



These Test Guidelines have been superseded by a later version. The latest adopted version of Test Guidelines can be found at http://www.upov.int/test_guidelines/en/list.jsp

Ces principes directeurs d'examen ont été remplacés par une version ultérieure. La version adoptée la plus récente des principes directeurs d'examen figure à l'adresse suivante : http://www.upov.int/test_guidelines/fr/list.jsp

Diese Prüfungsrichtlinien wurden durch eine neuere Fassung ersetzt. Die neueste angenommene Fassung von Prüfungsrichtlinien ist unter http://www.upov.int/test_guidelines/de/list.jsp zu finden.

Las presentes directrices de examen han sido reemplazadas por una versión posterior. La versión de las directrices de examen de más reciente aprobación está disponible en http://www.upov.int/test_guidelines/es/list.jsp.

UPOV

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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

CABBAGE

(*Brassica oleracea* L.:
Brassica (White Cabbage Group);
Brassica (Savoy Cabbage Group);
Brassica (Red Cabbage Group))

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

Alternative Names: *

| <i>Latin</i> | <i>English</i> | <i>French</i> | <i>German</i> | <i>Spanish</i> |
|---------------------------------------|---------------------------|---------------|---------------|------------------|
| <i>Brassica</i> (White Cabbage Group) | Cabbage, White Cabbage | Chou cabus | Weißkohl | Col repollo lisa |
| <i>Brassica</i> (Savoy cabbage Group) | Savoy Cabbage | Chou de Milan | Wirsing | Col de Milan |
| <i>Brassica</i> (Red Cabbage Group) | Red Cabbage | Chou rouge | Rotkohl | Lomba |

ASSOCIATED DOCUMENTS

These guidelines should be read in conjunction with document TG/1/3, “General Introduction to the Examination of Distinctness, Uniformity and Stability and the Development of Harmonized Descriptions of New Varieties of Plants” (hereinafter referred to as the “General Introduction”) and its associated “TGP” documents.

* These names were correct at the time of the introduction of these Test Guidelines but may be revised or updated. [Readers are advised to consult the UPOV Code, which can be found on the UPOV Website (www.upov.int), for the latest information.]

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1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Brassica oleracea* L.: *Brassica* (White Cabbage Group) {formerly *Brassica oleracea* var. *alba* DC.}; *Brassica* (Savoy Cabbage Group) {formerly *Brassica oleracea* var. *sabauda* DC.}; and *Brassica* (Red Cabbage Group) {formerly *Brassica oleracea* var. *rubra* DC.}; including all hybrids between *Brassica oleracea* var. *alba* DC., *Brassica oleracea* var. *sabauda* DC. and *Brassica oleracea* var. *rubra* DC., as these hybrids are now included in *Brassica* (White Cabbage Group), *Brassica* (Savoy Cabbage Group) and *Brassica* (Red Cabbage Group).

2. Material Required

2.1 The competent authorities decide on the quantity and quality of the plant material required for testing the variety and when and where it is to be delivered. Applicants submitting material from a State other than that in which the testing takes place must ensure that all customs formalities and phytosanitary requirements are complied with.

2.2 The material is to be supplied in the form of seeds or plants.

2.3 The minimum quantity of plant material, to be supplied by the applicant, should be:

for seed-propagated varieties: 20 g or 5,000 seeds;
for vegetatively propagated varieties: 60 plants

2.4 In the case of seed, the seed should meet the minimum requirements for germination, species and analytical purity, health and moisture content, specified by the competent authority.

2.5 The plant material supplied should be visibly healthy, not lacking in vigor, nor affected by any important pest or disease.

2.6 The plant material should not have undergone any treatment which would affect the expression of the characteristics of the variety, unless the competent authorities allow or request such treatment. If it has been treated, full details of the treatment must be given.

3. Method of Examination

3.1 *Duration of Tests*

The minimum duration of tests should normally be two independent growing cycles.

3.2 *Testing Place*

The tests should normally be conducted at one place. If any characteristics of the variety, which are relevant for the examination of DUS, cannot be observed at that place, the variety may be tested at an additional place.

3.3 *Conditions for Conducting the Examination*

The tests should be carried out under conditions ensuring satisfactory growth for the expression of the relevant characteristics of the variety and for the conduct of the examination.

3.3.1 Type of observation

The recommended method of observing the characteristic is indicated by the following key in the second column of the Table of Characteristics:

- MG: single measurement of a group of plants or parts of plants
- MS: measurement of a number of individual plants or parts of plants
- VG: visual assessment by a single observation of a group of plants or parts of plants
- VS: visual assessment by observation of individual plants or parts of plants

3.4 *Test Design*

3.4.1 Each test should be designed to result in a total of at least 40 plants, which should be divided between two or more replicates.

3.4.2 The design of the tests should be such that plants or parts of plants may be removed for measurement or counting without prejudice to the observations which must be made up to the end of the growing cycle.

3.5 *Number of Plants / Parts of Plants to be Examined*

Unless otherwise indicated, all observations on single plants should be made on 20 plants or parts taken from each of 20 plants and any other observations made on all plants in the test.

3.6 *Additional Tests*

Additional tests, for examining relevant characteristics, may be established.

4. Assessment of Distinctness, Uniformity and Stability

4.1 *Distinctness*

4.1.1 General Recommendations

It is of particular importance for users of these Test Guidelines to consult the General Introduction prior to making decisions regarding distinctness. However, the following points are provided for elaboration or emphasis in these Test Guidelines:

4.1.2 Consistent Differences

The minimum duration of tests recommended in Section 3.1 reflects, in general, the need to ensure that any differences in a characteristic are sufficiently consistent.

4.1.3 Clear Differences

Determining whether a difference between two varieties is clear depends on many factors, and should consider, in particular, the type of expression of the characteristic being examined, i.e. whether it is expressed in a qualitative, quantitative, or pseudo-qualitative manner. Therefore, it is important that users of these Test Guidelines are familiar with the recommendations contained in the General Introduction prior to making decisions regarding distinctness.

4.2 *Uniformity*

It is of particular importance for users of these Test Guidelines to consult the General Introduction prior to making decisions regarding uniformity. However, the following points are provided for elaboration or emphasis in these Test Guidelines:

4.2.1 Cross-pollinated varieties

The assessment of uniformity for cross-pollinated varieties should be according to the recommendations for cross-pollinated varieties in the General Introduction.

4.2.2 Vegetatively propagated varieties, single cross hybrids and self-pollinated varieties (inbred lines)

For the assessment of uniformity of vegetatively propagated varieties, single cross hybrids and self-pollinated varieties (inbred lines), a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 40 plants, 2 off-types are allowed.

4.2.3 Hybrids

The assessment of uniformity for hybrid varieties depends on the type of hybrid and should be according to the recommendations for hybrid varieties in the General Introduction. In the case of single cross hybrids, the uniformity standards are set out in Section 4.2.2.

4.3 *Stability*

4.3.1 In practice, it is not usual to perform tests of stability that produce results as certain as those of the testing of distinctness and uniformity. However, experience has demonstrated that, for many types of variety, when a variety has been shown to be uniform, it can also be considered to be stable.

4.3.2 Where appropriate, or in cases of doubt, stability may be tested, either by growing a further generation, or by testing a new seed or plant stock to ensure that it exhibits the same characteristics as those shown by the previous material supplied.

4.3.3 The stability of a hybrid variety may, in addition to an examination of the hybrid variety itself, also be assessed by examination of the uniformity and stability of its parent lines.

5. Grouping of Varieties and Organization of the Growing Trial

5.1 The selection of varieties of common knowledge to be grown in the trial with the candidate varieties and the way in which these varieties are divided into groups to facilitate the assessment of distinctness is aided by the use of grouping characteristics.

5.2 Grouping characteristics are those in which the documented states of expression, even where produced at different locations, can be used, either individually or in combination with other such characteristics: (a) to select varieties of common knowledge that can be excluded from the growing trial used for examination of distinctness; and (b) to organize the growing trial so that similar varieties are grouped together.

5.3 The following have been agreed as useful grouping characteristics:

- (a) Outer leaf: color (with wax) (characteristic 11)
- (b) Head: shape in longitudinal section (characteristic 17)
- (c) Head: diameter (characteristic 20)
- (d) Head: density (characteristic 30)
- (e) Time of harvest maturity (characteristic 33)

5.4 Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the General Introduction.

6. Introduction to the Table of Characteristics

6.1 *Categories of Characteristics*

6.1.1 Standard Test Guidelines Characteristics

Standard Test Guidelines characteristics are those which are approved by UPOV for examination of DUS and from which members of the Union can select those suitable for their particular circumstances.

6.1.2 Asterisked Characteristics

Asterisked characteristics (denoted by *) are those included in the Test Guidelines which are important for the international harmonization of variety descriptions and should always be examined for DUS and included in the variety description by all members of the Union, except when the state of expression of a preceding characteristic or regional environmental conditions render this inappropriate.

6.2 *States of Expression and Corresponding Notes*

States of expression are given for each characteristic to define the characteristic and to harmonize descriptions. Each state of expression is allocated a corresponding numerical note for ease of recording of data and for the production and exchange of the description.

6.3 *Types of Expression*

An explanation of the types of expression of characteristics (qualitative, quantitative and pseudo-qualitative) is provided in the General Introduction.

6.4 *Example Varieties*

6.4.1 Where appropriate, example varieties are provided to clarify the states of expression of each characteristic.

6.4.2 Example varieties are followed by an indication of the botanical types to which they belong. Thus, White cabbage types are indicated by (W), Red cabbage types indicated by (R), and Savoy cabbage types indicated by (S).

6.5 *Legend*

(*) Asterisked characteristic – see Section 6.1.2

QL Qualitative characteristic – see Section 6.3

QN Quantitative characteristic – see Section 6.3

PQ Pseudo-qualitative characteristic – see Section 6.3

MG Single measurement of a group of plants or parts of plants – see Section 3.3.1

MS Measurement of a number of individual plants or parts of plants – see Section 3.3.1

VG Visual assessment by a single observation of a group of plants or parts of plants – see Section 3.3.1

VS Visual assessment by observation of individual plants or parts of plants – see Section 3.3.1

(+) See Explanations on the Table of Characteristics in Chapter 8

7. Table of Characteristics/Tableau des caractères/Merkmalstabelle/Tabla de caracteres

| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielsorten/ Variedades ejemplo | Note/ Nota |
|------------|---|--|-------------------------------------|---|--|---------------|
| 1.1 | VG <u>White cabbage</u> | <u>Variétés de chou</u> | <u>Nur Weißkohl-</u> | <u>Solo variedades</u> | | |
| (*) | <u>varieties only: Plant: height</u> | <u>cabus seulement: Plante: hauteur</u> | <u>sorten: Pflanze: Höhe</u> | <u>de col repollo lisa: Planta: altura</u> | | |
| QN | very short | très basse | sehr niedrig | muy baja | | 1 |
| | short | basse | niedrig | baja | Gouden Akker (W), Minicole (W) | 3 |
| | medium | moyenne | mittel | media | Marner Lagerweiss (W), Strukton (W) | 5 |
| | tall | haute | hoch | alta | Amager hochstrunkig (W), Thurner (W), Zerlina (W) | 7 |
| | very tall | très haute | sehr hoch | muy alta | Filderkraut (W) | 9 |
| 1.2 | VG <u>Red cabbage varieties</u> | <u>Variétés de chou</u> | <u>Nur Rotkohlsorten:</u> | <u>Solo variedades</u> | | |
| (*) | <u>only: Plant: height</u> | <u>rouge seulement: Plante: hauteur</u> | <u>Pflanze: Höhe</u> | <u>de lombarda: Planta: altura</u> | | |
| QN | very short | très basse | sehr niedrig | muy baja | Langedijker Allervroegste (R), Primero (R) | 1 |
| | short | basse | niedrig | baja | Marner Frührotkohl (R), Ruby Ball (R) | 3 |
| | medium | moyenne | mittel | media | Allrot (R), Roxy (R) | 5 |
| | tall | haute | hoch | alta | Langedijker Bewaar 3 (R), Langedijker Herfst (R), Rovita (R) | 7 |
| | very tall | très haute | sehr hoch | muy alta | | 9 |
| 1.3 | VG <u>Savoy cabbage</u> | <u>Variétés de chou de</u> | <u>Nur Wirsingsorten:</u> | <u>Solo variedades</u> | | |
| (*) | <u>varieties only: Plant: height</u> | <u>Milan seulement: Plante: hauteur</u> | <u>Pflanze: Höhe</u> | <u>de col de Milán: Planta: altura</u> | | |
| QN | very short | très basse | sehr niedrig | muy baja | | 1 |
| | short | basse | niedrig | baja | Fitis (S), Vorbote 2 (S) | 3 |
| | medium | moyenne | mittel | media | Marner Grünkopf (S) | 5 |
| | tall | haute | hoch | alta | Hammer (S), Roi de l'hiver 2 (S) | 7 |
| | very tall | très haute | sehr hoch | muy alta | Bloemendaalse Gele (S) | 9 |

| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|------------|-----------|--|--|---|---|---------------|
| 2.1 | VG | <u>White cabbage varieties only:</u> Plant: maximum diameter (including outer leaves) | <u>Variétés de chou cabus seulement:</u> Plante: diamètre maximal (y compris les feuilles externes) | <u>Nur Weißkohlsorten:</u> Pflanze: maximaler Durchmesser (einschließlich Umblätter) | <u>Solo variedades de col repollo lisa:</u> Planta: diámetro máximo (incluidas las hojas exteriores) | |
| QN | small | petit | klein | pequeño | Wiam (W), Minicole (W) | 3 |
| | medium | moyen | mittel | medio | Marner Augustkohl (W), Minicole (W) | 5 |
| | large | grand | groß | grande | Roem van Enkhuizen 2 (W), Robuster (W) | 7 |
| 2.2 | VG | <u>Red cabbage varieties only:</u> Plant: maximum diameter (as for 2.1) | <u>Variétés de chou rouge seulement:</u> Plante: diamètre maximal (comme pour 2.1) | <u>Nur Rotkohlsorten:</u> Pflanze: maximaler Durchmesser (wie unter 2.1) | <u>Solo variedades de lombarda:</u> Planta: diámetro máximo (como para 2.1) | |
| QN | small | petit | klein | pequeño | Frührot (R), Primero (R) | 3 |
| | medium | moyen | mittel | medio | Allrot (R), Ruby Ball (R) | 5 |
| | large | grand | groß | grande | Marner Septemberrot (R), Rovita (R) | 7 |
| 2.3 | VG | <u>Savoy cabbage varieties only:</u> Plant: maximum diameter (as for 2.1) | <u>Variétés de chou de Milan seulement:</u> Plante: diamètre maximal (comme pour 2.1) | <u>Nur Wirsingsorten:</u> Pflanze: maximaler Durchmesser (wie unter 2.1) | <u>Solo variedades de col de Milán:</u> Planta: diámetro máximo (como para 2.1) | |
| QN | small | petit | klein | pequeño | Vorbote 2 (S) | 3 |
| | medium | moyen | mittel | medio | Marner Grünkopf (S) | 5 |
| | large | grand | groß | grande | Hammer (S) | 7 |

| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|------------|---|---|---|---|---|---------------|
| 3. | VG/ Plant: length of outer MS stem | Plante: longueur du pied | Pflanze: Länge des Außenstrunks | Planta: longitud del tallo externo | | |
| QN | short | court | kurz | corta | Braunsweiger (W), Minicole (W); Vorox (R); Spivoy (S) | 3 |
| | medium | moyen | mittel | media | Bartolo (W), September (W); Langedijker Bewaar (R); Belvoy (S) | 5 |
| | long | long | lang | larga | Amager hochstrunkig (W), Robuster (W); Pampa (S) | 7 |
| 4. | VG Plant: attitude of outer leaves (*) | Plante: port des feuilles externes | Pflanze: Stellung der Umblätter | Planta: porte de las hojas externas | | |
| QN | erect | dressé | aufrecht | erecto | Filderkraut (W), Slawdena (W) | 1 |
| | semi-erect | demi dressé | halbaufrecht | semierecto | Braunschweiger (W) | 3 |
| | prostrate | étalé | liegend | postrado | Christmas Drumhead (W), Spring Hero (W) | 5 |
| 5.1 | VG <u>White cabbage varieties only</u>: Outer leaf: size (*) | <u>Variétés de chou cabus seulement</u>: Feuille externe: taille | <u>Nur Weißkohl-sorten</u>: Umblatt: Größe | <u>Solo variedades de col repollo lisa</u>: Hoja externa: tamaño | | |
| QN | small | petite | klein | pequeña | Golden Cross (W) | 3 |
| | medium | moyenne | mittel | mediana | Braunschweiger (W), Marnier Lagerweiss (W), Atria (W) | 5 |
| | large | grande | groß | grande | Thurner (W), Robustor (W) | 7 |

| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|------------|---------------------------|--|--|---|---|---------------|
| 5.2 | VG | <u>Red cabbage varieties only: Outer leaf: size</u> | <u>Variétés de chou rouge seulement: Feuille externe: taille</u> | <u>Nur Rotkohlsorten: Umblatt: Größe</u> | <u>Solo variedades de lombarda: Hoja externa: tamaño</u> | |
| QN | small | petite | klein | pequeña | Langedijker Allervroegste (R), Primero (R) | 3 |
| | medium | moyenne | mittel | mediana | Langedijker Vroege (R), Ruby Ball (R) | 5 |
| | large | grande | groß | grande | Marner Lagerrot (R), Langedijker Herfst (R), Rovita (R) | 7 |
| 5.3 | VG | <u>Savoy cabbage varieties only: Outer leaf: size</u> | <u>Variétés de chou de Milan seulement: Feuille externe: taille</u> | <u>Nur Wirsingsorten: Umblatt: Größe</u> | <u>Solo variedades de col de Milán: Hoja externa: tamaño</u> | |
| QN | small | petite | klein | pequeña | Promasa (S) | 3 |
| | medium | moyenne | mittel | mediana | Belvoy (S) | 5 |
| | large | grande | groß | grande | Vertus 3 (S) | 7 |
| 6. | VG | <u>Outer leaf: shape of blade</u> | <u>Feuille externe: forme du limbe</u> | <u>Umblatt: Form der Spreite</u> | <u>Hoja externa: forma del limbo</u> | |
| (+) | | | | | | |
| PQ | elliptic | elliptique | elliptisch | elíptica | Filderkraut (W) | 1 |
| | broad ovate | ovale large | breit eiförmig | ovalada ancha | September (W) | 2 |
| | circular | arrondi | kreisförmig | redonda | Wiam (W) | 3 |
| | transverse broad elliptic | elliptique transverse large | quer breit elliptisch | elíptica transversal ancha | Rookie (R) | 4 |
| | obovate | obovale | verkehrt eiförmig | obovada | Marksman (W) | 5 |
| 7. | VG | <u>Outer leaf: profile of upper side of blade</u> | <u>Feuille externe: profil de la face supérieure du limbe</u> | <u>Umblatt: Profil der Spreitenoberseite</u> | <u>Hoja externa: perfil del haz del limbo</u> | |
| QN | concave | concave | konkav | cóncavo | Slawdena (W); Celsa (S) | 1 |
| | plane | plan | eben | plano | Golden Cross (W); Allrot (R) | 2 |
| | convex | convexe | konvex | convexo | Comparsa (S) | 3 |

| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|------------|--------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|---|---------------|
| 8.1 | VG | <u>White and Red</u> | <u>Variétés de chou</u> | <u>Nur Weiß- und</u> | <u>Solo variedades</u> | |
| (*) | <u>cabbage varieties</u> | <u>cabus et de chou</u> | <u>Rotkohlsorten:</u> | <u>de col repollo lisa</u> | | |
| | <u>only: Outer leaf:</u> | <u>rouge seulement:</u> | <u>Umblatt: Stärke der</u> | <u>y lombarda:</u> | | |
| | <u>degree of blistering</u> | <u>Feuille externe:</u> | <u>Blasigkeit</u> | <u>Hoja externa:</u> | | |
| | | <u>degré de cloûre</u> | | <u>intensidad del</u> | | |
| | | | | <u>abullonado</u> | | |
| QN | absent or very weak | nul ou très faible | fehlend oder sehr gering | ausente o muy débil | Slawdena (W); Rookie (R) | 1 |
| | moderate | moyen | mittel | moderado | Fieldrocket (W); Langedijker Herfst (R) | 2 |
| | strong | fort | stark | fuerte | Roem van Enkhuizen 3 (W); Kissendrup (R) | 3 |
| 8.2 | VG | <u>Savoy cabbage</u> | <u>Variétés de chou de</u> | <u>Nur Wirsingsorten:</u> | <u>Solo variedades</u> | |
| (*) | <u>varieties only: Outer</u> | <u>Milan seulement:</u> | <u>Umblatt: Stärke der</u> | <u>de col de Milán:</u> | | |
| | <u>leaf: degree of</u> | <u>Feuille externe:</u> | <u>Blasigkeit</u> | <u>Hoja externa:</u> | | |
| | <u>blistering</u> | <u>degré de cloûre</u> | | <u>intensidad del</u> | | |
| | | | | <u>abullonado</u> | | |
| QN | absent or very weak | nulle ou très faible | fehlend oder sehr gering | ausente o muy débil | De Pointoise 2 (S) | 1 |
| | weak | faible | gering | débil | Celsa (S) | 3 |
| | medium | moyenne | mittel | medio | Savoy King (S) | 5 |
| | strong | forte | stark | fuerte | Hammer (S) | 7 |
| | very strong | très forte | sehr stark | muy fuerte | Novusa (S), Roi de l'hiver 2 (S) | 9 |
| 9.1 | VG | <u>White and red</u> | <u>Variétés de chou</u> | <u>Nur Weißkohl- und</u> | <u>Solo variedades</u> | |
| (*) | <u>cabbage varieties</u> | <u>cabus et chou rouge</u> | <u>Rotkohlsorten:</u> | <u>de col repollo lisa</u> | | |
| | <u>only: Outer leaf: size</u> | <u>seulement: Feuille</u> | <u>Umblatt: Größe der</u> | <u>y lombarda:</u> | | |
| | <u>of blisters</u> | <u>externe: taille des</u> | <u>Blasen</u> | <u>Hoja externa:</u> | | |
| | | <u>cloûres</u> | | <u>tamaño de las</u> | | |
| | | | | <u>vejigas</u> | | |
| QN | small | petites | klein | pequeñas | Hispi (W); Allrot (R) | 3 |
| | medium | moyennes | mittel | medias | Roem van Enkhuizen 2 (W); Kissendrup (R) | 5 |
| | large | grandes | groß | grandes | Jason (W) | 7 |

| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|------------|------------------------------|--|--|---|---|---------------|
| 9.2 | VG | <u>Savoy cabbage varieties only:</u> | <u>Variétés de chou de Milan seulement:</u> | <u>Nur Wirsingsorten:</u> | <u>Solo variedades de col de Milán:</u> | |
| (*) | Outer leaf: size of blisters | Feuille externe: taille des cloûres | Umblatt: Größe der Blasen | Hoja externa: tamaño de las vejigas | | |
| QN | small | petites | klein | pequeñas | Roi de l'hiver 2 (S) | 3 |
| | medium | moyennes | mittel | medias | Hammer (S) | 5 |
| | large | grandes | groß | grandes | Vertus 2 (S) | 7 |
| 10. | VG | <u>Savoy cabbage varieties only:</u> | <u>Variétés de chou de Milan seulement:</u> | <u>Nur Wirsingsorten:</u> | <u>Solo variedades de col de Milán:</u> | |
| (*) | Outer leaf: crimping | Feuille externe: frisure | Umblatt: Kräuselung | Hoja externa: ondulado | | |
| (+) | | | | | | |
| | weak | faible | gering | débil | Dauerwirsing (S) | 3 |
| | medium | moyenne | mittel | medio | Savoy King (S) | 5 |
| | strong | forte | stark | fuerte | Hammer (S) | 7 |
| 11. | VG | <u>Outer leaf: color (with wax)</u> | <u>Feuille externe: couleur (avec pruine)</u> | <u>Umblatt: Farbe (mit Wachsschicht)</u> | <u>Hoja externa: color (con pruina)</u> | |
| (*) | | | | | | |
| (+) | | | | | | |
| PQ | yellow green | vert-jaune | gelbgrün | verde amarillento | April (W) | 1 |
| | green | verte | grün | verde | Hammer (S) | 2 |
| | grey green | vert-gris | graugrün | verde grisáceo | Bison (W), Gloria (W); Roi de l'hiver 2 (S) | 3 |
| | blue green | vert-bleu | blaugrün | verde azulado | Market Pride (W) | 4 |
| | violet | violette | violett | violeta | Langedijker Bewaar 2 (R) | 5 |
| 12. | VG | <u>Outer leaf: intensity of color</u> | <u>Feuille externe: intensité de la couleur</u> | <u>Umblatt: Intensität der Farbe</u> | <u>Hoja externa: intensidad del color</u> | |
| QN | light | claire | hell | claro | Gouden Akker (W); Rebus (R); Bloemendaalse Gele (S) | 3 |
| | medium | moyenne | mittel | medio | Cabri (W); Redsky (R); Kilosa (S) | 5 |
| | dark | foncée | dunkel | oscuro | Excel (W); Integro (R); Norma (S) | 7 |

| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|---------------|---|---|---|--|---|---------------|
| 13. VG | <u>Red cabbage varieties only: Outer leaf: green flush</u> | <u>Variétés de chou rouge seulement: Feuille externe: teinte verte diffuse</u> | <u>Nur Rotkohlsorten: Umblatt: grüner Anflug</u> | <u>Solo variedades de lombarda: Hoja externa: traza verde</u> | | |
| QL | absent | absente | fehlend | ausente | Kissendrup (R), Autoro (R) | 1 |
| | present | présente | vorhanden | presente | Roxy (R), Kempero (R) | 9 |
| 14. VG | <u>Outer leaf: waxiness</u> | <u>Feuille externe: pruine</u> | <u>Umblatt: Wachsschicht</u> | <u>Hoja externa: pruina</u> | | |
| QN | absent or very weak | nulle ou très faible | fehlend oder sehr gering | ausente o muy débil | First of June (W) | 1 |
| | weak | faible | gering | débil | Derby Day (W), Octoking (W) | 3 |
| | medium | moyenne | mittel | media | Wiam (W); Celtic (S) | 5 |
| | strong | forte | stark | fuerte | Turner (W), Bison (W) | 7 |
| | very strong | très forte | sehr stark | muy fuerte | Rivera (W); Indaro (R) | 9 |
| 15. VG | <u>Outer leaf: undulation of margin</u> | <u>Feuille externe: ondulation du bord</u> | <u>Umblatt: Wellung des Randes</u> | <u>Hoja externa: ondulación del borde</u> | | |
| QN | absent or very weak | nulle ou très faible | fehlend oder sehr gering | ausente o muy débil | Minicole (W) | 1 |
| | weak | faible | gering | débil | Holsteiner platter (W) | 3 |
| | medium | moyenne | mittel | media | Saturn (W); Dacato (S) | 5 |
| | strong | forte | stark | fuerte | Snovoy (S) | 7 |
| | very strong | très forte | sehr stark | muy fuerte | Roxy (R) | 9 |
| 16. VG | <u>Outer leaf: reflexion of margin</u> | <u>Feuille externe: réflexion du bord du limbe</u> | <u>Umblatt: Biegung des Randes</u> | <u>Hoja externa: curvado del margen</u> | | |
| QL | absent | absente | fehlend | ausente | Slawdena (W) | 1 |
| | present | présente | vorhanden | presente | Rinda (W) | 9 |

| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|-------------------|--|---|---|--|---|---------------|
| 17. VG | Head: shape in longitudinal section | Pomme: forme en section longitudinale | Kopf: Form im Längsschnitt | Repollo: forma en sección longitudinal | | |
| (*) | | | | | | |
| (+) | | | | | | |
| PQ | transverse narrow elliptic | elliptique transverse étroite | quer schmal elliptisch | elíptica transversal estrecha | Braunschweiger (W) | 1 |
| | transverse elliptic | arrondie aplatie | quer elliptisch | elíptica transversal | Centurion (W), Conquistador (W); De Pointoise 2 (S) | 2 |
| | circular | circulaire | kreisförmig | circular | Octoking (W), Roem van Enkhuizen 2 (W) | 3 |
| | broad elliptic | elliptique large | breit elliptisch | elíptica ancha | Langedijker Herfst (R) | 4 |
| | broad obovate | obovale large | breit verkehrt eiförmig | obovada ancha | Langedijker Bewaar (W) | 5 |
| | broad ovate | ovale large | breit eiförmig | ovalada ancha | Cape Horn (W) | 6 |
| | angular ovate | ovale à sommet pointu | spitz eiförmig | ovalada aguda | Filderkraut (W), Hispi (W) | 7 |
| 18. VG | Head: shape of base in longitudinal section | Pomme: forme de la base en section longitudinale | Kopf: Form der Basis im Längsschnitt | Repollo: forma de la base en sección longitudinal | | |
| (+) | | | | | | |
| PQ | rounded | arrondie | abgerundet | redondeada | | 1 |
| | flat | plane | gerade | plana | | 2 |
| | arched | arquée | eingesenkt | arqueada | | 3 |
| 19. VG/ MS | Head: length | Pomme: longueur | Kopf: Länge | Repollo: longitud | | |
| (*) | | | | | | |
| QN | short | courte | kurz | corto | Marner Allfrüh (W); Vorbote 2 (S) | 3 |
| | medium | moyenne | mittel | medio | Belvoy (S), Pampa (S) | 5 |
| | long | longue | lang | larga | Offenham 3 (W) | 7 |

| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|-----------------------|--|---|---|--|---|---------------|
| 20. VG/ MS (*) | Head: diameter | Pomme: diamètre | Kopf: Durchmesser | Repollo: diámetro | | |
| QN | small | petit | klein | pequeño | Marnier Allfrüh (W); Vorbote 2 (S) | 3 |
| | medium | moyen | mittel | medio | Celsa (S), Pampa (S) | 5 |
| | large | grand | groß | grande | Braunschweiger (W), Quintal d'Alsace (W) | 7 |
| 21. VG | Head: position of maximum diameter | Pomme: position du diamètre maximal | Kopf: Position des maximalen Durchmessers | Repollo: posición del diámetro máximo | | |
| QN | towards top | vers le sommet | zur Spitze hin | hacia la parte superior | Slawdena (W) | 1 |
| | at middle | au milieu | in der Mitte | en el medio | Derby Day (W), Gouden Akker (W) | 2 |
| | towards base | vers la base | zur Basis hin | hacia la base | Hispi (W) | 3 |
| 22. VG (+) | Head: cover | Pomme: couverture | Kopf: Schluss | Repollo: cobertura | | |
| QN | not covered | pas couverte | nicht gedeckt | no cubierto | Late Putjes (S) | 1 |
| | partially covered | partiellement couverte | teilweise gedeckt | parcialmente cubierto | Holsteiner platter (W) | 2 |
| | covered | couverte | gedeckt | cubierto | Langedijker Bewaar 2 (R) | 3 |
| 23. VG (*) | <u>Savoy cabbage varieties only:</u> Head: blistering of cover leaf | <u>Variétés de chou de Milan seulement:</u> Pomme: cloqure de la feuille de couverture | <u>Nur Wirsingsorten:</u> Kopf: Blasigkeit des Deckblattes | <u>Solo variedades de col de Milán:</u> Repollo: abullonado de la hoja de cobertura | | |
| QN | absent or very weak | nulle ou très faible | fehlend oder sehr gering | ausente o muy débil | De Pointoise 2 (S) | 1 |
| | weak | faible | gering | débil | Celtic (S) | 3 |
| | medium | moyenne | mittel | medio | Julius (S) | 5 |
| | strong | forte | stark | fuerte | Hammer (S) | 7 |
| | very strong | très forte | sehr stark | muy fuerte | Roi de l'hiver 2 (S) | 9 |

| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|----------------------------|--|--|---|---|---|---------------|
| 24. VG | Head: reflexion of margin of cover leaf | Pomme: courbure du bord de la feuille de couverture | Kopf: Randbiegung des Deckblattes | Repollo: concavidad de la hoja de cobertura | | |
| QL | absent | absente | fehlend | ausente | Morgan (W), Apex (W) | 1 |
| | present | présente | vorhanden | presente | Orbit (W) | 9 |
| 25. VG (* (+) | Head: color of cover leaf | Pomme: couleur de la feuille de couverture | Kopf: Farbe des Deckblattes | Repollo: color de la hoja de cobertura | | |
| PQ | yellow green | vert-jaune | gelbgrün | verde amarillento | April (W), Octoking (W) | 1 |
| | green | verte | grün | verde | Hammer (S) | 2 |
| | grey green | vert-gris | graugrün | verde grisáceo | Roi de l'hiver 2 (S) | 3 |
| | blue green | vert-bleu | blaugrün | verde azulado | | 4 |
| | violet | violette | violett | violeta | Kissendrup (R) | 5 |
| 26. VG | Head: intensity of color of cover leaf | Pomme: intensité de la couleur de la feuille de couverture | Kopf: Intensität der Farbe des Deckblattes | Repollo: intensidad del color de la hoja de cobertura | | |
| QN | light | claire | hell | claro | | 3 |
| | medium | moyenne | mittel | medio | | 5 |
| | dark | foncée | dunkel | oscuro | | 7 |
| 27. VG | <u>White cabbage and Savoy cabbage varieties only:</u> Head: anthocyanin coloration of cover leaf | <u>Variétés de chou cabus et chou de Milan seulement:</u> Pomme: pigmentation anthocyanique de la feuille de couverture | <u>Nur Weißkohl- und Wirsingsorten:</u> Kopf: Anthocyanfärbung des Deckblattes | <u>Solo variedades de col repollo lisa y col de Milán:</u> Repollo: pigmentación antocianica de la hoja de cobertura | | |
| QN | absent or very weak | absente ou très faible | fehlend oder sehr gering | ausente o muy débil | Hammer (S) | 1 |
| | weak | faible | gering | débil | Slawdena (W) | 3 |
| | medium | moyenne | mittel | media | De Pointoise 2 (S) | 5 |
| | strong | forte | stark | fuerte | Marabel (S) | 7 |
| | very strong | très forte | sehr stark | muy fuerte | | 9 |

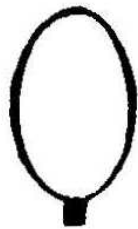
| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|--|------------|--|--|--|---|---------------|
| 28. VG Head: internal color (*) | | Pomme: couleur interne | Kopf: Innenfarbe | Repollo: color interno | | |
| PQ | whitish | blanchâtre | weißlich | blanquecino | Slawdena (W) | 1 |
| | yellowish | jaunâtre | gelblich | amarillento | Langedijker Bewaargele (S) | 2 |
| | greenish | verdâtre | grünlich | verdoso | | 3 |
| | violet | violette | violett | violeta | Langedijker Herfst (R) | 4 |
| 29. VG <u>Red Cabbage varieties only</u>: Head: intensity of internal color | | <u>Variétés de chou rouge seulement</u>: Pomme: intensité de la couleur interne | <u>Nur Rotkohlsorten</u>: Kopf: Intensität der Innenfarbe | <u>Solo variedades de lombarda</u>: Repollo: intensidad del color interno | | |
| QN | light | claire | hell | claro | | 3 |
| | medium | moyenne | mittel | medio | | 5 |
| | dark | foncée | dunkel | oscuro | | 7 |
| 30. VG Head: density (*) (+) | | Pomme: densité | Kopf: Dichte | Repollo: densidad | | |
| QN | very loose | très lâche | sehr locker | muy laxo | Mignon (W) | 1 |
| | loose | lâche | locker | laxo | Hornspi (W) | 3 |
| | medium | moyenne | mittel | medio | Dacato (S), Spivoy (S) | 5 |
| | dense | dense | dicht | denso | Pampa (S) | 7 |
| | very dense | très dense | sehr dicht | muy denso | Slawdena (W) | 9 |
| 31. VG Head: internal structure (+) | | Pomme: structure interne | Kopf: Innenstruktur | Repollo: estructura interna | | |
| QN | fine | fine | fein | fina | Slawdena (W), Quintal d'Alsace (W) | 3 |
| | medium | moyenne | mittel | media | Langedijker Herfst (R) | 5 |
| | coarse | grossière | grob | rugosa | Roem van Enkhuizen 2 (W), Filderkraut (W) | 7 |

| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|----------------------------|--|---|---|--|---|---------------|
| 32. VG (* (+) | Head: relative length of interior stem compared to length of head | Pomme: longueur du trognon par rapport à la longueur de la pomme | Kopf: Länge des Innenstrunkes im Verhältnis zur Länge des Kopfes | Repollo: longitud del tallo interno en relación con la longitud del repollo | | |
| QN | short | court | kurz | corta | Erdeno (W) | 3 |
| | medium | moyen | mittel | media | Slawdena (W) | 5 |
| | long | long | lang | larga | Braunschweiger (W); Belvoy (S) | 7 |
| 33.1 VG (* | <u>White cabbage varieties only</u>: Time of harvest maturity | <u>Variétés de chou cabus seulement</u>: Époque de maturité de récolte | <u>Nur Weißkohlsorten</u>: Zeitpunkt der Erntereife | <u>Solo variedades de col repollo lisa</u>: Époque de madurez para la cosecha | | |
| QN | very early | très précoce | sehr früh | muy temprana | Golden Cross (W) | 1 |
| | early | précoce | früh | temprana | Green Express (W), Hijula (W) | 3 |
| | medium | moyenne | mittel | media | Roem van Enkhuizen 2 (W) | 5 |
| | late | tardive | spät | tardía | Holsteiner platter (W), Marnier Lagerweiss (W), Strukton (W) | 7 |
| | very late | très tardive | sehr spät | muy tardía | Bartolo (W) | 9 |
| 33.2 VG (* | <u>Red cabbage varieties only</u>: Time of harvest maturity | <u>Variétés de chou rouge seulement</u>: Époque de maturité de récolte | <u>Nur Rotkohlsorten</u>: Zeitpunkt der Erntereife | <u>Solo variedades de lombarda</u>: Époque de madurez para la cosecha | | |
| QN | early | précoce | früh | temprana | Langedijker Vroege (R), Normiro (R), Ruby Ball (R) | 3 |
| | medium | moyenne | mittel | media | Langedijker Herbst (R), Marnier Septemberrot (R), Autoro (R) | 5 |
| | late | tardive | spät | tardía | Langedijker Bewaar 2 (R), Marnier Lagerrot (R), Huzaro (R) | 7 |

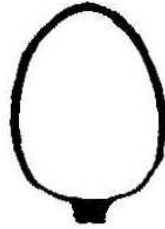
| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|-------------|--|--|---|--|---|---------------|
| 33.3 | VG | <u>Savoy cabbage</u> | <u>Variétés de chou de</u> | <u>Nur Wirsingsorten:</u> | <u>Solo variedades</u> | |
| (*) | <u>varieties only: Time of harvest maturity</u> | <u>Milan seulement: Époque de maturité de récolte</u> | <u>Zeitpunkt der Erntereife</u> | <u>de col de Milán: Época de madurez para la cosecha</u> | | |
| QN | very early | très précoce | sehr früh | muy temprana | Spivoy (S) | 1 |
| | early | précoce | früh | temprana | Walasa (S) | 3 |
| | medium | moyenne | mittel | media | Belvoy (S) | 5 |
| | late | tardive | spät | tardía | Hammer (S) | 7 |
| | very late | très tardive | sehr spät | muy tardía | Alexander's No.1 (S) | 9 |
| 34. | VG | <u>Time of bursting of head after maturity</u> | <u>Zeitpunkt des Platzens des Kopfes nach der Reife</u> | <u>Época de apertura del repollo después de la madurez</u> | | |
| | | <u>Époque de l'éclatement de la pomme après maturité</u> | | | | |
| QN | early | précoce | früh | precoz | Winnigstadt (W); Primero (R); Curosa (S) | 3 |
| | medium | moyenne | mittel | media | Excel (W); Pluton (R), Ruby Ball (R); Emerald (S) | 5 |
| | late | tardive | spät | tardía | Quisto (W); Induro (R); Ermosa (S) | 7 |
| 35. | VS | <u>Male sterility</u> | <u>Männliche Sterilität</u> | <u>Androesterilidad</u> | | |
| (*) | | <u>Stérilité mâle</u> | | | | |
| (+) | | | | | | |
| QL | absent | absente | fehlend | ausente | Winnigstadt (W); Pluton (R); Belvoy (S) | 1 |
| | present | présente | vorhanden | presente | Unifor (W); Roderick (R); Emerald (S) | 9 |
| 36. | VS | <u>Resistance to race 1 of <i>Fusarium oxysporum</i> f. sp. <i>conglutinans</i></u> | <u>Resistenz gegen Pathotyp 1 von <i>Fusarium oxysporum</i> f. sp. <i>conglutinans</i></u> | <u>Resistencia a la raza 1 del <i>Fusarium oxysporum</i> f. sp. <i>conglutinans</i></u> | | |
| (+) | | <u>Résistance à la race 1 de <i>Fusarium oxysporum</i> f. sp. <i>conglutinans</i></u> | | | | |
| QL | absent | absente | fehlend | ausente | Roem van Enkhuizen 2 (W) | 1 |
| | present | présente | vorhanden | presente | Delight YR (W), Gloria (W) | 9 |

8. Explanations on the Table of Characteristics

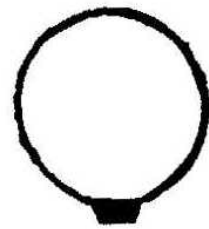
Ad. 6: Outer leaf: shape of blade



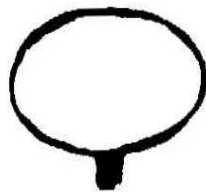
1
elliptic



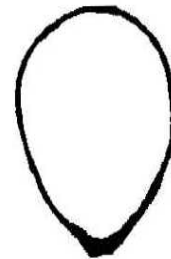
2
broad ovate



3
circular



4
transverse broad elliptic



5
obovate

The leaf should be flattened as much as possible.

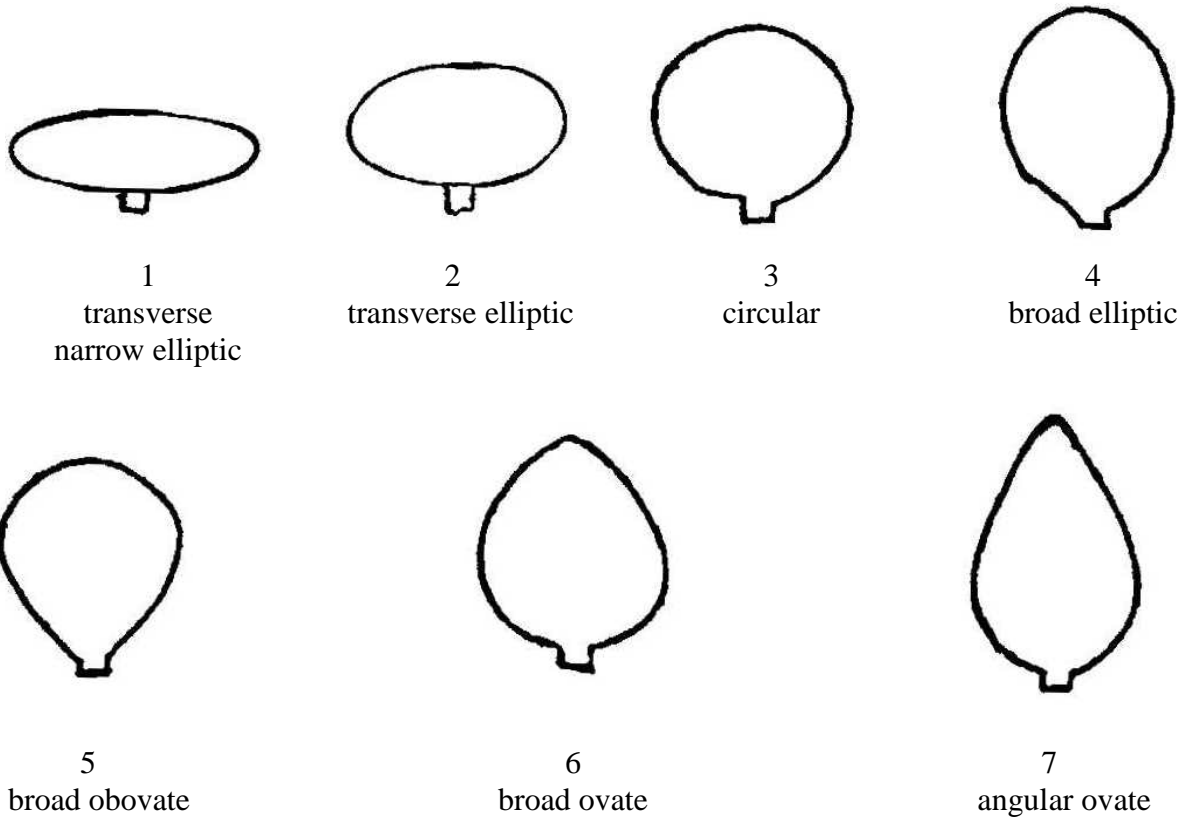
Ad. 10: Savoy cabbage varieties only: Outer leaf: crimping

Crimping is the undulation of the leaf blade tissue between the secondary veins.

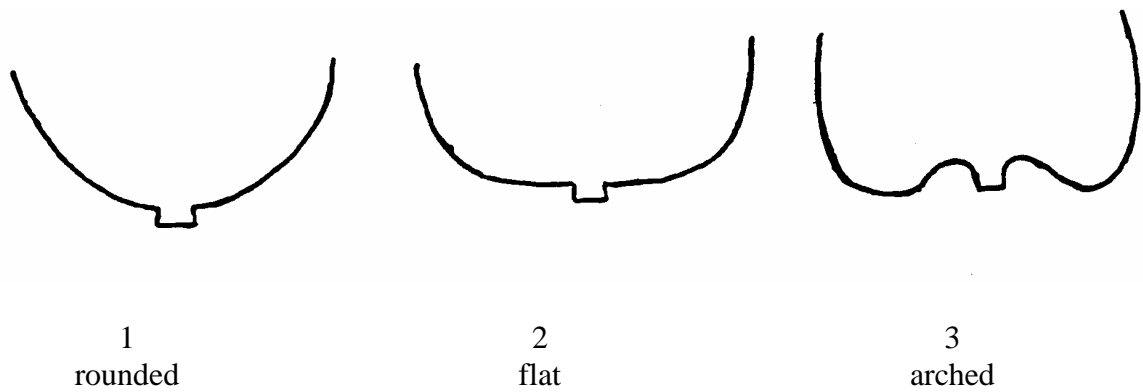
Ad. 11 and 25: Outer leaf: color (with wax); Head: color of cover leaf

States 1 to 4 apply to white and Savoy cabbage only and state 5, violet, is only to be used for Red cabbage varieties.

Ad. 17: Head: shape in longitudinal section



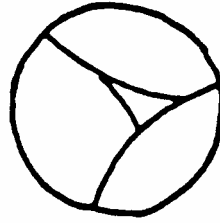
Ad. 18: Head: shape of base in longitudinal section



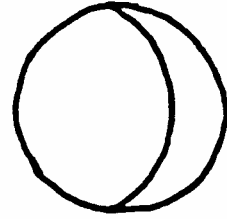
Ad. 22: Head: cover



1
not covered

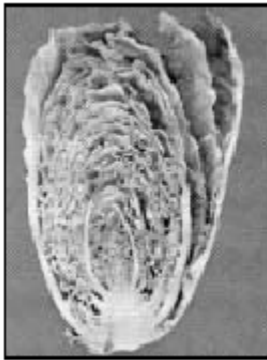


2
partially covered

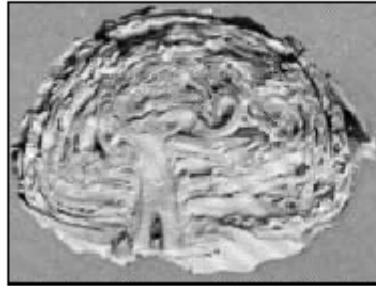


3
covered

Ad. 30: Head: density



1
very loose



3
loose



5
medium



7
dense

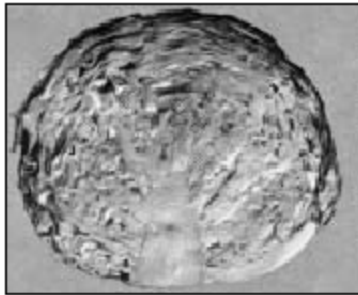


9
very dense

Ad. 31: Head: internal structure



3
fine



5
medium



7
coarse

Ad. 32: Head: relative length of interior stem compared to length of head

- short (Note 3) = relative length of interior stem approximately 1/8 compared to length of head;
medium (Note 5) = relative length of interior stem approximately 1/4 compared to length of head;
long (Note 7) = relative length of interior stem approximately 1/2 compared to length of head.

Ad. 35: Male sterility

Check presence of pollen on stamen:

- (a) if pollen on stamen is present than male sterility is absent;
(b) if pollen on stamen is absent than male sterility is present.

Ad. 36: Resistance to race 1 of *Fusarium oxysporum* f. sp. *conglutinans*

Records must be taken under conditions of controlled infection.

Maintenance of races

Maintenance: agar medium at 20°C

Multiplication: multiplication by transferring portions of the agar medium to liquid. This broth must be shaken continuously.

Conducting the test

| | |
|--------------------------------|---|
| Growth stage of plants: | young plants, approximately two weeks after sowing |
| Temperature: | approximately 25°C |
| Light: | normal greenhouse conditions |
| Growing method: | seed sown in peat soil at temperatures of 12-14°C during day time and 10-12°C during night time |
| Method of inoculation: | the young plants are lifted out of the soil and their roots soaked for 5 minutes in a suspension of spores and parts of mycelia. The young plants are then replanted. |
| Duration of test: | |
| - from sowing to inoculation: | 2 weeks |
| - from inoculation to reading: | the first record of symptoms is made 7 days after inoculation, and the final reading taken 18 days after inoculation |
| Number of plants tested: | 30 |
| Remarks: | The disease might be a quarantine-disease in some countries. Race 1 of <i>Fusarium oxysporum</i> f. sp. <i>conglutinans</i> is common; other races occur only very rarely. |

9. Literature

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10. Technical Questionnaire

| | | |
|-------------------------|-----------------|-------------------|
| TECHNICAL QUESTIONNAIRE | Page {x} of {y} | Reference Number: |
|-------------------------|-----------------|-------------------|

| | |
|--|---|
| | Application date: (not to be filled in by the applicant) |
|--|---|

TECHNICAL QUESTIONNAIRE
 to be completed in connection with an application for plant breeders' rights

In the case of hybrid varieties which are the subject of an application for plant breeders' rights, and where the parent lines are to be submitted as a part of the examination of the hybrid variety, this Technical Questionnaire should be completed for each of the parent lines, in addition to being completed for the hybrid variety.

1. Subject of the Technical Questionnaire

- 1.1.1 Latin Name *Brassica*
- 1.1.2 Common Name WHITE CABBAGE []
- 1.2.1 Latin Name *Brassica*
- 1.2.2 Common Name SAVOY CABBAGE []
- 1.3.1 Latin Name *Brassica*
- 1.3.2 Common Name RED CABBAGE []
- 1.4.1 Hybrid between the species above (please provide details) []

2. Applicant

Name

Address

Telephone No.

Fax No.

E-mail address

Breeder (if different from applicant)

| | | |
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3. Proposed denomination and breeder's reference

Proposed denomination
(if available)

Breeder's reference

4. Information on the breeding scheme and propagation of the variety

4.1 Breeding scheme

Variety resulting from:

4.1.1 Crossing

- (a) controlled cross
(please state parent varieties)
- (b) partially known cross
(please state known parent variety(ies))
- (c) unknown cross

4.1.2 Mutation
(please state parent variety)

4.1.3 Discovery and development
(please state where and when discovered
and how developed)

4.1.4 Other
(please provide details)

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4.2 Method of propagating the variety

4.2.1 Seed-propagated varieties

(a) Self-pollination []

(b) Cross-pollination

(i) population []

(ii) synthetic variety []

(c) Hybrid []

(d) Other []

(please provide details)

4.2.2 Vegetatively propagated varieties []

4.2.3 Other []

(please provide details)

5. Characteristics of the variety to be indicated (the number in brackets refers to the corresponding characteristic in Test Guidelines; please mark the note which best corresponds).

| Characteristics | Example Varieties | Note |
|---|--|------|
| 5.1a <u>White cabbage varieties only:</u> Plant: height (1.1) | | |
| very short | | 1[] |
| short | Gouden Akker (W), Minicole (W) | 3[] |
| medium | Marnier Lagerweiss (W), Strukton (W) | 5[] |
| tall | Amager hochstrunkig (W), Thurner (W), Zerlina (W) | 7[] |
| very tall | Filderkraut (W) | 9[] |

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| Characteristics | Example Varieties | Note | |
| 5.1b <u>Red cabbage varieties only:</u> Plant: height (1.2) | | | |
| very short | Langedijker Allervroegste (R), Primero (R) | 1[] | |
| short | Marner Frührotkohl (R), Ruby Ball (R) | 3[] | |
| medium | Allrot (R), Roxy (R) | 5[] | |
| tall | Langedijker Bewaar 3 (R), Langedijker Herfst (R), Rovita (R) | 7[] | |
| very tall | | 9[] | |
| 5.1c <u>Savoy cabbage varieties only:</u> Plant: height (1.3) | | | |
| very short | | 1[] | |
| short | Fitis (S), Vorbote 2 (S) | 3[] | |
| medium | Marner Grünkopf (S) | 5[] | |
| tall | Hammer (S), Roi de l'hiver 2 (S) | 7[] | |
| very tall | Bloemendaalse Gele (S) | 9[] | |
| 5.2a <u>White cabbage varieties only:</u> Outer leaf: size (5.1) | | | |
| small | Golden Cross (W) | 3[] | |
| medium | Braunschweiger (W), Marner Lagerweiss (W), Atria (W) | 5[] | |
| large | Turner (W), Robustor (W) | 7[] | |
| 5.2b <u>Red cabbage varieties only:</u> Outer leaf: size (5.2) | | | |
| small | Langedijker Allervroegste (R), Primero (R) | 3[] | |
| medium | Langedijker Vroege (R), Ruby Ball (R) | 5[] | |
| large | Marner Lagerrot (R), Langedijker Herfst (R), Rovita (R) | 7[] | |

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| Characteristics | Example Varieties | Note | |
| 5.2c (5.3) | <u>Savoy cabbage varieties only:</u> Outer leaf: size | | |
| small | Promasa (S) | 3[] | |
| medium | Belvoy (S) | 5[] | |
| large | Vertus 3 (S) | 7[] | |
| 5.3a (8.1) | <u>White and Red cabbage varieties only:</u> Outer leaf: degree of blistering | | |
| absent or weak | Slawdena (W); Rookie (R) | 1[] | |
| moderate | Fieldrocket (W); Langedijker Herfst (R) | 2[] | |
| strong | Roem van Enkhuizen 3 (W); Kissendrup (R) | 3[] | |
| 5.3b (8.2) | <u>Savoy cabbage varieties only:</u> Outer leaf: degree of blistering | | |
| absent or very weak | De Pointoise 2 (S) | 1[] | |
| weak | Celsa (S) | 3[] | |
| medium | Savoy King (S) | 5[] | |
| strong | Hammer (S) | 7[] | |
| very strong | Novusa (S), Roi de l'hiver 2 (S) | 9[] | |
| 5.4 (11) | Outer leaf: color (with wax) | | |
| yellow green | April (W) | 1[] | |
| green | Hammer (S) | 2[] | |
| grey green | Bison (W), Gloria (W); Roi de l'hiver 2 (S) | 3[] | |
| blue green | Market Pride (W) | 4[] | |
| violet | Langedijker Bewaar 2 (R) | 5[] | |

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| Characteristics | | Example Varieties | Note |
| 5.5 | Outer leaf: intensity of color | | |
| (12) | | | |
| | light | Gouden Akker (W); Rebus (R); Bloemendaalse Gele (S) | 3[] |
| | medium | Cabri (W); Redsky (R); Kilosa (S) | 5[] |
| | dark | Excel (W); Integro (R); Norma (S) | 7[] |
| 5.6 | Head: shape in longitudinal section | | |
| (17) | | | |
| | transverse narrow elliptic | Braunschweiger (W) | 1[] |
| | transverse elliptic | Centurion (W), Conquistador (W), De Pointoise 2 (S) | 2[] |
| | circular | Octoking (W), Roem van Enkhuizen 2 (W) | 3[] |
| | broad elliptic | Langedijker Herfst (R) | 4[] |
| | broad obovate | Langedijker Bewaar (W) | 5[] |
| | broad ovate | Cape Horn (W) | 6[] |
| | angular ovate | Filderkraut (W), Hispi (W) | 7[] |
| 5.7 | Head: diameter | | |
| (20) | | | |
| | small | Marner Allfrüh (W); Vorbote 2 (S) | 3[] |
| | medium | Celsa (S), Pampa (S) | 5[] |
| | large | Braunschweiger (W), Quintal d'Alsace (W) | 7[] |
| 5.8 | Head: density | | |
| (30) | | | |
| | very loose | Mignon (W) | 1[] |
| | loose | Hornspi (W) | 3[] |
| | medium | Dacato (S), Spivoy (S) | 5[] |
| | dense | Pampa (S) | 7[] |
| | very dense | Slawdena (W) | 9[] |

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| Characteristics | Example Varieties | Note | |
| 5.9a (33.1) | <u>White cabbage varieties only: Time of harvest maturity</u> | | |
| very early | Golden Cross (W) | 1[] | |
| early | Green Express (W), Hijula (W) | 3[] | |
| medium | Roem van Enkhuizen 2 (W) | 5[] | |
| late | Holsteiner platter (W), Marner Lagerweiss (W), Strukton (W) | 7[] | |
| very late | Bartolo (W) | 9[] | |
| 5.9b (33.2) | <u>Red cabbage varieties only: Time of harvest maturity</u> | | |
| early | Langedijker Vroege (R), Normiro (R), Ruby Ball (R) | 3[] | |
| medium | Langedijker Herfst (R), Marner Septemberrot (R), Auroro (R) | 5[] | |
| late | Langedijker Bewaar 2 (R), Marner Lagerrot (R), Huzaro (R) | 7[] | |
| 5.9c (33.3) | <u>Savoy cabbage varieties only: Time of harvest maturity</u> | | |
| very early | Spivoy (S) | 1[] | |
| early | Walasa (S) | 3[] | |
| medium | Belvoy (S) | 5[] | |
| late | Hammer (S) | 7[] | |
| very late | Alexander's No.1 (S) | 9[] | |
| 5.10 (35) | Male sterility | | |
| absent | Winnigstadt (W); Pluton (R); Belvoy (S) | 1[] | |
| present | Unifor (W); Roderick (R); Emerald (S) | 9[] | |

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6. Similar varieties and differences from these varieties

Please use the table, and space provided for comments, below to provide information on how your candidate variety differs from the variety (or varieties) which, to the best of your knowledge, is (or are) most similar. This information may help the examination authority to conduct its examination of distinctness in a more efficient way.

| Denomination(s) of variety(ies) similar to your candidate variety | Characteristic(s) in which your candidate variety differs from the similar variety(ies) | Describe the expression of the characteristic(s) for the similar variety(ies) | Describe the expression of the characteristic(s) for your candidate variety |
|---|---|--|--|
| <i>Example</i> | <i>Outer leaf: color (with wax)</i> | <i>yellow green</i> | <i>green</i> |
| | | | |
| | | | |

Comments:

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| <p>7. Additional information which may help in the examination of the variety</p> <p>7.1 In addition to the information provided in sections 5 and 6, are there any additional characteristics which may help to distinguish the variety?</p> <p>Yes [] No []</p> <p>(If yes, please provide details)</p> <p>7.2 Special conditions for the examination of the variety</p> <p>7.2.1 Are there any special conditions for growing the variety or conducting the examination?</p> <p>Yes [] No []</p> <p>7.2.2 If yes, please give details:</p> <p>7.3 Other information</p> | | |
| <p>8. Authorization for release</p> <p>(a) Does the variety require prior authorization for release under legislation concerning the protection of the environment, human and animal health?</p> <p>Yes [] No []</p> <p>(b) Has such authorization been obtained?</p> <p>Yes [] No []</p> <p>If the answer to (b) is yes, please attach a copy of the authorization.</p> | | |

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9. Information on plant material to be examined

9.1 The expression of a characteristic or several characteristics of a variety may be affected by factors, such as pests and disease, chemical treatment (e.g. growth retardants or pesticides), effects of tissue culture, different rootstocks, scions taken from different growth phases of a tree, etc.

9.2 The plant material should not have undergone any treatment which would affect the expression of the characteristics of the variety, unless the competent authorities allow or request such treatment. If the plant material has undergone such treatment, full details of the treatment must be given. In this respect, please indicate below, to the best of your knowledge, if the plant material to be examined has been subjected to:

- | | | |
|---|---------|--------|
| (a) Microorganisms (e.g. virus, bacteria, phytoplasma) | Yes [] | No [] |
| (b) Chemical treatment (e.g. growth retardant or pesticide) | Yes [] | No [] |
| (c) Tissue culture | Yes [] | No [] |
| (d) Other factors | Yes [] | No [] |

Please provide details of where you have indicated "yes":

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10. I hereby declare that, to the best of my knowledge, the information provided in this form is correct:

Applicant's name

Signature

Date

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