

**PENGARUH PERBEDAAN JARAK TEMPUH TERHADAP STATUS FISILOGIS DAN SKOR KELELAHAN KUDA ANDONG  
DI KAWASAN MALIOBORO YOGYAKARTA**

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**INTISARI**

Penelitian ini bertujuan untuk mengkaji pengaruh perbedaan jarak tempuh terhadap status fisiologis dan skor kelelahan kuda andong di kawasan Malioboro Yogyakarta. Enam belas ekor kuda betina penarik andong digunakan dalam penelitian untuk mengetahui jarak tempuh dari lokasi kandang kuda sampai ke lokasi pangkalan. Jarak tempuh dikelompokkan menjadi tiga kelompok yaitu dekat (4-7 km), sedang (>7-10 km) dan jauh (>10-13 km). Data yang diambil adalah profil responden, status fisiologis (temperatur rektal, frekuensi respirasi, detak jantung) di lokasi kandang kuda dan di lokasi pangkalan, penilaian skor kelelahan kuda, jarak tempuh, dan waktu yang diperlukan. Setiap ekor kuda dilakukan tiga kali pengukuran. Untuk melihat pengaruh jarak tempuh terhadap parameter yang dicatat, data di analisis dengan *One Way Anova*. Hasil penelitian berdasarkan jarak, waktu tempuh, dan kecepatan masing-masing menunjukkan hasil perbedaan yang nyata pada jarak tempuh dekat, sedang, dan jauh berturut-turut yaitu ( $P < 0,05$ ), ( $P < 0,05$ ), ( $P < 0,05$ ). Selisih data fisiologis detak jantung (detak per menit) sebelum dan sesudah dipekerjakan berdasarkan jarak dekat, sedang dan jauh berturut-turut:  $23 \pm 6$ ,  $29 \pm 13$ ,  $25 \pm 14$ . Selisih data fisiologis frekuensi respirasi (napas per menit) sebelum dan sesudah dipekerjakan berdasarkan jarak dekat, sedang dan jauh berturut-turut:  $30 \pm 13$ ,  $44 \pm 14$ ,  $46 \pm 17$ . Selisih data fisiologis temperatur rektal ( $^{\circ}\text{C}$ ) sebelum dan sesudah dipekerjakan berdasarkan jarak dekat, sedang dan jauh berturut-turut:  $0,7 \pm 0,12$ ,  $1,3 \pm 0,5$ ,  $1,5 \pm 0,4$ . Kuda andong yang terbanyak pada skor kelelahan 1 sampai 2, >2 sampai 3, dan >3 sampai 4 berturut-turut pada jarak dekat, sedang, dan jauh. Hasil penelitian menunjukkan bahwa perbedaan jarak tempuh terhadap status fisiologis tidak signifikan.

Kata kunci : Kuda andong, Jarak tempuh, Status fisiologis, Skor kelelahan

## THE EFFECT OF DISTANCE DIFFERENCE TOWARDS PHYSIOLOGICAL STATUS AND FATIGUE SCORE OF ANDONG HORSES IN MALIOBORO AREA YOGYAKARTA

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### ABSTRACT

The aim of this study was to measure changes in physiological status and fatigue score due to various distances traveled by andong horses in Malioboro Area, Yogyakarta. A total number of 16 andong horses were used to determine the distance from the stable to the andong horses station. The distances traveled were divided into 3 groups: near (4-7 km), moderate (>7-10 km) and far (>10-13 km). For the description of work, respondent's profiles were collected during the experiment. Horse fatigue, distance, the time required, and physiological statuses such as heart rate, respiratory rate, and rectal temperature with 3 replications of measurement were evaluated before and after work. The data was statistically analyzed by One Way ANOVA to see the effect of the distance differences on the recorded parameters. The results of the study based on distance, travel time, and speed showed significant differences at near, moderate, and far distances respectively ( $P < 0,05$ ), ( $P < 0,05$ ), ( $P < 0,05$ ). The heart rate (beat/minute) of andong horses before and after work based on various distances of near, moderate and far respectively:  $23 \pm 6$ ,  $29 \pm 13$ ,  $25 \pm 14$ . The respiratory rate (breath per minute) of andong horses before and after work based on various distances of near, moderate and far respectively:  $30 \pm 13$ ,  $44 \pm 14$ ,  $46 \pm 17$ . The rectal temperature (0C) of andong horses before and after work based on a various distance of near, moderate and far respectively:  $0,7 \pm 0,12$ ,  $1,3 \pm 0,5$ ,  $1,5 \pm 0,4$ . The most common horse in the fatigue score is 1 to 2, >2 to 3, and >3 to 4 respectively at near, moderate and far distances. The results showed that the various distances traveled by andong horses to physiological status were not significant.

Keywords: Andong horses, Distance, Physiological status, Fatigue score