

प्रारंभिक व्यावसायिक परीक्षण रिपोर्ट

संख्या/No. CSIR/CMERI/FMTTC/2024/020

INITIAL COMMERCIAL TEST REPORT

माह/Month: June, 2024

THIS TEST REPORT VALID UP TO

: 31ST MAY, 2031



**AGRINEER AGRO MACHINERY
MANUAL SEEDER (AN-707)**



कृषि मशीनरी प्रशिक्षण और परीक्षण केंद्र

Farm Machinery Training and Testing Centre

सीएसआईआर- केन्द्रीय यांत्रिक अभियांत्रिकी अनुसंधान संस्थान

CSIR - Central Mechanical Engineering Research Institute

महात्मा गांधी एवेन्यू, दुर्गापुर

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CSIR/CMERI/FMTTC/2024/020

**AGRINEER AGRO MACHINERY
(MODEL NO. – AN-707)
(INITIAL COMMERCIAL TEST)**

Name of Machine : Agrineer Manual Seeder
Type : Walk behind type
Make : Agrineer Agro Machinery
Model : AN-707
Name and address of Manufacturer : AGRINEER AGRO MACHINERY
182 Vechale, Taluka, Dist. – Satara,
Pin- 415519
Name and address of Applicant : AGRINEER AGRO MACHINERY
182 Vechale, Taluka, Dist. – Satara,
Pin- 415519
Test Conducted at : Farm Machinery Training and Testing Centre
CSIR- Central Mechanical Engineering Research
Institute, M G Avenue, Durgapur, Pin – 713209,
West Bengal.

THIS TEST REPORT IS VALID UP TO: 31st MAY, 2031
[vide DAC&FW OM No. 13-22/2020- M&T (I&P) dated 12.12.2023]



Report No.: CSIR/CMERI/FMTTC/2024/020

Month: June

Year: 2024

**CSIR - Central Mechanical Engineering Research Institute,
Durgapur - 713209
(W.B.), INDIA**

Report prepared by

Report verified by
Subrata Kr Mandal

Farm Machinery Training and Testing Centre,
CSIR-Central Mechanical Engineering Research Institute, Durgapur
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5 SPECIFICATIONS

5.1 General Specification of Machine

Name of the Machine	:	Agrineer Manual Seeder
Type	:	Walk behind type
<u>Product details</u>		
a. Make	:	Agrineer Agro Machinery
b. Model	:	AN-707
c. Manufacturers Address	:	AGRINEER AGRO MACHINERY 182 Vechale, Taluka, Dist. – Satara, Pin- 415519
d. Serial No	:	20240475
e. Year of manufacture	:	2024
Suitable crop	:	Maize, Beans, Peanuts, Cotton, Black Gram (like round seeds). Test is conducted for Maize as per applicants Requirement.

5.2 Constructional Details

5.2.1 Handle

Type	:	Mild Steel Pipe
Size of handle (mm)		
Length	:	1025
Width	:	420
Size of handle pipe (mm)		
Outer diameter	:	19.70
Inner diameter	:	17.7
No. of handle holder	:	02
Size of handle holder, (mm)		
Length	:	122
Outer diameter	:	27.16
Inner diameter	:	17.7
Method of fixing	:	Handle is fabricated from MS Pipe. Two parts of handle are fixed by handle holder with screw and nut.

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Summary of the field performance

Summary of the field performance		
Sl. No	Parameters	Range
1	Duration of Test (h)	19.4
2	Type of soil	Sandy loam
3	Soil moisture (%)	13.5 to 15.2
4	Name of seeds used	Maize
5	Variety of seed	GK 3155
6	Average forward speed (km/h)	1.91 to 2.33
7	Average depth of seed placed (cm)	9.3 to 9.4
8	Average spacing between seeds (cm)	13.54 to 13.82
9	Average working width (m)	0.75
10	Area covered (ha/h)	0.13 to 0.15
11	Time required for one ha(h)	6.89 to 7.97
12	Seed rate (kg/ha)	40.4 to 54.9
13	Field efficiency (%)	83.0 to 87.8

9 Rate of Work

- The average area covered was recorded as 0.13 to 0.15 ha/hr. at average operating speed of 1.91 to 2.33 km/hr.
- The field efficiency was recorded as 83.0 to 87.8%.

9.1 Quality of Work

- Average depth of sowing seeds was recorded as 9.3 cm to 9.4 cm
- The average spacing between seeds was recorded as 13.54 to 13.82.

10 Ease of Operation and Adjustments

Operation and adjustments of the round seed dibbler can be done easily.

11 Labour Requirements

One labor can effectively operate the round seed dibbler.

12 Defects, Adjustments, Breakdown and Repairs

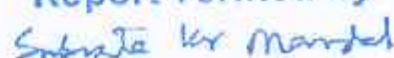
There is no breakdown occurred during the total operation of 19.4 hrs. of operation.

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13 COMMENTS & RECOMMENDATION

13.1 The machine is running smoothly. No breakdown is occurred during the total operation.

14 TECHNICAL LITERATURE

The following literatures are not provided by the applicant during the test along with the application form.

- a) User's manual book
- b) Parts' catalogue
- c) Service manual

These manuals need to be provided as per IS: 8132-1999.

TESTING AUTHORITY

Report Prepared by	Sr. Technical Officer, CSIR-CMERI Farm Machinery Testing Centre	 07/06/2024
Report Approved by	In-Charge, CSIR-CMERI Farm Machinery Testing Centre	 07/06/2024
Report Approved for release by	Head, Business Development Unit, CSIR-CMERI, Durgapur	 07/6/24

15 APPLICANT'S COMMENTS

Para No.	Our Reference	Applicant's Comments
15	13.1	Noted



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