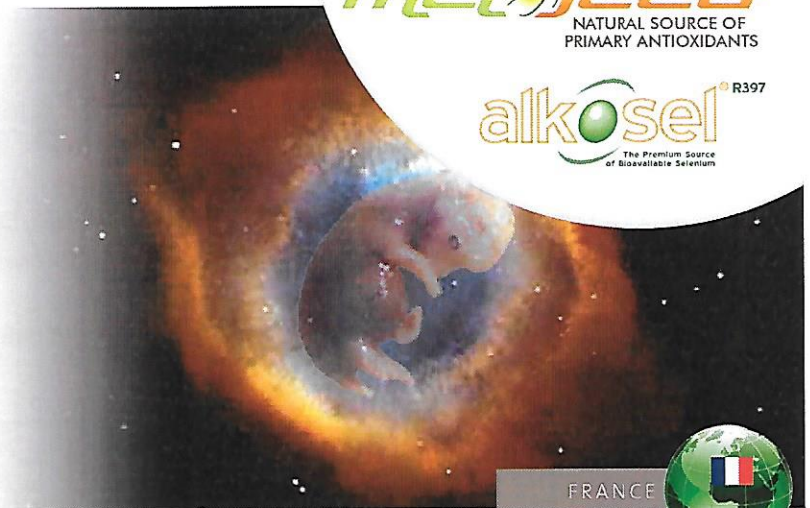


Fertility improvement in stallions fed primary antioxidants



FRANCE



CONTEXT

The ability of a stallion to produce a foal is linked to its semen quality. Stallions candidates are therefore currently evaluated on their **spermogram**, which is an assessment of the seminal parameters. It combines behaviour characteristics (number of services = number of direct vaginal intromissions) and parameters of spermatozooids (spz) quantity (concentration, volume, total number of spz) and quality (% of mobile spz at collection and after 24h and 48h).

The production of spz in seminal tubes is constant (**70,000 spz/second**) and cyclic periods of **55 days** are required to produce spz. Spz production for a standard stallion depends on its testes size and its age. Stallions aged from 5 to 16 years old are able to ejaculate a greater number of spz than younger stallions aged from 2 to 4 years old. Stallions produce a low-concentrated sperm (100-300 millions spz/mL) along with substantial volumes of ejaculate (30-70 mL). Increasing the frequency of servicing induces a reduction of the concentration and the volume of ejaculate. The recent law suspending the quotas which, up to now, regulated the number of servicing per horse for stud-book Selle Français and Anglo Arab breeds is likely to induce an increase of the number of servicing for performer stallions and stallions having high genetic potential. This situation, relative to a potential harem rise, requires increased vigilance regarding the semen quality of these « premium category » breeders.

OBJECTIVE

To improve stallion fertility by maximizing semen quality (spz number and quality).

MATERIAL AND METHODS

LOCATION Stud farm of Cordemais, France

PERIOD Breeding season (February-August 2015)

ANIMALS 21 horses split in 3 groups, including 6 that participated to two semen collection in 2014 and 2015:

Year	2013	2014	2015
Number of stallions under study	3	11	7
Treatment	Control = C		Supplemented = S

SUPPLEMENTATION PERIOD During the breeding season, supplementation for stallions (S) with primary antioxidants (Alkosel[®] and Melofeed[®])

MEASURED PARAMETERS

- Spermograms during the semen collection period (between 4 and 5 times per month/ stallion)
- Comparison of the spermograms before (2013-2014) and after primary antioxidant supplementation (2015)