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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

DRAFT

DATE PALM

UPOV Code(s): PHOEN_DAC

Phoenix dactylifera L.

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by experts from Oman
to be considered by the
Technical Working Party for Fruit Crops
at its forty-seventh session, to be held in Angers, France,
from 2016-11-14 to 2016-11-18

Disclaimer: this document does not represent UPOV policies or guidance

Alternative names:*

Botanical name	*English*	*French*	*German*	*Spanish*
Phoenix dactylifera L.	Date, Date Palm	Palmier dattier	Dattelpalme	Datilera, Palma datilero, Palmera datilera

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.

TABLE OF CONTENTS PAGE

1. Subject of these Test Guidelines

1.1 These Test Guidelines apply to all varieties of *Phoenix dactylifera* L.

1.2 These Test Guidelines apply only to female varieties of *Phoenix dactylifera* L.

The guidelines apply only to *Phoenix dactylifera* L. for fruit purposes only, not as an ornamental plant.

Satisfactory fruit production (i.e. minimum number of bunches, strands per bunch, and fruit per strand) is required.

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 off-shoots, tissue-cultured plantlets.

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

5 offshoots or tissue-cultured plantlets

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

3.1.1 The minimum duration of tests should normally be a single growing cycle.

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

3.1.3 In particular, it is essential that the trees produce a satisfactory crop of fruit in each of the two growing cycles.

3.1.3 The growing cycle is considered to be the period ranging from the beginning of development of an individual flower or inflorescence, through fruit development and concluding with the harvesting of fruit from the corresponding individual flower or inflorescence.

3.1.4 Date palm often require thinning to enhance fruit quality in which case the fruiting is constant from year to year, however, in non-thinned trees, date palm shows on/off year biennial bearing, which required three 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 in Chapter 8.

3.3.3 Because daylight varies, color determinations made against a color chart should be made either in a suitable cabinet providing artificial daylight or in the middle of the day in a room without direct sunlight. The spectral distribution of the illuminant for artificial daylight should conform with the CIE Standard of Preferred Daylight D 6500 and should fall within the tolerances set out in the British Standard 950, Part I. These determinations should be made with the plant part placed against a white background. The color chart and version used should be specified in the variety description.

3.3.4 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. In particular, it is essential that the palm produce a satisfactory crop of fruit in each of the three growing cycles

3.4 Test Design

3.4.1 Each test should be designed to result in a total of at least 15 trees.

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 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.

4.1.4 Number of plants or parts of plants to be Examined

Unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 15 plants or parts of plants taken from each of 15 plants and any other observations made on all plants in the test, disregarding any off-type plants.

In the case of observations of parts taken from single plants, the number of parts to be taken from each of the plants should be 4.

4.1.5 Method of Observation

The recommended method of observing the characteristic for the purposes of distinctness is indicated by the following key in the second column of the Table of Characteristics (see document TGP/9 “Examining Distinctness”, Section 4 “Observation 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

Type of observation: visual (V) or measurement (M)

“Visual” observation (V) is an observation made on the basis of the expert’s judgment. For the purposes of this document, “visual” observation refers to the sensory observations of the experts and, therefore, also includes smell, taste and touch. Visual observation includes observations where the expert uses reference points (e.g. diagrams, example varieties, side-by-side comparison) or non-linear charts (e.g. color charts). Measurement (M) is an objective observation against a calibrated, linear scale e.g. using a ruler, weighing scales, colorimeter, dates, counts, etc.

Type of record: for a group of plants (G) or for single, individual plants (S)

For the purposes of distinctness, observations may be recorded as a single record for a group of plants or parts of plants (G), or may be recorded as records for a number of single, individual plants or parts of plants (S). In most cases, “G” provides a single record per variety and it is not possible or necessary to apply statistical methods in a plant-by-plant analysis for the assessment of distinctness.

In cases where more than one method of observing the characteristic is indicated in the Table of Characteristics (e.g. VG/MG), guidance on selecting an appropriate method is provided in document TGP/9, Section 4.2.

4.1.6 Vegetative propagation is currently the common method used for the purpose of distinctness, although seed propagation is done for breeding purposes

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

4.2.3 For the assessment of uniformity of vegetatively propagated varieties, 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, 1 off-type is allowed.

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 further examined by testing a new plant stock to ensure that it exhibits the same characteristics as those shown by the initial 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:

5.4 Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the General Introduction and document TGP/9 “Examining Distinctness”.

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

6.2.1 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.

6.2.2 In the case of qualitative and pseudo-qualitative characteristics (see Chapter 6.3), all relevant states of expression are presented in the characteristic. However, in the case of quantitative characteristics with 5 or more states, an abbreviated scale may be used to minimize the size of the Table of Characteristics. For example, in the case of a quantitative characteristic with 9 states, the presentation of states of expression in the Test Guidelines may be abbreviated as follows:

State	*Note*
small	3
medium	5
large	7

However, it should be noted that all of the following 9 states of expression exist to describe varieties and should be used as appropriate:

State	*Note*
very small	1
very small to small	2
small	3
small to medium	4
medium	5
medium to large	6
large	7
large to very large	8
very large	9

6.2.3 Further explanation of the presentation of states of expression and notes is provided in document TGP/7 “Development of Test Guidelines”.

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

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1 2	**3 4**	**5 6**	**7**			
	Name of characteristics in English	**Nom du caractère en français**	**Name des Merkmals auf Deutsch**	**Nombre del carácter en español**		
	states of expression	types d'expression	Ausprägungsstufen	tipos de expresión		

1 Characteristic number

2 (*) Asterisked characteristic – see Chapter 6.1.2

3 Type of expression
QL Qualitative characteristic – see Chapter 6.3
QN Quantitative characteristic – see Chapter 6.3
PQ Pseudo-qualitative characteristic – see Chapter 6.3

4 Method of observation (and type of plot, if applicable)
MG, MS, VG, VS – see Chapter 4.1.5

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

6 Not applicable

7 Growth stage key 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 Beispielssorten Variedades ejemplo	Note/ Nota
1. (*)	**QN VG**	**(+)**				
	Young plant: color of shoot					
	Light Green					3
	Medium					5
	Dark Green					7
2. (*)	**QN MS/VS**	**(+)**				
	Young plant: number of leaves					
	Few					3
	Medium					5
	Many					7
3. (*)	**QN VG**	**(+)**				
	Young plant: Leaf: time of splitting					
	Early					1
	Medium					2
	Late					3
4. (*)	**QN MG**	**(+)**				
	Time of appearance of first inflorescence					
	Early				Naghal	3
	Medium				Khalas	5
	Late				Khasab	7
5.	**QN VG**	**(+)**				
	Leaves attitude of lower leaves: Plant Habit					
	Upwards, Erect				Deglet Nour, Fardh	1
	Outwards, Spherical				Besr Helou, Um Sella	2
	Downwards, Drooping				Ghars, Naghal	3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
6.	**(*)**	**QN MS/VG**	**(+)**				
		Leaf: length of rachis					
		Short					3
		Medium					5
		Long					7
7.		**QN MS/VG**					
		Leaf: number of leaflets					
		Few					3
		Medium					5
		Many					7
8.		**QN MS/VG**	**(+)**				
		Leaf: leaflet width					
		Narrow					1
		Medium					2
		Broad					3
9.		**QN VG**					
		Leaflet: intensity of green color in the lower side					
		Yellowish Green				Deglet Nour	1
		Olive Green				Besr Helou	2
		Bluefish Green				Ammari	3
10.	**(*)**	**PQ VG**	**(+)**				
		Petiole: color					
		Yellowish				Deglet Nour	1
		Brown				Ghars	2
		Blackened				Busthammi	3
11.		**QN MS/VG**	**(+)**				
		Inflorescence: peduncle length					
		Short					3
		Medium					5
		Long					7

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
12.		**QN MS/VG**					
		Inflorescence: peduncle width					
		Narrow					3
		Medium					5
		Broad					7
13.		**QN MS/VG**					
		Inflorescence: central axis length					
		Short					3
		Medium					5
		Long					7
14.		**PQ VG**	**(+)**				
		Inflorescence: Spathe Shape					
		Lanceolate					1
		Fusiform					2
		Swollen					3
15.		**QN MS/VG**					
		Inflorescence: attitude of spikelets (Spike Density)					
		Loose or sparse					1
		Medium					2
		Compact or dense					3
16.		**QN MS/VG**	**(+)**				
		Inflorescence: number of spikelets					
		Few					3
		Medium					5
		Many					7
17.	**(*)**	**QN MS/VG**	**(+)**				
		Bunch: number of fruits					
		Few					3
		Medium					5
		Many					7

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
18. (*)	**PQ VG**	**(+)**				
	Fruit: color at Khalal (Besr) Stage					
	Yellow				Deglet Nour, Khalas	1
	Orange				Fardh	2
	Red				Khasab	3
	Dark red				Khunaizi	4
19. (*)	**PQ VG**	**(+)**				
	Fruit: color at Tamar Stage					
	Yellow					1
	Amber					2
	Honey					3
	Dark Red					4
	Black					5
	Greenish					6
	Red					7
20. (*)	**PQ VG**	**(+)**				
	Fruit: shape					
	Spherical				Tantabucht	1
	Cylindrical				Medjool (Mejhool)	2
	elliptic				Beyd Hmam	3
	Obovate (Piriforme)				Ghars	4
21. (*)	**PQ VG**	**(+)**				
	Fruit: shape at distal end					
	Large Round					1
	Flat Oblique					2
	Flat					3
	Oval					4
	Oblique					5

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
22.	**(*)**	**PQ VG**	**(+)**				
		Fruit: shape of stalk end					
		Large Round					1
		Pointed					2
		Elongate					3
		Oval					4
		Oval Oblique					5
23.	**(*)**	**QN MS/VG**					
		Fruit: Length					
		Very Short (< 30 mm)					1
		Short (30-40)					2
		Medium (41-50)					3
		Long (51-60)					4
		Very Long (>60 mm)					5
24.	**(*)**	**QN MS/VG**					
		Fruit: Width					
		Narrow (<10 mm)					1
		Medium (10-20)					2
		Wide (21-30)					3
		Very Wide (>30 mm)					4
25.	**(*)**	**QN MS**					
		Fruit: Consistency					
		Soft				Barhi, Khalas	3
		Semi-Soft				Fardh, Medjool (Mejhool)	5
		Dry				Deglat Beidha	7
26.	**(*)**	**QL VG**					
		Fruit: Flesh Texture					
		Fibrous					1
		Mealy					3
		Honeyed					5

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
27.		**QL VG**					
		Fruit: Aroma					
		Absent					1
		Present					9
28.	**(*)**	**QL VG**	**(+)**				
		Fruit: Calyx (or Cap)					
		Flattened					1
		Prominent					2
		Very Prominent					3
29.		**PQ VG**	**(+)**				
		Fruit: Calyx color					
		Whitish					1
		Yellow					2
		Orange					3
30.	**(*)**	**PQ VG**	**(+)**				
		Seed: shape					
		ovate				Tantabucht	1
		Conical				Horra	2
		Fusiform				Deglet Nour	3
		Semi-Cylindrical				Ghars	4
		Pyriform					5
31.		**QN MS/VG**	**(+)**				
		Seed: Length					
		Long					1
		Medium					3
		Short					5
32.	**(*)**	**PQ VG**	**(+)**				
		Seed color					
		Grey					1
		Cream					2
		Brown					3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
33.	**QN** **MS/VG**	**(+)**				
	Seed: Embryo position					
	Proximal					1
	Central					2
	Distal					3

8. Explanations on the Table of Characteristics

8.1 Explanations for individual characteristics

Ad. 1: Young plant: color of shoot

Observations on leaf and petiole should be made at 10th fully mature leaf

Ad. 2: Young plant: number of leaves

To be determined two years after planting

Ad. 3: Young plant: Leaf: time of splitting

About one year old seedling from tissue-cultured plantlet

Ad. 4: Time of appearance of first inflorescence

The time of appearance of first inflorescence should be observed when 50% of the plants have emitted the first inflorescence.

Ad. 5: Leaves attitude of lower leaves: Plant Habit

1	2	3
Erect	Spherical	Drooping

Ad. 6: Leaf: length of rachis

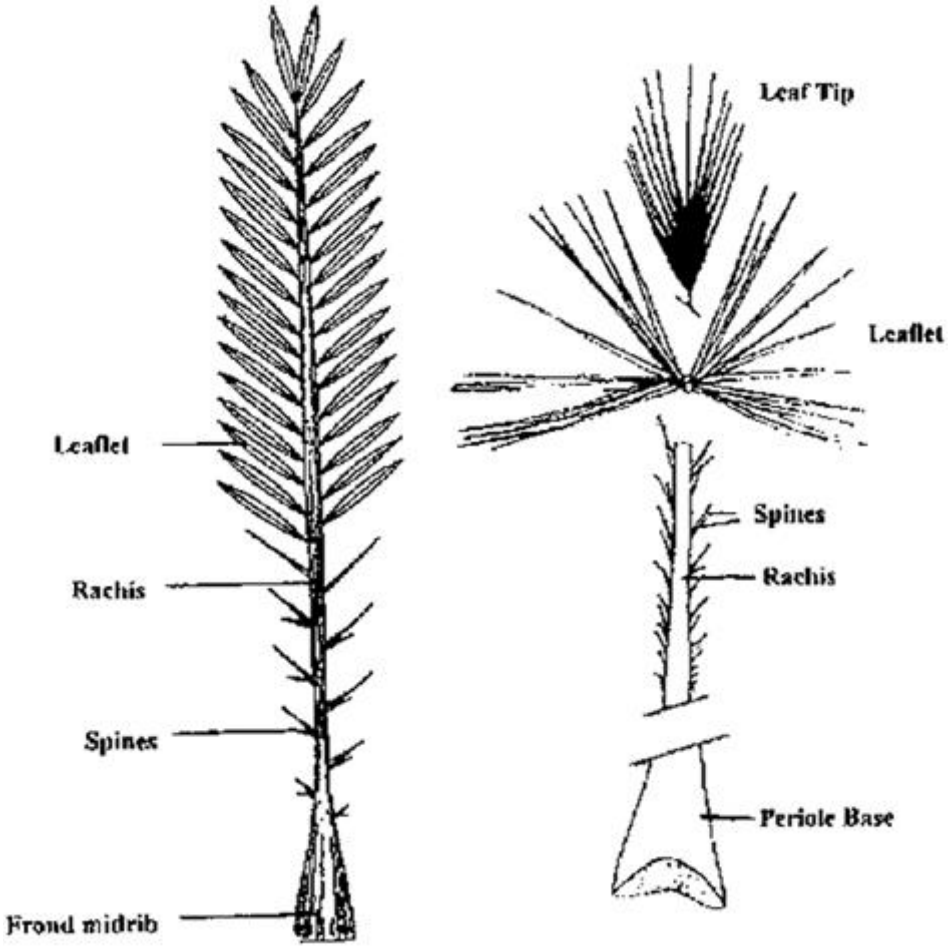
Short (Less than 4 m)
Medium (between 4-5 m)
Long (More than 5 m)

Ad. 8: Leaf: leaflet width

Width should be measured In the middle of leaflet

Ad. 10: Petiole: color

Petiole color is determined from the petiole base, below the spine area



2
Brown

3
Blackened

Ad. 11: Inflorescence: peduncle length

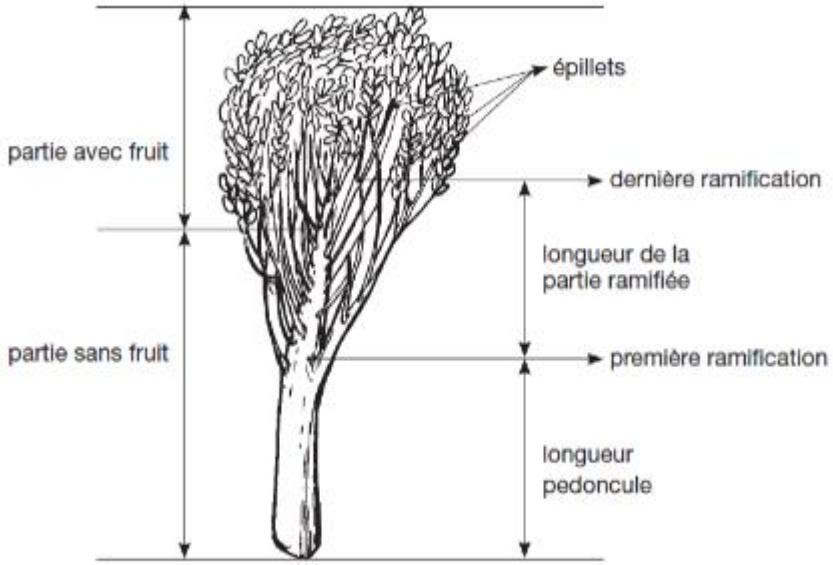
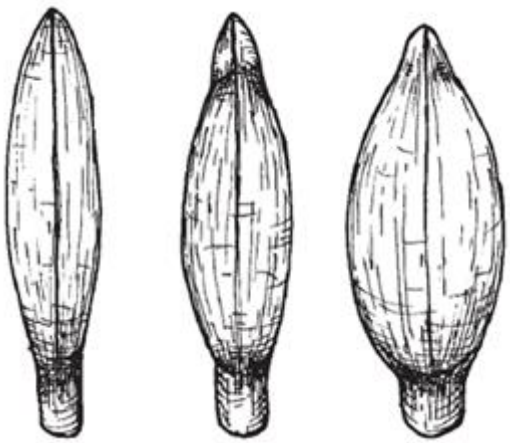


Fig. 14. Longueur de la partie ramifiée de la hampe florale

Ad. 14: Inflorescence: Spathe Shape



1 Lanceolate | 2 Fusiform | 3 Swollen

Ad. 16: Inflorescence: number of spikelets

The number of spikelets is assessed by counting after removing them from the inflorescence.

Ad. 17: Bunch: number of fruits

mature fruits on strands

Ad. 18: Fruit: color at Khalal (Besr) Stage

Khalal is the third stage when the fruit has gained its characteristic color. The first is Hababok (last for 4-5 weeks after pollination) & second is Kimri (lasts 9-14 weeks)

1
Yellow

2
Orange

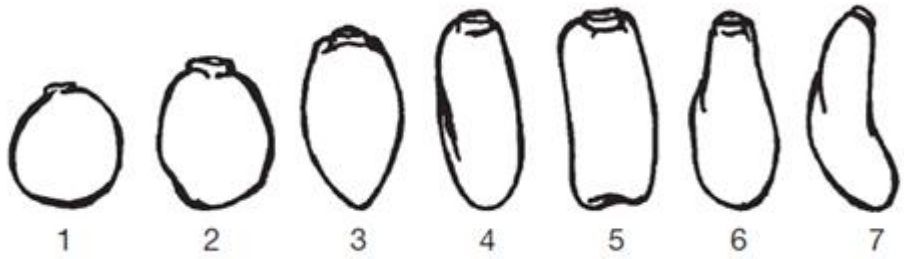
3
Red

Ad. 19: Fruit: color at Tamar Stage

3
Honey

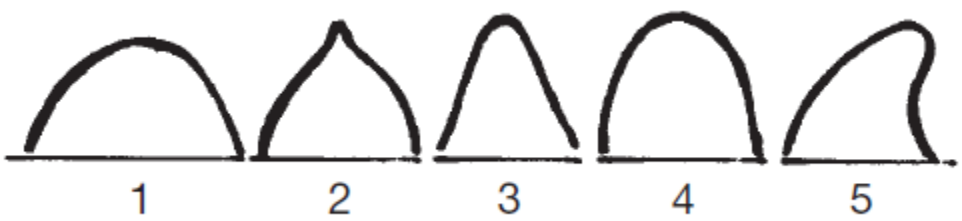
5
Black

Ad. 20: Fruit: shape



Ad. 21: Fruit: shape at distal end

Ad. 22: Fruit: shape of stalk end



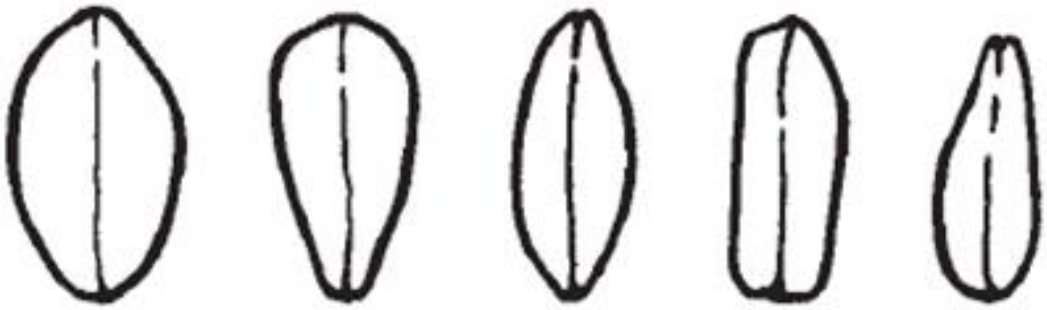
Ad. 28: Fruit: Calyx (or Cap)

1	2	3
Flattened	Prominent	Very Prominent

Ad. 29: Fruit: Calyx color

Bisr fruits showing yellow Calyx

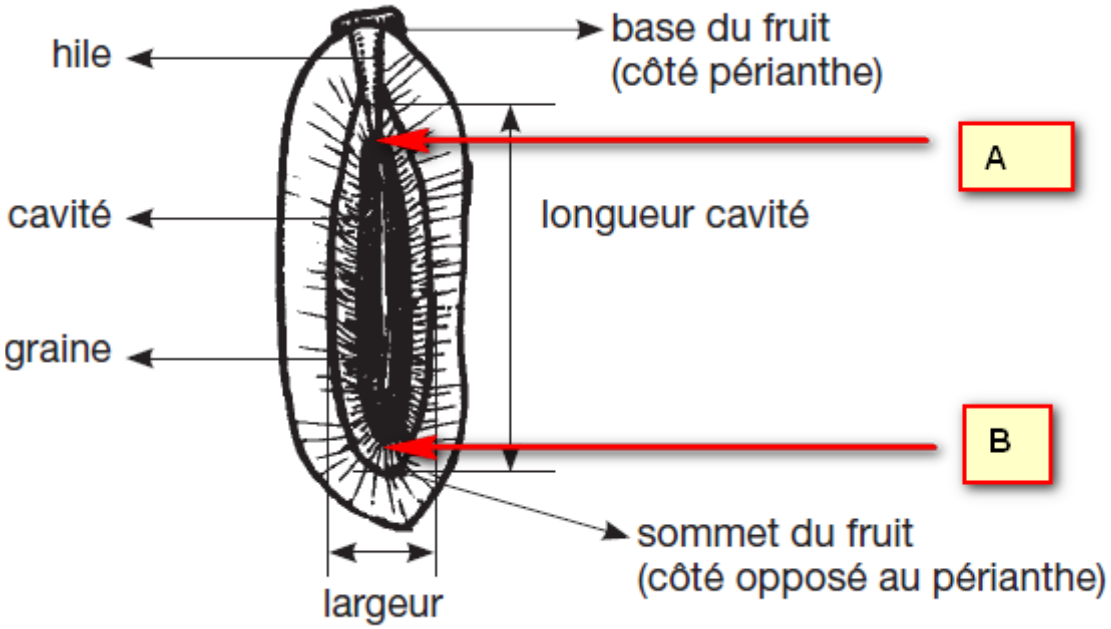
Ad. 30: Seed: shape



1	2	3	4	5
ovate	Conical	Fusiform	Semi-Cylindrical	Pyriform

Ad. 31: Seed: Length

Seed measured from A to B

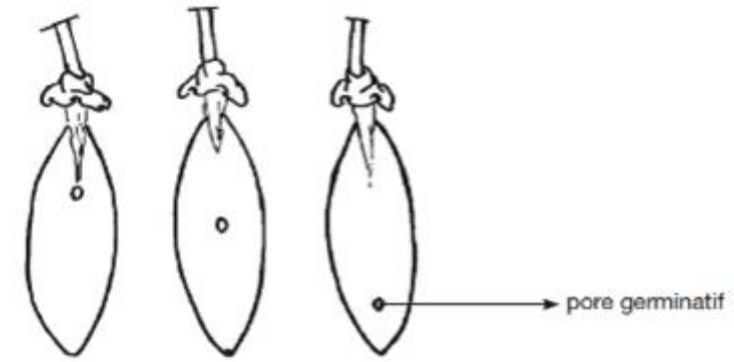


Ad. 32: Seed color

Seed dry or seed from fruit Tamar stage

Ad. 33: Seed: Embryo position

Seed Embryo Position



8.2 Date fruit ripening stages:

Hababok

Kimri

Khalal

Tamar

9. Literature

Al-Khayri, Jameel M., Jain, Shri Mohan, Johnson, Dennis V. 2015. Date Palm Genetic Resources and Utilization. Volume 2: Asia and Europe. Springer Netherlands, The Netherlands.
Al-Khayri, Jameel M., Jain, Shri Mohan, Johnson, Dennis V. 2015. Date Palm Genetic Resources and Utilization. Volume 1: Africa and the Americas. Springer Netherlands, The Netherlands. IPGRI 2006.
Descripteurs du Palmier dattier (Phoenix dactylifera L.). IPGRI, Rome, Italy. Zaid, Abdelouahhab and Arias-Jiménez, E.J. 2002. Date Palm Cultivation. FAO Plant Production and Protection Paper 156 Rev.1. FAO, Rome, Italy.

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	*Phoenix dactylifera* L.
1.2	Common name	Date, Date Palm

2. Applicant

Name	
Address	
Telephone No.	
Fax No.	
E-mail address	
Breeder (if different from applicant)	

3. Proposed denomination and breeder's reference

Proposed denomination (if available)	
Breeder's reference	

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

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

4.1 Breeding scheme

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:

4.2 Method of propagating the variety

4.2.1 Other [ ]

(Please provide details)

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

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

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6. Similar varieties and differences from these varieties

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.

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
Example			

Comments:

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

#7. Additional information which may help in the examination of the variety

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?

Yes [ ] No [ ]

(If yes, please provide details)

7.2 Are there any special conditions for growing the variety or conducting the examination?

Yes [ ] No [ ]

(If yes, please provide details)

7.3 Other information

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:

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 (b) is yes, please attach a copy of the authorization.

9. Information on plant material to be examined or submitted for examination

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, pesticide)	Yes [ ]	No [ ]
(c)	Tissue culture	Yes [ ]	No [ ]
(d)	Other factors	Yes [ ]	No [ ]

Please provide details for where you have indicated “yes”.

.....

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

Applicant’s name

Signature Date

[End of document]