

Revised List of Miscellaneous Stocks

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This list of approx. 1,560 miscellaneous genetic stocks is a revision of the previous one issued in TGC 56 (2006). Extinct, obsolete, or faulty accessions have been dropped. New stocks include two historical cultivars (Red River, Bryan Self Topper) that were important in the development of determinate processing types. Two other processing types (UC204B, Heinz 1706) used for sequencing and genomics projects, fresh market inbreds or varieties (NC84173, Gold Nugget), and a Spanish landrace with long storage capabilities (B-L-35), were also added. The list also incorporates new double mutant combinations synthesized by E. Kerr or R. Robinson, and a large number of multiple marker stocks developed by A. Kuzemskiy in the Ukraine. Prebred lines containing morphological traits introgressed from *S. lycopersicoides* by C.M. Rick are listed here for the first time. Other new introgressants include recombinant sub-ILs of *S. pennellii* isolated by C. Jones or C. Tauer and associates.

We attempt to maintain all listed accessions in adequate seed supply for distribution. However, some stocks, such as certain multiple marker combinations, aneuploids, or 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 the last Monogenic Stocks List (see TGC 58). More detailed information on these stocks is available through our website (<http://tgrc.ucdavis.edu>).

see also:

Wild Species Stocks (1,190 accessions total) are listed in TGC 57 (2007)

Monogenic Stocks (1,023 accessions total) are listed in TGC 58 (2008)

Types of Stocks on this List

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1. CULTIVARS AND LANDRACES

1.1. Modern and Vintage Cultivars (211)

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.

Accession	Cultivar
LA0818	A-1
LA0516	Ace
LA2838A	Ailsa Craig
LA2529	Alcobaca
LA2463	Allround
LA4403	Amiko
LA1995	Angela
LA3244	Antimold-B
LA3527	Apex 1000
LA4406	Asgerocu
LA4402	Atlasiyj
LA0657	Beaverlodge
LA2973	Big Rainbow
LA2972	Big Yellow Red Ctr.
LA4347	B-L-35
LA1499	Break O'Day
LA4346	Bryan Self-Topper
LA3341	C5
LA0198	Cal 255
LA2414	Cal Ace
LA1439	Calmart
LA3316	Campbell 24
LA3317	Campbell 28
LA3228	Canary Export
LA2374	Caro Red
LA2400	Castlemart
LA3121	Chico Grande
LA4407	Cit
LA4285	CLN2264F
LA4286	CLN2264G
LA3213	Columbian
LA0533	Condine Red
LA0817	CP-2
LA3247	Craigella
LA1162	Cuba Plum
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
LA4415	Farshirovochniyj

Accession	Cultivar
LA3801	Farthest North
LA3024	Fireball
LA3840	FLA 7060
LA4404	Flora
LA3242	Flora-Dade
LA4026	Florida 7481
LA4025	Florida 7547
LA3030	Gardener
LA2969	Georgia Streak
LA2802	Globonnie
LA4355	Gold Nugget
LA4011	GT
LA3231	Gulf State Market
LA0314	Hardin Miniature
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
LA4408	Irska
LA4409	Iskorka
LA1089	John Baer
LA1131	Kallio's Alaskan Dwarf
LA0025	King Humbert #1
LA3240	Kokomo
LA3526	L04012
LA4410	Lagidnyj
LA4405	Lajka
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

Accession	Cultivar
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
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
LA3321	Ohio 7663
LA1088	Ohio Globe A
LA2447	Ontario 717
LA2449	Ontario 7517
LA2396	Ontario 7710
LA2448	Ontario 7818
LA2970	Orange, Red Ctr.
LA0012	Pearson
LA0020	Pennheart
LA3528	Peto 95-43
LA3243	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
LA0337	Red Cherry
LA4350	Red River
LA0276	Red Top VF

Accession	Cultivar
LA3129	Rehovot 13
LA2356	Rey de Los Tempanos
LA0535	Rheinlands Ruhm
LA3343	Rio Grande
LA3145	Rockingham
LA0503	Roumanian Sweet
LA3214	Rowpac
LA2088	Royal Red Cherry
LA3215	Roza
LA1090	Rutgers
LA2662	Saladette
LA3216	Saladmaster
2-297	San Marzano
LA3008	San Marzano
LA0180	San Marzano
LA1021	Santa Cruz B (Gigante)
LA2413	Severianin
LA2912	Short Red Cherry
LA3234	Sioux
LA3221	Slender Pear
LA3632	Start 24
LA0030	Stemless Pennorange
LA2443	Stirling Castle
LA1091	Stokesdale
LA1506	Stone
LA4432	Sunseeds 1642
LA0164	Sutton's Best of All
LA2399	T-5
LA2590	T-9
LA0154	Tiny Tim
LA1714	UC-134
LA4437	UC-204B
LA3130	UC-204C
LA1706	UC-82
LA2937	UC-MR20
LA2938	UC-N28
LA2939	UC-T338
LA2940	UC-TR44
LA2941	UC-TR51
LA0021	Uniform Globe
LA2445	V-121
LA0745	V-9 Red Top
LA3246	Vagabond
LA3905	Vantage
LA3122	Vendor
LA2968	Vendor (Tm-2a)
LA2971	Verna Orange
LA2444	Vetomold K10
LA0744	VF-11
LA1023	VF-13L

Accession	Cultivar
LA1507	VF-145 21-4
LA0816	VF-145 22-8
LA1222	VF145 78-79
LA0742	VF-34
LA0490	VF-36
LA0743	VF-6
LA2086	VFN Hi Sugar
LA0815	VFN-14
LA1022	VFN-8

Accession	Cultivar
LA1221	VFNT Cherry
LA3630	Vrbikanske nizke
LA3465	Walter
LA0279	Webb Special
LA2464A	White Beauty
LA2804	Yellow Currant
LA2357	Yellow Peach
LA3148	Zemer Kau

1.2. Latin American Cultivars (225)

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	LA	Collection Site
Bolivia	LA0172	Santa Cruz
Bolivia	LA2699	Coroica
Bolivia	LA2871	Chamaca
Bolivia	LA2873	Lote Pablo Luna #2
Bolivia	LA2874	Playa Ancha
Chile	LA0466	Hacienda Rosario
Chile	LA0467	Lluta Valley
Chile	LA0468	Iquique
Colombia	LA0356	Buenaventura
Colombia	LA0357	Buenaventura
Colombia	LA0358	Buenaventura
Colombia	LA1539	Cali to Popayan
Costa Rica	LA1215	
Costa Rica	LA3453A	Turrialba
Costa Rica	LA3453B	Turrialba
Costa Rica	LA3453C	Turrialba
Costa Rica	LA3453D	Turrialba
Ecuador	LA0126	Quito
Ecuador	LA0292	Santa Cruz
Ecuador	LA0408	Guayaquil
Ecuador	LA0409	Guayaquil
Ecuador	LA0410	Guayaquil
Ecuador	LA0415	Daular
Ecuador	LA0416	Puna
Ecuador	LA0423	Wreck Bay: Cristobal
Ecuador	LA1224	Puyo
Ecuador	LA1238	Viche
Ecuador	LA1239	Esmeraldas
Ecuador	LA1240	Esmeraldas
Ecuador	LA1241	Esmeraldas
Ecuador	LA1244	Coop Carmela, Los Sapos

Country	LA	Collection Site
Ecuador	LA1249	Loja
Ecuador	LA1250	Loja
Ecuador	LA1251	Loja
Ecuador	LA2094	El Naranjo
Ecuador	LA2132	Chuchumbetza
Ecuador	LA2381	Malacatos
Ecuador	LA2382	Malacatos
Ecuador	LA2383	Malacatos
Ecuador	LA2384	Malacatos
Ecuador	LA3126	Malacatos
Ecuador	LA3624	Santa Rosa
El Salvador	LA1210	San Salvador
El Salvador	LA1211	San Salvador
Guatemala	LA1460	Antigua
Honduras	LA0147	Tegucigalpa
Honduras	LA0148	Tegucigalpa
Mexico	LA0146	Mexico City
Mexico	LA1218	Vera Cruz
Mexico	LA1459	Huachinango
Mexico	LA1462	Merida
Mexico	LA1544	Xol Laguna
Mexico	LA1564	Culiacan
Mexico	LA1565	Val. nationale
Mexico	LA1566	Val. nationale
Mexico	LA1567	Sinaloa
Mexico	LA1568	Yucatan
Mexico	LA1702	Sinaloa
Mexico	LA1703	Rio Tamesi
Mexico	LA1704	Rio Tamesi
Mexico	LA1994	Tamaulipas
Mexico	LA2083	Guaco, Culiacan
Mexico	LA2084	Comala, Culiacan
Nicaragua	LA1212	

Country	LA	Collection Site
Nicaragua	LA1213	
Panama	LA1216	
Panama	LA1217	
Panama	LA1570	Cerro Azul
Peru	LA0113	Hacienda Calera
Peru	LA0116	Chiclayo
Peru	LA0117	Piura
Peru	LA0125D	Trujillo
Peru	LA0131H	Arequipa
Peru	LA0134C	Ayacucho
Peru	LA0393- LA0396	Chiclayo
Peru	LA0401- LA0405	Piura
Peru	LA0457	Tacna
Peru	LA0472	Tacna
Peru	LA0473	Calana
Peru	LA0477	Chincha
Peru	LA0478	Chincha
Peru	LA0721	Chiclayo
Peru	LA1313	Convento de Sivia, Pichari
Peru	LA1315	Ayna, San Francisco
Peru	LA1390	La Molina
Peru	LA1397	Iquitos
Peru	LA1398	Iquitos
Peru	LA1650	Fundo Bogotalla
Peru	LA1655	Tarapoto
Peru	LA1669	Jahuay
Peru	LA1698	Kradolfer Chacra
Peru	LA1701	Trujillo
Peru	LA1976A	Calana
Peru	LA1976B	Calana
Peru	LA1976C	Calana
Peru	LA1988	Iquitos
Peru	LA2207- LA2212	Bajo Naranjillo
Peru	LA2213- LA2220	Nueva Cajamarca
Peru	LA2221- LA2235	Moyobamba
Peru	LA2237	La Habana
Peru	LA2238	La Habana
Peru	LA2239	La Habana

Country	LA	Collection Site
Peru	LA2240	La Habana
Peru	LA2241	La Habana
Peru	LA2242	La Habana
Peru	LA2243	La Habana
Peru	LA2244	La Habana
Peru	LA2245- LA2253	Soritor
Peru	LA2254- LA2256	Puerto Moyobamba
Peru	LA2257	Hotel Abricias, Moyobamba
Peru	LA2258	Fundo Conovista
Peru	LA2259A -2259D	Moyobamba
Peru	LA2260- LA2264	La Huarpia
Peru	LA2265- LA2268	Casaria de Pacaisapa
Peru	LA2269- LA2276	Km 57 from Tarapoto
Peru	LA2278- LA2282	Tabalosas
Peru	LA2283- LA2307	Tarapoto
Peru	LA2309- LA2311	Punto Santa Cruz
Peru	LA2316	Sargento
Peru	LA2622	Mangual Pucallpa
Peru	LA2623	Pucalepillo Pucallpa
Peru	LA2676	San Juan del Oro, Basura
Peru	LA2841	Chinuna
Peru	LA2842	Santa Rita
Peru	LA2843	Moyobamba
Peru	LA2844	Shanhao
Peru	LA2845	Moyobamba
Peru	LA3222- LA3326	San Isidro
Peru	LA3646	Puente Tincoj
Sri Lanka	LA2703	Kandy #2

2. PREBRED STOCKS

2.1. Introgression Lines (ILs)

2.1.1. *S. pennellii* ILs (89)

The following group of introgression lines (ILs) was developed by Y. Eshed and D. Zamir (Eshed 1994 Euphytica 79:175; Liu 1999 TGC 49:26). Each IL (except IL 8-1) is

homozygous for a single introgression from *S. pennellii* (LA0716) in the background of cv. M-82 (LA3475). 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 Jones 2007 Amer. J. Bot. 94: 935, and . The IL # indicates the *pennellii* chromosome and introgressed segment number in each.

Accession	Line
LA4028	IL 1-1
LA4029	IL 1-1-2
LA4030	IL 1-1-3
LA4031	IL 1-2
LA4032	IL 1-3
LA4033	IL 1-4
LA4034	IL 1-4-18
LA4035	IL 2-1
LA3480	IL 2-1
LA4036	IL 2-1-1
LA4037	IL 2-2
LA4038	IL 2-3
LA4039	IL 2-4
LA4040	IL 2-5
LA4041	IL 2-6
LA4042	IL 2-6-5
LA4043	IL 3-1
LA4044	IL 3-2
LA3488	IL 3-3
LA4046	IL 3-4
LA4047	IL 3-5
LA4048	IL 4-1
LA4049	IL 4-1-1
LA4050	IL 4-2
LA3492	IL 4-2
LA4051	IL 4-3
LA4052	IL 4-3-2
LA4053	IL 4-4
LA4054	IL 5-1
LA4055	IL 5-2
LA4056	IL 5-3
LA4057	IL 5-4

Accession	Line
LA4434	IL 5-4-1
LA4435	IL 5-4-2
LA4436	IL 5-4-4
LA4439	IL 5-4-5-137
LA4429	IL 5-4-5-44
LA4430	IL 5-4-5-49
LA4438	IL 5-4-8
LA4058	IL 5-5
LA4059	IL 6-1
LA4060	IL 6-2
LA4061	IL 6-2-2
LA3502	IL 6-3
LA4062	IL 6-3
LA4063	IL 6-4
LA4064	IL 7-1
LA4065	IL 7-2
LA4066	IL 7-3
LA4067	IL 7-4
LA4068	IL 7-4-1
LA4069	IL 7-5
LA4070	IL 7-5-5
LA4071	IL 8-1
LA4072	IL 8-1-1
LA4073	IL 8-1-3
LA4074	IL 8-2
LA4075	IL 8-2-1
LA4076	IL 8-3
LA4077	IL 8-3-1
LA4078	IL 9-1
LA4079	IL 9-1-2
LA4080	IL 9-1-3
LA4081	IL 9-2

Accession	Line
LA4082	IL 9-2-5
LA4083	IL 9-2-6
LA4084	IL 9-3
LA4085	IL 9-3-1
LA4086	IL 9-3-2
LA4087	IL 10-1
LA4088	IL 10-1-1
LA4089	IL 10-2
LA3516	IL 10-2
LA4090	IL 10-2-2
LA4091	IL 10-3
LA3517	IL 10-3
LA4092	IL 11-1
LA4093	IL 11-2
LA4094	IL 11-3
LA4095	IL 11-4
LA4096	IL 11-4-1
LA4097	IL 12-1
LA4098	IL 12-1-1
LA4099	IL 12-2
LA3524	IL 12-3
LA4100	IL 12-3
LA4101	IL 12-3-1
LA4102	IL 12-4
LA4103	IL 12-4-1

2.1.2. *S. habrochaites* ILs (93)

The following group of introgression lines represent the genome of *S. habrochaites* (*L. hirsutum*) LA1777 in the background of cv. E-6203 (LA4024) via homozygous chromosome segments (Monforte 2000 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	LA3946	TA1546	6	LA3981	TA1116	5
LA3914	TA523	1	LA3947	TA1559	6	LA3983	TA1631	5
LA3915	TA1229	1	LA3948	TA1303	7	LA3984	TA1632	5
LA3916	TA1223	1	LA3949	TA1304	7	LA3985	TA1306	7
LA3917	TA1535	1	LA3950	TA1547	7	LA3986	TA1309	7
LA3918	TA1127	1	LA3951	TA1312	7	LA3988	TA1318	8
LA3919	TA1128	1	LA3952	TA1315	8	LA3989	TA1319	8
LA3920	TA1536	1	LA3953	TA1316	8	LA3990	TA1560	8
LA3921	TA1105	2	LA3954	TA1548	8	LA3991	TA1326	9
LA3922	TA1266	2	LA3955	TA1320	8	LA3993	TA1549	10
LA3923	TA1537	2	LA3956	TA1324	9	LA3994	TA1635	10
LA3924	TA1538	2	LA3957	TA1325	9	LA3995	TA1553	11
LA3925	TA1111	3	LA3958	TA1330	9	LA3996	TA1120	11
LA3926	TA1276	3	LA3959	TA1331	9	LA3997	TA1563	1, 10
LA3927	TA1277	3	LA3960	TA1550	10	LA3998	TA1637	1, 11, 12
LA3928	TA1540	3	LA3961	TA1551	10	LA3999	TA1638	1, 12
LA3929	TA1541	3	LA3962	TA1552	10	LA4000	TA1557	1, 4
LA3930	TA1133	4	LA3963	TA1337	10	LA4001	TA1644	1, 7, 12
LA3931	TA1280	4	LA3964	TA1339	10	LA4002	TA1645	1, 8, 12
LA3932	TA1562	4	LA3965	TA1555	11	LA4003	TA1648	2, 11
LA3933	TA1542	4	LA3966	TA1554	11	LA4004	TA1649	2, 3, 6
LA3934	TA1459	4	LA3967	TA1342	11	LA4005	TA1652	3, 5
LA3935	TA517	4	LA3968	TA1350	12	LA4006	TA1654	4, 10, 11
LA3936	TA1475	4	LA3969	TA1121	12	LA4007	TA1655	4, 12
LA3937	TA1473	4	LA3970	TA1219	1	LA4008	TA1656	5, 6, 9
LA3938	TA1287	5	LA3971	TA1218	2	LA4009	TA1564	5, 7, 10
LA3939	TA1293	5	LA3972	TA1173	2	LA4010	TA1561	8, 12
LA3940	TA1112	5	LA3975	TA1629	3			
LA3941	TA1543	5	LA3976	TA1138	4			
LA3942	TA1117	5	LA3977	TA1467	4			
LA3943	TA1544	5	LA3978	TA1468	4			
LA3944	TA1539	6	LA3979	TA1630	4			
LA3945	TA1545	6	LA3980	TA1290	5			

2.1.3. *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 Canady 2005 Genome 48: 685, and Rick 1988 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.	LA	Line	Chr.	LA	Line	Chr.
LA3866	LS1-1	1	LA4233	LS20-9	1	LA4295	LS15-2A	1
LA3867	LS11-9	1	LA4234	LS21-2	1	LA4296	LS15-2AA	1
LA4230	LS15-2H	1	LA4235	LS10-2	1		LS15-	
LA4231	LS15-2B	1	LA4293	LS5-8	1	LA4297	2AAA	1
LA4232	LS11-11A	1	LA4294	LS15-2AD	1	LA4298	LS15-2BA	1

LA	Line	Chr.	LA	Line	Chr.	LA	Line	Chr.
LA3869	LS42-4	2	LA4300	LS9-7B	5, 6	LA4269	LS12-2	9
LA3870	LS38-10	2	LA4253	LS11-11B	6	LA4270	LS10-6	9
LA3871	LS41-3	2	LA4254	LS32-14	6	LA4271	LS49-5	9
LA4236	LS49-8A	2	LA4255	LS38-5	6	LA4272	LS41-11	9
LA4237	LS40-8	2	LA4256	LS9-22	6	LA4308	LS32-10	9
LA4238	LS5-1	2	LA4421	Lac	6	LA4309	LS10-6D	9
LA4239	LS41-20	2	LA3886	LS48-5	7	LA4273	LS12-8	10
LA4420	C2S	2	LA4257	LS46-3	7	LA4274	LS4-14	10
LA3882	LS43-14	2, 6	LA4258	LS19-7	7	LA4275	SL-10	10
LA3344	Mdh-1	3	LA4259	LS32-4	7	LA4276	LS12-12	10
LA3874	LS20-9	3	LA4260	SL-7F	7	LA4425	Abg	10
LA4240	LS1-13	3	LA4261	LS8-11	7	LA3892	LS48-2	11
LA4241	LS40-2	3	LA4301	SL-7A	7	LA4277	LS24-11	11
LA4242	LS14-8	3	LA4302	SL-7C	7	LA4278	LS3-2	11
LA4243	LS1-3	3	LA4303	SL-7D	7	LA4279	LS19-11	11
LA4244	LS10-9	4	LA4304	LS8-11A	7	LA4310	LS19-10A	11
LA4245	LS10-11A	4	LA3883	LS48-6	7, 11	LA4422	PROS	11
LA4246	LS49-8B	4	LA4305	LS9-26C	7, 8	LA4280	LS1-5	11, 5
LA4247	LS12-9	4	LA3876	LS29-1	8	LA4281	LS13-13	12
LA4314	LS12-9B	4, 10	LA3889	LS41-13	8	LA4282	LS45-7	12
LA3875	LS24-14	4, 12	LA3906	Wa, DI	8	LA4283	LS8-9	12
LA3878	LS24-6	5	LA4262	LS20-16	8	LA4284	LS9-13	12
LA4248	LS11-6	5	LA4263	LS46-6A	8	LA4311	LS14-2	12
LA4249	LS9-1	5	LA4264	LS9-26A	8	LA4312	LS45-7C	12
LA4250	LS49-8C	5	LA4265	LS9-26B	8	LA4313	LS8-12A	12
LA4251	LS49-3	5	LA4266	SL-8A	8	LA4427	C12S	12
LA4252	LS32-11	5	LA4267	LS16-10	8			
LA4299	LS4-9	5	LA4306	LS46-6	8			
LA4426	ILX	5	LA4307	SL-8	8			
LA3879	LS1-5	5, 11	LA3345	Dia-3	9			
LA3893	LS16-6	5, 12	LA4268	LS14-7	9			

2.2. Backcross Recombinant Inbreds (90).

The following group of backcross recombinant inbred lines originated from the cross *S. lycopersicum* E6203 × *S. pimpinellifolium* LA1589 (Doganlar 2002 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
LA4142	TA2877, TA2149
LA4143	TA2878
LA4144	TA2879

LA	TA
LA4145	TA2880
LA4146	TA2881
LA4147	TA2882
LA4148	TA2883
LA4149	TA2884
LA4150	TA2885
LA4151	TA2886

LA	TA
LA4152	TA2887
LA4153	TA2888
LA4154	TA2890
LA4155	TA2891
LA4156	TA2892
LA4157	TA2893
LA4158	TA2894

LA	TA
LA4159	TA2895
LA4160	TA2896
LA4161	TA2897
LA4162	TA2898
LA4163	TA2899
LA4164	TA2900
LA4165	TA2901

LA	TA
LA4166	TA2902
LA4167	TA2903
LA4168	TA2904
LA4169	TA2905
LA4170	TA2906
LA4171	TA2907
LA4172	TA2908
LA4173	TA2909
LA4174	TA2910
LA4175	TA2911
LA4176	TA2912
LA4177	TA2914
LA4178	TA2915
LA4179	TA2916
LA4180	TA2917
LA4181	TA2918

LA	TA
LA4182	TA2919
LA4183	TA2920
LA4184	TA2922
LA4185	TA2923
LA4186	TA2924
LA4187	TA2925
LA4188	TA2926
LA4189	TA2927
LA4190	TA2928
LA4191	TA2929
LA4192	TA2930
LA4193	TA2931
LA4194	TA2932
LA4195	TA2933
LA4196	TA2934
LA4197	TA2935

LA	TA
LA4198	TA2936
LA4199	TA2937
LA4200	TA2938
LA4201	TA2939
LA4202	TA2940
LA4203	TA2941
LA4204	TA2942
LA4205	TA2943
LA4206	TA2944
LA4207	TA2945
LA4208	TA2946
LA4210	TA2948
LA4211	TA2949
LA4212	TA2950
LA4213	TA2951
LA4214	TA2952

LA	TA
LA4215	TA2953
LA4216	TA2954
LA4217	TA2955
LA4218	TA2956
LA4219	TA2957
LA4220	TA2958
LA4221	TA2959
LA4222	TA2960
LA4223	TA2961
LA4224	TA2962
LA4225	TA2963
LA4226	TA2964
LA4227	TA2965
LA4228	TA2966
LA4229	TA2967

2.3. Alien Substitution Lines (7)

In the course of his study of segregation and recombination in *S. lycopersicum* x *S. pennellii* hybrids, Rick (Genetics 26:753-768, 1969; Biol. Zbl. 91:209-220, 1971) progressively 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 (Weide 1993 Genetics 135:1175). The mutant loci used to select each substitution are indicated.

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>

2.4. Monosomic Alien Addition Lines (10)

In the following group of monosomic additions (MA), each line contains a single extra chromosome from *S. lycopersicoides* LA1964 added to the genome of cultivated tomato (Chetelat 1998 Genome 41:40). The integrity of the *S. lycopersicoides* chromosomes in these stocks has been tested with a limited number of markers, hence some may be recombinant. For example, our stock of MA-8 lacks *S. lycopersicoides* markers distal to TG330 on the long arm. Furthermore, we were unable to maintain MA-1 and MA-6, both of which are now extinct.

Like other types of trisomics, progeny of the monosomic additions include both diploids and trisomics, the proportion of which varies between each chromosome group. Identification of monosomic additions in each generation is facilitated by their phenotypic resemblance to the corresponding primary trisomic. Therefore, the guidelines of Rick (TGC 37:60-61, 1987) for identifying trisomics in the seedling stage are useful for selecting monosomic additions as well. To further simplify this process, we have backcrossed some of the monosomic additions into the background of multiple marker stocks for the corresponding chromosomes. In this configuration, diploids are more easily distinguished from trisomics by the expression of recessive mutant alleles in the former, and dominant

wild type in the latter. For example, in our stock of MA-2, the 2n progeny would have the phenotype *wv-aa-d*, whereas the 2n+1 plants would be wild type at these marker loci (as well showing the expected trisomic syndrome). In addition, some monosomic additions carry dominant morphological markers that can be used to distinguish them from 2n progeny. The marker genotypes of 2n+1 vs 2n progeny are listed below for each chromosome.

LA	Chrom.	2n+1	2n
3454	MA-2	+--+	<i>wv-aa-d</i>
3455	MA-3	+--+	<i>sy-bls-sf</i>
3456	MA-4	+	+
3457	MA-5	+	<i>obv</i>
3459	MA-7	<i>Bco-+-+</i>	<i>+var-not</i>

LA	Chrom.	2n+1	2n
3460	MA-8	<i>Wa</i>	+
3461	MA-9	+	+
3462	MA-10	<i>Abg-+-+--+</i>	<i>+u-t-nd-ag</i>
3463	MA-11	+	+
3464	MA-12	+	+

2.5. Other Prebreds (21). 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.

Accession	Traits
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	Pachypericarp from <i>S. cheesmaniae</i>
LA1018	Odorless from <i>S. cheesmaniae</i>
LA1019	Pachypericarp from <i>S. cheesmaniae</i>
LA1500	High solids, intense pigment from <i>S. chmielewskii</i>
LA1501	High solids from <i>S. chmielewskii</i>
LA1502	High solids from <i>S. chmielewskii</i>
LA1503	High solids from <i>S. chmielewskii</i>
LA1563	High solids from <i>S. chmielewskii</i>
LA1996	Anthocyanin fruit from <i>S. chilense</i>
LA2380	Exserted stigma from <i>S. pimpinellifolium</i>
LA3855	High 2-tridecanone from <i>S. habrochaites</i>
LA3897	High beta-carotene from <i>S. galapagense</i>
LA3898	High beta-carotene from <i>S. galapagense</i>
LA3899	High beta-carotene from <i>S. galapagense</i>
LA4104	High fruit sucrose from <i>S. chmielewskii</i>
LA4136	Regeneration ability from <i>S. peruvianum</i>
LA4424	Poodle syndrome from <i>S. lycopersicoides</i>
LA4428	Virescent leaves from <i>S. lycopersicoides</i>

2.6. Interspecific hybrids.

LA3857 F₁ cv. VF36 × *S. lycopersicoides* LA2951

A relatively male-fertile F₁ hybrid that is clonally propagated in vitro.

LA4135 F₁ cv. VF36 × *S. pennellii* LA0716

This hybrid is used as a rootstock for maintenance of *S. sitiens*, *S. juglandifolium*, and *S. ochranthum*.

3. STRESS TOLERANT STOCKS (50+)

We receive many requests for stocks with tolerances to environmental stresses (abiotic or biotic). Therefore, we chose this group of mostly wild species accessions based on our observations of plants in their native habitats and/or reports in the literature. If TGC members know of other accessions which should be added to this group, we would be grateful for the information and seed samples to accession in the TGRC.

Stress Tolerance	Species	Accessions
Drought	<i>S. pimpinellifolium</i>	LA1578, and others
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, LA4105, etc.
Flooding	<i>S. lycopersicum</i> var. <i>cerasiforme</i> (wet tropics)	LA1421, and others
Flooding	<i>S. juglandifolium</i> , <i>S. ochranthum</i> (general feature)	LA2120, LA2682
High temperatures	<i>S. lycopersicum</i> cv.s	Nagcarlang LA2661 Saladette LA2662 Malintka-101 LA3120 Hotset LA3320
Low temperatures	<i>S. habrochaites</i>	LA1363, LA1393, LA1777, LA1778
Low temperatures	<i>S. chilense</i>	LA1969, LA1971, LA4117A
Low temperatures	<i>S. lycopersicoides</i>	LA1964, LA2408, LA2781
Aluminum toxicity	<i>S. lycopersicum</i> var. <i>cerasiforme</i>	LA2710 (suspected)
Salinity / alkalinity	<i>S. chilense</i>	LA1930, LA1932, LA1958, LA2747, LA2748, LA2880, LA2931
Salinity / alkalinity	<i>S. cheesmaniae</i> (from littoral habitats)	LA1401, LA1508, LA3124, LA3909
Salinity / alkalinity	<i>S. lycopersicum</i> cv.	Edkawi LA2711
Salinity / alkalinity	<i>S. lycopersicum</i> var. <i>cerasiforme</i>	LA2081, LA1310, LA2079, LA4133
Salinity / alkalinity	<i>S. pennellii</i>	LA0716, LA1809, LA1926, LA1940, LA2656
Salinity / alkalinity	<i>S. peruvianum</i>	LA0462, LA1278, LA2744
Salinity / alkalinity	<i>S. pimpinellifolium</i>	LA1579
Arthropods	<i>S. habrochaites</i>	LA0407 and many others
Arthropods	<i>S. pennellii</i>	LA0716, and others

4. CYTOGENETIC STOCKS

4.1. Translocations (37)

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.

Accession	Chrom.s
*LA1115	T9-12

Accession	Chrom.s
*LA1119	T3-8

Accession	Chrom.s
*LA1120	T6-12

Accession	Chrom.s
*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
LA1121	T4-9
LA1122	T2-9

Accession	Chrom.s
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
LA1882	T12-3 or -8

Accession	Chrom.s
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

4.2. 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 37:60-61, 1987). Additional $2n+1$ stocks are listed under Monosomic Alien Additions.

Accession	Genotype
Primary trisomics	
delta-10	Triplo-1
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	$2n + 10S$

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

4.3. Autotetraploids (17)

We are currently maintaining only 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. All are *L. esculentum* unless otherwise noted, and arose from either induced or spontaneous chromosome doubling.

Accession	Genotype
2-095	cv. San Marzano
2-483	cv. Red Cherry
LA0457	cv. from Tacna
LA0794	<i>ag, t^v</i>
LA1917	<i>L. chilense</i>
LA2335	<i>L. pimpinellifolium</i>
LA2337	cv. Stokesdale
LA2339	cv. Pearson
LA2340	<i>L. pimpinellifolium</i>
LA2342	cv. Danmark

Accession	Genotype
LA2343	cv. Waltham Fog
LA2581	<i>L. peruvianum</i>
LA2582	<i>L. peruvianum</i> var. <i>humifusum</i>
LA2583	<i>L. chilense</i>
LA2585	<i>L. pimpinellifolium</i>
LA2587	<i>L. esculentum</i> var. <i>cerasiforme</i>
LA3255	cv. Ailsa Craig

5. 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)

6. GENETIC MARKER COMBINATIONS

6.1. Chromosome Marker Stocks (184)

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 make them useful for 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).

Access.	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>

Access.	Genotype
LA1184	<i>au^{tl}, dgt</i>
LA1185	<i>au^{tl}, scf, inv</i>
LA1186	<i>au^{tl}, scf, inv, dgt</i>
LA1431	<i>au^{tl}, dgt</i>
LA1490	<i>au^{tl}, co, inv, dgt</i>
LA1492	<i>ms-32, bs</i>
LA1529*	<i>au^{tl}, co, scf, inv, dgt</i>
LA2354	<i>br, y (p, l)</i>
LA3209	<i>imb, irr, y</i>

Access.	Genotype
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>

Access.	Genotype
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>
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>
LA0877	<i>pau, r</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>

Access.	Genotype
LA0993	<i>ra, si</i>
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>
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>

Access.	Genotype
LA1112	<i>marm, lut</i>
LA1176	<i>Crk, ah, marm</i>
LA3353*	<i>ah, marm, pct</i>
LA3841	<i>Tm-2^a, Frl, nv, TM</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>
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>
Chromosome 11	
LA0259	<i>hl, a</i>
LA0291	<i>hl, a (ms-2)</i>
LA0729	<i>neg, a</i>
LA0730	<i>a, pro</i>
LA0761	<i>a, hl, j</i>
LA0798	<i>a, hl, j (ms-2)</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>

Access.	Genotype
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>

Access.	Genotype
LA4292	<i>j-2, up, wv-3</i>
LA4344	<i>a, mon</i>
Chromosome 12	
LA1111	<i>fd, alb</i>

Access.	Genotype
LA1171	<i>yg-2^{aud}, fd</i>
LA1177*	<i>alb, mua</i>

6.2. 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.

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

Access.	Genotype
LA1166	<i>clau, su³</i> (chr 4); <i>icn, ag</i> (chr 10)
LA1182	<i>sy, sf</i> (chr 3); <i>alb, mua</i> (chr 12)
LA1441	<i>coa, c</i> (chr 6); <i>hl, a</i> (chr 11)
LA1443	<i>scf, dgt</i> (chr 1); <i>l, al</i> (chr 8)
LA1444	<i>wv, d</i> (chr 2); <i>af, tf</i> (chr 5)
LA1491	<i>scf, dgt</i> (chr 1); <i>spa, ae</i> (chr 8)
LA1665	<i>scf, dgt</i> (chr 1); <i>l, ae</i> (chr 8)

6.3. Miscellaneous Marker Combinations (321)

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.

Access.	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>
LA0154	<i>u, d, sp, h</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>

Access.	Genotype
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>

Access.	Genotype
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>
LA1219	<i>d, u</i>
LA1663	<i>Ln, Wo^m</i>
LA1664	<i>hp, lp</i>
LA1783	<i>ad, sp</i>

Access.	Genotype
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>
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, cjl, 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>
LA3251	<i>Del, y</i>
LA3252	<i>Del, t</i>
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>

Access.	Genotype
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>
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>

Access.	Genotype
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>
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>

Access.	Genotype
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>
LA3692	<i>at, r, y</i>

Access.	Genotype
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>
LA4372	<i>a, alc, gf, gs, u</i>

Access.	Genotype
LA4373	<i>a, c, gf, gs, j-2, t, u</i>
LA4374	<i>alc, gf, gs, j-2, t, u, y, yg-2^{aud}</i>
LA4375	<i>alc, c, gs, j-2, r, u, yg-2^{aud}</i>
LA4376	<i>alc, c, gf, gs, j-2, r, u, y, yg-2^{aud}</i>
LA4377	<i>gs, hp-1, o, u</i>
LA4378	<i>B^c, gs, hp-1, u</i>
LA4379	<i>gs, u</i>
LA4380	<i>B, gs, u</i>
LA4381	<i>gs, j-2, o, t, u</i>
LA4382	<i>alc, B, u</i>
LA4384	<i>B, gf, u</i>
LA4385	<i>ag, sp, t, u</i>
LA4386	<i>ag, hp-1, sp, t, u</i>
LA4389	<i>B, hp-2^{dg}, sp, u</i>
LA4390	<i>B, hp-2^{dg}, o, u</i>
LA4391	<i>hp-2^{dg}, o, u</i>
LA4392	<i>B^{og}, rin, hp-1, j-2, mc, o, sp, u</i>
LA4393	<i>el, hp-1, j-2, nor, sp, u</i>
LA4394	<i>alc, hp-2, u</i>
LA4395	<i>alc, rin, j-2, sp</i>
LA4399	<i>alc, B^c, hp-1, j-2, u</i>
LA4401	<i>el, gs, hp-1, j-2, nor, u</i>
LA4411	<i>B, hp-2^{dg}, j-2, sp</i>
LA4412	<i>alc, B, u</i>
LA4413	<i>B, gs, u</i>
LA4414	<i>alc, hp-2^{dg}, u</i>
LA4415	<i>gs, Spf, u</i>
LA4417	<i>s, j-2, nor, o, u</i>
LA4418	<i>hp-1, j-2, nor, sp, u</i>
LA4419	<i>rin, j-2, o, u</i>

7. Provisional mutants (106).

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. Genetic background is indicated, if known. More information on these stocks is available at our website.

Access.	Traits
2-293	Snout

Access.	Traits
2-305	Broad

Access.	Traits
2-473	Yellow fruit, pale

Access.	Traits
	corolla
2-493	Purple tipped leaves, puny
2-575	Poxed fruit
2-585	Balloon
2-621	Turbinate
2-625	Prolific leaves
2-629	Me-oid
2-633	Hooded flowers
2-643	Yellow green
3-003	yv-oid
3-055	Round cotyledons and leaves
3-073	Abnormal flowers
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	tl mimic
3-106	Strong anthocyanin
3-107	Bright yellow virescent
3-112	Crippled
3-115	rv-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	La-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	ra-oid
3-319	Striated, divided
3-321	Narrow, dissected
3-323	Spirally coiled
3-325	Short, yv
3-329	Bronzing
3-331	Serrated leaves
3-335	Gold dust virescent
3-337	Glossy dwarf
3-341	Dwarf

Access.	Traits
3-403	Fimbriate leaves
3-404	Speckled white
3-405	Streaked virescent
3-406	Streaked variegated
3-408	bu mimic
3-411	Blue green; bushy roots
3-423	ra-oid
3-424	Extreme dwarf
3-434	d^acr like
3-436	Overall yellow
3-441	Singed hairs
3-601	clau mimic
3-612	wiry mimic
3-613	La mimic
3-614	pds-oid
3-617	Dwarf
3-618	mimic of a
3-619	wiry mimic
3-621	d mimic
3-622	d mimic
3-624B	Yellow virescent
LA0506	Triplo-8 mimic
LA0652	calycine poxed
LA0739	ag mimic
LA0765	Acute leaves
LA0791	Long John
LA0801	Pseudopolyploid
LA0870	frizzled virescent
LA0871	Calico
LA1012	Mottled, chlorotic petiole
LA1060	spl-oid
LA1065	Miniature
LA1066	Speckled
LA1095	fy-oid
LA1098	Multiple inflor.
LA1144	ful mimic
LA1148	Light green
LA1149	Xanthoid
LA1154	pale virescent, twisted leaves
LA1160	Fused cotyledons
LA1193	Yellow-sectoried
LA1201	rv-oid
LA1202	Dirty orange cherry
LA1436	Withered cotyledons
LA1494	Adventitious roots
LA1532	rv-oid
LA1533	Purple stem

Access.	Traits
LA1707	Short stature
LA2018	Anthocyanin deficient
LA2019	Virescent tangerine mimic
LA2020	Dark green foliage
LA2021	Variegated yellow
LA2358	Marginal leaf chlorosis
LA2375	Lc- reduced locule
LA2806	Incomplete anthocyanin mutant
LA2817	lg mimic
LA2897	Virescent gold top
LA2899	Wrinkled fruit
LA3851	Virescent