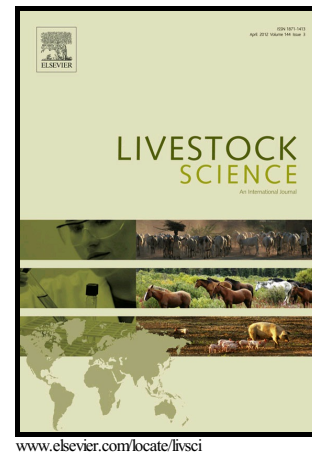


Author's Accepted Manuscript

The use of sorghum silage in feeding weanling horses: Body Development

Diogo Felipe da Silva Inácio, Adalgiza Souza Carneiro de Rezende, Rafael Henrique Prado Silva, Marília Martins Melo, Laydiane de Jesus Mendes, Suzana Maruch, Kate da Costa Barcelos, Ângela Quintão Lana, Sarah Lucile Ralston



PII: S1871-1413(17)30290-1
DOI: <https://doi.org/10.1016/j.livsci.2017.09.025>
Reference: LIVSCI3310

To appear in: *Livestock Science*

Received date: 11 October 2016
Revised date: 21 September 2017
Accepted date: 29 September 2017

Cite this article as: Diogo Felipe da Silva Inácio, Adalgiza Souza Carneiro de Rezende, Rafael Henrique Prado Silva, Marília Martins Melo, Laydiane de Jesus Mendes, Suzana Maruch, Kate da Costa Barcelos, Ângela Quintão Lana and Sarah Lucile Ralston, The use of sorghum silage in feeding weanling horses: Body Development, *Livestock Science*, <https://doi.org/10.1016/j.livsci.2017.09.025>

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.

The use of sorghum silage in feeding weanling horses: Body Development

Diogo Felipe da Silva Inácio^a; Adalgiza Souza Carneiro de Rezende^{a*}; Rafael Henrique Prado Silva^a; Marília Martins Melo^a; Laydiane de Jesus Mendes^b; Suzana Maruch^a; Kate da Costa Barcelos^a; Ângela Quintão Lana^a; Sarah Lucile Ralston^c

^aSchool of Veterinary, Federal University of Minas Gerais, Belo Horizonte, MG, Brazil;

^bScience Institute Letters, Federal University of Minas Gerais, Montes Claros, MG, Brazil;

^cRutgers University, New Brunswick, Nj, USA

*Corresponding author: adalgizavetufmg@gmail.com

Abstract: A correct and balanced nutrition has a great importance in the development of young horses. Weanlings should reach 90% of their final height at twelve months of age, and it is necessary that their rations allow them to reach their genetic potential during this critical growth period. The objective of this study was to compare the growth and development of weanling fillies fed sorghum silage versus grass hay as the source of forage during the dry season. Fillies of the Mangalarga Marchador breed (MM) were weaned and were randomly allocated to one of 2 groups with 7 foals each: GS: fed sorghum silage (*Sorghum bicolor* cv. BRS655) or GH: fed Vaquero grass hay (*Cynodon* cv. CD90160 x cv. Mirage). Both groups were fed a commercial concentrate at the rate of 1.5% body weight (BW) in dry matter daily. The results show that the growth and development of the fillies in both groups of this experiment was suitable for the breed. The use of sorghum silage for fillies from 6 to 9 months of age that are also receiving 1.5% BW of a concentrate balanced for growing horses during the dry season allowed normal growth and development of MM fillies.

Keywords: sorghum silage, weaning horses, growth, measurements

Introduction

In Brazil at dry periods it is common to feed weanlings with alternative feed because of the lack of pasture. A correct and balanced nutrition has a great importance in the development of young horses. Excess or deficiency of nutrients can affect growth and/or cause orthopedic disease development (Fradinho et al., 2012; Gobesso et al, 2014). Central Brazil has two clearly defined periods in the year, rainy and dry season, which is characterized by low quality and quantity of forage caused by the lack of rain, and is the period of time when foals are weaned at about 6 months of age, when nutritional needs are 541 g of crude protein and 12.4 Mcal of digestible energy (NRC 2007). Weanlings should reach 90% of their final height at twelve months of age, and it is necessary that their rations allow them to reach their genetic potential during this critical growth period (Frape, 2008), which should last through the dry season (3 months). During the dry season in Brazil alternative feeds such as grass and corn silages, sugar cane are needed to complement the rations of horses, because of the lack of pasture in some properties. Sorghum silage is often used in the feeding of ruminants, and has been used for horses, but there are few controlled studies of its use in feeding young horses. The objective of this study was to compare the growth and development of weanling fillies fed sorghum silage versus grass hay as the source of forage during the dry season. It was hypothesized that the grass hay-fed weanlings would have higher growth rates and development than those fed the silage, due to its palatability and feed value (Domingues, 2009).

Materials and Methods

Study site

The experiment was performed at the Haras Catuni, Montes Claros-Minas Gerais/Brazil, between June and September (84 days).

Download English Version:

<https://daneshyari.com/en/article/8950035>

Download Persian Version:

<https://daneshyari.com/article/8950035>

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