

ESTIMASI *NATURAL INCREASE*, *NET REPLACEMENT RATE*, *OUTPUT*, DAN DINAMIKA POPULASI TERNAK KAMBING DI EMPAT KAPANEWON KATEGORI POPULASI TINGGI KABUPATEN BANTUL

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INTISARI

Penelitian ini bertujuan untuk mengetahui struktur populasi, nilai *Natural Increase* (NI), *Net Replacement Rate* (NRR), *output*, dan estimasi dinamika populasi ternak kambing di Kapanewon Dlingo, Kapanewon Pundong, Kapanewon Piyungan, dan Kapanewon Imogiri, Kabupaten Bantul, Daerah Istimewa Yogyakarta. Penelitian dilaksanakan pada bulan Oktober 2024 sampai dengan bulan Desember 2024. Data penelitian terdiri dari data primer dan data sekunder. Data primer diperoleh menggunakan metode wawancara peternak. Data primer yang dicatat adalah data identitas responden dan produktivitas ternak. Data produktivitas ternak terdiri dari rasio jumlah jantan dan betina, umur pertama kali dikawinkan, batas umur pemeliharaan, frekuensi beranak selama pemeliharaan, umur induk pertama kali beranak, jarak waktu antar dua kelahiran, umur sapih cempe, perkawinan pertama setelah beranak, jumlah kelahiran, jumlah kematian, dan kondisi induk setelah melahirkan. Data sekunder didapatkan dari dinas Ketahanan Pangan dan Pertanian Kabupaten Bantul. Data sekunder berupa data jumlah populasi ternak kambing jantan dan betina pada tahun 2019-2023. Hasil penelitian menunjukkan nilai *Natural Increase* sebesar 39,06%, *Net Replacement Rate* jantan 271,09% dan betina 178,51%, serta *output* ternak jantan sebanyak 150 ekor dan betina 164 ekor. Hasil estimasi dinamika populasi menunjukkan populasi ternak pada tahun 2024 sampai 2028 mengalami penurunan rata-rata per tahun sebesar 12%. Estimasi nilai NI sama dengan nilai *output*, dan nilai NRR > 100% sehingga dapat diketahui bahwa wilayah ini dapat mencukupi kebutuhan ternak *replacement* serta dapat menjadi sumber bibit ternak kambing.

Kata Kunci: Kambing, *Natural Increase*, *Net Replacement Rate*, *output*.

ESTIMATION OF NATURAL INCREASE, NET REPLACEMENT RATE, OUTPUT, AND POPULATION DYNAMICS OF GOAT IN FOUR SUB-DISTRICTS WITH HIGH POPULATION LEVEL IN BANTUL REGENCY

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ABSTRACT

This study aimed to determine the population structure, Natural Increase (NI), Net Replacement Rate (NRR), output, and estimated the dynamics of goat livestock population in Dlingo, Pundong, Piyungan, and Imogiri sub-district, Bantul Regency, Special Region of Yogyakarta. This study conducted from October to December 2024. This research consists of primary and secondary data. Primary data was collected through interviews with farmers, including respondent identity and livestock productivity data. Livestock productivity data includes the ratio of male and female goats, age at first mating, maximum age of rearing, frequency of births during rearing, age of the dam at first birth, time interval between two births, weaning age, first mating after birth, number of births, number of deaths, and the condition after giving birth. Secondary data was obtained from the Bantul Regency Food Security and Agriculture Service. Secondary data includes population data of male and female goats from 2019-2023. The results showed that NI is 39.06% (high category), the Net Replacement Rate is 271.09% for males and 178.51% for females, and the output is 150 male goats and 164 female goats. The estimated population dynamics show a 12% average annual decrease in the livestock population from 2024 to 2028. The estimated NI value is equal to the output value, and the NRR is greater than 100%, indicating that this region can be categorized as goat breeding stock region.

Key words: Goat, Natural Increase, Net Replacement Rate, output.