KUALITAS SPERMA SEGAR DAN PRODUKSI SPERMA BEKU YANG DIKOLEKSI DENGAN INTERVAL BERBEDA PADA BERBAGAI BANGSA SAPI POTONG DI BALAI INSEMINASI BUATAN UNGARAN SEMARANG, JAWA TENGAH

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh bangsa ternak dan pengaruh interval koleksi sperma terhadap kualitas sperma segar dan produksi sperma beku di BIB Ungaran, Semarang. Penelitian ini menggunakan sperma dari 12 ekor sapi pejantan yang terdiri atas 4 ekor sapi Simmental, 4 ekor sapi Limousin, dan 4 ekor sapi Peranakan Ongole. Koleksi sperma dilakukan 2 kali dalam seminggu dengan interval koleksi 3 dan 4 hari. Dilakukan 7 kali pengulangan untuk setiap ekor sapi disetiap interval. Variabel yang diamati meliputi warna, gerakan massa, konsistensi, volume, nilai pH, motilitas, konsentrasi, dan produksi sperma beku. Data kualitatif dianalisis secara deskriptif dan data kuantitatif dianalisis menggunakan rancangan acak lengkap (RAL) pola faktorial 3x2, 3 untuk bangsa ternak dan 2 untuk interval koleksi. Jika terdapat perbedaan antar bagsa analisis dilanjutkan dengan uji Duncan. Hasil penelitian menunjukkan bahwa warna sperma pada sapi Simmental dan PO dominan krem dan Limousin dominan putih. Gerakan massa sperma pada sapi Simmental dan Limousin dominan 3+ dan sapi PO dominan 2+. Konsistensi sperma pada sapi Simmental sedang, sapi Limousin kental, sementara sapi PO kental dan sedang. Volume sapi PO lebih tinggi ($P<0,05$) dibandingkan sapi Simmental dan Limousin. Motilitas dan produksi sperma beku sapi PO lebih tinggi ($P<0,01$) dibandingkan sapi Simmental dan Limousin. Konsentrasi sperma sapi Limousin lebih tinggi ($P<0,05$) dibandingkan sapi Simmental dan PO. Nilai pH sperma sapi Simmental lebih tinggi ($P<0,05$) dibandingkan sapi Limousin dan PO. Warna sperma pada interval koleksi 3 hari dominan krem dan interval 4 hari dominan krem dan putih. Gerakan massa sperma pada interval koleksi 3 hari dominan 2+ dan interval 4 hari dominan 3+. Konsistensi pada interval koleksi 3 hari dominan sedang dan interval koleksi 4 hari dominan kental. Interval koleksi tidak berbeda nyata pada variabel volume, nilai pH, motilitas, konsentrasi, dan produksi sperma beku. Tidak terdapat interaksi antara bangsa dan interval koleksi. Disimpulkan bahwa bangsa PO memiliki kualitas sperma dan produksi sperma beku yang paling bagus dibandingkan sapi Simmental dan Limousin dan interval koleksi tidak berpengaruh terhadap kualitas sperma dan produksi sperma beku.

Kata kunci: Bangsa, Kualitas Sperma, Interval Koleksi.

THE QUALITY OF FRESH SPERM AND PRODUCTION OF FROZEN SPERM WITH DIFFERENT SPERM INTERVAL COLLECTION IN VARIOUS CATTLE BREEDS AT THE BALAI INSEMINASI BUATAN UNGARAN SEMARANG, JAWA TENGAH

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ABSTRACT

This study was aimed to observed the effect of cattle breed and interval sperm collection on the quality of fresh sperm and production of frozen sperm at the Balai Inseminasi Buatan Ungaran, Semarang. This study was used sperm from 12 head of bulls consisting of 4 Simmental, 4 Limousin, and 4 PO. The sperm was collected at 3 and 4 days intervals. The sperm of bulls was collected 7 time each. The variables was observed included color fresh sperm, mass activity fresh sperm, consistency fresh sperm, volume fresh sperm, pH fresh sperm, motility individual fresh sperm, concentration fresh sperm, and production of frozen sperm. Qualitative data were analyzed descriptively and quantitative data were analyzed using of 3x2 factorial completely randomized design (CRD), 3 for cattle breeds and 2 for intervals collection. If there was a difference level of breeds was analyzed Duncan test. The results showed that the color of fresh sperm in Simmental and PO cattle were predominantly white and Limousin was predominantly cream. Mass activity of fresh sperm in Simmental and Limousin cattle predominantly 3+ and dominant PO cattle 2+. The consistency of fresh sperm in medium Simmental cattle was thick, while Limousin cattle are thick and medium. Volume fresh sperm PO cattle were higher ($P<0,05$) than Simmental and Limousin cattle. Motility fresh sperm and production of frozen sperm PO cattle were higher ($P<0,01$) than Simmental and Limousin cattle. Limousin cattle fresh sperm concentration was higher ($P<0,05$) than Simmental cattle and PO. Limousin cattle fresh sperm concentration was higher ($P<0,05$) than Simmental cattle and PO. The pH fresh sperm of Simmental cattle sperm was higher ($P<0,05$) than Limousin cattle and PO. The color of fresh sperm at the interval collection of 3 days is predominantly creamy and the 4-day interval was predominantly cream and white. Mass activity fresh sperm at interval collection of 3 dominant days 2+ and dominant 4-day intervals of 3+. Consistency fresh sperm in the interval collection of 3 medium dominant days and a dominant 4-day interval collection thick. The was no significantly volume fresh sperm, pH fresh sperm, motility fresh sperm, concentration fresh sperm, and production of frozen sperm between 3 and 4 days interval colllection. There was no interaction between the breed and the interval collection on quality sperm volume, pH, motility, concentration, and production of frozen sperm. It is concluded that the PO has the best sperm quality and production of frozen sperm compared to Simmental and Limousin cattle and the interval collection did not affect sperm quality and production of frozen sperm.

Keywords: Breeds, Quality Fresh Sperm, Interval Colletion.