Influence of genetic group and climatic factors on the semen quality in dairy bulls

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Data recorded on semen quality of AI bulls from 7 breeds over a period of 18 years at the Livestock Genetic Resource Center situated in mid-country intermediate zone of Sri Lanka was evaluated to investigate the effect of climate and the genetic group on the semen quality. There was significant variation ($p<0.05$) of genetic group of the bull on semen quality (volume, density, mass activity, motility, before and after freezing, the difference between two motility counts). However, the results did not favor a single breed in terms of quality parameters tested for semen produced at the center during the experimental period. Given the narrow fluctuations, individual climatic factors did not show a significant effect ($p<0.05$) on the semen quality. However, the meteorological data suggested that there were two seasons exist in the area, wet –cool and dry-humid. Semen produced in the wet – cool season had a significantly high ($p<0.05$) volume and density compared to the semen produced in the dry-humid season.

According to the results of present investigation, it is clear that there was a significant influence of genetic group and climatic factors on the semen quality of bulls.

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