

**ASSESSMENT OF SPERM KINEMATICS OF SEXED CATTLE (*Bos taurus*)  
SEMEN SORTED USING COMMERCIAL SEXING KIT**

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## ABSTRACT

**BERNARDO, CARL ISIAH S.**, Department of Biological Sciences, College of Arts and Sciences, Central Luzon State University, Science City of Munoz, Nueva Ecija, Philippines, **JUNE 2019, ASSESSMENT OF SPERM KINEMATICS OF SEXED CATTLE (*Bos taurus*) SEMEN SORTED USING COMMERCIAL SEXING KIT.**

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Semen sexing is one of the method utilized nowadays in order to increase production of productive animals of the desired sex to combat problems in milk and meat scarcity due to increasing population. Producers claimed that commercial semen sexing agent hyper stimulate the desired sperm to fertilize the egg. Hence, this study aimed to determine the motility and kinematic parameters of sexed cattle semen sorted using Bull Focus (BF) and Heifer Focus (HF) incubated at 5°C and 37°C in varying incubation time in CASA. Mixed model ANOVA was applied to determine interaction between incubation time and treatment.

Interaction between incubation time and treatment (semen treated with BF and control) was significant ( $p < 0.05$ ) in most kinematic parameters except STR, LIN and wobble WOB at 37°C and TM, VAP, VCL and BCF at 5°C. Furthermore, interaction effect was not observed in HF and control at 37°C and there is significant interaction effect ( $p < 0.05$ ) between incubation and treatment (HF and control) in TM, PM and all sperm kinematic parameters. The study showed highest total motility (TM), progressive motility (PM) and sperm kinematic parameters at 15mins of incubation for 37°C and 2hrs for 5°C for both semen treated with Bull Focus and Heifer Focus, however, significant difference was not present ( $p > 0.05$ ). Moreover, there is a significant decrease in TM, PM and sperm

kinematic parameters of semen treated with Bull Focus and Heifer Focus incubated at 5°C starting at the 12hrs to 36hrs of incubation.

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