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**PRELIMINARY COMPARISON OF THE UPOV TEST GUIDELINES FOR RICE AND
IRRI DESCRIPTORS FOR RICE**

Document prepared by the Office of the Union

1. On June 23, 2003, the Office of the Union received the document entitled "Preliminary Comparison of the UPOV Test Guidelines for Rice and IRRI Descriptors for Rice", as produced in the Annex to this document.

2. The Technical Working Party for Agricultural Crops is invited to consider this document during the discussion of TG/16/8(proj.2).

[Annex follows]

ANNEX

Preliminary Comparison of the UPOV Test Guidelines for Rice and IRRI Descriptors for Rice

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1. The UPOV Test Guidelines for Rice (TGR) is being used by UPOV members in conducting Distinctness, Uniformity and Stability Test (DUST), whose results serve as the basis for granting plant variety protection. Non-UPOV member countries that are UPOV compliant use the same TGR.
2. Distinctness is one of the requirements for granting protection to a new variety. A new variety is distinct if it is distinguishable from existing, commonly known varieties. Commonly known varieties include traditional varieties and old releases. Databases on variety description of national and international genebanks can serve as a reference in establishing the distinctness of a candidate variety.
3. The present UPOV TGR was adopted in 1985. It involves 30 characters. Its revision started in 1994. In 1999, UPOV decided that more Asian countries should be consulted. The contribution of more Asian rice experts to the revision of the TG was formalized in the first UPOV Asian Regional Technical Meeting for Plant Variety Protection in 2000. IRRI started participating in the revision process in 2001. In the 4th Asian Regional Technical Meeting held in Manila, participants were given Descriptors for Rice (DR), IRRI's guidelines for germplasm characterization, to allow rice experts to examine critically the two systems of describing a variety and find ways to harmonize them.

Comparison of characters in the two germplasm characterization systems

4. The UPOV TGR discussed in the 4th Asian Regional Technical Meeting involved 69 characters (Table 1). Characters # 9, 11, 13 and 23 were not included in the list because they were dropped. Of the remaining characteristics, 18 are important for the international harmonization of variety descriptions (asterisked characters) and should always be included in the variety description. National programs can select other characters in the list and/or include characters that are not in the list but are useful in discriminating varieties in their growing environments.
5. The NBPGR-IRRI Advisory Committee and interested rice scientist developed the DR in the late seventies to have a uniform descriptors and descriptor states for germplasm characterization and evaluation. The DR is being used by many national rice germplasm specialists in characterizing their genebank accessions. Today, it includes 46 characters (Table 2).
6. Of the 65 UPOV characters agreed upon in the last Asian Technical Meeting (Table 1), 23 are not included in the IRRI DR. Some of those are grain quality characters (decorticated

grain dimension and shape, amylose content, white core, white belly, and alkali digestion), kneeing ability (important trait for floating rice only), and anthocyanin coloration of different parts of the lemma.

7. Nine of 46 characters in the IRRI DR are not included in UPOV TGR (Table 2). Five of them are important traits in plant breeding (culm strength, panicle shattering, panicle threshability, seedling height and spikelet fertility).

8. Grain weight is considered in both the UPOV RTG and IRRI DR but the sample size in the two systems are different – 1000 grains in the UPOV TGR and 100 in the IRRI DR. The relative rankings of test varieties could be similar in the two methods.

9. Variety group is one of the information asked for in the IRRI DR. This is based on several plant characters. Classifying traditional varieties into “varietal groups” is important in understanding relationship among traditional varieties. However, classifying some new varieties into “variety groups” is not possible if they are progenies of crosses among varietal groups. Thus, it is appropriate not to include variety group in the UPOV TGR.

10. In both the UPOV and IRRI systems, there are repeated observations on certain characters. In the UPOV TGR, anthocyanin coloration of keel, area below apex and apex, and flag leaf angle are observed at early and late reproductive stages. In the IRRI DR, apiculus color is recorded at reproductive stage and at post-harvest. In the UPOV system, repeated observations are proposed to determine the stage of growth that will provide better discrimination among varieties.

Comparison of descriptor states in the two germplasm characterization systems

11. There are 21 characters in the UPOV TGR that have the same descriptor states in the IRRI DR (Table 3). Three UPOV characteristics, namely intensity of green color (#3), anthocyanin coloration (#4) and distribution of anthocyanin coloration (#5) of a leaf, are equivalent to a single character in the IRRI DR which is the blade color at vegetative stage.

12. There are 14 characters with the IRRI DR having more descriptor states for each character than the UPOV TGR and all descriptor states in the UPOV TGR being present in the IRRI DR (Table 4). This may indicate that IRRI DR is more discriminating than the UPOV system for the 14 characters. Characterization data obtained using the IRRI DR for these 14 characters and the 21 characters in Table 3 should be acceptable to the UPOV system.

13. There are 6 characters with the UPOV TGR having more descriptor states for each character than the IRRI DR and all descriptors states in the IRRI DR being present in the UPOV TGR (Table 5). The UPOV TGR may be more discriminating than the IRRI DR for these characters.

14. Table 6 shows two cases where the two systems have some common and some unique descriptor states for a given character. The characters are color of awns and lemma. These differences can be resolved by using reference varieties or a common color chart (IRRI is using Methuen Handbook of Colour).

15. Table 7 shows two cases where the two systems treat the characters concerned differently. The UPOV TGR descriptor states for awn distribution in the panicle are very clear – tip only, upper half only and whole length. The IRRI DR descriptor states combine awn

length (short and long) and distribution (partly or fully awned). The UPOV TGR descriptor states for density of pubescence of lemma are very clear (absent /very weak to very strong) while IRRI DR descriptor states are a mix of density of pubescence (glabrous, short and long hairs) and location of pubescence (hairs on lemma keel and hairs on upper portion).

16. UPOV recommended that asterisked characters (18) should be examined in all candidate varieties. The IRRI DR is compatible with the UPOV TGR for 11 characters (Table 8). The IRRI DR is not compatible with the UPOV TGR for 2 characters (awn distribution in the panicle and density of pubescence in the lemma). The other asterisked characters are not included in the IRRI DR.

Suggestions

17. Sharing of information between national/international genebanks (which use IRRI DR) and national offices on plant variety protection (which use UPOV TGR) will be enhanced by harmonizing the two systems for describing a variety. Below are some suggestions to harmonize the two systems:

- Characterization of genebank materials should include UPOV's asterisked characters.
- Differences between the two systems of germplasm characterization for some descriptor states can be resolved by using example varieties. The IRRI can assemble example varieties corresponding to IRRI's descriptor states and share them to UPOV Rice Technical Working Group. The UPOV members through the Rice Technical Working Group can share their reference varieties to programs using the IRRI DR.
- The use of color chart can also resolve differences in color description.
- IRRI should review its descriptor states for awn distribution in the panicle and density of pubescence of lemma and palea.
- The inclusion of repeated observations for certain characters in UPOV TGR is important in determining the stage of growth that will provide better discrimination among varieties. Genebanks should observe the color of keel, area below apex, and apex and flag leaf angle at two stages of growth as in the UPOV TGR. UPOV TGR should also evaluate apiculus color at two stages of growth like in the IRRI DR.
- There are cases that the IRRI DR has more descriptor states than the UPOV TGR. UPOV experts can examine the frequency of accessions in the IRRI genebank for descriptor states concerned. The frequency can be a basis for including (deleting) a particular descriptor state in the UPOV TGR.

18. A thorough review of the two systems may ultimately result in a single system of describing a variety.

UPOV #	*	Characters	Included in IIRI Descriptors
1		Coleoptile: color	
2		Basal leaf: sheath color	X
3		Leaf: intensity of green color	X
4		Leaf: anthocyanin coloration	X
5		Leaf: distribution of anthocyanin coloration	X
6		Leaf sheath: anthocyanin coloration	
7		Leaf sheath: intensity of anthocyanin coloration	
8		Leaf: pubescence of blade surface	X
10	*	Leaf: anthocyanin coloration of auricles	X
12		Leaf: anthocyanin coloration of collar	X
14		Leaf: shape of ligule	X
15		Leaf: color of ligule	X
16		Leaf: length of blade	X
17		Leaf: width of blade	X
18	*	Flag leaf: attitude of blade (early observation)	
19	*	Flag leaf: attitude of blade (late observation)	X
20		Culm: kneeling ability (for floating rice only)	
21		Culm: attitude	X
22	*	Time of heading (50% of plants with heads)	X
24		Lemma: anthocyanin coloration of keel (early)	
48b		Lemma: anthocyanin coloration of keel (late)	
25		Lemma: anthocyanin coloration of area below apex (early)	
48c		Lemma: anthocyanin coloration of area below apex (late)	
26	*	Lemma: anthocyanin coloration of apex (early)	
48d	*	Lemma: anthocyanin coloration of apex (late)	
27	*	Spikelet: color of stigma	X
28		Stem: thickness	X
29	*	Stem: length (excluding panicle; excluding floating rice)	X
30	*	Stem: anthocyanin coloration of nodes	X
31		Stem: intensity of anthocyanin coloration of nodes	X
32		Stem: anthocyanin coloration of internodes	X
33	*	Panicle: length of main axis	X
34	*	Panicle: curvature of main axis	X
35		Panicle: number per plant	X
36		Panicle: awns	X
38	*	Panicle: distribution of awns	X
37		Panicle: color of awns (early observation)	X
39		Panicle: color of awns (late observation)	
40	*	Spikelet: density of pubescence of lemma	X

41		Spikelet: color of tip of lemma	X
42		Panicle: length of longest awns	
43		Panicle: presence of secondary branching	X
44		Panicle: type of secondary branching	X
45	*	Panicle: attitude of branches	X
46		Panicle: exertion	X
47		Time of maturity	X
48		Leaf: senescence	X
48a		Lemma: color	X
49	*	Sterile lemma: length	X
50	*	Sterile lemma: color	X
51		Grain: weight of 1000 fully developed grains	
52		Grain: length	X
53		Grain: width	X
54		Grain: phenol reaction of lemma	
55		Varieties with phenol reaction of lemma present only: Grain: coloration with phenol	
56	*	Decorticated grain: length	
57		Decorticated grain: width	
58	*	Decorticated grain: shape (in lateral view)	
59		Decorticated grain: color	X
60		Endosperm: presence of amylose	X
61		Endosperm: content of amylose	
62		<u>Varieties with endosperm of amylose absent only</u> <u>Polished grain: expression of white core</u>	
63		<u>Varieties with endosperm of amylose absent only</u> <u>Polished grain: expression of white belly</u>	
64		Alkali digestion	
65		Decorticated grain: aroma	X#
* = characters required by UPOV in a variety description			
# = included in the IRRI Descriptor but IRRI has not been recording aroma since the late 70s			
Note: Character # 9, 11, 13 (presence of auricle, leaf collar, and ligule, respectively) and 23 (male sterility) were dropped in the list in the 2003 March meeting.			

Table 2. Characters included in the IRRI Descriptors for Rice

No.	Characters	Included in UPOV TGR
1	100-grain weight	
2	Apiculus color at postharvest	
3	Apiculus color at reproductive stage	X
4	Auricle color at vegetative stage *	X
5	Awn color	X
6	Awn presence at reproductive stage *	X
7	Basal leaf sheath color at vegetative stage	X
8	Blade color at vegetative stage	X
9	Blade pubescence	X
10	Collar color at vegetative stage	X
11	Culm angle at reproductive stage	X
12	Culm diameter basal internode at reproductive stage	X
13	Culm length at reproductive stage *	X
14	Culm number at reproductive stage	X
15	Culm strength at reproductive stage	
16	Endosperm type	X
17	Flag leaf angle at reproductive stage *	X
18	Grain Length	X
19	Grain width	X
20	Heading 50% *	X
21	Internode color at reproductive stage	X
22	Leaf angle at vegetative stage	
23	Leaf length	X
24	Leaf senescence	X
25	Leaf width	X
26	Lemma and palea color	X
27	Lemma and palea pubescence *	X
28	Ligule color at vegetative stage	X
29	Ligule shape	X
30	Maturity	X
31	Node color *	X
32	Panicle axis at reproductive stage *	X
33	Panicle exertion at reproductive stage	X
34	Panicle length at postharvest *	X
35	Panicle shattering	
36	Panicle threshability	
37	Panicle type *	X
38	Scent #	X
39	Secondary branching at reproductive stage	X
40	Seed coat color	X
41	Seedling height	
42	Spikelet fertility	
43	Sterile lemma color *	X
44	Sterile lemma length *	X
45	Stigma color *	X
46	Variety group	

= included in the IRRI Descriptor but IRRI has not been recording aroma since the late 70s

Table 3. Characters and their states of expression that are similar for both UPOV TGR and IRRI Descriptors

UPOV no.	Character/descriptor	Code	Character/descriptor	Code	Number of Accessions
	UPOV Test Guidelines			IRRI Descriptors	
2	Basal leaf: sheath color		Basal leaf sheath color at veg. (BLSCO)		
	Green	1	Green	060	66133
	Light purple	2	Light purple	081	1789
	Purple lines	3	Purple lines	084	6595
	Purple	4	Purple	080	3215
3	Leaf: intensity of green color		Blade color at veg (BLCO)		
	Light	3	Light green	061	3213
	Medium	5	Green	060	47483
	Dark	7	Dark green	063	21961
4	Leaf: anthocyanin coloration		Blade color at veg (BLCO)		
	Absent	1	Absent	061, 060, 063	72657
	Present	9	Present	086, 085, 089, 080	5089
5	Leaf: distribution of anthocyanin coloration		Blade color at veg (BLCO)		
	On tips only	1	Purple tips	086	356
	On margins only	2	Purple margins	085	3915
	In blotches only	3	Purple blotch	089	718
	Uniform	4	Purple	080	100
9	Leaf: auricles		Auricle color at veg (AUCO_REV_VEG)		
	Absent	1	Absent	000	51
	Present	9	Present	061, 062, 080	77689
11	Leaf: collar		Collar color at veg (CCO_REV_VEG)		
	Absent	1	Absent	000	5
	Present	9	Present	060, 061, 080	77735
13	Leaf: ligule		Ligule color at veg. (LIGCO_REV_VEG)		
	Absent	1	Absent	000	5
	Present	2	Present	011, 080, 084	77743
14	Leaf: shape of ligule		Ligule shape (LIGSH)		
	truncate	1	Truncate	3	43
	Acute	2	Acute	1	61
	Cleft	3	2-cleft	2	48847
17	Leaf: width of blade		Leaf width (LWD_CODE)		
	Narrow	3	Narrow (<1cm)	1	4855
	Medium	5	Intermediate (1-2cm)	2	67995
	Broad	7	Broad (>2cm)	3	2227
22	Time of heading (50% of plants with heads)		Days to 50% heading (HDG_50HEAD)		
(*)					

27	Spikelet: color of stigma		Stigma color (STCO_REV)		
(*)	White	1	White	010	60010
	Light green	2	Light green	061	65
	Yellow	3	Yellow	030	339
	Light purple	4	Light purple	081	1166
	Purple	5	Purple	080	15788
33	Panicle: length of main axis		Panicle length at postharvest (PLT_CODE_REPRO)		
(*)	very short	1	Very short (<11cm)	1	6
	Short	3	Short (11-20cm)	2	8895
	Medium	5	Medium (21-30cm)	3	60109
	Long	7	Long (31-40cm)	4	5625
	Very long	9	Extra long (>40cm)	5	13
35	Panicle: number per plant		Culm no. at repro. (CUNO_CODE_REPRO)		
	Few	3	Sparse (<10)	1	3490
	Medium	5	Medium (10-20)	2	59339
	Many	7	Prolific (>20)	3	12201
36	Panicle: awns		Awn presence at repro (AWPR_REPRO)		
	absent	1	Absent	000	62333
	present	9	(see # 38)	yes	15103
43	Panicle: presence of secondary branching		Sec. Branching at repro (SECOND_BR_REPRO)		
	Absent	1	Absent	0	265
	present	9	(see below)	1, 2, 3	48424
44	Panicle: type of secondary branching		Sec. Branching at repro (SECOND_BR_REPRO)		
	weak	1	Light	1	45988
	strong	2	Heavy	2	2208
	clustering	3	Clustering	3	228
47	Time of maturity		Maturity (MAT)		
50	Sterile lemma: color		Sterile lemma color (SLCO_REV)		
(*)	straw	1	Whitish	020	60769
	gold	2	Gold	040	1427
	red	3	Red	070	1164
	purple	4	Purple	080	5516
52	Grain: length		Grain length (GRLT)		
53	Grain: width		Grain width (GRWD)		
60	Endosperm: presence of amylose		Endosperm type (ENDO)		
	glutinous	1	Non-glutinous	1	71337
	intermediate	2	Indeterminate	3	4
	non-glutinous	3	Glutinous (waxy)	2	4704

Table 4. Characters that are similar in both UPOV TGR and IRRI DR, with the number of states of expression being more in the IRRI Descriptors, and number of accessions in the IRRI Genebank for each descriptor state

	UPOV Test Guidelines		IRRI Descriptors		
Char. no.	Character/descriptor	Code	Character/descriptor	Code	Number of Accessions
10	Leaf: anthocyanin coloration of auricles		Auricle color at veg (AU_CO_REV_VEG)		
	Absent	1	Whitish	011	1
		-	Light green	061	69274
		-	Yellowish green	062	2
	Present	9	Purple	080	8413
12	Leaf: anthocyanin coloration of collar		Collar color at veg (CO_CO_REV_VEG)		
	Absent	1	Green	060	30460
		-	Light green	061	39017
	Present	9	Purple	080	8258
16	Leaf: length of blade		Leaf length (LLT_CODE)		
	Short	3	Very short (<21cm)	1	111
		-	Short (21-40cm)	2	9271
	Medium	5	Intermediate (41-60cm)	3	39327
		-	Long (61-80cm)	4	25169
	Long	7	Extra long (>80cm)	5	1204
19	Flag leaf: attitude of blade (early and late observations)		Flag leaf (FLA_REPRO)		
	Erect	1	Erect	1	11777
	semi-erect	3	Intermediate	3	22517
		-		4	1
	horizontal	5	Horizontal	5	37325
	recurved	7	Descending	7	5654
21	Culm: attitude		Culm angle at repro. (CUAN_REPRO)		
	Erect	1	Erect	1	23797
		-	Erect	2	2293
	Semi-erect	3	Intermediate	3	39364
		-	Intermediate	4	1082
	Open	5	Open	5	7272
		-	Open	6	50
	Semi-open	7	Spreading	7	3455
		-	Spreading	8	9
	spreading	9	Procumbent	9	103
29	Stem: length (excluding panicle and floating rice)		Culm length at repro. (CULT_CODE_REPRO)		
	very short	1	<51cm	1	1058
	short	3	51-70cm	2	5208
	medium	5	71-90cm	3	9073
	long	7	91-110cm	4	14967
	very long	9	111-130cm	5	19922
			131-150cm	6	17288
			>150cm	7	7553
30	Stem: anthocyanin coloration of nodes		Node color (NOCO_REV)		
	absent	1	Light gold	041	102
		-	Green	060	16508
	present	9	(see 31)	080, 081	1118

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32	Stem: anthocyanin coloration of internodes		Internode color at repro (INCO_REV_REPRO)		
	absent	1	Light gold	041	20554
		-	Green	060	50604
	present	9	Purple	080	3166
		-	Purple lines	084	3086
41	Spikelet: color of tip of lemma		Apiculus color at repro (APCO_REV_REPRO)		
	White	1	White	010	18788
	Straw	2	Straw	020	31005
	Brown	3	Brown (tawny)	052	1818
		-	Green	060	1
	Red	4	Red	070	2812
		-	Red apex	071	392
	Purple	5	Purple	080	20623
		-	Purple apex	087	1839
	Black	6	Black		125
45	Panicle: attitude of branches		Panicle type (PTY)		
(*)	erect	1	Compact	1	11905
		-		2	489
	erect to semi-erect	2		3	3601
		-		4	1328
	semi-erect	3	Intermediate	5	44652
		-		6	1435
	semi-erect to spreading	4		7	3968
		-		8	376
	spreading	5	Open	9	9523
46	Panicle: exertion		Panicle exertion at repro (PEX_REPRO)		
	well exerted	1	Well exerted	1	45333
		-	Well exerted	2	176
	moderately-well exerted	3	Moderately well exerted	3	15652
		-	Moderately well exerted	4	390
	exserted	5	Just exerted	5	8389
		-	Just exerted	6	217
	partly exerted	7	Partly exerted	7	6152
		-	Partly exerted	8	8
	enclosed	9	Enclosed	9	1099
48	Leaf: senescence		Leaf senescence (LSEN)		
	late	7	Late and slow	1	37923
		-	Late and slow	2	403
		-	Late and slow	3	11993
	intermediate	5	Intermediate	4	135
		-	Intermediate	5	13978
		-	Intermediate	6	43
	early	3	Early and fast	7	5566
			Early and fast	8	12
			Early and fast	9	5975
49	Sterile lemma: length		Sterile lemma length (SLLT_CODE)		
(*)			Short (< or = 1.5mm)	1	8412
	short	3	Medium (1.6-2.5mm)	3	60941
	medium	5	Long (>2.5mm, < lemma)	5	6478
	long	7	Extra long (> or = lemma)	7	130
			Asymmetrical	9	26

65	Decorticated grain: aroma		Scent #		
	Absent	1	Non-scented	0	7108
	Present	9	Lightly scented	1	26
			Scented	2	12
# = included in the IRRI Descriptor but IRRI no longer collects this information					

Table 5. Characters that are similar in both UPOV TGR and IRRI DR, with the number of states of expression being more in the UPOV TGR, and number of accessions in the IRRI Genebank for each descriptor state

Char. no.	Character/descriptor	Code	Character/descriptor	Code	Number of Accessions
	UPOV Test Guidelines		IRRI Descriptors		
8	Leaf: pubescence of blade surface		Blade pubescence at veg. (BLPUB_VEG)		
	absent or very weak	1	Glabrous	1	2717
	Weak	3	-	-	-
	Medium	5	Intermediate	2	1833
	Strong	7	-	-	-
	Very strong	9	Pubescent	3	73,237
15	Leaf: color of ligule		Ligule color at veg. (LIGCO_REV_VEG)		
	Collorless	1	Whitish	011	72450
	Green	2	-	-	-
	light purple	3	-	-	-
	purple stripes	4	Purple lines	084	2848
	Purple	5	Purple	080	2445
28	Stem: thickness		Stigma color (STCO_REV)		
	thin	3	Thin (<5mm)	1	27208
	medium	5	-	-	-
	thick	7	Thick (>=5mm)	2	40096
31	Stem: intensity of anthocyanin coloration of nodes		Node color (NOCO_REV)		
	weak	3	Light purple	081	507
	medium	5	-	-	-
	strong	7	Purple	080	611
34	Panicle: curvature of main axis		Panicle axis at repro		
(*)			(PA_REPRO)		
	straight	1	Straight	1	596
	semi-straight	3	-	-	-
	drooping	5	Droopy	2	48072
	deflexed	7	-	-	-
59	Decorticated grain: color		Seed coat color		
			(SCCO_REV)		
	white	1	White	010	60263
	light brown	2	Light brown	051	420
	variegated brown	3	Speckled brown	055	337
	dark brown	4	Brown	050	264
	light red	5	-	-	-
	red	6	Red	070	14225
	variegated purple	7	Variable purple	088	23
	purple	8	Purple	080	501
	dark purple/black	9	-	-	-

Table 6. Characters that are similar in both UPOV TGR and IRRI Descriptors, with both having some unique states of expression, and number of accessions in the IRRI Genebank for each descriptor state

	UPOV Test Guidelines		IRRI Descriptors		
Char. no.	Character/descriptor	Code	Character/descriptor	Code	Number of Accessions
37, 39	Panicle: color of awns		Awn color		
	(early and late observations)		(AWCO_REV)		
	yellowish white	1	-	-	-
	yellowish brown	2	-	-	-
	-	-	Straw	020	9745
	-	-	Gold	040	674
	brown	3	Brown (tawny)	052	240
	reddish brown	4	-	-	-
	light red	5	-	-	-
	red	6	Red	070	917
	light purple	7	-	-	-
	purple	8	Purple	080	3441
	black	9	Black	100	31
48a	Lemma: color		Lemma and palea color at post harvest (LPCO_REV_POST)		
	-	-	White	010	29
	Straw	1	Straw	020	44190
	Straw with gold furrows	2	-	-	-
	Gold	3	-	-	-
	-	-	Gold and gold furrows	042	9138
	-	-	Brown spots	053	7221
	Brown furrows on straw	4	Brown furrows	054	9299
	Brown (tawny)	5	Brown (tawny)	052	1249
	Reddish to light purple	6	Reddish to light purple	082	586
	Purple spots on straw	7	Purple spots	090	1204
	Purple furrows on straw	8	Purple furrows	091	748
	Purple	9	Purple	080	995
	Black	10	Black	100	1414

Table 7. Characters examined in both UPOV TGR and IRRI Descriptors with very different descriptors states

Table 7. Characters examined in both UPOV TGR and IRRI Descriptors with very different descriptors states					
		UPOV Test Guidelines			IRRI Descriptors
	UPOV #	Character/descriptor	Code		Character/descriptor
	38	Panicle: distribution of awns			Awn presence at repro
	(*)				(AWPR_REPRO)
		tip only	1		Short & partly awned
		upper half only	3		Short & fully awned
		whole length	5		Long & partly awned
					Long & fully awned
	40	Spikelet: density of pubescence			Lemma & palea pubescence
	(*)	of lemma			(LPPUB)
		absent or very weak	1		Glabrous
		weak	3		Hairs on lemma keel
		medium	5		Hairs on upper portion
		strong	7		Short hairs
		very strong	9		Long hairs (velvety)

Table 8. Asteriked characters in relation to the UPOV TGR and IRRI DR

Table 8. Asteriked characters in relation to the UPOV TGR and IRRI DR		
UPOV #	Characters	Remarks
18	Flag leaf: attitude of blade (early observation)	Not included in IRRI DR
26	Lemma: anthocyanin coloration of apex (early)	Not included in IRRI DR
48d	Lemma: anthocyanin coloration of apex (late)	Not included in IRRI DR
56	Decorticated grain: length	Not included in IRRI DR
58	Decorticated grain: shape (in lateral view)	Not included in IRRI DR
38	Panicle: distribution of awns	UPOV and IRRI different
40	Spikelet: density of pubescence of lemma	UPOV and IRRI different
10	Leaf: anthocyanin coloration of auricles	UPOV and IRRI compatible
19	Flag leaf: attitude of blade (late observation)	UPOV and IRRI compatible
22	Time of heading (50% of plants with heads)	UPOV and IRRI compatible
27	Spikelet: color of stigma	UPOV and IRRI compatible
29	Stem: length (excluding panicle; excluding floating rice)	UPOV and IRRI compatible
30	Stem: anthocyanin coloration of nodes	UPOV and IRRI compatible
33	Panicle: length of main axis	UPOV and IRRI compatible
34	Panicle: curvature of main axis	UPOV and IRRI compatible
45	Panicle: attitude of branches	UPOV and IRRI compatible
49	Sterile lemma: length	UPOV and IRRI compatible
50	Sterile lemma: color	UPOV and IRRI compatible

[End of Annex and document]