



ABSTRACT

Title: UHT skim milk as alternative to synthetic-based extenders for cold-stored ram semen, previously filtered with Sephadex G-15®

Título (español): Leche desnatada UHT como una alternativa exitosa a diluyentes sintéticos en semen de morueco filtrado con Sephadex G-15® y almacenado en refrigeración

Autor (es): Galarza Lucero, Diego; López-Sebastián, Antonio; Santiago-Moreno, Julián.

Correo electrónico del primer autor: dgalarza@ucm.es

Departamento: Medicina y Cirugía Animal (Facultad de Veterinaria UCM) y Dep. Reproducción Animal (INIA)

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This study examines the effectiveness of synthetic-based extenders [TEST(+6%EY) and TEST-2 (+6%EY+2%glycerol)] and non-synthetic-based extenders [skim milk UHT(+6%EY) and UHT-2 (+6%EY+2%glycerol)] for storing at 5°C up to 96h of ram semen samples filtered and non-filtered through Sephadex G-15®. Twenty-one semen ejaculates of eight Merino rams were collected with artificial vagina, diluted with TTG medium (1:1) and divided into two aliquots. The first aliquot (500µl) was directly diluted (non-filtered) and the second aliquot (1000µl) was filtered previously dilution. Both aliquots were diluted at a final concentration 800×10^6 spermatozoa/ml with each extender and stored at 5°C. The filtered semen showed a decreasing ($P < 0,01$) of sperm motility (CASA system, SCA®) from 72h. Progressive motility ($45,6 \pm 2,94\%$) and straight line velocity ($89,5 \pm 6,01 \mu\text{m/s}$) were higher ($P < 0,01$) with UHT than other extenders after 96h at 5°C. Similarly, the percentage of spermatozoa with intact plasma membrane (IP -), intact acrosomal membrane (FITC-PNA -) and high mitochondrial function (Mitotracker Green FM® +) ($66 \pm 2,42\%$) was higher with UHT-2 than other extenders at 96h. Moreover, this data was correlated ($P < 0.01$) with sperm motility. In conclusion, the results show that UHT skim milk-based extender with egg yolk can be recommended as an extender for ram semen to be stored until 96h at 5°C.

Área por la que se presenta la comunicación

- Investigación Básica en Ciencias Veterinarias
- **Investigación en Medicina y Cirugía Animal**
- Investigación en Producción Animal
- Investigación en Sanidad Animal
- Investigación en Tecnología, Calidad y Seguridad Alimentaria