



United States Department of Agriculture

Research, Education, and Economics
Agricultural Research Service

March 15, 2024

Subject: UC- USDA Carrot Trials
To: Trial Participants
From: Phil Simon and Tom Horejsi

A handwritten signature in blue ink, appearing to read "Phil Simon", written over a horizontal line.

The results of the 2024 UC-USDA Cut & Peel, Cello, and Novel Carrot Trials in El Centro are attached, along with your score sheet.

Note that two versions of results are enclosed for each of the three trial categories – one organized by Field Number and one by Rank.

We were pleased to receive the participation and evaluations of judges who were able to attend.

We are very grateful to DREC staff for their cooperation and excellent assistance. Their help is much appreciated. Thank you.



Vegetable Crops Research Unit
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USDA California Carrot Trials 2024

Entry	Pedigree or	Source	Number of Judges Placing in Class							Mean ¹	Rank
	Name		1	2	3	4	5				
Entries Listed by Field Number											
B401	UpperCut Standard	Nunhems	4.5	7.5	7	2			2.31		
B402	PS07101441 Standard	Seminis	5.5	7.5	7	1			2.17		
B403	Imperial Cuts Standard	Integra	6	9	5.5	0.5			2.02		
B404	Propeel	Seminis	2	7	10.5	7.5			2.87	14	
B405	Pittsburg	Bejo	2	8	11	5	1		2.81	16	
B406	(L1408A×L7553)×L9882	22'206-3	15	7	3.5	1.5			1.69	70	
B407	Pontiac	Bejo	7	6	8.5	4.5	1		2.50	33	
B408	SVDC4193	Seminis	6.5	11.5	4	3	2		2.35	47	
B409	(L1408A×Nbh2306)×L9882	22'206-4	5.5	15	6.5				2.04	59	
B410	(L9793A×L9885)×L1408	22'203-5	13.5	9	3.5	1			1.70	69	
B411	(L1408A×L9785)×L1408	22'203-7	8	11.5	6	0.5			1.96	61	
B412	(L1408A×L9793)×L7553	17'763-3	8	13.5	3.5				1.82	68	
B413	(9256×L7551)×L4622	13'363-2	1.5	7.5	10.5	7.5			2.89	13	
B414	(L1408A×L9785)×L9882	22'206-6	4	12	9.5	1.5			2.31	49	
B415	(L1408A×L7553)×L2577	19'949-6	10	11.5	3.5	1			1.83	66	
B416	CrispyCut	Nunhems		5	8	10.5	3.5		3.46	2	
B417	(L1408A×L7553)×L2575	19'948-6	11	9.5	2.5	2	2		2.06	57	
B418	(L9793A×L9885)×Nbh2306	21'125-5	8	10.5	5.5	2	1		2.17	53	
B419	(L1408A×L7553)×L4622	19'950-6	7	11	4.5	3.5	1		2.28	50	
B420	(L2574A×L1408)×Nbh2306	23'348-4	2	6.5	10	5	3.5		3.06	6	
B421	Pismo	Bejo	2	8	5	11	1		3.04	7	
B422	(L2574A×L1408)×L1408	23'347-5	7	7	8.5	4.5			2.39	41	
B423	(L9793A×L3726)×L1408	19'946-6	5	9	10	3			2.41	39	
B424	(L9793A×L3726)×Nbh2306	17'791-6	8	10	8.5	0.5			2.06	58	
B425	(L1408A×L4622)×L2575	23'349-6	3	9.5	11.5	3			2.54	29	
B426	(L1408A×L9010)×Nbh2306	23'348-6	6.5	9	6.5	4	1		2.41	40	
B427	(L9793A×L4622)×L1408	22'203-6	1	1.5	15.5	7	2		3.28	4	
B428	(L1408×L7553)×L1408	19'S1433-3		5	11	7	4		3.37	3	
B429	(L1408A×L7553)×L2575	19'B108-3	2	7	9.5	5.5	3		3.02	8	
B430	(SC×L9788)×L4622	13'363-5	4	8.5	11	3.5			2.52	30	
B431	(L1408A×L7553)×L9793	N220054	1	8.5	12.5	4	1		2.83	15	
B432	SVDC1078	Seminis			5.5	11.5	10		4.17	1	
B433	(L9785A×L2576)×Nbh2306	17'790-4	1	8	10	8			2.93	10	
B434	(9253×L7551)×L9785	12'286-5	11	6	7	1			1.92	62	
B435	(L1408A×L9010)×L7553	22'204-5	3	7.5	12.5	3	1		2.69	22	
B436	(L1408A×L7553)×L9885	19'919-5	18	4.5	3.5				1.44	73	
B437	(L9785A×L2576)×Nbh2306	17'791-4	7.5	15	4	0.5			1.91	63	
B438	(L2574A×L1408)×L2575	23'349-5	1	13	9	4			2.59	26	
B439	(L2577A×L1408)×L1408	23'347-6	2	8.5	13	3	0.5		2.69	23	
B440	(L2574XL1408) X L9786	19'B110-3		8	13	5	1		2.96	9	
B441	(L2574×L1408)×L4622	20'033-6	11	5.5	6.5	3	1		2.17	54	
B442	(L2574A×L1408)×L1408	22'203-3	5	8	9.5	4	0.5		2.52	31	
B443	(L2574×L1408)×L7553	19'B109-3	2	8	12	4	1		2.78	19	
B444	(L2574A×L1408)×L9882	22'206-5	2	10	11.5	2.5	1		2.65	24	
B445	(L9793A×L9885)×L7553	22'204-4	3.5	11.5	10.5	1.5			2.37	46	
B446	(L1408A×L9785)×L7553	22'204-3	9	13.5	2.5	1			1.83	67	
B447	(L4622A×L9882)×L1408	20'031-7	1	10	8.5	5.5	2		2.91	12	
B448	(L1408A×L9785)×Nbh2306	21'125-3	5	8.5	10	3.5			2.44	36	
B449	HoneySnax	Nunhems	2	8	8	8	1		2.93	11	
B450	(L1408A×L7553)×L2815	22'250-2	4	10	9	4			2.48	34	
B451	(L1408A×L9785)×L2575	23'349-7	5	8.5	8.5	4.5	0.5		2.52	32	

USDA California Carrot Trials 2024

Entry	Pedigree or Name	Source	Number of Judges Placing in Class					Mean ¹	Rank
			1	2	3	4	5		
B452	(L1408A×L7553)×Nbh2306	22'S1382-5	1	8.5	7.5	6.5	3.5	3.11	5
B453	(L1408×L9785)×L7553	20'034-4	1	13	8.5	3.5	1	2.65	25
B454	UpperCut	Nunhems	3	12.5	9.5	2		2.39	42
B455	SVDC1978	Seminis	6	6.5	12.5	2		2.39	43
B456	(9256×L7551)×L4622	13'363-4	5	12	8.5	1.5		2.24	51
B457	ReadyCut	Nunhems	7	10	7.5	2.5		2.20	52
B458	(L1408A×L9010)×L7553	23'351-5	9	10.5	7	0.5		1.96	60
B459	(L1408A×Nbh2306)×L2575	23'349-4	9	9.5	6	2.5		2.07	56
B460	(L1408A×L7553)×L7553	23'351-4	14	9.5	1.5	2		1.69	71
B461	CR1706	Seminis	2	7	12.5	5	0.5	2.81	17
B462	(L2577A×L1408)×L2575	23'349-8	11.5	7.5	7	1		1.91	64
B463	(1138×L3303)×Nbh2306	19'B112-3	13	7	5	2		1.85	65
B464	(L1408A×Nbh2306)×L7553	23'351-3	5	11	6.5	3.5	1	2.43	37
B465	(L9793A×L4622)×L1408	20'031-6	4	7.5	9	3	3.5	2.80	18
B466	(L2577A×L1408)×L7553	23'351-6	7	6.5	10.5	3		2.35	48
B467	EXP 3572	Bejo	4	9.5	12.5	1		2.39	44
B468	(L1408A×L4622)×Nbh2306	23'348-5	12	12	3			1.67	72
B469	(L4622A×L2577)×L1408	23'347-7	3	8	9.5	5.5	1	2.76	21
B470	(7550×2327)×L4623	13'362-5	7	8.5	6.5	4	1	2.39	45
B471	(L9785A×L9884)×L1408	22'203-4	3	8.5	12	3.5		2.59	27
B472	HighCut	Nunhems	1	10.5	10	4.5	1	2.78	20
B473	(L1408A×L7553)×U2907	22'260-3	1	15.5	8.5	2		2.43	38
B474	(L1408A×L9785)×Nbh2306	22'S1382-4	2	12	11.5	1.5		2.46	35
B475	(L1408A×L9785)×L7553	22'204-6	2	11	10.5	3.5		2.57	28
B476	(L1408A×L7553)×L9884	19'918-6	7	11.5	6	2.5		2.15	55

¹ Mean based on average of 27 judges: 1 = unacceptable, 2 = poor, 3 = fair, 4 = good, 5 = excellent.

Lines starting with a "N" are nematode resistant lines

USDA California Carrot Trials 2024

Entry	Pedigree or	Source	Number of Judges Placing in Class						
	Name		1	2	3	4	5	Mean ¹	Rank
Entries Listed by Rank									
B432	SVDC1078	Seminis			5.5	11.5	10	4.17	1
B416	CrispyCut	Nunhems		5	8	10.5	3.5	3.46	2
B428	(L1408×L7553)×L1408	19'S1433-3		5	11	7	4	3.37	3
B427	(L9793A×L4622)×L1408	22'203-6	1	1.5	15.5	7	2	3.28	4
B452	(L1408A×L7553)×Nbh2306	22'S1382-5	1	8.5	7.5	6.5	3.5	3.11	5
B420	(L2574A×L1408)×Nbh2306	23'348-4	2	6.5	10	5	3.5	3.06	6
B421	Pismo	Bejo	2	8	5	11	1	3.04	7
B429	(L1408A×L7553)×L2575	19'B108-3	2	7	9.5	5.5	3	3.02	8
B440	(L2574XL1408) X L9786	19'B110-3		8	13	5	1	2.96	9
B433	(L9785A×L2576)×Nbh2306	17'790-4	1	8	10	8		2.93	10
B449	HoneySnax	Nunhems	2	8	8	8	1	2.93	11
B447	(L4622A×L9882)×L1408	20'031-7	1	10	8.5	5.5	2	2.91	12
B413	(9256×L7551)×L4622	13'363-2	1.5	7.5	10.5	7.5		2.89	13
B404	Propeel	Seminis	2	7	10.5	7.5		2.87	14
B431	(L1408A×L7553)×L9793	N220054	1	8.5	12.5	4	1	2.83	15
B405	Pittsburg	Bejo	2	8	11	5	1	2.81	16
B461	CR1706	Seminis	2	7	12.5	5	0.5	2.81	17
B465	(L9793A×L4622)×L1408	20'031-6	4	7.5	9	3	3.5	2.80	18
B443	(L2574×L1408)×L7553	19'B109-3	2	8	12	4	1	2.78	19
B472	HighCut	Nunhems	1	10.5	10	4.5	1	2.78	20
B469	(L4622A×L2577)×L1408	23'347-7	3	8	9.5	5.5	1	2.76	21
B435	(L1408A×L9010)×L7553	22'204-5	3	7.5	12.5	3	1	2.69	22
B439	(L2577A×L1408)×L1408	23'347-6	2	8.5	13	3	0.5	2.69	23
B444	(L2574A×L1408)×L9882	22'206-5	2	10	11.5	2.5	1	2.65	24
B453	(L1408×L9785)×L7553	20'034-4	1	13	8.5	3.5	1	2.65	25
B438	(L2574A×L1408)×L2575	23'349-5	1	13	9	4		2.59	26
B471	(L9785A×L9884)×L1408	22'203-4	3	8.5	12	3.5		2.59	27
B475	(L1408A×L9785)×L7553	22'204-6	2	11	10.5	3.5		2.57	28
B425	(L1408A×L4622)×L2575	23'349-6	3	9.5	11.5	3		2.54	29
B430	(SC×L9788)×L4622	13'363-5	4	8.5	11	3.5		2.52	30
B442	(L2574A×L1408)×L1408	22'203-3	5	8	9.5	4	0.5	2.52	31
B451	(L1408A×L9785)×L2575	23'349-7	5	8.5	8.5	4.5	0.5	2.52	32
B407	Pontiac	Bejo	7	6	8.5	4.5	1	2.50	33
B450	(L1408A×L7553)×L2815	22'250-2	4	10	9	4		2.48	34
B474	(L1408A×L9785)×Nbh2306	22'S1382-4	2	12	11.5	1.5		2.46	35
B448	(L1408A×L9785)×Nbh2306	21'125-3	5	8.5	10	3.5		2.44	36
B464	(L1408A×Nbh2306)×L7553	23'351-3	5	11	6.5	3.5	1	2.43	37
B473	(L1408A×L7553)×U2907	22'260-3	1	15.5	8.5	2		2.43	38
B423	(L9793A×L3726)×L1408	19'946-6	5	9	10	3		2.41	39
B426	(L1408A×L9010)×Nbh2306	23'348-6	6.5	9	6.5	4	1	2.41	40
B422	(L2574A×L1408)×L1408	23'347-5	7	7	8.5	4.5		2.39	41
B454	UpperCut	Nunhems	3	12.5	9.5	2		2.39	42
B455	SVDC1978	Seminis	6	6.5	12.5	2		2.39	43
B467	EXP 3572	Bejo	4	9.5	12.5	1		2.39	44
B470	(7550×2327)×L4623	13'362-5	7	8.5	6.5	4	1	2.39	45
B445	(L9793A×L9885)×L7553	22'204-4	3.5	11.5	10.5	1.5		2.37	46
B408	SVDC4193	Seminis	6.5	11.5	4	3	2	2.35	47
B466	(L2577A×L1408)×L7553	23'351-6	7	6.5	10.5	3		2.35	48
B414	(L1408A×L9785)×L9882	22'206-6	4	12	9.5	1.5		2.31	49
B419	(L1408A×L7553)×L4622	19'950-6	7	11	4.5	3.5	1	2.28	50
B456	(9256×L7551)×L4622	13'363-4	5	12	8.5	1.5		2.24	51

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			1	2	3	4	5		
B457	ReadyCut	Nunhems	7	10	7.5	2.5		2.20	52
B418	(L9793A×L9885)×Nbh2306	21'125-5	8	10.5	5.5	2	1	2.17	53
B441	(L2574×L1408)×L4622	20'033-6	11	5.5	6.5	3	1	2.17	54
B476	(L1408A×L7553)×L9884	19'918-6	7	11.5	6	2.5		2.15	55
B459	(L1408A×Nbh2306)×L2575	23'349-4	9	9.5	6	2.5		2.07	56
B417	(L1408A×L7553)×L2575	19'948-6	11	9.5	2.5	2	2	2.06	57
B424	(L9793A×L3726)×Nbh2306	17'791-6	8	10	8.5	0.5		2.06	58
B409	(L1408A×Nbh2306)×L9882	22'206-4	5.5	15	6.5			2.04	59
B458	(L1408A×L9010)×L7553	23'351-5	9	10.5	7	0.5		1.96	60
B411	(L1408A×L9785)×L1408	22'203-7	8	11.5	6	0.5		1.96	61
B434	(9253×L7551)×L9785	12'286-5	11	6	7	1		1.92	62
B437	(L9785A×L2576)×Nbh2306	17'791-4	7.5	15	4	0.5		1.91	63
B462	(L2577A×L1408)×L2575	23'349-8	11.5	7.5	7	1		1.91	64
B463	(1138×L3303)×Nbh2306	19'B112-3	13	7	5	2		1.85	65
B415	(L1408A×L7553)×L2577	19'949-6	10	11.5	3.5	1		1.83	66
B446	(L1408A×L9785)×L7553	22'204-3	9	13.5	2.5	1		1.83	67
B412	(L1408A×L9793)×L7553	17'763-3	8	13.5	3.5			1.82	68
B410	(L9793A×L9885)×L1408	22'203-5	13.5	9	3.5	1		1.70	69
B406	(L1408A×L7553)×L9882	22'206-3	15	7	3.5	1.5		1.69	70
B460	(L1408A×L7553)×L7553	23'351-4	14	9.5	1.5	2		1.69	71
B468	(L1408A×L4622)×Nbh2306	23'348-5	12	12	3			1.67	72
B436	(L1408A×L7553)×L9885	19'919-5	18	4.5	3.5			1.44	73
B401	UpperCut Standard	Nunhems	4.5	7.5	7	2		2.31	
B402	PS07101441 Standard	Seminis	5.5	7.5	7	1		2.17	
B403	Imperial Cuts Standard	Integra	6	9	5.5	0.5		2.02	

¹ Mean based on average of 27 judges: 1 = unacceptable, 2 = poor, 3 = fair, 4 = good, 5 = excellent.

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Entry	Pedigree or	Source	Number of Judges Placing in Class							Rank
	Name		1	2	3	4	5	Mean¹		
Entries Listed by Field Number										
C401	Maverick	Nunhems		2	8	12.5	0.5	3.50		
C402	(Nbh2306A×U7393)×F3513	22'S1378-5	7	15	9			2.06	64	
C403	(B9304A×F7738)×F8284	22'B123-3	3	8.5	15.5	4		2.66	37	
C404	(2566A×F7738)×Nb2159	21'103-6	4	14	10	3		2.39	52	
C405	SVDL2936	Seminis	1	2.5	16.5	10	1	3.24	8	
C406	(Nbh2306A×U7393)×Nb3271	23'B122-4	1	9	16	5		2.81	30	
C407	(Nb2159×Nbh2306)×C0466	23'356-3	5	20.5	4	1.5		2.06	65	
C408	(B9304A×F7738)×U2848	22'257-2	13	12.5	5.5			1.76	76	
C409	(Uber-A×F7738)×F8284	23'369-5	15	11.5	2.5	1		1.65	81	
C410	(B2144A×F7142)×F7738	22'S1380-3	1	6	12	9.5	2.5	3.21	12	
C411	(Uber-A×F7738)×2566	N220044		11	15.5	3.5	1	2.82	28	
C412	(B2144A×F7142)×F7385	23'317-6	7	16.5	7.5			2.02	66	
C413	(Uber-A×F7738)×C1545	22'S1377-5	3	11	13	4		2.58	42	
C414	(6274A×F7737)×F3513	22'S1378-3		7.5	12.5	10	1	3.15	13	
C415	(6274A×F7737)×F8316	23'377-7	17	8	6			1.65	82	
C416	(B2144A×F5494)×F7119	N220064		4	10	13.5	3.5	3.53	3	
C417	Jackson	Bejo	1	6	12	9	3	3.23	10	
C418	(2566A×F9924)×C1545	22'S1377-4	3	10.5	14	3.5		2.58	43	
C419	(Uber-A×F7738)×F5367	23'B124-6	6	11	12.5	1.5		2.31	54	
C420	(B2144A×F5494)×U2845	23'316-4	1	6	16	7	1	3.03	15	
C421	(2566A×Nb2159)×Nb9296	22'221-3	14	11	5	1		1.77	74	
C422	Trooper	Nunhems	1	9.5	10.5	8	2	3.02	17	
C423	(Nb2159×Nbh2306)×F7385	23'378-8	14	11	6			1.74	78	
C424	(2566A×F9924)×F7738	22'S1380-4	4	11	12	4		2.52	46	
C425	(B2144A×F7142)×C1545	22'S1377-3	3	12	12	4		2.55	44	
C426	(B2144A×F5494)×C1545	23'357-3	12	12.5	5.5	1		1.85	71	
C427	(Nbh2306A×U7393)×F7737	23'365-3	19.5	8.5	2			1.42	84	
C428	(Nb2159×Nbh2306)×U8277	23'368-3	12.5	12.5	5			1.75	77	
C429	(U8277A×Nb3271)×Nb2159	23'B123-4		12	12	6	1	2.87	25	
C430	(6274A×F7737)×Nb2159	22'S1381-5	2	9	13.5	6.5		2.79	32	
C431	(B2144A×F7142)×2566	N220043		11	14.5	5.5		2.82	29	
C432	(7808A×9304)×6526	13'349-6		1	13.5	10	6.5	3.71	2	
C433	SV2384DL	Seminis		3	16	7.5	4.5	3.44	5	
C434	(Nb2159×Nbh2306)×F7385	23'317-8		10.5	11.5	7	2	3.02	18	
C435	(Uber-A×F7738)×F7385	22'B120-4	5		1			1.33		
C436	(Nb8524A×F7385)×U2845	23'316-7	5	1				1.17		
C437	(9304A×F7737)×U8277	22'B122-4		7.5	9.5	10	4	3.34	6	
C438	U7393A×F5367	23'363-3	10	14	7			1.90	69	
C439	(Nb2159×Nbh2306)×Nbh2306	23'348-7	9	17.5	3.5	1		1.89	70	
C440	(Nb2159×Nbh2306)×F8316	23'370-4	3	10	13.5	4.5		2.63	39	
C441	(Nbh2306A×U7393)×F8284	22'B123-5	6	13	11		1	2.26	56	
C442	(Uber-A×F7738)×Nb2159	22'S1381-4	3	17	9.5	1.5		2.31	55	
C443	TrophyPak	Nunhems		5	14.5	10.5	1	3.24	9	
C444	(Uber-A×F7738)×U2845	23'316-8	4	16.5	7.5	2	1	2.34	53	
C445	(6274A×F7737)×U8277	22'B122-3	2	8.5	12.5	7	1	2.89	24	
C446	(B2144A×F7142)×F9041	N220072	5	14	11	1		2.26	57	
C447	Rebel	Nunhems	1	10	13	7		2.84	27	
C448	(6274A×F7737)×F7737	23'365-4	10	14.5	5.5	1		1.92	68	
C449	Maverick	Nunhems		1	11.5	13.5	5	3.73	1	
C450	(Nbh2306A×U7393)×Nb9296	23'376-3		5.5	8.5	13.5	3.5	3.48	4	
C451	(B2144A×Nb2159)×U2853	22'258-2	8	13.5	8.5	1		2.08	62	
C452	(Uber-A×F7738)×F7119	N220065		14	11	5	1	2.77	33	
C453	(Nbh2306A×U7393)×F7738	22'S1380-5		7	19	5		2.94	23	
C454	Bull Dog	Nunhems	1	7.5	14	6.5	2	3.03	16	

Entry	Pedigree or Name	Source	Number of Judges Placing in Class					Mean ¹	Rank
			1	2	3	4	5		
C455	(B2144A×F5494)×F8316	23'377-6	3.5	18	7.5	2		2.26	58
C456	Juntion	Bejo		3.5	15.5	11	1	3.31	7
C457	(B2144A×F5494)×2566	23'346-9	3	14.5	9.5	4		2.47	49
C458	(Nbh2306A×U7393)×F9041	N220075	2	8.5	14	6.5		2.81	31
C459	(Nb8524A×F7385)×Nb2159	23'B123-5	1	6.5	16	7.5		2.97	21
C460	(6274A×F7737)×U2845	23'316-6	10	14.5	4	1.5	1	2.00	67
C461	(B2144A×F5494)×F8284	23'369-4	6	13.5	10.5	1		2.21	59
C462	(Uber-A×F7738)×F9041	N220074	18	9.5	3.5			1.53	83
C463	(B2144A×Nb2159)×F7385	23'317-4	1	9.5	10	9.5	1	3.00	19
C464	(Nbh2306A×U7393)×C1545	23'357-4	12	14	5			1.77	75
C465	(Uber-A×F7738)×Nbh2306	22'S1382-3	2	12.5	12	4.5		2.61	40
C466	(Nb8524A×F7385)×F7385	23'317-7	7	14	8.5	1.5		2.15	60
C467	(Nbh2306A×U7393)×Nb2159	22'S1381-3	4	10.5	16	0.5		2.42	51
C468	(Nb2159×Nbh2306)×2566	23'346-11	5	18.5	6	1.5		2.13	61
C469	(Nb2159×Nbh2306)×F8284B	23'369-6	14	12.5	4.5			1.69	80
C470	(B2144A×Nb2159)×F8316B	23'377-5	13	13	4			1.70	79
C471	(Uber-A×F7738)×2566B	23'346-10	3	12	12.5	3.5		2.53	45
C472	(Nbh2306A×U7393)×U2845B	23'316-5	1	8	14	7	1	2.97	22
C473	(Nbh2306A×U7393)×F5367	23'B124-5	3	11.5	15.5	1		2.47	50
C474	(6274A×F7737)×F7119B	N220063	4	8	13	6		2.68	36
C475	ORANGEBLAZE	Seminis	2	13.5	13.5	2		2.50	47
C476	(Uber-A×F7738)×F3513	22'S1378-4	3	12.5	9.5	4	2	2.66	38
C477	(Nbh2306A×U7393)×F1632	23'358-3	2	14	12.5	2.5		2.50	48
C478	Jefferson	Bejo	1	14	9.5	6.5		2.69	34
C479	(Uber-A×F7738)×F7737	22'S1379-5	1	11	16.5	1.5	1	2.69	35
C480	(B2144A×F7142)×F7737	22'S1379-3	2	2.5	14	11.5	1	3.23	11
C481	(B2144A×F5494)×F9041	N220073	7	15.5	7.5	1		2.08	63
C482	(Nb2159×Nbh2306)×U2845	23'316-9		7	14	9	1	3.13	14
C483	(U8277A×Nb3271)×F5367	23'B124-4	2	4	18	6	1	3.00	20
C484	(B2144A×F5494)×F7737	22'S1379-4	13	10.5	7.5			1.82	72
C485	(Nbh2306A×U7393)×F8316	23'370-3	11	16	3	1		1.81	73
C486	(6274A×F7737)×U7393	23'364-3		16	11.5	3.5		2.60	41
C487	SV4128DL	Seminis	2	7.5	14	7.5		2.87	26

¹ Mean based on average of 31 judges: 1 = unacceptable, 2 = poor, 3 = fair, 4 = good, 5 = excellent.

Lines starting with a "N" are nematode resistant lines

Entry	Pedigree or	Source	Number of Judges Placing in Class						
	Name		1	2	3	4	5	Mean ¹	Rank
Entries Listed by Rank									
C449	Maverick	Nunhems		1	11.5	13.5	5	3.73	1
C432	(7808A×9304)×6526	13'349-6		1	13.5	10	6.5	3.71	2
C416	(B2144A×F5494)×F7119	N220064		4	10	13.5	3.5	3.53	3
C450	(Nbh2306A×U7393)×Nb9296	23'376-3		5.5	8.5	13.5	3.5	3.48	4
C433	SV2384DL	Seminis		3	16	7.5	4.5	3.44	5
C437	(9304A×F7737)×U8277	22'B122-4		7.5	9.5	10	4	3.34	6
C456	Juntion	Bejo		3.5	15.5	11	1	3.31	7
C405	SVDL2936	Seminis	1	2.5	16.5	10	1	3.24	8
C443	TrophyPak	Nunhems		5	14.5	10.5	1	3.24	9
C417	Jackson	Bejo	1	6	12	9	3	3.23	10
C480	(B2144A×F7142)×F7737	22'S1379-3	2	2.5	14	11.5	1	3.23	11
C410	(B2144A×F7142)×F7738	22'S1380-3	1	6	12	9.5	2.5	3.21	12
C414	(6274A×F7737)×F3513	22'S1378-3		7.5	12.5	10	1	3.15	13
C482	(Nb2159×Nbh2306)×U2845	23'316-9		7	14	9	1	3.13	14
C420	(B2144A×F5494)×U2845	23'316-4	1	6	16	7	1	3.03	15
C454	Bull Dog	Nunhems	1	7.5	14	6.5	2	3.03	16
C422	Trooper	Nunhems	1	9.5	10.5	8	2	3.02	17
C434	(Nb2159×Nbh2306)×F7385	23'317-8		10.5	11.5	7	2	3.02	18
C463	(B2144A×Nb2159)×F7385	23'317-4	1	9.5	10	9.5	1	3.00	19
C483	(U8277A×Nb3271)×F5367	23'B124-4	2	4	18	6	1	3.00	20
C459	(Nb8524A×F7385)×Nb2159	23'B123-5	1	6.5	16	7.5		2.97	21
C472	(Nbh2306A×U7393)×U2845B	23'316-5	1	8	14	7	1	2.97	22
C453	(Nbh2306A×U7393)×F7738	22'S1380-5		7	19	5		2.94	23
C445	(6274A×F7737)×U8277	22'B122-3	2	8.5	12.5	7	1	2.89	24
C429	(U8277A×Nb3271)×Nb2159	23'B123-4		12	12	6	1	2.87	25
C487	SV4128DL	Seminis	2	7.5	14	7.5		2.87	26
C447	Rebel	Nunhems	1	10	13	7		2.84	27
C411	(Uber-A×F7738)×2566	N220044		11	15.5	3.5	1	2.82	28
C431	(B2144A×F7142)×2566	N220043		11	14.5	5.5		2.82	29
C406	(Nbh2306A×U7393)×Nb3271	23'B122-4	1	9	16	5		2.81	30
C458	(Nbh2306A×U7393)×F9041	N220075	2	8.5	14	6.5		2.81	31
C430	(6274A×F7737)×Nb2159	22'S1381-5	2	9	13.5	6.5		2.79	32
C452	(Uber-A×F7738)×F7119	N220065		14	11	5	1	2.77	33
C478	Jefferson	Bejo	1	14	9.5	6.5		2.69	34
C479	(Uber-A×F7738)×F7737	22'S1379-5	1	11	16.5	1.5	1	2.69	35
C474	(6274A×F7737)×F7119B	N220063	4	8	13	6		2.68	36
C403	(B9304A×F7738)×F8284	22'B123-3	3	8.5	15.5	4		2.66	37
C476	(Uber-A×F7738)×F3513	22'S1378-4	3	12.5	9.5	4	2	2.66	38
C440	(Nb2159×Nbh2306)×F8316	23'370-4	3	10	13.5	4.5		2.63	39
C465	(Uber-A×F7738)×Nbh2306	22'S1382-3	2	12.5	12	4.5		2.61	40
C486	(6274A×F7737)×U7393	23'364-3		16	11.5	3.5		2.60	41
C413	(Uber-A×F7738)×C1545	22'S1377-5	3	11	13	4		2.58	42
C418	(2566A×F9924)×C1545	22'S1377-4	3	10.5	14	3.5		2.58	43
C425	(B2144A×F7142)×C1545	22'S1377-3	3	12	12	4		2.55	44
C471	(Uber-A×F7738)×2566B	23'346-10	3	12	12.5	3.5		2.53	45
C424	(2566A×F9924)×F7738	22'S1380-4	4	11	12	4		2.52	46
C475	ORANGEBLAZE	Seminis	2	13.5	13.5	2		2.50	47
C477	(Nbh2306A×U7393)×F1632	23'358-3	2	14	12.5	2.5		2.50	48
C457	(B2144A×F5494)×2566	23'346-9	3	14.5	9.5	4		2.47	49
C473	(Nbh2306A×U7393)×F5367	23'B124-5	3	11.5	15.5	1		2.47	50
C467	(Nbh2306A×U7393)×Nb2159	22'S1381-3	4	10.5	16	0.5		2.42	51
C404	(2566A×F7738)×Nb2159	21'103-6	4	14	10	3		2.39	52
C444	(Uber-A×F7738)×U2845	23'316-8	4	16.5	7.5	2	1	2.34	53
C419	(Uber-A×F7738)×F5367	23'B124-6	6	11	12.5	1.5		2.31	54

Entry	Pedigree or Name	Source	Number of Judges Placing in Class					Mean ¹	Rank
			1	2	3	4	5		
C442	(Uber-A×F7738)×Nb2159	22'S1381-4	3	17	9.5	1.5		2.31	55
C441	(Nbh2306A×U7393)×F8284	22'B123-5	6	13	11		1	2.26	56
C446	(B2144A×F7142)×F9041	N220072	5	14	11	1		2.26	57
C455	(B2144A×F5494)×F8316	23'377-6	3.5	18	7.5	2		2.26	58
C461	(B2144A×F5494)×F8284	23'369-4	6	13.5	10.5	1		2.21	59
C466	(Nb8524A×F7385)×F7385	23'317-7	7	14	8.5	1.5		2.15	60
C468	(Nb2159×Nbh2306)×2566	23'346-11	5	18.5	6	1.5		2.13	61
C451	(B2144A×Nb2159)×U2853	22'258-2	8	13.5	8.5	1		2.08	62
C481	(B2144A×F5494)×F9041	N220073	7	15.5	7.5	1		2.08	63
C402	(Nbh2306A×U7393)×F3513	22'S1378-5	7	15	9			2.06	64
C407	(Nb2159×Nbh2306)×C0466	23'356-3	5	20.5	4	1.5		2.06	65
C412	(B2144A×F7142)×F7385	23'317-6	7	16.5	7.5			2.02	66
C460	(6274A×F7737)×U2845	23'316-6	10	14.5	4	1.5	1	2.00	67
C448	(6274A×F7737)×F7737	23'365-4	10	14.5	5.5	1		1.92	68
C438	U7393A×F5367	23'363-3	10	14	7			1.90	69
C439	(Nb2159×Nbh2306)×Nbh2306	23'348-7	9	17.5	3.5	1		1.89	70
C426	(B2144A×F5494)×C1545	23'357-3	12	12.5	5.5	1		1.85	71
C484	(B2144A×F5494)×F7737	22'S1379-4	13	10.5	7.5			1.82	72
C485	(Nbh2306A×U7393)×F8316	23'370-3	11	16	3	1		1.81	73
C421	(2566A×Nb2159)×Nb9296	22'221-3	14	11	5	1		1.77	74
C464	(Nbh2306A×U7393)×C1545	23'357-4	12	14	5			1.77	75
C408	(B9304A×F7738)×U2848	22'257-2	13	12.5	5.5			1.76	76
C428	(Nb2159×Nbh2306)×U8277	23'368-3	12.5	12.5	5			1.75	77
C423	(Nb2159×Nbh2306)×F7385	23'378-8	14	11	6			1.74	78
C470	(B2144A×Nb2159)×F8316B	23'377-5	13	13	4			1.70	79
C469	(Nb2159×Nbh2306)×F8284B	23'369-6	14	12.5	4.5			1.69	80
C409	(Uber-A×F7738)×F8284	23'369-5	15	11.5	2.5	1		1.65	81
C415	(6274A×F7737)×F8316	23'377-7	17	8	6			1.65	82
C462	(Uber-A×F7738)×F9041	N220074	18	9.5	3.5			1.53	83
C427	(Nbh2306A×U7393)×F7737	23'365-3	19.5	8.5	2			1.42	84
C401	Maverick	Nunhems		2	8	12.5	0.5	3.50	
C435	(Uber-A×F7738)×F7385	22'B120-4	5		1			1.33	
C436	(Nb8524A×F7385)×U2845	23'316-7	5	1				1.17	

¹ Mean based on average of 31 judges: 1 = unacceptable, 2 = poor, 3 = fair, 4 = good, 5 = excellent.

Lines starting with a "N" are nematode resistant lines

	Pedigree or		Number of Judges Placing in Class						
Entry	Name	Source	1	2	3	4	5	Mean ¹	Rank
Entries Listed by Field Number									
N401	JSS-2369	Johnny's	1	7	11	6	3	3.11	20
N402	JSS-207-5	Johnny's	11	12	3.5	0.5	1	1.88	68
N403	GPS532	Green Planet	1	5	13	7	3	3.21	14
N404	GPS533	Green Planet		2.5	12	9.5	5	3.59	5
N405	Gladiator	Winseed		1	7	12.5	8.5	3.98	1
N406	GPS360	Green Planet	1	9	12	6	1	2.90	25
N407	Avalon	Winseed	1.5	10.5	14.5	2.5		2.62	39
N408	OR Strain Centralized	OSA	2	15	12			2.34	55
N409	GPS87d	Green Planet	2	4.5	11.5	11		3.09	21
N410	Grandeur	Winseed	2	8	11.5	6.5	1	2.88	27
N411	JSS-2367	Johnny's		4.5	12.5	9	3	3.36	8
N412	GPS457	Green Planet		4	10.5	14.5		3.36	9
N413	Apollo	Winseed	6	9.5	9	4.5		2.41	52
N414	Rainbow	Bejo	3	8	12	6		2.72	36
N415	Fantasia	OSA	2	9	11.5	5.5	1	2.81	31
N416	Deep Purple	Bejo	6	7.5	7.5	6	2	2.67	38
N417	(P7262A×P5105)×P8390	23'390-6	4	1				1.20	
N418	(P7262A×P5105)×P1129	23'381-7	13.5	5.5	2			1.45	83
N419	(P7262A×P5105)×P5155	23'385-6	4					1.00	
N420	(P7262A×P7235)×PYP7236	23'389-5	14	9	4			1.63	78
N421	(P8390A×P8390)×P5155	23'385-4	13.5	6.5	4	1		1.70	75
N422	(P7262A×P5105)×P7235	N224234	1	12	10	4.5	1.5	2.78	33
N423	POP	OSA	2	13	7	6	1	2.69	37
N424	Purple Sun	Bejo	3	8	13	3.5	1.5	2.74	35
N425	(P8390A×P8390)×P1129	23'381-4	8	12	8	1		2.07	61
N426	(P8438A×P6279)×P8390	22'231-4	3	13.5	11.5	1		2.36	54
N427	(P7262A×P7235)×P1129	23'381-6	1	5	11.5	10.5	1	3.19	17
N428	PurpleSummer	Nunhems	1	4	12	9	3	3.31	10
N429	Purple Haze	Bejo	1		7	13.5	6.5	3.88	2
N430	(P8390A×P8390)×P0114	23'379-4	15.5	8	3.5			1.56	79
N431	(P1129A×P8438)×P5155	23'385-5	18	2	2	2		1.50	81
N432	(P6279A×P8438)×P8390	22'231-5	3.5	9.5	13.5	0.5	2	2.59	42
N433	Purple Star	Johnny's	2	6.5	9	6.5	5	3.21	15
N434	(P8438A×P6279)×P7235	N224233	2	4	13.5	6.5	3	3.16	19
N435	(P7262A×P5105)×P0114	23'379-6	6	6.5	10	3.5	1	2.52	46
N436	PurpleElite	Nunhems	2	11.5	10.5	1	2	2.61	40
N437	(P7262A×P7235)×P0114	23'379-5	19.5	3.5	2	1		1.40	84
N438	(P8438A×P6279)×P7014	22'233-2	10	13	3	2		1.89	67
N439	(R6304A×R5646)×R7281	23'3AB-3	16	6	4			1.54	80
N440	(R8201A×R5646)×R7281	23'3AB-5	16	1	1			1.17	
N441	(R0148A×R5647)×R4294	23'318-6	11.5	10	4.5	1		1.81	71
N442	(R6304A×R5646)×R8201	23'3AC-5	8	15	4	2		2.00	65
N443	(R8201A×R6093)×R6304	23'303-4		11	12.5	5.5		2.81	32
N444	(R6304A×R7361)×R7281	23'3AB-4	1	4	11	8	5	3.41	7
N445	(R6304A×R5646)×R5647	23'399-4	8	14	4	3		2.07	62
N446	(R6304A×R7361)×R0148	23'398-3		3	12.5	11.5	2	3.43	6
N447	MALBEC	Seminis	3	13	10	3		2.45	50
N448	(R6304A×R5646)×R8329	23'3AD-2	12.5	13.5	2	1		1.71	74
N449	(R6220A×R7294)×R5646	19'970-5	1	9	13	4.5	1.5	2.88	28
N450	(R6304A×R7361)×R5647	23'B125-5		4.5	14	8	2.5	3.29	11
N451	(R6304A×R5646)×R6304	23'303-5	2	13	12	2		2.48	48
N452	(R8201A×R6093)×R5647	23'399-3	1	13	11.5	3.5		2.60	41
N453	Ruby Queen	Nunhems	13	8.5	7	0.5		1.83	70

Entry	Pedigree or Name	Source	Number of Judges Placing in Class					Mean ¹	Rank
			1	2	3	4	5		
N454	(R8201A×R5646)×R8201	23'3AC-3	1	14.5	9.5	4		2.57	44
N455	Redsun	Bejo	1.5	6.5	16	5		2.84	30
N456	(R6304A×R7361)×R8201	23'3AC-6	1	3.5	14	8	2.5	3.26	12
N457	(R6304A×R5646)×R4294	23'318-7	16	7	5	1		1.69	76
N458	R6220	OSA	18	8	3			1.48	82
N459	(R8201A×R5646)×R5647	23'B125-7	10	7.5	10.5	1		2.09	60
N460	(R8201A×R6220)×R6304	23'303-7	4	10	11	4		2.52	47
N461	(R6304A×R5646)×R5647	23'B125-4	3	16.5	8	1.5		2.28	58
N462	(R0148A×R5647)×R8201	23'3AC-4	3	12	11	3		2.48	49
N463	(R8201A×R6093)×R4294	23'318-5	4	10.5	12	2.5		2.45	51
N464	(R8201A×R6220)×R5647	23'B125-6	2	3	13	9	2	3.21	16
N465	(R6304A×R7361)×R6304	23'303-6		2	8	11	8	3.86	3
N466	(R8201A×R6093)×R7281	23'3AB-2	24					1.00	87
N467	(W2383A×W9381)×Y1246	22'289-6	10	11	3.5	2.5	1	2.05	63
N468	(L9793A×L9885)×Y8519	22'293-3	3	5.5	15	4.5		2.75	34
N469	Mello Yello	Bejo	2	7	6.5	8	4.5	3.21	13
N470	Yellowstone	Bejo	5	7	11	5		2.57	43
N471	YellowBunch	Nunhems	2	5.5	11.5	9		2.98	23
N472	(Y1246A×Y5654)×W6422	23'3AH-4	8.5	12.5	5	2		2.02	64
N473	(Y7316A×Y8519)×W6422	23'3AH-6	7.5	9	7.5	3	1	2.32	56
N474	(Y1246A×W7308)×W6422	23'3AH-5	12	11	3	1.5	0.5	1.84	69
N475	(Y1246A×Y9976)×W6422	22'294-4	9.5	11.5	5.5	1.5		1.96	66
N476	(Y1246A×W2383)×Y1246	23'3AE-6	18	5	1.5	0.5		1.38	85
N477	(W2383A×W9381)×Y8519	21'140-5	1	7	12	6.5	1.5	3.02	22
N478	(Y7316×Y6364)×W6422	23'3AH-7	5	10.5	10.5	1	1	2.38	53
N479	(Y1246A×Y9976)×Y1246	23'3AE-5	5	11	8.5	2.5		2.31	57
N480	(Y1246A×Y5654)×Y1246	23'3AE-4	13	9.5	3	1.5		1.74	73
N481	(Y7316A×W7308)×W6422	23'3AH-8	14	7	7			1.75	72
N482	(Y7316A×W7308)×Y1246	23'3AE-9	19	7				1.27	86
N483	(L9793A×L9885)×Y7316	22'291-4	2	7	11	8		2.89	26
N484	Yellow Moon	Bejo	1	7	7.5	11.5	1	3.16	18
N485	(Y1246A×W7308)×Y1246	23'3AE-7	15	6.5	3.5		1	1.67	77
N486	(W2383A×W9381)×W7308	23'3AG-3	6	12.5	9.5			2.13	59
N487	Snow Man	Nunhems		2	8	13	5	3.75	4
N488	CreamPak	Nunhems	2	8.5	8	7.5	2	2.96	24
N489	White Satin	Bejo	4	5	11.5	5.5	2	2.88	29
N490	(W2383A×W9381)×W6422	22'294-6	4	11	8	4	1	2.54	45

¹ Mean based on average of 29 judges: 1 = unacceptable, 2 = poor, 3 = fair, 4 = good, 5 = excellent.

	Pedigree or		Number of Judges Placing in Class							
Entry	Name	Source	1	2	3	4	5	Mean¹	Rank	
Entries Listed by Rank										
N405	Gladiator	Winseed		1	7	12.5	8.5	3.98	1	
N429	Purple Haze	Bejo	1		7	13.5	6.5	3.88	2	
N465	(R6304A×R7361)×R6304	23'303-6		2	8	11	8	3.86	3	
N487	Snow Man	Nunhems		2	8	13	5	3.75	4	
N404	GPS533	Green Planet		2.5	12	9.5	5	3.59	5	
N446	(R6304A×R7361)×R0148	23'398-3		3	12.5	11.5	2	3.43	6	
N444	(R6304A×R7361)×R7281	23'3AB-4	1	4	11	8	5	3.41	7	
N411	JSS-2367	Johnny's		4.5	12.5	9	3	3.36	8	
N412	GPS457	Green Planet		4	10.5	14.5		3.36	9	
N428	PurpleSummer	Nunhems	1	4	12	9	3	3.31	10	
N450	(R6304A×R7361)×R5647	23'B125-5		4.5	14	8	2.5	3.29	11	
N456	(R6304A×R7361)×R8201	23'3AC-6	1	3.5	14	8	2.5	3.26	12	
N469	Mello Yello	Bejo	2	7	6.5	8	4.5	3.21	13	
N403	GPS532	Green Planet	1	5	13	7	3	3.21	14	
N433	Purple Star	Johnny's	2	6.5	9	6.5	5	3.21	15	
N464	(R8201A×R6220)×R5647	23'B125-6	2	3	13	9	2	3.21	16	
N427	(P7262A×P7235)×P1129	23'381-6	1	5	11.5	10.5	1	3.19	17	
N484	Yellow Moon	Bejo	1	7	7.5	11.5	1	3.16	18	
N434	(P8438A×P6279)×P7235	N224233	2	4	13.5	6.5	3	3.16	19	
N401	JSS-2369	Johnny's	1	7	11	6	3	3.11	20	
N409	GPS87d	Green Planet	2	4.5	11.5	11		3.09	21	
N477	(W2383A×W9381)×Y8519	21'140-5	1	7	12	6.5	1.5	3.02	22	
N471	YellowBunch	Nunhems	2	5.5	11.5	9		2.98	23	
N488	CreamPak	Nunhems	2	8.5	8	7.5	2	2.96	24	
N406	GPS360	Green Planet	1	9	12	6	1	2.90	25	
N483	(L9793A×L9885)×Y7316	22'291-4	2	7	11	8		2.89	26	
N410	Grandeur	Winseed	2	8	11.5	6.5	1	2.88	27	
N449	(R6220A×R7294)×R5646	19'970-5	1	9	13	4.5	1.5	2.88	28	
N489	White Satin	Bejo	4	5	11.5	5.5	2	2.88	29	
N455	Redsun	Bejo	1.5	6.5	16	5		2.84	30	
N415	Fantasia	OSA	2	9	11.5	5.5	1	2.81	31	
N443	(R8201A×R6093)×R6304	23'303-4		11	12.5	5.5		2.81	32	
N422	(P7262A×P5105)×P7235	N224234	1	12	10	4.5	1.5	2.78	33	
N468	(L9793A×L9885)×Y8519	22'293-3	3	5.5	15	4.5		2.75	34	
N424	Purple Sun	Bejo	3	8	13	3.5	1.5	2.74	35	
N414	Rainbow	Bejo	3	8	12	6		2.72	36	
N423	POP	OSA	2	13	7	6	1	2.69	37	
N416	Deep Purple	Bejo	6	7.5	7.5	6	2	2.67	38	
N407	Avalon	Winseed	1.5	10.5	14.5	2.5		2.62	39	
N436	PurpleElite	Nunhems	2	11.5	10.5	1	2	2.61	40	
N452	(R8201A×R6093)×R5647	23'399-3	1	13	11.5	3.5		2.60	41	
N432	(P6279A×P8438)×P8390	22'231-5	3.5	9.5	13.5	0.5	2	2.59	42	
N470	Yellowstone	Bejo	5	7	11	5		2.57	43	
N454	(R8201A×R5646)×R8201	23'3AC-3	1	14.5	9.5	4		2.57	44	
N490	(W2383A×W9381)×W6422	22'294-6	4	11	8	4	1	2.54	45	
N435	(P7262A×P5105)×P0114	23'379-6	6	6.5	10	3.5	1	2.52	46	
N460	(R8201A×R6220)×R6304	23'303-7	4	10	11	4		2.52	47	
N451	(R6304A×R5646)×R6304	23'303-5	2	13	12	2		2.48	48	
N462	(R0148A×R5647)×R8201	23'3AC-4	3	12	11	3		2.48	49	
N447	MALBEC	Seminis	3	13	10	3		2.45	50	
N463	(R8201A×R6093)×R4294	23'318-5	4	10.5	12	2.5		2.45	51	
N413	Apollo	Winseed	6	9.5	9	4.5		2.41	52	
N478	(Y7316×Y6364)×W6422	23'3AH-7	5	10.5	10.5	1	1	2.38	53	

Entry	Pedigree or Name	Source	Number of Judges Placing in Class					Mean ¹	Rank
			1	2	3	4	5		
N426	(P8438A×P6279)×P8390	22'231-4	3	13.5	11.5	1		2.36	54
N408	OR Strain Centralized	OSA	2	15	12			2.34	55
N473	(Y7316A×Y8519)×W6422	23'3AH-6	7.5	9	7.5	3	1	2.32	56
N479	(Y1246A×Y9976)×Y1246	23'3AE-5	5	11	8.5	2.5		2.31	57
N461	(R6304A×R5646)×R5647	23'B125-4	3	16.5	8	1.5		2.28	58
N486	(W2383A×W9381)×W7308	23'3AG-3	6	12.5	9.5			2.13	59
N459	(R8201A×R5646)×R5647	23'B125-7	10	7.5	10.5	1		2.09	60
N425	(P8390A×P8390)×P1129	23'381-4	8	12	8	1		2.07	61
N445	(R6304A×R5646)×R5647	23'399-4	8	14	4	3		2.07	62
N467	(W2383A×W9381)×Y1246	22'289-6	10	11	3.5	2.5	1	2.05	63
N472	(Y1246A×Y5654)×W6422	23'3AH-4	8.5	12.5	5	2		2.02	64
N442	(R6304A×R5646)×R8201	23'3AC-5	8	15	4	2		2.00	65
N475	(Y1246A×Y9976)×W6422	22'294-4	9.5	11.5	5.5	1.5		1.96	66
N438	(P8438A×P6279)×P7014	22'233-2	10	13	3	2		1.89	67
N402	JSS-207-5	Johnny's	11	12	3.5	0.5	1	1.88	68
N474	(Y1246A×W7308)×W6422	23'3AH-5	12	11	3	1.5	0.5	1.84	69
N453	Ruby Queen	Nunhems	13	8.5	7	0.5		1.83	70
N441	(R0148A×R5647)×R4294	23'318-6	11.5	10	4.5	1		1.81	71
N481	(Y7316A×W7308)×W6422	23'3AH-8	14	7	7			1.75	72
N480	(Y1246A×Y5654)×Y1246	23'3AE-4	13	9.5	3	1.5		1.74	73
N448	(R6304A×R5646)×R8329	23'3AD-2	12.5	13.5	2	1		1.71	74
N421	(P8390A×P8390)×P5155	23'385-4	13.5	6.5	4	1		1.70	75
N457	(R6304A×R5646)×R4294	23'318-7	16	7	5	1		1.69	76
N485	(Y1246A×W7308)×Y1246	23'3AE-7	15	6.5	3.5		1	1.67	77
N420	(P7262A×P7235)×PYP7236	23'389-5	14	9	4			1.63	78
N430	(P8390A×P8390)×P0114	23'379-4	15.5	8	3.5			1.56	79
N439	(R6304A×R5646)×R7281	23'3AB-3	16	6	4			1.54	80
N431	(P1129A×P8438)×P5155	23'385-5	18	2	2	2		1.50	81
N458	R6220	OSA	18	8	3			1.48	82
N418	(P7262A×P5105)×P1129	23'381-7	13.5	5.5	2			1.45	83
N437	(P7262A×P7235)×P0114	23'379-5	19.5	3.5	2	1		1.40	84
N476	(Y1246A×W2383)×Y1246	23'3AE-6	18	5	1.5	0.5		1.38	85
N482	(Y7316A×W7308)×Y1246	23'3AE-9	19	7				1.27	86
N466	(R8201A×R6093)×R7281	23'3AB-2	24					1.00	87
N417	(P7262A×P5105)×P8390	23'390-6	4	1				1.20	
N419	(P7262A×P5105)×P5155	23'385-6	4					1.00	
N440	(R8201A×R5646)×R7281	23'3AB-5	16	1	1			1.17	

¹ Mean based on average of 29 judges: 1 = unacceptable, 2 = poor, 3 = fair, 4 = good, 5 = excellent.