

GROWTH PERFORMANCE AND BODY MEASUREMENT OF HONAMLI GOAT KIDS PROTECTED AS A NATIVE ANIMAL GENETIC RESOURCE KEPT IN BREEDER CONDITIONS IN TURKEY

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INTRODUCTION

- Natural and economic conditions, agricultural structure and traditions of Turkey are commonly suitable for sheep and goat farming and convenient to hold an important place in the country agriculture [2].
- For sustainability of using forests, goat farming should be in forest, but these issues still not understand properly in Turkey [1].
- Total number of goat in Turkey is about 8 million head and approximately 90% of the Kil (Hair) Goat [17].
- But, Honamli Goats are raised in the Taurus Mountains of Southern Anatolian in limited number [8,12].

Honamli Goats in ANTALYA



Honamli Goats in KONYA



INTRODUCTION

- ✓ Goat is a farm animal that is marked to the Anatolian culture. Raised by the nomad's tribe Honamli which has a part of southern Anatolian culture.
- ✓ They have been preserved until today by this nomad tribe which is the same name of this goat defining characteristics of the Honamli goat breeds in this area.
- ✓ And also the data of Honamli breed identification, protection and determination of rural area will provide significant contributions to the scientific world [12].



Honamli Kids in KONYA



Nomad Culture in Southern Anatolia



Introduction

The aim of this study was to investigate the growth performance and body measurement of Honamli Goat kids protected as a native animal genetic resource kept in breeder conditions in Turkey.



MATERIAL and METHOD



Animal Material:

- A study has begun in 2005 in Turkey, under the Ministry of Food, Agriculture and Livestock, General Directorate of Agricultural Research and Policy (GDAR) implemented by the "Animal Genetic Resources-Site Protection Project".
- This project has been carried out by Bahri Dağdaş International Agricultural Research Institute with protected 2 Honamli Goat flocks in Gökçehüyük village of Seydişehir District of Konya Province and Dereli village of Döşemealtı District of Antalya Province.
- Protection goat flocks composition was 224 head adult female goat and 20 head adult male goat.
- In this study, 50 male and 50 female kids material were used.

MATERIAL AND METHOD

In the study:



← Honamlı

Male Kids



Female Kids



Study Duration	Number of Kids	Number of Kids
180 Days	50	50


Feeding:

- The kids suckled their mothers twice a day up to the weaning and were fed in pasture in good weathers,
- After weaning, kids grazed in the pastures, bushes or forested areas,
- Concentrate feeds were not given to the kids from birth to end of the pasture season.

Map of Turkey and project locations



Konya and Antalya Provinces in map

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- In this study;
 - Live weight of kids in different periods,
 - Average Daily Weight Gains of kids from birth to day 180,
 - Body measurements of kids at day 90 and day 180,
 - were determined.

RESULTS and DISCUSSION

Table 1. Live weights and average daily weight gains of Honamlı kids at different periods, (LSM±SE)

	n	<u>Live Weights (kg)</u>			<u>Average Daily Weight Gains (g)</u>		
		Birth Weight	Day 90	Day 180	Days Birth-90	Days 90-180	Days Birth-180
Region							
Antalya	50	4.42	25.3	38.0	231	142	187
Konya	50	4.17	24.5	35.3	226	119	173
SE		0.08	0.35	0.49	3.9	4.4	2.8
P		0.040	0.154	0.001	0.359	0.001	0.001
Gender							
Female	50	4.12	22.7	33.8	206	124	165
Male	50	4.48	27.1	39.5	251	137	194
SE		0.08	0.35	0.49	3.9	4.4	2.8
P		0.003	0.001	0.001	0.001	0.034	0.001

LSM: Least Squares Means, SE: Standard Error of Means

- The birth weights, live weights at day 180, the average daily weight gains of kids between days 90 and 180 and days birth-180 in Antalya Flock were significantly higher than the values of kids in Konya Flock.

Table 2. Body Measurements of Honamlı kids at day 90, cm (LSM±SE)
(at the beginning of the pasture season)

Traits	Withers Height	Rump Height	Chest Girth	Body Length	Nose Length
Region					
Antalya	54.5	54.9	64.1	58.6	15.4
Konya	53.9	54.7	65.9	57.6	14.5
SE	0.34	0.38	0.40	0.34	0.13
P	0.203	0.710	0.003	0.059	0.047
Gender					
Female	52.7	53.4	63.4	57.4	14.9
Male	55.7	56.2	66.5	58.8	14.9
SE	0.34	0.38	0.40	0.34	0.13
P	0.001	0.001	0.001	0.004	0.001

LSM: Least Squares Means, SE: Standard Error of Means

- ✓ There were significant differences only in terms of chest girth and nose length at day 90 for region.

Table 3. Body Measurements of Honamlı kids at day 180, cm (LSM±SE)

(at the end of the pasture season)

Traits	Withers Height	Rump Height	Chest Girth	Body Length	Nose Length
Region					
Antalya	65.1	66.3	82.5	69.9	17.3
Konya	61.5	63.4	77.7	64.9	16.3
SE	0.37	0.41	0.51	0.40	0.16
P	0.001	0.001	0.001	0.001	0.001
Gender					
Female	61.3	62.8	78.3	66.3	16.6
Male	65.4	66.9	81.8	68.5	17.0
SE	0.37	0.41	0.51	0.40	0.16
P	0.001	0.001	0.001	0.001	0.077

- ✓ All of the body measurements of Honamlı kids in Antalya Flock were significantly higher than the findings of kids in Konya Flock at day 180.

DISCUSSIONS

Live weights of kids at different periods:

- In Turkey, some studies were conducted to determine the growth performance of Honamlı Goat and Hair Goat kids under extensive conditions.
- In those studies birth weight and live weight at day 90 of Honamlı Goat female and male kids were found as 4.3, 4.7; 19.5, 25.1 kg [12] and same traits were determined as 3.7, 4.1; 20.4, 23.2 kg, respectively [8].
- And, some studies were conducted to investigate the growth performance of Hair Goat kids under extensive conditions. In those studies Birth weights were found as 2.77 [16], 3.03 [10], 3.12 [9], 2.75 kg [13]; live weights at day 90 were found 16.1 [16], 17.0 [9], 12.4 kg [10]. And LWs at day 180 were determined as 18.9 [16], 26.8 [9], 18.8 kg [10]. In another study with Hair goat kids [13] live weight at day 210 were found as 24.6 kg.

DISCUSSIONS

Live weights of kids at different periods:

- Birth weights of kids in the present study were similar to the values of two studies [8,12], but higher than the values of some studies [10,13,16].
- Live weights of kids at day 90 and day 180 in the present study were higher than the values of all mentioned studies [6,8,9,10,12,13].

DISCUSSIONS


- ✓ Average daily weight gains of kids;
- ✓ Some studies were conducted to investigate the growth traits of Hair Goat kids under extensive conditions. In those studies average daily weight gains of Hair Goat kids for whole pasture period were found between 54-99 g [3,6,10].
- ✓ Average daily weight gains of Honamlı kids in this study were higher than the values of above-mentioned studies [10,13,16].

Body Measurements of Honamlı kids;

- Body measurements of Honamlı kids at day 90 in this study were generally lower than the values of two studies [7,12], but were higher than the findings of two studies [5,16].
- The withers height, body length and chest girth of kids at day 180 in this study were higher than the values of two studies [5,16].



- **In conclusion;**

- These results showed that Honamli Goats have higher level than Hair Goats reported in the literature in terms of the live weight and daily weight gain.
 - And Honamli Goat has adapted to the harsh conditions of the Taurus Mountains.
 - But the number of these goats has decreased in the last 20-30 years due to errors in the policy on goats.
 - Therefore Honamli Goat breed is an important animal genetic resource for Turkey. So, in situ and ex situ conservation studies related with Honamli Goat breed must continue.
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Honamli Goats in Konya



**Honamli Goats
in Konya**

Honamlı Goats in Konya



Honamlı buck in Antalya



Honamlı Goats in Antalya





Honamlı Goat and kid in Antalya

Honamlı kids in Konya



Honamlı kids in Antalya



Honamlı kids in Antalya



A view from the study



A view from the study



A view from the study





Breder of future

Thank you for your attention

Invitation



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