ANALYSIS OF THE EFFECT OF THREE DIFFERENT FEED INGREDIENTS ON THE GROWTH OF POULTRY BIRD.

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ABSTRACT

The factorial designs are indispensable statistical tools for investigating the interaction effects of two or more factors, especially when nothing is known about the interacting behavior of the factors been studied. In this project it was observed that the levels of inclusion of the three different ingredients have a significant effect on the weight of the poultry birds.

Response Surface Methodology is design and models for working with continuous treatments when finding the optimal or describing the response of the goal. For this project a second-order model for two variables is used, the second-order model is

$$y = b_0 - b_1 x_1 - b_2 x_2 - b_{11} x_{11}^2 - b_{22} x_{11}^2 + b_{12} x_1 x_2 - e$$

This model would likely be useful as an approximation to the true response surface in a relatively small region.

In this project it was also observed that as one increases the level at which one administers the ingredients to the poultry birds their weight increases and vice-versa. Thus at 30% level of inclusion the birds gain the best weight.