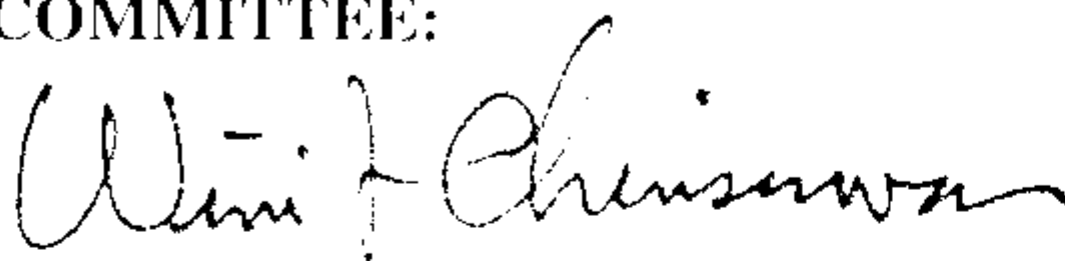


**THESIS TITLE:** A Study on Harvest Losses of Hommali Rice Due to Manual Harvesting System and the Use of Combine Harvester

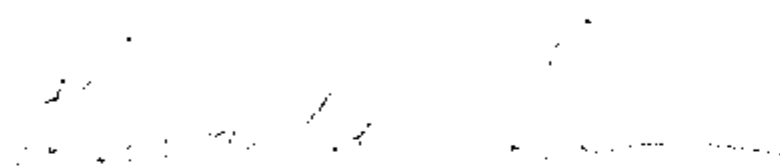
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### Abstract

The objective of this study was to determine harvest losses of Hommali rice due to manual harvesting system and the use of combine harvester. The study also covered an assessment of harvesting costs of the two systems in Thung Kula Ronghai area. The results could be summarized as follows: -

1. The evaluation of the losses was conducted in the crop years 1998/1999 and 1999/2000. The loss due to manual harvesting system was monitored at 6 different sites in both years while 19 and 30 combine harvesters were used in the first and second harvesting season respectively. The results indicated that the average losses from manual harvesting system and from the combine harvester were 5.85 and 4.21 percent respectively. In addition, the average head rice yields of the manual harvesting system and the combine harvesters were 47.57 and 57.25 percent respectively. Both qualitative and quantitative losses were reduced markedly when the combine harvester was used compared with manual harvesting system. However, the percentage of the milled rice and the whiteness recorded from the two harvesting systems were not different.

2. The cost for manual harvesting system was 650 to 910 Bahts/rai for the labour cost of 100 to 150 Bahts/man-day. With a custom fee of 350 to 450 Bahts/rai for combine harvester and the same labour cost, the cost for the use of combine harvester was calculated to be 450 to 550 Bahts/rai. Therefore, the use of combine harvester could reduce harvest cost by more than 100 Bahts/rai.

In conclusion, the results of this study illustrated that the combine harvester minimized the harvest losses in both qualitative and quantitative terms. It was also clearly evident that the combine harvester could reduce harvest cost compared with manual harvesting system.