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CONTENTS

(Abstracted/indexed in AGRIS Database, Biosis Database, CAB Abstracts, Chemical Abstracts, CURRENT CONTENTS (AB and ES), Food Science and Technology Abstracts, Indian Science Abstracts, RESEARCH ALERT, SCISEARCH)

Influence of infectious bursal disease and chicken anemia vaccines on the development of cellulitis and myositis lesions in cage-reared broilers
Cheungming Wang, Kenneth S. Macklin, James T. Krehling and Robert A. Norton (USA) ........................................65

Digestibility of forage diets of white-tailed deer (Odocoileus virginianus, Hays) using different ruminal fluid inocula
F. Clemente, E. Riquelme, G.D. Mendoza, R. Bárceca, S. González and R. Ricalde (México) ........................................71

Determination of the effects of fish vs plant vs meat protein-based diets on the growth and health of rainbow trout
Shah Rahnema, Ron Borton and Eric Shaw (USA) ........................................77

Fatty acid profiles of different tissues in mature trout (Salmo trutta macrostigma) from Pulur Creek in Karasu Region, Turkey
H.l. Haliloglu, A. Bayir, A.N. Sirkecioğlu and N.M. Aras (Turkey) ........................................81

Effect of age on the carcass traits and meat quality of turkey poults
S. Majumdar, S.K. Bhanja, R.P. Singh and S.K. Agarwal (India) ........................................85

Nutritive value of fresh swine excreta for growing pelibuey sheep
J.J. GCantón, R. Belmar-Casso and C.A.桑多瓦尔-卡斯多 (México) ........................................89

Influence of plant cover on dietary selection by goats in the Mixtec Region of Oaxaca, Mexico
F.J. Franco, G.A. Gómez, G.D. Mendoza, R. Bárceca, R. Ricalde, F. Plata and J. Hernández (México) ........................................95

Relationship between kappa-casein polymorphism and production traits in Brown Swiss and Holstein
Memis Özdemin and Ünsal Doğru (Turkey) ........................................101

Alterations in the intestinal mucosal structure following oral administration of triiodothyronine (T₃) in broiler chickens
M. Teshfam, H. Nodeh and M. Hassanzadeh (Iran) ........................................105

Combination of fan ventilation system and spraying of oil-water mixture on the levels of dust and gases in caged layer facilities in Eastern Turkey
Bahar Kocaman, A. Vahap Yogancoglu, Mete Yanar (Turkey) ........................................109

Lifetime reproductive performance of goats as a function of growth traits and reproductive performance early in life
M. Mellado, J. Mellado, J.E. García and R. López (México) ........................................113

A comparison of different selection indices for genetic improvement of some dairy milk traits in Holstein Friesian cows in Turkey
Hulya Atlı (Turkey), Adel Salah Khattab (Egypt) and Yakut Geveke (Turkey) ........................................117

Changes of heart glycoconjugates by noise stress in mouse as an experimental model
M.Z. Monsefi and T. Talaee (Iran) ........................................121

Some factors affecting milk production and post partum body weight of fat-tailed Nduz ewes in Turkey
Mehmet Bingöl, Turgut Aygün, Özdal Gökda and Ayhan Yılmaz (Turkey) ........................................125

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Some Factors Affecting Milk Production and Post Partum Body Weight of Fat-Tailed Norduz Ewes in Turkey

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Abstract


This study was conducted to determine some traits of milk production and post partum body weights of Norduz ewes in Van-Norduz provinces. Overall means for lactation period, lactation milk production and post partum body weight were 174 days, 178 liters and 58 kg, respectively. Only post partum body weight was affected (P<0.05) by age of ewe or parturition type. The Norduz ewe has been recommended for milk production.

Key words: Milk production, lactation period, body weight, post partum, ewe, Norduz.

Introduction

Milk production from sheep has retained its importance for centuries in economy as well as its role in human nutrition in Turkey (Kaymakçı and Sönmez, 1996). But, the present potentials of milk production of native sheep breeds are far from optimal.

The fat-tailed Norduz sheep, a subtype of Akkaraman breed, are favourably characterised by their adaptation to harsh environmental and feeding conditions and milk production potential. The Norduz sheep have been raised in Van-Norduz provinces of Eastern Anatolia in Turkey. Traditional breeders generally rear this type of sheep which graze mostly in the range of Norduz plateaus and outskirts of the villages (Bingöl, 1998).

The aim of this study was to determine some traits of milk production and post partum body weights of Norduz ewes as affected by their age or parturition type in Van-Norduz provinces of Eastern Anatolia, Turkey.

Materials and Methods

The data for this study were collected from 76 Norduz ewes 3, 4 and 5 years old in Van-Norduz provinces. The ewes were fed 100g alfalfa hay per day in addition to pasture during trial period. Body weights of ewes were taken with steelyard within 24 h after parturition. Lambs after parturition were

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kept with their dams during 15-20 days periods. Lambs were weaned at three months of age and then were taken out to the pasture.

Milking in ewes started at fifth day after parturition. Lactation period and lactation milk production for each ewe were determined from data of controls based on test-day records and Sweden method reported by Kaymakçı and Sönmez (1996).

Least squares procedures were employed for data analyses (SAS, 1998). The least squares means obtained from the univariate analyses were compared using Duncan’s Multiple Range Test (Duncan, 1955).

**Results and Discussion**

Lactation period and lactation milk production of ewes were rather higher than means of lactation period of 120 d and lactation milk production of 40 liters reported for Akkaraman sheep (Şireli, 1996). However, it has been reported that lactation period and lactation milk production of Norduz ewes raised at rural conditions were 183 days and 132 liters, respectively (Bingöl, 1998).

Age of ewes and parturition type did not affect lactation period and lactation milk production (Table 1). These findings are consistent with the results of the other studies (Altın and Çelikyürek, 1996; Bingöl, 1998). On the other hand, it has been reported that effect of age on lactation period and lactation milk production was significant (Demir and Başpinar, 1992; Akmaz, 1994).

Overall mean for body weight of 58 kg Norduz ewes post partum (Table 1) was substantially higher than averages reported for Akkaraman (Şireli, 1996), for Karakas (Gökdaal, 1998) and for Norduz (Bingöl, 1998).

As expected, age had a significant effect on post partum body weight, which increased with age (Table 1). It has been reported in

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Least squares means for lactation period, lactation milk production and post partum body weight of Norduz ewes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factors</td>
<td>n</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>76</td>
</tr>
<tr>
<td>Age of ewe;</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>21</td>
</tr>
<tr>
<td>4</td>
<td>26</td>
</tr>
<tr>
<td>5</td>
<td>29</td>
</tr>
<tr>
<td>Parturition type:</td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>64</td>
</tr>
<tr>
<td>Twin</td>
<td>12</td>
</tr>
</tbody>
</table>

<sup>a,b</sup>Values in column not having a common superscript differ significantly (P<0.05).

many studies that the age has significant effect on body weight (Vanlı et al., 1984; Demir and Başpinar, 1992). Similarly lower post partum body weight of ewes that delivered twins is on expected lines.

It seems that characteristics of milk production of Norduz sheep are rather better than many of native sheep breeds and some synthetic sheep types in Turkey. Situation for body weight is similar as well. It is concluded that Norduz breed has substantial milk production potential, which can be improved further by selective breeding.

**References**


एम. बिनीकोत, डी. आयुर्वेद, ओ. गोकर्दल, ए. धीर्माज। तुर्की की स्थूल-दूधी नाइज भेड़ों के दौरान उत्पादन और प्रस्फोटात्मक शरीर भार को प्रभावित करने वाले कुछ कारक।

वह अनुमान वान-नाइज भेड़ों की नाइज भेड़ों के दौरान उत्पादन और प्रस्फोटात्मक शरीर भार संबंधी कुछ गुणों को जानने के लिए किया गया। प्रत्येक प्रकार अवधि, व्यायाम का हुस्यस्तात्मक और प्रस्फोटात्मक शरीर भार का समय औसत कम्पल 174 दिन, 178 और 58 किया था। भेड़ की आयु या प्रसव के प्रकार से केन्द्र प्रस्फोटात्मक शरीर भार प्रभावित हुआ। हुस्यस्तात्मक के लिए नाइज भेड़ पालन की संख्या की गई है।