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WORKING PAPER ON TEST GUIDELINE FOR LENTIL
(Lens culinaris Melik.)

Document prepared by experts from France, Russia, Poland and the Netherlands

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I. Subject of these Guidelines

These Test Guidelines apply to all varieties of *Lens culinaris* Medik

II. Material Required

1. The competent authorities decide when, where and in what quantity and quality the seed required for testing the variety is to be delivered. Applicants submitting material from a State other than that in which the testing takes place must make sure that all customs formalities are complied with. The minimum quantity of plant material to be supplied by the applicant in one or several samples should be:

seed: 500 grammes

plants: ?

The plant material supplied should be visibly healthy, not lacking in vigor or affected by any important pest or disease. In the case of seed, the germination capacity should meet the minimum requirement for marketing seed in the country in which the application is made and should be as high as possible.

2. The plant material must not have undergone any treatment unless the competent authorities allow or request such treatment. If it has been treated, full details of the treatment must be given.

III. Conduct of Tests

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

2. The tests should normally be conducted at one place. If any important characteristics of the variety cannot be seen at that place, the variety may be tested at an additional place.

3. The tests should be carried out under conditions ensuring normal growth. The size of the plots should be such that plants or parts of plants may be removed for measurement and counting without prejudice to the observations which must be made up to the end of the growing period. Each test should be conducted in the open and include a total of 100 plants divided between two or more replicates. Separate plots for observation and for measuring can only be used if they have been subject to similar environmental conditions. For purposes of examining distinctness, varieties produced by tissue culture should, in addition, be compared to plant material of varieties produced by the same method.

4. Additional tests for special purposes may be established.

IV. Methods and Observations

1. Unless otherwise indicated, all observations determined by measurement, weighing or counting should be made on 20 plants or parts taken from each of 20 plants.

2. 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 20 plants, the

maximum number of off-types allowed would be 1. In the case of a sample size of 40 plants, the maximum number of off-types allowed would be 2.

V. Grouping of Varieties

1. The collection of varieties to be grown should be divided into groups to facilitate the assessment of distinctness. Characteristics which are suitable for grouping purposes are those which are known from experience not to vary, or to vary only slightly, within a variety. Their various states of expression should be fairly evenly distributed throughout the collection.

2. It is recommended that the competent authorities use the following characteristics for grouping varieties:

- (a) Cotyledon : colour (characteristic 1) To be discussed
- (b) Seedlings : anthocyanin coloration (before the first leaf unfolded (characteristic 2)
- (c) Flower : colour of standard (characteristic 12)
- (d) Flower : violet stripes of standard (characteristic 13) To be discussed
- (e) Flower : violet stripes of wings (characteristic 14) To be discussed
- (f) Pod: colour at dry harvest maturity (characteristic 22) To be discussed
- (g) Dry seed: shape (ventral view) (characteristic 28)
- (h) Dry seed: main colour of testa (characteristic 30)
- (i) Dry seed: picture (characteristic 32)

VI. Characteristics and Symbols

1. To assess distinctness, uniformity and stability, the characteristics and their states as given in the Table of Characteristics should be used.

2. Notes (numbers), for the purposes of electronic data processing, are given opposite the states of the different characteristics.

3. Legend:

(*) Characteristics that should be used on all varieties in every growing cycle over which the examinations are made and always be included in the variety descriptions, except when the state of expression of a preceding characteristic or regional environmental conditions render this impossible.

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

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

Anglais	Français	Deutch	Espanol	Example varieties Exemples Beispielssorten Variedades ejemplo	Note
1* Cotyledon : color	Cotylédon : couleur	:			
green	vert			Petrovskaya zelenozjornaya	1
greenish yellow	jaune verdâtre			Anicia, Mariette, Petrovskaya 4/105	2
orange	orange			Lentillon rosé de Champagne, Rozovaya	3
2* Seedlings : anthocyanin coloration (before the first leaf unfolded)					
absent	absent			PSE 2	1
present	présent			Petrovskaya 4/105	9
<i>identity with 4 ?</i>					
3(+) Plant : habit	Plante : port				
upright				Petrovskaya 4/105	3
intermediate					5
decumbent				Cheephlic 7/76	7
4* Plant : anthocyanin coloration	: Plante : coloration anthocyanique	:			
absent	absente				1
present	présente			Anicia, Lentillon rosé de Champagne	9
<i>identity with 2 ?</i>					
5* Plant : height (at flowering)	Plante : hauteur (à la floraison)				
very short	très courte				1
short	courte			Lentillon rosé de Champagne	3
medium	moyenne			Anicia, Cheephlic 7/76	5
tall	haute			Mariette, Petrovskaya 4/105	7
very tall	très haute			Vehovskaya	9

Anglais	Français	Deutch	Espanol	Example varieties Exemples Beispielssorten Variedades ejemplo	Note
6 Plant : intensity of ramification	Plante : intensité de ramification				
weak	faible			Vehovskaya	3
medium	moyenne			Cheephlic 7/76	5
strong	forte				7
7 * Leaf : shape	Feuille : forme				
ovate				Tahovskaya 88	1
ovate-oblong				Petrovskaya	2
linear				Vehovskaya	3
8. Leaf blade : intensity of colour	Limbe : intensité de la couleur				
Weak (light)	faible			Vehovskaya	3
Medium	moyenne			Anicia	5
Strong (dark)	forte			Lentillon rosé de Champagne, Petrovskaya, Zelenozjornaya	7
9. Leaf : number of leaflets	Feuille : nombre de folioles				
very few	très petit			(< 8)	1
Few	petit			(8 to 10)	3
Medium	moyen			(10 to 12)	5
Large (many)	grand			12 to 14) Anicia, Lentillon rosé de Champagne	7
very large (very many)	très grand			(> 14)	9
10. Inflorescence : number of flowers by peduncle	Inflorescence : nombre de fleur par pédoncule				
Generally 1	généralement 1				1
1 to 2	1 à 2				2
Generally 2	généralement 2			Lentillon rosé de Champagne	3
2 to 3	2 à 3			Anicia, Petrovskaya	4
Generally 4	généralement 4			4/105 PSE 2	5

Poland remark to be studied: levels (generaly 3), (3-4)

Anglais	Français	Deutch	Espanol	Example varieties Exemples Beispielssorten Variedades ejemplo	Note
11. Flower : size	Fleur : taille				
Small	petite				3
Medium	moyenne				5
Large	large			Petrovskaya 4/105	7
12* Flower : color of standard	Fleur : couleur de l'étendard				
White	blanche			PSE 2	1
white with blue veins	blanche avec des nervures bleues			Petrovskaya 4/105	2
Pink	rose				3
Blue	bleue			Azer	4
other (indicate which)	autre (préciser laquelle)				5
13. Flower: violet stripes of standard	Fleur : stries violettes de l'étendard				
Absent	Absente				1
present	Présente			Anicia, Lentillon rosé de Champagne	9
			= blue veins from 12 ?		
14. Flower : violet stripes Of wings	Fleur : stries violettes des ailes				
Absent	Absentes			Anicia, Lentillon rosé de Champagne	1
Present	Présentes			Culinaris ssp. macrosperma	9
15. Flower : width of sepals	Fleurs : largeur des sépales				
Thin (narrow)	Etroite			Anicia, Lentillon rosé de Champagne	3
Medium	Moyenne			Mariette	5
Large (broad)	Large				7
16. Flower : shape of top of sepal	Fleur : forme de l'extrémité du sépale				
Obtuse	obtuse				1
Pointed	pointue			Anicia, Lentillon rosé de Champagne	2

Anglais	Français	Deutch	Espanol	Example varieties Exemples Beispielssorten Variedades ejemplo	Note
17*	Pod : size	Gousse : taille			
	Small	petite			3
	Medium	moyenne		PSE 2	5
	Large	grande		Petrovskaya 4/105	7
			<i>identity with 23</i>		
			?		
18.	Pod : shape (ventral view)	Gousse : forme (coupe transversale)			
	Flat	plate		Petrovskaya 4/105	1
	Convex	convexe			2
19*	Pod : colour	Gousse : couleur			
	White	Blanche		PSE 2	1
	Other (indicate which)	Autre (indiquer laquelle)			2
20.	Pod : intensity of colour (before dry harvest maturity)	Gousse : intensité de la couleur (avant maturité)			
	Weak (light)	faible		Mariette	3
	Medium	moyenne		Anicia, Lentillon rosé de Champagne	5
	Strong (dark)	forte			7
21.	Pod : number of ovules	Gousse : nombre d'ovules			
	generally 1	Généralement 1			1
	1 to 2	1 à 2			2
	generally 2	Généralement 2		Lentillon rosé de Champagne	3
	2 to 3	2 à 3		Anicia	4
	generally 3	Généralement 3			5

	Anglais	Français	Deutch	Espanol	Example varieties Exemples Beispielssorten Variedades ejemplo	Note
22*	Pod : colour at dry harvest maturity	Gousse : couleur à maturité				
	Yellow	Jaune			Anicia, Lentillon rosé de Champagne	1
	Green	Verte				2
23*	Pod : length at dry harvest maturity	Gousse : longueur à maturité				
	very short	très courte				1
	Short	Courte			Anicia, Lentillon rosé de Champagne	3
	Medium	Moyenne			Mariette	5
	Long	Longue				7
	very long	très longue				9
					<i>identity with 18 ? with or without beak?</i>	
24.	Pod : width at harvest maturity	Gousse : largeur à maturité				
	very narrow	très étroite			Lentillon rosé de Champagne	1
	narrow	Etroite			Anicia	3
	medium	Moyenne				5
	large	Large				7
	very large	très large				9
25.	Pod : shape of apex (at maturity)	Gousse : forme de l'extrémité (à maturité)				
	truncate (acuminate ?)	tronquée			Anicia, Lentillon rosé de Champagne	1
	Intermediate	intermédiaire				2
	pointed (oblique ?)	Pointue			Petrovskaya 4/105	3
					<i>at green maturity or dry ?</i>	
26*	Seed : size (diameter or weight)	Graine : taille (diamètre ou poids)				
	Small	Petite				3
	Medium	Moyenne			PSE 2	5
	Large	Grande			Vehovskaya	7
					<i>identity with 27 ?, choose the factor: size, diameter or weight</i>	

	Anglais	Français	Deutch	Espanol	Example varieties Exemples Beispielssorten Variedades ejemplo	Note
27.	Dry seed : width	Grain sec : largeur				
	very thin	très étroite				1
	Thin	Etroite			Lentillon rosé de Champagne	3
	Medium	Moyenne			Anicia	5
	Large	Large			Mariette	7
	very large	très large				9
			<i>identity with 26 ?</i>			
28*	Dry seed : shape (ventral view)	Grain sec : forme (section transversale)				
	Flat	plate			Petrovskaya 4/105	1
	Convex	convexe			PSE 2	2
29.	Dry seed : number of colours	Grain sec : nombre de couleurs des téguments				
	Unicolour	unicolore			Grisette, Lentillon rosé de Champagne	1
	Bicolour	bicolore			Anicia	2
	Multicolour	multicolore				3
30*	Dry seed : main colour of testa	Grain sec : couleur principale des téguments				
	White	blanc			PSE 2	1
	Pink	rose				2
	dark pink	rose foncé			Rosovaya	3
	greenish yellow	jaune verdâtre			Pisarevska Velkozonna, Petrovskaya 4/105	4
	Green	vert			Anicia, Petrovskaya zelenozjornaya	5
	Ochre	ocre			Lentillon rosé de Champagne	6
	brown ochre	ocre brun			Culinaris ssp. Macrosperma	7
	Violet	violet				8
	Black	noir			Nigricans	9

	Anglais	Français	Deutch	Espanol	Example varieties Exemples Beispielssorten Variedades ejemplo	Note
31.	Dry Seed : secondary colour	Grain sec : couleur secondaire				
	Violet	violet			Anicia	1
	Black	noir				2
32*	Dry seed : picture	Grain sec : dessin				
	Absent	absent			PSE 2	1
	Present	présent			Petrovskaya 4/105	9
33.	Dry seed : type of picture	Grain sec : type de dessin ??				
	Patch	en tache			Naryadnaya 3	1
	Point	en point				2
	Marbleness	en marbrure			Petrovskaya 4/105	3
	Complex	complexe				4
34*	Dry Seed : weight of 1000 seeds	Grain sec : poids de 1000 grains secs				
	very low	très petit			Lentillon rosé de Champagne	1
	low	petit			Anicia, Azer	3
	medium	moyen			Petrovskaya 4/105	5
	High	grand			Mariette, Petrovskaya 6	7
	very high	très grand			Vehovskaya	9
35*	Flowering : time of flowering	Floraison : période de floraison				
	very early	très précoce				1
	Early	précoce			Anicia	3
	Medium	moyenne			Mariette, Petrovskaya 4/105	5
	Late	tardive				7
	very late	très tardive			Lentillon rosé de Champagne	9

	Anglais	Français	Deutch	Espanol	Example varieties Exemples Beispielssorten Variedades ejemplo	Note
36*	Time of maturity	Epoque de maturité				
	early	précoce			Cheephlic 7/76	3
	early to medium	précoce à moyen			Vehovskaya	4
	medium	moyen			Petrovskaya 4/105	5
	medium to late	moyen à tardif			Petrovskaya zelenozjornaya	6
	late	tardif				7

*To be added : Explanation concerning observation and measurement of characters
Key for growth stage*

VIII. Explanations on the Table of Characteristics

IX. Literature

X. Technical Questionnaire

	Reference Number (not to be filled in by the applicant)
<p>TECHNICAL QUESTIONNAIRE to be completed in connection with an application for plant breeders' rights</p>	
1. Species	<p style="text-align: center;"><i>Lens culinaris Medik</i> LENTILLE / LENTIL</p>
2. Applicant (Name and address)	
3. Proposed denomination or breeder's reference	

4. Information on origin, maintenance and reproduction of the variety

4.1 Method of maintenance and reproduction

4.2 Other information

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

Characteristics	Example Varieties	Note
5.1 Cotyledon: color (1)		
green	Petrovskaya zelenozjornaya	1
greenish yellow	Anicia, Mariette, Petrovskaya 4/105	2
orange	Lentillon rosé de Champagne, Rozovaya	3
5.2 Seedlings: anthocyanin coloration (before the 1st leaf unfolded) (2)		
absent	PSE 2	1
present	Petrovskaya 4/105	9

5.3	Flower: color of standard		
(12)			
	white	PSE 2	1
	white with blue veins	Petrovskaya 4/105	2
	pink		3
	blue	Azer	4
	other (indicate which)		5
5.4	Seed: size (diameter or weight)		
26)			
	small		3
	medium	PSE 2	5
	large	Vehovskaya	7
5.5	Dry seed: shape (ventral view)		
(28)			
	flat	Petrovskaya 4/105	1
	convex	PSE 2	2
5.6	Dry seed: main color of testa		
(30)			
	white	PSE 2	1
	pink		2
	dark pink	Rosovaya	3
	greenish yellow	Pisarevskaya, Velkozna, Petrovskaya 4/105	4
	green	Anicia, petrovskaya	5
	ochre	Lentillon rosé de Champagne	6
	brown ochre	Culinaris ssp. Macrosperma	7
	violet		8
	black	Nigricans	9

5.7	Dry seed: picture		
(32)			
	absent	PSE 2	1
	present	Petrovskaya 4/105	9
5.8	Dry Seed: weight of 1000 seeds		
(34)			
	very low	Lentillon rosé de Champagne	1
	low	Anicia, Azer	3
	medium	Petrovskaya 4/105	5
	high	Mariette, Petrovskaya 6	7
	very high	Vehovskaya	9
5.9	Flowering: time of flowering		
(35)			
	very early		1
	early	Anicia	3
	medium	Mariette, Petrovskaya 4/105	5
	late		7
	very late	Lentillon rosé de Champagne	9
5.10	Time of maturity		
(36)			
	early	Cheephlic 7/76	3
	early to medium	Vehovskaya	4
	medium	Petrovskaya 4/105	5
	medium to late	Petrovskaya zelenozjornaya	6
	late		7

6. Similar varieties and differences between these varieties

Denomination of similar variety	Characteristic in which the similar variety is different ^{o)}	State of expression of similar variety	State of expression of candidate variety
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^{o)} In the case of identical states of expressions of both varieties, please indicate the size of the difference.

7. Additional information which may help to distinguish the variety

7.2 Special conditions for the examination of the variety

(a) Type of culture:

– winter sowing

[]

– spring sowing

[]

(b) Other conditions

7.3 Other information

8. Authorization for release

(a) Does the variety require prior authorization for release under legislation concerning the protection of the environment, human and animal health?

Yes []

No []

(b) Has such authorization been obtained?

Yes []

No []

If the answer to that question is yes, please attach a copy of such an authorization.

[End of document]