

Voluntary Report – Voluntary - Public Distribution

Date: January 23, 2024

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Report Name: WTO Notified Quality Grading Standard for Gramineous Seeds

Country: China - People's Republic of

Post: Beijing

Report Category: FAIRS Subject Report, WTO Notifications, Sanitary/Phytosanitary/Food Safety, Planting Seeds

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Report Highlights:

On January 5, 2024, the People's Republic of China (PRC) notified the National Standard for Quality Grading for Gramineous Seeds (Draft for Comments) to the World Trade Organization (WTO) under G/TBT/N/CHN/1786. This report provides an unofficial translation of the notified standard and a comparison with the current standard. The comment period is open for 60 days from the date of notification. Comments may be submitted to the PRC TBT National Notification and Enquiry Center at tbt@customs.gov.cn.

Summary:

On January 5, 2024, the PRC notified [National Standard for Quality Grading of Gramineous Seed](#) (link in Chinese) to the WTO under [G/TBT/N/CHN/1786](#). According to the notification, the updated draft national standard applies to products covered by HS codes 100310 (Barley seed for sowing), 100410 (Oat seed for sowing), 120923 (Fescue seed for sowing), 120924 (Kentucky blue grass seed for sowing), and 120925 (Rye grass seed for sowing), among other forage/turf and related gramineous plant seeds. The current standard, [GB 6142—2008](#) (link in Chinese), was released on June 27, 2008 and came into effect on January 1, 2009.

Notable changes in the notified draft standard include:

- (1) Maximum moisture content for all listed seeds is set at 13 percent (see Table 1 below for comparison);
- (2) Added grading indicators for 27 forage and/or turf grasses and deleted grading indicator for one species (*Achnatherum sibiricum* (Linn.) Keng);
- (3) Modified indicators include germination rate and pure live seed (PLS) values of some grasses.

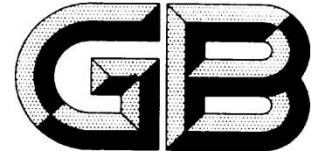
This report provides an unofficial translation of the notified standard. Changes to the current standard are **highlighted** in the comparison table. Exporters should conduct their own review.

Please note that the table at the end of this report includes technical specifications and requirements for gramineous and non-gramineous (i.e. cereal and oilcrop) seeds. Moreover, the bulk of the report text fits standard 8.5 inch by 11-inch paper while the table is sized for A4 paper.

Begin Translation:

ICS 65.020.01

CCS B 40



National Standard
of the People's Republic of China

GB 6142-XXXX
Replace GB6142-2008

Quality grading of gramineous seed
(Draft for Comments)

Issued on ××××-××-××

Implemented on ××××-××-××

**Issued by State Administration for Market Regulation and
Standardization Administration of China**

Foreword

This document is drafted in accordance with the rules provided in GB/T 1.1-2020 *Directives for Standardization – Part 1: Rules for the Structure and Drafting of Standardizing Documents*.

This document supersedes GB 6142-2008 *Quality Grading of Gramineous Seed*, and in addition to structural adjustment and editorial changes, differs from GB 6142-2008 in the following technical aspects:

- The content in the “Scope” has been changed;
- The definition of “pure live seed value” has been changed (see 3.1, 3.1 of 2008 edition);
- The "quality grading" has been changed to "technical requirements" (see Chapter IV, Chapter IV of 2008 edition);
- The "moisture content" has been changed to 13 percent, and the column of "moisture content" has been deleted (see Table 1, Table 1 in 2008 edition);
- A quality grading index has been added for the seeds including *Agropyron cristatum* (L.) Gaertn × *A. desertorum* (Fisch.) Schult., *Agrostis capillaris* L. syn. *Agrostis tenuis* Sibth., *Brachiaria decumbens* Stapf., *Cleistogenes songorica* (Roshev.) Ohwi, *Echinochloa frumentacea* (Roxb.) Link, Hort. Berol., *Elymus breviaristatus* (Keng) Keng f., *Elymus trachycaulus* (Link) Gould ex Shinnars, *Elytrigia in termedia* (Host) Nevski, *Festuca sinensis* Keng, *Helictochloa hookeri* (Scribn.) Romero Zarco, *Leymus secalinus* (Georgi) Tzvel., *Lolium* X *hybridum* Hausskn. (*L. mul tiflorum* XL. *perenne*), *Melinis minutiflora* Beauv, *Nassella vrdula* (Trin.) Barkworth *Stpa vrdula* Inn., *Neyraudia reynaudiana* (Kunth) Keng., *Oryzopsis hymenoides* (Roem. et Schult.) Ricker ex Pipe, *Panicum virgatum* L., *Paspalum vagina tum* Sw., *Pennisetum americanum* X *P. purpureum*, *Poa annua* L., *Poa compressa* L., *Poa crymophila* Keng ex C. Ling, *Poa nemoralis* L., *Roegneria turczaninovii* (Drob.) Nevski, *Roegneria nutans* (Keng) Keng, *Sorghum bicolor* (L.) Moench., and *Stipa tenuissima* (Trin.) (see Table 1, Table 1 in 2008 edition);
- One species of the “*Achnatherum sibiricum* (Linn.) Keng” has been deleted, and a “Note” has been added (see Table 1, Table 1 in 2008 edition);
- The purity rate has been changed for the seeds including *Eremochloa ophiuroides* (Munro) Hack., *Festuca arundinacea* Schreb., *Festuca ovina* L., *Festuca pratensis* Huds., *Festuca rubra* L., *Lolium* spp. X *Festuca arundinacea*/F. *pratensis*, *Leymus chinensis* (Trin.) Tzvel., *Lolium multiflorum*

Lamk., *Lolium perenne* L., *Paspalum notatum* FIUgge, *Phleum pratense* L., *Poa pratensis* L., *Poa trivialis* L., *Puccinellia ch inampoensis* Onwi, *Puccinellia distans* (L.) Parl., *Puccinellia tenuiflora* (Turcz.) Scribn. & Merr., *Setaria i talica* (L.) Beauv. var. *germanica* (Mill.) Schred., and *Zea mays* L. (see Table 1, Table 1 in 2008 edition);

- The germination rate has been changed for the seeds including *Agropyron cristatum* (L.)Gaertn., *Agropyron desertorum*(Fisch.)Schult., *Agropyron mongolicum* Keng, *Agrostis gigantea* Roth., *Agrostis stolonifera* L., *Alopecurus pratensis* L., *Anthoxanthum odoratum* L., *Arrhenath erum elatius* (L.) Presl, *Avena sativa* L., *Axonopus compressus* (Sw.) Beauv., *Bromus catharticus* Vahl, *Bromus inermis* Leyss., *Bouteloua dactyloides* (Nutt.) Columbus syn. *Buchloe dactyloides* (Nutt.) Engelm., *Cynodon dactylon* (L.)Pers., *Dactylis glomerata* L., *Echinochloa crusgalli* (L.) Beauv., *Elymus dahuricus* Turcz., *Elymus nutans* Griseb., *Elymus sibiricus* L., *Elytrigia elongata* (Host) Nevski, *Eragrostis curvula* (Schrud.) Nees, *Eremochloa ophiuroides* (Munro) Hack., *Euchlaena Mexicana* Schrad., *Festuca arundinacea* Schreb., *Festuca ovina* L., *Festuca pratensis* Huds., *Festuca rubra* L., *Lolium* spp. X *Festuca arundinacea*/F. *pratensis*, *Holcus lanatus* L., *Hordeum bogdanii* Wilensky, *Hordeum brevisubulatum* (Trin.) Link, *Hordeum vulgare* L., *Leymus chinensis* (Trin.)Tzvel., *Lolium multiflorum* Lamk., *Lolium perenne* L., *Panicum maximum* Jacq., *Paspalum dilatatum* Poir., *Paspalum notatum* FIUgge, *Paspalum urvillei* Steud., *Paspalum wettsteinii* Hack. (*Paspalum virgatum*l.), *Pennisetum americanum* (L.) Leeke., *Phalaris arundinacea* L., *Phleum pratense* L., *Poa pratensis* L., *Poa trivialis* L., *Psathyrostachys juncea* (Fisch.) Nevski, *Puccinellia ch inampoensis* Onwi, *Puccinellia distans* (L.) Parl., *Puccinellia tenuiflora* (Turcz.) Scribn. & Merr., *Roegneria kokonorica* Keng, *Roegneria mutica* Keng, *Secal e cereale* L., *Setaria anceps* Stapf ex Massey *Sphacelata* Stapf, *Setaria i talica* (L.) Beauv. var. *germanica* (Mill.) Schred., *Sorghum bicolor*(L.) Moench. × *S. sudanense* (Piper) Stapf, *Sorgham sudanense* (Piper) Stapf, *Stipa krylovii* Roshev., ×*Triticosecale* Wittmack (*Triticum* spp. × *Secale* spp.), and *Zoysia japonica* Steud. (Table 1, Table 1 in 2008 edition);

- Th index of other seeds by number has been changed for seeds including *Agropyron cristatum* (L.) Gaertn., *Agropyron desertorum*(Fisch.)Schult., *Agropyron mongolicum* Keng, *Agrostis gigantea* Roth., *Agrostis stolonifera* L., *Alopecurus pratensis* L., *Anthoxanthum odoratum* L., *Arrhenath erum elatius* (L.) Presl, *Avena sativa* L., *Axonopus compressus* (Sw.) Beauv., *Bromus catharticus* Vahl, *Bromus inermis* Leyss., *Bouteloua dactyloides* (Nutt.) Columbus syn. *Buchloe dactyloides* (Nutt.) Engelm., *Chloris gayana* Kunth, *Chloris virga ta* Swartz, *Cynodon dactylon* (L.) Pers., *Dactylis glomerata* L., *Echinochloa crusgalli* (L.) Beauv., *Elymus dahuricus* Turcz., *Elymus nutans*

Griseb., Elymus sibiricus L., Elytrigia elongata (Host) Nevski, Eragrostis curvula (Schr.) Nees, Eremochloa ophiuroides (Munro) Hack., Euchlaena Mexicana Schrad., Festuca arundinacea Schreb., Festuca ovina L., Festuca pratensis Huds., Festuca rubra L., Lolium spp. X Festuca arundinacea/F. pratensis, Holcus lanatus L., Hordeum bogdanii Wilensky, Hordeum brevisubulatum (Trin.) Link, Hordeum vulgare L., Leymus chinensis (Trin.) Tzvel., Lolium multiflorum Lamk., Lolium perenne L., Paspalum dilatatum Poir., Paspalum notatum Flügge, Paspalum urvillei Steud., Paspalum wettsteinii Hack. (Paspalum virgatuml.), Phalaris arundinacea L., Phleum pratense L., Poa pratensis L., Poa trivialis L., Psathyrostachys juncea (Fisch.) Nevski, Puccinellia chinampoensis Onwi, Puccinellia distans (L.) Parl., Puccinellia tenuiflora (Turcz.) Scribn. & Merr., Roegneria kokonorica Keng, Roegneria mutica Keng, Secale cereale L., Setaria anceps Stapf ex Massey Sphacelata Stapf, Sorghum bicolor (L.) Moench. × S. sudanense (Piper) Stapf, Sorghum sudanense (Piper) Stapf, Stipa krylovii Roshev., ×Triticosecale Wittmack (Triticum spp. XSecale spp.), Zea mays L., and Zoysia japonica Steud. (Table 1, Table 1 in 2008 edition);

- The "pure live seed value" has been changed (see Table 1, Table 1 in 2008 edition);
- the Chinese name and Latin name have been changed for seeds including *Agrostis gigantea Roth.*, the Latin names of *Agrostis capillaris L. syn. Agrostis tenuis Sibth.*, *Bouteloua dactyloides (Nutt.) Columbus syn. Buchloe dactyloides (Nutt.) Engelm. and Pennisetum americanum (L.) Leeke.*, and the Chinese name of *Paspalum urvillei Steud.* has been changed (see Table 1, Table 1 in 2008 edition);
- The "sampling" has been added (see Chapter V);
- The "test method" has been added (see Chapter VI); **FAS China Note:** the current standard has a sampling and test method. **End Note.**
- The title and content of "quality assessment method" have been changed (see Chapter VII, Chapter 5 of 2008 edition); and
- The content in the "Requirement" has been deleted (see Chapter VI of 2008 edition);

Please note that some of the contents of this document may involve patents, and the issuing agency of this document is not responsible for identifying these patents.

This document is proposed by and under the jurisdiction of the Ministry of

Agriculture and Rural Affairs of the People's Republic of China.

The organizations responsible for the drafting of this document: XXXX.

The main drafters of this document: XXX.

The previous editions of this document are as follows:

- this document was first published as GB 6142-1985, and first revised in 2008; and
this is the second version.

Quality Grading of Gramineous Seed

1. Scope

This document specifies the technical requirements, sampling and grading of gramineous seeds, and describes the inspection method.

This document is applicable to the quality grading of gramineous seeds produced and sold.

Note: allied species and varieties of a same genus may be used in reference to this document.

2. Normative references

The provisions in the following documents constitute indispensable provisions of this document through normative references in the text. For referenced documents with date, only the version corresponding to that date is applicable to this document; for referenced documents without date, the latest version (including all amendments) is applicable to this document.

GB/T 2930. 1 *Rules for gramineous seed testing - sampling*

GB/T 2930. 2 *Rules for gramineous seed testing - purity analysis*

GB/T 2930. 3 *Rules for gramineous seed testing - other seeds by number*

GB/T 2930. 4 *Rules for gramineous seed testing - germination test*

GB/T 2930. 8 *Rules for gramineous seed testing - determination of moisture content*

3. Terms and definitions

For the purpose of this document, the following terms and definitions apply.

3. 1 Pure live seed value, PLS

The percentage of seeds with live seed value.

4. Technical requirements

The moisture content of gramineous seed should be higher than 13 percent, and all other indexes should comply with the provisions in Table 1.

5. Sampling

The provisions of GB/T 2930. 1 are applicable.

6. Inspection method

6.1 Purity

The provisions of GB/T 2930. 2 are applicable.

6.2 Germination rate

The provisions of GB/T 2930.4 are applicable.

6.3 Number of other seeds

The provisions of GB/T 2930.3 are applicable.

6.4 Moisture content

The provisions of GB/T 2930.8 are applicable.

6.5 Pure live seed value

The purity and germination rate are determined respectively in accordance with 6.1 and 6.2, and calculated in accordance with equation (1)

$$PLS=P \times G \dots\dots\dots (1)$$

Where, PLS refers to pure live seed value in percentage;
P refers to purity rate in percentage; and
G refers to germination rate in percentage.

7 Rating

7.1 Single index rating

The gramineous seeds are classified by quality according to the five indexes of purity, germination rate, pure live seed value, number of other seeds and moisture content into levels I, II and III. The gramineous seed containing a quarantine object specified by the State is not allowed to be graded by quality.

7.2 Comprehensive rating

The comprehensive rating for quality is performed by using the five indexes of purity, germination rate, number of other seeds, moisture content and pure live seed value given in Table 1, and according to the following requirements:

- a) the quality grade is directly determined when the four indexes of purity, germination rate, number of other seeds and moisture content are in the same level;
- b) the gramineous seed is considered out-of-grade when any one of the four indexes of purity, germination rate, number of other seeds and moisture content is below level III; and
- c) where all four indexes are at or above level III, the quality grade should be determined according to following conditions:

1) if the purity and germination rate are in the same level, the quality grade should be determined according to the lowest one of the four indexes; and

2) if the purity and germination rate are not in the same level, the purity and germination rate are replaced by the pure live seed value, and then the quality grade is determined according to the lowest one of the pure live seed value, the number of other seeds and the moisture content.

Table 1. Quality Requirements for Gramineous Seeds

SN	Chinese name	Botanical name	Level	2024				2008				
				Purity ≥ %	Germination rate ≥ %	Other seeds by number ≤ kernel/kg	Pure live seed value ≥ %	Purity ≥ %	Germination rate ≥ %	Other seeds by number ≤ kernel/kg	Pure live seed value ≥ %	Moisture/ % ≤
1	冰草(扁穗冰草)	Agropyron cristatum (L.) Gaertn.	I	95.0	85	2,000	80.7	95.0	90	2,000	85.5	11.0
			II	90.0	75	5,000	67.5	90.0	85	3,000	76.5	11.0
			III	85.0	60	15,000	51.0	85.0	80	5,000	68.0	11.0
2	杂交冰草	Agropyron cristatum (L.) Gaertn × A. desertorum (Fisch.) Schult.	I	95.0	85	2,000	80.7					
			II	90.0	75	5,000	67.5					
			III	85.0	60	15,000	51.0					
3	沙生冰草	Agropyron desertorum (Fisch.) Schult.	I	95.0	80	2,000	76.0	95.0	85	2,000	80.7	11.0
			II	85.0	70	5,000	59.5	90.0	80	3,000	72.0	11.0
			III	80.0	60	15,000	48.0	85.0	75	5,000	63.7	11.0
4	沙芦草(蒙古冰草)	Agropyron mongolicum Keng	I	95.0	80	2,000	76.0	95.0	85	2,000	80.7	11.0
			II	85.0	70	5,000	59.5	90.0	80	3,000	72.0	11.0
			III	80.0	60	15,000	48.0	85.0	75	5,000	63.7	11.0
5	细弱翦股颖	Agrostis capillaris L. - Agrostis tenuis Sibth.	I	96.0	85	30,000	81.6					
			II	90.0	75	100,000	67.5					
			III	85.0	65	300,000	55.2					
6	巨序翦股颖(红顶草、小糠草)	Agrostis gigantea Roth.	I	95.0	85	30,000	80.7	95.0	85	2,000	80.7	11.0
			II	90.0	75	100,000	67.5	90.0	80	3,000	72.0	11.0
			III	85.0	65	300,000	55.2	85.0	75	5,000	63.7	11.0
7	匍匐翦股颖	Agrostis stolonifera L.	I	95.0	85	30,000	80.7	95.0	85	2,000	88.2	11.0
			II	90.0	75	100,000	67.5	90.0	80	3,000	72.0	11.0
			III	85.0	65	300,000	55.2	85.0	75	5,000	63.7	11.0
8	大看麦娘(草原看麦娘)	Alopecurus pratensis L.	I	95.0	85	2,000	80.7	95.0	80	2,000	76.0	11.0
			II	90.0	75	5,000	67.5	90.0	75	3,000	67.5	11.0
			III	85.0	65	15,000	55.2	85.0	70	5,000	59.5	11.0
9	黄花茅	Anthoxanthum odoratum	I	95.0	85	2,000	80.7	95.0	85	2,000	80.7	11.0

		L.	II	90.0	75	5,000	67.5	90.0	80	3,000	72.0	11.0
			III	85.0	65	10,000	55.2	85.0	75	5,000	63.7	11.0
10	燕麦草	Arrhenatherum elatius (L.) Presl	I	95.0	80	2,000	76.0	95.0	85	2,000	80.7	11.0
			II	90.0	70	5,000	63.0	90.0	80	3,000	72.0	11.0
			III	85.0	60	10,000	51.0	85.0	75	5,000	63.7	11.0
11	燕麦	Avena sativa L.	I	98.0	90	50	88.2	98.0	90	200	88.2	12.0
			II	95.0	80	200	76.0	95.0	85	500	80.7	12.0
			III	90.0	70	500	63.0	90.0	80	1,000	72.0	12.0
12	地毯草	Axonopus compressus (Sw.) Beauv.	I	95.0	85	5,000	80.7	95.0	85	1,000	80.7	11.0
			II	90.0	75	10,000	67.5	90.0	80	2,000	72.0	11.0
			III	85.0	65	30,000	55.2	85.0	75	3,000	63.7	11.0
13	俯仰臂形草	Brachiaria decumbens Stapf.	I	95.0	80	2,000	76.0					
			II	90.0	70	4,000	63.0					
			III	85.0	60	8,000	51.0					
14	扁穗雀麦	Bromus catharticus Vahl	I	95.0	85	2,000	80.7	95.0	85	1,000	80.7	11.0
			II	90.0	75	5,000	67.5	90.0	80	2,000	72.0	11.0
			III	85.0	65	15,000	55.2	85.0	75	3,000	63.7	11.0
15	无芒雀麦	Bromus inermis Leys.	I	95.0	85	2,000	80.7	95.0	85	1,000	80.7	11.0
			II	90.0	75	5,000	67.5	90.0	80	2,000	72.0	11.0
			III	85.0	65	15,000	55.2	85.0	75	3,000	63.7	11.0
16	野牛草	Bouteloua dactyloides (Nutt.) Columbus =Buchloe dactyloides (Nutt.) Engelm.	I	95.0	80	100*	76.0	95.0	85	100	80.7	12.0
			II	90.0	65	300*	58.5	90.0	80	200	72.0	12.0
			III	85.0	50	500*	42.5	85.0	75	300	63.7	12.0
17	非洲虎尾草 (无芒虎尾草)	Chloris gayana Kunth	I	95.0	80	10,000	76.0	95.0	80	2,000	76.0	11.0
			II	90.0	75	30,000	67.5	90.0	75	3,000	67.5	11.0
			III	85.0	70	100,000	59.5	85.0	70	5,000	59.5	11.0
18	虎尾草	Chloris virgata Swartz	I	95.0	80	10,000	76.0	95.0	80	2,000	76.0	11.0
			II	90.0	75	30,000	67.5	90.0	75	3,000	67.5	11.0
			III	85.0	70	100,000	59.5	85.0	70	5,000	59.5	11.0
19	无芒隐子草	Cleistogenes songorica (Roshev.) Ohwi	I	95.0	85	2,000	76.0					
			II	90.0	75	10,000	67.5					

			III	85.0	65	15,000	55.2					
20	狗牙根	Cynodon dactylon (L.) Pers.	I	95.0	85	2,000	80.7	95.0	85	1,000	80.7	11.0
			II	90.0	75	5,000	67.5	90.0	80	2,000	72.0	11.0
			III	85.0	65	15,000	55.2	85.0	75	3,000	63.7	11.0
21	鸭茅	Dactylis glomerata L.	I	95.0	85	2,000	80.7	95.0	80	1,000	76.0	11.0
			II	90.0	75	5,000	67.5	90.0	75	2,000	67.5	11.0
			III	85.0	65	15,000	55.2	85.0	70	3,000	59.5	11.0
22	稗	Echinochloa crusgalli (L.) Beauv.	I	95.0	85	1,000	80.7	95.0	85	1,000	80.7	11.0
			II	90.0	75	3,000	67.5	90.0	80	2,000	72.0	11.0
			III	85.0	65	5,000	55.2	85.0	75	3,000	63.7	11.0
23	湖南稗子(湖南稷子)	Echinochloa frumentacea (Roxb.) Link, Hort. Berol.	I	98.0	85	500	83.5					
			II	95.0	75	1,000	71.2					
			III	90.0	65	2,000	58.5					
24	披碱草	Elymus dahuricus Turcz.	I	95.0	85	2,000	80.7	95.0	85	2,000	80.7	11.0
			II	85.0	75	5,000	67.5	90.0	80	3,000	72.0	11.0
			III	80.0	60	15,000	48.0	85.0	75	5,000	63.7	11.0
25	短芒披碱草	Elymus breviaristatus (Keng) Keng f.	I	95.0	85	2,000	80.7					
			II	85.0	75	5,000	63.7					
			III	80.0	60	15,000	48.0					
26	垂穗披碱草	Elymus nutans Griseb.	I	95.0	85	2,000	80.7	95.0	85	2,000	80.7	11.0
			II	85.0	75	5,000	63.7	90.0	80	3,000	72.0	11.0
			III	80.0	60	15,000	48.0	85.0	75	5,000	63.7	11.0
27	老芒麦	Elymus sibiricus L.	I	95.0	85	2,000	80.7	95.0	85	2,000	80.7	11.0
			II	85.0	75	5,000	63.7	90.0	80	3,000	72.0	11.0
			III	80.0	60	15,000	48.0	85.0	75	5,000	63.7	11.0
28	细茎披碱草	Elymus trachycaulus (Link) Gould ex Shinnars	I	95.0	85	2,000	80.7					
			II	90.0	75	5,000	67.5					
			III	80.0	60	15,000	48.0					
29	长穗偃麦草	Elytrigia elongata (Host) Nevski	I	95.0	85	2,000	80.7	95.0	85	1,000	80.7	11.0
			II	90.0	75	5,000	67.5	90.0	80	2,000	72.0	11.0
			III	85.0	60	10,000	51.0	85.0	75	3,000	63.7	11.0
30	中间偃麦草	Elytrigia intermedia (Host) Nevski	I	95.0	85	2,000	80.7					
			II	90.0	75	5,000	67.5					

			III	85.0	60	15,000	51.0					
31	弯叶画眉草	<i>Eragrostis curvula</i> (Schrad.) Nees	I	95.0	85	10,000	80.7	95.0	85	2,000	80.7	11.0
			II	90.0	75	30,000	67.5	90.0	80	3,000	72.0	11.0
			III	85.0	60	100,000	51.0	85.0	75	5,000	63.7	11.0
32	假俭草	<i>Eremochloa ophiuroides</i> (Munro)Hack.	I	98.0	80	2,000	78.4	98.0	85	1,000	83.3	11.0
			II	95.0	70	5,000	66.5	95.0	80	2,000	76.0	11.0
			III	90.0	60	15,000	54.0	90.0	75	3,000	67.5	11.0
33	类蜀黍(墨西哥类玉米)	<i>Euchlaena Mexicana</i> Schrad. / <i>Zea mexicana</i> (Schrad.) Kuntze	I	98.0	85	50	83.3					
			II	95.0	75	100	71.2					
			III	90.0	65	300	58.5					
34	苇状羊茅(高羊茅)	<i>Festuca arundinacea</i> Schreb.	I	98.0	85	2,000	83.3	98.0	90	1,000	88.2	11.0
			II	95.0	75	5,000	71.2	95.0	85	2,000	80.7	11.0
			III	90.0	60	10,000	54.0	90.0	80	3,000	72.0	11.0
35	羊茅(所有变种)	<i>Festuca ovina</i> L.	I	98.0	85	2,000	83.3	98.0	85	1,000	83.3	11.0
			II	95.0	75	5,000	71.2	95.0	80	2,000	76.0	11.0
			III	90.0	60	15,000	54.0	90.0	75	3,000	67.5	11.0
36	草甸羊茅(牛尾草)	<i>Festuca pratensis</i> Huds.	I	98.0	85	2,000	83.3	98.0	85	1,000	83.3	11.0
			II	95.0	75	5,000	71.2	95.0	80	2,000	76.0	11.0
			III	90.0	60	10,000	54.0	90.0	75	3,000	67.5	11.0
37	紫羊茅(所有变种)	<i>Festuca rubra</i> L.	I	98.0	85	2,000	83.3	98.0	90	1,000	88.2	11.0
			II	95.0	75	5,000	71.2	95.0	85	2,000	80.7	11.0
			III	90.0	60	15,000	54.0	90.0	80	3,000	72.0	11.0
38	中华羊茅	<i>Festuca sinensis</i> Keng	I	95.0	85	2,000	80.7					
			II	90.0	75	5,000	67.5					
			III	85.0	60	15,000	51.0					
39	异燕麦	<i>Helictochloa hookeri</i> (Scribn.) Romero Zarco	I	95.0	85	2,000	80.7					
			II	90.0	75	5,000	67.5					
			III	85.0	60	15,000	51.0					
40	绒毛草	<i>Holcus lanatus</i> L.	I	95.0	85	10,000	80.7	95.0	85	1,000	80.7	11.0
			II	90.0	75	30,000	67.5	90.0	80	2,000	72.0	11.0
			III	85.0	60	100,000	51.0	85.0	75	3,000	63.7	11.0
41	布顿大麦草	<i>Hordeum bogdani</i> Wilensky	I	95.0	85	1,000	80.7	95.0	85	1,000	80.7	11.0
			II	90.0	75	2,000	67.5	90.0	80	2,000	72.0	11.0

			III	85.0	65	3,000	55.2	85.0	75	3,000	63.7	11.0
42	短芒大麦草 (野大麦)	Hordeum brevisubulatum (Trin.)Link	I	95.0	85	1,000	80.7	95.0	85	1,000	80.7	11.0
			II	90.0	75	2,000	67.5	90.0	80	2,000	72.0	11.0
			III	85.0	65	3,000	55.2	85.0	75	3,000	63.7	11.0
43	大麦(包括 变种青裸和 藏青裸)	Hordeum vulgare L.(var. nudum Hook.f. ; var. Trifurcatum (Schlecht.) Alef.)	I	98.0	90	100	88.2	98.0	90	300	88.2	12.0
			II	95.0	80	300	76.0	95.0	85	500	80.7	12.0
			III	90.0	70	500	63.0	90.0	80	1,000	72.0	12.0
44	羊草	Leymus chinensis (Trin.) Tzvel.	I	90.0	70	2,000	63.0	95.0	80	2,000	76.0	11.0
			II	85.0	50	5,000	42.5	90.0	70	3,000	63.0	11.0
			III	80.0	30	15,000	24.0	85.0	60	5,000	51.0	11.0
45	赖草	Leymus secalinus (Georgi) Tzvel.	I	90.0	75	2,000	67.5					
			II	85.0	65	5,000	55.2					
			III	80.0	50	15,000	40.0					
46	羊茅黑麦草	Lolium spp. X Festuca arundinacea/F. pratensis	I	98.0	85	2,000	83.3					
			II	95.0	75	5,000	71.2					
			III	90.0	60	10,000	54.0					
47	杂交黑麦草 (包括中间 黑麦草)	LoliumX hybridum Hauskn.(L. mul tiflorumXL. perenne)	I	97.0	90	2,000	87.3					
			II	92.0	75	5,000	69.0					
			III	85.0	65	10,000	55.2					
48	多花黑麦草 (一年生黑 麦草)	Lolium multiflorum Lamk.	I	98.0	90	2,000	88.2	98.0	90	1,000	88.2	11.0
			II	95.0	75	5,000	71.2	95.0	85	2,000	80.7	11.0
			III	90.0	65	10,000	58.5	90.0	80	3,000	72.0	11.0

49	多年生黑麦草	Lolium perenne L.	I	98.0	90	2,000	88.2					
			II	95.0	75	5,000	71.2					
			III	90.0	65	10,000	58.5					
50	糖蜜草	Melinis minutiflora Beauv	I	95.0	80	5,000	76.5					
			II	90.0	70	10,000	63.0					
			III	85.0	60	50,000	51.0					
51	绿针茅	Nassella vrdula (Trin.) Barkworth Stpa vrdula Inn.	I	95.0	80	2,000	76.0					
			II	90.0	70	5,000	63.0					
			III	85.0	60	10,000	51.0					
52	类芦	Neyraudia reynaudiana(Kunth) Keng.	I	95.0	70	2,000	66.5					
			II	90.0	60	5,000	54.0					
			III	85.0	50	10,000	42.5					
53	长毛落芒草 (印度落芒草)	Oryzopsis hymenoides (Roem. et Schult.) Ricker ex Pipe	I	95.0	85	2,000	80.7					
			II	90.0	75	3,000	67.5					
			III	85.0	65	5,000	55.2					
54	大黍	Panicum maximum Jacq.	I	95.0	60	500	57.0	95.0	65	500	61.7	12.0
			II	90.0	50	1,000	45.0	90.0	60	1,000	54.0	12.0
			III	85.0	40	2,000	34.0	85.0	55	2,000	46.7	12.0
55	柳枝稷	Panicum virgatum L.	I	95.0	80	2,000	76.0					
			II	90.0	65	5,000	63.0					
			III	85.0	50	10,000	42.5					
56	毛花雀稗	Paspalum dilatatum Poir.	I	95.0	80	2,000	76.0	95.0	80	500	76.0	11.0
			II	90.0	65	5,000	58.5	90.0	75	1,000	67.5	11.0
			III	85.0	50	10,000	42.5	85.0	70	2,000	59.5	11.0
57	百喜草(巴哈雀稗)	Paspalum notatum FIUgge	I	95.0	80	2,000	76.0	98.0	80	500	78.4	11.0
			II	90.0	65	5,000	58.5	95.0	75	1,000	71.2	11.0
			III	85.0	50	10,000	42.5	90.0	70	2,000	63.0	11.0
58	丝毛雀稗	Paspalum urvillei Steud.	I	95.0	80	2,000	76.0	95.0	80	500	76.0	11.0
			II	90.0	65	5,000	58.5	90.0	75	1,000	67.5	11.0
			III	85.0	50	10,000	42.5	85.0	70	2,000	59.5	11.0
59	宽叶雀稗	Paspalum wettsteinii Hack. (Paspalum virgatuml.)	I	95.0	80	2,000	76.0	95.0	80	500	76.0	11.0
			II	90.0	65	5,000	58.5	90.0	75	1,000	67.5	11.0
			III	85.0	50	10,000	42.5	85.0	70	2,000	59.5	11.0

60	海雀稗(海滨雀稗)	Paspalum vaginatum Sw.	I	98.0	80	1,000	78.4					
			II	90.0	65	3,000	58.5					
			III	85.0	50	5,000	42.5					
61	杂交狼尾草	Pennisetum americanum X P. purpureum	I	98.0	80	1,000	78.4					
			II	95.0	70	3,000	66.5					
			III	90.0	60	5,000	54.0					
62	珍珠粟(御谷)(包括亚种)	Pennisetum americanum (L.) Leeke. Zeitschr. (Pennisetum americanum subsp. americanum)	I	98.0	85	500	83.3	98.0	90	500	88.2	11.0
			II	95.0	75	1,000	71.2	95.0	85	1,000	80.7	11.0
			III	90.0	60	2,000	54.0	90.0	80	2,000	72.0	11.0
63	藕草	Phalaris arundinacea L.	I	95.0	80	2,000	76.0	95.0	85	2,000	76.0	11.0
			II	90.0	70	5,000	63.0	90.0	80	3,000	72.0	11.0
			III	85.0	60	15,000	51.0	85.0	70	5,000	59.5	11.0
64	猫尾草	Phleum pratense L.	I	98.0	80	3,000	78.4	98.0	85	2,000	83.3	11.0
			II	95.0	75	5,000	71.2	95.0	80	3,000	76.0	11.0
			III	90.0	70	10,000	63.0	90.0	75	5,000	67.5	11.0
65	早熟禾(一年生早熟禾)	Poa annua L.	I	95.0	85	5,000	80.7					
			II	90.0	75	10,000	67.5					
			III	85.0	60	100,000	51.0					
66	加拿大早熟禾	Poa compressa L.	I	95.0	85	5,000	80.7					
			II	90.0	75	10,000	67.5					
			III	85.0	60	100,000	51.0					
67	冷地早熟禾	Poa crymophila Keng ex C. Ling	I	95.0	85	5,000	80.7					
			II	90.0	75	10,000	67.5					
			III	85.0	60	100,000	51.0					
68	林地早熟禾	Poa nemoralis L.	I	95.0	85	5,000	80.7					
			II	90.0	75	10,000	67.5					
			III	85.0	60	100,000	51.0					
69	草地早熟禾(包括扁秆早熟禾)	Poa pratensis L. (Poa pratensis var. anceps Gaud.)	I	95.0	85	5,000	80.7	96.0	85	2,000	81.6	11.0
			II	90.0	75	1,000	67.5	93.0	80	3,000	74.4	11.0
			III	85.0	60	100,000	51.0	90.0	75	5,000	67.5	11.0
70	普通早熟禾	Poa trivialis L.	I	95.0	85	5,000	80.7	96.0	85	2,000	81.6	11.0
			II	90.0	75	10,000	67.5	93.0	80	3,000	74.4	11.0

	(粗茎早熟禾)		III	85.0	60	100,000	51.0	90.0	75	5,000	67.5	11.0
71	新麦草	<i>Psathyrostachys juncea</i> (Fisch.) Nevski	I	95.0	80	2,000	76.0	95.0	85	1,000	80.7	11.0
			II	90.0	70	5,000	63.0	90.0	80	2,000	72.0	11.0
			III	85.0	60	15,000	51.0	85.0	75	3,000	63.7	11.0
72	朝鲜碱茅	<i>Puccinellia chinampoensis</i> Onwi	I	90.0	80	5,000	72.0	95.0	85	2,000	80.7	11.0
			II	85.0	70	10,000	59.5	90.0	80	3,000	72.0	11.0
			III	75.0	50	100,000	37.5	85.0	75	5,000	63.7	11.0
73	碱茅	<i>Puccinellia distans</i> (L.) Parl.	I	90.0	80	5,000	72.0	95.0	85	2,000	80.7	11.0
			II	85.0	65	10,000	55.2	90.0	80	3,000	72.0	11.0
			III	80.0	50	100,000	40.0	85.0	75	5,000	63.7	11.0
74	星星草	<i>Puccinellia tenuiflora</i> (Turcz.) Scribn. & Merr.	I	90.0	80	5,000	72.0	95.0	85	2,000	80.7	11.0
			II	85.0	65	10,000	55.2	90.0	80	3,000	72.0	11.0
			III	80.0	50	100,000	40.0	85.0	75	5,000	63.7	11.0
75	青海鹅观草	<i>Roegneria kokonorica</i> Keng	I	95.0	85	2,000	80.7	95.0	85	2,000	80.7	11.0
			II	90.0	75	5,000	67.5	90.0	80	3,000	72.0	11.0
			III	85.0	60	15,000	51.0	85.0	75	5,000	63.7	11.0
76	无芒鹅观草	<i>Roegneria mutica</i> Keng	I	95.0	85	2,000	80.7	95.0	85	2,000	80.7	11.0
			II	90.0	75	5,000	67.5	90.0	80	3,000	72.0	11.0
			III	85.0	60	15,000	51.0	85.0	75	5,000	63.7	11.0
77	直穗鹅观草	<i>Roegneria turczaninovii</i> (Drob.) Nevski	I	95.0	85	2,000	80.7					
			II	90.0	75	5,000	67.5					
			III	85.0	60	15,000	51.0					
78	垂穗鹅观草	<i>Roegneria nutans</i> (Keng) Keng	I	95.0	85	2,000	80.7					
			II	90.0	75	5,000	67.5					
			III	85.0	60	15,000	51.0					
79	黑麦	<i>Secale cereale</i> L.	I	98.0	90	100	88.2	98.0	90	300	88.2	12.0
			II	95.0	80	300	76.0	95.0	85	500	80.7	12.0
			III	90.0	70	500	63.0	90.0	80	1,000	72.0	12.0
80	非洲狗尾草	<i>Setaria anceps</i> Stapf ex Massey	I	95.0	75	2,000	71.2	95.0	80	1,000	76.0	11.0
		<i>Sphacelata</i> Stapf	II	90.0	70	3,000	63.0	90.0	75	2,000	67.5	11.0
			III	85.0	65	5,000	55.2	85.0	70	3,000	59.5	11.0
81	粟(包括变)	<i>Setaria italica</i> (L.) Beauv. var.	I	98.0	85	500	83.3	98.0	90	500	88.2	12.0

	种)	germanica (Mill.) Schred.	II	95.0	75	1,000	71.2	95.0	85	1,000	80.7	12.0
			III	90.0	70	2,000	63.0	90.0	80	2,000	72.0	12.0
82	高粱	Sorghum bicolor (L.) Moench.	I	98.0	80	50	78.4					
			II	95.0	75	100	71.2					
			III	90.0	70	300	63.0					
83	高丹草(高粱苏丹草杂交种)	Sorghum bicolor(L.)Moench.× S. sudanense (Piper) Stapf or Sorghum × alnum Parodi	I	98.0	80	50	78.4	98.0	90	200	88.2	12.0
			II	95.0	75	100	71.2	95.0	85	300	80.7	12.0
			III	90.0	70	300	63.0	90.0	80	500	72.0	12.0
84	苏丹草	Sorgham sudanense (Piper) Stapf	I	98.0	80	50	78.4					
			II	95.0	75	100	71.2					
			III	90.0	70	300	63.0					
85	克氏针茅	Stipa krylovii Roshev.	I	95.0	80	2,000	76.0	95.0	80	1,000	76.0	11.0
			II	90.0	70	5,000	63.0	90.0	75	2,000	67.5	11.0
			III	85.0	60	15,000	51.0	85.0	70	3,000	59.5	11.0
86	细茎针茅(墨西哥羽毛草)	Stipa tenuissima (Trin.)	I	95.0	80	2,000	76.0					
			II	90.0	70	5,000	63.0					
			III	85.0	60	15,000	51.0					
87	小黑麦	×Triticosecale Wittmack (Triticum spp. XSecale spp.)	I	98.0	90	100	88.2	98.0	90	200	88.2	12.0
			II	95.0	80	300	76.0	95.0	85	300	80.7	12.0
			III	90.0	70	500	63.0	90.0	80	500	72.0	12.0
88	玉米	Zea mays L.	I	99.0	90	10	89.1	98.0	90	100	88.2	14.0
			II	97.0	85	50	82.4	95.0	85	200	80.7	14.0
			III	95.0	80	100	76.0	90.0	80	300	72.0	14.0
89	结缕草	Zoysia japonica Steud.	I	98.0	85	2,000	83.3	98.0	80	500	78.4	11.0
			II	95.0	70	5,000	66.5	95.0	75	1,000	71.2	11.0
			III	90.0	50	10,000	45.0	90.0	70	2,000	63.0	11.0

End Translation.

Attachments:

No Attachments.