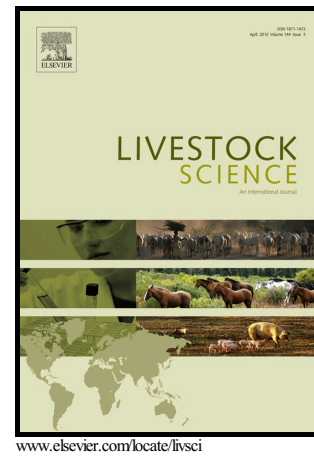


Author's Accepted Manuscript

Lactation and reproductive performance of high producing dairy cows given sustained-release multi-trace element/vitamin ruminal bolus under heat stress condition

Simin Khorsandi, Ahmad Riasi, Mohammad Khorvash, Saeid Ansari Mahyari, Farhad Mohammadpanah, Farhad Ahmadi



PII: S1871-1413(16)30043-9
DOI: <http://dx.doi.org/10.1016/j.livsci.2016.03.008>
Reference: LIVSCI2962

To appear in: *Livestock Science*

Received date: 28 October 2015
Revised date: 10 March 2016
Accepted date: 13 March 2016

Cite this article as: Simin Khorsandi, Ahmad Riasi, Mohammad Khorvash, Saeid Ansari Mahyari, Farhad Mohammadpanah and Farhad Ahmadi, Lactation and reproductive performance of high producing dairy cows given sustained-release multi-trace element/vitamin ruminal bolus under heat stress condition, *Livestock Science*, <http://dx.doi.org/10.1016/j.livsci.2016.03.008>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain

Lactation and reproductive performance of high producing dairy cows given sustained-release multi-trace element/vitamin ruminal bolus under heat stress condition

Simin Khorsandi^a, Ahmad Riasi^{a*}, Mohammad Khorvash^a, Saeid Ansari Mahyari^a, Farhad Mohammadpanah^a, Farhad Ahmadi^b

^aDepartment of Animal Science, College of Agriculture, Isfahan University of Technology, Isfahan 84156-83111, Iran

^bDivision of Food Bioscience, College of Health and Medical Life Sciences, Glocal campus, Konkuk University, Danwol-dong 322, Chung-Ju, Chung-Buk 380-701, South Korea.

*Corresponding author. Tel.: +98(31)33913353; fax: +98(31)33913471. E-mail Address: ariasi@cc.iut.ac.ir (Ahmad Riasi)

Abstract

The aim of the study was evaluation the effect of sustained-release multi-trace element/vitamin bolus on blood metabolite and performance of Holstein dairy cows reared under heat stress conditions. Maximum temperature humidity index (THI) was 77.7 during the trial. Fifty multiparous cows were randomly allocated to two experimental groups: 1- bolus supplemented cows (Treatment), and 2- no bolus (Control). Each bolus contained minerals (16.2 g Cu, 0.251 g Se, 0.236 g Co, 0.497 g I, 8.28 g Mn and 13.32 g Zn) and vitamins (545.6×10^3 IU of vitamin A, 109.1×10^6 IU of vitamin D₃ and 1092 IU of vitamin E). Results showed that cows supplemented with bolus tended to have higher milk yield ($P = 0.07$), milk fat ($P = 0.03$), protein ($P < 0.001$), and solid non fat (SNF) ($P < 0.001$) percentage compared to control. Bolus supplementation decreased the milk linear somatic cell count

Download English Version:

<https://daneshyari.com/en/article/5789954>

Download Persian Version:

<https://daneshyari.com/article/5789954>

[Daneshyari.com](https://daneshyari.com)