



**GREENSYSTEM RC1211, 11 TINE RIGID TYPE CULTIVATOR
(Tractor Mounted)**



भारत सरकार
GOVT OF INDIA

कृषि एवं किसान कल्याण मन्त्रालय

MINISTRY OF AGRICULTURE & FARMERS WELFARE

कृषि, सहकारिता एवं किसान कल्याण विभाग

DEPARTMENT OF AGRICULTURE, COOPERATION & FARMERS WELFARE

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[AN ISO 9001:2015 CERTIFIED INSTITUTION]

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8. EASE OF OPERATION & ADJUSTMENTS

No noticeable difficulty was observed during the operation and adjustment of cultivator

9. DEFECTS, BREAKDOWNS AND REPAIRS

No break down was occurred at 25.3 h of field test.

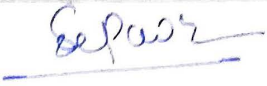


10. SUMMARY OF OBSERVATIONS, COMMENTS AND RECOMMENDATIONS

- 10.1 The dimension of tine and the reversible shovel does not conform to IS: 7565 (PART I) – 1975 and IS: 3342-1998 respectively. This should be looked into for corrective action for standardization.
- 10.2 The dimension of hitch pyramid of the implement does not conform to IS: 4468-1997 (Part-1). This should be looked into for corrective action for standardization.
- 10.3 The chemical content of carbon (C) and manganese (Mn) of shovel was not within its range as per IS: 3342-1998. This should be looked into for corrective action for standardization.
- 10.4 **Performance of the cultivator:**
- 10.4.1 a) The area cover was recorded as 0.902 to 1.132 ha/h at the speed of operation from 5.09 to 5.44 km/h.
b) The time required to cover one hectare area was recorded as 0.88 to 1.11 h.
- 10.4.2 **Quality of work:**
- a) The depth of cut was recorded as 9 to 11 cm.
b) Average working width was observed as 225 to 229 cm.
c) Field efficiency was observed as 77.5 to 90.8 %.
- 10.4.3 **Power requirement:**
The draft of implement was recorded from 495 to 538 (kgf) and power requirement was calculated as 7.12 to 7.97kW.
- 10.4.4 **Labour requirement:**
One skilled operator was needed to operate the tractor with the implement.
- 10.5 **Wear Assessment:**
The hourly rate of wear of the reversible shovel on mass and dimensional basis was recorded as 0.20 to 0.28 % and 0.07 to 0.29 % respectively.
- 10.6 As the implement is rigid tine type, it is not suitable for root & stone infested lands.
- 10.7 The contact angle of the shovel with tine was not declared as per the recommendation of IS: 6638-1972.
- 10.8 **Labelling plate:**
Manufacturer's name, serial no. and year of manufacture were indicated on the labeling plate. However, it is recommended to specify make, model, specify size and number of tines as per Indian Standard.

10.9 Technical literature:

Parts Catalogue was provided along with the machine during the course of testing. It is further recommended to bring out these manual and Operator cum Service Manual in Hindi and other vernacular languages as per IS: 8132-1999.

TESTING AUTHORITY

S. G. PAWAR AGRICULTURAL ENGINEER	
A.K. UPADHYAY SENIOR AGRICULTURAL ENGINEER	
K.K. NAGLE DIRECTOR	

Draft Test Report compiled by -

Sh. Rahul Prajapati

11. APPLICANT'S COMMENTS

Para No.	Our reference	Applicant's Comments
11.1	10.1	We agree with the recommendations on dimension of tine and shovel and will make necessary correction to dimensions of implement to conform to IS: 3342-1998.
11.2	10.2	We agree with the recommendations and will provide implement hitch for cultivator conforming to Indian Standards IS: 4468 – 1997 (PART I).
11.3	10.3	We agree with recommendation and shovel conforming Indian Standards IS: 3342 – 1998 on chemical composition for carbon and manganese content.
11.4	10.7	We agree with the recommendation and shovel with tine confirming IS: 6638-1972 on contact angle.
11.5	10.8	We agree with the recommendations and parameters on labelling plate with sufficient information.
11.6	10.9	We agree with the recommendations and we will provide the booklet in Hindi and other vernacular languages conforming as per IS: 8132-1999. Booklet will include tractor compatibility sheet.