

UPOV

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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

DRAFT

FLAX, LINSEED *

UPOV Code: LINUM_USI

Linum usitatissimum L.

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

*prepared by experts from France**to be considered by the Technical Working Party for Agricultural Crops
at its thirty-sixth session, to be held in Budapest, Hungary, from May 28 to June 1, 2007*

Alternative Names: *

| <i>Botanical name</i> | <i>English</i> | <i>French</i> | <i>German</i> | <i>Spanish</i> |
|-------------------------------|----------------|---------------|---------------|----------------|
| <i>Linum usitatissimum</i> L. | Flax, Linseed | Lin | Lein | Lino |

The purpose of these guidelines ("Test Guidelines") is to elaborate the principles contained in the General Introduction (document TG/1/3), and its associated TGP documents, into detailed practical guidance for the harmonized examination of distinctness, uniformity and stability (DUS) and, in particular, to identify appropriate characteristics for the examination of DUS and production of harmonized variety descriptions.

ASSOCIATED DOCUMENTS

These Test Guidelines should be read in conjunction with 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 *Linum usitatissimum* L.

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 seed.

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

1 kg

The seed should meet the minimum requirements for germination, species and analytical purity, health and moisture content, specified by the competent authority. In cases where the seed is to be stored, the germination capacity should be as high as possible and should be stated by the applicant.

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

2.5 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 *Number of Growing Cycles*

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

3.2 *Testing Place*

Tests are normally conducted at one place. In the case of tests conducted at more than one place, guidance is provided in TGP/9 "Examining Distinctness".

3.3 *Conditions for Conducting the Examination*

3.3.1 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.

3.3.2 The optimum stage of development for the assessment of each characteristic is indicated by a number in the second column of the Table of Characteristics. The stages of development denoted by each number are described at the end of Chapter 8.

3.3.3 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 500 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 40 plants or parts of 40 plants, divided by two or more replicates, 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 differences observed between varieties may be so clear that more than one growing cycle is not necessary. In addition, in some circumstances, the influence of the environment is not such that more than a single growing cycle is required to provide assurance that the differences observed between varieties are sufficiently consistent. One means of ensuring that a difference in a characteristic, observed in a growing trial, is sufficiently consistent is to examine the characteristic in at least two independent growing cycles.

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*

4.2.1 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:

4.2.2 Uniformity assessment by off-types: For the assessment of uniformity, a population standard of 1 % and an acceptance probability of at least 95 % should be applied. In the case of a sample size of 500 plants, 9 off-types are allowed.

4.2.3 Uniformity assessment by COY-U: A candidate will be considered to be sufficiently uniform if, using a combined over-years uniformity analysis (COY-U), the standard deviation for the same characteristic is not greater than the mean standard deviation for the same characteristic in comparable varieties. A variety may be accepted as uniform if the difference is significant at the 2.0% level or greater ($p \geq 0.02$) after two years. If the significance level is 0.2% or less ($p \leq 0.002$) after two or three years the variety should be rejected. A third year of test should be carried out if the significance level after two years is ≤ 0.02 and ≥ 0.002 .

If the significance level or statistical methods proposed are not appropriate the method used should be clearly described.

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 stock to ensure that it exhibits the same characteristics as those shown by the previous material supplied.

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 are 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) Petal: color of corolla (characteristic 10)
- (b) Boll: ciliation of false septa (characteristic 14)
- (c) Stem: length from cotyledon scar up to first branch (characteristic 19)
- (d) Seed: color (characteristic 22)

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*

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

6.5 *Legend*

(*) Asterisk characteristic – see Chapter 6.1.2

QL: Qualitative characteristic – see Chapter 6.3

QN: Quantitative characteristic – see Chapter 6.3

PQ: Pseudo-qualitative characteristic – see Chapter 6.3

MG, MS, VG, VS: See Chapter 3.3.2

(+) See Explanations on the Table of Characteristics in Chapter 8.1

55-99 See Chapter 3.3.2 and Explanations on the Table of Characteristics in Chapter 8.2

F O???

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

| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|------------------|--|--|--|-----------------------|---|---------------|
| 1. VG | Bud: colour of crown at bud stage (just before opening of flower) | Pétale : couleur de la corolle au stade bouton (juste avant l'épanouissement de la fleur) | Blütenblatt:farbe der krone im knospenstadium (kurz vor dem öffnen der blüte) | | | |
| QL 55 | white | | | | Belinka (F), Laser (O) | 1 |
| | pink | | | | Hella (O) | 2 |
| | blue-violet | | | | Ariane (F), Bilstar (O) | 3 |
| | violet | | | | Lorea (F), Early Bird (O) | 4 |
| | other colour | | | | | 5 |
| 2. VG (*) | Time of beginning of flowering (first flower open on 10% of plants) | Epoque de début de floraison (première fleur épanouie sur 10% des plantes) | Zeitpunkt des blühbeginns (erste blüte geöffnet an 10% der pflanzen) | | | |
| QN 61 | very early | | | | Mikael (O) | 1 |
| | early | précoce | früh | | Barbara (O) | 3 |
| | medium | moyenne | mittel | | Viking (F), Alaska (O) | 5 |
| | late | tardive | spät | | Argos (F), Lola (O) | 7 |
| | very late | | | | Drakkar (F), Polar (O) | 9 |
| 3. MG (+) | Plant: natural height including branches (at time of flowering) | Plante: hauteur naturelle, ramifications comprises (à la floraison) | Pflanze: Höhe | Planta: altura | | |
| QN 60-65 | very short | très basse | sehr niedrig | muy corta | Oural (O) | 1 |
| | short | basse | niedrig | corta | Barbara (O) | 3 |
| | medium | moyenne | mittel | media | Hella (O) | 5 |
| | tall | haute | hoch | larga | Viking (F) | 7 |
| | very tall | très haute | sehr hoch | muy larga | Alizee (F) | 9 |

| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|-----------|---------------|--|--|---|---|---------------|
| 4. | MS/ VG | Flower: size of corolla (at beginning of flowering) | Fleur : taille de la corolle (au début de la floraison) | Blüte:Grösse der krone (zu beginn der blüte) | | |
| QN | 61-65 | small | Petite | klein | pequeño | 3 |
| QL | | medium | Moyenne | mittel | medio | 5 |
| | | large | grande | groß | grande | 7 |
| 5. | MS | Petal: length of petal | | | | |
| QN | 61-65 | very short | | | | 1 |
| | | short | | | Diane (F) | 3 |
| | | medium | | | Escalina (F) | 5 |
| | | long | | | Mikael (F) | 7 |
| | | very long | | | | 9 |
| 6. | MS | Petal: width of petal | | | | |
| QN | 61-65 | very narrow | | | | 1 |
| | | narrow | | | Diane (F) | 3 |
| | | medium | | | Hella (O) | 5 |
| | | broad | | | Mikeal (O), Evelin (F) | 7 |
| | | very broad | | | | 9 |
| 7. | MS | Petal: ratio length/width of petal | | | | |
| QN | 61-65 | very small | | | | 1 |
| | | small | | | Mikael (O) | 3 |
| | | medium | | | Alizee (F) | 5 |
| | | large | | | Electra (F) | 7 |
| | | very large | | | | 9 |

| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|------------|-----------|---|---|--|---|---------------|
| 8. | VG | Flower: form of the corolla's heart (colored flowers only) | | | | |
| (+) | | | | | | |
| QL | 65 | absent | | | Laser (O) | 1 |
| | | present | | | | 2 |
| 9. | VG | Flower: form of the corolla's heart (colored flowers only) | | | | |
| (+) | | | | | | |
| QN | 65 | round | | | Barbara (O) | 1 |
| | | round to pentagonal | | | Eole (O) | 2 |
| | | pentagonal | | | Baikal (O), Hermes (F) | 3 |
| 10. | VG | Petal: color of corolla (when fully opened) | Pétale : couleur de la corolle (à complet développement) | Blütenblatt: farbe der krone (vollentwickelt) | | |
| (*) | | | | | | |
| PQ | 65 | white | | | Belinka (F), Laser (O) | 1 |
| | | pink | | | | 2 |
| | | red-violet | | | Adelie (F) Olinette (O) | 3 |
| | | violet | | | Viola (F), Hungarian Gold (O) | 4 |
| | | blue-violet | | | Hermes (F), Niagara (O) | 5 |
| | | medium blue | | | Escalina (F), Barbara (O) | 6 |
| | | pale blue | | | Melina (F), Biltstar (O) | 7 |

| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|------------|--------------|---|---|---|---|---------------|
| 11. | 61-65 | Stamen: color of distal part of filament (immediately after opening of flower) | Etamine : couleur de la partie distale du filet (immédiatement après l'épanouissement de la fleur) | Staubblatt: Farbe des distalen teiles des staubfadens (unmittelbar nach dem oeffnen der blüte) | | |
| PQ | VG | white | blanche | weiss | Belinka (F), Laser (O) | 1 |
| | | blue | bleue | blau | Bilton (O) | 2 |
| | | distal part blue | | | Escalina (F), Gemini (O) | 3 |
| | | only violet | | | | 4 |
| | | distal part violet | | | | 5 |
| 12. | VG | Anther: color (as for 8) | Anthère : couleur (comme pour 8) | Staubbeutel: farbe (wie unter 8) | | |
| PQ | 61-65 | yellowish | jaunâtre | gelblich | Laser (O) | 1 |
| | | salmon pink | saumonée | lachsfarben | | 2 |
| | | greyish | grisâtre | zartgrau | Opaline (F) | 3 |
| | | bluish | bleuâtre | bläulich | Escalina (F), Bilton (O) | 4 |
| 13. | VG | Style: color (as for 8) | Style : couleur (comme pour 8) | Griffel: farbe (wie unter 8) | | |
| QL | 61-65 | white | blanche | weiss | Belinka (F), Abacus (O) | 1 |
| | | yellow point at base | | | | 2 |
| | | yellow | jaune | gelb | | 3 |
| | | blue point at base | | | | 4 |
| | | blue | bleue | blau | | 5 |
| 14. | VG | Boll: ciliation of false septa | Capsule : ciliation des fausses cloisons | Kapsel: bewimperung der kapselscheide | | |
| QL | 89-99 | absent | absente | fehlend | Escalina (F), Laser (O) | 1 |
| | | present | présente | vorhanden | Mikael (F), Baikal (O) | 9 |

| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|-----------------|-------------------------------------|-------------------------|-----------------------|---------|---|---------------|
| 15. VG | Boll: size | Capsule : taille | Kapsel: grösse | | | |
| (*) | | | | | | |
| QL 89-99 | very small | | | | Mac Gregor (O) | 1 |
| | small | petite | klein | | Loreal (F), Gold Merchant (O) | 3 |
| | medium | moyenne | mittel | | Jupiter (O) | 5 |
| | large | grande | gross | | Baskerville (O) | 7 |
| | very large | | | | Agristar (O) | 9 |
| 16. MS | Boll: length (longest range) | | | | | |
| QN 89 | very short | | | | | 1 |
| | short | | | | Hermes (F) | 3 |
| | medium | | | | Escalina (F) | 5 |
| | long | | | | Viking (F) | 7 |
| | very long | | | | | 9 |
| 17. MS | Boll: width (widest range) | | | | | |
| QN 89 | very narrow | | | | | 1 |
| | narrow | | | | Electra (F) | 3 |
| | medium | | | | Hermes (F) | 5 |
| | broad | | | | Viking (F) | 7 |
| | very broad | | | | | 9 |
| 18. MS | Boll: ratio length/width | | | | | |
| QN 89 | very small | | | | | 1 |
| | small | | | | Diane (F) | 3 |
| | medium | | | | Viking (F) | 5 |
| | large | | | | Melina (F) | 7 |
| | very large | | | | | 9 |

| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|-----------------|------------|---|---|--|---|---------------|
| 19. | MS | Stem: length from cotyledon scar up to first branch (when fully developed) | Tige: longueur (à complet développement; ramification non comprises) | Stengel: Länge (voll entwickelt ; ohne verzweigungen) | | |
| (*) | | | | | | |
| (+) | | | | | | |
| QN 89-99 | very short | très courte | sehr niedrig | muy corta | | 1 |
| | short | courte | niedrig | corta | | 3 |
| | medium | moyenne | mittel | media | | 5 |
| | tall | longue | hoch | larga | | 7 |
| | very tall | très longue | sehr hoch | muy larga | | 9 |
| 20. | MS | Stem: length from cotyledon scar up to the top boll (when fully developed) | | | | |
| (+) | | | | | | |
| QN 89-99 | very short | très courte | sehr niedrig | muy corta | | 1 |
| | short | courte | niedrig | corta | Barbara (O) | 3 |
| | medium | moyenne | mittel | media | Hella (O) | 5 |
| | tall | longue | hoch | larga | Viking (F) | 7 |
| | very tall | très longue | sehr hoch | muy larga | Alizee (F) | 9 |
| 21. | MG | Seed: weight per 1000 seeds | Graine : poids de 1000 grains | Korn: 1000-korngewicht | | |
| QN 99 | very low | très petit | sehr gering | | Marylin (F), Ingot (O) | 1 |
| | low | petit | gering | | Oliver (O) | 3 |
| | medium | moyen | mittel | | Talon (O) | 5 |
| | high | grand | hoch | | Juliet (O) | 7 |
| | very high | très grand | sehr hoch | | Master (O) | 9 |
| 22. | VG | Seed: color | Graine : couleur | Korn: farbe | | |
| (*) | | | | | | |
| PQ 99 | green | verte | grün | | | 1 |
| | yellow | jaune | gelb | | Windermere (O) | 2 |
| | brown | brun | braun | | Escalina (F), Oliver (O) | 3 |

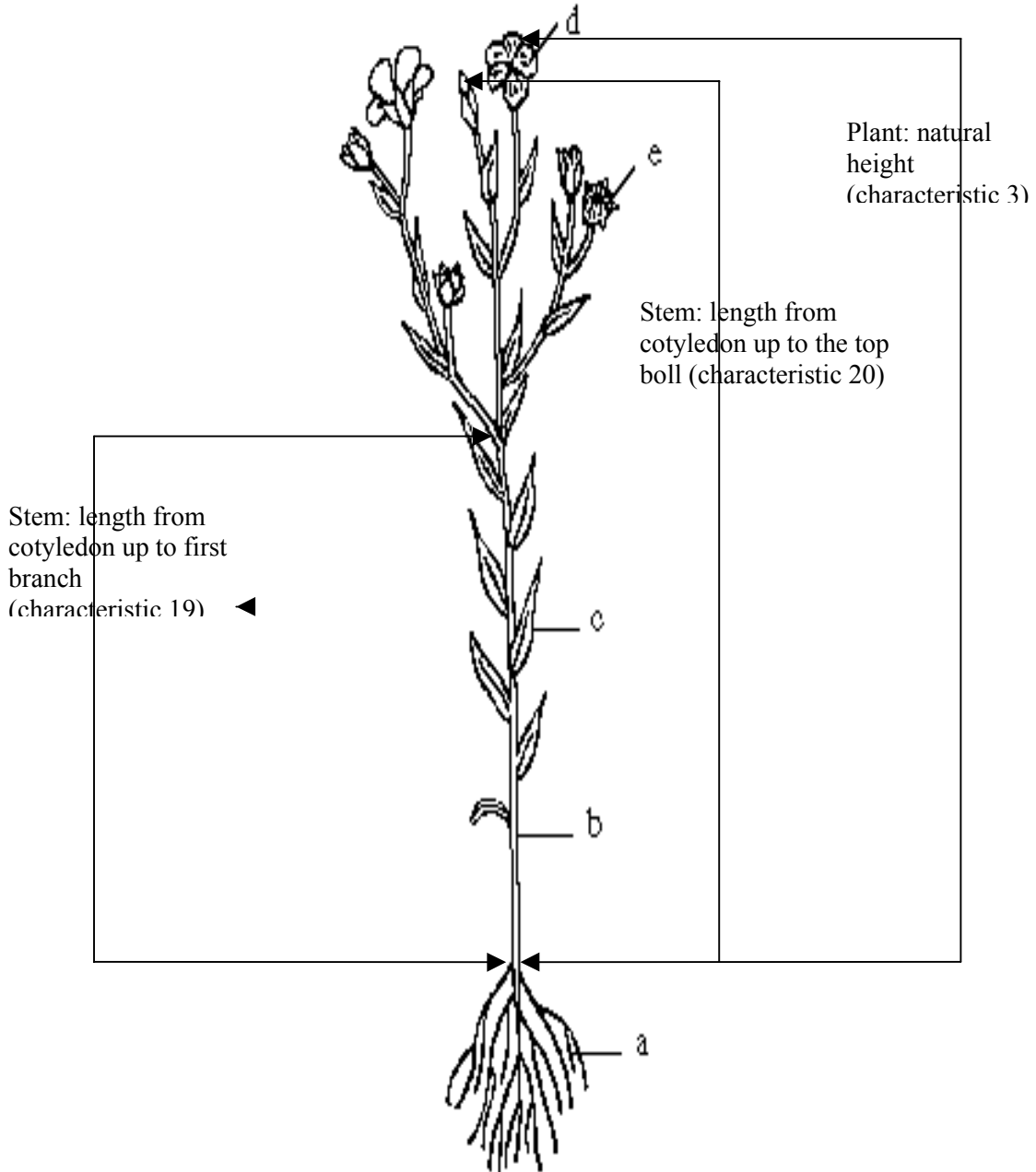
8. Explanations on the Table of Characteristics

8.1 *Explanations for individual characteristics*

Ad. 3: Plant: natural height including branches (at time of flowering)

Ad. 19: Stem: length from cotyledon scar up to first branch (when fully developed)

Ad. 20: Stem: length from cotyledon scar up to the top boll (when fully developed)



Ad. 8: Flower: form of the corolla's heart (colored flowers only)

Ad. 9: Flower: form of the corolla's heart (colored flowers only)



Absent



1=Round



2= Round to
pentagonal



3= Pentagonal

8.2 *Growth stages of Linum usitatissimum L. adapted to the BBCH scale*

| | |
|----------------|--|
| <u>Stage 0</u> | <u>Germination</u> |
| 00 | Dry seed |
| 01 | Beginning of seed imbibition |
| 05 | Radicle (root) emerged from seed |
| 09 | Emergence, Coleoptiles breaks through soil surface |
| <u>Stage 1</u> | <u>Leaf development (main shoot)</u> |
| 11 | First true leaf unfolded |
| 12 | Two true leaves unfolded |
| 15 | Five true leaves unfolded |
| .. | Stages continuous till stage 19 |
| <u>Stage 3</u> | <u>Stem elongation, shoot development (main shoot)</u> |
| 31 | Stem 10% of final length (diameter) |
| 32 | Stem 20% of final length (diameter) |
| .. | Stages continuous till maximum stem length at stage 39 |
| <u>Stage 5</u> | <u>Inflorescence emergence (main shoot)/heading</u> |
| 51 | Flower buds visible |
| 55 | First individual flowers visible (still closed) |
| 59 | First flower petals visible |
| <u>Stage 6</u> | <u>Flowering (main shoot)</u> |
| 60 | First flowers open (sporadically) |
| 61 | Beginning of flowering: 10% of flowers open |
| 65 | Full flowering: 50% of flowers open |
| 69 | End of flowering: fruit set visible |
| <u>Stage 7</u> | <u>Development of bolls</u> |
| 71 | 10% of bolls have reached final size |
| 75 | 50% of bolls have reached final size |
| 79 | Nearly all bolls have reached final size |
| <u>Stage 8</u> | <u>Ripening or maturity of fruit and seed</u> |
| 81 | Beginning of ripening or boll colouration |
| 85 | Sepals and bolls yellow coloured |
| 89 | Fully ripe, boll and seed show fully ripe colour |
| <u>Stage 9</u> | <u>Senescence</u> |
| 99 | Harvested plants and/or seeds |

9. Literature

Anonyme, 1969: « Le lin au service des hommes, sa vie, ses techniques, son histoire », Editions J-B Baillière et Fils, Paris, FR

Marshall, G., Editor, 1988: « Flax: Breeding and utilisation » Proceedings of the EEC Flax Workshop held in Brussels, Belgium, May 4-5 1998, sponsored by the Commission of the European Communities, Directorate-General for agriculture, Kluwer Academic Publishers, BE

Plonka, F., 1956: « Les variétés de lin », INRA (Institut National de la Recherche Agronomique), Paris, FR

Anselme, CI, 1956: « Les variétés de lin, leurs principales maladies cryptogamiques », INRA, (Institut National de la Recherche Agronomique), Paris, FR

BBCH Scale,

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 | | |
| 1. Subject of the Technical Questionnaire | | |
| 1.1 Botanical name | <input type="text" value="Linum usitatissimum L."/> | |
| 1.2 Common name | <input type="text" value="Flax, Linseed"/> | |
| 2. Applicant | | |
| Name | <input type="text"/> | |
| Address | <input type="text"/> | |
| Telephone No. | <input type="text"/> | |
| Fax No. | <input type="text"/> | |
| E-mail address | <input type="text"/> | |
| Breeder (if different from applicant) | <input type="text"/> | |
| 3. Proposed denomination and breeder's reference | | |
| Proposed denomination (if available) | <input type="text"/> | |
| Breeder's reference | <input type="text"/> | |

| TECHNICAL QUESTIONNAIRE | Page {x} of {y} | Reference Number: |
|--|-----------------|-------------------|
| #4. Information on the breeding scheme and propagation of the variety | | |
| 4.1 Breeding scheme | | |
| <i>Variety resulting from:</i> | | |
| 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) | [] | |

Authorities may allow certain of this information to be provided in a confidential section of the Technical Questionnaire.

| TECHNICAL QUESTIONNAIRE | Page {x} of {y} | Reference Number: |
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| <p>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).</p> | | | |
| Characteristics | Example Varieties | Note | |
| <p>5.1 Petal: color of the corolla (when fully opened) (10)</p> | | | |
| white | Belinka (F), Laser (O) | 1[...] | |
| pink | | 2[...] | |
| red-violet | Adelie (F) Olinette (O) | 3[...] | |
| violet | Viola (F), Hungarian Gold (O) | 4[...] | |
| blue-violet | Hermes (F), Niagara (O) | 5[...] | |
| medium blue | Escalina (F), Barbara (O) | 6[...] | |
| pale blue | Melina (F), Biltstar (O) | 7[...] | |
| <p>5.2 Boll: Ciliation of false septa (14)</p> | | | |
| absent | Escalina (F), Laser (O) | 1[...] | |
| present | Mikael (F), Baikal (O) | 9[...] | |
| <p>5.3 Seed: color (22)</p> | | | |
| green | | 1[...] | |
| yellow | Windermere (O) | 2[...] | |
| brown | Escalina (F), Oliver (O) | 3[...] | |
| <p>Plant: length ???</p> | | | |

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| <p>6. Similar varieties and differences from these varieties</p> <p><i>Please use the following table and box for comments 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.</i></p> | | | |
| 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>Flower: size of corolla</i> | <i>medium</i> | <i>small</i> |
| | | | |
| | | | |
| <p>Comments:</p> | | | |

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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 Are there any special conditions for growing the variety or conducting the examination?</p> <p>Yes [] No []</p> <p>(If yes, please provide details)</p> <p>7.3 Other information</p> <p>7.3.1 Main use</p> <table data-bbox="446 996 1252 1153"><tr><td>(a) Fibre</td><td>[]</td></tr><tr><td>(b) Oil</td><td>[]</td></tr><tr><td>(c) Fibre and Oil</td><td>[]</td></tr><tr><td>(please provide details)</td><td></td></tr></table> <p>7.3.2 Time of sowing</p> <table data-bbox="446 1254 1252 1332"><tr><td>(a) winter</td><td>[]</td></tr><tr><td>(b) spring</td><td>[]</td></tr></table> | | | (a) Fibre | [] | (b) Oil | [] | (c) Fibre and Oil | [] | (please provide details) | | (a) winter | [] | (b) spring | [] |
| (a) Fibre | [] | | | | | | | | | | | | | |
| (b) Oil | [] | | | | | | | | | | | | | |
| (c) Fibre and Oil | [] | | | | | | | | | | | | | |
| (please provide details) | | | | | | | | | | | | | | |
| (a) winter | [] | | | | | | | | | | | | | |
| (b) spring | [] | | | | | | | | | | | | | |
| <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> | | | | | | | | | | | | | | |

Authorities may allow certain of this information to be provided in a confidential section of the Technical Questionnaire.

| | | | | | | | | | | | | | | |
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| <p>9. Information on plant material to be examined or submitted for examination.</p> <p>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.</p> <p>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:</p> <table data-bbox="284 801 1406 1061"><tr><td>(a) Microorganisms (e.g. virus, bacteria, phytoplasma)</td><td>Yes []</td><td>No []</td></tr><tr><td>(b) Chemical treatment (e.g. growth retardant, pesticide)</td><td>Yes []</td><td>No []</td></tr><tr><td>(c) Tissue culture</td><td>Yes []</td><td>No []</td></tr><tr><td>(d) Other factors</td><td>Yes []</td><td>No []</td></tr></table> <p>Please provide details for where you have indicated "yes".</p> <p>.....</p> | | | (a) Microorganisms (e.g. virus, bacteria, phytoplasma) | Yes [] | No [] | (b) Chemical treatment (e.g. growth retardant, pesticide) | Yes [] | No [] | (c) Tissue culture | Yes [] | No [] | (d) Other factors | Yes [] | No [] |
| (a) Microorganisms (e.g. virus, bacteria, phytoplasma) | Yes [] | No [] | | | | | | | | | | | | |
| (b) Chemical treatment (e.g. growth retardant, pesticide) | Yes [] | No [] | | | | | | | | | | | | |
| (c) Tissue culture | Yes [] | No [] | | | | | | | | | | | | |
| (d) Other factors | Yes [] | No [] | | | | | | | | | | | | |
| <p>10. I hereby declare that, to the best of my knowledge, the information provided in this form is correct:</p> <table data-bbox="284 1391 1426 1525"><tr><td>Applicant's name</td><td colspan="2"><input type="text"/></td></tr><tr><td>Signature</td><td><input type="text"/></td><td>Date <input type="text"/></td></tr></table> | | | Applicant's name | <input type="text"/> | | Signature | <input type="text"/> | Date <input type="text"/> | | | | | | |
| Applicant's name | <input type="text"/> | | | | | | | | | | | | | |
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