

ABSTRAK

PENGARUH *BODY CONDITION SCORE* (BCS) INDUK TERHADAP PERTUMBUHAN ANAK/PEDET YANG DILAHIRKAN PADA SAPI JABRES

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Peningkatan kebutuhan akan produk hewani di Indonesia terus meningkat setiap tahunnya, seiring dengan pertumbuhan populasi. Sapi Jabres diakui sebagai salah satu jenis sapi yang dapat memenuhi kebutuhan produk hewani, terutama dalam penyediaan daging. Sapi Jabres terkenal karena kemampuannya melahirkan hingga 21 kali, adanya potensi genetik unik dari jenis sapi ini. Namun, belum ada penelitian yang pasti mengenai kualitas anak sapi yang dihasilkan oleh sapi Jabres. Penelitian ini bertujuan untuk mengeksplorasi pengaruh BCS induk saat melahirkan, terhadap kualitas pedet yang dilahirkan. Hal ini menjadi penting sebagai dasar ilmiah untuk pengembangan manajemen sapi Jabres yang lebih efektif.

Penelitian ini dilaksanakan selama 1 minggu dengan pengambilan sampel yaitu pengukuran morfometrik sebanyak 42 ekor pedet sapi Jabres beserta induknya di kecamatan Bantarkawung, Brebes, Jawa Tengah. Data diperoleh dengan survei langsung ke hewan ternak dan melakukan pengukuran pada pedet. Data kemudian dianalisis menggunakan One Way ANOVA untuk mengetahui ada tidaknya pengaruh BCS terhadap pertumbuhan pedet pada berbagai rentang usia secara signifikan ($P < 0,05$), selain itu dilakukan juga analisis menggunakan persamaan regresi linier sederhana dan koefisiensi determinasi.

Hasil penelitian ini menunjukkan terdapat pengaruh BCS induk terhadap nilai pertumbuhan pedet yaitu berat badan dan tinggi badan secara signifikan. Pada berat badan pedet sapi Jabres, BCS induk signifikan pada usia 2-5 bulan dan 6-9 bulan. Pada tinggi badan pedet sapi Jabres, BCS induk signifikan hanya pada usia 2-5 bulan. Hasil analisis regresi berat badan pedet pada rentang usia 2-5 bulan, 6-9 bulan, dan ≥ 10 bulan berturut-turut adalah $Y = 46,63 + 22,7X$; $Y = 66,35 + 18,9X$; $Y = 126,65 + 11,1X$. Sedangkan hasil analisis regresi tinggi pedet adalah $Y = 73,69 + 8,64X$; $Y = 89,191 + 2,89X$; $Y = 94,161 + 4,78X$.

Kata kunci: Sapi Jabres, *Body Condition Score*, BCS, Pertumbuhan Pedet, Berat Badan pedet, Tinggi Pedet.

ABSTRACT

THE INFLUENCE OF MATERNAL BODY CONDITION SCORE (BCS) ON THE GROWTH OF CALVES BORN TO JABRES CATTLE

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The increasing demand for animal products in Indonesia has been rising steadily each year, in line with the population growth. The Jabres cattle are recognized as one of the breeds capable of meeting the demand for animal products, particularly in meat provision. Notably, Jabres cattle are renowned for their ability to give birth up to 21 times, highlighting the unique genetic potential of this breed. However, there is a lack of definitive research regarding the quality of offspring produced by Jabres cattle being affected by their dam's condition. This study aims to explore the influence of Body Condition Score (BCS), on the quality of calves born. This is imperative as a scientific basis for the development of more effective Jabres cattle management strategies, also providing a basis for selecting breeding stock in animal husbandry.

This research was conducted over a period of one week, involving the sampling of 42 Jabres calf specimens along with their dam's in the Bantarkawung district, Brebes, Central Java. Data were collected through direct surveys of the cattle and measurements of their calves. Subsequently, the data were analyzed using One Way ANOVA to determine the significant influence of dam's BCS on calf growth across various age ranges ($P < 0.05$). Additionally, simple linear regression analysis and coefficient of determination were employed to elucidate the relationship between dam's BCS and calf growth parameters.

The results of this study indicate a significant influence of the dam's BCS on calf growth parameters, specifically body weight and height. In Jabres calf body weight, the dam's BCS shows significance at ages 2-5 months and 6-9 months. For Jabres calf height, the dam's BCS is significant only at ages 2-5 months. Regression analysis results for calf body weight within the age ranges of 2-5 months, 6-9 months, and ≥ 10 months are as follows: $Y = 46.63 + 22.7X$; $Y = 66.35 + 18.9X$; $Y = 126.65 + 11.1X$. Meanwhile, regression analysis results for calf height are: $Y = 73.69 + 8.64X$; $Y = 89.191 + 2.89X$; $Y = 94.161 + 4.78X$.

Key words: Jabres Cattle, Body Condition Score (BCS), Calf Growth, Calf Body Weight, Calf Height.