

ICS 67.080.10

CCS B 31



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 19697-2008

Replacing GB 19697-2005

Product of geographical indication - Huangyan mandarin

地理标志产品 黄岩蜜桔

Issued on: June 25, 2008

Implemented on: October 1, 2008

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

Table of Contents

Foreword

1 Scope

2 Normative references

3 Protected area of the geographical indication

4 Terms and definitions

5 Requirements

6 Test methods

7 Inspection rules

8 Marking, packaging, transport and storage

Annex A (normative) Map of the protected area of the Huangyan mandarin geographical indication product

Annex B (informative) Cultivation technique

1 Scope

The standard lays down the protected area of the geographical indication, the terms and definitions, the requirements, the test methods, the inspection rules, and the marking, packaging, transport and storage of Huangyan mandarin.

It applies to Huangyan mandarin whose protection has been approved by the administrative authority for quality supervision, inspection and quarantine under the Provisions on the Protection of Geographical Indication Products.

2 Normative references

The references cited are GB 2762 on limits of contaminants in food; GB/T 8210 on methods of inspection for export fresh citrus fruits; GB/T 8855 on methods of sampling fresh fruits and vegetables, cited as GB/T 8855-1988, eqv ISO 874:1980; GB/T 10547 on citrus storage; GB/T 13607 on packaging of apples and citrus; JJF 1070 on rules of metrological testing for net quantity of products in prepackages; NY 5014 on pollution-free food, citrus fruits; NY/T 5015 on pollution-free food, technical rules for citrus production; and Order [2005] No. 75 of the General Administration of Quality Supervision, Inspection and Quarantine, Measures for the Metrological Supervision and Administration of Quantitative Prepackaged Goods.

3 Protected area of the geographical indication

The protected area is limited to the area approved for protection by the administrative authority for quality supervision, inspection and quarantine under the Provisions on the Protection of Geographical Indication Products, that is the territory presently administered by Huangyan District, as shown in Annex A.

4 Terms and definitions

4.1 Huangyan mandarin: the distinctive varieties Bendizao, Zaoju, Ruju, one further variety whose name is not resolved in the scanned text, and Miyagawa Satsuma mandarin, originating within the protected area of the geographical indication product.

4.2 blemish: the skin markings and scars left by healed damage from pests and diseases, physiological disorders and mechanical injury.

4.3 neighbour grade fruits mixed: fruits of two adjacent grades mixed together, the extent of mixing being expressed as a percentage.

4.4 unneighbour grade fruits mixed: fruits of non-adjacent grades mixed together, the extent of mixing being expressed as a percentage.

5 Requirements

5.1 Growing environment. Climate: mean annual air temperature 16.5 °C to 17.5 °C; effective accumulated temperature for the year at or above 10 °C of 5 300 °C to 5 500 °C; mean January temperature at or above 4.0 °C; extreme low temperature not below -7.0 °C. Soil: pH 6 to 7, salt content below 0.1 %, organic matter content at or above 1.5 %, with a deep soil layer; paddy soils, fluvo-aquic soils, red soils and yellow soils with an active layer over 60 cm are all suited to planting.

5.2 Cultivation technique. Cultivation technique is given for information in Annex B.

5.3 Fruit size grades and quality grades. Fruit is graded S, M or L by the transverse diameter of the fruit, as set out in Table 1; fruits differing by more than 10 mm shall not be packed together. Table 1 is in millimetres and has one column for each of the three size grades against five variety rows. For Bendizao it fixes $45 \leq D < 50$ for S, $50 \leq D < 60$ for M and $60 \leq D < 65$ for L; for Zaoju, $50 \leq D < 55$, $55 \leq D < 65$ and $65 \leq D < 70$; for the variety whose name is not resolved in the scan, $55 \leq D < 60$, $60 \leq D < 70$ and $70 \leq D < 80$; for Ruju, $30 \leq D < 40$ for S, no value for M, and $40 \leq D < 50$ for L; and for Miyagawa Satsuma mandarin, $50 \leq D < 60$, $60 \leq D < 70$ and $70 \leq D < 75$. A note gives D as the transverse diameter of the fruit. Each size grade is divided into superior grade, first grade and second grade fruit; fruit of every grade shall be whole and fresh, with a clean surface and a true flavour, sweet and pleasant to eat, and shall meet Table 2. Table 2 sets, for superior grade fruit, a well formed shape and clean smooth surface, full colouring, an intact calyx and a smooth cut, a largest blemish not over 3 mm and blemishes totalling not over 3 % of the peel area, no mechanical injury, no rotten fruit, neighbour grade fruits mixed not

over 10 % and no unneighbour grade fruits mixed. For first grade fruit it sets colouring over 90 %, a largest blemish not over 4 mm, blemishes totalling not over 5 % of the peel area, no mechanical injury, no rotten fruit, neighbour grade fruits mixed not over 10 % and no unneighbour grade fruits mixed. For second grade fruit it sets a fairly clean surface, colouring over 80 %, a largest blemish not over 5 mm, blemishes totalling not over 10 % of the peel area, mechanical injury not over 5 %, no rotten fruit, neighbour grade fruits mixed not over 10 % and no unneighbour grade fruits mixed.

5.4 Physical and chemical indicators. Table 3 fixes an edible proportion of at least 70.0 %, soluble solids of at least 11.5 %, and total acid, calculated as citric acid, of at most 1.0 %.

5.5 Safety indicators shall meet the relevant provisions of NY 5014 and GB 2762.

5.6 Net content on packing shall meet the Measures for the Metrological Supervision and Administration of Quantitative Prepackaged Goods.

6 Test methods

6.1 Fruit size is checked with a grading board whose holes are made to the size grades listed in the standard.

6.2 Quality grade is checked item by item against the grading conditions: the sample is placed in a clean porcelain tray and its shape, colour, gloss and evenness observed with the naked eye in natural light, and the fruit tasted.

6.3 Physical and chemical indicators: edible proportion, soluble solids and total acid are all determined as laid down in GB/T 8210.

6.4 Safety indicators are determined under the relevant provisions of NY 5014 and GB 2762.

6.5 Net content is checked as laid down in JJF 1070.

7 Inspection rules

7.1 Batching. Huangyan mandarin of the same unit, variety, grade, packaging and storage condition forms one inspection batch.

7.2 Sampling follows GB/T 8855.

7.3 Delivery inspection. Every batch shall be inspected and passed by the quality inspection department of the producing unit and carry a certificate of conformity before delivery; delivery inspection covers fruit size, quality grade, soluble solids, net content, packaging and marking.

7.4 Type inspection. The items of type inspection are those laid down in 5.3 to 5.6. Type inspection shall be carried out where a comparatively large difference appears between the

results of two successive sampling inspections; where the production environment has changed appreciably through human or natural factors; or where the national quality supervision body calls for it.

7.5 Rules of judgement. Where fruit failing on size or quality grade is not more than 7 % of the total fruit and the physical and chemical indicators, the safety indicators, the net content and the marking all pass, the batch is judged to pass. Where fruit failing on size or quality grade exceeds 7 % of the total fruit, or any one of the physical and chemical indicators, the safety indicators and the net content fails, or the marking fails, the batch is judged to fail. Where fruit size or packaging fails on inspection, the producing unit is allowed to put matters right and apply for re-inspection.

8 Marking, packaging, transport and storage

8.1 Marking. The outer package shall carry the name and address of the producing unit, the product name Huangyan mandarin, the variety, the fruit size grade S, M or L, the fruit quality grade superior, first or second, the net content, the date of packing, the dedicated mark for geographical indication products, the number of the standard applied, and warnings such as handle with care and protect from sun and rain.

8.2 Packaging follows the relevant provisions of GB/T 13607.

8.3 Transport. The means of transport shall be clean, dry and free from odour. Stacking follows the relevant provisions of NY 5014.

8.4 Storage at ambient temperature follows GB/T 10547.

Annex A Map of the protected area of the Huangyan mandarin geographical indication product (normative)

Figure A.1 is the map of the protected area. A note records that the protected area of the Huangyan mandarin geographical indication product is limited to the territory presently administered by Huangyan District. The map itself is a drawing and is not reproduced in the extracted text.

Annex B Cultivation technique (informative)

B.1 Variety characteristics. The annex describes tree habit and fruit for Bendizao, Zaoju, the variety whose name is not resolved in the scan, Miyagawa Satsuma mandarin and Ruju, covering crown form, vigour, branching, leaf and flower characters, fruit shape, peel colour, number of segments, central core, flesh and flavour, seed number and embryony, ripening period and yield per 667 square metres.

B.2 Nursery stock production. Rootstock seedlings: seed of selected Goutoucheng or trifoliate orange is collected in late September to early October and sown in early to mid