

Performance Evaluation of Ripened Chilli Harvester

T Prabhakara Rao, C Ramana, S Joseph Reddy, M Raghu Babu and B V S Prasad
College of Agricultural Engineering, Bapatla, A.P.

ABSTRACT

India is the world's largest producer, consumer and exporter of chilli. In Indian subcontinent, chillies are produced throughout the year. Two crops are produced in kharif and rabi seasons in the country. Chilli grows best at 20–30°C temperatures, growth and yields suffer when temperatures exceed 30°C or drops below 15°C for extended periods. Chilli is believed to have been introduced to India by Portuguese explorers at Goa in 17th century. The developed prototype ripen chilli harvester was hitched to the high clearance tractor with help of two linkages and drawn in the farmer field at Murikipadu village in Guntur district to test the harvesting efficiency of chilli harvester. The power was transmitted to the double helical rollers from the high clearance tractor PTO. The prototype ripens chilli harvester was run with the all possible combinations of rollers speed and gap between two rollers like S1G1, S1G2 S4G4. The prototype ripen chilli harvester was run for three time at each combinations of rollers speed and gap between rollers. The harvesting efficiency of prototype ripen chilli harvester was calculated by comparing the ripen chilli pods per plant before and after harvested with chilli harvester. The labour required for harvesting of ripen chilli varied from 350 to 400 man. day per acre. The approximate cost of labour for pickings per acre was Rs. 100000 and it is too expensive but mechanical harvesting was about Rs.1635 per acre.

Key words: *Chilli, Harvester, Hitching, Picking and Prototype*