

THIS REPORT CONTAINS ASSESSMENTS OF COMMODITY AND TRADE ISSUES MADE BY
USDA STAFF AND NOT NECESSARILY STATEMENTS OF OFFICIAL U.S. GOVERNMENT
POLICY

Voluntary Public

Date: 7/25/2012

GAIN Report Number: 12048

China - Peoples Republic of

Post: Beijing

National Standard of Seed Potatoes (Draft for Approvals)

Report Categories:

Food and Agricultural Import Regulations and
Standards - Certification

Approved By:

Scott Sindelar

Prepared By:

M Meador and Ma Jie

Report Highlights:

On July 18, 2012, China notified the WTO of National Standard of Seed Potatoes as G/TBT/N/CHN/920. The standard was drafted for regulating the production of seed potatoes, maintaining seed potato trade order, promoting supervision and administration, and protecting the benefits of farmers. The date for submission of final comments to China is September 16, 2012. The proposed date of adoption of the standard is 90 days after its notification to the WTO, and date of its entry into force is 6 months after the notification. This report is an INFORMAL translation of this document. Comments can be sent to China's TBT National Notification and Enquiry Center at tbt@aqsiq.gov.cn.

General Information:

BEGIN TRANSLATION

The National Standard of the People's Republic of China

GB 18133—200×

Replacing GB18133-2000, and partially replacing GB4406-1984

Seed Potatoes

(Draft for Approval)

Issued by Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China
China National Standardization Management Committee

Preface

Article 5.2 of this standard is mandatory and the rest is recommended.

This standard is composed in line with the rules of GB/T1.1—2009.

This standard replaces standard of “Virus-free Potatoes Seed” (GB18133-2000), and partially replaces standard of “Potatoes Seed” (GB4406-1984).

There are the following differences between this standard and the standard of “Virus-free Potatoes Seed” (GB 18133-2000):

- Revised name of the standards;
- Added the regulatory reference files;
- Revised the terms and definitions;
- Modified the classification of potatoes seed;
- Revised requirements and methods of inspection for the field quality;
- Revised requirements and testing methods for the tuber-quality;
- Added laboratory rules;
- Revised grading rules;
- Removed content about transportation;
- revised label contents.

This standard replaces potatoes classification and the classification indexes in “Potatoes Seed” (GB4406-1984).

This standard is proposed by the Ministry of Agriculture of the People's Republic of China. This standard is reviewed by the National Seed Standardization Technical Committee (SAC/TC37).

Drafting unit of this standard: Heilongjiang Plants Virus-free Seedling Academy of Institute of Agricultural Sciences (MOA’s Quality Supervision, Inspection and Test Center for Virus-free Potato Seed - Harbin), the Institute of Vegetables and Flowers of Chinese Academy of Agricultural Sciences, Keshan Branch of Heilongjiang Academy of Agricultural Science, , Department of Agriculture of Northeast Agricultural University, MOA’s Potatoes Quality Supervision, Inspection and Test Center (Zhangjiakou), S Horticulture institute of Hunan Agricultural University, Southeast China Agricultural University, Potatoes Institute of Yunnan Normal University, China Inspection and Quarantine Research Institute, and the Beidahuang Seed Potatoes Research and Development Center.

The main draftsmen: Bai Yanju, Bian Chunsong, Li Xuezhao, Jin Liping, Xie Kaiyun, Sheng Wanmin, Chen Yili, Wang Fengyi, Yin Jiang, Xiong Xingyao, Xie Conghua, Li Canhui, Li Mingfu, Qiao Yongjun, and Yu Bin.

Issue of the historical versions of the substituted standards:

——GB 18133-2000;

——GB 4406-1984.

Seed Potatoes

1. Scope

This standard stimulates the minimum requirements of the quality indexes, methods of inspection and labels for the classification of the seed potatoes.

This standard applies to production, inspection, sales of seed potatoes as well as product certification and quality supervision in the People's Republic of China.

2. Regulatory reference files

The following documents are indispensable for the application of this document. Only the versions of the references noted with date are suitable for the document. The latest versions (including all the revised lists) of those without noting date are applied to this standard.

GB 20464 General Rules for Crops’ Seed Labels

3. Terms and definitions

The following terms and definitions apply to this section of GB 18133.

3.1 Seed potatoes

It refers to pre-elite, elite, qualified I and II seeds that can conform to the corresponding quality specified by the standards.

3.2

Pre-elite (G1)

Conduct productions with breeder seed, virus-free tissue culture seedling or test tube potatoes under insect-proof net, greenhouse and other isolated conditions, and the requirements of 5.2 in this standard shall be reached through quality inspection.

3.3 Elite (G2)

It refers to the seed potatoes to produce qualified I seed with pre-elite as seed potatoes in good isolation conditions, which can conform to the requirements in 5.2 of this standard.

3.4

Qualified I (G3)

It refers to the seed potatoes in a relatively isolated environment to produce qualified II seed with pre-elite as seed potatoes in good isolation conditions, which can conform to the requirements in 5.2 of this standard.

Qualified II (G4)

It refers to the seed potatoes in a relatively isolated environment, to produce potatoes products with pre-elite as seed potatoes in good isolation conditions, which can conform to the requirements in 5.2 of this standard.

3.6

Seed potato lot

The potatoes plant or tuber should be a lot which has the same source, plot, variety and level, planted in the same period, and whose quality is basically consistent.

4 Pests

4.1 Non-quarantine limited pests

4.1.1 Virus

Potato virus X, PVX

Potato virus Y, PVY

Potato virus S, PVS

Potato virus M

Potato leafroll virus, PLRV

4.1.2 Bacterium

Ralstonia solanacearum

Erwinia carotovora subspecies *atroseptica*, *Erwinia carotovora* subspecies

Carotovora, *Erwinia chrysanthemi*

Streptomyces scabies

4.1.3 Fungus

Phytophthora infestans

Fusarium

Pythium ultimum

Rhizoctonia solani

4.1.4 Insects

Phthorimaea operculella

4.2. Quarantine pests

4.2.1 Virus and viroid

Potato virus A, PVA

Potato spindle tuber viroid, PSTVd

4.2.2 Fungus

Synchytrium endobioticum

4.2.3 *Clavibacter michiganensis* subspecies *sepedonicus*

4.2.4 Potato witches' broom phytoplasma

4.2.5 Insects

Leptinotarsa decemlineata

5 Quality requirements

5.1 Classification of seed potatoes

Levels of seed potatoes can be divided into pre—elite, elite, qualified I and II seed.

5.2 Quality requirements of seed potatoes at all levels

5.2.1 Permission rate for quarantine venereal insect

The permission rate of all quarantine pests listed in 4.2 is "0" during production of seed potatoes, and such diseases and pests shall be immediately reported to the quarantine departments once found; the quarantine departments are responsible for taking corresponding measures according to the varieties of diseases and insects. At the same time, all potatoes in this plot shall not be used as seed potatoes.

5.2.2 Permission rate of non-quarantine pests and other items

Non-quarantine pests and other inspection items shall conform to the maximum requirements (see table 1, table 2 and table 3)

Table 1 Plant qualities requirements for field inspection of seed potatoes at all levels

| Items | | Permission rate(%) ^a | | | |
|----------------|----------------------------|---------------------------------|-------|------------------|-------------------|
| | | Pre-elite | Elite | Qualified I seed | Qualified II seed |
| Mixture | | 0 | 1.0 | 5.0 | 5.0 |
| Virus | Serious floral leaf | 0 | 0.5 | 2.0 | 5.0 |
| | Leafroll | 0 | 0.2 | 2.0 | 5.0 |
| | Viral disease ^b | 0 | 1.0 | 5.0 | 10.0 |
| Bacterial wilt | | 0 | 0 | 0.5 | 1.0 |

| | | | | |
|--|---|-----|-----|-----|
| Black shank | 0 | 0.1 | 0.5 | 1.0 |
| a. It refers to the percentage that positive samples of the inspected items account for the total number of samples inspected. | | | | |
| b. It refers to all the plants with virus symptom | | | | |

Table 2 Inspection quality requirements for seed potatoes at all levels after being harvested

| Items | Permission rate (%) | | | |
|--------------------------------------|---------------------|-------|------------------|-------------------|
| | Pre-elite | Elite | Qualified I seed | Qualified II seed |
| General viral disease (PVY and PLRV) | 0 | 1.0 | 5.0 | 10.0 |
| Bacterial wilt | 0 | 0 | 0.5 | 1.0 |

Table 3 storeroom inspection tuber quality requirements for seed potatoes at each level

| Items | Permission rate (piece /100 pieces) | Permission rate (piece/50kg) | | |
|----------------------------------|-------------------------------------|------------------------------|------------------|-------------------|
| | Pre-elite | Elite | Qualified I seed | Qualified II seed |
| Mixture | 0 | 3 | 10 | 10 |
| Wet rot disease | 0 | 2 | 4 | 4 |
| Soft rot | 0 | 1 | 2 | 2 |
| Late blight | 0 | 2 | 3 | 3 |
| Dry rot | 0 | 3 | 5 | 5 |
| Common scab ^a | 2 | 10 | 20 | 25 |
| Tarspotdisease ^a | 0 | 10 | 20 | 25 |
| Phthorimaea operculella Zell | 0 | 0 | 0 | 0 |
| External defect | 1 | 5 | 10 | 15 |
| Cold injury | 0 | 1 | 2 | 2 |
| Soil and impurities ^b | 0 | 1% | 2% | 2% |

a. It means that scab area does not exceed 1/5 of tuber surface.

b. Permission rate shall be calculated in line with weight percentage.

6. Inspection methods

6.1 Field inspection

6.1.1 Production process inspection of pre-elite

In greenhouses or net sheds, when tissue culture seedling is completed, or in 30 days to 40 days after tube potatoes come out, under the same production environment conditions, visually inspect all plants once, and those abnormal plants or organ organizations that cannot be diagnosed visually shall be immediately sampled for laboratory tests.

6.1.2 Field inspections of elite, qualified I and II seed

Conduct visual inspection, and each batch of seed potatoes shall be inspected at random for 5-10 points, and each point contain 100 plants (see table 4); those abnormal plants or organ organizations that cannot be diagnosed visually shall be immediately sampled for laboratory tests.

Table 4 Number of inspection points of each potatoes batch

| Inspection area (hm ²) | Number of points inspected (piece) | Total number of inspection (plant) |
|---------------------------------------|---|---------------------------------------|
| ≤1 | 5 | 500 |
| >1≤40 | 6-10 (One inspection point will be increased for every 10 hm ² increased) | 600-1000 |
| >40 | 10 (Two inspection point will be increased for every 40 hm ² increased) | >1000 |

The whole field inspection process shall be completed within 40 days. The first test is at squaring stage---full-bloom stage. The second inspection shall be conducted in 30 days before the harvest period.

When any of the indexes in the first inspection exceeds 5 times of the permission rate, the inspection shall be stopped, and potatoes in this field cannot be sold as seed potatoes.

When any of the indexes in the first inspection exceeds less than 5 times of the permission rate, the ratio can be reduced by means that the planter eliminates the plants in ill and mixed plants; the second inspection is the results of the final field inspection.

6.2 Tuber inspection

6.2.1 Inspection after being harvested

During potato harvest and warehousing period, conduct random sampling in line with the area of seed potatoes inspection, or select a certain tuber in the warehouse for lab inspection. 200 kernel shall be inspected for every 1 million kernel of each variety of the pre-elite (40 kernel for every additional 1 million kernel; seed potatoes less than 1 million shall be calculated as 1 million). Number of inspected samples shall be determined in line with production area for each batch of seed potatoes in large-scale field (see table 5). Tuber treatment: tubers break dormancy planting, which can be inspected when seedling is about 15 cm tall; virus detection adopts enzyme league immune (ELISA) or retrovirus polymerase chain reaction (RT-PCR) method; the viroid uses back and forth electrophoresis (R-PAGE), RT-PCR or nucleic acid spots hybrid (NASH) method; the bacteria adopts ELISA or polymerase chain reaction (PCR) method. All of these disease detections can use the technology that sensitivity is greater than the recommended methods.

Table 5 Number of lab inspected samples after being harvested

| Level of seed potatoes | ≤40 hm ² * amount of sampling (piece) |
|---|---|
| Elite | 200 (40 tubers for every additional 10-40 hm ²) |
| Qualified I seed | 100 (20 tubers for every additional 10-40 hm ²) |
| Qualified II seed | 100 (10 tubers for every additional 10-40 hm ²) |
| * Refers to area unit of seed potato (hm ²) | |

6.2.2 Warehouse inspection

Conduct inspection in warehouse before the seed potatoes are delivered. Sampling point number of pre-elite shall be determined in line with amount of each batch (see table 6); take samples at random, with 500 grains for each point. Sampling point number of seed potatoes at each level in the large-scale field shall be determined in line with the general yield of each batch (see table 7) with 25kg sampled; the samples that are taken at random shall be representative, and the inspection results represent the inspected batches. Seed potatoes in the large-scale field with the same batch shall be disposed in line with different batches, and cohesion of the quality sources shall be marked.

Table 6 Amount of pre-elite tubers

| Total yield of each batch (10,000 seeds) | Number of tuber sampling point (piece) | Inspection sampling amount (kernel) |
|---|--|--|
| ≤50 | 5 | 2500500 |
| >50≤500 | 5-20 (One inspection point for every additional 300, 000 kernels) | 2500-10000 |
| >500 | 20 (Two inspection points for every additional 1 million kernels) | >10,000 |

Table 7 Sampling amount of seed potato tubers at all levels in the field

| Total yield of each batch (t) | Number of tuber sampling point (piece) | Inspection sampling amount (kg) |
|----------------------------------|---|------------------------------------|
| ≤40 | 4 | 100 |
| >40≤1000 | 5-10 (One inspection point for every additional 200t) | 125-250 |
| >1000 | 10 (Two inspection points for every additional 1000 t) | >250 |

Adopt visual inspection and those that cannot be determined visually can also adopt lab inspection technology; visual inspection includes conducting tuber epidermis and a certain internal symptoms inspection under necessary conditions.

7 Identification rules

7.1 Gradation

Levels of seed potatoes shall conform to the standards for leveling of minimum quality requirements reached when the field inspection and inspection after being harvest are completed.

7.2 Degradation

Levels of any of inspection parameters that cannot meet the seed potato quality with the proposed production levels shall be reduced to the level which has quality indexes corresponding to the inspection results; those that cannot reach the seed potatoes indexes at minimum level shall not be used to be seed potatoes.

If the second field inspection exceeds the permission rate of the potatoes at minimum level, the potatoes in this field cannot be used as the seed potatoes.

7.3 Standards for ex-warehouse

Seed potatoes at all levels shall conform to tuber quality requirements during the warehouse inspection before ex-warehouse; re-select or reduce it to the seed potatoes level of quality corresponding to results of warehouse inspection; those cannot reach the minimum seed potato quality indexes shall be selected and delivered after being qualified.

8. Labels

Labels shall conform to the relevant rules specified in GB20464 General Rules for Crops' Seed Labels

End of Translation.