

PENGARUH UMUR PEJANTAN SAPI SIMMENTAL TERHADAP KUALITAS SEMEN BEKU

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INTISARI *)

Penelitian ini bertujuan untuk mengetahui Pengaruh Umur Pejantan Sapi Simmental terhadap Kualitas Semen beku dalam N₂ cair. Penelitian ini telah dilaksanakan mulai tanggal 18 Oktober sampai 9 November 2021 di Laboratorium Unit Pelaksana Teknis Dinas Balai Pengembangan Bibit, Pakan Ternak dan Diagnostik Kehewan (UPTD BPBPTDK) Sleman. Materi yang digunakan berupa semen beku sapi Simmental sebanyak 15 *ministraw*. Penelitian menggunakan Rancangan Acak Lengkap pola searah dengan 5 perlakuan. Perlakuan penelitian meliputi P0 (Umur 2 tahun), P1 (Umur 3 tahun), P2 (umur 10 tahun), P3 (Umur 11 Tahun) dan P4 (Umur 12 tahun) dengan 3 kali ulangan. Data dianalisis menggunakan *analysis of variance* (ANOVA) dilanjutkan dengan uji DMRT (*Duncan's New Multiple Range Test*). Variabel yang diteliti meliputi motilitas (gerak individu%), persentase hidup dan abnormalitas spermatozoa. Hasil penelitian menunjukkan motilitas (gerak individu %) P0: 59.20%, P1: 66.63%, P2: 57.66%, P3: 54.30%, P4: 43.93%. Persentase hidup P0: 69.46%, P1: 71.96%, P2: 33,83%, P3: 58.76%, P4: 53.90%. Abnormalitas P0: 4.20%, P1: 3.93%, P2: 6.36%, P3: 7.23%, P4: 7.83%. Berdasarkan hasil penelitian disimpulkan bahwa semakin tua umur pejantan sapi Simmental akan menurunkan motilitas (gerak individu) dan persentase hidup spermatozoa, dan meningkatkan abnormalitas spermatozoa. Umur pejantan sapi Simmental masih bisa digunakan untuk membuat semen beku sampai dengan umur 12 tahun.

Kata kunci : Pejantan Sapi Simmental , Umur sapi pejantan, motilitas (gerak individu), persentase hidup spermatozoa, abnormalitas.

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THE EFFECT OF SIMMENTAL BULL AGE ON FROZEN SEMEN QUALITY

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ABSTRACT *)

This study aimed to determine the effect of Simmental bull's age on the quality of frozen semen in liquid N₂. This research has been carried out from 18th October to 9th November 2021 at the Laboratory of the Technical Implementation Unit of the Center for Seed Development, Animal Feed and Veterinary Diagnostics (UPTD BPBPTDK) Sleman. The material used in the form of frozen semen of Simmental cattle as much as 15 ministraws. The study used a completely randomized design with a unidirectional pattern with 5 treatments. The research treatments included P0 (Age 2 years), P1 (Age 3 years), P2 (Age 10 years), P3 (Age 11 years) and P4 (Age 12 years) with 3 replications. The data were analyzed using analysis of variance (ANOVA) followed by the DMRT test (Duncan's New Multiple Range Test). The variables studied included motility (individual movement), percentage of live and spermatozoa abnormalities. The results showed motility (individual movement %) P0: 59.20%, P1: 66.63%, P2: 57.66%, P3: 54.30%, P4: 43.93%. Percentage of survival P0: 69.46%, P1: 71.96%, P2: 33.83%, P3: 58.76%, P4: 53.90%. Abnormalities P0: 4.20%, P1: 3.93%, P2: 6.36%, P3: 7.23%, P4: 7.83%. Based on the results of the study, it was concluded that the older the age of the Simmental bull, the lower the motility (individual movement) and the percentage of live spermatozoa, and increased spermatozoa abnormalities. Simmental bulls can still be used to make frozen semen until they are 12 years old.

Key words : Simmental bull, age of cattle, motility (individual movement)
percentage of live spermatozoa, abnormality.

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