DEVELOPMENT OF POWER OPERATED COCONUT DEHUSKER
A.V. GAJAKOS, S.M. NALAWADE, V.V. AWARE, S.B. PATIL AND B.B. THAKUR

ABSTRACT
Coconut is the main crop of the coastal Konkan region with annual production of 16789 million nuts. Dehusking is the important post harvest operation, which is necessary step towards making the coconut ready for the further utilization. Also it gives husk, which is important material for coir processing industry. Considering the drawbacks of manual dehusking methods, power operated coconut dehusker was developed. This power operated coconut dehusker operates on 3-phase, 5 hp electric motor. It consists of main parts like frame, electric motor, speed reduction unit and dehusking unit. The dehusking unit consists of two cylinders viz. dehusking cylinder and idle cylinder. Dehusking cylinder is provided with triangular shaped teeth, which on rotation of the cylinder penetrate into the husk and pulls it away from the coconut. Tests were carried out to examine the performance of the developed dehusker and different parameters like average time requirement, dehusking efficiency, capacity of dehusker, damage percentage, average power requirement etc. Single person is required for operating the dehusker. During the tests, average time required for dehusking a coconut was found to be 16.56 second. Dehusking efficiency was 82.0 per cent. Capacity of dehusker is 200-225 nuts / hour. Damage percentage was 18.0 per cent and average power consumption was 4.43 hp.