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Performance Of Etawa Crossbreed (PE) in The Colony

Sapta Andaruisworo[1], Erna Yuniati[2], Ardina Tanjungsari[3], Nur Solikin[4], Anifiatiningrum[5], Fitriani[6]
University Nusantara PGRI Kediri[12345] , University Islamic Kalimantan Muhammad Arsyad Al Banjari Banjarmasin[6]
Email: sapta@unpkediri.ac.id

KEY W O R D S
Appearance, Colonies, Male Etawah (PE) Breed

A B S T R A C T
The research was carried out in Selopanggung Village, Semen District, Kediri Regency by taking the research site at the PE goat farm owned by Refangga and Samsuri. The livestock observed were male Peranakan Etawah (PE) goats. This study used a survey method, t test and the parameters used were birth weight, body weight, weaning weight and qualitative traits of male etawah breed. And the conclusion of this study is that at Refangga farms the average birth weight of males was 8.33 ± 2.25, and the average body weight was 14.44 ± 1.83, the average weaning weight was 11.37 ± 2.19. Meanwhile in Samsuri, the average male birth weight was 4.82 ± 0.33, the average body weight was 7.12 ± 1.76. Weaning weight 10.07 ± 1.47.

1. INTRODUCTION

Goats are small ruminants that have efficient reproduction and can give birth 3 times a year, making a major contribution to the small people whose numbers are very large. Meanwhile, from the aspect of development, goats have the potential to be commercially cultivated because they have advantages and economic potential, including their bodies mature quickly, do not require large areas of land, small business capital, easy to market, high adaptation to the environment, resistance to heat and some diseases. and good marketing prospects. Goats are animals that are kept by many Indonesian people both on a large scale and on a small scale (Sarwono, 2011). Etawah breed goat (PE) which is a local goat, Etawah is known as a dairy type as well as a meat producer. Goat livestock business has several advantages compared to dairy cattle, including smaller capital. To increase the number of goats, cross-breeding peanut (local) goats with imported (etawah) goats was carried out which produced both offspring (etawah breed). Goat livestock has become a livestock commodity with economic value that is quite promising, both for those who call it a food producer (milk and meat) and for those that are intended to support the income of farmer families (Sutama, 2004). Etawah Peranakan (PE) goats have advantages over other types of goats and PE goats have good adaptability to conditions and the environment in Indonesia and have good reproductive abilities (Sutama, 2008).

Goats are small ruminant animals that have a relatively high rate of reproduction, have relatively good adaptations compared to other ruminants (Ihsan, 2020) and PE goats are more profitable than large ruminants because the spacing of offspring is short, the number of

offspring is large, the cage needed is not too large and the turnover of capital is faster (Sutama, 2011). From the background above, we conducted a study entitled the performance of male etawa crossbreeds in colony cages.

2. METHOD

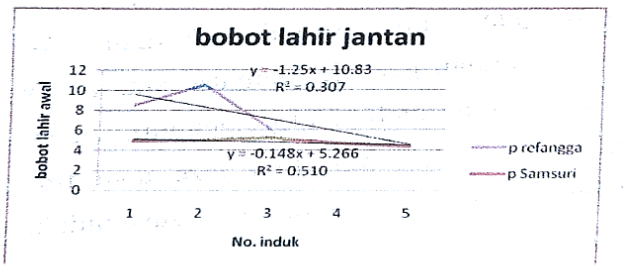
Etawah Breed Goat (PE) in Colony Cage. carried out in Selopanggung Village, Kec. Cement in Kediri Regency at the farms of Pak Refangga and Pak Samsuri. This study used survey methods and direct observation/direct measurement in the field (observation). The target population is the etawah cross-breed goat in Selopanggung Village, Semen District, Kediri Regency using interviews and observations, which are direct measurements in the field. Using descriptive analysis and t-test.

3. RESULT AND DISCUSSION

a) Birth Weight

The average birth weight of puppies produced by male sex was bred by Refangga 8.33 ± 2.25 kg and by Samsuri 4.82 ± 0.33 kg. Mr. Samsuri's birth weight of Peranakan Etawah (PE). The results of the t-test for the two independent sample tests between the birth weights of male and female Etawah Peranakans were significantly different (P<0.05). This is due to the mother, the food given to Pak Refangga mahogany leaves and Pak Samsuri elephant grass (according to the proximate test PK mahogany leaves 5.63 and PK elephant grass 4.63) and the number of children and sex born are different as well as, there is also an increase in drops , minerals/salts, vitamin B complex in Pak Refangga's drinking water according to (Middatul, S. 2010) the growth of the breastfeeding period is influenced by, among others, genotypic factors, birth weight, sex, liter size or type of birth, parity, and milk production parent.

According to Middatul, S. (2010), the growth of young goats during the first month after birth is very dependent on their mother's milk, then the level of dependence decreases, decreasing the production of mother's milk and when the children have started eating solid food. (Middatul, S. 2010) states that kid goats are completely dependent on their mother's milk production, then the level of dependence increases approximately 7-8 weeks after birth, when the rumen begins to function and takes forage and other food ingredients. The increase in size and development of the child's organs during the breastfeeding period is highly dependent on the quality and quantity of milk produced by the mother (Middatul, S. 2010). While the development of male birth weight can be seen in the graph.

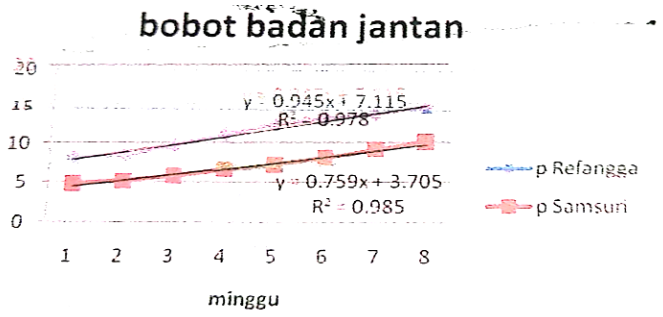


The graph of the birth weight of the Etawah Peranakan puppies can be seen in the graph of the birth weight of the male Etawah Peranakan in Pak Refangga, there is a correlation (r = 0.31) showing that the birth weight is increasing followed by an increase in weight, this is indicated by the regression equation $\hat{Y}$ = 10.83 + 1 .25 x which means the birth weight is followed by an increase of 1.25%. It can be seen in the graph of the male Etawah Peranakan in Pak Samsuri that there is a correlation (r = 0.51) showing that the birth weight is increasing followed by an increase in weight, this is indicated by the regression equation $\hat{Y}$ = 5.27 + 0.14 x which means the birth weight is followed by an increase 0.14%. This is because the Etawah Peranakan parents have consumed good feed (sufficient basic necessities of life) so that the Etawah Peranakan puppies develop well.

But on Mr. Refangga's farm there is additional drinking water, mahogany leaf feed Ted and Shipley (2005), besides that the amount of feed during the lactation period is influenced by genotypic factors, birth weight, sex, liter size or type of birth, parity, and production mother's milk. Middatul, S. (2010), the growth of young goats during the first month after birth is very dependent on their mother's milk, then the level of dependence decreases, decreasing the mother's milk production and when the children have started eating solid food. Middatul, S. (2010) states that kid goats are completely dependent on

mother's milk until approximately 7-8 weeks after birth, when the rumen begins to function and is taking forage and other food ingredients. The growth and development of the child's organs during the suckling period is highly dependent on the quality and quantity of milk produced by the mother (Kostaman, T. and I-K.Sutama. 2005).

b) Body Weight

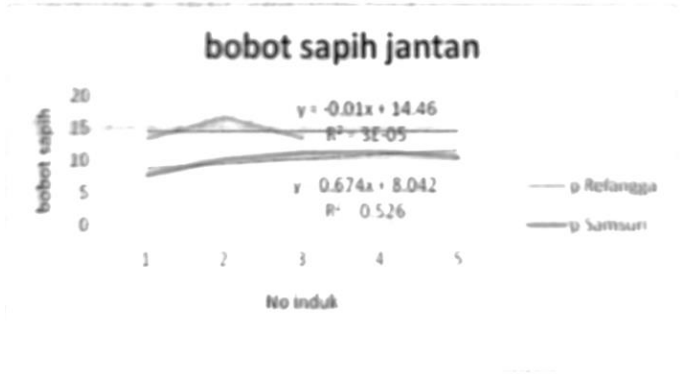


The body weight of the males bred by Refangga was significantly different because Refangga's pack added drops, minerals, vit. B complex in drinking water, can be seen on the graph the inability of the mother to meet the milk needs of her children. Kostaman, T. and I-K. Sutama. (2005) stated that kid goats are completely dependent on mother's milk until approximately 7-8 weeks after birth, when the rumen begins to function and the intake of forage and other food ingredients. The growth and development of the child's organs during the suckling period is highly dependent on the quality and quantity of milk produced by the mother (Acker and Dadang, B. 2005). According to Dadang, B. (2005), body growth is very closely related to the size of body parts.

Dadang, B. (2005) also states that some animal body sizes are closely related to their body weight, in general the body parts measurements help to identify the identity of specific traits or characteristics in animal breeds. Dadang, B. (2005), that some animal body sizes are closely related to their body weight. According to Basbeth, A. H., W. S. Dilaga, & A. Purnomoadi. (2015), there is a close correlation between growth and development, in other words there is a positive correlation between body weight and body measurements. And single birth difference, twins, namely the growth rate based on the type of birth, the average daily live weight gain for single children is heavier than for twins. This situation is supported by the production of mother's milk, where the amount of mother's milk produced per lactation for the child's needs is certain. In a single birth, the child will consume the mother's milk alone, while the child born in twins must compete with the others. So that the growth rate of single births is faster than twin births Mahmilia and Doloksaribu (2010). Meanwhile, the body weight development of females and males on Pak Samsuri's farm was not significantly different due to the need for balanced feed for the parents and so that the etawah breeders.

c) Weaning Weight

Weaning weights with the unpaired t-test of males and females showed no significant difference because the goats began to be separated from their parents. While the development of male weaning weight can be seen in the graph.



As can be seen in the weaning weight chart of male Etawah breeds in Pak Refangga, there is a correlation (r = 3E-05) indicating higher weaning weight and will be followed by an increase in weaning body weight, this is indicated by the regression equation $\hat{Y}$ = 14.47 – 001 x, which means the higher the weaning followed by an increase of 0.01%. As can be seen in the weaning weight chart of male Etawah breeds in Pak Samsuri, there is a correlation (r = 0.52) indicating that the weaning weight is higher and will be followed by a decrease. indicated by the regression equation $\hat{Y}$ = 8.04 – 0.68 x which means that the higher the weaning is followed by a decrease of 0.68%.

Because they have started to learn to eat other than mother's milk or are separated from suckling from their mother, because the Etawah crossbreed goat has started to eat forage food according to Davendra and Burns (1994) which states that the kid is completely dependent on the mother until approximately 7-8 weeks after birth, when rumen

begins to function and the taking of forage food and other food materials. Weaning weight is closely related to birth weight. The higher the weaning weight, the heavier Bondan, Usman. (2006). The results of the t-test analysis for sex affect weaning weight, where the weaning weight of males is heavier than that of females. This is closely related to the existence of competition in getting food, where male children are more aggressive than with female children, especially during breastfeeding. Setiadi et al, (2001) also found that the weaning weight of males was heavier than that of females. Weaning weight is also influenced by the type of birth, where single born children are heavier than twins born.

The results of the analysis of the type of birth show that there is competition in the type of twin births to get milk during lactation compared to single children. So that the growth rate of twins born is lower than single births Mahmilia and Doloksaribu (2010). Also added by Bondan, Usman. (2006), the growth of lambs born in twins or triplets is lower when compared to single births, partly due to twins or more competition for mother's milk and due to the mother's inability to meet the milk needs of her children. Bondan, Usman. (2006) also stated that this could occur due to the lower birth weight of lambs born in twins or triplets. Parity also affects weaning weight. The parent's maturity level gives an idea of the parent's ability to raise children. Bondan, Usman. 2006 stated that with the maturation of the mother, the hormonal mechanism of the reproductive organs will improve perfectly and the parenting power of the mother towards the child will be higher.

d) Qualitative nature

No	Sifat kualitatif	Refangga dan Samsuri
1	Face Shape	Convex
2	Chin	Bearded (under the neck there is the wattle grow begins from beard angle).
3	Ears	Long, mushy Hang and ends folded.
4	Body hair	Looks long neck, shoulders, back and thighs.
5	Nose	Slightly curved
6	Body Color	White, Black and Brown
7	Body Shape	Large, flat body dorsal shape as if waves to the back.
8	Head	Small, like a goat peanut.
9	Leg hair	Shoes like wear socks.

The Etawah breed in the colony cage of Mr. Refangga and Mr. Samsuri's cage has the same qualitative characteristics, possibly the parents and the same type of Etawah Male breed, according to Mulyono and Sarwono (2008), etawah breed goats include: convex face shape and bearded chin, under the neck there is a wattle that grows from the corner of the beard, the ears are long, flabby, hanging and the ends are slightly folded, the horns stand upright facing backwards, 6.5 - 24.5 cm long, body height (gumba) 70-90 cm, body large, flat , the shape of the back line as if waving backwards, body hair looks long on the neck, shoulders, back and thighs. Basbeth, A. H., W. S. Dilaga, & A. Purnomoadi. (2015). Etawah breed goats have varying fur colors (brown, black, white and a combination of these three colors), have long earlobes which are around 18-30 cm, body height reaches 76-100 cm, body weight measures around 40 kg for adult males and 35 kg for adult females, male goats have slightly longer and thicker hair which is found on the top and bottom of the neck and on the shoulders while in the female only on the back line.

4. CONCLUSION

The conclusion of this study was that at Refangga farms the average birth weight of males was 8.33 ± 2.25, and the average body weight was 14.44 ± 1.83, the average weaning weight was 11.37 ± 2.19. Meanwhile in Samsuri, the average male birth weight was 4.82 ± 0.33, the average body weight was 7.12 ± 1.76. Weaning weight 10.07 ± 1.47.

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