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ABSTRACT BOOK

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EFFECT OF HEAT EXPOSURE ON DEAD SPERM AND *PYRIFORM CELL IN MALE NEW ZEALAND WHITE (NZW) RABBITS*

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ABSTRACT

Experiment has been done to assess the effect of heat exposure on the percentage of dead sperm and pyriform cells in male NZW rabbits. The bucks were exposed to 34°C for 8 h for either 1 or 5 days. It was found that scrotal temperature (ScT) increased very rapidly by 4°C during the first h of exposure in group 1 (1x8h). In group 2 (5x8h of exposure), ScT differed significantly between days ($P<0.05$). The biggest response was on the first day (36.6°C) followed a progressive reduction, day by day, in an apparent acclimation pattern. At different times of exposure, ScT was observed to rise rapidly during the first hour (by 14 percent or 4.4°C). In the 1x8h treatment, dead sperm achieved a maximum level of 14.5 ± 4.7 (%)in the first week after hot-room treatment. In week 2, the percentage dead sperm started to decline. When rabbits were exposed to 5x8h, they were affected more severely than the 1x8h. In week 1, the percentage dead sperm in the 5x8h group was 2.1 fold greater than in the 1x8h group (31.0% vs, 14.5%). Recovery in the 5x8h group took longer than in the 1x8h group, and the percentage of dead sperm finally returned to normal levels only after 7 weeks, compared to 5 weeks after 1x8h treatment. Between weeks, the incidence of pyriform cells did differ significantly ($P<0.05$). In the 1x8h treatment, the percentage of pyriforms increased in the first week by 3.8 percent after hot-room exposure. In week 2, the percentage pyriform started to decline and continued to do so gradually until week 6. In the 5x8h treatment, the number of pyriforms was higher than it was in 1x8h treatment. In week 1, for example, the percentage pyriform was 16 percent higher than in 1x8h treatment group. Hence, the mean pyriform cell count was 1.6 times higher in the 5x8h compared to the 1x8h group.

Keywords: *high temperature, dead sperm, pyriform, NZW rabbit.*

EFFECTS OF EXPOSURE HERBAL MOSQUITO COIL BASED ON PERMOT LEAF EXTRACT (*Passiflora foetida*) TO THE QUALITY OF MICE SPERM

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ABSTRACT

Transfluthrin is the active ingredient used in some type or brand mosquito coil. Transfluthrin into the body by inhalation could be expected to interfere with the quality of spermatozoa and histological process of spermatogenesis in the testis. It is characterized by decreasing the number, motility and viability of spermatozoa with abnormal morphology of spermatozoa. Therefore, do research to find alternative materials for mosquito coils, in this case made from other plants safer that permot leaf extract (*Passiflora foetida*). Based on previous research found that the mosquito coils that contain active herbal extracts of leaves permot effective to kill mosquitoes *Aedes aegypti* and safely used in mammals. This study is

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CERTIFICATE OF PARTICIPATION

This is to certify that

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