

## Field Trials of Performance and Improvement for Track-Type Bean Combine

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### ABSTRACT

The commercial type of bean combine which can be used to harvest soybean, adzuki bean, and mungbean under the agricultural environment conditions has been developed. This machine was 390 cm in length, 190 cm in width, 195 cm in height, and 1.7 mt in weight. The HST mechanism with various speed in track type equipped with 26 HP diesel engine was adapted for moving this machine. Velocity for forward and backward moving were from 0 to 2, and from 0 to 1.75 meter per second. Field trials of performance carried out at Tainan, Pingtung, and Kaohsiung for harvesting soybean, adzuki bean, and mungbean showed that one person can operate this machine and can complete harvesting of one hectare within 5 hours. 35 man-power can be substituted by using this bean combine. The harvesting loss was between 1.5 to 5.0 percent and the rates for damage seeds and impurity was less than 1 and 0.5%, respectively.

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