

Insemination results when applying Triladyl® or Steridyl as preservation media for bull semen

TRIS-based, egg yolk containing preservation media for bull semen are used in cryopreservation successfully since decades. The primary task of the conservation media is to maintain the fertilizing ability of most of the sperm cells of an ejaculate, respectively preventing damage caused by freezing and thawing process.

The purpose of this experiment was to verify the performance of a new TRIS-based extender, Steridyl. The non-return rates of cows in this insemination trial were compared. One group was artificially inseminated using semen extended with well-known Triladyl®, for the other group the new Steridyl was used as a semen extender.

Triladyl®, a classic TRIS based bull semen extender, is used worldwide and has proven itself over decades. Triladyl® is delivered as a concentrate, and several steps are necessary for preparing the ready-to use solution.

The basic solution consists of 250 g of concentrate, which has to be suspended in 750 ml of pure water. At 5°C this mixture is stable for about one week. Before use, 250 g of egg yolk is added to the solution. The egg yolk must come from reliable sources and must always be prepared freshly. For production labs this means a significant time and effort.

Steridyl is a newly developed TRIS based extender and on the market since 2010. The major benefit of this extender is that it already contains the egg yolk in the concentrate. This eliminates the time consuming preparation of fresh egg yolk. Only 750 ml of pure water has to be added to 500 ml of the concentrate. A storage temperature of $+5^{\circ}$ C is recommended for Steridyl. During transport and short-time storage higher temperature of up to $+20^{\circ}$ C are suitable. Steridyl has a shelf life of 9 month from production date.

In a field study, 283 cows were inseminated with semen preserved with Steridyl, whereas Triladyl® was used with 263 cows. Pregnancy was controlled after 28 respectively 56 days. At the first control after 28 days p.i. in the Steridyl group 82.69 % of the cows were tested as pregnant. The number of pregnant animals in the Triladyl® group was 214, i.e. 81.37 %. After 56 days p.i. the percentage was 72.44 % respectively 73.38 %.

The non-return rates of the two extenders were not significantly different in this trail. The use of Steridyl is therefore recommended.





