CALIFORNIA STATE SCIENCE FAIR
2014 PROJECT SUMMARY

Name(s)

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Project Number

34233

Project Title

Investigating Which Post Exercise Therapy Lowers an Equine's Heart Rate and Temperature the Fastest

Abstract

Objectives/Goals

The objective of my scientific investigation on which post exercise therapy lowers an equine's heart rate and temperature the fastest was to determine which post exercise therapy would lower a horse's heart rate and temperature the fastest. I wanted to do this investigation to see which therapy is best for a horse after exercising the horse.

Methods/Materials

For my materials, I used the following: arena, calculator, barrels, bridle, grooming materials, paper, pencil, protective boots for horses, seven horses, saddle, saddle blanket, stethoscope, stopwatch, thermometer, and water hose.

Procedure: First I took all 7 horse's heart rates and temperatures. Then I saddled each horse and exercised them for 5 minutes, including a barrel pattern. I then unsaddled the horse and took the heart rate and temperature of the horse. Next I used the chosen therapy for that trial and competed it on the horse. Finally I took the horse's heart rate and temperature after completing the therapy and recorded my data. The therapies I used were walking, bathing, grooming, and no therapy on the control day. i tested one therapy per day, and I did two trials of each on each horse, for a total of 14 trials for each therapy, including my control.

Results

My results stated that grooming lowered the equine's heart rate and temperature the fastest, followed by bathing working second best on heart rate and third best on temperature, and walking working third best for heart rate and second best for temperature.

Conclusions/Discussion

After completing my scientific investigation on investigating which post exercise therapy lowers an equine's heart rate and temperature the fastest, I found the grooming the horse after exercise helped to lower the horse's heart rate and temperature the fastest. I found that grooming lowered heart rate and temperature the most, followed by bathing lowering temperature the second best and heart rate the third best, with walking lowering heart rate the second best and temperature the third best.

Summary Statement

The purpose of my investigation was to determine which therapy performed on a horse after exercise would lower the horse's heart rate and temperature the fastest.

Help Received

Mother helped take photographs of the experiment and arrange the science board.

Preliminary