

Maintenance of Happy Seeder

Sandeep Bhardwaj

Assistant Professor, Department of Basic Engineering, COAE&T, CCSHAU, Hisar, Haryana, India.

*Corresponding Author: bhasandeep@gmail.com



Source: KS Agrotech Pvt.Ltd.

Happy Seeder (HS) or Turbo Happy Seeder (THS) is a tractor-operated machine developed by the PAU in collaboration with Australian Centre for International Agricultural Research (ACIAR), for in-situ management of paddy stubble (straw). Happy Seeder technology (in situ paddy residue management technology) helps in timely sowing of wheat, saving of irrigation water, less infestation of weeds and reduces environment pollution due to non-burning of paddy residue. Normally Krishna Happy Seeder, Weight: 700kg at Rs 150000 in Cheeka | ID: 20602839933 is a good example of happy seeder. The main function of a seeding machine or seeder is a machine used in agriculture which sows seeds for crops by dropping seeds into a straight furrow within the soil at precise rates and specific depths. Happy Seeder is the ideal solution since it sows seed and removes the straw at the same time, scattering it evenly across the field, thus mulching the field and helping it retain its moisture, and encouraging seed germination. The straw naturally decomposes over time, enriching the soil. The field

capacity i.e., 0.28 ha/h was recorded in case of happy seeder and corresponding field efficiency was found 52.80%. Draft requirement for seed drill was 4.98 KN whereas, for happy seeder it was 7.2 KN. Total time saving

was found 71.84% and 79.17% in treatment T1 and T2 respectively over conventional method. With Happy Seeder, stubble of paddy remains in the field for a long time even after growing of the wheat crop. The Happy Seeder, an attachment that latches onto the back of a tractor, shreds agricultural waste and redistributes it as mulch while at the same time planting seeds for a new crop. It is one of several technologies that can be used to prevent the open burning of agricultural waste.

Maintenance of the Happy Seeder

The Happy Seeder is a tractor-mounted machine that cuts and lifts rice straw, sows' wheat into the soil, and deposits the straw over the sown area as mulch.

Happy Seeder is the best enhancement for sowing seeds and spreading fertilizer in the field. It can be attached and run with a tractor delivering power 50 HP or more. There are ten times to sow seed or spread fertilizer and maintain a proper row distance of 228 mm. This implement can be easily

attached and can deliver a high rate of sowing in the field without any disturbance in the integrity of the soil. In fact, the machine enhancement makes a farmer capable of sowing wheat just after harvesting rice from the same field. The technical specification of a Happy Seeder is given as under.

Technical Specifications of Happy Seeder Machine

Power Source	50 Hp Or Above Tractor
Hitch Type	Three Point Linkage
No. Of Tynes	10 NOS
Row To Row Distance	228 MM
Type Of Furrow Openers	Inverted T- Type
Rotating Shaft Diameter	137.90 MM
Type Of Blades	Rectangular One Pair In Form Of Inverted

Metering Mechanism

For Seeds	Fluted Roller
For Fertilizer	Fluted Roller
Length	1750 MM
Width	2640 MM
Height	1555 MM
Mass (KG.)	650 KG (approx.)

Clean the seeder regularly; after use, clean the seeder thoroughly to remove any debris, dust, and dirt that may have accumulated during the seeding process. Lubricate moving parts: Lubricate all moving parts of the seeder, including the seed metering mechanism, chains, and bearings, to ensure smooth operation and prevent wear and tear. A happy seeder of nine furrow opener was tested were found with following performance of happy seeder.

- The operating speed of happy seeder could be varied from 2.5 to 3.5 kmph, working of happy

seeder was found to be optimum at the speed of 3.5 kmph.

- The fuel consumption with happy seeder for sowing wheat varied from 4.12-4.36 l/hr and for seed drill 2.96-3.71 l/hr at different operating speed.
- The field capacity of happy seeder at 3.5 kmph was 0.29 ha/hr and for seed drill 0.435 ha/hr
- The field efficiency for happy seeder 43.4% and for seed drill was 65%
- The cost of operation per hectare by happy seeder was Rs. 2098.65 and cost of operation per hectare by seed drill + tillage operations was Rs. 3106.38.
- Therefore cost of operational with happy seeder is economical as compared to seed drill by Rs. 1008.38 per hectare.
- The crop residue was 0.830 kg/m², 0.832 kg/m² and 0.839 kg/m² of different plots for happy seeder. The crop residue was found heavy.
- The farmer felt that the happy seeder reduce the labour requirement, they appreciated the fact that the use of happy seeder would make the sowing timely and essay, it is water saving and ecofriendly and farmer says it also controls weeds.

References:

1. Prashant Singh, Balvindra Singh Gautam and Rahul Kumar Yadav. Performance evaluation of happy seeder for sowing wheat crop in combined harvested.

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