

GUIDELINES

of

Testing of Farm Machinery



**DEPARTMENT OF FARM MACHINERY AND POWER ENGG.
COLLEGE OF AGRICULTURAL ENGINEERING AND TECHNOLOGY
CCS HARYANA AGRICULTURAL UNIVERSITY, HISAR**

1. INTRODUCTION

The engineering inputs to develop suitable policies for farm equipments, appropriate package of farming technology etc. are receiving adequate support. We are now in a position to say that research and development groups involved in such activities in various organizations and agricultural Universities have made commendable contribution. Still, farm power and machinery has to play an important role in Indian agriculture to boost agricultural production in order to meet the demand of rising population. The productivity of land is not going to increase without engineering inputs which are essential for increased utilization efficiency. Over the past decades it has been recognized that the labour constraints are key obstacles to agricultural progress. Therefore, more emphasis should be placed on increasing the productivity of labour through better use of engineering inputs which will also enhance the productivity of the land. Farm machines supplied to the farmers must ensure functional and life reliability. For this, testing of machines according to a well established standardization procedure is most important criteria to judge its quality and performance. Therefore, testing and evaluation of agricultural equipments will facilitate the availability of quality agricultural machines to the users. This will help to make farming practices a pleasant job for increasing agricultural production and for growth of industries.

2. OBJECTIVES OF TESTING

The rapid demand on farm machinery has promoted many manufacturers to take up production of farm machinery. With heavy investment on farm machinery, it is necessary to have some means of assessing the performance of machines being brought out by the various manufacturers. The testing scheme of the University will act as an important link between the manufacturers and users of the agricultural machines as well as other agencies responsible for the introduction and popularization of farm equipments with the objectives as outlined below :-

1. To test agricultural machinery manufactured within the country or imported with a view to assess their functional suitability and performance characteristics so that the published test results would :-
 - serve as a basis to decide the type of machine, best suited for Indian conditions which could be encouraged for import, production and popularization
 - help the farmers and other prospective purchasers in determining the comparative performance of machines available in market
 - provide material to engineers and extension workers for guiding farmers and other purchasers in proper selection of equipment
 - form the basis for standard specification to be used by the manufacturers and distributors
 - help financial institutions in recommending financial assistance both to the manufacturers as well as farmers.

2. To carry out trials on machines and implements which have proved successful in other regions of the world with a view to examine the possibility of their introduction in the country.
3. To assist the manufacturers in the overall product improvement and facilities in updating the specifications based on the test conducted on latest model.
4. To promote, export of agricultural machines through testing in accordance with the International standards.
5. To assist Bureau of Indian Standards in formulation of standards and testing of agricultural machines covered under the scope of Certification Marks Scheme.
6. To carry out research and development on selected agricultural machinery and implements.

The Testing wing acts as a unique impartial agency for :-

The Manufacturer

- ❖ To evaluate his product both for developmental and production models.
- ❖ To get the advice of the testing Institution based on the performance reports and thus continuously improve upon his products.
- ❖ To get an authentic data on the performance of similar machines of other manufacturers to improve his product.
- ❖ To accelerate sales through test reports to be released by the testing Institution which may be used as an advertising media under certain conditions.
- ❖ To improve technical literature like service manual, performance data sheets etc.
- ❖ To provide independent evidence to support his claims for his machine performance.

The Purchaser/User

- ❖ To get guidelines for taking decision on the type of machine to be used for a certain operation.
- ❖ To select particular machine according to individual requirements where a choice of different brand exists.

3. WHAT CAN BE TESTED?

This University is authorised by the Ministry of Agriculture, Govt. of India vide letter No F.No.8-1/2004- My (I&P) dated 14th September, 2010 to test the agricultural implements as mentioned in the Annexure-I (Schedule 'B')

Land development and tillage equipments

- Hydraulically reversible MB Plough
- Combined Tillage Tool (Tractor drawn)/Integrated tool bar
- Rotavator
- Cultivator

- Disc / M.B. Plough
- All types of Harrows

Sowing and Planting Equipments

- Tractor Driven Potato Planter
- Tractor Driven Ridger Seeder
- Tractor Driven Groundnut Planter
- Raised bed planter
- Tractor drawn Sugarcane Cutter Planter

Intercultivation equipments

- Power weeder upto 3.5 kW

Plant Protection Equipments

- Self Propelled light weight boom sprayer

Harvesting and Threshing Equipments

- Tractor mounted potato digger elevator
- Tractor mounted groundnut digger shaker
- Power Sunflower Thresher
- Powered Maize Sheller
- Multicrop thresher
- Axial flow paddy thresher
- Powered Groundnut thresher/decorticator
- Power Maize dehusker cum sheller

Equipments for Residue Management

- Flail type straw chopper cum spreader

Post Harvest & Agro Processing Equipments

- Semi-automatic mini dal mill

4. WHO ARE THE BENEFICIARIES?

- Manufacturers of agricultural machinery.
- Research and Development Organizations.
- Agricultural Universities.
- State Agro Industries.
- Rural Financial Institutions.
- Rural Development Agencies engaged in Farm Mechanization.
- Distributors and Users of agricultural machinery.

5. TESTING FACILITY AT CCS HAU, HISAR

It will act as an important link between manufactures and users of agricultural machines as well as other agencies responsible for the introduction and popularization of farm equipments.

Two type of tests i.e commercial and confidential will be carried at the University. The commercial tests are aimed to verify declarations/claims of the manufacturer/applicant for performance characteristics of machines that are in or ready for commercial production. Confidential tests are carried out for providing confidential information on the performance of the machine, whether ready for commercial

production or not or to provide any specific data that may be required by the manufacturer/applicant.

6. REGULATIONS FOR TESTING

Two categories of test viz. **(1) Commercial** and **(2) Confidential** will be carried out at Department of Farm Machinery and Power Engineering (FMPE), College of Agricultural Engineering and Technology (COAE&T), Chaudary Charan Singh Haryana Agricultural University (CCSHAU), Hisar.

1. Commercial Tests are for establishing performance characteristics of machines that are in or ready for commercial production. The following types of commercial tests will be undertaken:
 - a) Initial commercial tests on indigenous or imported prototype machines ready for commercial production.
 - b) Batch test on machines which have already undergone initial commercial test and/or are being manufactured commercially in the country.
 - c) Test in accordance with OECD Standard Test Code: shall be undertaken on machines (which have already undergone initial commercial test) on the specific request of the manufacturer/applicant, exclusively for export purposes.
2. Confidential Tests are for providing confidential information on the performance of machines, whether ready for commercial production or not or to provide any special data that may be required by the manufacturer/applicant.

6.1. GENERAL REGULATIONS GOVERNING ALL TESTS

1. Machines may be tested at the request of the manufacturer/accredited importers referred to as “Applicant” herein after on the prescribed form. (Proforma given at Annexure-III).
2. Tests will be carried out at the Department of Farm Machinery and Power Engineering (FMPE), College of Agricultural Engineering and Technology (COAE&T), Chaudary Charan Singh Haryana Agricultural University (CCSHAU), Hisar hereinafter referred to as ‘Testing Authority’ to whom application on prescribed form may be addressed.
3. All the tests will be conducted as per BIS Test Code. If for any machine/component the BIS test code is not available, the test code shall be framed by the Testing Authority whose decision shall be final.
4. The amount of test fee as indicated in the Annexure-IV will have to be deposited before the machine is tested.
5. The machinery will be delivered by the applicant at the testing Institute
 - i. Parts of assemblies of machines worn out or damaged during test shall be replaced/repared by the applicant free of cost within the time specified by the Testing Authority.

- ii. In case some parts are required by the Testing Authority for destructive tests, these shall be arranged free of cost by the applicant.
 - iii. In case, any services are provided by the Testing Authority these will be charged for.
6. The cost of laying foundation, fixtures, etc. which are not normally available at the Institute and which are found necessary for working of the machine under test and all special store items shall be borne by the applicant.
 7. Parts and assemblies of machines worn out or damaged during the test may be handed over at the discretion of the Testing Authority only after the test report has been released.
 8. The applicant will make his own arrangement to collect the machine within one month of intimation by the Testing Authority. If the applicant fails to remove the machine in this period, the applicant will be liable for payment of ground rent as fixed by the Testing Authority for a period not exceeding four months. After the expiry of 3 month one month notice will be served on the applicant by the Testing Authority. If the applicant fails to remove the machine within the period the machine will become the property of the University and may be disposed of by auction at the discretion of the Testing Authority.
 9. If any un-patented machine or a machine in respect of which a proper application for patent has not been duly made, is submitted for test, it will not be published or disclosed to the public by the University and the matter will be treated as confidential so that the right of the investor or a person claiming through him to get a patent for the machine is not prejudiced.
 10. If in the course of testing a machine/component, any invention/and/or developments originate from the University, the University may at its discretion take out separate patents to protect the subject matter invented and/or developed.
 11. If a machine submitted for confidential test has been tested as per relevant commercial test procedure and the procedure followed for commercial testing has been observed in all respects, then on the request in writing of the applicant, the confidential test report may be converted to commercial report.

6.2. ADDITIONAL REGULATIONS GOVERNING COMMERCIAL TESTS

1. If a machine is already in commercial production in India, the sample for batch test shall be new and be selected by the Testing Authority or his accredited representative at random from series production. No alteration/modification that would alter its practical performance shall be allowed thereafter.

2. i) The commercial test report may be used commercially by the applicant and may be published in full without any alteration or omission. No extract or abbreviated version shall be published without the written approval of the Testing Authority.

ii) The applicant may mention in advertisement that the machine/component has been tested at the Chaudary Charan Singh Haryana Agricultural University

(CCSHAU) and shall invariably quote the number of the Test Report in the Advertisement. All the pamphlets or advertisements meant for public should indicate only performance values observed by the Testing Authority.

3. The University reserves the right to publish or to communicate to any person or body the results either wholly or in part together with such comments and additional information as they think desirable.

5. In case of machines which are marketed and are not tested for the benefit of the farmers, the University on the direction of the Government, reserves the right to carry out commercial test on any such machine sold in the country and to publish the results thereof.

6. In case of damage to or breakdown of any particular component during the course of testing, the applicant may replace the part with a new one having the same specifications. Testing Authority may at its discretion permit replacement of any component which the applicant has learnt is defective on account of material or workmanship. However, replacement of complete assemblies shall not be permitted. If major breakdown occurs, necessitating replacement of major assemblies, the applicant may be allowed to withdraw the machine.

7. In case the machine is withdrawn from test because of reasons stated above the applicant shall have to submit another machine after incorporation of required changes or replacements. The test report of the first machine containing the results of tests conducted and clearly stating the reasons for non-completion of tests, shall be released immediately after withdrawal of the machine from test. The test report of second machine shall contain a reference to the testing of the earlier machine.

6.3. ADDITIONAL REGULATIONS GOVERNING CONFIDENTIAL TEST

1. Results obtained will be the property of the applicant and will not be communicated to any person or body without the applicant's consent. The applicant shall neither publish the report nor any extract from it nor divulge test results to any other person or body without prior written approval of the Testing Authority. The report shall not be used for commercial purposes.

2. In case of confidential test, adjustment, modification or alteration in the machine may be permitted at the discretion of Testing Authority.

6.4. GENERAL CONDITIONS

1. The applicant shall supply in English three copies each of published literature, detailed specifications, operator and service (workshop) manuals and illustrated parts catalogue of the machine. Any other details required by the Testing Authority shall also be supplied. These shall be retained at the University.

2. The operation, maintenance and servicing of the machine shall be carried out according to the procedure laid down in the manufacturer's printed literature unless otherwise specified by the applicant prior to the commencement of the test. Where choices of adjustments or operating conditions are made by the applicant, the guide in making such choices will be the one suitable for general operations. In case of doubt, the opinion of the Testing Authority will be deemed as final.
3. (a) It will be the responsibility of the applicant to ensure that the machine is in good condition. In case the machine requires running-in the same will be carried out, in consultation with the Testing Authority, before submission of machine for testing. Details of running in should be supplied by the applicant at the time of submitting application.
 (b) Facilities to tune-up, adjust and initially set up and run-in of the machine before the actual tests commence will be allowed to the applicant. In case of commercial testing, no adjustment shall ordinarily be permitted during the actual tests.
 (c) Two representatives of the applicant with proper letter of authority will be permitted to witness the test at the discretion of the Testing Authority. The representatives may be allowed to collect necessary factual data about the performance of the machine on the clear understanding that the name of the Testing Authority shall not be associated with any data so collected by the representative or published by the applicant.
 (d) Permission to collect the data on performance of machine during the tests shall be granted at the discretion of the Testing Authority.
4. Neither the Testing Authority nor anybody engaged in his behalf for conducting tests will be held responsible for any accident, damage or loss whatsoever, to the machine/component/equipment which may occur while in custody, storage, transit and/or during the tests.
5. When special tests are required to be carried out, all expenditure will be payable by the applicant.
6. The schedule of fees may be reviewed and altered if necessary with reference to cost of maintenance of equipment and apparatus used and labour and time spent on testing, with the approval of the Vice-Chancellor of the University.
7. The applicant shall also supply special tools, if any, required for servicing, adjustment, major repairs of the machine along with list thereof.
8. In the case of machine which during tests are also required to be run on public roads, the applicant will arrange for necessary permission under the Motor Vehicles Act if so required.
9. For component tests such as agricultural discs, ploughs, shares, cultivator tines etc. the applicant should supply a complete unit of the standard machine for which

the components are meant to be fitted. In case of agricultural discs, a complete disc harrow and/or also plough should be submitted if required by the Testing Authority.

10. The testing of machine/components shall be commenced by the Testing Authority only after completion of all formalities by the applicant as indicated in these regulations.
11. On completion of test and payment of testing charges in full a copy of the 'draft' test report shall be made available to applicant for scrutiny and comments. In the case of applicants in India, the applicant shall furnish comments within 15 days, and for the applicants from abroad or in case where the reports are to be referred to the principals in a foreign country, the comments should be furnished in 40 days time. In case the applicant fails to submit comments within the stipulated time, the Testing Authority may release the final test report. In case of commercial test report, such of the applicant's comments which contribute technically to the contents of the test report will be included in the test report under a separate chapter referred to as "Applicant's comments" at the discretion of the Testing Authority.
12. Three copies of the test report shall be supplied to the applicant free of cost.
13. The test report issued by the Testing Authority on a particular model or sample of machine/implement/component etc. applied only to that particular model/brand submitted for test.
14. The test reports issued by the Testing Authority contain only the data obtained on a particular sample of a model/brand tested by the Testing Authority but these do not in anyway signify the approval of the Government or the Testing Authority of the models or samples tested.
15. No interim test reports shall be issued on a machine while under test.
16. The University reserves the right to change these regulations at any time as may be found necessary without any notice to anybody and such changes will be binding on all concerned.

7. SENIORITY OF THE APPLICANT

1. **As soon as the testing of machinery comes under operation, applicants will be invited to submit their applications and sufficient time period (15 days) will be given to them. After that the seniority of applicants will be determined by draw of lots in the presence of applicants.**
2. **Once the testing of machinery is operationalized, the Seniority of the applicant will be determined from the date of submission of application. If two or more**

applicants are received on the same day, decision will be based on the receipt no.

- 3. Any new implement/equipment recommended by Govt./Semi. Govt institution may be tested on priority basis at the discretion of the Testing Authority.**
- 4. However, Vice-Chancellor shall have full powers to make changes/relax in the above guidelines.**

8. DEVELOPMENT OF TEST CODE AND PROCEDURE

Bureau of Indian Standards has published Indian Standards on majority of agricultural machines/components being used in the country. Testing of machine is done as per relevant Indian Standards. In case, Indian Standard has not been formulated for any particular machine, test code and procedure matching the essential requirements of that machine will be prepared by the University and the same will be adopted for testing purposes.

The University will also assist in formulation of various Standards of International Organization for Standardization (I.S.O.) through Bureau of Indian Standards.

8. HOW TO AVAIL TESTING FACILITIES

The applicant has to submit an application duly completed to the University as per prescribed format. After receipt of application, the University fixes the priority and informs the applicant to deposit testing fee. Thereafter, applicant is asked to submit the test sample as per procedure to the testing authority for testing and evaluation.

The testing fee has to be remitted by way of demand draft drawn in favour of the Head, Farm Machinery and Power Engg. & payable at State Bank of India, Hisar (Haryana). The testing fee can be revised from time to time.

ANNEXURE-I

F.No.8-1/2004-My.(I&P)
GOVERNMENT OF INDIA
 Ministry of Agriculture
 Department of Agriculture & Cooperation
 (M&T Division)

Krishi Bhawan, New Delhi
 Dated the 14th September, 2010.

To

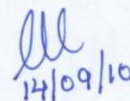
Principal Secretary / Secretary (Agriculture)
 All States & UTs.

Subject: Ensuring supply of quality agricultural machinery and equipment under Governmental programmes.

Sir,

Reference is invited to this Department's letter No.12-10/2005-M&T (I&P) dated 8th April, 2009 on the above subject. Based on the feedback from the State Governments and after taking into consideration the recommendations of the Technical Committee constituted to examine this matter, the department has brought out revised guidelines for ensuring supply of quality agricultural machinery and equipments under governmental programmes and schemes.

A copy of revised guidelines is enclosed herewith for information and necessary action.


 14/09/10

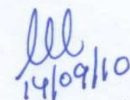
(S.K.G. Rahate)

Encl: As above.

Joint Secretary to the Government of India.

Copy for information & necessary action to:-

1. Vice Chancellor / Head of the Deptt. / Director / Deans of all twenty one institutions as per Annexure – II.
2. Director of Agriculture / Director (Agriculture Engineering) / Chief Engineers of all States & UTs.
3. Director, all Farm Machinery Training and Testing Institutes.


 14/09/10

(S.K.G. Rahate)

Joint Secretary to the Government of India.

ANNEXURE-I Contd..

फा.सं.-8-1/2004-मशीनरी (आई एण्ड पी)

भारत सरकार

कृषि मंत्रालय

कृषि एवं सहकारिता विभाग

कृषि भवन, नई दिल्ली

दिनांक 14 सितम्बर, 2010

सेवा में,

प्रधान सचिव/सचिव (कृषि)

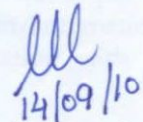
सभी राज्य एवं के.शा.प्रदेश

विषय: राजकीय कार्यक्रमों के तहत गुणवत्ताप्रद कृषि मशीनरी एवं उपकरणों की आपूर्ति की सुनिश्चितता ।

महोदय,

उपरोक्त विषय पर इस विभाग के पत्र सं.-12-10/2005-एम एण्ड टी (आई एण्ड पी) दिनांक 8 अप्रैल, 2009 का संदर्भ ग्रहण करें । राज्य सरकारों से प्राप्त फीडबैक के आधार पर और इस मामले की जांच के लिए गठित तकनीकी समिति की सिफारिशों को ध्यान में रखते हुए, विभाग ने राजकीय कार्यक्रमों एवं स्कीमों के तहत गुणवत्ताप्रद कृषि मशीनरी एवं उपकरणों की आपूर्ति की सुनिश्चितता के लिए संशोधित दिशानिर्देश तैयार किये हैं ।

संशोधित दिशानिर्देशों की एक प्रति सूचनार्थ एवं आवश्यक कार्यवाही हेतु संलग्न कर दी गई है ।


14/09/10

(एस.के.जी रहाटे)

संयुक्त सचिव, भारत सरकार

संलग्नक: उपर्युक्त

सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रति प्रेषित:

1. कुलपति/विभागाध्यक्ष/निदेशक/अनुबंध II के अनुसार सभी इक्कीस संस्थानों के डीन को
2. कृषि निदेशक/निदेशक (कृषि अभियांत्रिकी)/सभी राज्यों/के.शा.प्रदेशों के मुख्य अभियन्ता
3. निदेशक, सभी कृषि मशीनरी प्रशिक्षण एवं परीक्षण संस्थान ।

ANNEXURE-I Contd..

Guidelines for Ensuring Supply of Quality Agricultural Machinery and Equipment under Governmental Programmes and Schemes (Revised: September 2010)

- (i) The State Governments shall ensure that the agricultural machinery and equipment including equipment with new technology as per **Schedule – A of Annexure-I** are tested and certified by the Farm Machinery Training & Testing Institutes (FMT&TIs) **only** before they are supplied under any government assisted programmes. Tractors shall be tested by the CRFMT&TI, Budni (MP), Combine harvesters by the NRFMT&TI, Hissar (Haryana) and Power tillers by the SRFMT&TI, Garladinne (AP). Remaining agricultural machinery and equipment shall be tested by the NRFMT&TI, SRFMT&TI and NERFMT&TI, Biswanath Chariali (Assam).
- (ii) The State Governments shall also ensure that agricultural machinery and equipment including equipments with new technology as per **Schedule – B of Annexure – I** are tested and certified either by the **FMT&TIs** or by DAC approved **twenty one (21) Agricultural Institutions** as per the list enclosed as **Annexure – II** before they are supplied under any government assisted programmes.
- (iii) The State Governments should make their own arrangement for ensuring the quality of the agricultural machinery and equipment outside the list as per Annexure-I before they are supplied under Government assisted programmes. The State Governments may get the equipment tested and certified, if considered necessary, through institutions such as any Department of State Agricultural University (SAU), Engineering College, ICAR institutions, Krishi Vigyan Kendra (KVK) or any other research institute designated by the State Governments. The test reports released by these designated institutions may be relied upon by all the State Governments. The suggestive list of required infrastructure for testing of agricultural machinery and equipment is enclosed at **Annexure -III** for guidance.
- (iv) The institutions designated as per the list enclosed as Annexure – II or the Institutions designated by the State Governments shall carry out the testing as per relevant Indian Standards. If, the Indian Standard is not available, the testing may be carried out as per any other relevant International standard. In case of non-availability of Indian/International Standard, the Institutions may devise appropriate procedure in consultation with the manufacturer. They may also seek guidance from FMT&TIs.
- (v) Any other newly developed or imported machinery which is not covered under the list enclosed as Annexure – I but needs performance evaluation before introduction into the Indian agriculture sector shall be tested by either FMT&TIs or approved Institutions listed as per Annexure – II or by Institutions identified by the State Govts. before they are supplied under government assisted programmes.
- (vi) The State Governments should have a system of random pre and/or post dispatch checks of agricultural equipment being promoted through Governmental Programmes.
- (vii) The equipment such as Plant Protection equipment, irrigation equipment and diesel engines etc. are currently covered under BIS certification. Therefore, such equipments having ISI mark may be considered for promotion under Governmental programmes and schemes.
- (viii) The Power operated thresher, power operated sugarcane crusher and power operated chaff cutter are covered under the purview of Dangerous Machines (Regulation) Act 1983. It may therefore, be ensured that these equipment conform to necessary requirements of Dangerous Machines (Regulation) Rules 2007 published vide Gazette Notification No. G.S.R. 506 (E) dated 24th July 2007 or as modified from time to time.

ANNEXURE-I

Schedule-A

Annexure-I

SCHEDULE - A

LIST OF AGRICULTURAL MACHINERY AND EQUIPMENTS TO BE TESTED ONLY AT FARM MACHINERY TRAINING AND TESTING INSTITUTES (FMT&TIs) OF THE DEPARTMENT OF AGRICULTURE AND COOPERATION, MINISTRY OF AGRICULTURE, GOVERNMENT OF INDIA

S.N.	Name of Equipment/Machine
A	Land Development, tillage and Seedbed preparation Equipments
1	Tractor
2	Power Tiller
3	Cultipacker (Tractor Mounted)
4	Pulverizing Roller (Tractor drawn)
5	Laser land leveler
B	Sowing & Planting Equipment
6	Self- propelled Paddy Transplanter/Mat type power operated paddy transplanter
7	Multi-crop Planter (Tractor Driven)
8	Vegetable Transplanter (Tractor drawn)
9	Tractor Drawn Pneumatic Planter
10	Roto Till drill/Strip till drill/Happy combo seeder
C	Intercultivation Equipments
11	Power Weeder more than 3.5KW
12	Light Weight Power Tiller
D	Plant Protection Equipment
13	Tractor mounted sprayer
14	Self propelled high clearance sprayer
15	Aeroblast sprayer/Orchard Sprayer
E	Harvesting & Threshing Equipments
16	Combine Harvester (Self Propelled/Tractor Powered)
17	Self propelled vertical conveyor reaper/binder
18	Tractor/power tiller drawn vertical conveyor reaper
19	Self propelled forage harvester
20	Hadamba/syndicator thresher
F	Equipments for Residue Management
21	Tractor Driven Straw Shredder
22	Tractor Driven Straw Baler
23	Feed- Block making Machine
24	Tractor Driven Forage Harvester
G	Post Harvest & Agro Processing Equipments
25	Rubber roll rice sheller

ANNEXURE-I Schedule-B

Annexure-I (CONTINUED)

SCHEDULE - B

LIST OF AGRICULTURAL MACHINERY AND EQUIPMENTS TO BE TESTED EITHER AT FMTTIs OR APPROVED AGRICULTURAL INSTITUTIONS LISTED AS PER ANNEXURE –II

S.N.	Name of Equipment/Machine
A	Land Development, tillage and Seedbed preparation Equipments
1	Hydraulically Reversible MB Plough
2	Combined Tillage Tool (Tractor drawn)/Integrated tool bar
3	Rotavator
4	Cultivator
5	Disc / M.B. Plough
6	All types of Harrows
B	Sowing & Planting Equipment
7	Tractor Driven Potato Planter
8	Tractor Driven Ridger Seeder
9	Tractor Driven Groundnut Planter
10	Raised-bed Planter
11	Tractor Drawn Sugarcane Cutter Planter
C	Intercultivation Equipments
12	Power Weeder up to 3.5KW
D	Plant Protection Equipment
13	Self propelled light weight boom sprayer
E	Harvesting & Threshing Equipments
14	Tractor mounted potato digger elevator
15	Tractor mounted groundnut digger shaker
16	Power Sunflower thresher
17	Powered maize sheller
18	Multicrop thresher
19	Axial flow paddy thresher
20	Powered Groundnut thresher/decorticator
21	Power Maize dehusker cum sheller
F	Equipments for Residue Management
22	Flail type straw chopper cum spreader
G	Post Harvest & Agro Processing Equipments
23	Semi-automatic mini dal mill



ANNEXURE-II**ANNEXURE – II****List of Institutions approved by the Dept. of Agriculture and Cooperation,
Min. of Agriculture, Govt. of India for testing and certifying Agricultural
Machinery and Equipments**

1. Acharya N G Ranga Agricultural University, Agricultural Research Institute, Rajendra Nagar, Hyderabad, **Andhra Pradesh**
2. Faculty of Agricultural Engineering, Rajendra Agricultural University, Pusa, **Bihar**
3. College of Agricultural Engineering and Technology, Gujarat Agricultural University, Junagarh, **Gujarat**
4. SK University of Agricultural Sciences and Technology of Kashmir, Directorate of Research, Srinagar, **Jammu & Kashmir**
5. College of Agricultural Engineering and Technology, CCSHAU, Hisar, Haryana
6. Birsa Agricultural University, Kanke, Ranchi, **Jharkhand**
7. University of Agricultural Sciences, Bangalore, **Karnataka**
8. College of Agricultural Engineering, UAS, Raichur, **Karnataka**
9. College of Agricultural Engineering, Kerala Agricultural Engineering, Tavanur, Kerala
10. Central Institute of Agricultural Engineering, Bhopal, **Madhya Pradesh**
11. College of Agricultural Engineering and Technology, BSKVV, Dapoli, **Maharashtra**
12. College of Agricultural Engineering and Technology, Maratwada Agricultural University, Parbhani, **Maharashtra**
13. Division of Agricultural Engineering, Indian Agricultural Research Institute, **New Delhi**
14. College of agricultural Engineering and Technology, Orissa University of Agriculture and Technology, Bhubaneswar, **Orissa.**
15. College of Agricultural Engineering and Technology, Punjab Agricultural University, Ludhiana, **Punjab**
16. College of Technology and Engineering, Maharana Pratap University of Agriculture and Technology, Udaipur, **Rajasthan**
17. College of Agricultural Engineering and Post Harshrest Technology, Ranipool, Gangtok, **Sikkim**
18. Tamil Nadu Agricultural University, Coimbatore, **Tamil Nadu.**
19. Sam Higginbottom Institute of Agriculture, Technology and Sciences, Allahabad , **Uttar Pradesh**
20. College of Technology, Gobind Ballabh Pant University of Agriculture and Technology, Pantnagar, **Uttaranchal**
21. Department of Agriculture and Food Engineering, Indian Institute of Technology, Kharagpur, **West Bengal**

ANNEXURE-III**Important Note**

1. The applicants should apply in the prescribed format. The prescribed format can also be downloaded from the website <http://hau.ernet.in>. Photostated application forms are also acceptable.
2. No application fee has to be submitted at the time of deposit of application form.
3. The application form **must be** accompanied by the following
 - a) Technical Specification of the machine
 - b) Engineering drawing of the machine
 - 1) Isometric view
 - 2) Exploded view
 - 3) Power Transmission diagram
 - c) Operator Manual in English and one vernacular language
 - d) Spare parts catalogue

FORMAT OF APPLICATION FOR TESTING OF AGRICULTURE MACHINES

	DEPARTMENT OF FARM MACHINERY AND POWER ENGINEERING COLLEGE OF AGRICULTURAL ENGINEERING AND TECHNOLOGY CCS HARYANA AGRICULTURAL UNIVERSITY HISAR-125004, HARYANA	
Phone: 01662-255447 Fax. No. 01662-284313		e-mail: fpm@hau.ac.in http://hau.ac.in hau.machinerytesting@gmail.com

1.	Name of the applicant	
		Address <hr/> <hr/> <hr/>

State:		
Pin Code		
	Contact No.	
	e-mail address	

1.	Name of the manufacturer	
		Address <hr/> <hr/> <hr/>

State:		
Pin Code		
	Contact No.	
	e-mail address	
	GST No.	

3.	If the applicant is not the manufacturer, capacity in which the testing has been requested to (as authorized importer/ distributor / designer / respective manufacturer)
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4.	Details of the machine to be submitted for test	
	a) Type	
	b) Make	
	c) Model	

5.	Type of work the machine or component has been designed for and special features of the machine, if any.
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6.	Whether the machine submitted for testing is a prototype or commercial model. (Tick the relevant)	
	<input type="checkbox"/> Indigenous Prototype	<input type="checkbox"/> Imported Prototype
	<input type="checkbox"/> Commercial Prototype	<input type="checkbox"/> Confidential Prototype
7.	Nature of test (Commercial or confidential)	
	<input type="checkbox"/> Commercial	<input type="checkbox"/> Confidential
8.	If confidential specify details of test submitted for	
9.	Total number of machines (as in 4 above produced/imported since inception to till date.	
10.	Whether all the parts are produced indigenously. If no, attach list of imported parts.	
	<input type="checkbox"/> Yes	<input type="checkbox"/> No
11	Period suitable for random selection of the machine (in case of machines already in commercial production & sale)	
12.	i) Type of accessories and attachments that are sold along with the machine.	
	a) _____	b) _____
	c) _____	d) _____
	e) _____	f) _____
	ii) Accessories and attachments proposed to be sent with the machines for test	
	a) _____	b) _____
	c) _____	d) _____
	e) _____	f) _____
13.	List of enclosures (Tick the relevant) <i>(To be supplied in duplicate)</i>	
	a) Specification of machine	<input type="checkbox"/> Yes <input type="checkbox"/> No
	b) Operator's manual	<input type="checkbox"/> Yes <input type="checkbox"/> No
	c) Service manual	<input type="checkbox"/> Yes <input type="checkbox"/> No
	d) Any other printed literature	<input type="checkbox"/> Yes <input type="checkbox"/> No
	e) Printed literatures in respect of various items listed in 12(ii)	<input type="checkbox"/> Yes <input type="checkbox"/> No
14.	Indicate the no. of additional copies of the test report required.	
15.	Whether testing fee is remitted.	
	<input type="checkbox"/> Yes	<input type="checkbox"/> No

	If yes specify the details of remittance. Amount :Rs. Bank draft No.: Dated:
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16.	Do you propose to depute representative to witness the test <div style="text-align: center;"> <input type="checkbox"/> Yes <input type="checkbox"/> No </div>
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17.	Additional information if any:	
	i) Whether machine has been tested earlier in India/Foreign country (if so attach a copy of the test report)	<input type="checkbox"/> Yes <input type="checkbox"/> No
	ii) In case of Power Thresher details of safety chute may be indicated on the lines of relevant Indian Standard.	
	iii) Any other details.	

DECLARATION

I have read the Regulations for the Testing of Agricultural Machinery at Deptt. of Farm Machinery and Power Engg., CCS Haryana Agril. University, Hisar and hereby agree to abide by all terms and conditions of the test. It is also certified that this machine has not been tested earlier from any Govt. of India approved testing centre.

Signature _____
 Name of the signatory _____
 Designation _____
 Address _____

Place:

Date:

PRECONDITIONS FOR SUBMITTING MACHINES FOR
INITIAL COMMERCIAL TEST

Make and Model of machine:

- (a) The specification of the machine submitted for test should confirm to the production model which the manufacturer proposes to introduce.
- (b) The test will be carried on the machine as it stands together with accessories and attachments essential to the satisfactory performance of the machine. The applicant will not be allowed to introduce alterations or modifications which should affect its normal performance during the progress of test. If any major modification or alteration is considered necessary, the applicant should withdraw the machine and resubmit the machine with fresh application for testing.

Place	:	Signature	:	-----
Date	:	Name of the Signatory	:	-----
		Designation	:	-----
		Address	:	-----

ANNEXURE-IV

**DEPARTMENT OF FARM MACHINERY AND POWER ENGINEERING
COLLEGE OF AGRICULTURAL ENGG. & TECH.,
CCS HAU, HISAR**

**Testing charges for testing of farm machinery
for the year 2022-23**

Name of equipment/machine to be tested	Testing fee* (Rs.) per machine	GST 18%	Total
Components	21,364	3,846	25,210
Power operated thresher, decorticator, sheller, winnower etc.	85,389	15,370	1, 00,759
Tractor drawn / operated implements / equipments: Rotavator, Cultivator, Harrow, Plough etc	1,45,177	26,132	1,71,309
Power tiller driven/self propelled reaper, power weeder (walk behind) etc.	85,389	15,370	1, 00,759
Tractor drawn/operated seed cum fertilizer drill/planter, straw reaper, Potato digger	1,52,281	27,411	1,79,692
Self propelled paddy transplanter, vegetable transplanter	2,07,787	37,402	2,45,189
Power operated multi-crop thresher (two or more crops)	1,56,562	28,182	1,84,743
Plant protection equipments: Manual/Battery operated	48,822	8,788	57,610
Plant protection equipments: Power operated	1,28,194	23,075	1,51,269

- The above rates will be valid upto 31st March, 2023. After that, every year there will be an increase of 15% in the testing fees.
- The testing fee and GST should be deposited in the shape of Demand draft (two separate DDs) in favour of “**COMPTROLLER, CCSHAU, HISAR**”

