Seed for brassica vegetable crops — Specification

© KEBS 2023

Third Edition 2010
KS 1170: 2023

TECHNICAL COMMITTEE REPRESENTATION

The following organizations were represented on the Technical Committee:

Kenya Seed Company
Seed Trade Association of Kenya (STAK)
Institute of Packaging
Consumer Information Network
Kenya Plant Health Inspectorate Service (KEPHIS)
Kenya Organic Agriculture Network
Kenya Agricultural Research Institute
Horticultural Crops Development Authority
Kenya Bureau of Standards — Secretariat

REVISION OF KENYA STANDARDS

In order to keep abreast of progress in industry, Kenya Standards shall be regularly reviewed. Suggestions for improvements to published standards, addressed to the Managing Director, Kenya Bureau of Standards, are welcome.

© Kenya Bureau of Standards, 2023

Copyright. Users are reminded that by virtue of Section 25 of the Copyright Act, Cap. 12 of 2001 of the Laws of Kenya, copyright subsists in all Kenya Standards and except as provided under Section 26 of this Act, no Kenya Standard produced by Kenya Bureau of Standards may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing from the Managing Director.
Seed for brassica vegetable crops — Specification
**KS 1170: 2023**

**Foreword**

This Kenya Standard was prepared by the Propagation Materials Technical Committee under the guidance of the Standards Projects Committee, and it is in accordance with the procedures of the Kenya Bureau of Standards.

The revision of this standard has been necessitated by the need to incorporate new developments in the seed industry.

This standard specifies minimum field requirements in seed production and seed quality. It is subject to the provisions of the Seed and Plant Varieties Act, Cap. 326 and the regulations that may be framed thereof.

During the preparation of this standard, reference was made to the following documents:
- Minimum seed certification standard, United States.
- International Crop Improvement Association, Publication No. 21. OECD Schemes for seed certification.

Acknowledgement is hereby made for the assistance derived from these sources.
Seed for brassica vegetable crops — Requirements for certification

1 Scope

1. This Kenya standard prescribes the requirements for certification of seeds for Brassica vegetable crops that are locally produced or imported.

This standard applies to seeds of the vegetables in the Brassica family given in Table 1.

Table 1 — Genus — Brassica

<table>
<thead>
<tr>
<th>Sl no</th>
<th>Common name</th>
<th>Botanical name</th>
</tr>
</thead>
<tbody>
<tr>
<td>i)</td>
<td>Cabbage</td>
<td>Brassica oleracea var capitata</td>
</tr>
<tr>
<td>ii)</td>
<td>Cauliflower</td>
<td>Brassica oleracisa var botrytis</td>
</tr>
<tr>
<td>iii)</td>
<td>Kales</td>
<td>Brassica oleracia var acephala</td>
</tr>
<tr>
<td>iv)</td>
<td>Brussels Sprouts</td>
<td>Brassica oleracia var gemmifera</td>
</tr>
<tr>
<td>v)</td>
<td>Broccoli</td>
<td>Brassica oleracia var italica</td>
</tr>
</tbody>
</table>

2 Terms and Definitions

The terms and definitions in KS 790 shall apply.

3 Requirements

General field requirements

4.1 General

The seed companies and the seed growers of brassica seed shall be registered by the Designated National Authority.

Key parameters required to implement this standard are the variety descriptors, the genetic purity of the seed sown, the field and laboratory requirements and the post-control tests.

4.2 Eligible varieties

4.2.1 Varieties eligible for seed certification shall be those that have been examined, tested and registered in the national list of varieties/variety catalogue.

4.2.2 The national seed certification authority shall keep the official descriptors of the varieties in hard and electronic copies.
4.3 Application for seed field Inspection

4.3.1 registered growers will make applications for seed field inspection to the certification Authority by filling in the prescribed form;

The minimum information for an application for certification of a cucurbit seed field shall include the following:

a) name, address and contact details of the seed grower;

b) crop and variety to be sown;

c) physical location;

d) area and reference number of the field, and its cropping history for the past two cropping seasons;

e) class of seed to be produced; and

f) registration number of the seed grower

g) proof of origin of the seed planted.

4.3.2 Information and records related to the previous cropping history, origin of seed planted, and field inspections shall be kept and used for certification to ensure full traceability of quality, genetic identity and purity of the seed harvested.

4.3.3 The inspection of seed crops shall be done in accordance with OECD Seed Schemes; Guidelines for Control Plot Tests and Field Inspection of Seed Crops.

4.3.4 The seed lot shall be sampled and tested in an official or authorized laboratory. The sampling and testing of seed lots shall be done in accordance with the relevant procedures described in the ISTA rules.

4.3.5 A seed lot that conforms to the requirements set out in Table 3 shall be given a seed test certificate and a unique reference number to confirm its status under the certification scheme. One part of the seed sample shall be retained for sowing in a post-control plot in the next season, or earlier if that can be achieved.

4.4 Seed classes

For the purpose of this standard, the following classes of seed shall apply:

- Breeders seed
- Prebasic
- Basic seed
- certified seed:-C1- 1st generation
  - C2-2nd generation
- Standard seed

5.0 Field requirements
5.1 The crop shall not be planted on land on which the same kind of crop or any other cole crop was grown in the previous two seasons, unless the seeds of the previous crop were certified.

5.2 An isolation distance of not less than 500 m shall be provided all around a seed field to separate it from fields of other varieties crops, other varieties and fields of the same variety from which no seed production is intended. This distance can be disregarded if there is sufficient protection from undesirable pollen sources and seed borne diseases.

5.3 Off type plants shall be rouged at or before flowering. Maximum off type plants allowed for certified and commercial seed shall be 0.1%. Basic seed crop shall be required to be practically free of off types.

1) Glossary of terms for seeds.
© KEBS 2010 — All rights reserved
5.4 At least two inspections shall be made.

6.0 Specific field quality requirements

The minimum requirements for producing seed of Brassica crops shall be as given in Table 2.

Table 2 — Specific field quality requirements

<table>
<thead>
<tr>
<th>Sl no</th>
<th>Factor</th>
<th>Maximum permitted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Basic seed (%)</td>
</tr>
<tr>
<td>i)</td>
<td>Plants affected by seed borne diseases</td>
<td>0.0</td>
</tr>
<tr>
<td>ii)</td>
<td>Off-types</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Certified seed (%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.1</td>
</tr>
</tbody>
</table>

7.0 Seed quality requirements

Seeds shall comply with the requirements given in Table 3.

Table 3 — Seed quality requirements for *brassica* vegetable seeds

<table>
<thead>
<tr>
<th>Sl no</th>
<th>Factor</th>
<th>Requirements for all seed classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Purity</td>
<td></td>
</tr>
<tr>
<td>i)</td>
<td>Pure seed m/m, min.</td>
<td>97</td>
</tr>
<tr>
<td>ii)</td>
<td>Inert matter m/m, %, max.</td>
<td>1</td>
</tr>
<tr>
<td>iii)</td>
<td>Other crop seed, m/m, %, max.</td>
<td>1</td>
</tr>
<tr>
<td>iv)</td>
<td>Objectionable weed seeds m/m, %, max.</td>
<td>0.3</td>
</tr>
<tr>
<td>B</td>
<td>Germination capacity, percentage by count</td>
<td></td>
</tr>
<tr>
<td>i)</td>
<td>Cabbage</td>
<td>75</td>
</tr>
<tr>
<td>ii)</td>
<td>Cauliflower</td>
<td>70</td>
</tr>
<tr>
<td>iii)</td>
<td>Kales</td>
<td>70</td>
</tr>
<tr>
<td>iv)</td>
<td>Brussels sprouts</td>
<td>75</td>
</tr>
<tr>
<td>v)</td>
<td>Broccoli</td>
<td>75</td>
</tr>
<tr>
<td>C</td>
<td>Moisture content, max. m/m, %</td>
<td>10</td>
</tr>
</tbody>
</table>

8.0 *Brassica* vegetables Seed disease requirements

Request table for diseases from KEPHIS

9.0 Certificates

8.1 The seed test certificate for a seed lot shall be issued by the national seed certification authority.

8.2 This certificate shall be valid for a period of 9 months.

8.3 Carryover seed shall be re-sampled and retested for germination upon expiry of the validity period of certification. If the test result complies with the minimum requirements, a new test certificate shall be issued for the seed lot, which cancels the previously issued certificate and shall include reference to previously certified seed lot.
9 Environment

Brassica seed shall be produced and handled in an environment complying with the stipulations of the Environmental Management and Co-ordination Act (EMCA) Cap 387 of the Laws of Kenya and in addition conforming to modern production technological practices.

10 Packaging and labelling

10.1 All classes of seed that have been certified shall be packaged and labelled in accordance with prevailing national regulations.

10.2 If seeds are treated with any chemical or product harmful for human or animal consumption, the container shall carry a label stating the chemical or product used and warning of the health risks.

10.3 The labels shall be prominent, indelible, legible, uniquely serialized and fixed to the package by an authorized person in such a way that they cannot be destroyed or easily removed.

10.4 The minimum labelling requirements shall include:

   i. name of the crop
   ii. species (Latin name);
   iii. variety name;
   iv. seed lot number;
   v. net weight;
   vi. seed treatment declaration (if applicable);
   vii. logo of the national designated authority;
   viii. name and address of certifying authority;
   viii. seed class;
   ix) germination percentage
   x) percentage purity
   xi) name and address of the registered seed company under the provisions as stipulated by the National designated authority

x. statement of re-packing and re-labelling (if applicable)
xi. statement stating “Not for human and animal consumption”.

xii) A declaration shall be made on the genetic modification status of the seeds

Note: the label may also contain other information such as the test certificate number and the date of test where applicable

10.5 All containers/bags shall be sealed in such a way that if they are opened illegally, that violation can be detected.

10.6 Repackaging and relabeling are authorized in the following cases:

a) the national seed certification authority may authorize the re-packaging and re-labelling of a particular seed lot that is produced in another country, but shall retain the original label information of the producing country; and

b) blending of a seed lot with other lots of the same variety and class (generation) is allowable if all seed lots of the blend have met the field and laboratory requirements for certification prior to blending. A new lot number shall be issued. Details of the blended lots and their proportions shall be kept by the certifying authority for traceability

11 Post-control tests

The Post control tests shall be carried out in accordance with OECD Schemes for Varietal Certification or the Control of Seed Moving in the International Trade

12 Sampling and testing

Sampling and tests shall be carried out in accordance with the current International Seed Testing Association (ISTA) procedures and as prescribed by the seeds and plant varieties act.
2) Name of the chemical.