ABSTRACT
The assignment on Development and Testing of Manually Operated Sugarcane set cum Forage Cutter was undertaken with the objectives of developing a machine useful for both cutting operation and energy consideration specially of women. The design considerations were specially given for feeding the forage, collection arrangement and ease in operating the pedal of the machine. The output of forage cutter was found to be 16.25, 21.25, 32.50 and 41.25 kg/hr for dry sorghum and 24, 38, 64 and 86 kg/hr for green maize for 25, 50, 75 and 100 mm length of cut, respectively. The working capacity of female worker per day was found to be 5.33 hr. The actual output in eight hours was 86.61 kg for dry and 127.92 kg for green forage. The fabrication cost of the machine was Rs. 7000/-. The total weight of the machine is 41.1 kg. Hence, it is easy for transportation. The trial was conducted on sugarcane for cutting the single eye sets with the help of forage cutter and it was found that nearly 600 sugarcane single eye sets were cut per hour and collected without crushing and damaging the bud. The overall performance of the forage cutter during operation was found satisfactory without breakdown.

Key words: Forage cutter, Women energy, Cutting energy.