

## PENGARUH JARAK TEMPUH TERHADAP TINGKAH LAKU SAPI POTONG YANG AKAN DIPOTONG DI RUMAH POTONG HEWAN GIWANGAN

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### INTISARI

Penelitian bertujuan untuk mengetahui status fisiologis dan tingkah laku sapi setelah mengalami pengangkutan dengan jarak yang berbeda. Materi yang digunakan adalah 21 ekor sapi Peranakan Ongole yang berasal dari 3 lokasi yang berbeda, dengan jarak angkut 10; 20 dan 40 km, masing-masing terdiri dari 7 ekor sapi. Setelah dilakukan pengukuran status fisiologis berupa frekuensi respirasi, frekuensi pulsus dan temperatur rektal kemudian dilakukan pengamatan tingkah laku selama 9 jam, meliputi frekuensi minum, frekuensi urinasi, frekuensi defekasi, frekuensi dan lama berbaring dan berdiri. Pengukuran status fisiologis dilakukan 3 kali dalam 9 jam yaitu pukul 13.00, 17.00 dan 22.00. Data tingkah laku dianalisis menggunakan *completely randomized design* (CRD) pola searah, sedangkan data fisiologis dianalisis dengan *completely randomized design* (CRD) pola faktorial (3x3). Hasil penelitian menunjukkan bahwa jarak tempuh tidak berpengaruh terhadap perubahan tingkah laku, frekuensi respirasi dan temperatur rektal, namun berpengaruh nyata ( $P < 0,05$ ) terhadap frekuensi pulsus. Rerata frekuensi pulsus sapi pada jarak tempuh 10; 20 dan 40 km, berturut-turut adalah  $66,47 \pm 7,8$ ;  $67,71 \pm 8,92$  dan  $73,76 \pm 11,20$  kali/menit, sedangkan frekuensi respirasi adalah  $27,71 \pm 9,01$ ;  $33,23 \pm 19,64$ ;  $30,80 \pm 13,44$  kali/menit dan temperatur rektal adalah  $38,60 \pm 0,47$ ;  $38,54 \pm 0,54$ ;  $38,58 \pm 0,46^\circ\text{C}$ . Rerata frekuensi minum pada sapi dengan jarak angkut 10; 20 dan 40 km, berturut-turut adalah  $8,57 \pm 4,04$ ;  $6,86 \pm 2,41$ ;  $6,71 \pm 3,98$ , frekuensi urinasi adalah  $3,71 \pm 2,14$ ;  $3,57 \pm 2,44$ ;  $4,57 \pm 6,05$ , frekuensi defekasi  $1,42 \pm 0,78$ ;  $2,42 \pm 1,27$ ;  $3,85 \pm 3,76$ , frekuensi berbaring  $5,71 \pm 2,98$ ;  $4,28 \pm 1,38$ ;  $3,85 \pm 2,11$ , dan frekuensi berdiri adalah  $5,71 \pm 2,98$ ;  $4,28 \pm 1,38$ ;  $3,85 \pm 2,11$  kali/9 jam. Perbedaan waktu pengukuran berpengaruh nyata terhadap frekuensi respirasi, frekuensi pulsus dan temperatur rektal. Terdapat interaksi antara jarak tempuh dan waktu pengukuran terhadap frekuensi pulsus. Disimpulkan bahwa tingkah laku, frekuensi respirasi dan temperatur rektal tidak berubah setelah sapi ditransportasikan, namun meningkatkan frekuensi pulsus. Kondisi sapi sudah kembali normal setelah 4 jam istirahat.

Kata kunci: Sapi potong, Jarak tempuh, Tingkah laku, Fisiologis

## **THE EFFECT OF TRANSPORTATION DISTANCE ON THE BEHAVIOR OF BEEF CATTLE SLAUGHTERED AT GIWANGAN SLAUGHTER HOUSE**

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### **ABSTRACT**

This study was conducted to identify the physiological status and behavior changes of beef cattle after difference distances transported and observed the recovery time after transportation. Twenty one Ongole Grade cattles were used in this research. The Ongole Grade cattles were transported from different distance (10; 20 and 40 km), each distance was consisted of 7 cattles. After the measurement of the physiological status (respiration, pulses and rectal temperature), the cattles were observed on their behavioral during 9 hours. The behavior included frequency of drinking, urination, defecation, frequency and duration of lying and standing. Measurements on physiological status was measured three times at 13.00, 17.00 and 22.00 hours. The physiological status of cattles was analysed using 3x3 factorial analysis of completely randomized design (CRD), while the behavior was analysed using one way analysis of completely randomized design. The results showed that the distance of transportation did not have a significant effects on behavior, respiratory rate and rectal temperature, while pulses rate was significantly affected by transportation distance ( $P < 0.05$ ). The average of pulses rate at the distance of 10; 20 and 40 km were  $66.47 \pm 7.8$ ;  $67.71 \pm 8.92$  and  $73.76 \pm 11.20$  times/minute, respiration rate were  $27.71 \pm 9.01$ ;  $33.23 \pm 19.64$ ;  $30.80 \pm 13.44$  time/minute and rectal temperature were  $38.60 \pm 0.47$ ;  $38.54 \pm 0.54$ ;  $38.58 \pm 0.46^\circ\text{C}$ . The frequency of drinking, urination, defecation, laying and standing were  $8.57 \pm 4.04$ ;  $6.86 \pm 2.41$ ;  $6.71 \pm 3.98$  time/9 h,  $3.71 \pm 2.14$ ;  $3.57 \pm 2.44$ ;  $4.57 \pm 6.05$  time/9 h,  $1.42 \pm 0.78$ ;  $2.42 \pm 1.27$ ;  $3.85 \pm 3.76$  time/9 h,  $5.71 \pm 2.98$ ;  $4.28 \pm 1.38$ ;  $3.85 \pm 2.11$  time/9 h,  $5.71 \pm 2.98$ ;  $4.28 \pm 1.38$ ;  $3.85 \pm 2.11$  time/9 h, respectively for the distance of 10; 20 and 40 km. Time of measurement were significantly affect on respiration, pulses and rectal temperature and there was interaction effect between time and distance on the pulses rate ( $P < 0.05$ ). It is concluded that behavior, respiration rate and rectal temperature are remain similar when beef cattle is transported, however pulses rate is increased. The recovery of physiological status and behavior after transportation is at least four hours.

**Keywords:** Beef cattle, Distance, Behavior, Physiological status.