

Standardized Exercise Test to Evaluate Level of Fitness in DVU School Horses

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Abstract

Fitness is a must for any performance horse but overlooked and sometimes not prioritized in school horses. Using a combination of an electronic heart rate monitor and stethoscope, heart rates of various school horses were measured at different points in their classes. All horses' heart rates returned to normal within a ten-minute time frame, proving their fitness level sufficient for their jobs.

Introduction

A horse's fitness level is imperative to their wellbeing. If a horse is being asked to do more work than it is fit for, it can cause major injuries and other health problems. It is just as important to prevent them from doing more work than what is required of them to prevent overworking. In the industry, an improved level of fitness is achieved by creating and implementing a specific fitness regime into the horses' program, and a lot of time goes into making sure they improve their fitness. School horses are a different story, especially ones in a collegiate program. They are used routinely for lessons at various levels, sometimes multiple times a day. They are never targeted with individualized exercise to improve their fitness level, because the classes they participate in are seen as the exercise. It is expected that they maintain a certain level of fitness for the job required of them. Are school horses, without a specific training schedule or individualized training program, able to achieve the proper level of fitness required to safely and comfortably perform their duties in their classes?

Methods

For this study, 17 DVU school horses were used. In their respective riding classes, which ranged from beginner to advanced level, their heart rates were measured at rest, before they began, after work, and before dismounting. The heart rates were measured with a combination of electronic heart rate monitor and stethoscope. A horse is deemed fit if their heart rate comes down to resting level within ten minutes of work. 5 of the 17 horses were selected to perform a fitness test. The fitness test required the horse to canter at a rate of 450 meters per minute for four minutes, and their heart rates were measured afterward. If any horses of the group were deemed unfit for their classes, a fitness program would be implemented to see if their fitness level could be improved.

Results

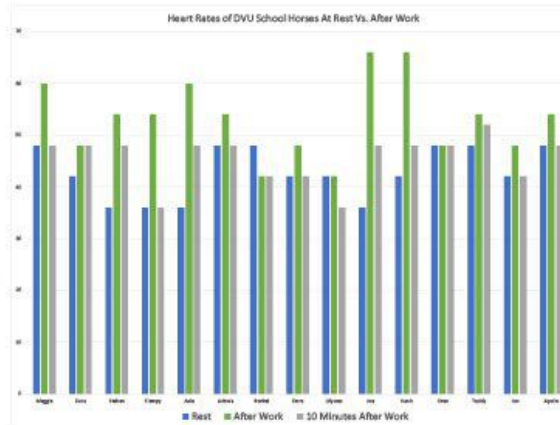


Figure 1

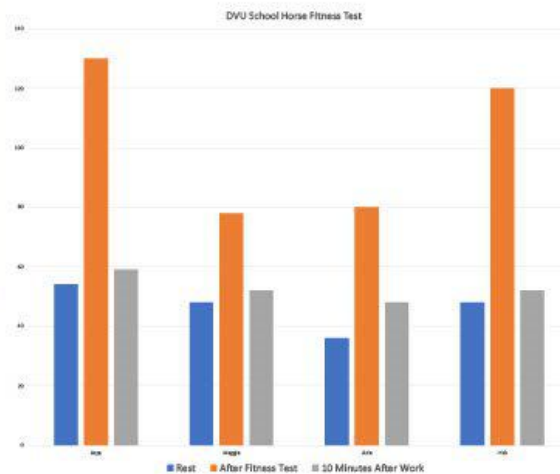


Figure 2

Acknowledgements

I would like to thank the DVU School horses and their endless patience and Angelo Telatin, my mentor.

Figure 1 shows the heart rates of 15 school horses from their classes, with one bar showing the rate taken at rest another taken after work, and a third taken 10 minutes after. After ten minutes, all their heart rates returned to normal (under 60 bpm), meaning they're fit for the classes they had just participated in. Figure 2 demonstrates the results of the fitness test, with the same intervals taken. It took under ten minutes for all horses' heart rates to come down below 60 bpm, even after being that high, and those five horses were deemed fit enough for any of the classes on campus.

Discussion Application

All of the horses used, both in their scheduled classes and during the fitness test, were deemed fit enough for the job that the college requires of them. In the fitness test, two of the horses came close to the aerobic threshold. The anaerobic threshold for horses is marked at 150 bpm and means that the horse is relying on anaerobic functions, or without oxygen. The horse can perform like this in short bursts, such as fast sprints. If one of the school horses were to cross the anaerobic threshold in a fitness test such as this, it would raise the question of whether they are fit enough. Some of the horses came close, but none of them surpassed it, and their heart rate returned to normal within 10 minutes, which means that they are fit.

Conclusion

Because all of the horses' heart rates returned to normal within ten minutes of work, they were all deemed fit enough for their current jobs. No conditioning routine was deemed needed nor implemented to any of the horses.

References

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