PENGARUH PARITAS TERHADAP PROFIL METABOLIT DARAH DAN KINERJA REPRODUKSI INDUK PERSILANGAN SAANEN-PERANAKAN ETAWAH

INTISARI

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Penelitian ini bertujuan untuk mengamati pengaruh paritas terhadap profil metabolit darah dan performa reproduksi kambing Persilangan Saanen-Peranakan Etawah (PE) yang dipelihara di peternakan rakyat. Sebanyak 40 induk kambing laktasi non-bunting dibagi menjadi dua kelompok: primipara (n=16) dan multipara (n=24). Profil metabolit darah yang diamati, meliputi total protein, glukosa, kolesterol, dan *blood urea nitrogen* (BUN). Sampel darah diambil dua jam sebelum pemberian pakan pagi melalui vena jugularis selama fase folikuler. Analisis metabolit darah dilakukan menggunakan prosedur *photometric atomic absorption spectroscopy* (AAS)-*flame*. Kinerja reproduksi yang diamati meliputi karakteristik estrus dan panjang siklus estrus. Hasil penelitian menunjukkan kadar total protein darah pada kambing multipara (7,04±0,87 g/dL) secara signifikan lebih tinggi (p<0,05) dibandingkan dengan kambing primipara (5,47±1,40 g/dL). Sebaliknya, kambing primipara (122,33±30,55 mg/dL) menunjukkan kadar kolesterol darah yang secara signifikan lebih tinggi (p<0,05) daripada kambing multipara (107,14±13,45 mg/dL). Kambing multipara menunjukkan karakteristik estrus (kemerahan, pembengkakan vulva, and produksi lendir) yang lebih jelas, selain itu memiliki panjang siklus estrus yang secara signifikan lebih pendek. Hasil analisis menunjukkan bahwa paritas memiliki korelasi positif dengan kadar total protein (r=0,577), perubahan warna vulva (r=0,355), pembengkakan vulva (r=0,343), dan produksi lendir vagina (r=0,450), namun berkorelasi negatif dengan kadar kolesterol (r=-0,330) dan panjang siklus estrus (r=-0,532). Temuan ini mengindikasikan bahwa paritas memengaruhi kadar total protein dan kolesterol, serta beberapa karakteristik estrus. Investigasi lebih lanjut mengenai pemberian ransum pakan yang optimal dan pengamatan fluktuasi hormon reproduksi diperlukan untuk meningkatkan efisiensi reproduksi induk kambing Persilangan Saanen-Peranakan Etawah.

Kata kunci : Kambing perah, Kinerja reproduksi, Metabolit darah, Paritas, Saanen-Peranakan Etawah

THE INFLUENCE OF PARITY ON BLOOD METABOLITE PROFILES AND REPRODUCTIVE PERFORMANCE IN SAANEN-ETAWAH CROSSBRED DOES

ABSTRACT

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This study aimed to observe the effect of parity on the blood metabolite profiles and reproductive performance of Saanen-Etawah Crossbred does, maintained in smallholder farm. A total of 40 non-pregnant lactating does were divided into two groups: primiparous (n=16) and multiparous (n=24). The blood metabolite profiles, including total protein, glucose, cholesterol, and blood urea nitrogen (BUN), were assessed. Blood samples were collected from the jugular vein during the follicular phase, two hours prior morning feeding. Analysis of blood metabolites was carried out using photometric atomic absorption spectroscopy (AAS)-flame procedure. Furthermore, reproductive performance was observed through observing the characteristics of estrus and the length of the estrus cycle. The results of a statistical analysis using an Independent-Samples T Test indicated that the total protein was significantly higher in multiparous does (7.04±0.87 g/dL) compared to primiparous does (5.47±1.40 g/dL). In contrast, primiparous does exhibited significantly higher (p<0.05) blood cholesterol levels (122.33±30.55 mg/dL) than multiparous does (107.14±13.45 mg/dL). Multiparous does displayed typical estrus characteristics, including vulvar reddening, swelling, and vaginal mucus production, alongside a significantly shorter estrus cycle length. Parity was positively correlated with total protein levels (r=0.577), vulvar reddening (r=0.355), swelling (r=0.343), and vaginal mucus production (r=0.450), while negatively correlated with cholesterol levels (r=-0.330) and estrus cycle length (r=-0.532). These findings indicate that parity influences total protein and cholesterol levels, as well as several key estrus characteristics. Further investigation into optimized feed regimens and reproductive hormone fluctuations is warranted to enhance the reproductive efficiency of Saanen-Etawah Crossbred does.

Keywords : Blood metabolites, Dairy goat, Parity, Reproductive performance, Saanen-Etawah Crossbred