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# STRAW COMBINE



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## Features

- This Machine makes straw quality of Small size as per choice of the farmer.
- Grain tank provided for grain storage from waste.
- Stone trap system provided for safety of machine.
- **The machine consumes less power as the threshing drum is fitted with steel blades.**
- Machine is provided with two blowers.



PANESAR STRAW COMBINE



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# STRAW COMBINE

Single speed  
gear box with  
540 R.p.m.  
P.T.O.

Machine is fully  
belt operated.

Cutting height is  
a adjustable.

Threshing drum  
contain 225  
blades.





# TRACTOR OPERATED STRAW COMBINE

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# TRACTOR OPERATED STRAW COMBINE

**Recover wheat straw after combine operation**

**Straw collected by straw combine is cut into pieces and collected in the trolley as bhusa.**

**Also some grains are collected along with straw.**

**The capacity of machine on an average is 0.4 ha/h (2.5km/h) and straw recovery is about 55-60%.**

**Two persons are required for its operation.**

**The cost of operation is Rs. 1200/ha.**

**The machine can cover about 75-100 ha/year.**

**There is an additional grain recovery of 50-100 kg/ha.**

**The cost of grain recovered is almost equal to the amount paid for hiring the machine.**

**There are more than 50 manufacturers manufacturing straw reaper/ combine.**

## **Advantages of straw combine over control**

- **Use of tractors per year has been increased**
- **saving of time, money and labour.**
- **Bhusa can be obtained as bi product**
- **Less fatigue than manual threshing of wheat.**
- **Machine repay its cost with in one year**
- **The tractor needs frequent service of air cleaner because of dust and bhusa during operation of straw combine.**
- **Small farmers welcome the work to be get done by custom hiring.**
- **The machine is liked by the farmers very much.**

## **Conclusion**

- **Straw recovery is 70.7 per cent with good quality.**
- **The straw split was 92.36% and length of bhusa was 2.3 cm.**
- **There was an additional grain recovery of 141 kg/ha (45.8%). The cost of grain recovered is almost equal to the amount paid for hiring the machine.**
- **Straw combine is very economical and now a days it is used extensively by the farmers as the cost of bhusa rises and use of combine increases.**
- **The demand for straw combine also increase.**
- **It helps to save environmental hazards.**

## Economics of Straw combine on custom hiring

Cost of machine (Rs.)	: 90,000 to 1, 20,000
Operating speed(km/h)	: 2.5
Average Field capacity( ha/h):	: 0.4
Average Fuel consumption, (l/h)	:3.5- 4.0
Labour required/ha	: 2 persons
Cost of operation (Rs./ha)	:800
Average grain recovery( kg/ha)	; 100-120
Average bhusa recovery( q/ha)	: 25.0
Average area covered (ha)	:85
Rate of custom hiring( Rs./ha)	:1250-1325
Total turn out( Rs./year)	: 1,06,250- 1,12,625
Expenditure( Rs. /ha)	: 800
( Rs. Year)	: 40,000
Net saving (Rs./year)	: 66,250-72,625
Pay back period:	: two year





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# Straw Combine



# Straw Baler





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# Straw reaper/ combine

## **Working of Straw Reaper:**

**Straw Reaper is a machine; cut, thresh & clean the straw in one operation.**

**The wheat stalks left after combine harvest are cut by an oscillating blades while revolving reel pushes them back toward & auger.**

**The stalks are conveyed into the machine by the auger & guide drum, which reaches the threshing cylinder which cut the stalks into small pieces against concave.**

**It give superior separating performance. The short fragment (straw) fall through the bars of the concave.**

**Double Blower operating just behind rushes the straw to trolley attached & separate the dust particles.**

# Straw Combine



# Straw Baler