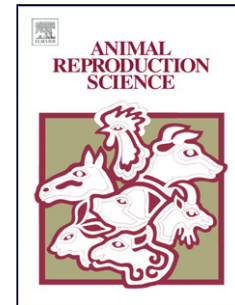


Accepted Manuscript

Title: Ostrich specific semen diluent and sperm motility characteristics during *in vitro* storage

Authors: A.M.J. Smith, M. Bonato, K. Dzama, I.A. Malecki, S.W.P. Cloete



PII: S0378-4320(18)30057-5
DOI: <https://doi.org/10.1016/j.anireprosci.2018.04.005>
Reference: ANIREP 5820

To appear in: *Animal Reproduction Science*

Received date: 14-1-2018
Revised date: 17-3-2018
Accepted date: 5-4-2018

Please cite this article as: Smith AMJ, Bonato M, Dzama K, Malecki IA, Cloete SWP, Ostrich specific semen diluent and sperm motility characteristics during *in vitro* storage, *Animal Reproduction Science* (2010), <https://doi.org/10.1016/j.anireprosci.2018.04.005>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Ostrich specific semen diluent and sperm motility characteristics during *in vitro* storage

A.M.J. Smith^{1*}, M. Bonato¹, K. Dzama¹, I.A. Malecki^{1,2}, & SWP Cloete^{1,3}

¹Department of Animal Sciences, University of Stellenbosch, Matieland 7602, South Africa;

²School of Agriculture and Environment, Faculty of Science, The University of Western Australia, 35 Stirling Highway, Crawley, WA 6009, Australia;

³Directorate Animal Sciences: Elsenburg, Private Bag XI, Elsenburg 7607, South Africa

*Author for correspondence: A.M.J. Smith, Department of Animal Sciences, University of Stellenbosch, Private Bag X1, South Africa; Tel: +27 44 272 6077; Fax: +27 44 279 1910; email: marna@appaloosastud.co.za

ABSTRACT

The dilution of semen is a very important initial process for semen processing and evaluation, storage and preservation *in vitro* and efficient artificial insemination. The aim of the study was to evaluate the effect of two synthetic diluents (OS1 and OS2) on ostrich sperm motility parameters during *in vitro* storage. Formulation of OS1 was based on macro minerals (Na, K, P, Ca, Mg) and OS2 on the further addition of micro minerals (Se and Zn), based on mineral concentration determined in the ostrich seminal plasma (SP). Sperm motility was evaluated at different processing stages (neat, after dilution, during storage and after storage) by measuring several sperm motility variables using the Sperm Class Analyzer® (SCA). Processing (dilution, cooling and storage) of semen for *in vitro* storage purposes decreased the values for all sperm motility variables measured. The percentage motile (MOT) and progressive motile (PMOT) sperm decreased 20% to 30% during 24 hours of storage, independent of diluent type. Quality of sperm swim (LIN, STR and WOB), however, was sustained during the longer storage periods (48 hours) with the OS2 diluent modified with Se and Zn additions. Quality of sperm swim with use of OS1

Download English Version:

<https://daneshyari.com/en/article/8403860>

Download Persian Version:

<https://daneshyari.com/article/8403860>

[Daneshyari.com](https://daneshyari.com)