

Characterising Institute code GBRHRIGRU - GBR006
 Country of characterisation United Kingdom
 Farm or Institute address Horticulture Research International, Wellesbourne, Warwick, CV35 9EF, UK
 Latitude 52.12.25N
 Longitude 001.35.56W
 Elevation 49
 Evaluators name Angela Pinnegar
 Evaluation environment Field & Lab

Institute code	Accession number	Species	Subtaxa	Accession name	Sowing date	Harvest date	Anthocyanin in petiole	Leaf dissection	Foliage width crown	Root length
HRIGRU	13:010190	carota L.			20000527	20001127	3		5	5
HRIGRU	13:010263	carota L.			20000527	20001127	6		5	7
HRIGRU	13:010275	carota L.		Havy	20000527	20001127	7		5	6
HRIGRU	13:010276	carota L.		Havij	20000527	20001127	3		5	4
HRIGRU	13:010348	carota L.			20000527	20001127	7		4	4
HRIGRU	13:010365	carota L.			20000527	20001127	3		6	5
HRIGRU	13:010377	carota L.		Biala Zielonoglowa Pzhr	20000527	20001127	2		6	6
HRIGRU	13:010378	carota L.		Biala Zielonoglowa Swhn	20000527	20001127	2		5	8
HRIGRU	13:010382	carota L.		Gajar	20000527	20001127	5		5	7
HRIGRU	13:013372	carota L.			20000527	20001127	2 + 6		4	7
HRIGRU	13:013380	carota L.			20000527	20001127	2 + 6		5	7
HRIGRU	13:013382	carota L.			20000527	20001127	3		4	5
HRIGRU	13:012870	carota L.		Red carrot II	20010605	20011106				6
HRIGRU	13:010299	carota L.			20010605	20011106	8		5	9
HRIGRU	13:010192	carota L.			20010605	20011106	3		5	9
HRIGRU	13:010522	carota L.			20000527	20010103	1		5	7
HRIGRU	13:013203	carota L.		Nantskaya	20010605	20011106	5		4	5
HRIGRU	13:013401	carota L.		Mestnaya	20000527	20010103	1		5	6
HRIGRU	13:010188	carota L.			20010605	20011106			5	7
HRIGRU	13:010347	carota L.			20010605	20011106	2		4	7
HRIGRU	13:010191	carota L.			20010605	20011106	8		5	7
HRIGRU	13:013204	carota L.		Mirzamushuk	20010605	20011106	2		4	5
HRIGRU	13:013205	carota L.			20010605	20011106	3		6	7
HRIGRU	13:010181	carota L.			20000527	20001127	5		5	5
HRIGRU	13:010264	carota L.		Garga Serk Red Carrot	20000527	20001127			4	6
HRIGRU	13:010273	carota L.			20010605	20011106	2		5	7
HRIGRU	13:013399	carota L.		Mestnaya	20010605	20011106	2		5	5
HRIGRU	13:006760	carota L.			20010605	20011106	7		4	9
HRIGRU	13:012601	carota L.			20010605	20011106	2		7	9
HRIGRU	13:004009	carota L.		Annual Red Rawalpindi	20010605	20011106	2		4	7

Root diameter	Relative core diameter	Root shape longitudinal	Root shoulder shape	Root skin colour	Root Skin RHS code	Root skin intensity	Root cortex colour	Root cortex RHS code	Root cortex intensity	Root core colour
5	4	5	1 + 2	1+2+3+5			1+2+3+5			1+2+3+5
5	4	5	1+2	2+3+(2+5)			2 (3 & 4)			2
5	4	5	2+3	2+(2+5)+5			2			2
5+7	5	3+5	1	2+5			2+5			2
3	5	5	2	1			1			1
2	5			1	8D		1			1
5+7	5	3+5	2	1			1			1
8	8	3+5	1+2	1			1			1
7	4	3	1	2+3+(3+5)			2+3+(3+5)			2
9	6	3	1	2+3			2+3			1+2+3
6	6	3	1	1+2+3			1+3			1+2
5	5	3+5	2	2+3			2+3			2+3
3	5	5		1+5	71B WHITE	5				
5	4	3	2	2+5+(2+5)	74A 10C	3	2	10C	5	2+5
5	5	3	2	2+5+(2+5)	71A 10A	5	2+5	10C 71A	5	2+5
5 + 7	4	3	2	2 + 3	16C 28A		2	11B		2 + 3
9	5	3	1	3	25B	4	2	12B	4	3
8	3	3	2	2	20A		2	12B		2
4	6	3	2	2+(2+5)	12C (12C+61A)	5	2	12C	5	2+5
5	6	3	2	3	25A	5	2	13A	5	3
5	5	3	1	2+5	71A 13A	5	2	13C	5	2+5
9	5	3	1	2	13C	3	2	13C	3	2
8	5	3	1	2+3	13C 25B	6	2+3	13C 25B	5	2+3
5	5	5	1	1/2	160D		1	160D		1
5	3	3+5	2	3	168C	4	3	169D	6	2
5	5	3	2	1+2	16B WHITE	5	2	16C	5	2
5	5	3	1	2	16B	5	2	16D	5	2
3	4	3	1 + 2	4	180B	5	(3/4)	180C/163C	7	4
9	7	3 + 5	1	1+4	WHITE 180C	5	4	180D	5	4
7	5	3 + 5	1	4+1	180B	5	2	180D/163C	7	4

Root core RHS code	Root core intensity	Petiole hairiness	Leaf hairiness	Root branching	Notes	Extent of Shoulder Green Colour	Root Tip Shape
					Total mix of colours		
					Yellow roots with hints of orange & purple		
					Yellow & purple roots & yellow with purple & 1 multiple crown root		
					Mainly yellow & few purple roots		
					Wild type forked roots, no crowns		
					2 roots with multiple crowns		
					1 root with multiple crowns		
					[Green colour in top of root=Mixed]		
					all bolted no true swollen root, tough fibrous root, no root shoulder		
10A 74B	3						
71A 10C	3						
11A 28A							
25B	4						
13A							
12B 61A	6						
25A	6				2 multiple tops		
13A 71A	6						
13B	5						
13B 25A	6						
160D							
23B	5						
WHITE 16B	5						
16C	5				3 multiple tops		
180B	7						
180C	5						
180B	7						

HRIGRU	13:013395	carota L.	schavrovii	Mestnaya Zheltaya	20000527	20010103	1		6	6
HRIGRU	13:013373	carota L.			20000527	20001127	2		4	5
HRIGRU	13:013405	carota L.		Mestnaya	20010605	20011106	7		6	7
HRIGRU	13:013404	carota L.		Mestnaya Zheltaya	20010605	20011106	2		4	9
HRIGRU	13:010442	carota L.		Altajskaja	20010605	20011106	2		4	4
HRIGRU	13:013409	carota L.		Mestnaya 10/159	20010605	20011106	2		5	7
HRIGRU	13:013400	carota L.		Mestnaya	20010605	20011217	3		4	7
HRIGRU	13:010474	carota L.		Domasen	20010605	20011106	3		6	7
HRIGRU	13:010479	carota L.		Dolg	20010605	20011106	2		5	7
HRIGRU	13:010626	carota L.		Stratova	20010605	20011106	2		5	8
HRIGRU	13:010480	carota L.		Bitolski	20010605	20011106	2		5	8
HRIGRU	13:013396	carota L.		Mestnaya	20010605	20011106	2		4	5
HRIGRU	13:010508	carota L.			20000527	20010103	1		7	7
HRIGRU	13:013377	carota L.	aurantius	Mestnaya	20000527	20010103	1		4	4
HRIGRU	13:013385	carota L.		Mestnaya	20000527	20010103	1		3	6
HRIGRU	13:010524	carota L.		Yellow 12	20000527	20010103			3	6
HRIGRU	13:013375	carota L.			20000527	20001127	2		3	5
HRIGRU	13:013376	carota L.			20000527	20001127	2		3	4
HRIGRU	13:013378	carota L.			20000527	20001127	2		3	5
	Std 3	carota L.		Parmex	20000527	20001127	2		2	2
	Std 3	carota L.		Parmex	20000522	20001127	2		2	2
HRIGRU	13:010439	carota L.		Gavrilovskaja	20000527	20010103	1		3	7
HRIGRU	13:013407	carota L.		Mestnaya	20000527	20010103	1		3	8
	Std 1	carota L.		Amsterdam 2 Sweetheart	20000527	20001127	2		3	6
HRIGRU	13:013364	carota L.			20000527	20001127	2		4	4
HRIGRU	13:013365	carota L.			20000527	20001127	2		3	4
HRIGRU	13:013366	carota L.			20000527	20001127	3		3	5
	Std 2	carota L.		Autumn King 2 Vita Longa	20000527	20001127	2		6	9
HRIGRU	13:013370	carota L.			20000527	20001127	2		3	7
HRIGRU	13:013371	carota L.			20000527	20001127	2		4	6
HRIGRU	13:013389	carota L.			20000527	20001127	2		3	5
HRIGRU	13:013391	carota L.			20000527	20001127	2		3	4
HRIGRU	13:013393	carota L.			20000527	20001127	2		3	5
HRIGRU	13:010399	carota L.		Aichi-Gosun-Ninjin	20010605	20011106	2		4	5
HRIGRU	13:012841	carota L.		Harumaki Kinkou	20010605	20011106	2		6	7
HRIGRU	13:013406	carota L.		Mestnaya	20010605	20011106	2		4	6
	Std 1	carota L.		Amsterdam Sweetheart	20000522	20001127	2		3	6
	Std 2	carota L.		Autumn King 2 Vita Longa	20000522	20001127	2		6	9
HRIGRU	13:010514	carota L.		Derbentskajsa	20010605	20011106	3		5	5
HRIGRU	13:011715	carota L.		Yamanouchi	20010605	20011106	2		5	9
HRIGRU	13:013367	carota L.			20000527	20001127	5		3	4
HRIGRU	13:013368	carota L.			20000527	20001127	2		2	4
HRIGRU	13:013379	carota L.			20000527	20001127	2		3	5

5	4	3	3	2	22B		2	20B		2
7	5	3	1	3	170C 22B	5	2+3	21A 28B	5	2+3
5	5	3	1 + 2	1+2+3+5	99 MIXED	5	2+3	22C 11C	5	2+3+5
8	5	3	2	3	28A	7	2	23A	7	3
6	6	3	1 + 2	3	28A	5	3	25A	5	3
7	7	3	1 + 2	3	25A	5	3	25A	5	3
9	7	3	2	3	25A	5	3	25A	5	3
4	5	3	3	3	25A	5	3	25B	5	3
5	5	3	2	3	28B	5	3	25B	6	3
6	5	3	2	3	25A	5	3	25B	6	3
6	5	3	2	2+3	25A	5	2+3	25B 14C	6	2+3
4	6	3	1 + 2	2+3	16B 25A	5	2+3	25C 7D	5	2+3
3	3	4	1	3	28A		3	28A		3
6	5	3	1	3	28B	5	3	28A	7	3
5	5	3	2	3	28B		3	28A		3
4	3	4	4	3	2B		3	28A		3
6	5	3	1	3	170B	6	3	28A	5	3
6	5	3	1	3	170B	6	3	28A	5	3
6	5	3	2	3	170B	6	3	28A	6	3
7	8	1	1	3	170B	6	3	28A	6	3
7	8	1	1	3	170B	6	3	28A	6	3
7	4	3	1	3	28B		3	28B		3
6	5	4	2	3	28B		3	28B		3
5	4	4	2	3	170B	5	3	28B	6	3
7	7	3	2	3	170C	5	3	28B	4	3
5	6	3	2	3	170C	5	3	28B	5	3
5	5	3	2	3	170C	5	3	28B	5	3
8	8	3	2	3	170B	6	3	28B	5	3
7	5	3	1+2	3	170B	6	3	28B	5	3
6	3	3	2	3	170B	6	3	28B	5	3
5	4	3+4	2	3	170B	6	3	28B	6	2
5	5	3+4	1+2	3	170C	5	3	28B	5	3
6	4	3	2	3	170C	5	3	28B	5	3
5	5	3	1 + 2 + 3	3	28B	5	3	28B	5	3
5	5	3	2	3	28B	5	3	28B	7	3
5	4	3	4	3	28B	5	3	28B	7	3
5	4	4	2	3	170B	5	3	28B	6	3
8	8	3	2	3	170B	6	3	28B	5	3
6	7	3	1	2+3	10A 25A	5	2+3	28B 10A	5	2+3
5	5	3 + 5	2	3	28B 23B	5	2+3	28B 13B	5	2+3
5	4	3+4	2+3	3	170C	5	3	28B 28C	5	3
4	3	3+4	1+2	3	170B	6	3	28B 28C	5	3
5	4	3+5	2	3	170B	6	3	28B 28C	5	3

21C 22B					[Foliage width crown-1 multiple top]
13B 23B	5				
25A 5D 71A	5				
28A	7				
28A	5				
25A	5				
25B	5				
25A	6				
28A	7				some multiple tops
25A	6				
28B 13B	6				1 multiple top
25B 7C	5				
28A					[Foliage width crown-1 multiple top]
28B	6				
28B					[Foliage width crown-2 multiple top]
29A					
28B 28C	5				1 root with multiple crowns
28B	5				
28B	5				
28A	6				
28A	6				
28A					[Foliage width crown-2 multiple top]
28A					
28A	8				
28B	4				
28A	6				[Green colour in top of root=Mixed]
28A	6				
28A	7				
28A	7				1 root with multiple crowns
28B	5				1 root with multiple crowns
17C	5				[Green colour in top of root=Mixed]
28B	5				
28B	5				
28A	6				bolters
28A	7				
28A	7				
28A	8				
28A	7				
10B 28A	5				1 multiple top
28A 17B	7				
28B	5				[Green colour in top of root=Mixed]
28B	6				
28B	4				

HRIGRU	13:013381	carota L.			20000527	20001127	2		3	5
HRIGRU	13:013384	carota L.			20000527	20001127	2		4	6
HRIGRU	13:013386	carota L.			20000527	20001127	2		3	4
HRIGRU	13:013387	carota L.			20000527	20001127	3		3	4
HRIGRU	13:010173	carota L.			20010605	20011106	5		6	8
HRIGRU	13:013383	carota L.			20000527	20001127	2		3	3
HRIGRU	13:013397	carota L.		Mestnaya	20010605	20011106	2		4	5
HRIGRU	13:010310	carota L.			20000527	20010103	1		3	5
HRIGRU	13:010309	carota L.			20010605	20011106	2		6	9
HRIGRU	13:012846	carota L.		Ettou Kuroda	20010605	20011106	2		5	9
HRIGRU	13:013403	carota L.		Mestnaya	20010605	20011106	2		5	5
HRIGRU	13:010209	carota L.			20000527	20010103	2+7		6	7
HRIGRU	13:010189	carota L.			20000527	20001127				5
HRIGRU	13:013394	carota L.		Mestnaya	20010605	20011106	2		5	7
HRIGRU	13:010193	carota L.			20010605	20011106	2		4	9
HRIGRU	13:013238	carota L.		SASA 1	20010605	20011106	8		5	9
HRIGRU	13:013239	carota L.		SASA 2	20010605	20011106			4	7
HRIGRU	13:010208	carota L.			20010605	20011106	6		5	8
HRIGRU	13:013390	carota L.			20000527	20001127	2 + 6		3	4
HRIGRU	13:013388	carota L.			20000527	20001127	3		4	4
HRIGRU	13:010220	carota L.		Beledi	20010605	20011106			4	7
HRIGRU	13:013212	carota L.			20010605	20011106	5		5	9
HRIGRU	13:010215	carota L.			20000527	20010103	5 (few 7)		6	7
HRIGRU	13:013208	carota L.			20010605	20011106	6		7	9
HRIGRU	13:009866	carota L.		Kuettiger	20010605	20011106	2		4	7
HRIGRU	13:010217	carota L.			20000527	20010103	8		7	7
HRIGRU	13:013398	carota L.	schavrovii	Mestnaya Belaya I Filetovaya	20000527	20010103	3		7	8
HRIGRU	13:009807	carota L.		Violette de Syrie	20010605	20011106	5		5	9
HRIGRU	13:010523	carota L.		Chong Hong	20000527	20010103	1+6		4	8
HRIGRU	13:010208	carota L.			20000527	20010103	2+7		7	9
HRIGRU	13:011261	carota L.		Morada del Maestrazgo	20010605	20011106	3		6	7
HRIGRU	13:013374	carota L.	aurantius	Mestnaya	20000527	20010103	1		7 + 3	6
HRIGRU	13:013369	carota L.	aurantius	Mestnaya	20000527	20010103	9+3		6 + 5	8
HRIGRU	13:006684	carota L.		White Daghestan	20010605	20011106	2		4	7
HRIGRU	13:006504	carota L.		Yonsun T-12	20030605	20031020	1	5	6	9
HRIGRU	13:009250	carota L.			20030605	20031020	1	4	th multiple	8
HRIGRU	13:009260	carota L.			20030605	20031020	1	5	th multiple	8
HRIGRU	13:009293	carota L.			20030605	20031020	2	6	th multiple	8
HRIGRU	13:009306	carota L.			20030605	20031020	7	4	9	9
HRIGRU	13:010297	carota L.		Sweetcrop	20030605	20031020	1	5	with multiç	8
HRIGRU	13:010304	carota L.		Taranaki Improved	20030605	20031020	1	3	5	9
HRIGRU	13:010364	carota L.		Springtime	20030605	20031020	1	7	4	8
HRIGRU	13:010376	carota L.		Pierwszy Zbior	20030605	20031020	1	4	3	9

7	6	3	1	3	170B	6	3	28B 28C	5	3
6	6	3	1+2	3	170B	6	3	28B 28C	4	2
6	5	3	1	3	170B	6	3	28B 28C	5	3
5	4	3	1	3	170B	6	3	28B 28C	99	3
5	6	3	1	2+3+5	10A 25B 71A	5	2+3+5	28B 71A 9B	7	3+5
6	7	3	1	3	170C	5	3	28C	4	3
4	5	3+4	1+2	3	28B	4	3	28C	5	3
7	4	4	2	3	28B		3	29A		3
7	6	3	1	5	71A	7	2	2D	5	5
6	4	3	2	3	28A	7	3	30A	7	3
4	5	3	1+2	2+3+5	71A 10B 25B	5	2	4B	5	2+3+5
5+7	4	3	2	2+3+5+99	16C 24C 183A	3, 3=3, 5+9	2+3+5+99	162A 15C 183A BLA		3+4+5
5	4	5	1	2+(2+5)	162D 186B		2	6C 186B		2
9	6	3	1	2	6D	3	2	6C 6D	5	2
7	5	3	2	2+3+5	71A 10A 25A	6	2+3+5	71A 10A 25A	5	2+3+5
7	5	3	1	2+5	13C 71A	7	2+5	71A 13C	7	5
3	5			1+5	WHITE 71A	5	3+5	71A 16C	5	1+5
5	5	5	1+2	3+5	71A 23B	5	2+5	71A 9C	5	3+5
3+7	4	3+5	2	1+(1+5)			1+5	74C		1
5	3	3	1+2	2	160B		2	7D 15C		2
4	5	3+5	1	2+5	8B 59A	5	2	8B	5	5
5	4	3+5	3	2	9C	6	2	9D	5	2
6	5	3	1	1	WHITE		1	WHITE		1+2
2	4		2	1	WHITE		1	WHITE		1
6	5	3	1	1	WHITE	5	1	WHITE	5	1
7	6	3	1	5	187A/BLACK		1	WHITE		5
9	6	3	1	2	20B		1+2	WHITE 13A		1+2
6	6	3	1+3	1+5	WHITE 78C	4	1+2	WHITE 13C	5	1+5
7	3	3	2	2+3+4	20A 28C 39A		1+2+3	WHITE 15C 10A 28A		2+3+4
7	4	3	2	2+5+99	22A 187A BLACK		1+2+3+5	WHITE 160B 187A		2+3+5
4	5	3	3	1+2+3+5	WHITE 25B 7A 59A	5	1+2+3	WHITE 25A 6A	5	1+2+3+5
8	5	3	1	1+3	WHITE 28B		1+3	WHITE 29A		1+3
4+7	3+6	3	2	1+3	WHITE 28B		1+3	WHITE 29A		1+3
5	7	3	1+2	1+2	8B WHITE	5	1+2	WHITE 8B	5	1+2
8	7	3	2	3	31B	5	3	28B	7	3+2
2	7	forked wild ty	1 no shoulder	1	161D		1	WHITE		1
2	7	forked wild ty	1 no shoulder	1	161D		1	WHITE		1
5	3	4	1 no shoulder	2	13C	5	2	13B	5	2
2	7	forked wild ty	1 no shoulder	1	161D	5	1	WHITE		1
7	7	3	2	3	31B	5	3	28B	5	3
7	7	5	2	3	23C 26B	4	3	26C	4	2+3
4	2	5+4	3	3	31B	5	3	28B	7	3
5	4	5	3	3	31B	6	3	28B	7	3

28A	6				1 root with multiple crowns
21C	4				1 root with multiple crowns
28A	7				
28A	99				[Phloem colour intensity=Mixed] [Xylem colour intensity=Mixed]
24A 28A 71A	7				several multiple topped
28C	4				
28B	6				
28B					[Foliage width crown-1 multiple top]
71A	7				1 multiple top
28A	7				
71A 10B 25B	5				1 multiple top
28B 34B 187A					[Foliage width crown-1 multiple top] [Root skin colour 99=BLACK]
7D					
6C 6D	6				some multiple tops
71A 10A 25A	5				
71A	7				
71A	5				mostly fibrous tap roots
25B 71A	5				
					White root with purple smudges on exterior [Green colour in top of root=Mixed]
7D 15C					
59A	7				
9C	5				
WHITE YELLOW					[Foliage width crown-1 multiple top]
WHITE					fibrous tap root
WHITE	5				
187A/BLACK					[Foliage width crown-4 multiple top]
WHITE 13B					
78C WHITE	5				
6B 28B 39A 25					[Foliage width crown-1 red root multiple top]
LOW ORANGE					[Foliage width crown-1 multiple top] [Root skin colour 99=BLACK]
HITE 25B 7A 5	5				
WHITE 28A					
WHITE 28B					[Foliage width crown-4 multiple top]
WHITE 8B	5				

25A 13B	7					4	2+3
WHITE		3	3	7		1	3
WHITE		3	3	7		1	3
13C	5					6	3+1
WHITE		3	3	3		1	3
25A	7					3	3
9A 26B	5					2	3
25A	7					4	2
25A	7					3	2

HRIGRU	13:010397	carota L.	Senko-Sanzun-Ninjin	20030605	20031020	1	5	4	6
HRIGRU	13:010400	carota L.	Senko-Gosun-Ninjin	20030605	20031020	7	5	5	9
HRIGRU	13:010401	carota L.	Tokinashi-Gosun-Ninjin	20030605	20031020	6	5	4	9
HRIGRU	13:010402	carota L.	Tokyo-Gosun-Ninjin	20030605	20031020	5	6	5	9
HRIGRU	13:010403	carota L.	Sapporo-Futo-Ninjin	20030605	20031020	1	5	5	9
HRIGRU	13:010429	carota L.	Valeria 5	20030605	20031020	1	6	with multipl	9
HRIGRU	13:010433	carota L.	Shantene Skirskoe	20030605	20031020	1	7	4	8
HRIGRU	13:010441	carota L.	Shantene 2461	20030605	20031020	1	7	4	8
HRIGRU	13:010450	carota L.	Sibirskaja Krasnaja	20030605	20031020	1	6	th multiple	8
HRIGRU	13:010461	carota L.	Yerli Havuc	20030605	20031020	1	7	some multipl	9
HRIGRU	13:010463	carota L.	Renklin	20030605	20031020	5	6	9	9
HRIGRU	13:010469	carota L.	Stipski	20030605	20031020	7	7	9	9
HRIGRU	13:010475	carota L.	Stara Sorta	20030605	20031020	1	8	7	9
HRIGRU	13:010477	carota L.	Tromak	20030605	20031020	4	5	ne with mul	9
HRIGRU	13:010478	carota L.	Tap	20030605	20031020	1	7	3	9
HRIGRU	13:010484	carota L.	Vratnicki	20030605	20031020	1	6	th multiple	9
HRIGRU	13:010485	carota L.	Sapporo Large Long	20030605	20031020	1	6	9 with multi	9
HRIGRU	13:010487	carota L.	Trgoviski	20030605	20031020	5	7	9 with mul	9
HRIGRU	13:010488	carota L.	Siljasto	20030605	20031020	5	5	8	9
HRIGRU	13:010489	carota L.	Prizrenski	20030605	20031020	1	6	r with multipl	8
HRIGRU	13:010506	carota L.	Sian Chi-Tou	20030605	20031020	1	6	7	8
HRIGRU	13:010510	carota L.	Pien Kan Hung	20030605	20031020	1	6	7	8
HRIGRU	13:010511	carota L.	Pan Te Hung	20030605	20031020	1	8	8	9
HRIGRU	13:010525	carota L.	Xiao Fing	20030605	20031020	1	4	5	8
HRIGRU	13:010526	carota L.	SA-101	20030605	20031020	1	4	7	8
HRIGRU	13:010528	carota L.	SA-102	20030605	20031020	1	3	6	7
HRIGRU	13:010529	carota L.	SA-103	20030605	20031020	1	6	7	8
HRIGRU	13:011716	carota L.	Senko Ishyaku	20030605	20031020	1	5	7	9
HRIGRU	13:011720	carota L.	Yonsun	20030605	20031020	5	8	4	8
HRIGRU	13:012530	carota L.	Red Tip	20030605	20031020	1	7	ne with mul	8
HRIGRU	13:012752	carota L.	Romosa	20030605	20031020	1	5	with multipl	9
HRIGRU	13:013419	carota L.	carota Wild carrot	20030605	20031020	5	6	th multiple	9
	Std 1	carota L.	Amsterdam Sweetheart	20030605	20031020	1	5	3	9
	Std 2	carota L.	Autumn King 2 Vita Longa	20030605	20031020	1	6	ne with mul	9
	Std 3	carota L.	Parmex	20030605	20031020	1	3	3	4
HRIGRU	DC01007	carota L.	population 5	20020606	20021115		5	5	7
HRIGRU	DC94015	carota L.	Sytan	20020606	20021115		5	5	5
HRIGRU	DC99089	carota L.	population 10	20020606	20021115		6	5	7
HRIGRU	DC00001	carota L.	population 1	20020606	20021115		6	6	5
HRIGRU	DC99127	carota L.	population 8	20020606	20021115		5	5	6
HRIGRU	DC01004	carota L.	population 4	20020606	20021115		7	7	6
HRIGRU	DC01003	carota L.	population 3	20020606	20021115		6	7	6
HRIGRU	DC00005	carota L.	population 2	20020606	20021115		7	6	6

7	4	3	2	3	31B	5	3	28B	5	3
7	5	3+5	2	3	28A	5	3	30C	7	3
7	5	5	2	3	28A	4	3	28A	7	3
5	6	5	2	3	18A 26B 28B	4	3	25A 24B	7	3
5	6	5	2	3	31A	6	3	28B	7	3
6	6	5	1	3+2	17B 28A	5	2+3	17B 28B	7	2+3
8	5	3	2	3	28A	5	3	28B	7	3
7	6	3	2	3	28A	5	3	28A	7	3
4	6	5	1	3	31A	6	3	28B	7	3
4	4	5	2	3	28B	4	3	28A	7	3
5	6	5	1 no shoulder	3 + (1root is 5)	28B 28C 187B	4	3+5	28A 187B	7	2+3
4		5	1 no shoulder	3+2+5	22B 28B 161D	4				
8	7	combination of 3	2	3	31A	5	3	28B	5	2
6	6	3+5	3	3+2	15C 26A 70B	4	3+2	28A 14A	7	3+2
6	4	5	2	3	28B	5	3	28A	7	3
6	8	5	1 no shoulder	2	12C WHITE		2+1	21D WHITE	5	2+1
7	7	5	1	3	25B	4	3	25A	7	2
6	5+3	combination of 3	2	3+2	160D 168C 168B 25E	4	3+1	25C 28B WHITE	7	3+2+1
7	6	5	1	2+3	22A 11A		2	22A 11A	5	2+1
5	3+5	5	1+2	2+3	28A 7C		3+2	28A 9A	7	3+2
5	2	4	2	pink	179B	5	4	179A 179B	7	3
9	5	3+5	2	3	28B 25A	5	3	28A 28B	7	3+2
6	2	5	1	3	28A	5	3	28A	8	3
6	5	3	4	2+3	25C		3+2	25A 6A	6	2+3
5	5+3	4+5	2	pink +3	RANGE ROOT 28B)	5	3+4	28C 180A	5	2
7	5+3	3	1	3 + pink	(1 PINK ROOT) 168C	4	3+4	168C 180A	5	3+2
6	3	5	1	pink + 2	168C 31C 7D 22B	6	2+3+4	21C 168C 179B 8A	5	2
6	4	combination of 3	2	3	28A	5	3	25A	7	3
8	8	combination of 3	2	3	28A	5	3	25A	7	3
7	5	5 + (1 root 2)	2	3	28A	5	3	25A	7	3
7	8	5	1	2+3	16C 17A 25A	6	2+3	16B 23A 25A	5	2+3
3-7mixed	5	orked wild tyr	1 no shoulder	1	161D		1	WHITE		1
3	2	4+5	3	3	31A	6	3	28B	7	3
6	7	5	2	3	31A	6	3	28B	7	3
8	7	2	3	3	31A	5	3	28B	7	3
7	7	3 5	2	3	31B	5	3	31A	7	3
7	8	3 5	1	3	31B	5	3	31A	7	3
6	5	5	2	3	31B	5	3	31A	7	3
7	7	5	2	3	31A	7	3	31A	7	3
6	5	5	2	3	31B	6	3	31A	7	3
7	3 5	3 5	1	3 2	31B	5	3 2	28A 14C	7 5	3 2
7	6	3 5	1	3 2	31B 23C	5	3 2	28B 11B	5	3 2
6	4	5	2	3	28A	6	3	28A	7	3

25A	5					3	2
23A	7					4	2
28B	7					6	2
25A	5					1	3
28A	7					1	3
17A 28A	7					2	3
25B	7					2	2
28A	7					4	2
28A	7				only 1 root	1	3
25A	5					1	3
16A 28A	7				too woody to dissect	1	3
					too woody to dissect	3	3
7B	5					3	2+3
25B 14C	7					3	2
28B	7					2	1
12C WHITE	3					1	3
15A	7					3	3
25A 11A WHITE	6					3	3+2
12C WHITE	5					3	3
31B 9B	6					1	3
163B	5					3	1
28A 12A	7					3	3
31A	8					1	3
14A 7A 25A	5					5	2
2C 162B	5					5	1
168C 162B	5					1	3
12B 12D	4					1	3+1
28A	7					2	3
28A	7					3	2
28A	7					6	2+1
16C 25A	5					1	3
WHITE		5	5	7		1	3
28A	7					3	2
28A	7					3	2
28A	7					2	1
28A	5					1	3 1
31C	5					2	3 1
31B	5					1	3
28A	5					1	3
31B	7					1	2
31B 31C 5D	6					2	2 3 1
29A 12C	3					3	1 2
28A	7					1	3

HRIGRU	DC99131	carota L.	Amsterdam Sweetheart	20020606	20021115		7	5	6
HRIGRU	DC99100	carota L.	population 9	20020606	20021115		6	6	7
HRIGRU	DC00016A	carota L.	population 7	20020606	20021115		5	5	7
HRIGRU	DC01011	carota L.	population 6	20020606			5		
HRIGRU	13:009190	carota L.		20020606	20021115	5	5	9	9
HRIGRU	13:009191	carota L.		20020606	20021115	7	4	9	7
HRIGRU	13:009226	carota L.		20020606	20021115	9	3	9	8
HRIGRU	13:009270	carota L.		20020606	20021115	1	6	9	9
HRIGRU	13:009276	carota L.		20020606	20021115	1	6	9	8
HRIGRU	13:009280	carota L.		20020606	20021115	5	5	9	9
HRIGRU	13:010159	carota L.		20020606	20021115	1	5	6	8
HRIGRU	13:010160	carota L.	Kirmizi Havuc	20020606	20021115	1	3	7	9
HRIGRU	13:010163	carota L.		20020606	20021115	9	4	7	7
HRIGRU	13:010167	carota L.		20020606	20021115	6	5	7	8
HRIGRU	13:010169	carota L.		20020606	20021115	7	5	5	8
HRIGRU	13:010170	carota L.		20020606	20021115	1	6	7	9
HRIGRU	13:010172	carota L.		20020606	20021115	1	5	7	8
HRIGRU	13:010175	carota L.		20020606	20021115	1	5	5	5
HRIGRU	13:010177	carota L.		20020606	20021115	1	5	7	9
HRIGRU	13:010178	carota L.		20020606	20021115	1	5	7	9
HRIGRU	13:010179	carota L.		20020606	20021115	7	5	6	8
HRIGRU	13:010180	carota L.		20020606	20021115	1	5	6	9
HRIGRU	13:010185	carota L.		20020606	20021115	7	3	5	8
HRIGRU	13:010186	carota L.		20020606	20021115	7	3	6	8
HRIGRU	13:010201	carota L.		20020606	20021115	1	5	6	3
HRIGRU	13:010207	carota L.		20020606	20021115	1	4	7	8
HRIGRU	13:010221	carota L.		20020606	20021115	1	6	7	9
HRIGRU	13:010222	carota L.		20020606	20021115	7	5	6	7
HRIGRU	13:010238	carota L.		20020606	20021115	1	4	7	7
HRIGRU	13:010249	carota L.		20020606	20021115	9	6	5	4
HRIGRU	13:010251	carota L.		20020606	20021115	9	5	7	8
HRIGRU	13:010290	carota L.		20020606	20021115	1	6	5	7
HRIGRU	13:010301	carota L.	Cape Market	20020606	20021115	1	7	6	7
HRIGRU	13:010333	carota L.	Akushinskaya	20020606	20021115	1	5	7	8
HRIGRU	13:010356	carota L.		20020606	20021115	6	4	9	8
HRIGRU	13:010423	carota L.		20020606	20021115	1	6	5	7
HRIGRU	13:010424	carota L.		20020606	20021115	2	7	5	3
HRIGRU	13:010454	carota L.		20020606	20021115	7	6	OWN ON E	9
HRIGRU	13:010466	carota L.		20020606	20021115	1	5	7	8
HRIGRU	13:010495	carota L.	Binyomina No. 1	20020606	20021115	7	8	6	9
HRIGRU	13:010518	carota L.		20020606	20021115	1	5	7	9
	Std 1	carota L.	Amsterdam Sweetheart	20020606	20021115	1	7	3	7
	Std 2	carota L.	Autumn King 2 Vita Longa	20020606	20021115	2	5	5	9

3	3	4 5	2	3	28B	5	3	28A	7	3
6	5	5	2	3	28A	6	3	31A	7	3
4	4	5	2	2 3	22A 31A	7	2 3	31B 13C	7	2 3
2	6	with branchir	no shoulder	1	158A	N/A	1	158A	N/A	1
1	6	with branchir	no shoulder	1 one purple	158A 60C	N/A	1	158A	N/A	1 5
2	6	with branchir	no shoulder	1	158A	N/A	1	158A	N/A	1
2	7	with branchir	no shoulder	1	158A	N/A	1	158A	N/A	1
3	3	with branchir	no shoulder	1	161D	N/A	1	WHITE	N/A	1
2	9	with branchir	no shoulder	1	158A	N/A	1	WHITE	N/A	1
8	6	3	1	2 3 2/5	15C 16D 28B 35B	4	2 3	11B 26B	5	2 3
5	5	5	3	3	31B	3	2	5B	6	3
4	4	5	4	5	202A/79A	9	2	4C	3	5
6	6	3	1	2 3 (5+2)	15C 15D 26A 83B	4	2	4C	5	2 3 (2+5)
4	4	5	3	1 (1+5)	WHITE 64A	4	1	WHITE	5	1 5
7	6	3	1	2 3	13C 25A	5	2	14C	5	2 3
5	5	3	1	1 3	22B 26A 28B WHITE	5	2	13B	5	2 3
5	5	3	1	3	28B	5	2	13B	5	3
5	5	5	3	2 3 5	13C 29A 70B	4	2	8B	5	3 5
6	5	3	1	2 3	15C 25C	5	2	6D	5	3 2
5	5	3	2	2 5	16B 59C	5	2	14C	5	5 2
5	3	5	2	2 3	16B 26A	4	2	11A	5	2 3
5	3	3	2	2 5 (2+ 5) (3+ 5)	202A/79A 14C 23C	5	2	14C	5	3) 2 (5 2) 3
8	5	3	1	2 (2+5)	15D 79B	5	2 5	15D 79B	5	2 5
3	5	3	1	1 5	WHITE 64A	5	2	4D	5	2 5
6	6	3	1	GREEN	160A	5	2	11D	5	GREEN 3
6	6	5	2	2 3	11B 25B	3	2	11B	3	3
4	5	3	1	1 5	WHITE 79A 81A	7	5 2 WHITE	79A WHITE 4C	3	2 5
6	6	3	1	2	15D	4	2	9C	5	2
3	5	3	2	5	202A/79A	7	2 5	4C 202A/79A	7	5
5	5	3 5	2	1 2 3 5	HITE 14C 25C 79A 6	4	2 5	79A 14C	5	2 3 5
5	5	5	2	3 (ONE ROOT 2	31B 13C	3	3 2	29B 13C	3	3 2
5	5	3	1	3 2	31A 15C	5	2 3	4C 26B	5	2 3
9	7	3	2	2 5	11B 79A/78B	5	2 5	83C 4C	5	2 5
3	5	WITH BRANCH	1	1	158A	N/A	WHITE	WHITE	N/A	1
7	6	3	2	3	28C	3	3	28C	3	3
4	5	3	1	3	31B	3	2 3	31C 12C	4	3
2	5	5	1	1 5	WHITE 79A/78A	7	2 5	79A/78A 4B	7	2 5
5	5	3 5	2	1 2 3 5	GREEN	5	1 2 3 5	WHITE 80A 4B 24C	5	1 2 3 5
4	5	5	3	1 2 3	WHITE 5D 24D	5	1 2 3 GREY	ITE GREY 12B 23B 1	5	1 2 3
8	5	3	1	5	202A/79A	5	2	4B	5	5
4	4	4	3	1	31B	4	3	28B	6	3
6	6	3	3	3	28B	5	3	28B	6	3

28A	5					3	12
28B	5					1	2
32C 31A	7					5	2
					no roots produced		
WHITE	N/A					1	3
WHITE 60C	N/A					1	3
WHITE	N/A					1	3
WHITE	N/A					1	3
WHITE	N/A					1	3
WHITE	N/A					1	3
26A 11A	5					5	23
32C	5				resinous fluid from cut root surfaces	1	3
202A/79A	9					1	3
4C 13B 28B 79A	5					2	3
WHITE 64A	5					1	3
15A 25A	5					6	3
15A 28B	5					3	3
28B	5					3	3
28B	5					4	3
24B 6C	5					5	3
59C 6C	5					4	3
23B 15B	5					3	3
4C 23C 202A/79A	5	7	7			2	3
15D 79B	5	7	7			3	3
4D 64B 79A	5					3	3
160B 14D	3					1	3
25A 25C	5					3	3
4C 79A 81A	5					1	3
15B	5	7	6			5	3
202A/79A	7					1	3
4C 79A 61A 25	6					2	3
31B 23C	3					3	123
4A 26A	5					6	23
4B 12B 83B	5					6	3
WHITE	N/A					1	3
28B	3					2	3
31B	5					2	3
4B 79A/78A	7					1	3
22D 25B 2B WI	6					1	3
WHITE 5D 24D	5					1	3
79A	7					3	2
28A	6					4	13
28A	6					3	3

Std 3

carota L.

Parmex

20020606

20021115

3

4

5

2

7

5

1

1

3

29A

4

3

28B

5

3

