



TWF/37/13

ORIGINAL: English

DATE: August 8, 2006

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
GENEVA

TECHNICAL WORKING PARTY FOR FRUIT CROPS

Thirty-Seventh Session
Salvador, Bahia State, Brazil, August 21 to 25, 2006

REVISION OF THE TEST GUIDELINES FOR GRAPEVINE

Document prepared by an expert from Spain

1. At its thirty-fifth session, held in Marquardt (Potsdam), Germany from July 19 to 23, 2004, the Technical Working Party for Fruit Crops (TWF) noted that the Office International de la Vigne et du Vin (OIV) was in the process of revising its descriptor for grapevine and the TWF agreed that it should revise its Test Guidelines for Grapevine (TG/50/8) in light of this development.
2. A project for the second edition of the OIV descriptor (document VITI/RAISIN/05/321) was presented to the Scientific Committee of Viticulture, at the XXIXth OIV World Congress of Vine and Wine, held in Logroño, Spain, from June 25 to 30, 2006. A copy of document VITI/RAISIN/05/321 can be found on the TWF/37 area of the UPOV website (http://www.upov.int/restrict/en/twf/index_twf37.htm). That document was not approved, in order to allow an opportunity for harmonization between the OIV descriptor and the UPOV Test Guidelines. The annex to this document provides a summary of the differences between the characteristics included in document VITI/RAISIN/05/321 and those in the adopted UPOV Test Guidelines, document TG/50/8.
3. In order to pursue the harmonization between OIV and UPOV, it is proposed to organize a subgroup meeting of the OIV and UPOV interested experts, probably in Europe at the end of October 2006. A suitable date and venue will be discussed at the thirty-seventh session of the TWF.

[Annex follows]

ANNEX

COMPARISON OF OIV AND UPOV CHARACTERISTICSSources

OIV: Project VITI/RAISIN/05/321 presented to the Scientific Committee of Viticulture, at the XXIXth OIV World Congress of Vine and Wine, held in Logroño, Spain, from June 25 to 30, 2006.

UPOV: TG/50/8 adopted in 1999.

1. Comparison between lists of OIV and UPOV characteristics

Characteristics	OIV	UPOV	Differences
Young Shoot: aperture of tip	001	3	Number of levels
Young Shoot: distribution of anthocyanin coloration on prostrate hairs of tip	002		-----
Young Shoot: intensity of anthocyanin coloration on prostrate hairs of tip	003	5	similar
Young Shoot: density of prostrate hairs on tip	004	4	similar
Young Shoot: density of erect hairs on tip	005	6	Only rootstocks
Shoot: attitude (before tying)	006	10	equal
Shoot: color of dorsal side of internodes	007	11	Similar
Shoot: color of ventral side of internodes	008	12	Similar
Shoot: color of dorsal side of nodes	009	13	Only rootstocks
Shoot: color of ventral side of nodes	010	14	Only rootstocks
Shoot: density of erect hairs on nodes	011		-----
Shoot: density of erect hairs on internodes	012	15	Similar
Shoot: density of prostrate hairs on nodes	013		-----
Shoot: density of prostrate hairs on internodes	014		-----
Shoot: area of the anthocyanin coloration on bud scales	015-1		-----
Shoot: intensity of anthocyanin coloration on bud scales	015-2		-----
Shoot: number of consecutive tendrils	016	16	Similar
Shoot: length of tendrils	017	17	Equal
Young leaf: color of the upper side of blade (4 th leaf)	051	7	Levels
Young leaf: density of prostrate hairs between main veins on lower side of blade (4 th leaf)	053	8	Equal
Young leaf: density of erect hairs between main veins on lower side of blade (4 th leaf)	054		-----
Young leaf: density of prostrate hairs on main veins on lower side of blade (4 th leaf)	055		-----
Young leaf: density of erect hairs on main veins on lower side of blade (4 th leaf)	056	9	Equal
Mature leaf: size of blade	065	19	Equal
Mature leaf: shape of blade	067	20	Similar , but level 2
Mature leaf: number of lobes	068	23	Equal
Mature leaf: colour of the upper side of blade	069		-----
Mature leaf: area of anthocyanin coloration of main veins on upper side of blade	070	31	Levels/distribution
Mature leaf: area of anthocyanin coloration of main veins on lower side of blade	071		-----

Characteristics	OIV	UPOV	Differences
Mature leaf: goffering of blade	072		-----
Mature leaf: undulation of blade between main and lateral veins	073		-----
Mature leaf: profile of blade in cross section	074	21	Similar (blade/leaf)
Mature leaf: blistering of upper side of blade	075	22	Similar
Mature leaf: shape of teeth	076	30	Equal
Mature leaf: size of teeth in relation to blade size	077	28	Definition and levels
Mature leaf: length of teeth compared with their width	078	29	Similar
Mature leaf: degree of opening / overlapping of petiole sinus	079	26	Levels
Mature leaf: shape of base of petiole sinus	080		-----
Mature leaf: teeth in the petiole sinus	081-1		-----
Mature leaf: petiole sinus base limited by veins	081-2	27	Levels
Mature leaf: degree of opening / overlapping of upper lateral sinus	082	25	Levels/definition
Mature leaf: shape of base of upper lateral sinuses	083-1		-----
Mature leaf: teeth in the upper lateral sinuses	083-2		-----
Mature leaf: density of prostrate hairs between the main veins on lower side of blade	084	32	Equal
Mature leaf: density of erect hairs between the main veins on lower side of blade	085		-----
Mature leaf: density of prostrate hairs on main veins on lower side of blade	086		-----
Mature leaf: density of erect hairs on main veins on lower side of blade	087	33	Equal
Mature leaf: prostrate hairs on main veins on upper side of blade	088		-----
Mature leaf: erect hairs on main veins on upper side of blade	089		-----
Mature leaf: density of prostrate hairs on petiole	090		-----
Mature leaf: density of erect hairs on petiole	091		-----
Mature leaf: length of petiole compared to length of middle vein	093	34	Equal
Woody shoot: cross section	101		-----
Woody shoot: structure of surface	102	50	Levels
Woody shoot: main color	103	49	Levels/definition
Woody shoot: lenticels	104		-----
Woody shoot: erect hairs on nodes	105		-----
Woody shoot: erect hairs on internodes	106		-----
Flower: sexual organs	151	18	Equal
Inflorescence: insertion of 1 st inflorescence	152		-----
Inflorescence: number of inflorescences per shoot	153		-----
Shoot: fertility of basal buds (buds 1-3)	155		-----
Bunch: length (peduncle excluded)	202	36	Size or length + width
Bunch: width	203	36	Size or length + width
Bunch: density	204	37	Equal
Bunch: length of peduncle of primary bunch	206	38	Equal
Bunch: lignification of peduncle	207		-----
Bunch: shape	208		-----
Bunch: number of wings of the primary bunch	209		-----
Berry: length	220	39	Size or length + width
Berry: width	221	39	Size or length + width
Berry: uniformity of size	222		-----

Characteristics	OIV	UPOV	Differences
Berry: shape	223	40	Equal
Berry: color of skin	225	41	Equal
Berry: uniformity of color of skin	226		-----
Berry: bloom	227		-----
Berry: thickness of skin	228	43	Levels
Berry: hilum	229		-----
Berry: intensity of the anthocyanin coloration of flesh	231	44	Similar
Berry: juiciness of flesh	232	46	Similar
Berry: must yield	233		-----
Berry: firmness of flesh	235	45	Similar
Berry: particularity of flavor	236	47	Equal
Berry: length of pedicel	238		-----
Berry: ease of detachment from pedicel	240	42	Levels
Berry: formation of seeds	241	48	Equal
Berry: length of seeds	242		-----
Berry: weight of seeds	243		-----
Berry: transversal ridges on dorsal side of seeds	244		-----
Time of bud burst	301	1 & 2	Two characters in UPOV(rootstocks or fruit)
Time of full bloom	302		-----
Time of beginning of berry ripening (veraison)	303	35	Only fruit varieties
Time of physiological stage of full maturity of the berry	304		-----
Time of beginning of wood maturity	305		-----
Time of autumn coloring of leaves	306		-----
Vigor of shoot growth	351		-----
Growth of axillary shoots	352		-----
Length of internodes	353		-----
Diameter of internodes	354		-----
Resistance to iron chlorosis	401		-----
Resistance to chlorides (salt)	402		-----
Resistance to drought	403		-----
Leaf: degree of resistance to Plasmopara	452		-----
Leaf: degree of resistance to Plasmopara (leaf disc test)	452-1		-----
Cluster: degree of resistance to Plasmopara	453		-----
Leaf: degree of resistance to Oidium	455		-----
Leaf: degree of resistance to Oidium (leaf disc test)	455-1		-----
Cluster: degree of resistance to Oidium	456		-----
Leaf: degree of resistance to Botrytis	458		-----
Leaf: degree of resistance to Botrytis (laboratory analysis)	458-1		-----
Cluster: degree of resistance to Botrytis	459		-----
Degree of resistance to <i>Eutypa dieback</i> (laboratory analysis)	460		-----
Degree of tolerance to Phylloxera (leaf)	461		-----
Degree of tolerance to Phylloxera (root)	462		-----
Percentage of berry set	501		-----
Bunch: weight of a single bunch	502		-----
Berry: single berry weight	503		-----
Yield per m ²	504		-----
Sugar content of must	505		-----

Characteristics	OIV	UPOV	Differences
Total acid content of must	506		-----
must specific pH	508		-----
Rootstock: yield of canes/ha	551		-----
Rootstock: formation of callus (upper end)	552		-----
Rootstock: adventitious root formation	553		-----
Mature leaf: length of vein N ₁	601		-----
Mature leaf: length of vein N ₂	602		-----
Mature leaf: length of vein N ₃	603		-----
Mature leaf: length of vein N ₄	604		-----
Mature leaf: length petiole sinus to upper lateral leaf sinus	605	24	-----
Mature leaf: length petiole sinus to lower lateral leaf sinus	606		-----
Mature leaf: angle between N ₁ and N ₂ ¹⁾ measured at the first ramification (¹⁾ Code Nos OIV 601 and OIV 602)	607		-----
Mature leaf: angle between N ₂ and N ₃ ¹⁾ measured at the first ramification (¹⁾ Code Nos OIV 601 and OIV 602)	608		-----
Mature leaf: angle between N ₃ and N ₄ ¹⁾ measured at the first ramification (¹⁾ Code Nos OIV 601 and OIV 602)	609		-----
Mature leaf: angle between N ₃ and the tangent between petiole point	610		-----
Mature leaf: length of vein N ₅	611		-----
Mature leaf: length of tooth N ₂	612		-----
Mature leaf: width of tooth N ₂	613		-----
Mature leaf: length of tooth N ₄	614		-----
Mature leaf: width of tooth N ₄	615		-----
Mature leaf: number of teeth between the tooth tip of N ₂ and the tooth tip of the first secondary vein of N ₂ including the limits	616		-----
Mature leaf: length between the tooth tip of N ₂ and the tooth tip of the first secondary vein of N ₂	617		-----
Mature leaf: opening/overlapping of petiole sinus	618		-----
Isoenzyme system: glucose phosphate isomerase (GPI)	701		-----
Isoenzyme system: phospho gluco mutase (PGM)	702		-----
SSR-marker VVS2	801		-----
SSR-marker VVMD5	802		-----
SSR-marker VVMD7	803		-----
SSR-marker VVMD27	804		-----
SSR-marker VrZAG62	805		-----
SSR-marker VrZAG79	806		-----

Note:

OIV includes some characteristics for growth (351-354), resistances (401-403 and 452-462), yield (501-508), ampelometry (601-618), isoenzyme system (701-702) and SSR markers (801-806), which UPOV does not usually include in its Test Guidelines. Consequently, the comparison should focus on the morphological characteristics.

2. Comparison between lists of UPOV and OIV characteristics

UPOV	OIV	Differences
1	301	Fruit varieties
2	301	Rootstocks
3	001	Levels
4	004	Similar
5	003	Similar
6	005	Rootstocks
7	051	Levels
8	053	Equal
9	056	Equal
10	006	Equal
11	007	Similar
12	008	Similar
13	009	Only rootstocks
14	010	Only rootstocks
15	012	Similar
16	016	Similar
17	017	Equal
18	151	Equal
19	065	Equal
20	067	Similar, but level 2
21	074	Similar (blade/leaf)
22	075	Similar
23	068	Equal
24	-----	-----
25	082	Levels/definition
26	079	Levels
27	081-2	Levels
28	077	Definition and levels
29	078	Similar
30	076	Equal
31	070	Levels/distribution
32	084	Equal
33	087	Equal
34	093	Equal
35	303	Only fruit varieties

UPOV	OIV	Differences
36	202 203	Size or length + width
37	204	Equal
38	206	Equal
39	220 221	Size or length + width
40	223	Equal
41	225	Equal
42	240	Levels
43	228	Levels
44	231	Similar
45	235	Similar
46	232	Similar
47	236	Equal
48	241	Equal
49	103	Levels/definition
50	102	levels

3. Summary

In relation to the adopted UPOV Test Guidelines (see 2.) , the differences with the OIV project are as follow:

- ♣ 29 characteristics (58%) are the same or similar
- ♣ 6 characteristics (12%) relate to fruit or rootstocks varieties
- ♣ 14 characteristics (28%) show some differences in the definition or in the states of expression
- ♣ Only one characteristic is not included in OIV.

Therefore, 42% of characteristics have the potential for further harmonization

[End of Annex and of document]