

# THE EFFECTS OF SELENIUM AND VITAMIN E INJECTION ON BODYWEIGHT LOSS AND PHYSIOLOGICAL STATUS OF TRANSPORTED CATTLE

N. Mayasari<sup>1\*</sup>, F.H. Nasution<sup>1</sup>, M.F. Wiyatna<sup>1</sup>, M.R. Ismiraj<sup>2</sup>

<sup>1</sup>Faculty of Animal Husbandry, University Padjadjaran, Sumedang, West Java, Indonesia

<sup>2</sup>Animal Husbandry Program PSDKU Pangandaran, Faculty of Animal Husbandry,

University Padjadjaran, Pangandaran, West Java, Indonesia

\* e-mail: [novi.mayasari@unpad.ac.id](mailto:novi.mayasari@unpad.ac.id)

## Abstract

*This study aimed to determine the effect of injecting mineral selenium (Se) and vitamin E on body weight loss and physiological status (respiration rate and peripheral body temperature) of transported beef cattle. In total 28 Brahman Cross (BX) cattle with a body weight of  $450 \pm 30$  kg with coefficient variation 8,65%. The experimental method was used in this study with Complete Randomized Design (CRD) with four treatments and repeated seven times. Treatments at the study were P1: Placebo Solution, P2: Injection Se 4 ppm, P3: Injection of vitamin E 36 ppm, and P4: Injection of Se 5 ppm + vitamin E 36 ppm. Duration of transportation from Subang to Tasikmalaya were six hours. Data were analysed was with analysis of variance and orthogonal test. No statistical differences were found regarding the administration of Se and vitamin E to the body weight and physiological status. This might be indications that: a) administration of Se, vitamin E and their combination can preserve the physiological function of the beef cattle after transportation in their normal state as before the transportation occurred; or b) no stress experienced by the animals during the transportation.*

**Key words:** transportation, antioxidant, physiological status, beef cattle