

Revised List of Miscellaneous Stocks

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This list of approximately 1,790 miscellaneous genetic stocks is a revision of the previous one issued in TGC 62 (2012). Extinct, obsolete, or faulty accessions have been dropped and recently acquired accessions have been added. The new stocks include a set of 148 recombinant inbred lines from the cross *S. lycopersicum* NC EBR-1 x *S. pimpinellifolium* LA2093, synthesized by Prof. Majid Foolad at Penn State University. A group of trichome chemistry mutants induced by EMS treatment of M-82 were isolated by Prof. Rob Last at Michigan State Univ. Other new lines include stocks of *Abg*, *B*, and *Lac* from *S. lycopersicoides* bred into *S. lycopersicum*, and the cultivars NC EBR-1 and Reinmenn Phillippe (a parthenocarpic variety).

We attempt to maintain all listed accessions in adequate seed supply for distribution. However, some stocks, including some multiple marker combinations, aneuploids, and prebreds, are weak and require special cultural care; consequently, seed supplies may at times be too low to permit distribution. Other accessions may be temporarily unavailable during seed regeneration or for other reasons.

Names and phenotypic classes of individual mutations are given in our most recent Monogenic Stocks List (see TGC 64). Additional information is available through our website (<http://tgrc.ucdavis.edu>).

Types of Miscellaneous Genetic Stocks

1. Modern and Vintage Cultivars
2. Latin American Cultivars
3. Introgression Lines
4. Recombinant Inbred Lines
5. Alien Substitution Lines
6. Monosomic Alien Addition Lines
7. Other Prebred Lines
8. Interspecific Hybrids
9. Stress Tolerant Stocks
10. Translocations
11. Trisomics
12. Autotetraploids
13. Cytoplasmic Variants
14. Chromosome Marker Stocks
15. Linkage Screening Testers
16. Miscellaneous Marker Combinations
17. Provisional mutants

1. Modern and Vintage Cultivars (210 accessions)

We maintain the following set of cultivars, inbreds, and breeding lines for various purposes, mainly as isogenic or nearly isogenic stocks for specific mutants, standards for genetic comparison, sources of disease resistances, or other purposes. Marglobe is considered the standard for tomato gene (mutant) nomenclature. Most lines have been maintained by selfing for many generations.

LA	Cultivar
LA0818	A-1
LA0516	Ace
LA2838A	Ailsa Craig
LA2463	Allround
LA0655	Anahu
LA1995	Angela

LA	Cultivar
LA3244	Antimold-B
LA3527	Apex 1000
LA0657	Beaverlodge
LA2973	Big Rainbow
LA2972	Big Yellow Red Ctr.
LA4347	B-L-35

LA	Cultivar
LA4451	Black Cherry
LA4449	Black Plum
LA1499	Break O'Day
LA4346	Bryan Self-Topper
LA3341	C5
LA0198	Cal 255

LA	Cultivar
LA2414	Cal Ace
LA0337	Calif. Red Cherry
LA1439	Calmart
LA3316	Campbell 24
LA3317	Campbell 28
LA3228	Canary Export
LA2374	Caro Red
LA2400	Castlemart
LA3121	Chico Grande
LA4285	CLN2264F
LA4286	CLN2264G
LA3213	Columbian
LA0533	Condine Red
LA0817	CP-2
LA3247	Craigella
LA1219	Dwarf San Marzano
LA0313	Dwarf Stone
LA3245	E.S.1
LA4024	E-6203
LA3238	Earliana
LA2006	Earlinorth
LA3010	Earlipak
LA0266	Earlipak
LA0517	Early Santa Clara
LA2711	Edkawi
LA3800	Fargo Self-pruning
LA3801	Farthest North
LA3024	Fireball
LA3242	Flora-Dade
LA3840	Florida 7060
LA4026	Florida 7481
LA4025	Florida 7547
LA4442	Florida 8516
LA3030	Gardener
LA2969	Georgia Streak
LA2802	Globonnie
LA4355	Gold Nugget
LA4011	GT
LA3231	Gulf State Market
LA0314	Hardin Miniature
LA4441	Hawaii 7981
LA3202	Hawaii 7997
LA3856	Hawaii 7998
LA4345	Heinz 1706-BG
LA0806	High Crimson
LA3237	Homestead 24
LA3320	Hotset
LA3144	Hunt 100
LA2805	Indehiscent Currant
LA3201	IRB 301

LA	Cultivar
LA1089	John Baer
LA1131	Kallio's Alaskan Dwarf
LA0025	King Humbert #1
LA3240	Kokomo
LA3526	L04012
LA0505	Laketa
LA3203	Large Plum
LA3118	Laurica
LA0791	Long John
LA0534	Lukullus
LA3475	M-82
LA3120	Malintka 101
LA3007	Manapal
LA0502	Marglobe
LA1504	Marmande
LA0278	Marzano Grande
LA3151	Mecline
LA0011	Michigan State Forcing
LA3911	Micro-Tom
LA2825	Mobaci
LA2824	Moboglan
LA3152	Moboline
LA2821	Mobox
LA2830	Mocimor
LA3471	Mogeor
LA2828	Momor
LA2829	Momor Verte
LA2818	Monalbo
LA2706	Moneymaker
LA2819	Monita
LA2713	Montfavet 167
LA2714	Montfavet 168
LA2827	Moperou
LA2822	Mossol
LA2820	Motabo
LA2826	Motaci
LA2823	Motelle
LA3472	Movione
LA2661	Nagcarlang
LA4354	NC 84173
LA4504	NC EBR-1
LA3845	NC EBR-5
LA3846	NC EBR-6
LA3847	NC HS-1
LA3625	NC265-1 (93)-3-3
LA3802	New Hampshire Victor
LA2009	New Yorker
LA4452	Nyagous

LA	Cultivar
LA3321	Ohio 7663
LA1088	Ohio Globe A
LA2447	Ontario 7717
LA2449	Ontario 7517
LA2396	Ontario 7710
LA2448	Ontario 7818
LA2970	Orange, Red Ctr.
LA4450	Paul Robeson
LA0012	Pearson
LA0020	Pennheart
LA3528	Peto 95-43
LA3243	Platense
LA3312	Platense
LA3125	Pomodorini Napolitan
LA2715	Porphyre
LA3820	Potentate
LA3903	Primabel
LA0089	Prince Borghese
LA3233	Pritchard
LA3229	Prospero
LA2446	Purdue 135
LA2377	Purple Calabash
LA2378	Purple Smudge
LA4350	Red River
LA0276	Red Top VF
LA3129	Rehovot 13
LA4443	Reinmenn Phillippe
LA2356	Rey de Los Tempranos
LA0535	Rheinlands Ruhm
LA3343	Rio Grande
LA3145	Rockingham
LA0503	Roumanian Sweet
LA3214	Rowpac
LA2088	Royal Red Cherry
LA3215	Roza
LA1090	Rutgers
LA2662	Saladette
LA3216	Saladmater
2-297	San Marzano
LA3008	San Marzano
LA0180	San Marzano
LA2375	San Marzano
LA1021	Santa Cruz B
LA2413	Severianin
LA2912	Short Red Cherry
LA3234	Sioux
LA4444	Stack's Cherry
LA3632	Start 24

LA	Cultivar	LA	Cultivar	LA	Cultivar
LA0030	Stemless Pennorange	LA2939	UC-T338	LA1222	VF145 78-79
LA2443	Stirling Castle	LA2940	UC-TR44	LA0742	VF-34
LA1091	Stokesdale	LA2941	UC-TR51	LA0490	VF-36
LA1506	Stone	LA0021	Uniform Globe	LA0743	VF-6
LA4432	Sunseeds 1642	LA2445	V-121	LA2086	VFN Hi Sugar
LA0164	Sutton's Best of All	LA0745	V-9 Red Top	LA0815	VFN-14
LA2399	T-5	LA3246	Vagabond	LA1022	VFN-8
LA2590	T-9	LA3905	Vantage	LA1221	VFNT Cherry
LA0154	Tiny Tim	LA3122	Vendor	LA3630	Vrbikanske nizke
LA1714	UC-134	LA2968	Vendor (Tm-2a)	LA3465	Walter
LA4437	UC-204B	LA2971	Verna Orange	LA0279	Webb Special
LA3130	UC-204C	LA2444	Vetomold	LA2464A	White Beauty
LA1706	UC-82	LA0744	VF-11	LA2804	Yellow Currant
LA2937	UC-MR20	LA1023	VF-13L	LA2357	Yellow Peach
LA2938	UC-N28	LA1507	VF-145 21-4	LA3148	Zemer Kau
		LA0816	VF-145 22-8		

2. Latin American Cultivars (252)

This collection of Latin-American cultivars has been assembled from various sources but principally from our collecting trips, often at local markets. With a few exceptions they are indigenous in the sense that they are not recently introduced lines. Many of them are extinct in the source region, having been replaced by modern cultivars.

Country	Collection Site	LA	Country	Collection Site	LA
Bolivia	Santa Cruz	LA0172	Ecuador	Guayaquil	LA0408- LA0410
Bolivia	Coroica	LA2699	Ecuador	Daular	LA0415
Bolivia	Chamaca	LA2871	Ecuador	Puna	LA0416
Bolivia	Lote Pablo Luna	LA2873	Ecuador	Puna Polvora	LA0417
Bolivia	Playa Ancha	LA2874	Ecuador	San Cristobal Island	LA0423
Brazil	Coop. Agric. Cotia	LA1021	Ecuador	Puyo	LA1224
Brazil	Florianopolis	LA2402	Ecuador	Viche	LA1238
Chile	Hacienda Rosario	LA0466			LA1239-
Chile	Lluta Valley	LA0467	Ecuador	Esmeraldas	LA1241
Chile	Iquique	LA0468	Ecuador	Boca de los Sapos	LA1244
		LA0356-	Ecuador	Loja	LA1249
Colombia	Buenaventura	LA0358	Ecuador	Loja – La Toma	LA1250
Colombia	Villa Hermosa	LA1425	Ecuador	Loja	LA1251
Colombia	Cali	LA1426	Ecuador	Lago Agrio	LA1420
Colombia	Cali to Popayan	LA1539	Ecuador	Santa Cecilia	LA1421
Colombia	El Paramillo	LA2696	Ecuador	El Naranjo	LA2094
	Vereda Mata de Cana	LA2697	Ecuador	Chuchumbetza	LA2132
	Vereda La Esperanza Belgica	LA2698			LA2381-
Costa Rica		LA1215	Ecuador	Malacatos	LA2384
		LA3453A	Ecuador	Malacatos	LA3126
Costa Rica	Turrialba	-3453D	Ecuador	Santa Rosa	LA3624
Cuba		LA1162	El Salvador	Comasagua	LA0763
Ecuador	Quito	LA0126	El Salvador	Cojutepeque	LA0765
Ecuador	Santa Cruz Island	LA0292	El Salvador	San Salvador	LA1210
			El Salvador	San Salvador	LA1211

Country	Collection Site	LA
Guatemala	Quetzaltenango	LA0767
Guatemala	Antigua	LA1460
Honduras	Tegucigalpa	LA0147
Honduras	Tegucigalpa	LA0148
Mexico	Mexico City	LA0146
Mexico	Vera Cruz	LA1218
Mexico	Huachinango	LA1459
Mexico	Merida	LA1462
Mexico	Xol Laguna	LA1544
Mexico	Papantla	LA1546
Mexico	Culiacan	LA1564
Mexico	Val. nacionale	LA1565
Mexico	Val. nacionale	LA1566
Mexico	Sinaloa	LA1567
Mexico	Yucatan	LA1568
Mexico	Sinaloa	LA1702
Mexico	Rio Tamesi	LA1703
Mexico	Rio Tamesi	LA1704
Mexico	Tamaulipas	LA1994
Mexico	Guaco, Culiacan	LA2083
Mexico	Comala, Culiacan	LA2084
Nicaragua		LA1212
Nicaragua		LA1213
Panama		LA1216
Panama		LA1217
Panama	Cerro Azul	LA1570
Peru	Hacienda Calera	LA0113
Peru	Chiclayo	LA0116
Peru	Piura	LA0117
Peru	Trujillo	LA0125D
Peru	Arequipa	LA0131H
Peru	Ayacucho	LA0134C
Peru	Chiclayo	LA0393- LA0396
Peru	Piura	LA0401- LA0405
Peru	Tacna	LA0457
Peru	Tacna	LA0472
Peru	Calana	LA0473
Peru	Chincha	LA0477
Peru	Chincha	LA0478
Peru	Convento de Sivia, Pichari	LA1313- 1313-6
Peru	Ayna, San Francisco	LA1315
Peru	La Molina	LA1390
Peru	Iquitos	LA1397
Peru	Iquitos	LA1398
Peru	Puerto Maldonado	LA1632
Peru	Fundo Bogotalla	LA1650
Peru	Tarapoto	LA1655
Peru	Jahuay	LA1669

Country	Collection Site	LA
Peru	Kradolfer Chacra	LA1698
Peru	Trujillo	LA1701
Peru	Calana	LA1976A -1976C
Peru	Iquitos	LA1988
Peru	Bajo Naranjillo	LA2207- LA2212
Peru	Nueva Cajamarca	LA2213- LA2220
Peru	Moyobamba	LA2221- LA2235
Peru	La Habana	LA2237- LA2244
Peru	Soritor	LA2245- LA2253
Peru	Puerto Moyobamba	LA2254- LA2256
Peru	Hotel Abricias, Moyobamba	LA2257
Peru	Yantalo	LA2258
Peru	Moyobamba	LA2259A -2259D
Peru	Lahuarpia	LA2260- LA2264
Peru	Casaria de Pacaisapa	LA2265- LA2268
Peru	Km 57 from Tarapoto	LA2269- LA2276
Peru	Tabalosas	LA2278- LA2282
Peru	Tarapoto	LA2283- LA2307
Peru	Puerto Santa Cruz	LA2309- LA2311
Peru	Sargento	LA2316
Peru	Mangual Pucallpa	LA2622
Peru	Pucalepillo Pucallpa	LA2623
Peru	San Juan del Oro	LA2665, LA2666
Peru	San Juan del Oro	LA2676
Peru	Chinuna	LA2841
Peru	Santa Rita	LA2842
Peru	Moyobamba	LA2843
Peru	Shanhao	LA2844
Peru	Moyobamba	LA2845
Peru	San Isidro	LA3221- LA3326
Peru	Puente Tincoj	LA3646
Sri Lanka	Kandy	LA2703

3. Introgression Lines

3.1. *S. pennellii* Introgression Lines (84)

The following group of introgression lines (ILs) was developed by Y. Eshed and D. Zamir (*Euphytica* 79:175; TGC 49:26). Each IL is homozygous for a single introgression from *S. pennellii* (LA0716) in the background of cv. M-82 (LA3475). (IL 8-1 is heterozygous for a short and a long introgression.) The entire *pennellii* genome is thereby represented by 50 lines with overlapping introgressions. Recombinant sublines provide increased mapping resolution in some regions. (The IL 5-4 sublines are described in *Amer. J. Bot.* 94: 935 and *Theor. Appl. Genet.* 117: 221.)

LA	Line	LA	Line	LA	Line	LA	Line
LA4028	IL 1-1	LA4049	IL 4-1-1	LA4064	IL 7-1	LA4086	IL 9-3-2
LA4029	IL 1-1-2	LA4050	IL 4-2	LA4065	IL 7-2	LA4087	IL 10-1
LA4030	IL 1-1-3	LA4051	IL 4-3	LA4066	IL 7-3	LA4088	IL 10-1-1
LA4031	IL 1-2	LA4052	IL 4-3-2	LA4067	IL 7-4	LA4089	IL 10-2
LA4032	IL 1-3	LA4053	IL 4-4	LA4068	IL 7-4-1	LA4090	IL 10-2-2
LA4033	IL 1-4	LA4054	IL 5-1	LA4069	IL 7-5	LA4091	IL 10-3
LA4034	IL 1-4-18	LA4055	IL 5-2	LA4070	IL 7-5-5	LA4092	IL 11-1
LA4035	IL 2-1	LA4056	IL 5-3	LA4071	IL 8-1	LA4093	IL 11-2
LA3480	IL 2-1	LA4057	IL 5-4	LA4072	IL 8-1-1	LA4094	IL 11-3
LA4036	IL 2-1-1	LA4434	IL 5-4-1	LA4073	IL 8-1-3	LA4095	IL 11-4
LA4037	IL 2-2	LA4435	IL 5-4-2	LA4074	IL 8-2	LA4096	IL 11-4-1
LA4038	IL 2-3	LA4436	IL 5-4-4	LA4075	IL 8-2-1	LA4097	IL 12-1
LA4039	IL 2-4	LA4439	IL 5-4-5-137	LA4076	IL 8-3	LA4098	IL 12-1-1
LA4040	IL 2-5	LA4429	IL 5-4-5-44	LA4077	IL 8-3-1	LA4099	IL 12-2
LA4041	IL 2-6	LA4430	IL 5-4-5-49	LA4078	IL 9-1	LA4100	IL 12-3
LA4042	IL 2-6-5	LA4438	IL 5-4-8	LA4079	IL 9-1-2	LA4101	IL 12-3-1
LA4043	IL 3-1	LA4058	IL 5-5	LA4080	IL 9-1-3	LA4102	IL 12-4
LA4044	IL 3-2	LA3500	IL 6-1	LA4081	IL 9-2	LA4103	IL 12-4-1
LA3488	IL 3-3	LA4060	IL 6-2	LA4082	IL 9-2-5		
LA4046	IL 3-4	LA4061	IL 6-2-2	LA4083	IL 9-2-6		
LA4047	IL 3-5	LA4062	IL 6-3	LA4084	IL 9-3		
LA4048	IL 4-1	LA4063	IL 6-4	LA4085	IL 9-3-1		

3.2. *S. habrochaites* ILs (93)

The following group of introgression lines represent the genome of *S. habrochaites* LA1777 in the background of cv. E-6203 (LA4024) via homozygous chromosome segments (*Genome* 43:803). The first 57 lines (LA3913 - LA3969) represent approximately 85% of the donor genome, while the remaining lines (LA3970 - LA4010) contain different introgressions, mostly derivatives of the first group. Unlike the *pennellii* ILs above, each *habrochaites* IL may contain more than one introgression, representing one to several chromosomes, as indicated below.

LA	Line	Chrom.	LA	Line	Chrom.	LA	Line	Chrom.
LA3913	TA1258	1	LA3919	TA1128	1	LA3925	TA1111	3
LA3914	TA523	1	LA3920	TA1536	1	LA3926	TA1276	3
LA3915	TA1229	1	LA3921	TA1105	2	LA3927	TA1277	3
LA3916	TA1223	1	LA3922	TA1266	2	LA3928	TA1540	3
LA3917	TA1535	1	LA3923	TA1537	2	LA3929	TA1541	3
LA3918	TA1127	1	LA3924	TA1538	2	LA3930	TA1133	4

LA	Line	Chrom.
LA3931	TA1280	4
LA3932	TA1562	4
LA3933	TA1542	4
LA3934	TA1459	4
LA3935	TA517	4
LA3936	TA1475	4
LA3937	TA1473	4
LA3938	TA1287	5
LA3939	TA1293	5
LA3940	TA1112	5
LA3941	TA1543	5
LA3942	TA1117	5
LA3943	TA1544	5
LA3944	TA1539	6
LA3945	TA1545	6
LA3946	TA1546	6
LA3947	TA1559	6
LA3948	TA1303	7
LA3949	TA1304	7
LA3950	TA1547	7
LA3951	TA1312	7
LA3952	TA1315	8
LA3953	TA1316	8
LA3954	TA1548	8
LA3955	TA1320	8
LA3956	TA1324	9

LA	Line	Chrom.
LA3957	TA1325	9
LA3958	TA1330	9
LA3959	TA1331	9
LA3960	TA1550	10
LA3961	TA1551	10
LA3962	TA1552	10
LA3963	TA1337	10
LA3964	TA1339	10
LA3965	TA1555	11
LA3966	TA1554	11
LA3967	TA1342	11
LA3968	TA1350	12
LA3969	TA1121	12
LA3970	TA1219	1
LA3971	TA1218	2
LA3972	TA1173	2
LA3975	TA1629	3
LA3976	TA1138	4
LA3977	TA1467	4
LA3978	TA1468	4
LA3979	TA1630	4
LA3980	TA1290	5
LA3981	TA1116	5
LA3983	TA1631	5
LA3984	TA1632	5
LA3985	TA1306	7

LA	Line	Chrom.
LA3986	TA1309	7
LA3988	TA1318	8
LA3989	TA1319	8
LA3990	TA1560	8
LA3991	TA1326	9
LA3993	TA1549	10
LA3994	TA1635	10
LA3995	TA1553	11
LA3996	TA1120	11
LA3997	TA1563	1-10
LA3998	TA1637	1-11-12
LA3999	TA1638	1-12
LA4000	TA1557	1-4
LA4001	TA1644	1-7-12
LA4002	TA1645	1-8-12
LA4003	TA1648	2-11
LA4004	TA1649	2-3-6
LA4005	TA1652	3, 5
LA4006	TA1654	4-10-11
LA4007	TA1655	4-12
LA4008	TA1656	5-6-9
LA4009	TA1564	5-7-10
LA4010	TA1561	8-2

3.3. *S. lycopersicoides* ILs (101)

The following group of ILs have been bred from *S. lycopersicoides* into the background of cv. VF36. These lines represent ~96% of the donor genome and are described in *Genome* 48:685, and *Theor. Appl. Genet.* 76:647. While some lines are available in the homozygous condition, others are partially or completely sterile as homozygotes, thus are maintained via heterozygotes. In this case, marker analysis is required to identify the desired genotypes in segregating progenies. Seed of some lines may be limited or temporarily unavailable.

LA	Line	Chr.
LA3866	LS1-1	1
LA3867	LS11-9	1
LA4230	LS15-2H	1
LA4231	LS15-2B	1
LA4232	LS11-11A	1
LA4233	LS20-9	1
LA4234	LS21-2	1
LA4235	LS10-2	1
LA4293	LS5-8	1
LA4294	LS15-2AD	1
LA4295	LS15-2A	1
LA4296	LS15-2AA	1
LA4297	LS15-2AAA	1
LA4298	LS15-2BA	1

LA	Line	Chr.
LA3869	LS42-4	2
LA3870	LS38-10	2
LA3871	LS41-3	2
LA4236	LS49-8A	2
LA4237	LS40-8	2
LA4238	LS5-1	2
LA4239	LS41-20	2
LA4420	C2S	2
LA3882	LS43-14	2-6
LA3344	Mdh-1	3
LA3874	LS20-9	3
LA4240	LS1-13	3
LA4241	LS40-2	3
LA4242	LS14-8	3

LA	Line	Chr.
LA4243	LS1-3	3
LA4244	LS10-9	4
LA4245	LS10-11A	4
LA4246	LS49-8B	4
LA4247	LS12-9	4
LA4314	LS12-9B	4-10
LA3875	LS24-14	4-12
LA3878	LS24-6	5
LA4248	LS11-6	5
LA4249	LS9-1	5
LA4250	LS49-8C	5
LA4251	LS49-3	5
LA4252	LS32-11	5
LA4299	LS4-9	5

LA	Line	Chr.
LA4426	ILX	5
LA3879	LS1-5	5-11
LA3893	LS16-6	5-12
LA4300	LS9-7B	5-6
LA4253	LS11-11B	6
LA4254	LS32-14	6
LA4255	LS38-5	6
LA4256	LS9-22	6
LA3886	LS48-5	7
LA4257	LS46-3	7
LA4258	LS19-7	7
LA4259	LS32-4	7
LA4260	SL-7F	7
LA4261	LS8-11	7
LA4301	SL-7A	7
LA4302	SL-7C	7
LA4303	SL-7D	7
LA4304	LS8-11A	7
LA4315	SL-7	7
LA3883	LS48-6	7-11

LA	Line	Chr.
LA4305	LS9-26C	7-8
LA3876	LS29-1	8
LA3889	LS41-13	8
LA3906	Wa, DI	8
LA4262	LS20-16	8
LA4263	LS46-6A	8
LA4264	LS9-26A	8
LA4265	LS9-26B	8
LA4266	SL-8A	8
LA4267	LS16-10	8
LA4306	LS46-6	8
LA4307	SL-8	8
LA3345	Dia-3	9
LA4268	LS14-7	9
LA4269	LS12-2	9
LA4270	LS10-6	9
LA4271	LS49-5	9
LA4272	LS41-11	9
LA4308	LS32-10	9
LA4309	LS10-6D	9

LA	Line	Chr.
LA4273	LS12-8	10
LA4274	LS4-14	10
LA4275	SL-10	10
LA4276	LS12-12	10
LA3892	LS48-2	11
LA4277	LS24-11	11
LA4278	LS3-2	11
LA4279	LS19-11	11
LA4310	LS19-10A	11
LA4422	PROS	11
LA4280	LS1-5	11-5
LA4281	LS13-13	12
LA4282	LS45-7	12
LA4283	LS8-9	12
LA4284	LS9-13	12
LA4311	LS14-2	12
LA4312	LS45-7C	12
LA4313	LS8-12A	12
LA4427	C12S	12

4. Recombinant Inbred Lines

4.1. Backcross Recombinant Inbred Lines (90)

The following group of backcross recombinant inbred lines originated from the cross *S. lycopersicum* E-6203 × *S. pimpinellifolium* LA1589 (*Genome* 45:1189). The result of 2 BC's and at least 6 generations of inbreeding via single seed descent, the lines are highly homozygous (residual heterozygosity ~3%). The population has been genotyped at 127 marker loci, and the corresponding maps, map files, and QTL data are available from the Solanaceae Genome Network (www.sgn.cornell.edu). This set of 90 lines has been selected for optimum mapping resolution using the MapPop software, and provide a permanent, high resolution mapping population.

LA	TA
LA4139	TA2874
LA4140	TA2875
LA4141	TA2876
	TA2877,
LA4142	TA2149
LA4143	TA2878
LA4144	TA2879
LA4145	TA2880
LA4146	TA2881
LA4147	TA2882
LA4148	TA2883
LA4149	TA2884
LA4150	TA2885
LA4151	TA2886
LA4152	TA2887
LA4153	TA2888
LA4154	TA2890

LA	TA
LA4155	TA2891
LA4156	TA2892
LA4157	TA2893
LA4158	TA2894
LA4159	TA2895
LA4160	TA2896
LA4161	TA2897
LA4162	TA2898
LA4163	TA2899
LA4164	TA2900
LA4165	TA2901
LA4166	TA2902
LA4167	TA2903
LA4168	TA2904
LA4169	TA2905
LA4170	TA2906
LA4171	TA2907

LA	TA
LA4172	TA2908
LA4173	TA2909
LA4174	TA2910
LA4175	TA2911
LA4176	TA2912
LA4177	TA2914
LA4178	TA2915
LA4179	TA2916
LA4180	TA2917
LA4181	TA2918
LA4182	TA2919
LA4183	TA2920
LA4184	TA2922
LA4185	TA2923
LA4186	TA2924
LA4187	TA2925
LA4188	TA2926

LA	TA
LA4189	TA2927
LA4190	TA2928
LA4191	TA2929
LA4192	TA2930
LA4193	TA2931
LA4194	TA2932
LA4195	TA2933
LA4196	TA2934
LA4197	TA2935
LA4198	TA2936
LA4199	TA2937
LA4200	TA2938
LA4201	TA2939
LA4202	TA2940
LA4203	TA2941
LA4204	TA2942
LA4205	TA2943

LA	TA
LA4206	TA2944
LA4207	TA2945
LA4208	TA2946
LA4210	TA2948
LA4211	TA2949
LA4212	TA2950

LA	TA
LA4213	TA2951
LA4214	TA2952
LA4215	TA2953
LA4216	TA2954
LA4217	TA2955
LA4218	TA2956

LA	TA
LA4219	TA2957
LA4220	TA2958
LA4221	TA2959
LA4222	TA2960
LA4223	TA2961
LA4224	TA2962

LA	TA
LA4225	TA2963
LA4226	TA2964
LA4227	TA2965
LA4228	TA2966
LA4229	TA2967

4.2 Recombinant Inbreds (148)

The following set of 148 recombinant inbred lines (RILs) were developed from a cross between *S. lycopersicum* NC EBR-1 x *S. pimpinellifolium* LA2093, followed by multiple generations of single seed descent from the F2 (Ashrafi et al. 2009 *Genome* 52: 935). NC EBR-1 is an early blight resistant breeding line developed by Randy Gardner at North Carolina State University. LA2093 is an accession of *S. pimpinellifolium* collected by Charley Rick and colleagues at La Union, Ecuador. The RILs have been used to generate a high density molecular marker map (Ashrafi et al. 2009 *Genome* 52: 935) and to map QTLs for horticultural and fruit quality traits (Ashrafi et al. 2012 *Mol. Breeding* 30: 549). The RILs are currently at the F9 generation.

LA	RIL
LA4504	NC EBR-1
LA4505	RIL-1
LA4506	RIL-2
LA4507	RIL-3
LA4508	RIL-4
LA4509	RIL-5
LA4510	RIL-6
LA4511	RIL-7
LA4512	RIL-10
LA4513	RIL-11
LA4514	RIL-12
LA4515	RIL-13
LA4516	RIL-14
LA4517	RIL-16
LA4518	RIL-18
LA4519	RIL-19
LA4520	RIL-20
LA4521	RIL-21
LA4522	RIL-22
LA4523	RIL-23
LA4524	RIL-24
LA4525	RIL-25
LA4526	RIL-26
LA4527	RIL-27
LA4528	RIL-28
LA4529	RIL-30
LA4530	RIL-31
LA4531	RIL-32
LA4532	RIL-33
LA4533	RIL-34
LA4534	RIL-35

LA	RIL
LA4535	RIL-37
LA4536	RIL-38
LA4537	RIL-39
LA4538	RIL-40
LA4539	RIL-41
LA4540	RIL-43
LA4541	RIL-45
LA4542	RIL-46
LA4543	RIL-47
LA4544	RIL-48
LA4545	RIL-49
LA4546	RIL-50
LA4547	RIL-52
LA4548	RIL-53
LA4549	RIL-54
LA4550	RIL-55
LA4551	RIL-56
LA4552	RIL-57
LA4553	RIL-58
LA4554	RIL-59
LA4555	RIL-62
LA4556	RIL-63
LA4557	RIL-65
LA4558	RIL-66
LA4559	RIL-67
LA4560	RIL-68
LA4561	RIL-69
LA4562	RIL-71
LA4563	RIL-72
LA4564	RIL-73
LA4565	RIL-74

LA	RIL
LA4566	RIL-75
LA4567	RIL-76
LA4568	RIL-77
LA4569	RIL-78
LA4570	RIL-79
LA4571	RIL-80
LA4572	RIL-81
LA4573	RIL-82
LA4574	RIL-83
LA4575	RIL-84
LA4576	RIL-85
LA4577	RIL-86
LA4578	RIL-88
LA4579	RIL-89
LA4580	RIL-90
LA4581	RIL-91
LA4582	RIL-92
LA4584	RIL-94
LA4585	RIL-95
LA4586	RIL-96
LA4587	RIL-97
LA4588	RIL-98
LA4589	RIL-99
LA4590	RIL-100
LA4591	RIL-101
LA4592	RIL-102
LA4593	RIL-103
LA4594	RIL-105
LA4595	RIL-106
LA4596	RIL-107
LA4597	RIL-108

LA	RIL
LA4598	RIL-109
LA4599	RIL-111
LA4600	RIL-112
LA4601	RIL-113
LA4602	RIL-114
LA4603	RIL-115
LA4604	RIL-116
LA4605	RIL-117
LA4606	RIL-118
LA4607	RIL-120
LA4608	RIL-121
LA4609	RIL-122
LA4610	RIL-123
LA4611	RIL-124
LA4612	RIL-125
LA4613	RIL-126
LA4614	RIL-127
LA4615	RIL-128
LA4616	RIL-129
LA4617	RIL-130
LA4618	RIL-131
LA4619	RIL-132
LA4620	RIL-133
LA4621	RIL-134
LA4622	RIL-135
LA4623	RIL-137
LA4624	RIL-139
LA4625	RIL-140
LA4626	RIL-142
LA4627	RIL-143
LA4628	RIL-144

LA	RIL
LA4629	RIL-145
LA4630	RIL-146
LA4631	RIL-147
LA4632	RIL-148
LA4633	RIL-149
LA4634	RIL-150
LA4635	RIL-151
LA4636	RIL-152

LA	RIL
LA4637	RIL-153
LA4638	RIL-154
LA4639	RIL-155
LA4640	RIL-156
LA4641	RIL-158
LA4642	RIL-159
LA4643	RIL-160
LA4644	RIL-161

LA	RIL
LA4645	RIL-162
LA4646	RIL-164
LA4647	RIL-165
LA4648	RIL-167
LA4649	RIL-168
LA4650	RIL-169
LA4651	RIL-170
LA4652	RIL-171

LA	RIL
LA4653	RIL-172

5. Alien Substitution Lines (7)

In the course of his study of segregation and recombination in *S. lycopersicum* x *S. pennellii* hybrids, Rick (*Genetics* 26:753; *Biol. Zbl.* 91:209) backcrossed certain chromosomes of *S. pennellii* LA0716 into the background of several chromosome marker stocks in cultivated tomato. Selected heterozygotes of later generations were selfed and subsequent progenies containing the wild type alleles at the marker loci were selected. The chromosome 6 substitution (LA3142) was further selected with RFLP markers to eliminate residual heterozygosity (*Genetics* 135:1175). The mutant loci used to select each substitution are indicated. In addition, three *S. lycopersicoides* chromosome substitutions (SL-7, -8 and -10) are listed above under introgression lines.

LA	Chrom.	Marker Loci
2091	1	<i>au, dgt, inv, scf</i>
1639	2	<i>Me, aw, m, d</i>
1640	3	<i>sy, bls, sf</i>
3469	4	<i>clau, ful, ra, e, su³</i>

LA	Chrom.	Marker Loci
3142	6	<i>yv, ndw, m-2, c</i>
1642	8	<i>l, bu, dl, al</i>
1643	11	<i>j, hl, a</i>

6. Monosomic Alien Addition Lines (10)

Each of the following group of monosomic additions (MAs) contains a single extra chromosome from *S. lycopersicoides* LA1964 introgressed into the genome of cultivated tomato (Chetelat et al. 1998 *Genome* 41:40). The integrity of the *S. lycopersicoides* chromosomes in these stocks has been verified with relatively few markers, and some may be recombinant. (Our stock of MA-8 lacks *S. lycopersicoides* markers distal to TG330 on the long arm, for example.) Like other types of trisomics, progeny of the monosomic additions include 2n as well as 2n+1 plants; the rate of transmission of the alien chromosomes varies, ranging from ca. 5% to 25%. Identification of 2n+1 plants in each generation is facilitated by their phenotypic resemblance to the corresponding primary trisomics in *S. lycopersicum*. Therefore, the guidelines of Rick (TGC 37:60) for identifying trisomics in the seedling stage are useful for selecting monosomic additions as well. Some of the monosomic alien addition lines carry dominant morphological markers, listed below, that can be used to distinguish them from diploid progeny. Phenotypes of each gene or trait are described on the TGRC website and Rick et al. (1988, *Theor. Appl. Genet.* 76: 647)

LA	Chrom.	2n+1	2n
3454	MA-2	+	+
3455	MA-3	+	+
3456	MA-4	+	+
3457	MA-5	<i>obv⁺</i>	<i>obv</i>
3459	MA-7	<i>Bco</i>	+

LA	Chrom.	2n+1	2n
3460	MA-8	<i>Wa, Df^s</i>	+
3461	MA-9	<i>Fmb, Bif</i>	+, +
3462	MA-10	<i>Abg, u⁺</i>	+, u
3463	MA-11	+	+
3464	MA-12	+	+

7. Other Prebreds (26). This group of prebreds contain selected morphological traits bred into cultivated tomato from related wild species. Some traits may be simply inherited, others likely involve multiple genetic loci.

LA	Trait
LA0214	Dark anthers from <i>S. peruvianum</i>
LA1015	Compressed fruits from <i>S. cheesmaniae</i>
LA1016	Yellow green from <i>S. cheesmaniae</i>
LA1017	'Pachymericarp' fruit from <i>S. cheesmaniae</i>
LA1018	Odorless from <i>S. cheesmaniae</i>
LA1019	'Pachymericarp' fruit from <i>S. cheesmaniae</i>
LA1500-LA1503, LA1563	High fruit solids, intense pigment from <i>S. chmielewskii</i>
LA1996	Anthocyanin fruit (<i>Aft</i>) from <i>S. chilense</i>
LA2380	Exserted stigmas from <i>S. pimpinellifolium</i>
LA3855	High leaf 2-tridecanone levels from <i>S. habrochaites</i>
LA3897-LA3899	High fruit beta-carotene levels from <i>S. galapagense</i>
LA4104, LA4453, LA4454	High fruit sucrose levels from <i>S. chmielewskii</i>
LA4136	Tissue culture regeneration ability from <i>S. peruvianum</i>
LA4421	<i>B, Lac</i> from <i>S. lycopersicoides</i>
LA4424	'Poodle' syndrome from <i>S. lycopersicoides</i>
LA4425, LA3668	Aubergine (<i>Abg</i>) fruit from <i>S. lycopersicoides</i>
LA4428	Virescent leaves from <i>S. lycopersicoides</i>

8. Interspecific hybrids (2).

LA4135 F₁ *S. lycopersicum* VF36 × *S. pennellii* LA0716. This hybrid is useful as a rootstock. We use it for maintenance of *S. sitiens*, and sometimes *S. juglandifolium*, and *S. ochranthum*.

LA4488 F₁ *S. lycopersicum* NC 84173 × *S. pennellii* LA0716. A rootstock hybrid with ToMV resistance.

9. Stress Tolerant Stocks (60+)

We receive many requests for stocks with tolerances to environmental stresses (abiotic or biotic). This group of mostly wild species accessions have been chosen based on observations of plants in their native habitats and/or reports in the literature.

Stress	Species	Accessions
Drought	<i>S. pimpinellifolium</i>	LA1578, LA1595, LA1600, LA1607, LA2718
Drought	<i>S. pennellii</i> (general feature)	LA0716, and others
Drought	<i>S. chilense</i> (general feature)	LA1958, LA1959, LA1972, and others
Drought	<i>S. sitiens</i> (general feature)	LA1974, LA2876, and others
Flooding	<i>S. lycopersicum</i> 'cerasiforme'	LA1421, and others
Flooding	<i>S. juglandifolium</i> , <i>S. ochranthum</i> (general feature)	LA2120, LA2682
High temperatures	<i>S. lycopersicum</i>	LA2661, LA2662, LA3120, LA3320
Low temperatures	<i>S. habrochaites</i>	LA1363, LA1393, LA1777, LA1778
Low temperatures	<i>S. chilense</i>	LA1969, LA1971, LA2883, LA2773, LA2949, LA3113, LA4117A
Low temperatures	<i>S. lycopersicoides</i>	LA1964, LA2408, LA2781
Low temperatures	<i>S. sitiens</i>	LA4331 and others

Stress	Species	Accessions
Aluminum toxicity	<i>S. lycopersicum</i> 'cerasiforme'	LA2710 (suspected)
Salinity	<i>S. chilense</i>	LA1930, LA1932, LA1958, LA2747, LA2748, LA2880, LA2931
Salinity	<i>S. galapagense</i>	LA1401, LA1508, LA3909
Salinity	<i>S. cheesmaniae</i>	LA0749, LA3124
Salinity	<i>S. lycopersicum</i>	LA2711
Salinity	<i>S. lycopersicum</i> 'cerasiforme'	LA2081, LA1310, LA2079, LA4133
Salinity	<i>S. pennellii</i>	LA0716, LA1809, LA1926, LA1940, LA2656
Salinity	<i>S. peruvianum</i>	LA0462, LA1278, LA2744
Salinity	<i>S. pimpinellifolium</i>	LA1579 and others
Salinity	<i>S. sitiens</i> (general feature)	LA4113 and others
Arthropods	<i>S. habrochaites</i>	LA0407 and others
Arthropods	<i>S. pennellii</i>	LA0716 and others

10. Translocations (38)

The following group of translocation stocks have been assembled from the collections of their originators - D.W. Barton, C.D. Clayberg, B.S. Gill, G.R. Stringham, B. Snoad, and G. Khush. As far as we know, they are all homozygous for the indicated structural changes. They are described by Gill *et al.* (TGC 23: 17-18; TGC 24:10-12). Accessions with an asterisk comprise the tester set.

LA	Chrom.s
*LA1115	T9-12
*LA1119	T3-8
*LA1120	T6-12
*LA1876	T1-2
*LA1885	T5-7
*LA1898	T2-10a
*LA1899	T6-11
*LA1903	T4-7
LA1049	T1-9
LA1116	T1-11
LA1117	T5-7
LA1118	T7-11

LA	Chrom.s
LA1121	T4-9
LA1122	T2-9
LA1123	T2-9
LA1124	T3-9
LA1125	T5-7
LA1126	T7-9
LA1127	T3-5
LA1129	T3-9
LA1877	T2-4
LA1878	T2-7
LA1879	T2-9
LA1880	T2-11
LA1881	T2-12

LA	Chrom.s
LA1882	T12-3 or -8
LA1883	T3-7
LA1884	2 IV T3-8,9-12
LA1886	T12-3 or 8
LA1892	2 IV T9-12, ?-?
LA1894	T2-9a
LA1895	T2-9b
LA1896	T1-12
LA1897	T7-11?
LA1902	T2- ?
LA1904	T2-9d
LA1905	T1-3 or 8
LA1906	T2-10b

11. Trisomics (34)

The following series of trisomics contain various kinds of extra chromosomes. Since the extras are transmitted irregularly, each stock necessarily produce a majority of diploid progeny, the remainder aneuploid. Primary trisomics yield mostly 2n and 2n+1, and rarely tetrasomics (2n+2). Telotrisomics yield telos and an occasional rare tetratelosomic. Secondary, tertiary, and compensating trisomics transmit other trisomic types as expected. Because transmission is irregular and reproduction of stocks requires much labor, our stocks are limited. In requesting our aneuploids, researchers are asked to keep these points in mind. To assist in the identification of primary trisomics at the seedling stage, the key features of each have been summarized by Rick (TGC 37:60). Additional 2n+1 stocks are listed under Monosomic Alien Addition Lines above.

Accession	Genotype
Primary trisomics	

Accession	Genotype
delta-10	Triplo-1

Accession	Genotype
delta-06	Triplo-2
delta-08	Triplo-3
delta-02	Triplo-4
delta-04	Triplo-5
delta-12	Triplo-6
delta-07	Triplo-7
delta-03	Triplo-8
delta-05	Triplo-9
delta-01	Triplo-10
delta-40	Triplo-11
delta-09	Triplo-12
Telo-trisomics	
delta-14	2n + 3S
delta-17	2n + 3L
delta-21	2n + 4L
delta-20	2n + 7L
delta-19	2n + 8L
delta-35	2n + 10S
Secondary trisomics	

Accession	Genotype
delta-44	2n + 2S·2S
delta-43	2n + 5L·5L
delta-36	2n + 7S·7S
delta-26	2n + 9S·9S
delta-31	2n + 9L·9L
delta-28	2n + 10L·10L
delta-41	2n + 11L·11L
delta-29	2n + 12L·12L
Tertiary trisomics	
delta-18	2n + 2L·10L
delta-16	2n + 4L·10L
delta-39	2n + 5L·7S
delta-15	2n + 7S·11L
delta-25	2n + 9L·12L
delta-23	2n + 1L·11L
Compensating trisomics	
delta-32	2n - 3S·3L + 3S + 3L·3L
delta-33	2n - 3S·3L + 3S·3S + 3L·3L
delta-34	2n - 7S·7L + 7S·7S + 7L·7L

12. Autotetraploids (17)

We are currently maintaining the following group of tetraploids. Whereas we formerly stocked many more lines, their rapid deterioration, low seed yields, and lack of demand required that we prune them to a smaller group of more frequently used genotypes. Most are stocks of *S. lycopersicum*, unless otherwise noted, and arose from either induced or spontaneous chromosome doubling.

LA	Genotype
2-095	cv. San Marzano
2-483	cv. Red Cherry
LA0794	<i>ag, t^v</i>
LA1917	<i>S. chilense</i>
LA2335	<i>S. pimpinellifolium</i>
LA2337	cv. Stokesdale
LA2338	cv. Break O'Day
LA2339	cv. Pearson
LA2340	<i>S. pimpinellifolium</i>

LA	Genotype
LA2342	cv. Danmark
LA2343	cv. Waltham Fog
LA2581	<i>S. peruvianum</i>
LA2582	<i>S. arcanum</i>
LA2583	<i>S. arcanum</i>
LA2585	<i>S. pimpinellifolium</i>
LA2587	<i>S. lycopersicum</i> 'cerasiforme'
LA3255	cv. Ailsa Craig

13. Cytoplasmic Variants (3)

The following three lines are cytoplasmically-inherited chlorotic variants maintained by the TGRC and included in the miscellaneous group for want of better classification. They were induced by mutagens and are inherited in strictly maternal fashion. They are not transmitted by pollen but in reciprocal crosses -- no matter what male parents we have used -- the progeny are 100% variant.

- LA1092 Uniform yellow, induced by fast neutrons in hybrid background (G.S. Khush)
- LA1438 Light green, induced by X-rays in cv. Moneymaker (K. Kerkerk)

LA2979 Cyto-variegated, in cv. Glamour (R.W. Robinson)

14. Chromosome Marker Stocks (178)

This group consists of stocks in each of which has been assembled a series of marker genes for a single chromosome. In a few cases markers on other chromosomes are also present (listed in parentheses). Some of the more useful stocks have been combined with male steriles in order to facilitate large scale test crossing. These stocks are listed below according to chromosome, and within each chromosome group by accession number. Asterisks indicate the preferred marker combination for each chromosome (i.e. that which provides the best map coverage).

LA	Genotype
Chromosome 1	
LA0910	<i>per, inv</i>
LA0984	<i>scf, inv</i>
LA0985	<i>inv, per</i>
LA1003	<i>scf, inv, per</i>
LA1082	<i>era, um</i>
LA1107	<i>inv, co</i>
LA1108	<i>inv, dgt</i>
LA1169	<i>scf, dgt</i>
LA1173	<i>gas, co</i>
LA1184	<i>au^{tl}, dgt</i>
LA1185	<i>au^u, scf, inv</i>
LA1186	<i>au^u, scf, inv, dgt</i>
LA1431	<i>au^u, dgt</i>
LA1490	<i>au^u, co, inv, dgt</i>
LA1492	<i>ms-32, bs</i>
LA1529*	<i>au^u, co, scf, inv, dgt</i>
LA2354	<i>br, y (p, l)</i>
LA3209	<i>imb, irr, y</i>
LA3301	<i>fla, comⁱⁿ</i>
LA3302	<i>imb, comⁱⁿ</i>
LA3303	<i>imb, inv</i>
LA3305	<i>imb, Lpg</i>
LA3306	<i>comⁱⁿ, inv</i>
LA3307	<i>comⁱⁿ, Lpg</i>
LA3346	<i>au, bs</i>
LA3347	<i>au, ms-32</i>
LA3348	<i>au, com</i>
LA3349	<i>au, imb</i>
LA3350	<i>au, br</i>
LA3351	<i>imb, Lpg/+</i>
LA3352	<i>imb, au, Lpg/+</i>
Chromosome 2	
LA0271	<i>aw, O</i>
LA0286	<i>d, m</i>
LA0310	<i>Wo^m, d</i>
LA0330	<i>bk, o, p, d, s (r, y)</i>
LA0342	<i>Wo^m, d (ms-17)</i>
LA0514	<i>aw, Wo^m, d</i>
LA0639	<i>Me, aw, d</i>
LA0650	<i>aw, d</i>

LA	Genotype
LA0715	<i>Wo^m, Me, aw, d</i>
LA0732	<i>suf, d</i>
LA0733	<i>Wo^m, d, ms-10</i>
LA0754	<i>aw, p, d, m, o</i>
LA0777	<i>dil, d</i>
LA0789	<i>Me, aw, d, m</i>
LA0790	<i>wv, Me, aw, d</i>
LA0986	<i>s, bk, Wo^m, o, aw, p, d</i>
LA1525	<i>aa, d</i>
LA1526	<i>are, wv, d</i>
LA1699	<i>Wo^m, bip</i>
LA1700*	<i>wv, aa, d</i>
LA3132	<i>Prx-2¹, ms-10, aa</i>
Chromosome 3	
LA0644	<i>r, wf</i>
LA0782	<i>sy, sf</i>
LA0880	<i>sf, div</i>
LA0987	<i>pli, con</i>
LA0988	<i>ru, sf</i>
LA1070	<i>ru, sf, cur</i>
LA1071	<i>sy, bls, sf</i>
LA1101	<i>cn, sy, sf</i>
LA1175	<i>bls, aut</i>
LA1430*	<i>sy, Ln, bls, sf</i>
Chromosome 4	
LA0774	<i>ful, e</i>
LA0885	<i>ful, e, su³</i>
LA0886	<i>ful, ra, e</i>
LA0888	<i>ful, ven, e</i>
LA0889	<i>ra, su³</i>
LA0890	<i>ra, ven</i>
LA0902	<i>ful, ra², e (ms-31)</i>
LA0915	<i>clau, ful</i>
LA0916	<i>clau, ra, su³</i>
LA0917*	<i>clau, ful, ra, e, su³</i>
LA0920	<i>ful, ra, e, su³</i>
LA0989	<i>afl, ful</i>
LA0990	<i>cm, ful, e, su³</i>
LA0992	<i>clau, ra, su³ (com)</i>
LA0993	<i>ra, si</i>

LA	Genotype
LA0994	<i>cm, ver</i>
LA1073	<i>clau, afl</i>
LA1074	<i>clau, ver</i>
LA1075	<i>ver, e, su³</i>
LA1536	<i>clau, su³, ra; icn</i>
Chromosome 5	
LA0512	<i>mc, tf, wt, obv</i>
LA1188	<i>frg, tf</i>
LA3850*	<i>af, tf, obv</i>
Chromosome 6	
LA0336	<i>c, sp (a, y)</i>
LA0640	<i>yv, c</i>
LA0651	<i>m-2, c</i>
LA0773	<i>yv, m-2, c</i>
LA0802	<i>yv, m-2, c (ms-2)</i>
LA0879	<i>tl, yv</i>
LA1178	<i>yv, coa, c</i>
LA1189*	<i>pds, c</i>
LA1190	<i>pds, yv</i>
LA1489	<i>yv, ves-2, c</i>
LA1527	<i>d-2, c</i>
LA3805	<i>m-2, gib-1</i>
LA3806	<i>yv, Mi, B^{og}, sp, c</i>
LA3807	<i>tl, yv, c</i>
Chromosome 7	
LA0788	<i>La/+, deb</i>
LA0882	<i>La/+, deb, adp</i>
LA0923	<i>ig, La/+</i>
LA0924	<i>La/+, not</i>
LA1083	<i>ig, flc</i>
LA1103*	<i>var, not</i>
LA1104	<i>deb, not</i>
LA1172	<i>La/+, lg-5</i>
Chromosome 8	
LA0513	<i>l, bu, dl</i>
LA0712	<i>l, bu, dl; ms-2</i>
LA0776	<i>l, va^{virg}</i>
LA0897	<i>l, bu, dl, al</i>
LA0922	<i>bu, dl, spa</i>
LA0998	<i>l, bu, dl, Pn/+</i>
LA0999	<i>tp, dl</i>

LA	Genotype
LA1012	<i>dl, l</i>
LA1191	<i>spa, ae</i>
LA1442	<i>dl, glg, marm</i>
LA1666*	<i>l, bu, dl, ae</i>
Chromosome 9	
LA0883	<i>pum, ah</i>
LA0884	<i>wd, marm</i>
LA1000	<i>nv, ah</i>
LA1001	<i>pum, ah, marm</i>
LA1100	<i>ah, pla, marm</i>
LA1112	<i>marm, lut</i>
LA1176	<i>Crk, ah, marm</i>
LA3297	<i>Tm-2^a, nv (Tm)</i>
LA3353*	<i>ah, marm, pct</i>
Chromosome 10	
LA0158	<i>Xa/+, u, t (y)</i>
LA0339	<i>ag, u</i>
LA0341	<i>h, ag (ms-2)</i>
LA0643	<i>u, l-2</i>
LA0649	<i>t^v, ag</i>
LA0711	<i>t^v, ag (ms-2)</i>
LA1002	<i>h, u, l-2, t, ag (pe, lg)</i>
LA1085	<i>h, res</i>

LA	Genotype
LA1086	<i>h, ten</i>
LA1110	<i>icn, ag</i>
LA1192	<i>hy, ag</i>
LA1487	<i>icn, t^v</i>
LA2493	<i>Xa-2, hy, h, ag</i>
LA2495	<i>Xa-2, h, ten, ag, al</i>
LA2496	<i>Xa-2, h, l-2, t</i>
LA2497	<i>hy, u, icn, h, ag</i>
LA2498	<i>u, Xa-3, h</i>
LA2499	<i>u, nor, t</i>
LA2500	<i>u, icn, h</i>
LA2501	<i>u, icn, h, ag</i>
LA2502	<i>u, h, auv, l-2, t^v</i>
LA2503	<i>u, h, l-2, t^v, ag</i>
LA2504*	<i>u, h, t, nd, ag</i>
LA2505	<i>u, l-2, t, ag, Xa</i>
LA2506	<i>ag, h, l-2, oli, t^v</i>
LA2507	<i>h, t, nd, ag</i>
LA2508	<i>h, t, ag, Xa</i>
LA2509	<i>oli, l-2, t^v, ag (wf)</i>
LA2591	<i>Xa-2, h, ag</i>
LA2592	<i>u, h, t, nd, ag</i>
LA2593	<i>u, auv, ag</i>
LA4341	<i>h, hy, u</i>

LA	Genotype
Chromosome 11	
LA0259	<i>hl, a</i>
LA0291	<i>hl, a (ms-2)</i>
LA0729	<i>neg, a</i>
LA0761	<i>a, hl, j</i>
LA0803	<i>hl, a, pro (ms-2)</i>
LA0881	<i>neg, hl, a</i>
LA0925*	<i>j, hl, a, f</i>
LA1102	<i>a, hl, tab</i>
LA1109	<i>j, hl, mnt</i>
LA1488	<i>neg, ini</i>
LA1786	<i>j, f, a, bi (c)</i>
LA2352	<i>j, f (p, c)</i>
LA2364	<i>j, a, f (y, wt, c, l, u)</i>
LA2489	<i>neg^{ne-2}, a</i>
LA4290	<i>a, bks</i>
LA4291	<i>a, bks²</i>
LA4292	<i>j-2, up, wv-3</i>
LA4344	<i>a, mon</i>
Chromosome 12	
LA1111	<i>fd, alb</i>
LA1171	<i>yg-2^{aud}, fd</i>
LA1177*	<i>alb, mua</i>

15. Linkage Screening Testers (15)

The following set of linkage testers each combines two pairs of strategically situated markers on two different chromosomes (see TGC 22: 24). They are intended primarily for assigning new, unmapped markers to a chromosome. The more complete chromosome marker combinations (list 6.1 above) should be used for subsequent testing to delimit loci more accurately. Whereas six of these stocks should pretty well cover the tomato genome, we list below the entire series of the current available testers because alternative stocks differ in their usefulness, depending upon the phenotype of the new mutant to be located. The chromosomal location of each pair of markers is indicated in parentheses.

LA	Genotype
LA0780	<i>yv, c (chr 6); h, ag (chr 10)</i>
LA0781	<i>ful, e (chr 4); neg, a (chr 11)</i>
LA0784	<i>ful, e (chr 4); hl, a (chr 11)</i>
LA0982	<i>clau, e (chr 4); hl, a (chr 11)</i>
LA0983	<i>l, dl (chr 8); ah, marm (chr 9)</i>
LA1163	<i>d, wv (chr 2); obv, tf (chr. 5)</i>
LA1164	<i>var, not (chr 7); ah, marm (chr 9)</i>
LA1166	<i>clau, su³ (chr 4); icn, ag (chr 10)</i>

LA	Genotype
LA1182	<i>sy, sf (chr 3); alb, mua (chr 12)</i>
LA1441	<i>coa, c (chr 6); hl, a (chr 11)</i>
LA1443	<i>scf, dgt (chr 1); l, al (chr 8)</i>
LA1444	<i>wv, d (chr 2); af, tf (chr 5)</i>
LA1445	<i>clau, su³ (chr 4); h, icn, ag (chr 10)</i>
LA1491	<i>scf, dgt (chr 1); spa, ae (chr 8)</i>
LA1665	<i>scf, dgt (chr 1); l, ae (chr 8)</i>

16. Miscellaneous Marker Combinations (299)

The following list groups stocks in which various mutant genes have been combined for various purposes. A few of these items include linked genes, but are classified here because other linkage testers provide the same combinations or because they are more useful as markers of several chromosomes. Some multiple marker combinations that are of limited

usefulness, difficult to maintain, and/or redundant with other genotypes, have been dropped from the current list.

LA	Genotype
LA0013	<i>a, c, d, l, r, y</i>
LA0014	<i>al, d, dm, f, j, wt, h</i>
LA0052	<i>j, wt, br</i>
LA0085	<i>Wo, d, h</i>
LA0137	<i>dl, wd, gq</i>
LA0158	<i>t, u, Xa, y</i>
LA0159	<i>a, e, mc, t, u, y, wf</i>
LA0169	<i>ps, wf, wt</i>
LA0189	<i>bl, cl-2</i>
LA0190	<i>wf, br, bk</i>
LA0215	<i>at, y, u</i>
LA0281	<i>e, t, u</i>
LA0296	<i>br, bk, wf</i>
LA0297	<i>tf, ug, Nr</i>
LA0299	<i>ag, rv</i>
LA0345	<i>ch, j-2</i>
LA0497	<i>ch, j-2, sf</i>
LA0499	<i>Od, sn, at, cm/+</i>
LA0508	<i>gf, d, c, a, r, y</i>
LA0638	<i>ht, d, r</i>
LA0648	<i>rv, e, Wo, wf, j, h</i>
LA0719	<i>Jau, clau</i>
LA0727	<i>wv, d, c, r</i>
LA0728	<i>a, lut</i>
LA0759	<i>lg, vi, pe, t</i>
LA0760	<i>lg, vi</i>
LA0770	<i>clau, pa</i>
LA0775	<i>tf, h, au, +/d</i>
LA0801	<i>atv, slx</i>
LA0875	<i>hp, u, sp</i>
LA0876	<i>hp, sp</i>
LA0895	<i>tp, sp, u, Hr</i>
LA0907	<i>lut, pr</i>
LA0908	<i>per, var</i>
LA0909	<i>con, sf</i>
LA0912	<i>ht, su³</i>
LA0913	<i>ful, su³, ht</i>
LA0914	<i>com, ful</i>
LA0991	<i>ful, e, com</i>
LA0995	<i>deb, um</i>
LA0996	<i>um, ig</i>
LA1018	<i>h, Od, ptb</i>
LA1038	<i>e, ht, su</i>
LA1072	<i>sy, sf, um</i>
LA1078	<i>ria, ves-2</i>
LA1079	<i>c, ves-2</i>
LA1105	<i>con, cur</i>
LA1106	<i>fsc, ah</i>
LA1170	<i>cn, con</i>

LA	Genotype
LA1219	<i>d, u</i>
LA1663	<i>Ln, Wo^m</i>
LA1664	<i>hp, lp</i>
LA1783	<i>ad, sp</i>
LA1787	<i>Bk-2, en</i>
LA1789	<i>sl^{cs}, a</i>
LA1796	<i>Rs, d, h</i>
LA1804	<i>sr, sp, u</i>
LA1805	<i>sr, y</i>
LA1806	<i>ti, y, wf, al, j</i>
LA2350	<i>y, ne, p, c, sp, a</i>
LA2353	<i>y, wt, n</i>
LA2355	<i>sp, ug</i>
LA2360	<i>e, wt, l, u</i>
LA2363	<i>y, Wo, wt, c, t, j</i>
LA2369	<i>p, Tm-1</i>
LA2370	<i>wf, n, gs</i>
LA2372	<i>sp, fl</i>
LA2441	<i>d, m-2, mc, rvt, t, u</i>
LA2452	<i>B, f, gf, y</i>
LA2453	<i>Gr, u</i>
LA2454	<i>neg^{ne-2}, u</i>
LA2457	<i>u, so</i>
LA2458	<i>Pto, sp, u</i>
LA2461	<i>sp, stu, u</i>
LA2464	<i>aer-2, r, upg, y</i>
LA2464A	<i>r, u, upg, y</i>
LA2465	<i>sp, u, v-2</i>
LA2466	<i>d, t, v-3</i>
LA2467	<i>pe, u, vi</i>
LA2473	<i>alb, c, gra, sft</i>
LA2477	<i>vo, cij, wf, sp, l, u, h</i>
LA2478	<i>ae^{atr}, r, gs, h</i>
LA2486	<i>inc, pds, sp, u, t</i>
LA2490	<i>pdw, mc, pst, dl</i>
LA2492	<i>ti, wf, e, mc, u, a</i>
LA2524	<i>af, sd</i>
LA2526	<i>dp, sp, u</i>
LA2527	<i>l allele, sp, u</i>
LA2595	<i>br, d, dm, wt, al, h, j, f</i>
LA2597	<i>y, r, wf, mc, m-2, c, gs, gf, marm, h</i>
LA2797	<i>bu, j</i>
LA3128	<i>Ln, t, up</i>
LA3212	<i>tmf, d, sp, u</i>
LA3217	<i>glg, Pts</i>
LA3252	<i>Del, t</i>

LA	Genotype
LA3254	<i>a, c, l, Ve</i>
LA3256	<i>at, t</i>
LA3257	<i>gf, gs, r</i>
LA3258	<i>u, Ve</i>
LA3261	<i>Del, gs</i>
LA3262	<i>Del, ug</i>
LA3267	<i>Cf-4, u</i>
LA3268	<i>Tm-2, nv, u</i>
LA3269	<i>Tm-1, u</i>
LA3271	<i>Cf-?, Tm-1, u</i>
LA3273	<i>Gp, Tm-2²</i>
LA3274	<i>ah, Tm-2, nv, u</i>
LA3275	<i>ah, Gp, Tm-2²</i>
LA3276	<i>Tm-1, u, Ve</i>
LA3279	<i>at, Del</i>
LA3284	<i>at, gf</i>
LA3286	<i>r, ug, y</i>
LA3287	<i>hp, r, ug</i>
LA3288	<i>hp, ug, y</i>
LA3289	<i>gf, r, y</i>
LA3290	<i>gf, hp, y</i>
LA3291	<i>at, hp, t</i>
LA3292	<i>Tm-2, u</i>
LA3294	<i>bl, d, u</i>
LA3297	<i>Tm-1, Tm-2, nv</i>
LA3299	<i>ep, u</i>
LA3311	<i>og^c, u</i>
LA3315	<i>sp, pst, u, j-2, up, vo</i>
LA3362	<i>gs, t</i>
LA3363	<i>at, gs</i>
LA3364	<i>gs, u</i>
LA3365	<i>gf, gs</i>
LA3366	<i>t, y</i>
LA3367	<i>hp, t</i>
LA3368	<i>hp, y</i>
LA3369	<i>at, y</i>
LA3370	<i>at, hp</i>
LA3371	<i>hp, u</i>
LA3372	<i>gs, y</i>
LA3373	<i>at, u</i>
LA3374	<i>u, y</i>
LA3375	<i>gs, r</i>
LA3376	<i>Del, hp</i>
LA3381	<i>r, y</i>
LA3382	<i>r, u</i>
LA3383	<i>gs, hp</i>
LA3384	<i>gf, y</i>
LA3385	<i>gs, Nr</i>

LA	Genotype
LA3386	<i>gf, t</i>
LA3387	<i>Nr, t</i>
LA3389	<i>Nr, y</i>
LA3390	<i>Nr, ug</i>
LA3391	<i>gf, hp</i>
LA3393	<i>r, t</i>
LA3394	<i>at, ug</i>
LA3395	<i>gs, hp, y</i>
LA3396	<i>at, u, y</i>
LA3397	<i>gs, t, y</i>
LA3398	<i>gs, hp, t</i>
LA3399	<i>at, gs, hp</i>
LA3400	<i>at, hp, u</i>
LA3401	<i>at, gs, y</i>
LA3403	<i>gf, gs, u</i>
LA3404	<i>hp, u, y</i>
LA3405	<i>gs, hp, u</i>
LA3406	<i>at, hp, y</i>
LA3407	<i>gs, u, y</i>
LA3408	<i>t, u, y</i>
LA3409	<i>gs, t, u</i>
LA3410	<i>at, gs, u</i>
LA3411	<i>gs, r, u</i>
LA3412	<i>gf, gs, hp, u</i>
LA3413	<i>at, gf</i>
LA3414	<i>t, ug</i>
LA3415	<i>ug, y</i>
LA3416	<i>hp, ug</i>
LA3417	<i>r, ug</i>
LA3418	<i>gf, gs, ug</i>
LA3419	<i>at, gf, gs</i>
LA3420	<i>gf, ug</i>
LA3421	<i>Nr, u</i>
LA3422	<i>at, gs, ug</i>
LA3423	<i>gf, gs, hp, u, y</i>
LA3424	<i>gs, hp, u, y</i>
LA3425	<i>gf, gs, hp, t, u</i>
LA3426	<i>gs, hp, t, u</i>
LA3427	<i>gf, gs, t, u</i>
LA3428	<i>l, u, Ve</i>
LA3429	<i>Del, gs, hp</i>
LA3432	<i>Tm-1, Tm-2, nv, u</i>
LA3433	<i>ah, Tm-2, nv, u</i>
LA3437	<i>at, Nr</i>
LA3442	<i>de, dil, u</i>
LA3443	<i>cor, de, u</i>
LA3444	<i>cor, dil, u</i>
LA3445	<i>cor, pum, u</i>
LA3446	<i>cor, sp, u</i>
LA3447	<i>dil, sp, u</i>
LA3448	<i>in, u</i>
LA3449	<i>d, sp, u</i>

LA	Genotype
LA3450	<i>bls, sp, u</i>
LA3451	<i>bl, sp, u</i>
LA3540	<i>l, u</i>
LA3541	<i>gs, r, ug</i>
LA3542	<i>u, ug</i>
LA3543	<i>bls, o, u</i>
LA3545	<i>Del, u, y</i>
LA3546	<i>bls, Cf-?, u</i>
LA3547	<i>ah, u</i>
LA3548	<i>pum, u</i>
LA3549	<i>bls, Gp, Tm-2², u</i>
LA3557	<i>Del, gf</i>
LA3558	<i>gf, Nr</i>
LA3559	<i>Del, gs, y</i>
LA3561	<i>gf, gs, hp, Nr, u</i>
LA3562	<i>gf, gs, u, y</i>
LA3563	<i>sp, u</i>
LA3585	<i>gf, u, ug</i>
LA3587	<i>r, u, ug</i>
LA3589	<i>u, ug, y</i>
LA3590	<i>Nr, gs, y</i>
LA3591	<i>Nr, u, y</i>
LA3593	<i>hp, u, ug</i>
LA3594	<i>gs, hp, ug</i>
LA3595	<i>gf, hp, ug</i>
LA3596	<i>hp, t, ug</i>
LA3597	<i>at, hp, ug</i>
LA3598	<i>r, t, ug</i>
LA3599	<i>at, t, ug</i>
LA3600	<i>t, ug, y</i>
LA3601	<i>gf, r, t</i>
LA3603	<i>at, gf, y</i>
LA3604	<i>hp, r, t</i>
LA3605	<i>at, ug, y</i>
LA3606	<i>r, t, y</i>
LA3607	<i>gs, hp, Nr</i>
LA3608	<i>hp, Nr, t</i>
LA3609	<i>hp, Nr, y</i>
LA3615	<i>d^x, u</i>
LA3675	<i>hp, Nr, u</i>
LA3676	<i>gf, hp, t</i>
LA3677	<i>gf, hp, r</i>
LA3678	<i>Nr, u, ug</i>
LA3679	<i>gs, Nr, ug</i>
LA3680	<i>Nr, t, u</i>
LA3682	<i>gs, t, ug</i>
LA3683	<i>gs, ug, y</i>
LA3684	<i>Nr, t, y</i>
LA3686	<i>gs, Nr, t</i>
LA3688	<i>gf, gs, hp</i>
LA3689	<i>gs, hp, r</i>
LA3691	<i>r, u, y</i>

LA	Genotype
LA3692	<i>at, r, y</i>
LA3693	<i>g, t, u</i>
LA3694	<i>Del, gs, u</i>
LA3695	<i>Del, hp, t</i>
LA3697	<i>gs, r, t</i>
LA3698	<i>gs, r, y</i>
LA3699	<i>gf, u, y</i>
LA3700	<i>at, gf, u</i>
LA3701	<i>at, t, u</i>
LA3702	<i>gf, gs, y</i>
LA3703	<i>gf, hp, u</i>
LA3704	<i>at, gf, hp</i>
LA3706	<i>at, gs, t</i>
LA3706A	<i>Del, t, y</i>
LA3709	<i>Del, gf, gs, hp, u</i>
LA3741	<i>pum, u</i>
LA3742	<i>de, u</i>
LA3743	<i>cor, u</i>
LA3744	<i>sph, u</i>
LA3745	<i>bl, u</i>
LA3771	<i>hp, B^c</i>
LA3811	<i>gf, r</i>
LA3812	<i>bls, Tm, Tm-2, nv</i>
LA3815	<i>Del, t, ug</i>
LA3821	<i>dil, pum, u</i>
LA3826	<i>mon, u</i>
LA3827	<i>dil, cor, sp, u</i>
LA3830	<i>ep, B^c, u</i>
LA4136	<i>Rg-1, r</i>
LA4342	<i>oli, u, y</i>
LA4343	<i>gq, h</i>
LA4348	<i>yg-2, c^{int}</i>
LA4361	<i>fri, tri</i>
LA4362	<i>fri, phyB2</i>
LA4363	<i>cry1, fri</i>
LA4364	<i>phyB2, tri</i>
LA4365	<i>cry1, tri</i>
LA4366	<i>fri, phyB2, tri</i>
LA4367	<i>cry1, tri, fri</i>
LA4368	<i>fri, hp-1, tri</i>
LA4369	<i>fri, hp-1, tri, phyB2</i>
LA4455	<i>ah, B^c</i>
LA4456	<i>aw, B^c</i>
LA4457	<i>B^c, bls</i>
LA4458	<i>aw, c, ex, ps</i>
LA4460	<i>Cnr, y</i>
LA4464	<i>bl, uf</i>
LA4465	<i>bl, sp, uf</i>
LA4466	<i>j, uf</i>
LA4467	<i>j, sp, uf</i>
LA4468	<i>sp, uf</i>
LA4469	<i>s, uf</i>

17. Provisional mutants (122).

The following group of provisional mutants are listed here, rather than with the monogenic stocks because they have not been fully characterized. For some, a monogenic segregation has not been verified, for others complementation tests were either not performed or did not detect allelism with existing mutants of similar phenotype. Most of these lines resulted from mutagenesis experiments, the remainder occurring spontaneously. More information on these stocks is available at our website.

Access.	Traits
2-293	Snout
2-305	Broad
2-473	Yellow fruit, pale corolla
2-493	Purple tipped leaves, puny
2-575	Poxed fruit
2-585	Balloon
2-621	Turbinate
2-625	Prolific leaves
2-629	<i>Me</i> -oid
2-633	Hooded flowers
2-643	Yellow green
3-003	<i>yv</i> -oid
3-055	Round cotyledons and leaves
3-073	Abnormal flowers, <i>are</i>
3-077	Dwarf
3-082	Dwarf
3-083	Yellow virescent
3-084	Yellow green
3-088	Light green, dark veins
3-097	Yellow green
3-098	Slow chlorotic
3-101	<i>tl</i> mimic
3-106	Strong anthocyanin
3-107	Bright yellow virescent
3-112	Crippled
3-115	<i>rv</i> -oid
3-118	Rugose recurved leaves
3-127	Bright yellow
3-241-1	Yellow, anthocyanin
3-243	Long narrow
3-303	Slow, narrow leaves
3-305	<i>La</i> -mimic
3-307	Broad, grey green
3-309	Bunchy growth, mitten leaves
3-311	Slow, rugose
3-313	Acute, olive green
3-315	Glossy dwarf
3-317	<i>ra</i> -oid
3-319	Striated, divided
3-321	Narrow, dissected
3-323	Spirally coiled
3-325	Short, yellow virescent
3-329	Bronzing

Access.	Traits
3-331	Serrated leaves
3-335	Gold dust virescent
3-337	Glossy dwarf
3-341	Dwarf
3-403	Fimbriate leaves
3-404	Speckled white
3-405	Streaked virescent
3-406	Streaked variegated
3-408	<i>bu</i> mimic
3-411	Blue green; bushy roots
3-423	<i>ra</i> -oid
3-424	Extreme dwarf
3-434	<i>d^{cr}</i> like
3-436	Overall yellow
3-441	Singed hairs
3-601	<i>clau</i> mimic
3-612	<i>wiry</i> mimic
3-613	<i>La</i> mimic
3-614	<i>pds</i> -oid
3-617	Dwarf
3-618	mimic of <i>a</i>
3-619	<i>wiry</i> mimic
3-621	<i>d</i> mimic
3-622	<i>d</i> mimic
3-624B	Yellow virescent
LA0506	Triplo-8 mimic
LA0652	calycine poxed, <i>ch</i>
LA0739	<i>ag</i> mimic
LA0765	Acute leaves
LA0791	Long slender fruit
LA0801	Pseudopolyploid, <i>atv</i> , <i>slx</i>
LA0870	frizzled virescent
LA0871	Calico
LA1012	Mottled, chlorotic petiole, <i>dl</i> , <i>l</i>
LA1060	<i>spl</i> -oid
LA1065	Miniature
LA1066	Speckled
LA1095	<i>fy</i> -oid
LA1098	Multiple inflorescence
LA1144	<i>ful</i> mimic
LA1148	Light green
LA1149	Xanthoid
LA1154	pale virescent, twisted leaves

Access.	Traits
LA1160	Fused cotyledons
LA1193	Yellow-sectored
LA1201	<i>rv-oid</i>
LA1202	Dirty orange cherry
LA1436	Withered cotyledons
LA1494	Adventitious roots
LA1532	<i>rv-oid</i>
LA1533	Purple stem
LA1707	Short stature, <i>btI</i>
LA2018	Anthocyanin deficient
LA2019	<i>t^v</i> mimic
LA2020	Dark green foliage
LA2021	Variegated yellow
LA2358	Marginal leaf chlorosis
LA2806	Incomplete anthocyanin mutant
LA2817	<i>lg</i> mimic
LA2897	Virescent gold top
LA2899	Wrinkled fruit
LA3851	Virescent
LA4370	'multiflor' mutant
LA4371	multiflorous mutant
LA4489- LA4503	Trichome chemistry mutants