

**PENGARUH PAPARAN FRAKSI AIR *Citrus nobilis* Lour
TERHADAP ANGKA FERTILISASI MENCIT DENGAN
METODE FERTILISASI *In Vitro***

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ABSTRACT

Hesperidin, limonene, citral, and methyl antranilate are the components of *Citrus nobilis* Lour peels. Based on the previous researches, *Citrus nobilis* Lour water fraction contains antifertility component. This component has inhibition effect of hyaluronidase enzyme produced by the acrosomal cap of spermatozoa. In this study, *Citrus nobilis* Lour water fraction was given with doses: 40 mg/kg BW; 60 mg/kg BW and 80mg/kg BW per oral daily to male mice for one spermatogenesis cycle (35 days). The effect of *Citrus nobilis* Lour water fraction on fertilization rate observed by IVF (*In Vitro Fertilization*) after 24 hours incubation. The fertilization happened when the ovum transformed into zygote, and if the fertilization did not happen, this transformed would not occurred and the granulose cells layer will stay intact. The result from IVF method after 24 hours incubation showed that granulose cells layer were still intact and the ovum were not transformed into zygote. Conclusion: the *Citrus nobilis* Lour water fraction doses 40 mg/kg BW; 60 mg/kg BW and 80mg/kg BW could decrease fertilization rate by IVF method with percentation 58%, 25%, and 0%. It means that *Citrus nobilis* Lour could also inhibits the penetration function of mice spermatozoa. But only the highest dose (80 mg/kg BW) could showed the absolute result or 100% ovum were still intact.