EFFECT OF PUMPKIN JUICE (*Cucurbita Moschata*) ADDITION IN DILUTER ON SPERMATOZOA PLASMA MEMBRANE INTEGRITY OF SIMMENTAL BULL POST-THAWING

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ABSTRACT

The aim of this study was to determine the effect of pumpkin juice (*Cucurbita moschata*) addition in diluter on plasma membrane integrity of simmental spermatozoa post-thawing. This study used semen from healthy bull with good libido. Each sample was divided into five group of treatments; control (-) simply diluter without pumpkin juice (*Cucurbita moschata*) addition, control (+) diluter mixed with 0.005 ml β-carotene 0.0002 %, (P1) diluter mixed with 1 ml of pumpkin juice 10%, (P2) diluter mixed with 1 ml of pumpkin juice 20%, and (P3) diluter mixed with 1 ml of pumpkin juice 30%. All of treatments were processed into frozen semen then followed by evaluation of plasma membrane integrity post-thawing. Obtained data were analyzed using ANOVA and continued by Duncan test. Result showed that addition of pumpkin juice in diluter can improve plasma membrane integrity of bull sperm, there were significant differences (p<0.05). Mean and deviation result showed that P3 (pumpkin juice 30%) as the highest value in maintaining plasma membrane integrity among treatments, which was 29.8 ± 4.2. It can be concluded that addition of pumpkin juice in concentration 20% is effective in maintaining spermatozoa plasma membrane integrity of simmental bull post-thawing.

Keywords: pumpkin, plasma membrane integrity, spermatozoa