SILVAFEED® NUTRI P/ENC SUPPLEMENTATION TO THAWED BOAR SEMEN IMPROVES IN VITRO FERTILIZATION

AIMS

Freezing and thawing are known to increase ROS production. Silvafeed® NUTRI P/ENC (NUTRI P) is a blend of sensory flavouring additives, rich in tannins (known to exert antioxidant activity), that is obtained by a natural extraction process. It is suitable for swine nutrition and it is proved to have positive effects on feed consumption, feed conversion rate, intestinal health and final body weight. This study was aimed at studying the effect of NUTRI P when added to thawed boar semen on sperm and IVF parameters.

RESULTS

Sperm assessment did not show any effect of NUTRI P on sperm quality parameters.

Effect of NUTRI P supplementation to thawed boar sperm on IVF parameters

CONCLUSIONS

Further studies are necessary to investigate the mechanism(s) by which SNP is effective in improving IVF outcome and to determine the possible positive effect of SNP addition to commercial thawing solutions during porcine AI with frozen-thawed boar semen.

EFFECT OF GLYPHOSATE ADDITION TO BOAR SEMEN ON SPERM QUALITY PARAMETERS

AIMS

Glyphosate (GLY) is the most widely applied pesticide worldwide and it is the active ingredient of all glyphosate-based herbicides (GBHs), including the most common commercial formulation known as Roundup. The possible effects of GBHs on human health is the topic of intense public debate for its possible carcinogenic effects, neurotoxicity, intestinal and reproductive toxicity. The aim of this study was to investigate possible effects of glyphosate and its commercial formulation (Roundup) on sperm cells.

RESULTS

Our results demonstrate that the addition of glyphosate to boar semen has no effects on the sperm quality parameters evaluated, whereas Roundup seems to decrease the percentage of viable cells with active mitochondria and sperm motility.

CONCLUSIONS

Further studies are needed in order to explain the mechanism by which the commercial formulation Roundup exerts its negative effect on the sperm parameter evaluated.