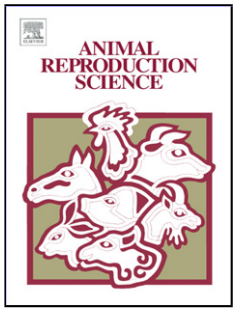


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# Ostrich specific semen diluent and sperm motility characteristics during *in vitro* storage

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## 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