

CALIFORNIA STATE SCIENCE FAIR 2004 PROJECT SUMMARY

Name(s)

Deborah H. Martin

Project Number

J1013

Project Title

What Makes the Giddyup?

Abstract

Objectives/Goals

My objective was to find what commom equine feed will produce the most energy for the horse judged by the horses blood sugar (glucose) level.

Methods/Materials

- -seven healthy horses
- -one diabetes testing kit
- -nine bales of good quality alfalfa hay
- -eight bales of good quality grass hay
- -three acres of lush equine pasture mix grass
- -one large pen- bare of food
- -one electric razor
- -one container of rubbing alchol
- -cotton swabs

Results

The results turned out that the alfalfa hay produced the most energy in all three trials. The pasture mix produced the second best results in trial one and trial three, for trial two the grass hay produced .14 percent better then the pasture mix, but had the lowest in trial one and three.

For trial one with the alfalfa the results were: 72, 73, 71, 72, 74, 70, and 69 making a average measure of blood glucose 71.57. For trial two the results were 73, 69, 68, 70, 71, 73, 74, average was 71.14. For trial three the rusults were 74, 71, 70, 71, 72, 69, 72, average was 71.29.

The equine pasture mix grass had results of 67, 68, 71, 66, 67, 69, 70, average was 68.28 for trial one. Trial two had results of 71, 67, 70, 69, 68, 70, 67, average was 68.86. Trial three was 71, 66, 70, 67, 69, 70, 69, with average of 68.86.

Grass hay produced 67, 68, 71, 66, 67, 69, 70, average was 68.28 for trial One. Trial two had 68, 70, 69, 71, 66, 69, 70, average being 69.

Trial three results were 67, 70, 71, 68, 66, 68, 69, average was 68.43.

Conclusions/Discussion

My hypothesis was correct, the alfalfa hay did produce the most energy for the horse judged by the horses blood sugar level.

Summary Statement

I fed seven diffrent horses three types of common feed and then tested their blood sugar to see which feed produced the most energy for the horse.

Help Received

My two friends Heather and Shayla Dabney helped me handle the horses, and allowed me to use four of their horses for the experiment.