

Supaporn Kittitudompanich 2009: Effect of Dietary Selenium and Vitamin E
Supplementation on Semen Quality of Boars. Master of Science (Animal Production),
Major Field: Animal Production, Department of Animal Science. Thesis Advisor:
Associate Professor Srisuwan Chomchai, M.S. 86 pages.

The experiment was conducted to investigate the effect of dietary selenium and vitamin E supplementation on semen quality of boars. Fifteen Duroc boars were divided into 3 dietary treatments. Each treatment consisted of five boars. All treatments were gestating to lactating sow diet (control diet). The boars in treatment 1 were provided with control diet (control group), treatment 2 control diet + 0.3 ppm of selenium and treatment 3 control diet + 0.3 ppm of selenium + 220 IU/kg of vitamin E in the diet. The results indicated that semen volume, color score, pH, osmotic pressure, motile sperm, average path velocity (VAP), curvilinear velocity (VCL), straight line velocity (VSL), percentage of progressive movement and curve line movement, sperm concentration, total sperm and total motile normal sperm per ejaculation, percentage of abnormal sperm head and cytoplasmic droplet, number of semen dose produced were not significantly difference ($P>0.05$) among treatment. The boars in treatment 2 and 3 had higher the percentage of live sperm and lower percentage of abnormal sperm tail than the boars in treatment 1 ($P<0.01$), whereas percentage of total abnormal sperm in treatment 1 had significantly ($P<0.05$) higher than treatment 3. Selenium concentration in serum of the boar in all treatment were not significantly different ($P>0.05$) but the vitamin E concentration in serum of the boar in treatment 3 had significantly ($P<0.01$) higher than treatment 1 and 2.

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Thesis Advisor's signature

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