

**B-90 : RESPONSE OF SOME PHYSIOLOGICAL PARAMETERS OF  
SRI LANKAN WATER BUFFALOES TO DIFFERENT  
DRAFT CONDITIONS**

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The change in physiological responses of Lanka buffaloes to different draft conditions was investigated using a loading cart fitted with mechanical brakes. Animals were made to pull the loading cart on an oval track with a flat surface. Five draft levels representing 10, 12, 14, 18 and 20 percent of average body weight were selected to cover the range of draft levels encountered by the animals under normal field conditions. The physiological parameters of buffaloes investigated in the experiments were the heart rate, the respiration rate, rectal temperature, mean forward speed and the stepping rate at different draft levels. The heart rate and the respiration rate were increased significantly with the increase of draft and then decreased non-significantly at 20 percent draft level. The mean forward speed and the stepping rate were decreased notably with the increase of draft beyond 14 percent level. The results suggest that, better power and work output from the animals could be expected at around 15 percent draft level.