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Millet in husk

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1 Scope

This document lays down the classification, quality requirements, inspection rules, labelling, packaging, storage and transport requirements for millet in husk, and describes the corresponding inspection methods.

This document applies to commercial millet in husk that is purchased, stored, transported, processed and sold.

2 Normative references

The contents of the following documents constitute indispensable provisions of this document through normative reference in the text. For dated references, only the edition corresponding to that date applies to this document; for undated references, the latest edition, including all amendments, applies to this document.

GB 5009.3 National food safety standard - Determination of moisture in foods

GB/T 5490 Inspection of grain and oils - General rules

GB/T 5491 Inspection of grain and oilseeds - Methods for sampling and sample division

GB/T 5492 Inspection of grain and oils - Identification of colour, odour and taste of grain and oilseeds

GB/T 5494 Inspection of grain and oils - Inspection of foreign material and unsound kernels

of grain and oilseeds

GB/T 5497 Inspection of grain and oilseeds - Methods for determination of moisture content

GB/T 5498 Inspection of grain and oils - Determination of test weight

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Foxtail millet; millet in husk. The caryopsis of cultivated foxtail millet, a herbaceous plant of the grass family. Note: the husk may be red, orange, yellow, white, purple or black. The fruit is oval in shape. Source: GB/T 22515-2008, 2.2.5.7, modified.

3.2 Test weight. The mass of millet kernels contained in a unit volume. Note: expressed in grams per litre (g/L).

3.3 Unsound kernel. A millet kernel that is defective or damaged but still has value in use. Note 1: this includes insect-damaged kernels, spotted kernels, sprouted kernels and mouldy kernels. Note 2: an insect-damaged kernel is one bored by insects with damage to the germ or the endosperm. Note 3: a spotted kernel is one with disease spots on its surface and damage to the germ or the endosperm. Note 4: a sprouted kernel is one in which the shoot or radicle has broken through the seed coat but is no longer than the kernel itself. Note 5: a mouldy kernel is a kernel that has gone mouldy.

3.4 Foreign material. Matter other than millet, and millet kernels that have no value in use. Note 1: this includes through-sieve material, inorganic foreign material and organic foreign material. Note 2: through-sieve foreign material is material that passes through a sieve with round holes of 1.2 mm diameter. Note 3: inorganic foreign material is mineral matter such as sand and stones, cinders, brick and tile fragments and soil, and other inorganic matter. Note 4: organic foreign material is grain of other species, millet with no value in use, and other organic matter.

3.5 Colour and brightness. The colour and lustre presented by a lot of millet under specified conditions.

3.6 Odour. The smell given off by a lot of millet under specified conditions.

4 Quality requirements

The quality of millet in husk shall comply with Table 1, in which test weight is the grading indicator and grade 2 is the middle grade.

Table 1 sets the test weight for each of the three grades: grade 1 not less than 670 g/L, grade 2 not less than 650 g/L and grade 3 not less than 630 g/L. The remaining limits are common to all grades: unsound kernel content not more than 1.5 percent; total foreign material not more than 2.0 percent, of which inorganic foreign material not more than 0.5

percent; moisture content not more than 13.5 percent; and colour, brightness and odour normal.

5 Inspection methods

5.1 Sampling and sample division: carried out in accordance with GB/T 5491.

5.2 Inspection of test weight: carried out in accordance with GB/T 5498.

5.3 Inspection of foreign material and unsound kernels: carried out in accordance with GB/T 5494, where the mineral matter of that standard is the inorganic foreign material of this document.

5.4 Inspection of moisture: carried out in accordance with GB 5009.3 or GB/T 5497, GB 5009.3 being the referee method.

5.5 Inspection of colour, brightness and odour: carried out in accordance with GB/T 5492.

6 Inspection rules

6.1 The general rules of inspection are those of GB/T 5490.

6.2 Inspection lot: millet of the same kind, the same place of origin, the same year of harvest, the same transport unit and the same storage unit.

6.3 Rules of judgement: the test weight shall meet the requirement of the corresponding grade in Table 1; millet whose test weight is below the lowest grade given in Table 1 shall be treated as off-grade. If one or more of the other indicators fails to comply, the lot is judged not to comply with this document.

7 Labelling

The name of the product, its classification, grade, place of origin and year of harvest shall be stated on the packaging or in the accompanying documents.

8 Packaging, storage and transport

8.1 Packaging. The packaging shall be clean, strong and undamaged, and the closure shall be tight and firm, with no spillage. It shall not bring contamination or abnormal odour to the product.

8.2 Storage. The product shall be stored in a warehouse that is clean, dry, rainproof, damp-proof, insect-proof, rodent-proof and free of foreign odour, and shall not be stored together with toxic or harmful substances or with materials of high moisture content.

8.3 Transport. The means of transport used shall meet hygiene requirements, and care shall be taken during transport to prevent wetting by rain and contamination.