



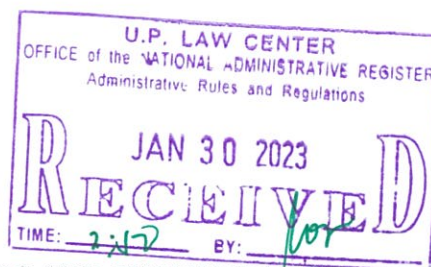
Republic of the Philippines
OFFICE OF THE SECRETARY
Elliptical Road, Diliman
1100 Quezon City

BAFE

DEPARTMENT CIRCULAR

No. 02

Series of 2023



SUBJECT: REVISED NATIONAL GUIDELINES ON TESTING AND EVALUATION OF AGRICULTURAL AND FISHERIES MACHINERY

Pursuant to the Section 18 of the Agricultural and Fisheries Mechanization (AFMech) Law of 2013 and its Implementing Rules and Regulations, the Department Circular No. 05, Series of 2017 as amended by Department Circular No. 10, Series of 2018 is hereby revised. The following shall be the implementing guidelines on the testing and evaluation of agricultural and fisheries machinery for guidance and enforcement of all government agencies, departments, bureaus, offices, or instrumentalities of the Government, private entities, farmers and fisherfolks.

**ARTICLE I
GENERAL PROVISIONS**

SECTION 1. Objective

This is to revise the guidelines prescribed in the DC 05, Series 2017 which aims to provide government offices and private sector with a framework for implementing the testing and evaluation of agricultural and fisheries machinery, thus ensuring the quality, safety and compliance to standards and specifications of machinery and equipment supplied to the market, guiding the manufacturers, fabricators, assemblers, dealers, distributors, importers, and exporters (MFADDIEs) in the improvement and development of machinery, and safeguarding the interest of farmers and fisherfolks, as envisioned under RA No. 10601.

SECTION 2. Scope

The revision of this Circular shall cover the policies and mechanisms in the conduct of testing and evaluation of agricultural and fisheries machinery before it can be procured or sold in the market and/or accepted by the procuring entity. It shall likewise include the institutional arrangements, Certification of Test Engineers, establishment of certification registry, and provision of capacity building activities.

SECTION 3. Definition of Terms

For the purpose of this Circular, the following definitions shall apply:

- a. **Accredited Testing Center (ATC)** – any private or government entity and Higher Education Institutions (HEIs) which has the capacity to measure, examine, test, calibrate or otherwise determine the characteristics and performance of agricultural and fisheries machinery and has undergone accreditation by the Bureau of Agricultural and Fisheries Engineering (BAFE).
- b. **Agricultural and Fisheries Machinery** – refers to machinery and equipment for the production, post-production, harvesting, processing, storage, manufacture, preserving, transporting and distribution of agricultural and fisheries products and by-products. It includes, but not limited to, tractors and their attachments, power tillers, seeders, transplanters, windmills, harvesting machines, crop protection and maintenance equipment, irrigation equipment and accessories, greenhouses and other thermal conditioning equipment, livestock equipment, fishery equipment, slaughtering

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equipment, meat/fishery and crop processing equipment, postharvest machines such as milling machines, dryers, threshers and fiber extraction machines.

- c. **AMTEC Branch (Satellite) Center** – a satellite testing center located in Visayas and Mindanao which is formally recognized by the University of the Philippines Los Baños – Agricultural Machinery Testing and Evaluation Center (UPLB – AMTEC) as one of its official branches in testing and evaluation of agricultural and fisheries machinery.
- d. **Certification** - the provision by an independent body of written assurance (a certificate) that the person, product, service or system in question meets specific requirements.
- e. **Certified Test Engineer (CTE)** – a licensed Agricultural and Biosystems Engineer (ABE) who is certified to perform testing and evaluation of agricultural and fisheries machinery pursuant to RA 10915.
- f. **Construction Machinery** - refers to machinery and equipment used to execute construction tasks or process materials intended for construction use.
- g. **Evaluation** – is the process of assessing a machine or equipment, preferably in numerical or quantitative terms relative to statutory requirements and/or specific standards.
- h. **Field Testing** – also called as confirmatory testing.
- i. **Garden Tools/Equipment** - refers to tools and equipment intended to use for gardening or landscaping.
- j. **Household Machinery** - refers to machinery and equipment that is used for dwelling; machinery which is less than the minimum threshold indicated in Annex A.
- k. **Industrial Machinery and Equipment** – refers to machinery used in a specific trade or manufacture and includes but is not necessarily limited to large facilities and construction equipment. Industrial machinery and equipment mean machinery and equipment used by a manufacturer in a manufacturing plants/establishment; machinery which is more than the maximum threshold indicated in Annex A.
- l. **Laboratory Machinery/Equipment** - refers to various tools and equipment used to or involved in generating the results of an analysis or testing.
- m. **Philippine National Standards/Philippine Agricultural and Biosystems Engineering Standards (PNS/PABES)** – standards used for the preparation and monitoring of specifications and test and evaluation of machine and equipment performance and serve as technical reference by all agricultural and biosystems engineers in the practice of their profession.
- n. **Secondary Processing Machinery**- refers to machinery and equipment turning the primary product into another product affecting its chemical properties.
- o. **Testing** – is the systematic and objective process of assessing the construction and performance of a machine or equipment using specified repeatable procedures.
- p. **Test Report (TR)** – a technical report showing the description, performance and conditions of the machine, method of test used, result of test as well as photographs of the machine, issued by the AMTEC or accredited testing center.

- q. **Transport Machinery** - refers to machinery and equipment used in carrying off-field food/goods transportation operations without affecting its chemical and physical properties.

ARTICLE II
TESTING AND EVALUATION ACCREDITATION ADVISORY COMMITTEE

SECTION 4. Creation of Testing and Evaluation Accreditation Advisory Committee

The Testing and Evaluation Accreditation Advisory Committee (TEAAC) shall be created and composed of representatives from concerned DA and other agencies namely:

Chairperson:

- University of the Philippines Los Baños – Agricultural Machinery Testing and Evaluation Center (UPLB – AMTEC)

Members:

- Metals Industry Research and Development Center – Department of Science and Technology (MIRDC-DOST)
- Philippine Center for Postharvest Development and Mechanization (PhilMech)
- Philippine Council for Agriculture and Fisheries (PCAF)
- Philippine Society of Agricultural and Biosystems Engineers (PSABE)
- Professional Regulatory Board of Agricultural and Biosystems Engineering (PRB-ABE); and
- University of the Philippines Los Baños - Center for Agri-Fisheries and Biosystems Mechanization (UPLB-BIOMECH)

Other concerned agencies and offices may be invited when deemed necessary.

The Testing and Evaluation Accreditation Advisory Committee shall perform the following functions:

- a. Review and recommend to the BAFE Director the granting of Certificate of Conformity for agricultural and fisheries machinery;
- b. Review and recommend to the BAFE Director the granting of Certificate of Accreditation to Testing Centers; and
- c. Review and recommend to the BAFE Director the suspension, revocation and reinstatement of Certificate of Conformity, and Certificate of Accreditation to Testing Centers.

The BAFE shall act as the secretariat for all matters concerning the activities of the TEAAC and in the performance of their duties.


SECTION 5. Funding

Funding for the operationalization of TEAAC shall be incorporated in the regular funds of BAFE.

ARTICLE III
TESTING AND EVALUATION OF AGRICULTURAL AND FISHERIES MACHINERY

SECTION 6. Testing and Evaluation of Agricultural and Fisheries Machinery

Republic Act No. 10601 prescribes that “all agricultural and fisheries machinery to be sold in the market shall be subjected to testing and evaluation by the UPLB - AMTEC. In addition, before it can be commercially sold in the market, the model of the machine and any modification thereof shall be tested and should pass the prescribed quality performance standards in accordance with the PNS/PABES.”

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6.1 Types of Testing and Evaluation

- a. **AMTEC Testing and Evaluation** – an objective and systematic assessment conducted by UPLB – AMTEC in accordance to PNS/PABES or other standard test procedures to determine the actual characteristics, specifications, and functional performance of the machine under laboratory and/or actual field conditions.
- b. **ATC Testing and Evaluation** – an objective and systematic assessment conducted by the Certified Test Engineers in the accredited testing center in accordance to PNS/PABES or other standard test procedures to determine the actual characteristics, specifications, and functional performance of the machine under laboratory and/or actual field conditions. Test reports that will be issued by these testing center shall be evaluated and validated by AMTEC.
- c. **Acceptance Testing** – a testing undertaken by government procuring entity as part of the procurement process to verify the acceptability of delivered machine and equipment in terms of quality and compliance to set specifications.
- d. **Field Testing** – an on-farm testing of agricultural and fisheries machinery to be undertaken by the UPLB-AMTEC or ATC to ensure consistent quality of commercial units. The Regional Agricultural Engineering Divisions (RAEDs) and Agricultural Engineering Division/Section (AED/AES) of LGUs shall assist the UPLB-AMTEC in field-testing of agricultural and fisheries machinery.
- e. **System Testing** – a level of testing that validates the performance of a complete and fully integrated several machines or facilities. The procurement of said facility such as Solar Power Irrigation System (SPIS), Multi-pass Rice Mill, Rice Processing Center, Corn Processing Facility, Cassava Processing Facility, Fruit Processing Facility, Ice Plants and Cold Storages, Tramlines or other agricultural facilities and systems of the like shall not require AMTEC testing and evaluation at the initial stage of the bidding. Testing of said facilities shall be conducted after installation.

6.2 Testing and Evaluation Process


6.2.1 AMTEC Testing

Application for AMTEC testing and evaluation including all the documentary requirements shall be submitted by the manufacturers, suppliers, and dealers to the UPLB-AMTEC in accordance with its application guidelines. AMTEC testing will be scheduled on a “first come, first served” basis with exceptions on machinery restricted by the cropping season or planting operation and availability of test materials provided that the test application has already been made in advance.

The testing of agricultural and fisheries machinery shall primarily be in accordance with PNS/PABES. For agricultural and fisheries machinery which have no PNS/PABES, the machine may be tested by AMTEC using the International Organization for Standardization (ISO) or other recognized testing standards or protocols. In which case, the testing and evaluation will be limited to conformance to specifications pending the development of PNS/PABES.

The test shall be carried out on a single unit which represents the entire series of the same model of the machine. The test results shall be valid for all machines of the same brand and model only.

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After the conduct of AMTEC test, test report shall be provided only to the party who requested for testing and to BAFE for evaluation and inclusion in the certification registry. Test reports shall be certified by Test Engineer/s who conducted the test.

The test report shall be valid for five (5) years.

6.2.2 Testing conducted by Accredited Testing Center

All documentary requirements shall be submitted by the manufacturers, fabricators, assemblers, and importers to the accredited testing center in accordance with its application guidelines. This testing will be scheduled on a "first come, first served" basis with exceptions on machinery restricted by the cropping season or planting operation and availability of test materials provided that the test application has already been made in advance.

Machinery that can be tested in the ATC shall be those that are specified in the Certificate of Accreditation (CoA).

After the conduct of test, test report shall be certified by Test Engineer/s. Test reports shall be submitted to AMTEC for review, and subsequent approval of the AMTEC Director.

The test report shall be valid for five (5) years reckoning from the date of issuance of the test report.

The test report generated by accredited test center shall be accepted as valid procurement document if it was reviewed, validated, and approved by the AMTEC

6.2.3 Field Testing

A field testing shall be performed by the UPLB-AMTEC to ensure the conformity to standards of distributed agricultural and fisheries machinery units. They shall be assisted by the certified test engineers from RAEDs or Agricultural and Biosystems Engineering Division/Section of LGUs. As part of the regulatory and enforcement functions of BAFE, field testing test reports shall be submitted to BAFE.

To require field testing if nth number of machines has been procured and deliver to ensure quality of delivered machines. The sampling method that will be used to determine the number of machines to be tested per total machines delivered will be based on PAES 103-2000.

6.2.4 Acceptance Testing

Acceptance testing shall be conducted pursuant to DA Department Circular No. 16, S. of 2020 otherwise known as the "National Guidelines on the Conduct of Acceptance Testing for Agri-fisheries Machinery".

6.2.5 System Testing

System testing shall be performed by the UPLB-AMTEC or ATC in compliance to DA Memorandum Order No. 35, S. of 2018, also known as the "Guidelines on AMTEC Testing and Evaluation of Irrigation Systems, Processing Facilities, and other Agricultural Systems of the like in the Department of Agriculture, its Regional Field Offices, Attached Agencies, Bureaus and Government-owned and Controlled Corporations (GOCCs)".

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6.3 Utilization of PNS/PABES

6.3.1 Development/Revision of PNS/PABES

As part of the standard development function of Bureau of Agricultural and Fisheries Standards (BAFS), it shall develop new standards for agricultural and fisheries machinery, as mandated under the AFMech Law. For newly developed agricultural and fisheries machinery, technology generators should coordinate with BAFS for the development of PNS/PABES and AMTEC for the testing protocols.

Aside from performance test, the BAFS may consider the updating of the method of test in the PNS/PABES to include the conduct of the following tests as deemed necessary:

- a. **Endurance and Durability Test**
Endurance test determines the capacity of an equipment to handle its expected load for continuous period or under sustained or prolonged use, while durability test determines the duration of time an equipment can meet its performance requirements. e.g. lifetime span, or it determines characteristics of an equipment under various load conditions over time, or its fitness for purpose over its intended lifetime.
- b. **Materials Test**
Materials test determines the physical, mechanical, and chemical properties of equipment components, including but not limited to hardness, bend strength, break load, among others.
- c. **Safety Test and Inspection**
Safety test and inspection determines safety features and characteristics of the equipment and their compliance to specifications and operator safety requirements.


6.3.2 Temporary Suspension

BAFE is authorized to issue temporary suspension of certain provisions of PNS/PABES that are no longer responsive with existing technologies or inconsistent with new policies pending the updating of the PNS/PABES by the Review Committee until sufficient scientific and technical information becomes available to support its retention, amendment, or revision.

6.4 Exemptions and Miscellaneous Provisions in Testing and Evaluation

6.4.1 All agricultural and fisheries machinery to be procured for Research and Development (R&D) / pilot testing / technology demonstration of the machine may not be subjected to testing and evaluation by AMTEC, provided that a request shall be submitted to BAFE through RAED. The following are the documentary requirements for the said request:

- a. Letter of request
- b. Research/Activity/Project Proposal containing the following information:
 - i. Project title and duration
 - ii. Objective
 - iii. Methodology
 - iv. Specification of the machine
 - v. Unit and total cost of the machine
 - vi. Significance of research/activity/project

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Failure to submit all the enumerated documentary requirements will be returned and not received by BAFE RAED.

A copy of final/terminal report shall be provided to BAFE at the end of research/pilot test/technology demonstration. Failure to provide shall be the basis of disapproval of preceding request.

- 6.4.2 All agricultural and fisheries machinery without PNS/PABES and with unit cost of Php 50,000 and below may temporarily be exempted from AMTEC or ATC testing pending the formulation of PNS/PABES.
- 6.4.3 All agricultural and fisheries machinery without PNS/PABES and with unit cost above Php 50,000 shall be subjected to AMTEC or ATC testing.
- 6.4.4 Secondary processing, construction, household, industrial, laboratory, and transport machinery and equipment and garden tools and equipment (*refer to Annex A. Classification of Machinery and Equipment used in Agriculture*) that will be used in agriculture may not require AMTEC and ATC testing.
- 6.4.6 Test results generated from overseas testing shall be verified, or the machine shall be re-tested under Philippine conditions by AMTEC or accredited test center prior to commercialization.

SECTION 7. Issuance of Certificate of Conformity (CC)

A Certificate of Conformity (CC), which guarantees that the machine produced, purchased or sold in the market meets the national standards, shall be issued by BAFE for all agricultural and fisheries machinery with PNS/PABES or other relevant standards identified by BAFE.

The procedures for the issuance of Certificate of Conformity shall follow the provisions stated in the Department Circular No. 19, Series of 2018, "National Guidelines on the Issuance of Certificate of Conformity for Agricultural and Fisheries Machinery" issued by DA.

ARTICLE IV ACCREDITATION OF TESTING CENTER

SECTION 8. Accreditation of Testing Center

Agricultural and fisheries machinery testing centers shall be accredited by the BAFE. The application requirements, criteria and procedure for the accreditation shall be in accordance with the Department Circular No. 01, Series of 2023, "Revised Accreditation Guidelines for Agricultural and Fisheries Machinery Testing Centers".


ARTICLE V CERTIFICATION OF TEST ENGINEERS

Section 9. Eligibility and Application Procedures

9.1 Requirements

9.1.1 New Applications

All Agricultural and Biosystems Engineers who will perform testing and evaluation of agricultural and fisheries machinery shall apply for Certification of Test Engineers based on the following general qualifications and requirements:

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- a. Must be a Registered Agricultural and Biosystems Engineer with valid Professional Regulation Commission (PRC) Identification Card (ID);
- b. Must have assisted in/conducted testing and evaluation of at least three (3) types of machines under a particular category (see Annex C), with proper and complete documentation (i.e. test reports, certification of immediate supervisor/lead test engineer), prior to taking the CTE Examination; and
- c. Shall pass the theoretical and practical examinations on a particular category to qualify as provided in Section 10.2; and
- d. Must submit the fully accomplished application form with pertinent documents to support the application (*see Annex B*)

9.1.2 Renewal

- a. Valid ABE Professional Regulation Commission (PRC) Identification Card (ID);
- b. Any experience on testing and evaluation
 - i. Performance Testing conducted with AMTEC and/or Accredited Testing Center of at least three (3) machines with test report as certified by AMTEC
 - ii. Acceptance testing of at least five (5) machinery per year on which the CTE shall be lead test engineer in testing of at least two (2) machinery with prescribed acceptance testing report
 - iii. CTE Training on Testing and Evaluation of Agricultural and Fisheries Machinery with Certificate of Completion
- c. Unless otherwise the CTE is on long term study/training, the CTE shall be excluded on the provision provided that a notification and proof of approval on the said study/training be submitted to BAFE.

Failure to comply with the renewal requirements will lead to the expiration of the certification. Once expired, an ABE who wished to be a CTE again shall be processed as new application.

9.2 Procedures for Certification

The BAFE shall review and issue a Certificate of Qualification, which shall be valid for three (3) years from the date of its issuance.

The processing of application for the Certification of Test Engineers is 20 working days upon receipt of the complete documentary requirements.

The regular examination facilitated by UPLB-AMTEC shall be conducted semi-annually with the presence of BAFE. Examination during the requested refresher course by the region shall also be administered by UPLB-AMTEC and BAFE.

The list of certified Test Engineers shall be posted in the BAFE website.

9.3 Classification of Certified Test Engineers

There are two (2) classifications of Test Engineers, the Junior Certified Test Engineers (JCTE) and the Senior Certified Test Engineers (SCTE). A CTE shall be classified as JCTE, if the examination score of the applicants is at least 50% but not more than 60%. On the other hand, the SCTE are the applicants with examination score of more than 60%.

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9.3.1 Application for additional Categories of SCTE

He/she shall have tested five (5) machines for the applied category in which he/she served as an assistant of an SCTE with at least two (2) testing of machinery with hard level of difficulty.

9.3.2 Advancement from JCTE to SCTE

For a JCTE to become a SCTE, he/she shall be required a one year of waiting time for review, experience, or attendance to refresher course training on testing and evaluation of agricultural and fisheries machinery before the retake of the qualification examination for CTE.

For a JCTE to be a SCTE without examination, he/she shall have undergone training and tested five (5) different machines. He/she shall have tested five (5) machines for the same category in which he/she served as an assistant of an SCTE with at least two (2) testing of machinery with hard level of difficulty.

The CTE could seek the assistance of the AMTEC or ATC in gaining testing experiences by joining the testing activities in the AMTEC and ATC laboratory or off-site testing or gain experience enumerated under Section 6.2 of this Circular.

9.4 Practice of Testing and Evaluation

A JCTE shall be allowed to test machines under the easy level of the taken category and to cross over to the easy level of other categories.

An SCTE shall be allowed to test all the machines under the taken category and to cross over to the easy level of other categories.

9.5 Categories of Machines (see Annex D)

Section 10. Suspension of Certification


10.1 If in any case that the PRC license of a Certified Test Engineer expires within the duration of the certification granted, he/she shall submit a valid PRC license to BAFE. Pending the submission of the renewed PRC license, BAFE shall temporarily suspend the certification granted.

10.2 Certified Test Engineers that fail to file an application for renewal after 60 days from the date of expiration shall result to an automatic removal from the list of the Certified Test Engineers. He/she may reapply for certificate of qualification.

ARTICLE VI SCHEDULE OF FEES AND CHARGES

AMTEC or any accredited testing center is authorized to impose testing fees to cover expenses to be incurred in the conduct of the test.

The BAFE shall impose certification fee (for Certificate of Conformity) certification fee (for Test Engineer), and accreditation fee (for accredited testing center) in accordance with the Department Circular No. 08, Series of 2022 or the Revised Schedule of Fees and Charges for the Bureau of Agricultural and Fisheries Engineering (BAFE) Regulatory Services.

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**ARTICLE VII
PROHIBITED ACTS, PENALTIES AND SANCTIONS**

Section 11. Prohibited Acts

The DA-BAFE shall impose revocation after due notice and hearing to any of the following prohibited actions:

- a. Tampering of Test reports
- b. Collusion with the suppliers
- c. Commission of fraud and misinterpretation in the filling of the application and its operations.
- d. Failure to comply with the terms and conditions provided in this Circular.
- e. Refusal to give access to required documents to DA-BAFE/DA-RAED during the monitoring
- f. A CTE with expired Certificate of Qualification and/or ABE PRC ID License is prohibited to practice testing and evaluation. If the PRC license expires before the end of the validity, the CTE shall not test any machines until the renewal of the license.

Section 12. Penalties and Sanctions Procedure/s


BAFE shall impose, when warranted, any of the following applicable administrative penalties after due notice and hearing:

12.1 For MFADDIEs Manufacturers/Distributors/Dealers/Suppliers that sell agricultural machinery that are not tested, certified or conforms to the specifications and set standards:

- a. The imposition of an administrative fine, which shall be equivalent to the cost of machinery plus damages and losses incurred by the consumer;
- b. The recall, replace, seizure, forfeiture or condemnation of the agricultural and fisheries machinery or refund of the money value of defective products distributed in commerce;
- c. The withholding or cancellation of any permit, license, authority, or registration, which may have been granted by the Department, or the suspension of the Certificate of Conformity issued thereof for such period of time as the BAFE and TEAAC deem reasonable which shall not however, exceed one year; and
- d. The submission of a recommendation to the LGU concerned, through proper channel, for the cancellation/suspension of a Mayor's Business Permit for one year in case of repeated commission of violations.

12.2 For any ABEs who undertake testing without certification or provided deliberate erroneous testing and interpretation of test result:

- a. The imposition of an administrative fine, which shall be equivalent to the cost of machinery;
- b. The suspension of the Certificate of Qualification issued thereof for such period of time as the BAFE and TEAAC may deem reasonable, which shall not however, exceed one year; and
- c. The submission of a recommendation to the PRB-ABE, for the suspension or cancellation of the PRC ID as the circumstances may warrant.

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**ARTICLE VIII
FINAL PROVISIONS**

Section 13. Separability Clause

Should any provision of this Department Circular or any thereof be declared invalid, the other provisions, so far as they are separable, shall remain in force and effect.

Section 14. Repealing Clause

All existing Circulars, rules and regulations, or parts thereof, in conflict with, or inconsistent with any provisions of this Circular are hereby repealed or modified accordingly.

Section 15. Effectivity

This Circular shall take effect immediately upon complete publication. Three (3) copies of this circular shall be sent to the University of the Philippines Law Center.

Approved and promulgated this 23rd day of January 2023.


Approved by:


DOMINGO F. PANGANIBAN
Senior Undersecretary



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ANNEX A. CLASSIFICATION OF MACHINERY AND EQUIPMENT USED IN AGRICULTURE

All machinery being used in agriculture shall be classified in the table below. Other machinery with the same intended purpose and description will have the same threshold level and classification.

A. GENERAL PURPOSE

ACTIVITY	NAME OF MACHINERY	THRESHOLD		CLASSIFICATION
		Minimum	Maximum	
Tractor/Power Units	Four-Wheel Tractor	none	none	- Agricultural
	Walking-Type Agricultural Tractor - Pull Type	none	none	- Agricultural
	Walking-Type Agricultural Tractor - Rotary-tilling Type	none	none	- Agricultural
	Walking-Type Agricultural Tractor - Float-assist Type	none	none	- Agricultural
Power Source & Prime movers	Solar Panel	none	none	- Industrial
	Generator Set	none	none	- Industrial
	Electric Motor	none	none	- Industrial
	Small Engine	none	20 kW	- Agricultural - Industrial (>20kW)
	Biomass Furnace	none	none	- Agricultural
Land Preparation	Disc Harrow	none	none	- Agricultural
	Disc Plow	none	none	- Agricultural
	Moldboard Plow	none	none	- Agricultural
	Spring-tooth Harrow	none	none	- Agricultural
	Trailing Harrow	none	none	- Agricultural
	Power Harrow	none	none	- Agricultural
	Furrower	none	none	- Agricultural
	Field Cultivator	none	none	- Agricultural
	Inter-row Cultivator	none	none	- Agricultural
	Subsoiler	none	none	- Agricultural
	Ripper	none	none	- Agricultural
	Rotavator	none	none	- Agricultural
	Soil Puddler	none	none	- Agricultural
	Mulcher	none	none	- Agricultural
	Earth Auger	none	none	- Agricultural
	Front End Loader	none	none	- Industrial
	Backhoe Loader	none	none	- Industrial
	Land Leveler	none	none	- Agricultural
	Ditcher	none	none	- Agricultural
Dike Former	none	none	- Agricultural	
Drilling Rig	none	none	- Agricultural	
Crop Establishment	Drone Seeder	none	none	- Agricultural
	Hole Digger	none	none	- Garden Tools/Equipment
	Mechanical Soil Auger	none	none	- Agricultural
	Manual Soil Auger	none	none	- Garden Tools/Equipment
Crop Care	Lever-Operated Knapsack Sprayer	none	none	- Agricultural
	Power Sprayer for crops	none	none	- Agricultural - Industrial (Non-crops)
	Granular Fertilizer Applicator	none	none	- Agricultural
	Fertilizer Applicator	none	none	- Agricultural
	Boom Sprayer	none	none	- Agricultural
	Mower	none	none	- Agricultural

	Brush Cutter	none	none	- Garden Tools/Equipment
	Bolo/Machete Knife	none	none	- Garden Tools/Equipment
	Hand Sprayer	none	none	- Garden Tools/Equipment
	Drone sprayer	none	none	- Agricultural
	Chain / Power Saw	none	none	- Industrial
	Pole Pruner	none	none	- Garden Tools/Equipment
	Manual rotary weeder	none	none	- Garden tools/equipment
Transport	Hauling Truck	none	none	- Transport
	Agricultural Trailer	none	Capacity: 10 metric tons	- Agricultural - Industrial (>10 metric tons)
	Paddy Hauler	none	none	- Agricultural
	Refrigerated Van	none	none	- Agricultural
	Mobile Elevated Platform	none	none	- Agricultural
	Hauling Truck	none	none	- Transport
	Lifting Machine	none	none	- Industrial
	Manual Hand Pallet	none	none	- Industrial
Irrigation	Forklift	none	none	- Transport / Industrial
	Centrifugal Pump	none	6"	- Agricultural
	Pump & Engine Set	none	6"	- Agricultural
	Pump Set	none	6"	- Agricultural
	Drip Irrigation	none	none	- Agricultural
Drying	Sprinkler Head	none	none	- Agricultural
	Multi-crop Cabinet Type Dryer	none	none	- Agricultural
Other processing activities	Spray Dryer	none	none	- Industrial
	Jacketed Kettle	none	none	- Household / Industrial
	Bowl Cutter	none	none	- Industrial
	Spin Water Remover Machine	none	none	- Industrial
	Compost Mixer	none	none	- Agricultural
Packaging	Feed Pellet Mill	none	none	- Agricultural
	Bag Sewing Machine	none	none	- Industrial
	Weighing Scale	none	none	- Industrial
	Vacuum Pack Sealer	none	none	- Industrial
	Band Sealer	none	none	- Industrial
Conveying	Mushroom Bagging Machine	none	none	- Industrial
	Bucket Elevator	none	none	- Industrial
Storing	Chest Freezer	none	none	- Industrial
	Quick Freezer	none	none	- Industrial
	Hermetic Bag/Cocoon	none	none	- Industrial
Laboratory Test	Testing Husker	none	none	- Testing Equipment
	Testing Mill	none	none	- Testing Equipment
	Moisture Meter	none	none	- Testing Equipment
	Milling Meter	none	none	- Testing Equipment
	Grain Scanner	none	none	- Testing Equipment

B. RICE MACHINERY

ACTIVITY	NAME OF MACHINERY	THRESHOLD		CLASSIFICATION
		Minimum	Maximum	
Crop Establishment	Grain Seeder	none	none	Agricultural
	Rice Drum Seeder	none	none	Agricultural
	Mechanical Rice Transplanter	none	none	Agricultural
	Rice Precision Seeder	none	none	Agricultural
Harvesting	Mechanical Rice Thresher	none	none	Agricultural
	Rice Reaper	none	none	Agricultural
	Rice Combine Harvester	none	none	Agricultural
Postharvest	Paddy Seed Cleaner	None	None	Agricultural
	Brown Rice Stabilizer	None	None	Agricultural
	Heated Air Mechanical Grain Dryer (Mobile)	none	Capacity: 12 tons/batch	Agricultural Industrial (> 12T/batch)
	Heated Air Mechanical Grain Dryer (Recirculating)	none	Capacity: 12 tons/batch	Agricultural Industrial (> 12T/batch)
	Heated Air Mechanical Grain Dryer (Flatbed)	none	Bin Capacity: 12 tons/batch	Agricultural Industrial (> 12T/batch)
	Rice Husk Fed Heating System	none	none	Agricultural
	Fluidized Bed Dryer	none	none	Agricultural
	Collapsible Dryer	none	none	Agricultural
	Grain Collector	none	none	Agricultural
Milling	Rice Mill	none	Input capacity: 3 metric tons/hr	Agricultural Industrial - Input capacity > 3 metric tons/hr
	Micromill	none	none	Agricultural
	Sifter	none	none	Industrial
	Rice Whitening Machine	none	none	Agricultural
	Rice Flour Milling Machine	50 kg/hr	625 kg/hr	Household (<50kg/hr) Agricultural (w/in the range) Industrial (>625kg/hr)
Grading	Mist Polisher	none	none	Industrial
	Grain Sorter	none	none	Industrial
	rice thickness grader	none	none	Industrial
	rice length grader	none	none	Industrial
	loss in weight scale	none	none	Industrial
	Color Sorter	none	none	Industrial
Processing	Rice Hull Carbonizer	none	none	Industrial

C. CORN MACHINERY

ACTIVITY	NAME OF MACHINERY	THRESHOLD		CLASSIFICATION
		Minimum	Maximum	
Crop Establishment	Grain Seeder	none	none	- Agricultural
Harvesting	Corn Picker	none	none	- Agricultural
	Corn Combine Harvester	none	none	- Agricultural
	Corn Husker-Shellier	none	none	- Agricultural
Postharvest	Corn-on-Cob Dryer	None	None	- Agricultural
	Heated Air Mechanical Grain Dryer (Mobile)	none	Vol Capacity: 12 tons/batch	- Agricultural Industrial (> 12T/batch)
	Heated Air Mechanical Grain Dryer (Recirculating)	none	Vol. Capacity: 12 tons/batch	- Agricultural Industrial (> 12T/batch)
	Heated Air Mechanical Grain Dryer (Flatbed)	none	Bin Capacity: 12 tons/batch	- Agricultural Industrial (> 12T/batch)
	Rice Husk Fed Heating System	none	none	- Agricultural
	Fluidized Bed Dryer	none	none	- Agricultural
Milling/Shelling	Power-operated Corn Sheller	none	none	- Agricultural
	Degerming Machine	none	none	- Agricultural
	Corn Mill	none	none	- Agricultural
	Hammer Mill	none	none	- Agricultural

D. SUGARCANE MACHINERY

ACTIVITY	NAME OF MACHINERY	THRESHOLD		CLASSIFICATION
		Minimum	Maximum	
Preparation of Planting Materials	One-eye bud cutter	none	none	- Agricultural
	Whole-stalk cutter	none	none	- Agricultural
Planting	Sugarcane mechanical planter	none	none	- Agricultural
Harvesting	Sugarcane whole-stalk cutter	none	none	- Agricultural
	Mechanical cane (combine) harvester	none	none	- Agricultural
	Sugarcane Grabber	none	none	- Agricultural
Ratooning	Biomass Shredder (Trash shredder-mulcher)	none	none	- Agricultural
Transporting	Agricultural Trailer	none	Capacity: 10 metric tons	- Agricultural Industrial (> 10 metric tons)
Processing	Sugarcane Peeler	none	Production Capacity: 300 kg/h	- Agricultural
	Sugarcane Crusher / Sugarcane Juicer	Crushing Capacity: 1000 kg/day	Crushing Capacity: 50,000 kg/day	- Agricultural
	Sugar Mill	none	none	- Agricultural
	Sugarcane Juice Clarifying Machine	none	none	- Industrial
	Crystallizer	none	none	- Industrial
Packaging	Small Sachet Sugar Packaging Machine	none	none	- Industrial

E. HIGH VALUE CROPS MACHINERY

ACTIVITY	NAME OF MACHINERY	THRESHOLD		CLASSIFICATION
		Minimum	Maximum	
Crop Establishment	Vegetable Seeder	none	none	Agricultural
Harvester	Onion/Garlic Harvester	none	none	Agricultural
Processing	Mungbean Sheller	none	none	Agricultural
	Cashew Sheller	none	none	Agricultural
	Pili Nut Sheller	none	none	Agricultural
	Peanut Grinder	none	none	Agricultural
	Soybean Grinder	none	none	Agricultural
	Soybean Roaster	none	none	Agricultural
	Soybean Cleaner/Sorter/Grader	none	none	Industrial

F. COFFEE MACHINERY

ACTIVITY	NAME OF MACHINERY	THRESHOLD		CLASSIFICATION
		Minimum	Maximum	
Harvesting	Coffee picking machine	none	none	Agricultural
Processing	Coffee Dehydrator	none	none	Agricultural
	Coffee Huller	Power: 1 hp	none	Agricultural
	Coffee Pulper	Capacity: 30kg/h	Capacity: 300kg/h	Agricultural Household: Capacity <30 kg/hr Industrial: Capacity >300 kg/h
	Manually operated coffee pulper	none	none	Household
	Coffee Grinder	Capacity: 1 kg/load	Capacity 200kg/h	Agricultural
	Coffee Roaster	Capacity: 2kg/load	Capacity: 50kg/load	Agricultural
	Coffee destoner	none	none	Agricultural
	Coffee Cherry Color Sorter	none	none	Industrial
	Coffee cherry grading machine	none	none	Industrial
	Vacuum coffee bean packing machine	none	none	Industrial
	Coffee Percolator	none	none	Household

G. CACAO MACHINERY

ACTIVITY	NAME OF MACHINERY	THRESHOLD		CLASSIFICATION
		Minimum	Maximum	
Processing	Cacao pod breaker	none	none	Agricultural
	Cacao Dryer	none	none	Agricultural
	Cacao Bean Color Sorting Machine	none	none	Industrial
	Cacao Huller	Capacity: 2 kg/load	Capacity 200kg/h	Agricultural
	Cacao Grinder	Capacity: 1kg/load	Capacity: 50kg/load	Agricultural
	Cacao Roaster	2kg/load	50kg/load	Agricultural
	Cacao Pulverizing Machine	Capacity: 2kg/load	Capacity: 50kg/load	Household: Capacity <2kg/load Agricultural Industrial" Capacity > 50kg/load

	Oil Press Machine	Capacity of Pressing Barrel: 30 kg/hr	Capacity of Pressing Barrel: 100 kg/hr	- Household (<30 kg/hr) - Agricultural - Industrial (>100 kg/hr)
	Cacao Fermentation Box	none	none	- Agricultural
	Cocoa Melanger	none	none	- Household/Industrial
	Tablea Maker / Molder	none	none	- Household/Industrial
	Chocolate refiner	none	none	- Household/Industrial

H. FIBER MACHINERY

ACTIVITY	NAME OF MACHINERY	THRESHOLD		CLASSIFICATION
		Minimum	Maximum	
Fiber Extraction	Decorticating Machine	none	none	- Agricultural
	Spindle Stripping Machine	none	none	- Agricultural
	Modified Abaca Stripping Knife (MASK)	none	none	- Household
Cotton Fiber Processing	Ginning machine	none	Capacity: 300 kg/hr	- Agricultural
	Combine blow-room and carding machine	none	none	- Industrial
	Draw Frame Machine	none	none	- Industrial
	Flyer Frame Machine	none	none	- Industrial
	Ring Frame	none	none	- Industrial
	Cone Winder Machine	none	none	- Industrial
Bailing	Bailing Machine	none	none	- Industrial

I. COCONUT MACHINERY

ACTIVITY	MACHINERY	Threshold of the Machinery		CLASSIFICATION
		Minimum	Maximum	
Harvesting	Climbing Machine	none	none	- Household
	Mechanized coconut climbing machine	none	none	- Agricultural
Postharvest (matured coconut)	Coconut manual Husker	none	none	- Household
	Mechanized Coconut Husker	None	Capacity: 1500 Nuts	- Agricultural
	Dehusked Coconut Cutting Machine	None	Capacity: 2400 Nuts/hr	- Agricultural
Postharvest (young coconut)	Semi-Automatic Peeling Machine	None	Output capacity: 120 nuts/hr	- Agricultural
	Hydraulic Tender Cutting Machine	none	none	- Agricultural
	Buko Trimmer-Puncher	none	none	- Agricultural
	Spiral Juice Extractor	none	none	- Agricultural
Endocarp breaking/removal	Coconut Splitter	none	none	- Agricultural
	Paring machine	none	none	- Agricultural
Coconut Oil Processing (VCO Production): Cold process	Coconut Grinding machine	none	none	- Agricultural
	Coconut grater	none	none	- Agricultural
	Heavy Duty Coconut Presser	none	none	- Agricultural
	Coconut Milk Extracting machine	none	none	- Agricultural
	Spinner	none	none	- Household/Industrial
	Centrifuge	none	none	- Household/Industrial
	VCO Settling Cabinet	none	none	- Household/Industrial
	Vacuum filter	none	none	- Industrial
Copra-based coconut oil extraction	Copra Dryer	none	none	- Agricultural
	Desheller	none	none	- Agricultural
	Copra Grinding machine	none	none	- Agricultural
	Mini copra hammer mill	none	none	- Agricultural

	Copra Oil Extraction machine	none	none	- Household/Industrial
	Mini oil extruder	none	none	- Household/Industrial
Coconut meat processing	Paring machine	none	none	- Agricultural
	Coconut meat grinder	none	none	- Agricultural
	Coconut Milk Extracting machine	none	none	- Household/Industrial
	Heavy duty Coconut Presser	none	none	- Household/Industrial
	Vacuum dryer	none	none	- Household/Industrial
	Rotary dryer	none	none	- Household/Industrial
	Flour grinder/pulverizer	none	none	- Agricultural
Biomass Processing	Biomass shredder	none	none	- Agricultural
Coconut Coir Processing (Primary)	Coir Decorticator	none	none	- Agricultural
	Husk Defibering Machine	none	none	- Agricultural
	Coir Baling press	none	none	- Industrial
	Cocopeat block machine	none	none	- Industrial
Coconut Coir Processing (Secondary)	Carding Machine	none	none	- Household/Industrial
	Twining Machine	none	none	- Household/Industrial
	Looming Machine	none	none	- Industrial
	Cocopeat Mixer	none	none	- Industrial
Coconut Charcoal Briquetting	Brick Charcoal Kiln with Smoke Trap	none	none	- Household/Industrial
	Charcoal grinder	none	none	- Household/Industrial
	Charcoal mixer	none	none	- Household/Industrial
	Charcoal Briquetting Machine	none	none	- Household/Industrial
	Briquette dryer	none	none	- Household/Industrial
Coconut Sap Processing (Vinegar production)	Pasteurizer	none	none	- Household/Industrial
	Acetator	none	none	- Household/Industrial
Coconut Sugar Processing	Vacuum evaporator	none	none	- Household/Industrial
	Cocosugar pulverizer	none	none	- Household/Industrial
	High vaccum coconut oil filter machine	none	none	- Household/Industrial

J. MULTI-CROP MACHINERY

ACTIVITY	NAME OF MACHINERY	THRESHOLD		CLASSIFICATION
		Minimum	Maximum	
Harvesting	Multi-crop Harvester	none	none	- Agricultural
Postharvest	Grain Collector-Bagger	none	none	- Agricultural
Drying	Fruit Dryer (Banana)	none	none	- Agricultural
	Copra Dryer (Coconut)	none	none	- Agricultural
	Fruit Dryer (Jackfruit)	none	none	- Agricultural
	Fruit Dryer (Mango)	none	none	- Agricultural
	Fruit Dryer (Pineapple)	none	none	- Agricultural
	Fruit Dryer (Papaya)	none	none	- Agricultural
Chipping	Chipping Machine	none	none	- Agricultural
Decorticating	Fiber Decorticator (Banana)	none	none	- Agricultural
	Fiber Decorticator (Pineapple)	none	none	- Agricultural
	Cashew decorticator	none	none	- Agricultural
	Manually Operated Cashew Decorticator	none	none	- Household
Processing	Multi-crop Thresher	none	none	- Agricultural
	Juice Extractor	none	none	- Household/Industrial
	Vermitea Brewer	none	none	- Agricultural

K. ROOTCROPS MACHINERY

ACTIVITY	NAME OF MACHINERY	THRESHOLD		CLASSIFICATION
		Minimum	Maximum	
Processing	Grinder	none	none	- Household/Industrial
	Crystallizer (Ginger)	none	none	- Industrial
	Peanut Sheller (Peanut)	none	none	- Agricultural
	Chipping Machine (Root crops)	none	none	- Agricultural
	Multicrop Washer-Peeler (Ginger)	none	none	- Agricultural
	Multicrop Washer-Peeler (Sweet Potato)	none	none	- Agricultural
	Multicrop Washer-Peeler (Potato)	none	none	- Agricultural
	Multicrop Washer-Peeler (Radish)	none	none	- Agricultural
	Multicrop Washer-Peeler (Carrot)	none	none	- Agricultural
	Multicrop Grater (Sweet Potato)	none	none	- Agricultural

L. CASSAVA MACHINERY

ACTIVITY	NAME OF MACHINERY	THRESHOLD		CLASSIFICATION
		Minimum	Maximum	
Planting	Fully Mechanized Cassava Planter	none	none	- Agricultural
Weeding	Cassava weeder	Prime mover: 2-stroke cycle engine	none	- Agricultural
Harvesting	Cassava Digger (Tractor-mounted)	none	none	- Agricultural
Drying	Cassava Mechanical Dryer	none	none	- Agricultural
Processing	Cassava Washer	Capacity: 500 kg/hr	Capacity: 4000 kg/hr	- Household (<500 kg/hr) - Agricultural - Industrial (>4000 kg/hr)
	Mechanical Cassava Peeler Machine	Capacity: 500 kg/hr	Capacity: 4000 kg/hr	- Household (<500 kg/hr) - Agricultural - Industrial (> 4000 kg/hr)
	Cassava Granulator	none	none	- Agricultural
	Cassava Grater	none	none	- Agricultural
	Cassava Chipper	Capacity: 100 kg/hr	Capacity: 8000 kg/hr	- Household (<1 00 kg/hr) - Agricultural - Industrial (>8 000 kg/hr)
	Garri Frying Machine	none	none	- Household/Industrial
	Cassava presser (powered pressers)	Capacity: 300 kg/hr	Capacity: 58000 kg	- Household (<300 kg/hr) - Agricultural - Industrial (>58000 kg)
Oil Extraction	Oil Expeller	none	none	- Household/Industrial

M. SLAUGHTERHOUSE

COMMODITY	NAME OF MACHINERY	THRESHOLD		CLASSIFICATION
		Minimum	Maximum	
Hog	Hog Restrainer	none	none	- Agricultural
	Hog Electric Stunner	none	none	- Agricultural
	Hog Scalding	none	none	- Household/Industrial
	Dehairing Machine	none	none	- Household/Industrial
	Splitting Saw for Hog Carcass	none	none	- Household/Industrial
	Overhead Rail System for Hogs	none	none	- Household/Industrial
	Stunning Box Knocking Pen	none	none	- Household/Industrial
	Captive Bolt	none	none	- Household/Industrial
	Overhead Rail System for Large Ruminants	none	none	- Household/Industrial

Large Ruminants	Dehider	none	none	- Household/Industrial
	Splitting Saw for Large Ruminants	none	none	- Household/Industrial
Poultry	Stunner	none	none	- Household/Industrial
	Scalder	none	none	- Household/Industrial
	Defeathering Machine	none	none	- Household/Industrial

N. DAIRY

ACTIVITY	NAME OF MACHINERY	THRESHOLD		CLASSIFICATION
		Minimum	Maximum	
Rearing	Chaff cutter	Capacity: 1ton/hr	Capacity: 15 tons/hr	- Household (<1 ton/hr) - Agricultural - Industrial (>15 tons/hr)
	Feed mixer	Capacity: 100 kg	Capacity: 5 cubic meter	- Household (<100 kg) - Agricultural - Industrial (>5 cubic meter)
	Blower/ fans	0.5kW hanging fans	Power: 1.5kw Type: centrifugal	- Household (<0.5kW) - Agricultural - Industrial (>1.5kW)
	Forage Chopper	none	136 hp	- Agricultural
	Corn Chopper	none	136 hp	- Agricultural
	Manure Spreader	none	Volume: 10 cubic meter	- Agricultural - Industrial (>10 cubic meter)
	Cow lifter	none	none	- Agricultural
	Silage cart	none	none	- Agricultural
	Forage Baler	none	Bale Weight: 30 kgs. (Hay)	- Agricultural - Industrial (>30kgs)
	Silage Bagger	none	none	- Agricultural
Milking	Milk Pump	none	Capacity: 3 cubic meter	- Agricultural - Industrial (>3 cubic meter)
	Milking Machine	none	Capacity: 25kgs	- Agricultural - Industrial (>25kgs)
	Milking Parlor	none	none	- Agricultural
	Platform Scale	none	none	- Industrial
	Livestock Scale (Cage Type)	none	Capacity: 1000 kg	- Agricultural - Industrial (> 1000 kg)
Secondary Processing	Digital Balance	none	none	- Industrial
	Raw Milk Receiving Vat	none	none	- Household/Industrial
	Plate Cooler	none	none	- Household/Industrial
	Raw Milk Cooling Tank	none	none	- Household/Industrial
	Pre-Mixing Tank	none	none	- Household/Industrial
	Mixing Tank	none	none	- Household/Industrial
	Homogenizer	none	none	- Household/Industrial
	Continuous Pasteurizer	none	none	- Household/Industrial
	Storage Tank	none	none	- Household/Industrial
	Volumetric Bottle Filling Machine	none	none	- Household/Industrial

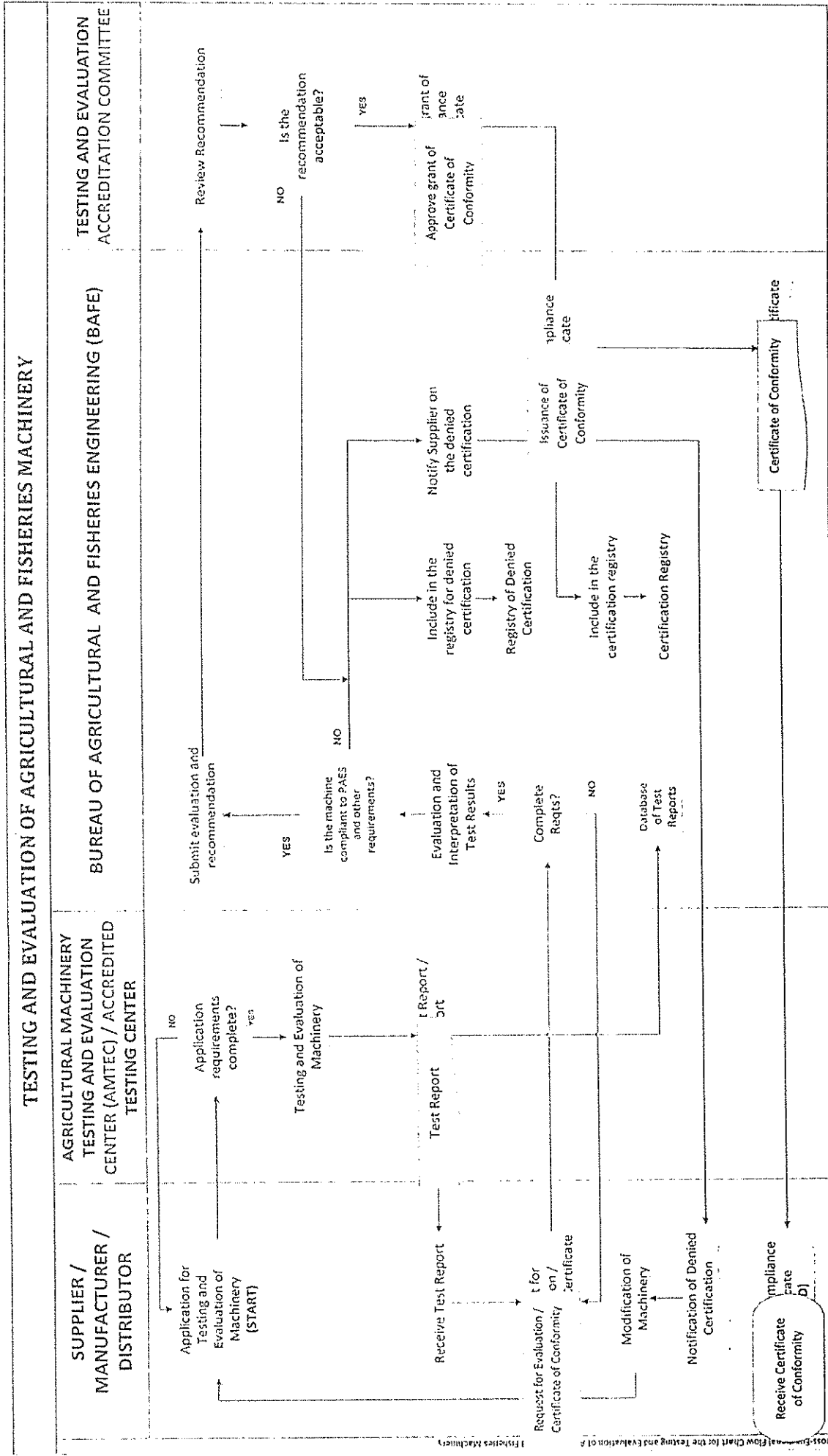
O. LIVESTOCK AND POULTRY

ACTIVITY	NAME OF MACHINERY	THRESHOLD		CLASSIFICATION
		Minimum	Maximum	
Feed Transport System	Chain and Disc Feeding System	none	none	- Industrial
	Auger Feeding System	none	none	- Industrial
	Control Panels	none	none	- Industrial
	Feed Silo and weighing	none	none	- Industrial
Ventilation System	Exhaust Fan	none	none	- Industrial
	Blower fans	none	none	- Industrial
	Air Inlets	none	none	- Industrial
	Cooling pumps	none	none	- Industrial
	Control Panels and Climate Controller	none	none	- Industrial
Heating	Heat Plate	none	none	- Industrial
	Piglet Cover w/ warm lamp	none	none	- Industrial
	Box Heaters	none	none	- Industrial
Egg and Manure Conveyor	Egg conveyor	none	none	- Industrial
	Manure conveyor	none	none	- Industrial
Milking	Milking Machine	none	none	- Household / Industrial
Processing	Manual meat grinder	none	none	- Household
	Meat Grinder (Power-operated)	none	none	- Industrial
	Feed Mixer	none	1 MT per load	- Agricultural - Industrial (> 1MT per load)
	Manure Mechanical Sifter	none	none	- Industrial
	Feeds mechanical sifter	none	none	- Industrial
	Mechanical Compost Sieve	none	none	- Industrial
	Manure Mixer	none	none	- Industrial
Egg Incubating	Egg incubator	300 eggs capacity	2000 eggs capacity	- Agricultural - Industrial (> 2000 eggs capacity)

P. FISHERIES

ACTIVITY	NAME OF MACHINERY	THRESHOLD		CLASSIFICATION
		Minimum	Maximum	
Fisheries	Drone Feeder	none	none	- Agricultural
	Aerator	none	none	- Agricultural
	Motorized Boat	none	Capacity: 3 tons	- Agricultural - Industrial (> 3 tons)
	Marine Engine	none	20 kw	- Agricultural - Industrial (>20 kw)
	Fish Stalls	none	none	- Industrial
	Freezing Equipment	none	none	- Industrial
	SmokeHouse	none	none	- Agricultural
	Dryers	none	none	- Agricultural
	Sorters	none	none	- Industrial

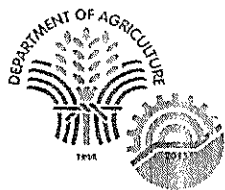
ANNEX B. CROSS-FUNCTIONAL FLOW CHART FOR TESTING AND EVALUATION OF AGRICULTURAL AND FISHERIES MACHINERY



Fisheries Machinery

Cross-Functional Flow Chart for the Testing and Evaluation of Fisheries Machinery

Annex C. Application Form



Republic of the Philippines
 Department of Agriculture
BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING (BAFE)
 Sugar Center, Annex II Building Extension, North Avenue, Diliman, Quezon City
 Tel Nos. (02) 8351-8120, 8294-9741
 Email add: bafec.da.gov.ph

**CERTIFICATION OF TEST ENGINEERS
APPLICATION FORM**

CTE APPLICATION NO.		DATE OF APPLICATION (mm/dd/yyyy)	
TYPE OF APPLICATION:		<input type="checkbox"/> New	<input type="checkbox"/> Renewal
		<input type="checkbox"/> Additional Category*	<input type="checkbox"/> Advancement (JCTE to SCTE)*
*Fill-up this part if application is for additional category or for advancement:		Existing Category: CTE No.:	Additional Category:
I. PERSONAL INFORMATION			
NAME (SURNAME, FIRST NAME, MIDDLE NAME)			
PRC LICENSE NUMBER	VALID UNTIL		
HOME ADDRESS (NO. & STREET, BARANGAY, TOWN/CITY, PROVINCE)			
SEX	NATIONALITY	BIRTHDAY (DD/MM/YYYY)	CIVIL STATUS
OFFICE/AGENCY NAME:			
OFFICE ADDRESS (NO. & STREET, BARANGAY, TOWN/CITY, PROVINCE)			
POSITION		EMPLOYEE ID NUMBER	
HOME TEL. NO.		MOBILE NO.	
OFFICE TEL. NO.		EMAIL ADDRESS	
II. EDUCATIONAL BACKGROUND			
LEVEL	NAME OF SCHOOL	SPECIALIZATION (if any)	YEAR GRADUATED
College / University			
III. TESTING AND EVALUATION EXPERIENCE			
Testing Activity (AMTEC Testing, Acceptance Testing, Field Testing, Testing during Training, etc.)	Agricultural and Fishery Machinery Tested	Date of Testing Activity (mm/dd/yyyy)	Submitted Supporting Documents as proof of Testing

* Please use separate sheet if necessary

I, _____ hereby certify that the information on this form is full and complete and is to the best of my knowledge, a true statement of facts relating to this application.

I am signifying my unequivocal consent to the disclosure, collection and use of the information and data generated by BAFE in their other policies and regulations.

I am willing to be contacted regarding the application through the declared contact details in this form.

SIGNATURE OVER PRINTED NAME OF APPLICANT

PROCESSED BY	REVIEWED BY
DATE PROCESSED	DATE REVIEWED

Note: The following required documents/attachments must be submitted together with this dully accomplished Application Form:

1. Official Receipt of payment of application fee
2. Valid Professional Regulation Commission (PRC) Identification Card as Agricultural Engineer or Agricultural and Biosystems Engineer
3. Proof of conducted testing and evaluation declared in Part III. Testing and Evaluation Experience of this Application Form
4. Copy of Diploma/TOR

Annex D
Categories of Machines

Table 1. List of machines under Category A and their level of difficulty of testing

Category A - Tractors and Implements	Level of Difficulty of Testing
Bed Former	Easy
Cage Roller	Easy
Disc Harrow	Easy
Disc Plow	Easy
Field Cultivator	Easy
Furrower	Easy
Levee Maker	Easy
Moldboard Plow	Easy
Rotary Tiller/Rotavator	Easy
Soil Puddler	Easy
Spring-Tooth Harrow	Easy
Subsoiler	Easy
Cassava Digger	Medium
Mechanical Weeder	Medium
Granule Applicator	Medium
Fertilizer Applicator	Medium
Float-Assist Type WTAT	Hard
Pull Type WTAT	Hard
Rotary-Tilling Type WTAT	Hard
Dozer	Hard
Leveler	Hard
Mulcher	Hard

Table 2. List of machines under Category B and their level of difficulty of testing

Category B - Harvesters, Planters, and Seeders	Level of Difficulty of Testing
Sugarcane Planter	Medium
Rice Reaper	Medium
Sickle Bar Mower	Medium
Sickle Sword	Medium
Sugarcane Cutter	Medium
Baling Machine	Medium
Grain Collect/Bagging Machine	Medium
Grain Seeder and Planter	Hard
Mechanical Rice Transplanter	Hard
Rice Drum Seeder	Hard
Rice Precision Seeder	Hard
Corn Combine Harvester	Hard
Corn Picker	Hard
Reaper-Binder	Hard
Rice Combine Harvester	Hard
Sugarcane Grabber	Hard
Sugarcane Harvesters	Hard
Uprooter	Hard
Milking Machine	Hard
Solar-Powered Irrigation Systems	Hard

Table 3. List of machines under Category C and their level of difficulty of testing

Category C - Postharvest Machines (Grains)	Level of Difficulty of Testing
Hammermill	Easy
Multicrop Pulverizer	Easy
Paddy Seed Cleaner	Easy
Corn Husker/Sheller	Medium
Mechanical Rice Thresher	Medium
Multipurpose Thresher	Medium

Mungbean Sheller	Medium
Peanut Sheller	Medium
Power-Operated Corn Sheller	Medium
Sorghum Thresher	Medium
Micromill	Medium
Polisher	Medium
Rice Whitening Machine	Medium
Peanut Grinder	Medium
Winnower	Medium
Peanut Thresher	Hard
Flatbed Type Heated-Air Mechanical Grain Dryer	Hard
Mobile Type Heated-Air Mechanical Grain Dryer	Hard
Recirculating Type Heated-Air Mechanical Grain Dryer	Hard
Corn Mill	Hard
Rice Mill	Hard
Grain Sorter	Hard
Moisture Meter	Hard
Seed Classifier	Hard

Table 4. List of machines under Category D and their level of difficulty of testing

Category D - Postharvest Machines (Other crops)	Level of Difficulty of Testing
Cacao Huller	Easy
Coffee Huller	Easy
Banana Granulator	Easy
Biomass Shredder	Easy
Cacao Grinder	Easy
Cassava Granulator	Easy
Colloid Mill	Easy
Coffee Pulper	Medium
Reduction Machine	Medium
Cacao Roaster	Medium
Coffee Roaster	Medium
Multicrop Washer-Peeler	Medium
Cashew Nut Cracker	Hard
Cacao Dryer	Hard
Cassava Mechanical Dryer	Hard
Dehydrator	Hard
Evaporator	Hard
Fruit Dryer	Hard
Multicommodity Solar Tunnel Dryer	Hard
Sea Cucumber Dryer	Hard
Vacuum Dryer	Hard
Cacao Kneader	Hard
Hot Water Treatment Tank for Mango	Hard

Table 5. List of machines under Category E and their level of difficulty of testing

Category E - Processing Machines	Level of Difficulty of Testing
Chipping Machine	Easy
Forage Chopper	Easy
Feed Mixer	Easy
Feed Mill	Medium
Composter	Medium
Feed Pellet Mill	Medium
Rubber Creper	Medium
Birquetting Machine	Medium
Rotary Sifter	Medium
Vermicast Sifter	Medium

Pili Nut Cracker	Hard
Muscovado Milling Machine	Hard
Mango Pulper	Hard
Abaca Stripper	Hard
Cashew Decorticator	Hard
Coconut Coir Decorticator	Hard
Fiber Decorticator	Hard
Fiber Stripper	Hard

Table 6. List of machines under Category F and their level of difficulty of testing

Category F – Rice Machinery	Level of Difficulty of Testing
Mechanical Rice Thresher	Medium
Micromill	Medium
Four-Wheel Tractor (Up to 70 HP Only) With Implements (Disc/Moldboard Plow, Disc Harrow, Rotary Tiller, Leveler)	Hard
Walking-type Agricultural Tractor with Implements (Disc/Moldboard Plow, Comb-tooth Harrow, Leveler)	Hard
Mechanical Rice Transplanters	Hard
Seeders	Hard
Rice Combine Harvested	Hard
Mechanical Grain Dryers (6 Tons Capacity and Below)	Hard
Rice Mill	Hard

Table 7. List of machines under Category G and their level of difficulty of testing

Category G - Corn Machinery	Level of Difficulty of Testing
Power-operated Corn Sheller	Medium
Four-wheel Tractor with Implements (Disc/Moldboard Plow, Disc Harrow, Rotary Tiller)	Hard
Seeders/Planters	Hard
Corn Picker	Hard
Corn Combine Harvester	Hard
Mechanical Grain Dryers (6 Tons Capacity and Below)	Hard
Corn Mill	Hard
Hammer Mill	Hard
Pulverizer	Hard

Table 8. List of machines under Category H and their level of difficulty of testing

Category H – High-value Crop Machinery	Level of Difficulty of Testing
Forage Chopper	Easy
Chipping Machine	Easy
Threshers	Easy
Grass Cutter	Medium
Four-Wheel Tractor (Up to 70 HP Only) With Implements (Disc/Moldboard Plow, Disc Harrow, Rotary Tiller)	Hard
Walking-type Agricultural Tractor with Implements (Disc/Moldboard Plow, Rotary-type)	Hard
Seeders/Planters	Hard
Lever-Operated Knapsack Sprayer	Hard
Solar-Powered Irrigation System (Up to 4 kW)	Hard
Dryers	

ANNEX D. CATEGORIES OF MACHINES

Table 1. List of machines under Category A and their level of difficulty of testing

Category A - Tractors and Implements	Level of Difficulty of Testing
Bed Former	Level 1
Cage Roller	Level 1
Disc Harrow	Level 1
Disc Plow	Level 1
Field Cultivator	Level 1
Furrower	Level 1
Levee Maker	Level 1
Moldboard Plow	Level 1
Rotary Tiller/Rotavator	Level 1
Soil Puddler	Level 1
Spring-Tooth Harrow	Level 1
Subsoiler	Level 1
Float-Assist Type WTAT	Level 1
Dozer	Level 1
Cassava Digger	Level 2
Mechanical Weeder	Level 2
Granule Applicator	Level 3
Fertilizer Applicator	Level 3
Pull Type WTAT	Level 3
Rotary-Tilling Type WTAT	Level 3
Leveler	Level 3
Mulcher	Level 3

Note: A JTE shall be allowed to test the machines under the easy level of all categories after passing the CTE examination for any category. A STE shall be allowed to test all the machines under Category A after passing the CTE examination for the said category. A STE who has passed the CTE examination for the other categories shall be allowed to test the machines under the easy level of Category A.

Table 2. List of machines under Category B and their level of difficulty of testing

Category B - Harvesters, Planters, and Seeders	Level of Difficulty of Testing
Milking Machine	Level 1
Solar-Powered Irrigation Systems	Level 1
Baling Machine	Level 1
Grain Collector/Bagging Machine	Level 1
Sugarcane Planter	Level 2
Rice Reaper	Level 2
Sickle Bar Mower	Level 2
Sickle Sword	Level 2
Sugarcane Cutter	Level 2
Grain Seeder and Planter	Level 3
Mechanical Rice Transplanter	Level 3
Rice Drum Seeder	Level 3
Rice Precision Seeder	Level 3
Corn Combine Harvester	Level 3
Corn Picker	Level 3
Reaper-Binder	Level 3
Rice Combine Harvester	Level 3
Sugarcane Grabber	Level 3

Category B - Harvesters, Planters, and Seeders	Level of Difficulty of Testing
Sugarcane Harvesters	Level 3
Uprooter	Level 3

Note: A STE shall be allowed to test all the machines under Category B after passing the CTE examination for the said category.

Table 3. List of machines under Category C and their level of difficulty of testing

Category C - Postharvest Machines (Grains)	Level of Difficulty of Testing
Hammermill	Level 1
Multicrop Pulverizer	Level 1
Paddy Seed Cleaner	Level 1
Corn Husker/Sheller	Level 2
Mechanical Rice Thresher	Level 2
Multipurpose Thresher	Level 2
Mungbean Sheller	Level 2
Peanut Sheller	Level 2
Power-Operated Corn Sheller	Level 2
Sorghum Thresher	Level 2
Micromill	Level 2
Polisher	Level 2
Rice Whitening Machine	Level 2
Peanut Grinder	Level 2
Winnower	Level 2
Peanut Thresher	Level 2
Flatbed Type Heated-Air Mechanical Grain Dryer	Level 3
Mobile Type Heated-Air Mechanical Grain Dryer	Level 3
Recirculating Type Heated-Air Mechanical Grain Dryer	Level 3
Corn Mill	Level 3
Rice Mill	Level 3
Grain Sorter	Level 3
Moisture Meter	Level 3
Seed Classifier	Level 3

Note: A JTE shall be allowed to test the machines under the easy level of all categories after passing the CTE examination for any category. A STE shall be allowed to test all the machines under Category C after passing the CTE examination for the said category. A STE who has passed the CTE examination for the other categories shall be allowed to test the machines under the easy level of Category C.

Table 4. List of machines under Category D and their level of difficulty of testing

Category D - Postharvest Machines (Other crops)	Level of Difficulty of Testing
Biomass Shredder	Level 1
Cacao Grinder	Level 1
Cassava Granulator	Level 1
Colloid Mill	Level 1
Cacao Huller	Level 2
Coffee Huller	Level 2
Coffee Pulper	Level 2
Banana Granulator	Level 2
Reduction Machine	Level 2
Cacao Roaster	Level 2
Coffee Roaster	Level 2

Table 4. List of machines under Category D and their level of difficulty of testing

Category D - Postharvest Machines (Other crops)	Level of Difficulty of Testing
Multicrop Washer-Peeler	Level 2
Cashew Nut Cracker	Level 3
Cacao Dryer	Level 3
Cassava Mechanical Dryer	Level 3
Dehydrator	Level 3
Evaporator	Level 3
Fruit Dryer	Level 3
Multicommodity Solar Tunnel Dryer	Level 3
Sea Cucumber Dryer	Level 3
Vacuum Dryer	Level 3
Cacao Kneader	Level 3
Hot Water Treatment Tank for Mango	Level 3

Note: A JTE shall be allowed to test the machines under the easy level of all categories after passing the CTE examination for any category. A STE shall be allowed to test all the machines under Category D after passing the CTE examination for the said category. A STE who has passed the CTE examination for the other categories shall be allowed to test the machines under the easy level of Category D.

Table 5. List of machines under Category E and their level of difficulty of testing

Category E - Processing Machines	Level of Difficulty of Testing
Chipping Machine	Level 1
Forage Chopper	Level 1
Feed Mixer	Level 1
Composter	Level 1
Rotary Sifter	Level 1
Vermicast Sifter	Level 1
Pili Nut Cracker	Level 1
Feed Mill	Level 2
Feed Pellet Mill	Level 2
Rubber Creper	Level 2
Briquetting Machine	Level 2
Muscovado Milling Machine	Level 3
Mango Pulper	Level 3
Abaca Stripper	Level 3
Cashew Decorticator	Level 3
Coconut Coir Decorticator	Level 3
Fiber Decorticator	Level 3
Fiber Stripper	Level 3

Note: A JTE shall be allowed to test the machines under the easy level of all categories after passing the CTE examination for any category. A STE shall be allowed to test all the machines under Category E after passing the CTE examination for the said category. A STE who has passed the CTE examination for the other categories shall be allowed to test the machines under the easy level of Category E.

Table 6. List of machines under Category F and their level of difficulty of testing

Category F - Rice Machinery	Level of Difficulty of Testing
Four-Wheel Tractor (Up to 70 HP Only) With Implements (Disc/Moldboard Plow, Disc Harrow, Rotary Tiller, Leveler)	Level 1
Walking-type Agricultural Tractor With Implements (Disc/Moldboard Plow, Comb-tooth Harrow, Leveler)	Level 1
Mechanical Rice Thresher	Level 2

Table 6. List of machines under Category F and their level of difficulty of testing

Category F - Rice Machinery	Level of Difficulty of Testing
Micromill	Level 2
Mechanical Rice Transplanters	Level 3
Seeders	Level 3
Rice Combine Harvester	Level 3
Mechanical Grain Dryers (6 Tons Capacity and Below)	Level 3
Rice Mill	Level 3

Note: A STE shall be allowed to test all the machines under Category F after passing the CTE examination for the said category.

Table 7. List of machines under Category G and their level of difficulty of testing

Category G - Corn Machinery	Level of Difficulty of Testing
Four-wheel Tractor with Implements (Disc/Moldboard Plow, Disc Harrow, Rotary Tiller)	Level 1
Four-wheel Tractor with Implements (Disc/Moldboard Plow, Disc Harrow, Rotary Tiller)	Level 1
Hammer Mill	Level 1
Pulverizer	Level 1
Power-operated Corn Sheller	Level 2
Seeders/Planters	Level 3
Corn Picker	Level 3
Corn Combine Harvester	Level 3
Mechanical Grain Dryer (6 Tons Capacity and Below)	Level 3
Corn Mill	Level 3

Table 8. List of machines under Category H and their level of difficulty of testing

Category H - High-value Crop Machinery	Level of Difficulty of Testing
Forage Chopper	Level 1
Chipping Machine	Level 1
Walking-type Agricultural Tractor With Implements (Disc/Moldboard Plow, Rotary-type)	Level 1
Seeders/Planters	Level 1
Threshers	Level 2
Grass Cutter	Level 2
Four-wheel Tractor (Up to 70 HP Only) With Implements (Disc/Moldboard Plow, Disc Harrow, Rotary Tiller)	Level 3
Lever-Operated Knapsack Sprayer	Level 3
Solar-Powered Irrigation System (Up to 4 kW)	Level 3
Dryers	Level 3

Note: A JTE shall be allowed to test the machines under the easy level of all categories after passing the CTE examination for any category. A STE shall be allowed to test all the machines under Category H after passing the CTE examination for the said category. A STE who has passed the CTE examination for the other categories shall be allowed to test the machines under the easy level of Category H.