



AMTEC
Agricultural Machinery Testing and Evaluation Center
1977

ACR 036:2023 CHECKLIST AND REMINDERS FOR THE AMTEC TEST CONDITIONS AND REQUIREMENTS FOR CASSAVA DIGGER

■ Application for AMTEC Test

The test applicant shall submit AMTEC-OP-F01 (Agricultural Machinery Test Application Form) together with the following requirements:

- AMTEC-OP-F16 (Waiver for Machine Specifications)
- AMTEC-OP-F18 (Data Privacy Consent Form)

■ Technical Specifications of the Machine

The test applicant shall submit any document/s indicating the specifications of the machine upon application for testing. In case the said document/s are not available, the applicant shall fill out the Machine Specifications Sheet provided by AMTEC upon request.

- Operator's manual with complete specifications as indicated in Annex B of PNS/BAFS PAES 244:2018
- Brochure
- Machine specifications sheet (shall be filled out upon request and receipt of copy from AMTEC in case the manual or brochure is not available)

■ Preparation and Operation of the Machine

The cassava digger shall be ready for testing. The officially designated operator of the test applicant shall operate, demonstrate, adjust, and repair. Meanwhile, the officially designated representative shall decide on matters related to the operation of the machine.

■ Running-in of the Machine

A test run shall be conducted prior the official test as to check its condition and make necessary adjustments to the machine.

■ Test Plot

The test applicant shall prepare at least three (3) test plots. Each test plot shall be:

- Rectangular with side ratio of 2:1 as much as possible.
- At least 1000 m² area (4W tractor-drawn).
- The headland shall be at least 3 m in length (depending on tractor size).

■ Test Material and Other Necessities

The following shall also be adequately supplied during the conduct of testing:

- The cassava to be harvested shall be at least grown for 10-14 months after planting;
- The cassava plants should be trimmed to at most 20 cm above soil level before digging commences.
- Fuel sufficient for the entire duration of test trials; and
- Tools for machine repair and adjustments.

■ Machine Setting

- The gear setting of the tractor shall be recorded.

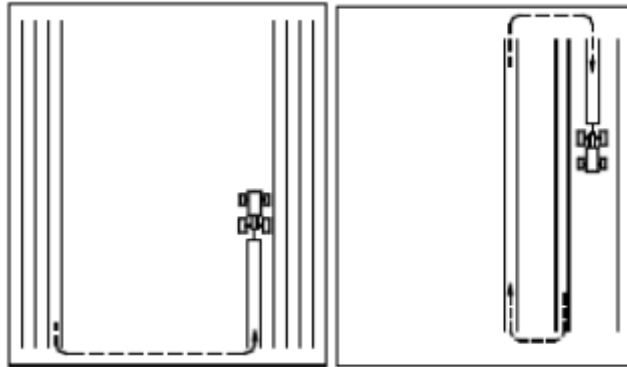


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Agricultural Machinery Testing and Evaluation Center 1977

■ Recommended Tilling Pattern

For the cassava digger, the headland pattern from boundaries (left) and overlapping alteration pattern (right) is recommended.



■ Performance and/or Fabrication Test Requirements

AMTEC shall conduct various tests and verification on different performance parameters of the machine including the following requirements as per PNS/BAFS PAES 244:2018:

■ Fabrication Requirements

Criteria	Requirement as per PNS/BAFS PAES 243:2018
Digger Base Plate	<input type="checkbox"/> It shall be made of mild steel and hardened steel, respectively.
Digging Blade	<input type="checkbox"/> It shall be made of mild steel and hardened steel, respectively. <input type="checkbox"/> It should be replaceable. <input type="checkbox"/> Shall be made of carbon steel with at least 80% carbon content (AISI 1080) or alloy steel with at least 0.0005% boron content.
Coulter	<input type="checkbox"/> Shall be made of carbon steel with at least 80% carbon content (AISI 1080) or alloy steel with at least 0.0005% boron content.
Thrust Wheel and Hitch	<input type="checkbox"/> All shall be made of mild steel.
Frame	<input type="checkbox"/> All shall be made of mild steel. <input type="checkbox"/> Shall have a provision for attaching to the tractor as specified in PAES 118: 2001.
Bolts and nuts, screws, bearings, bushing and seals	<input type="checkbox"/> Shall conform to the food safety requirements, PAES or other international standards.

■ Performance Requirements

Criteria	Requirement as per PNS/BAFS PAES 243:2018
Digging efficiency, %, minimum	98
Depth of cut, mm, minimum	250
Field efficiency, %	65

■ Safety, Workmanship, and Finish

- The noise level should conform with the provisions given in Annex A of PNS/BAFS PAES 243:2018.
- The cassava digger shall be free from any manufacturing defects that may be detrimental to the operation.
- Warning notices shall be provided in accordance with PAES 101:2000.



AMTEC

Agricultural Machinery Testing and Evaluation Center 1977

■ Suspension and Termination of Test

If the test material and test plot do not conform with the recommended quantity and characteristics, AMTEC shall not proceed with the test. Should the test applicant request the conduct of the test despite the non-conformity to the test requirements identified by AMTEC, the applicant shall sign the AMTEC Waiver for Nonconformity to Test Requirements.

AMTEC-OP-F24 (Waiver for Nonconformity to Test Requirements)

On the other hand, if the machine stops due to breakdown or malfunction during the test run affecting the machine's performance, the test may be suspended. If the machine cannot continue the operation, the test shall be consequently terminated.

■ Other Assistance During Test

1. For field tests outside the AMTEC premises, the applicant shall shoulder the transportation expenses (i.e. fuel, toll fees, vehicle rental, plane fare, sea fare, etc.) of the AMTEC Staff assigned for the testing activity.
2. The applicant is requested to assist the AMTEC Staff in looking and/or making arrangements for hotel accommodation and food near the test site.
3. The applicant shall provide drinking water to the AMTEC Staff during the testing activity.
4. The applicant shall provide any form of shed or sunshade (e.g. tent, umbrella, etc.) for the test equipment, samples (if applicable) and AMTEC Staff during the testing activity in the field.
5. The applicant is requested to assist the AMTEC Staff in finding any means to access a safe and convenient restroom near the test site during the testing activity.

■ Testing Fee

1. The testing fee for cassava digger is Php 8,000.
2. To proceed through AMTEC test, the test applicant shall settle at least 50% of the testing fee which is non-refundable but transferrable.
3. In cases of additional testing during the field, the test applicant shall immediately submit the required documents and settle at least 50% of the testing fee within 5 working days after the testing proper.
 Additional testing, number of machines: _____
4. Payment/s shall be directed to the following:
 Through UPLB Cashier's Office (8AM to 12PM): AMTEC Trust Fund Code No. 8271632-40A2040101000
 Through Landbank (8:30AM to 3PM): UPLB Trust Fund Account No. 1892100507 or UPLB FI Account No. 1892-1003-29

■ Other Reminders

1. All manufacturers, fabricators, assemblers, and importers (MFAI) shall secure a Certificate of Conformity (CC) from the Bureau of Agricultural and Fisheries Engineering (BAFE) which guarantees that their agricultural and fisheries machinery conforms with PNS/BAFS PABES or other relevant standards identified by BAFE. More information about the application for CC can be found at <http://bafe.da.gov.ph/index.php/certificate-of-conformity-of-manufacturers-fabricators-assemblers-distributors-dealers-importers-and-exporters/>.
2. All MFAI shall employ an Agricultural and Biosystems Engineer (ABE), as mandated by RA 10915 (ABE Law), who shall facilitate all activities and concerns pertinent to AMTEC testing and BAFE requirements. Do you currently have an ABE in your roster of employees? Yes No