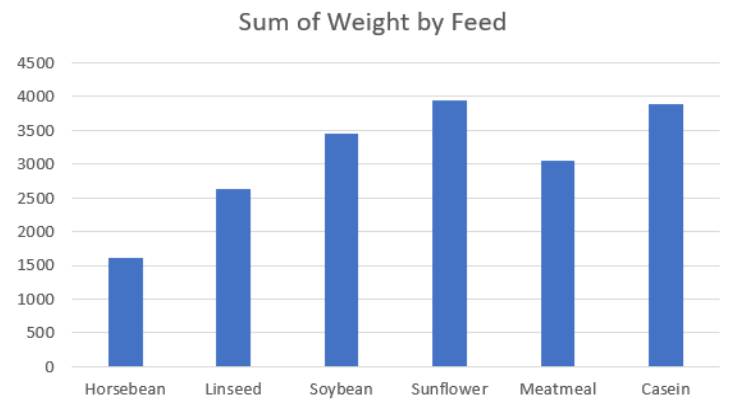
Methodology:

The data was provided by my professor, Dr. Forouraghi, and the method used to collect and cleanse the data is unknown. The model was built to find the Mins, Maxs and Means as well as the Sums for each type of data. These are displayed either in a table or bar graph for easy visual comparisons.

Conclusion and Summary:

Problem 1:

Summary of Chicken Weights According to Food Type			
Food Type	Min Weight	Mean Weight	Max Weight
Casein	216	323.6	404
Horsebean	108	160.2	227
Linseed	141	218.8	309
Meatmeal	153	276.9	380
Soybean	158	246.4	329
Sunflower	226	328.9	423



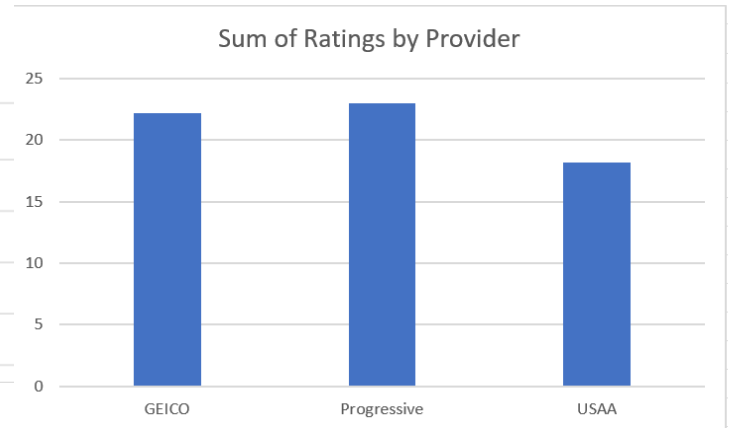
Based on this data, it seems that sunflower would be the chicken food that is best suited for a thriving poultry business because when chickens are fed sunflower they are on average heavier than the chickens that are fed other things. I did not regard the sum of weight by feed to make my decision because I noticed that in the data set there are varying amounts of data inputs for each food. For example, there were 10 inputs for chickens that were fed horse beans, 12 inputs for chickens that were fed linseed and so on. In this case, comparing the sums of the weights is not effective because some chicken foods will have a larger sum because there were more chickens weighed for

that food. For this reason, I made my decision by comparing the means because it accurately shows a typical weight of a chicken who was fed a specific food.

Problem 2:

Summary of Insurance Ratings

Provider	MIN	MEAN	MAX
GEICO	4.7	7.4	9.2
Progressive	6.7	7.7	8.9
USAA	3.8	6.1	8.1



Based on these ratings, Progressive seems to be the best choice because it has the highest mean and the greatest sum of ratings. Although GEICO has the highest max, it is not very far ahead of Progressive's max rating. Also, GEICO's minimum rating is significantly lower than Progressive's minimum rating. Due to these comparisons, I would choose Progressive to be the best insurance.

References:

All data was provided from here: <https://github.com/bforoura/IDS>