Comparison of AndroMed and TRIS-egg yolk extender for cryopreservation of buck semen

Summary / Zusammenfassung
In the buck, removal of seminal plasma by centrifugation is often performed before freezing to avoid detrimental effects on spermatozoa in diluents containing egg yolk or milk based media. Extenders without animal compounds are now commercially available for bull semen. The objective of the present study was to compare the quality of frozen buck semen diluted with a TRIS-glucose-citric acid-egg yolk extender and AndroMed which is free of egg yolk. For the experiments 33 ejaculates collected from 15 bucks of different breeds were splitted and processed with centrifugation (800 x g, 8 min) for TRIS-egg yolk extender and without centrifugation for AndroMed. In both methods the final concentration was 280 million spermatozoa/ml. After cooling and equilibration at 5°C the diluted semen was packaged into 0.5 ml straws and frozen in an automatic freezer. To asses the quality of frozen-thawed semen total and progressive motility was measured using an IVOS Hamilton Thorne sperm analyzer. In addition, sperm viability was determined by fluorescence microscopy after SYBR-14/PI staining. Results of our investigation demonstrate that total and progressive motility (%) in frozen-thawed semen processed in AndroMed (54.4±3.2 and 25.5±2.3) were significantly (P<0.05) higher when compared to TRIS-egg yolk extender (45.9±2.0 and 14.9±1.0). Regarding sperm viability (%), however, significant better results were obtained using TRIS-egg yolk extender (70.6±2.3) than AndroMed (54.7±3.7). From our results we conclude that AndroMed seems most suitable for freezing buck semen.

Publications / Publikationen

Keywords / Suchbegriffe
Buck, semen, extender, cryopreservation

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Funding Source(s) / Unterstützt durch
Swissgenetics, Bütschwil, Switzerland

In Collaboration with / In Zusammenarbeit mit
Dr. Enzo Fuschini, Swissgenetics, Bütschwil Switzerland

Duration of Project / Projektdauer
Oct 2004 to Oct 2005