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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

DRAFT

Black Walnut

UPOV Code: JUGLA_HIN; JUGLA_HRE; JUGLA_MAJ; JUGLA_NIG

Juglans hindsii (Jeps.) R. E. Sm.;
Juglans hindsii × Juglans regia;
Juglans major (Torr.) A. Heller; Juglans nigra L.

[*]

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by (an) expert(s) from Spain

to be considered by the

Technical Working Party for Fruit Crops
at its forty-sixth session
to be held in Mpumalanga, South Africa
from 2015-08-24
to 2015-08-28

Alternative Names:[*]

Botanical name	*English*	*French*	*German*	*Spanish*
Juglans hindsii (Jeps.) R. E. Sm.,	Hinds's black walnut; Hinds's walnut; northern California black walnut; northern California walnut		kalifornische Walnuß	
Juglans hindsii × Juglans regia,				
Juglans major (Torr.) A. Heller,	Arizona walnut			nogal; nogal Silvestre
Juglans nigra L.,				

[*] 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.]

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.

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1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of Juglans hindsii (Jeps.) R. E. Sm., Juglans hindsii × Juglans regia, Juglans major (Torr.) A. Heller, Juglans nigra L..

ThisTest Guidelines applies to all varieties of Black walnut species regarding specially:

(a) Juglans nigra L. (Black walnut)
(b) Juglans major (Torr.) A. Heller (Arizona walnut)
(c) Juglans hindsii (Jeps.) R. E. Sm (Northern California Walnut)
(d) and their híbrids including those with Juglans regia 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 one-year-old grafts.

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

8 trees (one-year-old grafts).

The rootstock to be used is the progeny Ng209xRa or any other commercial Juglans X

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 two independent growing cycles.

3.1.2 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 two independent growing cycles may be observed from a single planting, examined in two separate growing cycles.

3.1.4 The growing cycle is considered to be the duration of a single growing season, beginning with bud burst, and concluding when the following dormant period ends with the swelling of new season buds.

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 The recommended type of plot in which to observe the characteristic is indicated by the following key in the second column of the Table of Characteristics:
A: The test 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.
B: Tests are usually conducted at one place. If not guidance is provided in TGP/9 "Examining Distinctness".

3.4 Test Design

3.4.1 Each test should be designed to result in a total of at least 5 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 / Parts of Plants to be Examined

Unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 5 plants or parts taken from each of 5 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 2.

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.

4.2 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 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.

4.2.4 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 5 plants, no off-types are 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:

(a) Leaf: presence of terminal leaflet (characteristic 3)
(b) Time of budburst (characteristic 16)
(c) Time of female flowering (characteristic 18)

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

(*)	Asterisked 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 4.1.5

(a)-(b) See Explanations on the Table of Characteristics in Chapter 8.

(+) 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. (*) PQ VG 2 (+) (a) (b) **Tree: growth habit**	**Arbre : port**	**Baum: Wuchsform**	**Árbol: porte**		
upright	dressé	aufrecht	erguido		1
semi-upright	demi-dressé	halbaufrecht	semierguido	MB Ng-10	2
spreading	divergent	breitwüchsig	extendido	Mj209	3
drooping	retombant	überhängend	colgante		4
2. (*) QN MS 1 (+) (a) (b) **Leaf: number of leaflets**					
very few				IRTA X-80	1
few				Eurowalnut-8	3
medium				Beineke 3, Mj2-2	5
many				Beineke 10, Typpecanoe-1	7
very many					9
3. (*) QL VG 1 (a) (b) **Leaf: presence of terminal leaflet**					
absent or rachitic				Emilie, MB Ng-13	1
present				Eurowalnut B07, IRTA X-80	9
4. QL VG 1 (a) (b) **Leaf: size of terminal leaflet in relation to laterial leaflets**					
smaller				Beineke 8, Mj2-2	1
equal or higher				Eurowalnut B03, Eurowalnut B07, IRTA X-80	9

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
5. PQ VG 2 (+) (a) (b) **Trunk: bark color in the juvenile phase**					
whitish				Eurowalnut B03, Eurowalnut B07, Mj209	1
reddish					2
blackish				Beineke 10, Ng23	3
6. QL VG 3 (+) (a) (b) **Female flower. conspicuous before Df**					
non conspicuous				MB Ng-10, MB Ng-2	1
conspicuous				Beineke 5, Ng23	9
7. (*) QN VG 3 (a) (b) **Female flower: number of flowers per inflorescence at Ff2**					
Mostly isolated					1
mostly in group of two				IRTA X-80, Typpecanoe-1	2
mostly in group of three				Beineke 5, MB Hd-37, MB Ng-10	3
mostly in group of four				Beineke 8	4
mostly in group of five or more					5
8. (*) QL VG 3 (a) (b) **Female flower: anthocyanic coloration of stigma at Ff2**					
absent				MB Hd-37, MB Ng-10	1
present				Mj209, Typpecanoe-1	9
9. QN VG 3 (a) (b) **Female flower: lenght of stigma at Ff2**					
very short					1
short				IRTA X-80	3
medium				Beineke 5	5
long				MB Hd-37, MB Ng-10	7
very long					9

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
10. (*) PQ VG 3 (+) (a) (b) **Female flower: stigma attitude at Ff2**					
upright				Mj209, Typpecanoe-1	1
spreading					2
drooping to one side				Ng23	3
drooping to both sides					4
11. QL VG 3 (a) (b) **Catkins: Presence of well developed catkins**					
absence				IRTA X95	1
presence				MB Ng-10, Mj209	9
12. PQ VG 3 (+) (a) (b) **Catkins: shape at Bm-Cm**					
Broad obovate				MB Ng-2, MB Ng-7	1
narrow obovate				MB Hd-37, Mj209	2
oblong				MB Ng-10, Ng23	3
13. (*) PQ VG (+) (a) (b) **Nut: shape in longitudinal section, perpendicular to suture**					
oblate				EccoVenner	1
circular				MB Ng-2	2
conic					3
trapezium				Mj209	4
elliptic					5
oblong				IRTA X-80	6
compressed oblong				Beineke 8	7

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
14. (*) PQ VG (+) (a) (b) **Nut: shape of the base perpendicular to suture**					
pointed					1
cuneate				Beineke 4	2
rounded				MB Ng-2	3
truncate				Beineke 8	4
-----				Eurowalnut B07	5
emarginate				MB Hd-37	6
15. (*) PQ VG (+) (a) (b) **Nut: shape of apex perpendicular to suture**					
pointed				Eurowalnut B07, Purdue-1	1
obtuse				Mj209, Ng23	2
rounded				Beineke 7	3
truncate				Beineke 8	4
emarginate					5
trapezium				MB Hd-37	6
16. (*) QN MG (+) (a) (b) **Time of budburst**					
very early				IRTA X-80, MB Hd-37	1
early				MB Ng-13	3
medium				MB Ng-2, MB Ng-3, Ng23	5
late				Beineke 8, Beineke 9	7
very late				Eurowalnut-8	9

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
17. (*) QN MG (+) (a) (b) **Time of male flowering**					
very early				IRTA X-80, MB Ng-13	1
early				Beineke 1, Mj209	3
medium				Beineke 6, Beineke 7, Ng23	5
late				Beineke 8, Beineke 9, Purdue-1	7
very late				Beineke 2	9
18. (*) QN MG (+) (a) (b) **Time of female flowering**					
very early				IRTA X-80, Mj209	1
early				Beineke 6, Ng23	3
medium				MB Ng-13, MB Ng-2	5
late				Beineke 1, MB Ng-10	7
very late				Beineke 10	9
19. (*) QL VG (+) (a) (b) **Time of male flowering compared to female flowering**					
before (protandry)				Beineke 5, Mj209, Ng23	1
simultaneous (homogamy					2
after (protoginy				Beineke 1, Beineke 7, MB Ng-10, MB Ng-2	3
20. (*) QN MG (+) (a) (b) **Time of leaf drop**					
very early				Beineke 6	1
early				Beineke 5	3
medium				MB Ng-2, MB Ng-3, Ng23	5
late				Beineke 8, IRTA X-80, Mj209	7
very late				IRTA X95	9

8. Explanations on the Table of Characteristics

8.1 Explanations covering several characteristics

Characteristics containing the following key in the second column of the Table of Characteristics should be examined as indicated below:

(a) Growth stages:
The characters that include the following key in the second column of the table of characters must be examined as it is indicated next:
(1) 2º year of plantation in ahead
(2) 3 -4 years
(3) From the second male and female flowering

(b)

***Juglans* spp. floral phenology following Germain *et al.* (1999).**

a. Budbreak			b. Pistilate flowering		
Stage		Description	Stage		Description
	A_f	**Dormant bud**		E_f	**Conspicuous female flowers.** At apical position on annual shoots.
	B_f	**Bud swelled.** Whitish hairiness.		F_f	**Conspicuous stigmas.** Yellowish or reddish stigma appears just on the top of ovary.
	C_f	**Budbreak.** Bud extends and scales open. Conspicuous leaf *primordium*.		F_{f1}	**Starting of stigma opening.** Intensive stigma coloration. Position clearly over the ovary. Maximum peak of female flower.
	C_{f2}	**Conspicuous external leafs.**		F_{f2}	**Unfolded stigma.** Pistillate flower receptivity decreases.
	D_f	**Initial leaflet individualisation**		F_{f3}	**Stigma drying starts.** Necrosis of aged stigmas and ovary increasing.
	D_{f2}	**Unfolded leaflets**		G_f	**Completely dried stigmas.** Nut set.

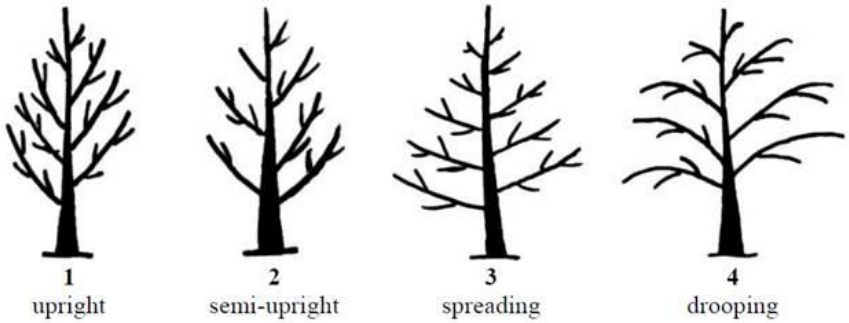
c. Male flowers					
Stage		Description	Stage		Description
	A_{mg}	**Dormant bud**		E_m	**Anther separation.** Flowers increases in size and look yellow.
	B_m	**The growth stars.** Catkin lengthens. Colour turns greenish.		F_m	**Anther dehiscence starts.** Catkin turns more yellow. Pollen emission starts.
	C_m	**Conspicuous inflorescence differentiation.** Catkin continues to lengthen, and male flowers are still closed.		F_{m2}	**Total dehiscence of anthers.** Peak of pollen emission. Catkins completely yellow.
	D_m	**Male flowers separation.** Catkin continues lengthening, losing stiffness and starts bending.		G_m	**Empty anthers.** Necrosis starts.
	D_{m2}	**Opening staminate flowers**		H_m	**Catkin drop.** Dried brown catkin.

8.2 Explanations for individual characteristics

Ad. 1: Tree: growth habit

Straighten of the most vigorous branches of the year (>1 m) of the grafted tree (according to definition of IPGRI)

Ad. 1 Tree growth habit



1 upright | 2 semi-upright | 3 spreading | 4 drooping

Ad. 2: Leaf: number of leaflets

Very low	number of leaflets ≤ 9
Low	9< number of leaflets ≤ 13
Medium	13< number of leaflets ≤ 17
High	17< number of leaflets < 21

Ad. 5: Trunk: bark color in the juvenile phase

Juvenile phase means that the tree is less than five years old

Ad. 6: Female flower. conspicuous before Df

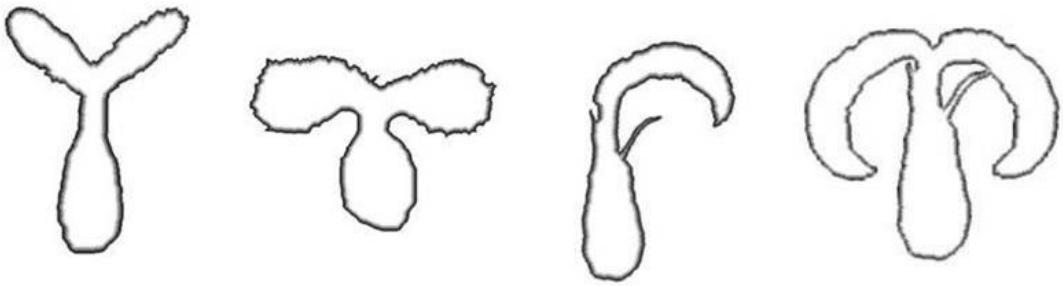
Female flower is considered conspicuous when the shoots show female flowers before stage Df, on the contrary non conspicuous is when the flowers are observed later, when leaves are already developed.

1
Female flowers before D_f stage
conspicuous

9
D_f stage without female flowers
non conspicuous

Ad. 10: Female flower: stigma attitude at Ff2

The shape of stigmas is observed when they are completly unfolded, at Ff2 stage



1
upright

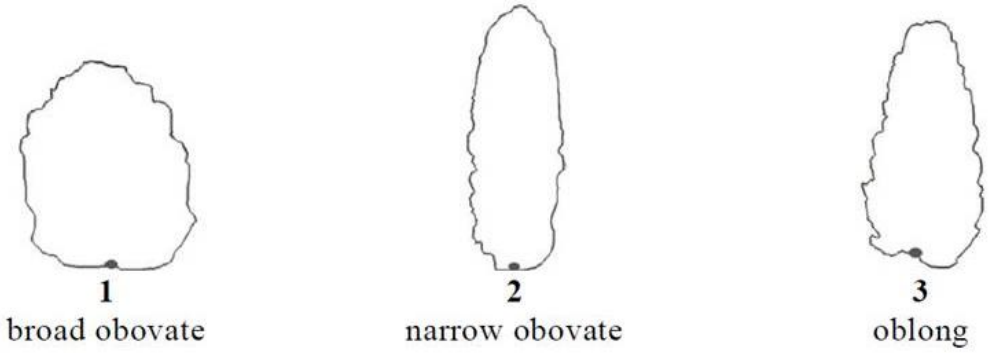
2
speading

3
drooping to one side

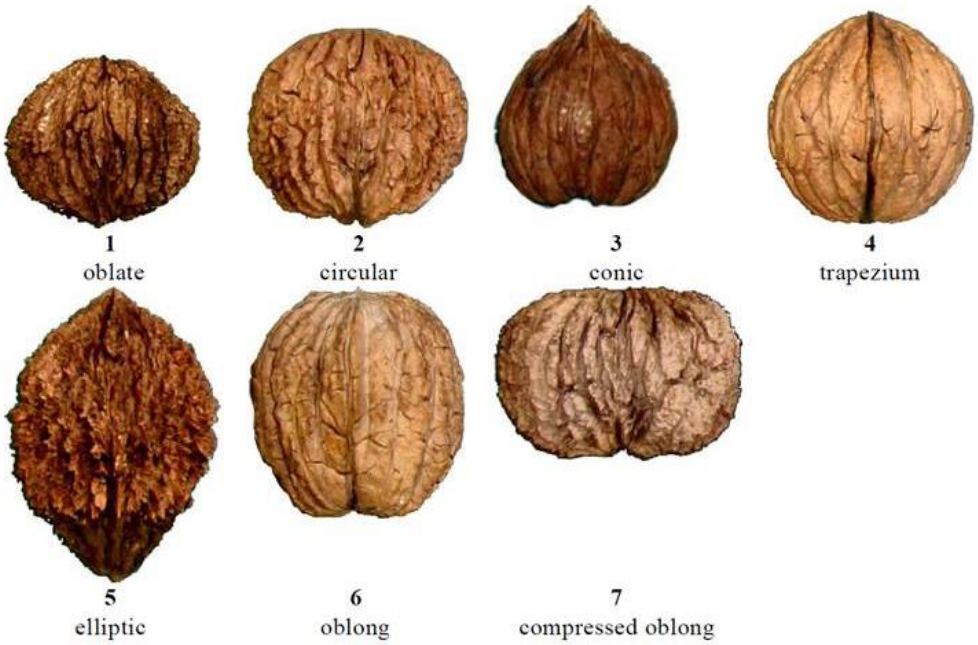
4
drooping to both sides

Ad. 10 Female flower: shape of stigma

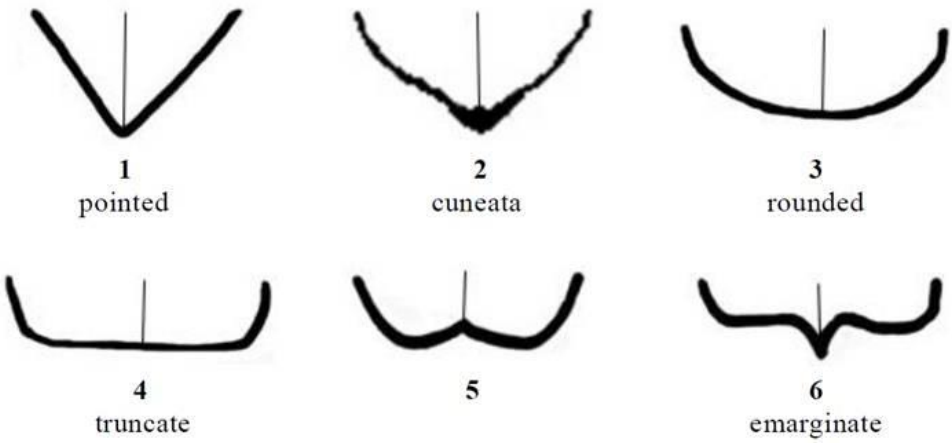
Ad. 12: Catkins: shape at Bm-Cm



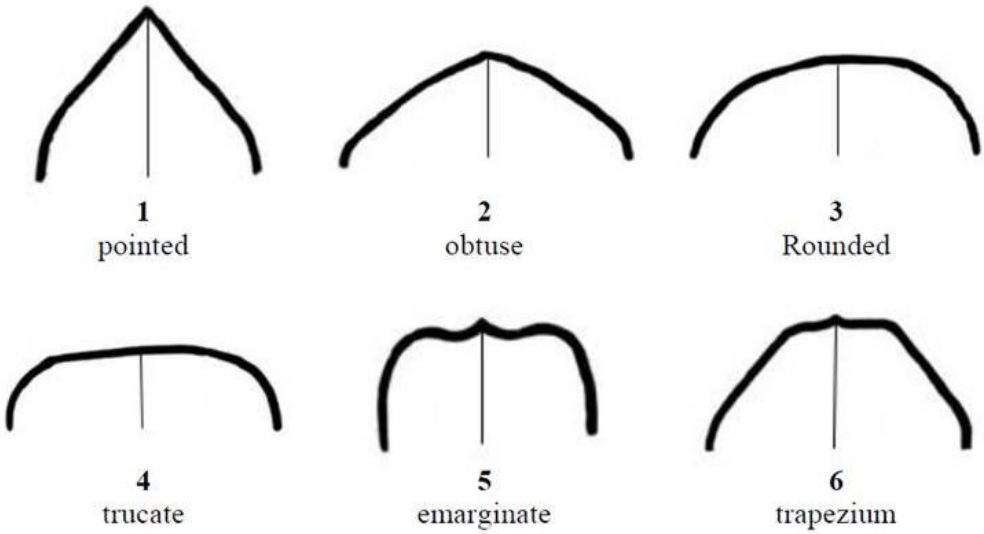
Ad. 13: Nut: shape in longitudinal section, perpendicular to suture



Ad. 14: Nut: shape of the base perpendicular to suture



Ad. 15: Nut: shape of apex perpendicular to suture



Ad. 16: Time of budburst

Bud burst is considered when more of 50% of the terminal buds are at the Cf stage

Ad. 17: Time of male flowering

The male flowering tales place when anters are completly dehiscent. It is the period of pollen emission (Fm2)

Ad. 18: Time of female flowering

The period of female flower receptivity is between Ff1 and Ff2 stages

Ad. 19: Time of male flowering compared to female flowering

The male and female flowering cannot coincide in time on the same tree; that is the definition of dicogamy. If catkins mature before female flowers that is protandry, when female flowers are the first that is protoginy; if there is coincidence in time that is homogamy

Ad. 20: Time of leaf drop

The time of defoliation is defined as the moment in which the tree has lost between over 50% of its leaves

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

1. Subject of the Technical Questionnaire			
1.1.1	Botanical Name	Juglans hindsii (Jeps.) R. E. Sm.	[ ]
1.1.2	Common Name	Hinds's black walnut; Hinds's walnut; northern California black walnut; northern California walnut	
1.2.1	Botanical Name	Juglans hindsii × Juglans regia	[ ]
1.2.2	Common Name		
1.3.1	Botanical Name	Juglans major (Torr.) A. Heller	[ ]
1.3.2	Common Name	Arizona walnut	
1.4.1	Botanical Name	Juglans nigra L.	[ ]
1.4.2	Common Name		

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

4.2 Method of propagating the variety

4.2.1 Vegetative propagation

(a) in vitro propagation [ ]
(b) The micropropagation is the usual system of propagation used. But, in some cases varieties are grafted on seedlings of the same species. [ ]
(c) Other (state method) [ ]

.....
: :
: :
:.....:

4.2.2 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
5.1 (3)	**Leaf: presence of terminal leaflet**		
	absent or rachitic	Emilie, MB Ng-13	1[ ]
	present	Eurowalnut B07, IRTA X-80	9[ ]
5.2 (16)	**Time of budburst**		
	very early	IRTA X-80, MB Hd-37	1[ ]
	early	MB Ng-13	3[ ]
	medium	MB Ng-2, MB Ng-3, Ng23	5[ ]
	late	Beineke 8, Beineke 9	7[ ]
	very late	Eurowalnut-8	9[ ]
5.3 (18)	**Time of female flowering**		
	very early	IRTA X-80, Mj209	1[ ]
	early	Beineke 6, Ng23	3[ ]
	medium	MB Ng-13, MB Ng-2	5[ ]
	late	Beineke 1, MB Ng-10	7[ ]
	very late	Beineke 10	9[ ]

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:

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

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.

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

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]