

Damrongsak Arlai 2007: An Assessment of the Separated Y-bearing Boar Sperms through the Bovine Serum Albumin Concentration. Master of Science (Agriculture), Major Field: Animal Science, Department of Animal Science. Thesis Advisor: Associate Professor Srisuwan Chomchai, M.S. 70 pages.

This studies were assigned for 2 experiments which focused on an assessment of the separated Y-bearing boar sperms through the bovine serum albumin concentration 4%, 6%, 8% and 10%. The general principle is diluting semen on a column of bovine serum albumin concentration, After 2 hours holding at room temperature, The Experiment 1 was studied on semen quality which obtained from before and after albumin gradient, it could be found that semen concentration mass movement and abnormal sperm cells were significantly decreased ( $P<0.001$ ) after albumin gradient when compared to before albumin gradient, but there was significantly increased ( $P<0.01$ ) in percentage of progressive movement. Furthermore, the after albumin gradient was found significantly increased ( $P<0.001$ ) in percentage of living sperm. The Experiment 2 was studied on Y-sperm cell ratio in before and after albumin gradient, which determined by nonradioactive *In situ* hybridization with digoxigenin-labeled porcine male-specific probe, with 236 bp. The DNA probe was prepared by PCR technique with porcine male-specific primer and the specificity of porcine male-specific probe, the DNA form blood (100%) and sperm (100%) of porcine male revealed hybridization (Dot-blot hybridization) with porcine male specific probe. respectively, comparative study on the Y-sperm cells ratio of semen before and after bovine serum albumin concentration 4%, 6%, 8% and 10% were 49.85%, 50.23%, 50.48%, 50.40% and 50.49% ( $P>0.05$ ), respectively, In conclusion the semen quality could be significantly improved by albumin gradient and Y-sperm cells ratio of semen was not different after albumin gradient when compared to the theoretical value.

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Student's signature

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Thesis Advisor's signature