

Testing and evaluation of CFTRI dal mill for pigeonpea (*Cajanus cajan*)

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■ **ABSTRACT** : This study covers the performance study of CFTRI dal mill using UPAS-120 variety of pigeonpea as untreated and treated grains. The machine performance was carried out in term of maximum grains input and output capacity, dehushing efficiency, milling efficiency, dal recovery, quality index. In dry milling method, it was found that the maximum grains input and output capacity were 83.77 kg/h and 54.86 kg/h, respectively. The machine dehushing efficiency, milling efficiency, dal recovery, quality index, were 98.97%, 89.31%, 75.21%, 89.34%, respectively while the pearled grains, broaken, powder, husk and undehusked grains were 4.35%, 2.90%, 5.68% 16.20, and 0.03%, respectively. The power consumption at no load and load conditions were 0.92 and 1.19 kW/h, respectively. Similarly in wet milling method, the maximum grains input and output capacity were 93.21 kg/h and 63.79 kg/h, respectively. The machine dehushing efficiency, milling efficiency, dal recovery, quality index, were 98.90%, 92.83%, 75.21%, 92.93%, respectively while the pearled grains, broaken, powder, husk and undehusked grains are 2.62%, 2.90%, 4.11% 16.23, and 0.10%, respectively. The power consumption at no load and load conditions are 0.92 and 1.03 kW/h, respectively.

■ **KEY WORDS** : Pigeonpea, Wet milling, Dry milling, Dal recovery, Quality index

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