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Intro to Data Science

Project 1

February 1, 2022

Problem 1

Introduction

The purpose of this project is to analyse the effects that different feed has on chicken growth and determine which would be the best for running a successful poultry business. For a successful poultry business the goal is to have the biggest and heaviest chickens so that you can have the most product. So finding a feed that creates the heaviest chickens is the best way to have a successful poultry business.

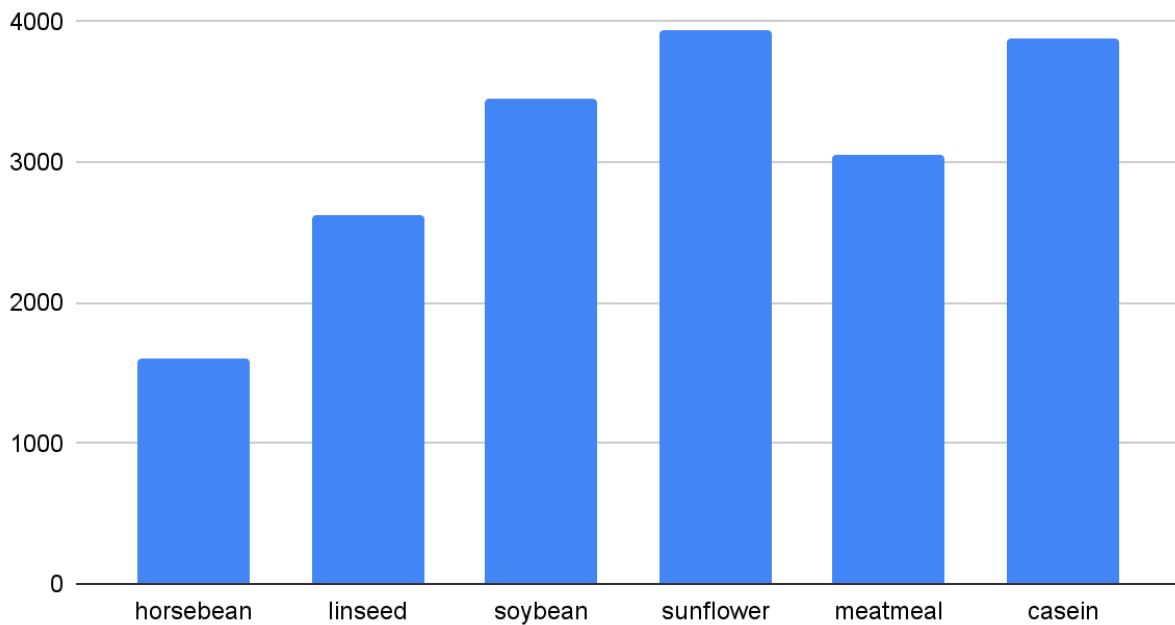
Methodology & Results

For each food type, a minimum weight, maximum weight, and average weight for a number of chickens was calculated and compared.

Food Type	Min weight	Max weight	Mean weight
Casein	216	404	323.58
Horsebean	108	227	160.20
Linseed	141	309	218.75
Meatmeal	153	380	276.91
Soybean	158	329	246.43

Sunflower	226	423	328.92
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Sum of Weight by Feed



Conclusion

The results of this project were that sunflower is the most beneficial chicken feed for a thriving poultry business followed closely by casein. Based on the weight of the chickens, sunflower is only better than casein by an average of 5 and their ranges are also quite similar so the differences are fairly close. Casein does have a higher minimum weight than sunflower. Either would help you produce heavy chickens which would be beneficial to a successful poultry business. The data is slightly uneven, in that some types of feed have more samples and some have less. Not enough of a difference that it greatly impacts the results, but they are not all exactly the same which does have some effect on the outcome.

Problem 2

Introduction

The purpose of this project is to compare the differences in ratings for 3 different auto insurance providers to determine which is the best.

Methodology & Results

For each insurance provider, a minimum, maximum, and average rating was calculated and compared.

Insurance Provider	Min rating	Max rating	Mean rating
GEICO	4.7	9.2	7.4
Progressive	6.7	9.2	8.3
USAA	3.8	8.1	6.1

Conclusion

Based on these ratings, I would opt for Progressive. Both because it has the highest average rating and because it has the highest minimum rating. Though the data set for this was only with 3 reviews for each provider which is far too small of a scale to actually use to choose something like this.