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275-6**

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Seeds — Requirements for certification

Part 6:

Vegetable seeds



Reference number

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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.

PDS 275-5 was prepared by Technical Committee RSB/TC 032, *Seeds and Planting Materials*

RS 275 consists of the following parts, under the general title *Seeds — Requirements for certification*:

- *Part 1: Common bean*
- *Part 2: Rice*
- *Part 3: Wheat*
- *Part 4: Peas*
- *Part 5: Sweetpotatoes*
- *Part 6: Vegetable Seeds.*

Committee membership

The following organizations were represented on the Technical Committee on Seeds and Planting Materials (RSB/TC 032) in the preparation of this standard.

Rwanda Agricultural Board (RAB)

BALTON Rwanda

National Seed Association of Rwanda

Win Win Seed Company

Agri seeds Ltd

MINAGRI

Rwanda Standards Board (RSB) – Secretariat

Seeds — Requirements for certification — Part 6: Vegetable seed

1 Scope

This Draft Rwanda Standard specifies the requirements for certification for sweet vegetables seeds. It applies to local produced and imported seeds as per the list in annex A.

2 Normative references

The following referenced documents are indispensable for the application 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.

International Seed Testing Association ISTA Rules

OECD Seed Schemes; Guidelines for Control Plot Tests and Field Inspection of Seed Crops

3 Terms and definitions

For the purposes of this standard, in addition to the terms and definitions given in ISTA, the following shall apply.

3.1

vegetable seed

grains intended for vegetable or horticultural production but not for ornamental uses

3.2

previous cropping

minimum number of growing seasons that elapse between the production of a crop of the same species in a field and the production of a crop entered in the certification scheme in the same field

3.3

isolation

minimum distance between a field of sweetpotato seeds and any other sweetpotato crop that is required to prevent mechanical contamination

3.4

seed producer

person or entity registered to produce seed

3.5

isolation

minimum distance between a field of sweetpotato seeds and any other sweetpotato crop that is required to prevent mechanical contamination

3.6

inspector

official belonging to a quality control department responsible for performing field control and sampling of seeds

3.7

label

tag or other device that is attached to seeds or that accompanies any lot of bulk seed and which describes the kind of seed and any other required information

3.8

previous cropping

minimum number of growing seasons that elapses between the production of a crop of the same species in a field and the production of a crop entered in the certification scheme in the same field

3.9

seed certification agency

recognized agency responsible for the certification of seed

3.10

off-type

plant of the same species which does not exhibit the recognised and accepted habit and characteristics of the variety being grown

3.11

variety registration

recording of a new variety in a national variety catalogue when it has been tested and satisfied the requirements for distinctness, uniformity, stability, and has value for cultivation and use

3.12**roguing**

removal of off-types and diseased plants or any other unwanted plant from a seed crop if they may reduce the quality of the harvested seed

3.13**seed certification**

quality assurance system whereby seed is subjected to official control and inspection

3.14**seed lot**

defined quantity/number of sweetpotato seed bearing the same reference number and for which the origin, production history and identity is known

3.15**stability**

condition of a variety distinguishing characteristics to remain unchanged after repeated growing cycles

4 Requirements for seed crop declaration

Seed producer of pre-basic, basic and certified seeds shall apply for certification of a seed crop not later than two (2) weeks after planting by filling the form in Annex B.

5 Field requirements**5.1 General requirements**

5.1.1 Crop for locally produced seed shall be inspected by national certification agency

5.1.2 The inspector shall inspect the crop in accordance with OECD seed schemes.

5.1.3 A minimum of three inspections shall be made, the first after plant establishment, the second during flowering stage and the third at maturity stage prior harvesting.

5.1.3 The cultural condition of the field and the stage of development of the crop shall be such as to permit varietal identity and varietal purity and health status to be adequately checked.

5.2 Specific field requirements

Field for the production of vegetable seeds shall comply with minimum requirements as specified in table 1

Table 1 — Field requirements for vegetable seeds

Species	Category	Previous cropping (number of season)	Isolation , m, min*1	Off types, %, max	Plant affected by seed born disease %, max*2
Tomato (<i>Lycopersicum esculentum</i> Mill)	Basic	2	50	0.1	0.1
	Certified	2	25	0.2	0.5
Capsicum (Sweet pepper) & Chilli (<i>Capsicum annum</i> L.)	Basic	2	500	0.1	0.1
	Certified	2	250	0.2	0.5
Eggplant (<i>Solanum melongena</i> L.)	Basic	2	300	0.1	0.1
	Certified	2	150	0.2	0.2
Watermelon (<i>Citrullus lanatus</i> Thumb)	Basic	1	1000	0.1	0.1
	Certified	1	500	0.2	0.5
Cucumber (<i>Cucumis sativus</i> L.)	Basic	1	1000	0.1	0.1
	Certified	1	500	0.2	0.5

Note 1. Seed born diseases are specified in annex C
 Note 2. For enclosed fields (in green houses) the isolation can be reduced

6 Laboratory requirements

Vegetable seeds shall comply with requirements set in table 2

Table 2 — Laboratory requirements vegetable seeds

Species	Category	Pure seed, %, min	Inert mater %, max	Other crop seeds, number per kg, max	Weed seeds number per kg, max	Other distinguishable varieties number per kg, max	Germination, %, min	Moisture, %, max
Tomato (<i>Lycopersicum esculentum</i> Mill)	Basic	98	1	5	0	0	70	10
	Certified	98	2	10	0	0	65	
Capsicum (Sweet pepper) & Chilli	Basic	98	2	5	5	0	65	8

(Capsicum annum L.)	Certified	98	2	10	10	0	60	
Brinjal (Solanum melongena L.)	Basic	98	2	0	0	0	75	8
	Certified	98	2	0	0	0	70	
Watermelon (Citrullus lanatus Thumb)	Basic	98	2	0	0	5	70	7
	Certified	98	2	0	0	10	60	
Cucumber (Cucumis sativus L.)	Basic	98	2	5	0	0	65	7
	Certified	98	2	10	0	0	60	
Radish (Raphanus sativus L)	Certified	98	2	10	20		70	6
Carrot (Dacus carota L)	Certified	95	5	10	20	10	60	8
Onion (Allium cepa L)	Certified	98	2	10	10		70	8
Cauliflower & Broccoli	Certified	98	2	10	10		65	7
Cabbage (Brassica oleracea var capitata L.)	Certified	98	2	10	10		70	7
Spinach & Spinach beet (Spinacia oleracea L & Beta vulgaris (L) var falvesence DC)	Certified	96	4	10	10		60	9
Lettuce (Lactuca sativa L)	Certified	98	2	0	10	20	70	8
Asparagus (Asparagus officinalis L.)	Certified	96	4	10	10		70	8
Bottle Gourd (Lagemaria siceraria Molina)	Certified	98	2	0	0		60	7
Bitter Gourd (Momordica charantia L.)	Certified	98	2	0	0	10	60	7
PARSLEY (Petroselinum crispum (Mill.) Nym.)	Certified	97	3	10	10		65	8

7 Certificates

7.1 Imported vegetables seeds lot shall have required certificates including certificate of origin, phytosanitary certificate and test certificate

7.2 For locally produced test, the test certificate shall be issued upon compliance with field and laboratory requirements

7.3 Test certificate shall be valid for a period of six months.

7.4 After the expiring of the validity of the certificate the seeds shall be re-sampled and retested for germination. If the test result complies with the minimum standards, a new test certificate shall be issued for the seed lot, which cancels the previously issued certificate, and shall include the certificate number of the cancelled certificate.

7.5 The test certificate shall indicate at least the result of the purity and germination test and date of the test.

8 Packaging

8.1 Vegetable seeds shall be packaged in containers that preserve the quality of the seeds

8.2 Seed may be repackaged provided that new label retains the original label information.

8.3 Repackaging shall be authorised by the competent authority

9 Labelling

Vegetable seeds shall be labelled with the following information:

- a) species indicated at least in its botanical name
- b) variety,
- c) category.
- d) month and year of the last official testing for the purposes of certification
- e) reference number of lot.
- f) country of production.
- g) declared net or gross weight or declared number of seeds.
- h) Chemical used for seed dressing where applicable, and
- i) The words "retested" where at least germination has been re-tested (month and year) may be indicated.

10 Methods of sampling and testing

Vegetables seeds shall be sampled and tested in accordance with ISTA Rules

Copy for public review comments

Annex A (normative)

Scope of application of the standard

The standard apply to the following species

S/N	Species
1.	Tomato (<i>Lycopersicon esculentum</i> Mill)
2.	Capsicum (Sweet pepper) & Chilli (<i>Capsicum annum</i> L.)
3.	Brinjal (<i>Solanum melongena</i> L.)
4.	Watermelon (<i>Citrullus lanatus</i> Thumb)
5.	Cucumber (<i>Cucumis sativus</i> L.)
6.	Radish (<i>Raphanus sativus</i> L)
7.	Carrot (<i>Dacus carota</i> L)
8.	Onion (<i>Allium cepa</i> L)
9.	Cauliflower & Broccoli
10.	Cabbage (<i>Brassica oleracea</i> var <i>capitata</i> L.)
11.	Spinach & Spinach beet (<i>Spinacia oleracea</i> L & <i>Beta vulgaris</i> (L) var <i>falvesence</i> DC)
12.	Lettuce (<i>Lactuca sativa</i> L)
13.	Asparagus (<i>Asparagus officinalis</i> L.)
14.	Bottle Gourd (<i>Lagenaria siceraria</i> Molina)

Annex B (normative) Seed crop declaration form

B.1 Field declaration data

FD	For official use
----	------------------

B.2 Seed Producer data

Reg no Name

Crop details

Species	#Name?
Variety name	#Name?

Land type e.g. own, rented, contract

Seed Category (planted)

Area(ha) with one decimal

Lot no (planted)

Official Lot no (planted)

Planting date

A.3 Geodata

Cell	#Name?	Sector	#Name?	District	#Name?	Province	#Name?
GPS	coordinates for field (6 decimals)						
	Longitude	Latitude					

Date

Name

Signature

Date of receiving declaration	<input type="text"/>	For official use
Date of registration	<input type="text"/>	
Registration signature	<input type="text"/>	

Annex C (normative)

Specific seed born diseases

Species	Specific seed born disease
Tomato (<i>Lycopersicon esculentum</i> Mill)	Early blight (<i>Alternaria solani</i> Sorauer), Leaf spot (<i>Stemphylium solani</i> Weber.) and Tobacco Mosaic Virus (TMV)
Capsicum (<i>Sweet pepper</i>) & Chilli (<i>Capsicum annum</i> L.)	Leaf blight: (<i>Alternaria solani</i> Sorauer.); Anthracnose (Ripe rot, Die back); <i>Colletotrichum capsici</i> (Syd.) (Butler & Bisby)
Eggplant (<i>Solanum melongena</i> L.),	Phomopsis blight (<i>Phomopsis vexans</i> (Sacc. & Syd.) Harter)
Watermelon (<i>Citrullus lanatus</i> Thumb)	
Cucumber (<i>Cucumis sativus</i> L.)	
Pumpkin (<i>Cucurbita pepo.</i>)	
Amaranthus	
Snap peas	
Sukumaweek (kales) (<i>Brassica oleraceae</i> var <i>sabellica</i>)	

Annex D (informative) Field inspection report

Reference number.....
Date of the report.....

seed grower information

Name Address

Telephone: E-mail.....

Registration number..... Number of inspection.....

Field location

Province/Region..... District Sector

Latitude..... Longitude Field number.....

Field size (Ha/acre) Cropping season Crop species

Seed class Variety Previous cropping.....

Variable	Observations/results	Comments/remarks
Isolation, m		
Off types		
Noxious weeds		
Seed born disease		
Other crops		
General conditions of the crop (for example, drought, crop husbandry, etc.)		

Decision

Decision on the approval	Justification
The seed crop is approved for certification	
The seed crop is not approved for certification	

Seed grower
Date & signature

Inspector signature
Date & signature

National seed certification authority
Date & signature

Annex E
(informative)

Seed laboratory test report

Name of seed grower:												
Species, variety, class, weight of lot:												
Testing and Issuing laboratory:												
Sampled by:												
Test number:												
Country of origin:												
Label serial number:												
Seed Lot Reference Number:												
Number of containers				Date of sampling			Date sample received		Date test(s) concluded		Test number	
ANALYSIS RESULTS												
Purity					Germination						Moisture content, %	
Pure seed %	Inert matter, %	Other crop seeds number per kg	Weed seeds number per kg	Other varieties number per kg	Number of days	Normal seedlings, %	Hard seeds, %	Fresh seeds, %	Abnormal seedlings, %	Dead seeds, %		
Kind of inert matter:												
Other crop seeds:												
Weed seed:												
Other determinations:												
Place					Date				Signature			

Annex F
(informative)

Seed test certificate

This certificate is issued for a seed lot which has satisfied all the requirements of the certification scheme.

Previously issued certificate number.....		Certificate No.	Standard:						
SEED GROWER INFORMATION									
Name:		Address:		Country of origin:					
SEED LOT INFORMATION									
Seed Lot Reference Number	Species and variety	Class	Weight of lot	Number of containers					
SAMPLING AND TESTING INFORMATION									
Date of sampling	Sampled by	Date sample received	Date test(s) concluded						
Name of testing laboratory:		Test number:							
ANALYSIS RESULTS									
Purity				Germination			Moisture content, %		
Pure seed %	Inert matter %	Other crop seeds %	Weed seeds Per kg	Normal seedlings	Abnormal seedlings	Fresh seeds		Hard seeds	Dead seeds
Kind of inert matter: Kind of other crop seeds: Kind of weed seeds: Other determinations:				Statement of packaging and re-labelling: (if applicable)					

National Seed Certification Authority

Signature

Place and Date

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