

Comparison of different concentration of honey and stingless bee honey extenders on semen quality of Boer goat at 5°C

ABSTRACT

During cold storage, cryoprotectants are often added to help protect the sperm cells from damage and extend their viability. Honey can be a useful semen extender component for preserving semen during cold storage. High levels of sugar contents such as glucose and fructose can help to protect cells by acting as a natural cryoprotectant (Zakiya et al., 2020) and proven to be effective with less detrimental effects compared to other extenders (Kasimanickam et al., 2011). Superior antioxidants properties in stingless bee honey such as polyphenols and flavonoids, may contribute to reduce oxidative stress and protect cells from damage (Wongsa et al., 2023). However, more research is needed to fully understand the antioxidant properties of stingless bee honey and how they compare to those of traditional honey. The purpose of this study is to evaluate the efficacy of honey and stingless bee honey TRIS semen extenders for preservation of Boer goat semen at 5°C up to 48h.