

# Combine Harvesting

## What is a combine harvester?

Combine harvesters “combine” several operations into one: cutting, feeding into threshing mechanism, threshing, cleaning, and discharge of grain into a bulk wagon or directly into bags. Straw is usually discharged behind the combine in a windrow.

## Why combine harvesting?

When labor shortage occurs harvesting is usually the first postproduction operation that is mechanized. In India, China and Thailand the use of combine harvesters for paddy rice is increasing rapidly.

## Combine harvester

Combines for rice come in different sizes and usually with tracks as undercarriage for mobility.



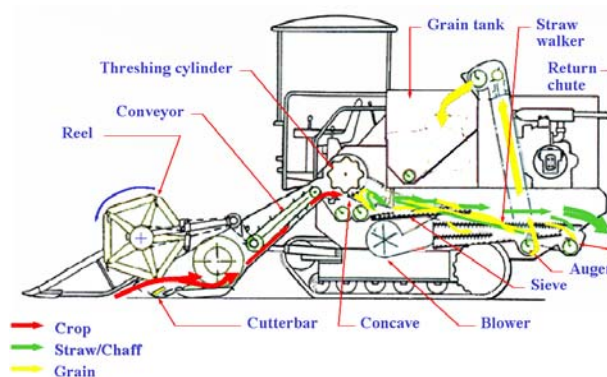
Thai combine: cutting width 2-3m, capacity 0.6-1ha/h, weight 4-8t



Mini combine: cutting width 1.2m, capacity 0.12 ha/h, weight 0.5t.

The mini combine has wheels because it can be moved by the operators when bogged down.

## Components of a combine



Most Combine harvesters consist of:

**Cutting section:** straw lifters for lifting especially lodged crop, cutter bar for cutting the straw above the ground, reel for feeding the cut crop into the conveying system and conveyors for transporting the crop to the threshing components.

**Thresher:** one or more threshing cylinders and a concave for separating the grains from the straw. Most rice combines have axial-flow drums, which are better in handling wet straw and do not require straw walkers for separating the straw.

**Cleaner:** separates chaff, immature grains and small straw particles from the grains. Consists of a blower and several oscillating sieves.

For **grain collection** the combine either has a grain tank or is equipped with a grain bagging station.

## For more information contact

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