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UPOV

TC/XVII/3 Add. 2

ORIGINAL: English

DATE: October 12, 1981

## INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

## TECHNICAL COMMITTEE

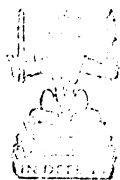
## Seventeenth Session

Geneva, October 14 to 16, 1981

SECOND ADDENDUM TO  
CHARACTERISTICS AND UPOV TEST GUIDELINESDocument prepared by the Office of the Union

1. After the compilation of document TC/XVII/3 and its first Addendum the Office of UPOV received, in a letter dated September 30, 1981, further information from the United Kingdom on Characteristics and UPOV Test Guidelines.
2. The above-mentioned information is reproduced in the Annex to this document.

[Annex follows]



ANNEX  
DEPARTMENT OF AGRICULTURE AND FISHERIES  
FOR SCOTLAND

AGRICULTURAL SCIENTIFIC SERVICES  
East Craigs, Craigs Road, EDINBURGH, EH12 8NJ

Telephone 031-337 2355 ext 290

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Your ref.

Our ref. B 126/5

Dr Thiele-Wittig  
UPOV Secretariat  
34 Chemin des Colombettes  
CH - 1211  
Geneva 20  
Switzerland

30 September 1981

Dear Dr Thiele-Wittig

UPOV TECHNICAL COMMITTEE  
CHARACTERISTICS USED IN UK WHICH ARE NOT INCLUDED IN UPOV TEST GUIDELINES

I must apologise for the belated arrival of the enclosed <sup>1424-081</sup> papers which supplement the information submitted to Dr Mast by Mr Kelly on 18 August. Unfortunately information concerning some crops is still awaited but I hope to receive this within the next few days and hope that it will still be of use for the meeting due to start on 14 October.

In the sheets concerning cereals the annotations denote characteristics included in the relevant EEC Directive ('E') or UPOV Technical Guideline ('U').

Yours sincerely

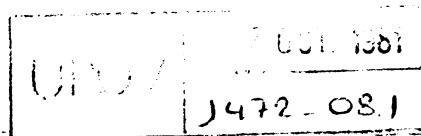
*Norma Lunn*

pp R D SEATON

Copied to Mr Kelly

UNITED KINGDOM

RAPE AND OIL-SEED RAPE 00



Characteristics used which are not included in  
UPOV Test Guidelines.

1. Hairiness of first true leaf
2. Pod length
3. Pedicel length
4. Number of seeds per pod
5. Pod habit.
6. Canopy height
7. Stem height.

(120)

UNITED KINGDOM

007 1551
1472-08.1

VARIETY	
YEAR	
CENTRE	

POTATO VARIETY DESCRIPTION SCHEDULE (Amended to include UPOV requirements)  
Notes and Instructions

1. Use a different colour of ink for each field record and enter the date of the record in the square at the top of the first sheet. Dates of records on tubers and sprouts should be inserted at the beginning of the appropriate section. Unless otherwise specified, record botanical features by placing a tick within the appropriate brackets (✓).
2. Observations at an early growth stage may be necessary, for instance to note any marked "sulphur top" in the young plant. The main records on foliage should be made about 1 week after the first flowers are fully opened generally throughout the plot, or after the first clusters of buds are clearly visible and beginning to fall, in the case of non flowering varieties. A few plants should be lifted at the same time to determine root colour. The term "pigment" is taken to exclude greenness.
3. Characters in CAPITAL LETTERS should be recorded for all varieties. Intermediate categories such as "Similar to" should be used in all cases where any doubts exist about the correct entry being another category.

For example, in character 3, category 2 should be ticked only if the nodes are clearly paler than the internodes. If there is only a slight difference, or if the situation is varied, category 1 should be ticked. It follows that if the pigment on the internodes is only slight, category 2 cannot be the correct entry.

Similarly in character 31, category 1 or 3 should be chosen only if the pedicel is clearly and consistently deeper or paler than the peduncle branch. Again, if the pedicel is unpigmented and the peduncle branch only slightly pigmented, the correct entry must be category 2.

Where an entry requires a qualification in words the qualification should be entered under "Similar to". It should not be necessary to qualify obvious, marked characters.

4. Where two or more categories occur together, approximate percentages should be entered to indicate the occurrence.
5. Characters in small letters (numbers in brackets) should not be recorded unless the character is expressed in an extreme or unusual form. If there is any doubt at all about this, it should not be recorded. Less extreme expressions of these characters and of any others worth a comment may be entered under "other characters" but nevertheless it should be remembered that unless these are fairly marked they will

serve no useful descriptive purpose.

6. Records on stems should be made on primary stems. Where secondary stems differ markedly this should be noted. Almost all plants at some stage have waved wings at the top or bottom of the stem. The record made for character 6 should exclude the extreme top and bottom unless these are distinct enough to be "spot" features. Leaves selected for detailed description and measurement should be fully formed and expanded and are those normally inserted about half way up the stem. Terminals are overlapped if the first pair of laterals are even partially superimposed.

7. A leaflet index should be derived from measurements made as in Salaman's method (Potato Varieties C.U.P. 1926 p. 164) on 20 leaflets, but calculated as the mean of the 20 individual leaflet indices, each of which is obtained as follows:-

$$\frac{\text{Length of leaflet} \times 100}{\text{Breadth of leaflet}}$$

A data sheet for recording measurements is included on p.10 of the schedule.

8. The peduncle includes all parts of the inflorescence stalk, including branches, up to the abscission rings. The records on buds should relate to the general appearance. Differences in detail, such as basal pigment beginning slightly higher than the base, or the occurrence of green "islands" within the pigmented area should be noted and sketched. A record should be made of the number of non-flowering inflorescences, particularly in non-flowering varieties, where this is an important feature.

9. In character 42 anther columns are normal when they are (a) regular and tube-like, (b) oblique.

When they are "open" the column is cage-like with the anthers touching top and bottom, but separated in the middle. Malformed anthers are usually badly twisted, not completely developed, and often greenish. Petaloid structures should be separately recorded.

10. At least one or two later observations should be made to confirm flower descriptions and to note fruit development. At the same time a few plants should again be lifted to verify root and stolon colour and to note tuber colour, if any, and its position in cork or cortex.

11. Flesh colour should be determined by cutting at least 10 freshly lifted, ungreened ware tubers, and this should be repeated a fortnight later on tubers which have been stored in cool, dark conditions.

12. Tuber shape indices should be derived from measurements of length, breadth and thickness made on twenty tubers of typical shape, harvested at maturity. An index should be calculated as the mean of the 20 individual indices, each of which is obtained as follows:-

$$\text{Shape index (plan)} = \frac{\text{length of tuber} \times 100}{\text{breadth of tuber}}$$

$$\begin{array}{l} \text{Thickness index} \\ \text{(end elevation)} \end{array} = \frac{\text{breadth of tuber} \times 100}{\text{thickness of tuber}}$$

A data sheet for recording measurements is included on p.10 of the schedule.

13. Sprout characters should be noted on at least ten tubers sprouted in darkness or near darkness in a humid incubator at 60-70°F when the sprouts have reached 1-2 cms. This should be done on material received for initial planting but should be repeated on material harvested from the plot.

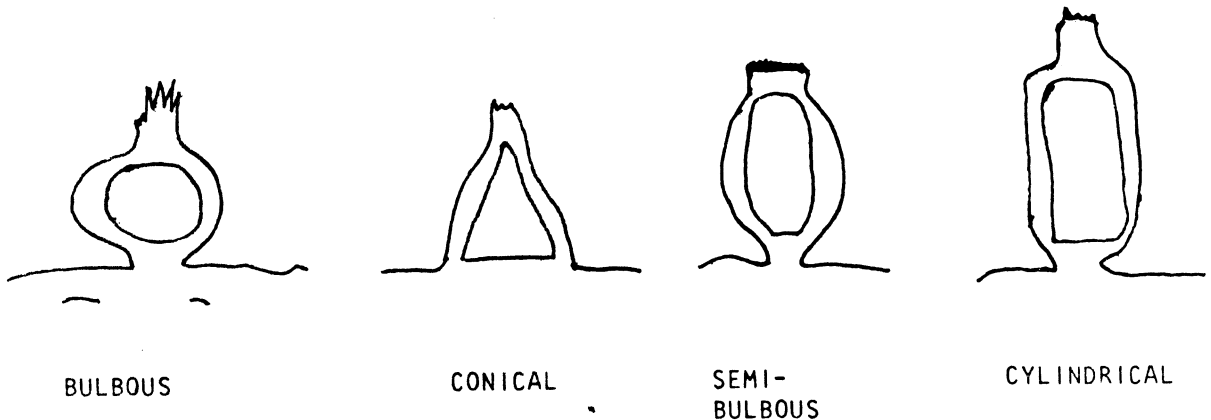
The base of the sprout is that part bearing scale leaves, and eventually root initials and stolons.

The tip bears the apical cluster of foliage leaves.

The mid-part lies between the above two.

14. It is important, to enable differences between centres to be checked, that summaries of each record made on a particular date be forwarded without delay to the other co-operating centres.

#### 15. SHAPE OF SPROUT



POTATO VARIETY DESCRIPTION SCHEDULE

VARIETY	YEAR	CENTRE	DATES OF FIELD RECORDS					

## A. FOLIAGE MATURITY

1. SIMILAR to (planted on same date)	1. ARRAN PILOT ( )	2. CRAIGS ROYAL ( )
	3. MAJESTIC ( )	4. KERR'S PINK ( )

## B. STEMS etc

2. PIGMENT on internodes above soil level (comment if localised)	1. PRESENT ( )	2. ABSENT ( )	
3. PIGMENT on nodes above soil level	1. SIMILAR TO ( ) INTERNODES	2. PALER THAN ( ) INTERNODES	
4. PIGMENT on wings on mid part of stem	1. SIMILAR TO ( ) INTERNODES	2. PALER THAN ( ) INTERNODES	
5. PIGMENT on wings at top of stem	1. SIMILAR TO ( ) INTERNODES	2. PALER THAN ( ) INTERNODES	3. EDGE ( ) ONLY
6. WAVED WINGS	1. PRESENT ( )	2. ABSENT ( )	
(7.) Branching above soil level, excluding axillary growth (Record % plants)	1. Present ( )	2. Absent ( )	
(8.) Axillary growth (1" to 3" long)	1. Profuse ( )	2. Sparse ( )	
(8A.) Other characters			



VARIETY	
YEAR	
CENTRE	

C. LEAVES

9. PIGMENT on rachis	1. WHOLLY ( )	2. LOCAL ( )
	3. LINED ( )	4. INDISTINCT OR ABSENT ( )
10. PIGMENT on petiole	1. PRESENT ( )	2. INDISTINCT OR ABSENT ( )
11. PIGMENT on rachis and petioles of leaves at apical rosette	1. PRESENT ( )	2. ABSENT ( )
(12.) Openness	1. Distinctly open ( ) (sim. to Arran Consul)	2. Distinctly close ( ) (sim. to Record)
(12A.) Other characters		

D. PRIMARY LEAFLETS

13. PIGMENT on Petiolules	1. PRESENT ( )	2. INDISTINCT OR ABSENT ( )
14. PIGMENT on mid veins	1. PRESENT ( )	2. INDISTINCT OR ABSENT ( )
15. PIGMENT on lateral veins	1. PRESENT ( )	2. INDISTINCT OR ABSENT ( )
16. BASE OF TERMINAL	1. CORDATE ( )	2. NON-CORDATE ( )
17. LOBES of subterminal leaflets	1. EVEN ( )	2. UNEVEN ( )
18. WAVED MARGINS (describe if slight)	1. PRESENT ( )	2. ABSENT ( )
19. PIGMENT on laminae of young leaflets at apical rosette (at any time)	1. PRESENT ( )	2. ABSENT ( )
20. MEAN LATERAL LEAFLET INDEX	( )	
21. MEAN TERMINAL LEAFLET INDEX	( )	
(22.) Appearance (If Matt describe the cause)	1. Glossy ( ) (sim. to Ulster Premier)	2. Matt ( ) (sim. to Pentland Crown)
(23.) Overlapping of terminal (lower leaves)	1. Overlapped ( )	2. Free ( )
(23A.) Other characters		

VARIETY	
YEAR	
CENTRE	

## E. SECONDARY LEAFLETS

24. INSERTION on petiolules of laterals	1. YES ( ) 2. NO ( )
25. INSERTION on petiolules of terminal (No. in words)	1. YES ( ) 2. NO ( )
26. SHAPE (Include tracing of 2-3 typical leaflets)	1. ROUND ( ) 2. INTERMEDIATE ( ) 3. ACUMINATE ( )
(27.) Size and frequency	1. Many, large ( ) 2. Many, small ( ) 3. Few, large ( ) 4. Few, small ( )
(27A.) Other characters, including special arrangements	

## F. INFLORESCENCES

28. HAIRS on peduncle (with naked eye)	1. PRESENT ( ) 2. ABSENT ( )
29. PIGMENT on peduncle	1. PRESENT ( ) 2. ABSENT ( )
30. PIGMENT on abscission ring at flowering	1. DEEPER than ( ) adjacent peduncle branch 2. SIMILAR to ( ) adjacent peduncle branch
31. PIGMENT on pedicel at flowering	1. DEEPER than ( ) peduncle branch 2. SIMILAR to ( ) peduncle branch 3. PALER than ( ) peduncle branch
32. PIGMENT on base of buds just before opening	1. DEEPER than ( ) pedicel 2. SIMILAR to ( ) pedicel 3. PALER than ( ) pedicel

		VARIETY	
		YEAR	
		CENTRE	
33.	PIGMENT on calyx lobes of buds just before opening	1. DEEPER than ( ) base of buds	2. SIMILAR to ( ) base of buds
		3. PALER than ( ) base of buds	
34.	PROTRUSION of STIGMAS before bud opening	1. PRESENT ( )	2. ABSENT ( )
(35.)	Length of sepals of unopened bud	1. Long ( ) Description:	2. Short ( )
(35A.)	Other characters		

G. FLOWERS

36.	COLOUR of front of petals (If coloured give R.H.S. Colour Chart ref.)	1. COLOURED ( ) *Red-violet/blue violet. R.H.S. ref. ( )	2. WHITE ( )
37.	COLOUR of back of petals when front is white	1. PRESENT ( ) *Red-violet/blue violet. Frequency:	2. ABSENT ( )
38.	COLOUR distribution in coloured flowers	1. COMPLETE ( )	2. WHITE TIPPED ( )
39.	NUMBER of flowering parts	1. FIVE ( )	2. MORE THAN FIVE ( )
40.	COROLLA (describe abnormality)	1. NORMAL ( )	2. ABNORMAL ( )
41.	COLOUR of anthers	1. PALE LEMON ( ) (inc. greenish) 3. ORANGE ( )	2. YELLOW ( )
42.	ANTHER column	1. NORMAL ( ) 3. MALFORMED ( )	2. OPEN ( )
43.	STYLE	1. STRAIGHT ( ) 3. KINKED ( )	2. CURVED ( )
44.	PIGMENT in ovary interior	1. PRESENT ( )	2. ABSENT ( )

\*Delete whichever colour does not apply.

VARIETY	
YEAR	
CENTRE	

45. FREQUENCY

% PLANTS IN FLOWER ( ) ( ) ( ) ( ) ( )  
 FLOWERING INFLORES. PER PLANT ( ) ( ) ( ) ( ) ( )  
 FLOWERS PER INFLORESCENCE ( ) ( ) ( ) ( ) ( )

(45A.) Other characters

## H. FRUITS

46. PIGMENT in placenta

1. PRESENT ( ) 2. ABSENT ( )

47. PIGMENT on exterior  
when mature

1. PRESENT ( ) 2. ABSENT ( )

(48.) Number

1. Numerous ( ) 2. Very few ( )  
 3. Absent ( )

(48A.) Other characters

## I. ROOTS

49. PIGMENT

1. PRESENT ( ) 2. ABSENT ( )

(49A.) Other characters

T

## J. STOLONS

50. PIGMENT

1. PRESENT ( ) 2. ABSENT ( )

(50A.) Other characters

VARIETY	
YEAR	
CENTRE	

K. TUBERS Date of main records \_\_\_\_\_

51. PIGMENT OF SKIN	1. PINK ( ) 2. BLUE ( ) 3. RUSSET ( ) 4. ABSENT ( )
52. DISTRIBUTION of pigment	1. WHOLE ( ) 2. PARTI-COLOURED ( )
53. LOCATION of pigment	1. CORK ( ) 2. CORTEX ( )
54. MEAN SHAPE INDEX	( )
54(a) CONTOUR OF LONG TUBERS	1. KIDNEY ( ) 2. PEAR SHAPED ( ) 3. IRREGULAR ( )
55. MEAN THICKNESS INDEX	( )
56. COLOUR OF FLESH	1. YELLOW ( ) 2. CREAM ( ) 3. WHITE ( ) (approx to Record or deeper) (approx to Majestic or paler)
57. FAINT PIGMENT ON TUBER AT LIFTING (BLUSH)	1. PRESENT ( ) 2. ABSENT ( )
58. PIGMENT IN FLESH OF UNGREENED TUBERS	1. PRESENT ( ) 2. ABSENT ( )
59. DEPTH OF ROSE AND FYES	1. DEEP ( ) 2. SHALLOW ( )
59(a) Other characters	

VARIETY	
YEAR	
CENTRE	

L. SPROUTS Date of main records \_\_\_\_\_

60. PIGMENT on base	1. PINK ( ) 2. BLUE ( ) 3. ABSENT ( )
61. PIGMENT on mid-part	1. PINK ( ) 2. BLUE ( ) 3. ABSENT ( )
62. PIGMENT on tip	1. PINK ( ) 2. BLUE ( ) 3. ABSENT ( )
63. HAIRS on base	1. ABSENT OR VERY WEAK ( ) 2. VERY STRONG OR FURRY ( ) 3. NEITHER ( )
64. HAIRS on mid-part	1. ABSENT OR VERY WEAK ( ) 2. VERY STRONG OR FURRY ( ) 3. NEITHER ( )
65. HAIRS on tip	1. ABSENT OR VERY WEAK ( ) 2. VERY STRONG OR FURRY ( ) 3. NEITHER ( )
66. TIP	1. STRAIGHT ( ) 2. BENT ( )
67. LENTICELS (also describe in words if necessary)	1. PIGMENTED ( ) 2. WHITE RINGED PIGMENT ( ) 3. WHITE ( )
67(a) Other characters	
68. SHAPE OF SPROUT	1. BULBOUS ( ) 2. CONICAL OR SEMI BULBOUS ( ) 3. CYLINDRICAL ( )

### Measurements in millimetres of leaflets and tubers

Sample No.	Laternal Leaflet			Terminal Leaflet			Tuber Shape			Tuber Thickness		
	L	B	Index	L	B	Index	L	B	Index	B	T	Index
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
TOTAL												
MEAN												

UNITED KINGDOM.

## APPENDIX 1 WHEAT

<u>Colcoptile</u>	colour	E	U	<u>Lower glume</u>	taper	
<u>Plant</u>	habit	E	U		length	
	tillering				width	
<u>Leaf sheath</u>	pigment				depth	
	hairiness	E	U		folds	
<u>Leaves</u>	attitude			Keel	contour	
	colour				prominence	
	length				inflection	
	width				spicules	
	auricle hairs				basal spines	
<u>Ear</u>	emergence	E	U	Beak	length	E U
<u>Flag leaf</u>	auricle pigment		U		shape	E U
	attitude	E	U		tip	
	length				inclination to	
	width				narrow wing	
	glaucosity	E			spicules	
<u>Anthers</u>	colour	E	U	Shoulder	width	E U
<u>Glaucosity</u>	leaf sheath	E	U		type	E U
	leaf blade		U		second point	E
	culm	E	U	External	pubescence of	
	ear	E	U	hair	broad wing	E
<u>Supernumerary</u>	spikelets				pubescence of	
<u>Upper node</u>	hairiness				narrow wing	E
<u>Straw</u>	ripening colour	E			spines lateral	
	length	E	U		nerve of narrow	
	wall thickness	E	U	External	wing	
	diameter			surface	roughness	
<u>Ear at maturity</u>	attitude			Internal	hair	E U
	chaff colour	E	U	surface	imprint	U
	awns at apex		U	Glume	phenol reaction	
	degree of				taper	
	awning	E	U	<u>Upper glume</u>	beak shape	
	shape	E	U		lateral nerve	
	length				spines	
	width				keel spicules	
	density	E	U	<u>Lemma</u>		
<u>Spikelets mid 1/3 form</u>				<u>1st floret</u>	length	
	divergence				neck length	
					neck contour	



## APPENDIX 1 (Contd)

<u>Lower lemma beak</u>	shape	U	
	length		
	inclination to narrow wing swelling		
<u>Palea</u>	external hairs		
<u>Apical spikelet</u>			
<u>lower glume</u>	shape		
	apex shape		
	beak frequency		
	beak length		
	lateral beaks-gap		
<u>Apical spikelet</u>			
<u>upper glume</u>	frequency		
	apex shape		
	median beak frequency		
	median beak length		
	lateral beaks-gap		
<u>Rachis basal</u>			
<u>segment</u>	margin hairs - amount		
	hairs length		
<u>Mid 1/3 segment</u>	margin hairs - amount		
	hairs length		
<u>Apical segment</u>	convex hairs	U	
	grooves		
<u>Grain</u>	colour	E	U
	texture		
	length		
	width		
	shape	E	U
	apex taper		
	pit		
	germ size		
	germ shape		
	brush hair length	E	U
	flange		
	phenol reaction	E	U
<u>Seasonal type</u>		E	U

## APPENDIX II BARLEY

<u>Plant</u>	habit	E	U	<u>Ear</u>	length	
	tillering				awn length of ear	U
<u>Leaf</u>	spiral				awn spread	
<u>Leaf sheath</u>	hairs	E	U		awn retention	
	pigment			<u>Straw length</u>		
<u>Leaf</u>	length			<u>Neck</u>	length	E U
	width				flexuosity	
	attitude				kink	
	colour			<u>Ear</u>	attitude at maturity	
	lower auricle pigment				level	
<u>Ear</u>	emergence	E	U	<u>Collar</u>	type	U
<u>Flag leaf</u>	attitude at ear emergence		U		rim	
	length			<u>Ear</u>	slope	
	width				type (No. of rows)	E U
	auricle pigment		U		density	E U
	auricle gap			<u>Sterile spkt</u>	shape	U
<u>Upper node</u>	pigment				hairiness	
<u>Glaucosity</u>	ear	E	U		palea length	
	flag sheath	E	U		rachilla length	
	culm			<u>1st rachis segment</u>	rachilla colour	E U
<u>Ear</u>	colour				length	E U
	attitude 21 days after ear emergence	E	U		width	
	lemma nerve pigment				curvature	U
	awn pigment		U		profile	
<u>Sterile spikelet</u>	attitude		U		basal constriction	
	shape	E		<u>Rachis segments in mid 1/3</u>	margin hairs	
	tip shape		U		profile hump	U
	length (size)		U		alignment	U
	length of awn of lemma				stale pigment	
<u>Median spikelet</u>	glume awn length		U		margin hairs	
	glume length	E			convex face hairs	
	glume insertion				concave face hairs	
<u>External lemma hairs</u>	basal ventral			<u>Grain</u>	interglumal hairs	
	basal dorsal				length lateral of median	
	basal lateral				shape	
	basal marginal				length	
	callus				germ contour	

APPENDIX II (Contd)

Grain

Lemma	base type	
	bevel-curvature	
Aleurone	colour	U
	posture	
Palea	length	
	apex shape	

Rachilla of  
median spikelet

hair type	E	U
length		
abnormalities		

Lemma awn

type		
spicules on margins (roughness)	E	U
median nerve spicules		
spicules at base		

Lemma nerves

median - spicules		
inner lateral - spicules	E	U
outer lateral - spicules		
retained anthocyanin	E	U
prominence over germ		

Ventral furrow

hairs - presence	E	U
spines on margins		
width		
pit		

Lemma

internal hair		
wrinkling		
thickness		
roughness		
overlap		
adhesion		

Kernel

type (naked/husked)	E	U
---------------------	---	---

Lodicules

type		U
position		

Grain

phenol reaction		
DDT reaction	E	U

Flowering

open v closed		
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Seasonal type

	E	U
--	---	---

## APPENDIX III OATS

<u>Coleoptile</u>	colour		<u>Awns</u>	frequency	E	U
<u>Plant</u>	habit	E U		abundance		
	tillering			type		U
<u>Leaves</u>	colour		<u>Straw</u>	culm glaucosity		
	length			length	E	U
	width		<u>Primary grain</u>	kernel type (naked/husked)	E	U
<u>Leaf margins</u>	hairiness	E U		colour	E	U
<u>Leaf sheaths</u>	hairiness	U		length		U
<u>Leaf</u>	attitude			width		
	spiral			depth		
	spiral direction			shape		
<u>Flag leaf</u>	length			callus width		
	width		<u>Apex</u>	length		
	attitude at ear emergence	U		tip		
<u>Ear</u>	emergence	E U	<u>Lemma</u>	inrolling margins		
<u>Uppermost node</u>	hairs	E U	<u>Grain</u>	kernel content		
<u>Panicle + 3 wks</u>	type (shape)	E U	<u>Basal hairs</u>	frequency		
	branch attitude	U		length		U
	spikelet attitude	U		abundance	E	U
	colour		<u>Basal</u>	fracture		
	size		<u>Lemma</u>	base (bevel neck)		
<u>Rachis</u>	No of nodes			rugosity		
	false nodes			dorsal hairs		U
	flexuosity			inter veinal spicules		
1st internode	length relative to 2nd			colour		
<u>Branches</u>	abundance		<u>Palea</u>	contour		
1st node	swelling of main branch at base			length cf lemma		
	swelling hairs			overlap degree		
<u>Glumes</u>	length	U		prominence in distal 1/3		
	shape			length		U
	glaucosity	E U	<u>Rachilla</u>	width		U
	fluorescence			shape		
<u>Spikelets</u>	grouping			frequency		
	3-grained frequency	U	<u>hairs</u>	abundance		U
<u>Lemma</u>	glaucosity			length		
			<u>Secondary grain</u>	size cf primary		
				shape		
				adpression to primary		

## APPENDIX III (Contd)

Secondary grain

Lemma . base (neck and bevel)

basal hairs

Primary kernel

dorsal shape

ventral furrow

tip groove

Scutellum

length

shape

Seasonal type

U

Characteristics assessed in DUS testing

CROP		
CARROT		
VARIETY		
RECORDED	TEST CAT.	PLOT CAT.

CHAR	CHARACTER
	FOLIAGE
24	PETIOLE ANTHOCYANIN
	ROOT
38	TIP SHAPE
39	ROOT COLOUR
40	SHOULDER COLOUR
41	SHOULDER ANTHOCYANIN
42	PINNATESS
46	BOLTERS

PLANT HEIGHT
soil to top (cm)
PLANT WIDTH (cm)
CORE COLOUR

LEAF NUMBER
LEAF LENGTH (mm)
LEAF LENGTH crown to tip (mm)
LEAF BREADTH at widest point (mm)
PINNAE
NECK BREADTH (mm)
No. SPLIT ROOTS
ROOT WEIGHT (gm)
ROOT LENGTH (mm)
ROOT LENGTH (mm) widest point to crown
ROOT BREADTH (mm) widest point
CORE DIAMETER at widest point
ROOT BREADTH 2 cms from tip (mm)

Characteristics assessed in DUS testing

CROP	
CURLY KALE	
RECORDED	TEST CAT.
CHAR	CHARACTER
01	LEAF COLOUR
02	LEAF CURLINESS
03	LEAF PIGMENTATION
04	LEAF LAMINA

PLANT HEIGHT (cm) soil to highest point.
PLANT WIDTH (cm)
LEAF NUMBER
STEM LENGTH (cm) soil to apex
LEAF LENGTH (cm)
LEAF WIDTH (cm)
PETIOLE LENGTH (cm)
LEAF: WIDEST POINT TO APEX (cm)
LEAF THICKNESS (mm) maximum
LEAF: DISTANCE FROM MARGIN TO MARGIN (mm) minimum
LEAF LOBE NUMBER

CROP
LEEK

PLANT HEIGHT (cm) soil to top
PLANT HEIGHT (cm) soil to ligule
PLANT WIDTH (cm)
ANGLE
COLUMN LENGTH (cm) base to ligule
V NUMBER (NV)
LEAF NUMBER
LENGTH (mm) V1 to Vn (LV)
LEAF LENGTH (cm)
LEAF WIDTH (mm)
LEAF WIDTH (mm) Flattened
LEAF COLOUR

CHARACTER
LEAF COLOUR
LEAF PIGMENT
KEEL

COLUMN DIAM (mm) maximum (D max)
COLUMN DIAM (mm) minimum (D min)
BASE DIAM (mm) maximum
BASE DIAM (mm) minimum
COLUMN LENGTH (cm) base to green
DEAD LEAF SHEATHES
% LF NECROTIC
RATIO Dmax:Nv

UNITED KINGDOM

Characteristics assessed in DUS testing

CROP	
TURNIP	
VARIETY	
RECORDER	
DATE	
CHAR	CHARACTER
	FOLIAGE
51	LEAF COLOUR
52	LEAF DENTATION
53	LEAF HABIT
50	UPPER LEAF: SURFACE HAIRS
	ROOT
54	ROOT: SHAPE
59	FLESH COLOUR
55	ROOT: OFF TYPES
	SEED
01	% LAB GERMINATION
02	PLEIDY
56	LEAF: % PLANTS LOBED LEAVES
57	ROOT: SKIN COLOUR

LEAF LENGTH (mm)
LENGTH TERMINAL LOBE (mm)
WIDTH TERMINAL LOBE (mm)
MAXIMUM LEAF WIDTH (mm)
LENGTH BASE TO WIDEST POINT (mm)
NO. SCALES BETWEEN LOBES
NO. SCALES AT LEAF BASE
TOTAL NO. LOBES
ROOT LENGTH (mm)
ROOT DIAMETER (mm)
ROOT DIAMETER 1/3RD FROM TOP (mm)
ROOT DIAMETER 1/3RD FROM BASE (mm)
ROOT: DEPTH



CROP	
PEA/FIELD PEA	
VARIETY	
RECORDED	TEST CAT. PLOT CAT
CHAR	CHARACTER
01	HEIGHT OF PLOT
10	NO DAYS TO F1
12	NO DAYS TO F3
14	NO DAYS to H2
21	LENGTH UPPER CALYX LOBES
22	MAX BREADTH UPPER CALYX LOBES
25	STANDARD SIZE
26	STANDARD BASE SHAPE
30	MICRO
31	STANDARD COLOUR
32	SHAPE AND SET OF WINGS
35	FLOWER PIGMENT
37	STIPULES
41	STIPULE SIZE AT 2FN
42	STIPULE MARBLING AT 2 FN
44	LEAF MARBLING AT 2 FN
46	LEAF COLOUR
47	FOLIAGE DENSITY
50	LENGTH LARGEST LEAFLET AT 2 FN
51	BREADTH LARGEST LEAFLET AT 2 FN
52	TIP SHAPE LARGEST LEAFLET AT 2FN
53	DENTATION LARGEST LEAFLET AT 2FN
54	LEAFLET SHAPE AT 2 FN
54	TENDRILS
92	LEAFLETS
61	POD CURVATURE
62	POD TIP SHAPE
66	POD: CROSS SECTION (SUGAR ONLY)
67	POD: GREEN COLOUR
90	POD: PARCHMENT
68	SEED COLOUR AT H2
83	SEED SURFACE
84	TESTA PIGMENT (FIELD PEA ONLY)
85	COTYLEDON COLOUR
86	STARCH GRAINS
95	WILT RES. (Race 1)

UNITED KINGDOM

Characteristics assessed in DUS testing

NUMBER OF FLOWERS AT 2 FN
STEM LENGTH (cms)
NUMBER OF FIRST FERTILE NODE
NUMBER OF PODS AT SECOND FERTILE NODE
NUMBER OF BRACTS AT SECOND FERTILE NODE
NUMBER OF PODS AT THIRD FERTILE NODE
MAXIMUM LEAFLET NUMBER
POD LENGTH (mm)
POD BREADTH (mm)
NUMBER OF SEEDS AND OVULES
100 SEED WEIGHT (g)
GREEN SEED SIZE
DRY SEED SIZE

[End of Annex and of document]