

प्रारंभिक व्यावसायिक परीक्षण रिपोर्ट

संख्या/No. CSIR/CMERI/FMTTC/2024/021

INITIAL COMMERCIAL TEST REPORT

माह/Month: June, 2024

THIS TEST REPORT VALID UP TO

: 31ST MAY, 2031



**AL-BURHAN INTERNATIONAL
BATTERY OPERATED KNAPSACK SPRAYER
(8AH GOLD)**



सरकार
Government Of India



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
Mahatma Gandhi Avenue, Durgapur

पश्चिम बंगाल - 713209

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Name & Address of Applicant : Al Burhan International
16 B. R. B. Basu Road
1st Floor, Kolkata - 700001

Name & Address of Manufacturer : Al Burhan International
16 B. R. B. Basu Road
1st Floor, Kolkata - 700001

Type : Knapsack Sprayer (Battery Operated)

Make : RAJA

Model : 8 AH GOLD

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/2024/021

Month: June

Year: 2024

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

Report prepared by

Report verified by

Manufacturer : Al Burhan International
 16 B R B Basu Road
 1st Floor, Kolkata - 700001

Test requested by : Applicant

Selected for test by : CSIR-CMERI

Method of selection :

The test sample was randomly selected by Video call. The applicant arranged 10 samples of RAJA 8AH GOLD Battery Operated Knapsack Sprayer with same specifications. The sprayers with following serial number were considered for random selection.

Sample No.	Sprayer Serial No.
1	001
2	002
3	003
4	004
5	005
6	006
7	007 (Selected for Test)
8	008
9	009
10	010

Table 1. Samples for Random Selection

1. SPECIFICATIONS

1.1 General

Type : Battery Sprayer

Make : RAJA

Model : 8 AH GOLD

Serial No. :

Name of manufacturer : Al Burhan International
 16 B R B Basu Road
 1st Floor, Kolkata - 700001

Year of manufacture : 2024

Capacity of sprayer, l : 16

Working pressure, kg/cm² : 1 to 6

1.2 Motor (As per Sticker)

Type : D C Motor

No. of Motor : 01

Make : RAJA

Serial number : C23/09D

Motor operating voltage : 12 V, DC

Motor power : 48 Watt

Max. Current : 4 A

Rated speed, rpm : 3100

Report verified by
Subrata Kumar Mandal

Report prepared by
[Signature]

17. COMMENTS & RECOMMENDATIONS

- 17.1 The model & country of origin of pump is not specified. It should be specified.
- 17.2 The material used for pump inlet port end fitting does not meet the requirements of Indian standard. It must be looked into.
- 17.3 The spray lance is not marked and designated. It must be marked and designated as per standard.
- 17.4 The model & country of origin of battery charger is not specified. It should be specified.
- 17.5 The nozzle is not marked and designated. It should be marked and designated as per standard.
- 17.6 The cut off device is not marked and designated. It should be marked and designated as Per standard.
- 17.7 During the pump chamber hydraulic test, the motor stopped beyond 6.0 kg/cm² pressure against the pressure requirement of 7.5 kg/cm². Thus the sprayer does not meet the requirement of Indian Standard.
- 17.8 The length of the nipple of discharge outlet of the pump does not meet the requirement of Indian standard. It must be looked into.
- 17.9 The size of the strap cushion does not meet the requirements of Indian standard. It must be looked into.
- 17.10 The average size of apertures of the strainer in cut off device does not meet the requirements of Indian standard. It must be looked into.
- 17.11 Time required to full charge the battery with AC charger is observed as 6 hrs. to 6 hrs. 10 mins.
- 17.12 The spraying operation time after fully charging the battery was observed as 4 hrs. 10 min. to 4 hrs. 25 min.

Report prepared by**Report verified by**

18. TECHNICAL LITERATURE

The operator, maintenance & parts manual of sprayer was provided during the test which found adequate, however, the manual should be updated as per IS: 8132:1999, with the inclusion of safety instructions regarding handling poisonous agrochemical and first aid.

TESTING AUTHORITY

Report Prepared by	Sr. Technical Officer, CSIR-CMERI Farm Machinery Testing Centre	 19/06/2024
Report Verified & Approved by	In-Charge, CSIR-CMERI Farm Machinery Testing Centre	 19/06/2024
Report Approved for release by	Head, Business Development Unit, CSIR-CMERI, Durgapur	 19/6/24

19. APPLICANT'S COMMENTS

Para No.	Our Reference	Applicant's Comments
19	17.1 to 17.12	From our side we have already told our manufacturing division to take immediate necessary action to comply with all the suggested parameters.

