

GROWTH PERFORMANCE AND SOME MORPHOLOGICAL TRAITS OF HONAMLI GOAT KIDS UNTIL WEANING AGE IN EXTENSIVE CONDITIONS***OZKAN ELMAZ¹, MEHMET ÇOLAK¹, AYKUT ASIM AKBAŞ¹, MUSTAFA SAATCI¹**

¹Mehmet Akif Ersoy University, Faculty of Veterinary Medicine,
Department of Animal Science,
15030, Istiklal Campus, Burdur – TURKEY
elmaz@mehmetakif.edu.tr

* This research is a part of project supported by The Scientific & Technological Research Council of Turkey (TUBITAK), Project No: 112R031

ABSTRACT

The aim of this study was to determine growth performance until weaning age of Honamli goat kids reared in extensive conditions in Turkey. Study was carried out with 75 Honamli kids (44 female, 31 male), kept at the Research and Training Farm of the Faculty of Veterinary Medicine of Mehmet Akif Ersoy University in Burdur, Turkey.

Birth weight of male kids was higher than that female kids and also birth weight of single kids was higher than that twin kids. Live weight in the 120th day of male, female, single and twin kids were 24.4 kg, 22.0 kg, 26.9 kg and 21.2 kg, respectively.

Withers height, body length, chest circumference and nose length on the 120th day were detected as 61.6 cm, 58.4 cm, 59.2 cm and 18.4 cm, respectively in female Honamli kids. Same measurements were 63.9 cm, 61.7 cm, 62.7 cm and 20.0 cm for males Honamli kids.

Keywords: Honamli kids, body measurements, live weight, weaning age

INTRODUCTION

Honamli goats are being reared by Turkish nomads in Antalya, Burdur and Isparta cities (Teke yöresi), located of the Taurus Mountains in the Mediterranean region of Turkey. The most of (97%) goats are Hair goat (Kıl goats) in Turkey. While the number of goats in Turkey in 2005 was 6 517 464, in 2015 it was 10 416 166. (TURKSTAT, 2015).

Honamli goat by the authorities of the Ministry of Agriculture have registered as a new breed. Honamli goat has a big body and long legs. The bottom jaw bone is longer than the top jaw bone (undershot jaw or monkey mouth). Its eye are clearly big and vivacious. Ears are small and thick. Nose is clearly convex. It is a submissive breed and so familiar and submissive (GDARP, 2009).

MATERIAL AND METHOD

Study was carried out with 75 Honamli kids (44 female, 31 male), kept at the Research and Training Farm of the Faculty of Veterinary Medicine of Mehmet Akif Ersoy University in Burdur, Turkey. The flock was pastured on open range fields and forests from early in the morning until noon. Then the flock rested in a shaded area during noon and in the afternoon they continued to graze when the effect of the heat disappeared. In the evening the flock returned to their folds. In general, this district is poor in terms of amount and quality of pasture. Kids were suckling in the morning and at night and when they were 3 months old started to go out to the graze with their dams. The kids' weaning age was 120

days old. The live weights of the kids on the birth weight, 60th and 120th day were recorded. Live weights (LW) of kids were taken with sensitive scales up to 50 g at morning. Withers height, body length, chest circumference and nose length on the 60th and 120th day of kids were measured.

Descriptive statistics of the live weight and body measurements were determined by using Minitab version 12.0 software ANOVA GLM procedure (MINITAB, 2011).

RESULTS

Birth weight of male kids was higher than that female kids and also birth weight of single kids was higher than that twin kids. Birth weights of male, female, single and twin kids were 4.4 kg, 4.1 kg, 4.8 kg and 4.0 kg, respectively. Live weight, withers height, body length, chest circumference and nose length on the 120th day were detected as 22.0 kg, 61.6 cm, 58.4 cm, 59.2 cm and 18.4 cm, respectively in female Honamlı kids. Same measurements were 24.4 kg, 63.9 cm, 61.7 cm, 62.7 cm and 20.0 cm for males Honamlı kids.

Table 1. Mean live weight in the different periods according to sex of Honamlı kids (kg) ($\bar{x} \pm s_{\bar{x}}$)

	n	Birth weight	n	60 th day	n	120 th day
Female	44	4.1 ± 0,09	44	13,1 ± 0,35	44	22,0 ± 0,56
Male	31	4,4 ± 0,13	31	14,4 ± 0,66	31	24,4 ± 1,18
Overall	75	4,2 ± 0,08	75	13,6 ± 0,35	75	23,0 ± 0,60

Table 2. Mean live weight in the different periods according to birth type of Honamlı kids (kg) ($\bar{x} \pm s_{\bar{x}}$)

	n	Birth weight	n	60 th day	n	120 th day
Single	23	4,8 ± 0,12	23	16,1 ± 0,69	23	26,9 ± 1,19
Twin	52	4,0 ± 0,08	52	12,5 ± 0,29	52	21,2 ± 0,54
Overall	75	4,2 ± 0,08	75	13,6 ± 0,35	75	23,0 ± 0,60

Table 3. Mean±SE body measurements of Honamlı kids in different ages (60 and 120 days) ($\bar{x} \pm s_{\bar{x}}$)

Age (day)	Sex	n	Withers Height (cm)	Body Length (cm)	Chest Circumference (cm)	Nose Length (cm)
60 th day	Female	44	54,4 ± 0,39	52,4 ± 0,38	50,6 ± 0,42	17,1 ± 0,14
	Male	31	55,3 ± 0,57	52,9 ± 0,62	52,1 ± 0,74	17,5 ± 0,21
	Overall	75	54,8 ± 0,33	52,6 ± 0,34	51,2 ± 0,40	17,3 ± 0,12
120 th day	Female	44	61,6 ± 0,51	58,4 ± 0,48	59,2 ± 0,50	18,4 ± 0,17
	Male	31	63,9 ± 0,80	61,7 ± 0,93	62,7 ± 0,90	20,0 ± 0,35
	Overall	75	62,6 ± 0,46	59,8 ± 0,51	60,7 ± 0,51	19,1 ± 0,19

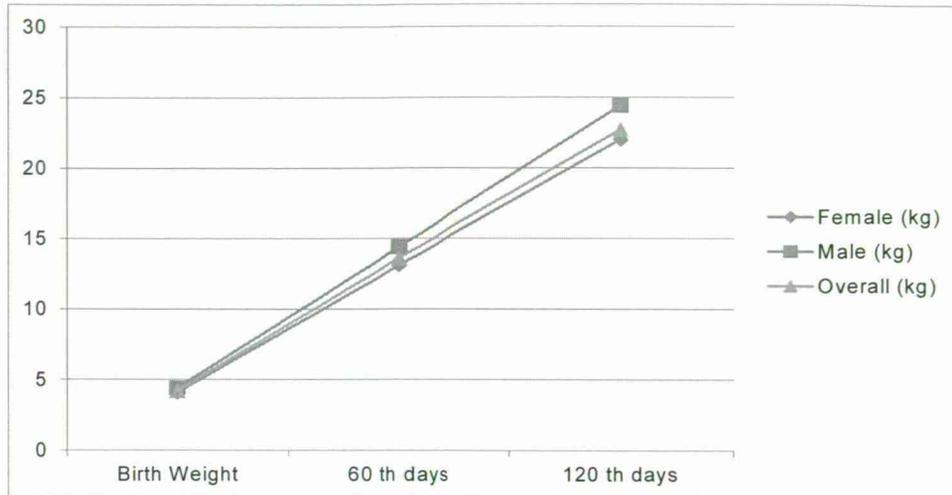


Figure 1. Mean live weight in the different periods according to sex of Honamli kids

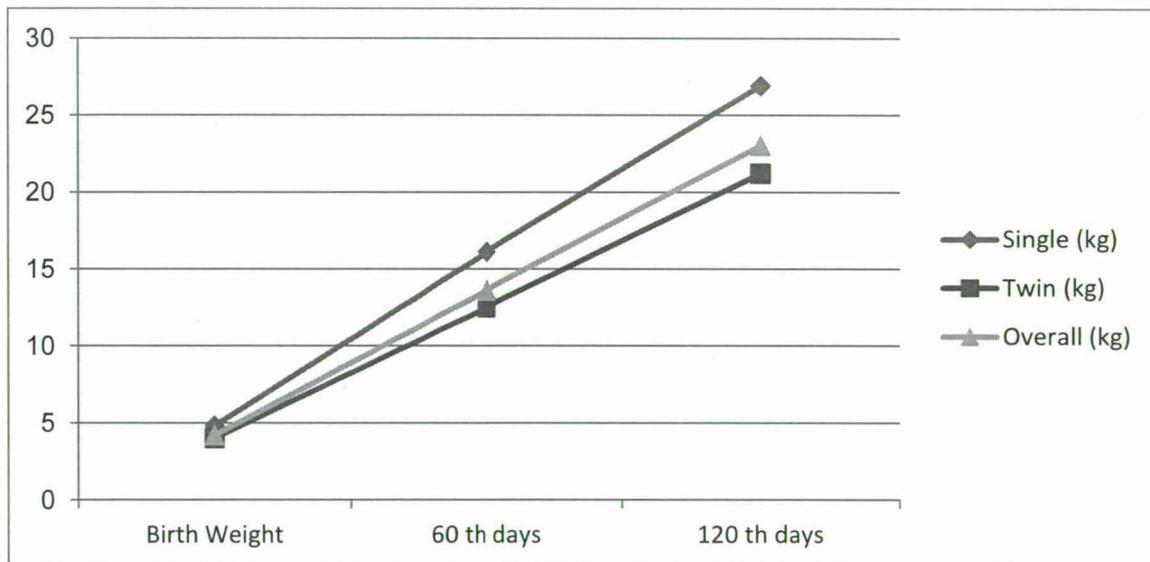


Figure 2. Mean live weight in the different periods according to birth type of Honamli kids

CONCLUSIONS

The birth weight and live weights on the 120th days of Honamli kids were higher than the Hair kids in Turkey (ŞENGONCA ET AL., 2003; ŞİMŞEK AND BAYRAKTAR, 2006; ORAL AND ALTINEL, 2006). Sixty days live weight of Honamli kids stated by ELMAZ ET AL., (2012) were heavier than the corresponding study. ŞİMŞEK AND BAYRAKTAR (2006) reported that the withers heights of the Kıl and Saanen x Kıl (F1) crossbred kids on were 44.6 cm and 45.5 cm, the body lengths were 43.0 cm and 43.4 cm, on the 90th day. These values were lower than the values obtained in this study. Body measurements of the Honamli kids determined by this study were higher than the values reported by the literature.

ACKNOWLEDGEMENTS

This research is a part of project supported by The Scientific & Technological Research Council of Turkey (TUBITAK), Project No: 112R031.

REFERENCES

- ELMAZ, O., SAATCI, M., DAĞ, B., AKTAŞ, A.H., ATA, A., GULAY, M.Ş., MAMAK, N., GOK, B. (2012): Some descriptive characteristics of a new goat breed called Honamli in Turkey. *Trop Anim Health Prod* 44: 1913–1920.
- GDARP (General Directorate of Agricultural Research and Policies) (2009): Domestic Animal Genetic Resources in Turkey, Ankara. pp. 82-83.
- MINITAB, 2011. Minitab For Windows Version Release 16, Minitab Inc.
- ORAL, H.D., ALTINEL, A. (2006): Aydın ili özel işletme koşullarında yetiştirilen Kıl keçilerinin bazı verim özellikleri arasındaki fenotipik korelasyonlar. (in Turkish, with English abstract). *İstanbul Üniversitesi Veteriner Fakültesi Dergisi* 32(3): 41–52.
- ŞENONCA, M., TASKIN, T., KOSUM, N. (2003): Saanen x Kıl keçi melezlerinin ve saf Kıl keçilerinin kimi verim özelliklerinin belirlenmesi üzerine eş zamanlı bir araştırma. (in Turkish with English abstract). *Turk Journal Veterinary Animal Science* 27(6): 1319-1325.
- ŞİMŞEK, Ü.G., BAYRAKTAR, M. (2006): Kıl keçisi ve Saanen x Kıl keçisi (F1) melezlerine ait büyüme ve yaşama gücü özelliklerinin araştırılması. (in Turkish, with English abstract). *Fırat Üniversitesi Sağlık Bilimleri Dergisi* 20(3): 229-238.
- TURKSTAT (Turkish Statistics Institute), (2016): The Results of Animal Production Statistics, <http://www.tuik.gov.tr/UstMenu.do?metod=temelist> (accessed 17.02.2016).