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**Potato collection centre — Basic
requirements**

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Foreword

Rwanda Standards are prepared by Technical Committees and approved by Rwanda Standards Board (RSB) Board of Directors in accordance with the procedures of RSB, in compliance with Annex 3 of the WTO/TBT agreement on the preparation, adoption and application of standards.

The main task of technical committees is to prepare national standards. Final Draft Rwanda Standards adopted by Technical committees are ratified by members of RSB Board of Directors for publication and gazettment as Rwanda Standards.

DRS 315 was prepared by Technical Committee RSB/TC 030, *Roots and tubers*.

This second edition cancels and replaces the first edition (RS 315-1:2016), which has been technically revised.

Committee membership

The following organizations were represented on the Technical Committee on *Roots and tubers* (RSB/TC 030) in the preparation of this standard.

Paragraph of participants

Rwanda Standards Board (RSB) – Secretariat

PUBLIC REVIEW

Potato collection centre— Basic requirements

1 Scope

This Draft Rwanda Standard covers the location, structural, facility, safety and management requirements for a ware potato collection centre.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

RS EAS 748, *Fresh potato tuber (ware potato tuber) — Specification*

3 Terms and definitions

For the purposes of this standard, the following terms and definitions apply.

3.1

Potato collection centre

establishment where ware potatoes are collected from farmers, sorted, cleaned, graded, stored and packaged before distribution.

4 Location

- 4.1 The location of the potato collection centre shall be authorized by competent authority(ies).
- 4.2 The site shall be located at relatively high elevation to avoid water logging and safe from natural flooding calamities.
- 4.3 The potato collection centre shall be accessible by road.
- 4.4 There should be ample space to facilitate movement and parking of vehicle.
- 4.5 The location should have access to utility facilities such as water and electricity

5 Structural requirements

5.1 General

5.1.1 The construction and building materials shall conform to the local building regulation and/or instructions as prescribed by competent authority.

5.1.2 The material shall be durable and non-toxic and wind and water tight.

5.2 Foundation

The foundations shall be of adequate strength to take the weight of the building and of the potato collected/stored and should be termite proofed.

5.3 Floor

6.3.1 The floor shall be adequately strong and capable of withstanding heavy loads and vibrations.

6.3.2 The floor shall be elevated or constructed higher than the existing ground.

6.3.3 The floor shall be hard and easy to clean.

6.3.4 The floor shall be free from cracks where moisture from the ground may affect the stored potatoes. Moisture sealing compound or asphalt should be provided to fill the floor cracks against moisture.

6.3.5 General space of the potato collection centre should be floored with a concrete slab to carry wheel loads and withstand the abrasion generated by the continual use of vehicle and trucks.

6.3.6 The floor shall be provided with sufficient underground tunnel communicated to the outside vents

5.4 Walls

The internal surfaces of the walls shall be free from projections and cracks and should be as to facilitate cleaning and avoid interference with other operations.

5.5 Roofs

6.5.1 Roof design shall be in a way that facilitates pest control and other stock management procedures.

6.5.2 Roof should be provided with the necessary lateral and vertical wind brace to resist forces due to strong wind and earthquakes.

6.5.3 The roof covering materials shall be reflective and keep the building dry

6.5.4 The inclination of the roofs shall be sufficient to drain rainwater quickly and allow water harvesting, taking into account that the water may be forced up by the wind.

6.5.5 Roofs shall be watertight and gulleys kept clear of debris and leaves.

6.5.6 The roof shall be a good thermal insulator, not affected by condensation,

6.5.7 Rainwater drainpipes shall be not less than 90 mm in diameter

6.5.8 The roof shall be elevated as high as possible to avoid heating from the roofing sheets

5.6 Doors

6.6.2 The door shall completely be made of steel without glasses to limit the light to access the inside of the house.

6.6.3 The size of the entrance shall depend on loading and unloading operations and shall not be less than 2.5 m wide and 2.5 m high.

6.6.4 The number of doors shall be determined by the layout of the storage area and should be in way to facilitate the access of the stored potatoes.

5.7 Ventilation

6.7.1 Vents shall be provided near the floor level in the wall, under the level of floor and at the top of the walls near the grid line. A suitable meshed ventilation duct should be placed in each gable so that warm air accumulating under the roof can escape

6.7.2 The vents under the level of the floor shall be communicated with underground tunnel inside the storage area

6.7.3 Ventilation openings shall be fitted on the outside with anti-pests and rodents grills.

6.7.4 In addition to natural ventilation exhaust, fans may be introduced for forced ventilation

6.7.5 Windows should be avoided, if used they shall not be transparent to avoid the light and should be left open as little as possible.

5.8 Illuminations

6.8.1 Skylight shall be avoided in the halls designed to receive ware potato.

6.8.2 Artificial lighting may be installed and shall be used only when necessary otherwise it shall remain switched off.

5.9 Fence

6.9.1 The site may be secured against the unauthorized entry of person and animals.

6.9.2 Gates shall be adequate for their purpose and wide enough to allow easy vehicular access.

6 Storage area layout

5.1 The layout of the storage area shall be as to allow separation of varieties

5.2 The area shall be organized to allow the separation of reception area and outgoing loading area

7 Facility requirements

Facilities shall:

- a) be separate from the main storage area and shall include receiving area, sorting and grading area, potato washing area, store room for equipment, chemical storage room, offices, changing rooms and shower toilets and urinals.
- b) permit protection against cross-contamination
- c) clearly signposted

7.1 Receiving area

7.1.1 The area shall be located away from the storage area.

7.1.2 Potato collection should be provided with weighing.

7.1.3 The area shall be well lighted to facilitate the reception.

7.1.4 It shall be designed and constructed as to protect the weighting equipment and workers against rain and sunshine.

7.2 Changing room and shower

7.2.1 The warehouse shall provide suitable changing room and shower room for workers.

7.2.2 Changing rooms shall be furnished with lockers.

7.2.2 All cleaning materials shall be provided.

7.3 Sorting and grading area

7.1.1 The area shall be located away from the storage area.

7.1.2 Potato collection should be provided with grading equipment.

7.1.3 The area shall be well lighted to facilitate the sorting activities.

7.1.4 It shall be designed and constructed as to protect the grading equipment and workers against rain and sunshine.

7.4 Potato cleaning area

7.2.2 Where washing is necessary the area shall be provided with clean running water and the sink shall be constructed in materials that are not absorbent, easy to clean durable and that cannot impart toxic to potato.

7.2.3 The design shall allow easy drainage and allow the debris and soil to be retained to avoid obstruction of the drainage system.

7.2.4 The area for potatoes to drain shall be provided and shall be:

- a) designed and constructed as to allow easy and rapid drainage;
- b) designed and constructed as to reduce the effects of sunlight;
- c) clean and maintain the cleanliness of the washed potato.

7.5 Office space and related facilities

The office space shall be:

- a) easily accessible for staff and other visitors;
- b) well aerated;
- c) safe and unobstructed;
- d) clean, naturally , well lit and suitably furnished.

7.6 Toilets and urinals

7.4.1 Toilets and urinals for male and female shall be separately provided in the premises of the potato collection centre.

7.4.2 The floor of the toilets and urinals shall be non-absorbent, washable and non-slip materials.

7.4.3 The wall shall be constructed from non- absorbent, washable materials and shall be light coloured, up to a height of 2 metres and they shall be smooth and without crevices and shall be easy to clean and disinfect.

7.4.4 The toilets and urinals shall be provided with hand washing and drying facilities.

7.4.5 The number of toilets shall be adequate for the number of employees and people frequenting the potato collection centre

8 Safety requirements

8.1 Warning signs or boards shall be fixed in hazardous/dangerous places.

8.2 Firefighting equipment in working condition (fire extinguishers, fire hydrants) shall be provided and be installed in a conspicuous and accessible location.

8.3 There shall be provisions for first aid facilities.

8.4 Protective clothes shall be provided to the workers.

9 Handling requirements

9.1 Quality control, sorting and grading

9.1.1 Before bulking with other potatoes, the received product shall be checked for maturity, defects (varietal purity, sprouting, lesions, greening, rotting and mechanical damage,), potato with defects detrimental to the general quality of the products shall be not be mixed with other quality potatoes.

9.1.2 Potato shall be sorted to remove all plant debris, soils and defected potatoes

9.1.3 Care should be taken to avoid mixing of varieties.

9.1.4 Potato shall be graded in accordance with RS EAS 748.

9.2 Storage

9.2.1 Potatoes shall be stored in conditions that keep the quality of the product.

9.2.3 Bulk storage height of potatoes should not exceed 2 m.

9.2.4 The FIFO system shall be applied.

9.3 Packaging

The packaging shall be done in accordance with RS EAS 748.

10 Weights and measures

Ware potato shall be packaged in accordance with weights and measures requirements of the destination country.

11 Labeling

In addition to the requirement in RS EAS 748, the label shall indicate the potato collection centre and the date of harvest.

12 Waste management

12.1 There shall be waste disposal system subject to environmental protection principles.

12.2 The waste disposal area shall be located in a way to avoid harbourage of rodents.

13 Record keeping

Records shall be kept for the quantity collected, variety, suppliers' identification and distribution details.

PUBLIC REVIEW

Bibliography

[1] RS 315: 2016, Potato collection centre — Basic Requirements, First Edition

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