

Elite Selections of Tuber-bearing *Solanum* Species Germplasm

Based on Evaluations for Disease, Pest and Stress Resistance

John B. Bamberg, Max W. Martin and Jesse J. Schartner

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Inter-Regional Potato Introduction Station, NRSP-6
4312 Highway 42
Sturgeon Bay, WI 54235
USA

Tel: 414-743-5406

Fax: 414-743-1080

Email: NR6JB@sol.ars-grin.gov

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INTRODUCTION and EXPLANATION of TABLES

The United States Potato Genebank. NRSP-6 is the working potato genebank for the United States. Its mission is to introduce, classify, preserve, distribute and evaluate germplasm of potato (*Solanum* spp.). This is intended to promote improvements in the potato of the future by facilitating the use of valuable exotic genes found in wild and cultivated potato germplasm. An increasingly hungry world will need a potato with better yield, quality and adaptation. This potato must fit into a sustainable agricultural system and be grown more efficiently. It must have less dependence on chemical fertilizers, insecticides and fungicides. Exotic germplasm has been shown to contain genes which can meet these challenges by conferring efficient growth and natural resistance to pests and stresses. Thus, this catalog is produced to identify germplasm which will contribute to the attainment of potato improvement goals.

NRSP-6 is part of the US National Plant Germplasm System (NPGS). It receives support and administrative and technical direction from USDA/Cooperative States Research Service (CSRS), USDA/Agricultural Research Service (ARS), and the University of Wisconsin-Madison. NRSP-6 employees include ARS scientists and University of Wisconsin staff. Close cooperation is maintained with University Agricultural Research Station staff. Direction with regard to policy and technical issues is provided by a Technical Committee composed of Administrative Advisors and Technical Representatives from each CSRS regional research Region of the US, as well as representatives from ARS and Agriculture Canada. More information about the station is available upon request.

Previous publications. The most recent "Inventory of tuber-bearing *Solanum* species" was published in 1993 and is available from this genebank. It identifies over 4,500 germplasm accessions, but does not include evaluation data. This publication provides summarized evaluation data to supplement the 1993 inventory.

Additional information available. As with the passport information in the 1993 Inventory, it was not practical to provide all available evaluation data in printed form. Complete data sets of the evaluation results for all accessions are available. Custom printed subsets restricted to specific traits or taxa will be provided on request. Complete electronic datasets are also available on diskette from this station, or can be accessed on-line through GRIN (Germplasm Resources Information Network). For more information on access through GRIN, contact GRIN/DBMU/NGRL/PSI, 4th Floor, Bldg. 003, BARC-West, 10300 Baltimore Ave., Beltsville, MD 20705, Tel: 301-504-5318, Fax: 301-504-5536.

Explanation of the Tables. This publication lists only the abbreviated identities of elite stocks assumed to be of most interest to cooperators--those reported to have very favorable reactions to the disease, pest, or stress challenge applied. Of these, the most outstanding accessions are marked with an asterisk (*). Evaluation for some other variables which influence usefulness of exotic germplasm (vine vigor, flowering, glycoalkaloids) are also included. Elite stocks selected for these lists are identified by their species name abbreviation (see Table 1 for key), and PI (Plant Introduction) number.

Data used for the selection of the accessions for this publication was obtained from three major sources:

- 1) The 1986 edition of the NRSP-6 inventory of stocks contained evaluation data compiled from published and unpublished reports from numerous sources as well as contracted systematic evaluations. Those reported to have desirable characteristics were selected. Copies of the 1986 Inventory and other related publications are available on request from this station.
- 2) Contracted systematic evaluations by United States scientists with the appropriate expertise.
- 3) Systematic evaluations of the collection done on-site by NRSP-6 staff (vigor, flowering, frost reaction).

Sources of these data for various traits are noted in Table 2.

General notes. Users of this publication should be aware that the reliability of listed selections partially depends on factors beyond the control of NRSP-6. For example, none of the evaluations were comprehensive (on the entire collection). Thus, some elite accessions may be absent because they were not tested. Similarly, some accessions may be listed because they were the best from among a chance sample of relatively poor accessions. Designations given to evaluated germplasm also depend on the methods and judgments of the evaluator, and reports from different sources sometimes conflict. Although we have given preference to consistently superior accessions, we cannot guarantee that these materials will perform similarly in all applications or conditions. Finally, these traits may be segregating within accessions. Thus, it is possible that different small samples of seedlings could have significantly different genetic potential.

Despite the above variables, and the inherent difficulty in pooling and comparing data from various types and sources, this summary should be a useful resource. The current cultivar breeding pool is deficient in many of these economically significant traits, and the accessions selected here should be the most promising materials with which to continue fine screening, selection, enhancement, and breeding to address those problems.

Ordering stocks. Small samples of these accessions (usually 50 botanical seeds), are available free and postage paid to any professional potato researcher or breeder. We ask that recipients share evaluation data generated using these stocks with the genebank. When ordering, identify stocks by their species name and PI number. Fax or Email orders are welcome, and relatively small orders can be handled conveniently by telephone. Contact:

**Inter-Regional Potato Introduction Station, 4312 Highway 42
Sturgeon Bay, WI 54235, USA
Tel: 414-743-5406
Fax: 414-743-1080
Email: NR6JB@sol.ars-grin.gov**

Table 1. *Solanum* Species Abbreviation List

abn	<i>abancayense</i>	gnd	<i>gandarillasii</i>	pnt	<i>pinnatisectum</i>
abz	<i>albornozii</i>	grl	<i>gourlayi</i>	psc	<i>pascoense</i>
acg	<i>acroglossum</i>	grr	<i>guerreroense</i>	pta	<i>papita</i>
acl	<i>acaule</i>	hcb	<i>huancabambense</i>	pur	<i>piurae</i>
acs	<i>acroscopicum</i>	hcr	<i>hypacarthrum</i>	rap	<i>raphanifolium</i>
adg	<i>andigena</i>	hdm	<i>hondelmannii</i>	san	<i>santolallae</i>
adr	<i>andreaum</i>	hjt	<i>hjertingii</i>	scb	<i>scabrifolium</i>
agf	<i>agrimonifolium</i>	hou	<i>hougasii</i>	scr	<i>sucrense</i>
alb	<i>albicans</i>	ifd	<i>infundibuliforme</i>	sct	<i>sanctae-rosae</i>
aln	<i>alandiae</i>	imt	<i>immite</i>	sgr	<i>sogarandinum</i>
amb	<i>ambosinum</i>	inm	<i>incamayoense</i>	snk	<i>schenckii</i>
aml	<i>amabile</i>	iop	<i>iopetalum</i>	spg	<i>spgazzinii</i>
avl	<i>avilesii</i>	jam	<i>jamesii</i>	spl	<i>sparsipilum</i>
bcp	<i>brachycarpum</i>	ktz	<i>kurtzianum</i>	spnov	<i>species nova</i>
ber	<i>berthaultii</i>	les	<i>lesteri</i>	stn	<i>stenotomum</i>
blb	<i>bulbocastanum</i>	lgc	<i>longiconicum</i>	sto	<i>stoloniferum</i>
blg	<i>blanco-galdosii</i>	lgl	<i>lignicaule</i>	tar	<i>tarijense</i>
blv	<i>boliviense</i>	lmb	<i>limbaniense</i>	tbr	<i>tuberosum</i>
brc	<i>brevicaule</i>	lph	<i>leptophyes</i>	tnd	<i>tundalomense</i>
brd	<i>brevidens</i>	lxs	<i>laxissimum</i>	tor	<i>toralapanum</i>
bst	<i>brachistotrichum</i>	lyc	<i>lycopersicoides</i>	trf	<i>trifidum</i>
buk	<i>bukasovii</i>	mcc	<i>mochicense</i>	trn	<i>tarnii</i>
can	<i>canasense</i>	mcd	<i>microdontum</i>	tuq	<i>tuquerrense</i>
cap	<i>capsicibaccatum</i>	med	<i>medians</i>	unk	<i>unknown</i>
chc	<i>chacoense</i>	mga	<i>megistacrolobum</i>	ver	<i>verrucosum</i>
chm	<i>chomatophilum</i>	mlt	<i>multidissectum</i>	vio	<i>violaceimarmoratum</i>
chn	<i>chancayense</i>	mrl	<i>morelliforme</i>	vnt	<i>venturii</i>
chq	<i>chiquidenum</i>	mrn	<i>marinasense</i>	vrn	<i>vernei</i>
clr	<i>clarum</i>	msp	<i>moscopanum</i>	wbr	<i>weberbaueri</i>
cmm	<i>commersonii</i>	mtp	<i>multiinterruptum</i>		
cnd	<i>candolleanum</i>	ncd	<i>neocardenasii</i>		
col	<i>colombianum</i>	nrs	<i>neorossii</i>		
cph	<i>cardiophyllum</i>	ocr	<i>ochranthum</i>		
crc	<i>circaeifolium</i>	oka	<i>okadae</i>		
cur	<i>curtilobum</i>	opl	<i>oplocense</i>		
dcm	<i>dolichocremastrum</i>	oxc	<i>oxycarpum</i>		
dds	<i>doddsii</i>	pam	<i>pampasense</i>		
dms	<i>demissum</i>	pcs	<i>paucissectum</i>		
etb	<i>etuberosum</i>	phu	<i>phureja</i>		
fen	<i>fendleri</i>	pld	<i>polyadenium</i>		
frn	<i>fernandezianum</i>	plt	<i>polytrichon</i>		

Table 2. EVALUATION SUMMARY

<u>EVALUATION</u>	<u>NUMBER REPORTED</u>	<u>YEAR</u>	<u>EVALUATOR</u>	<u>EVALUATION DESCRIPTION</u>
<u>VIRUSES</u>				
Potato Leaf Roll	161	1983	E. Bantari	PLRV symptoms and ELISA tests
Potato Leaf Roll	775	1984	E. Bantari	PLRV symptoms and ELISA tests
Potato Leaf Roll	82	1983	G. Bishop	PLRV symptoms
Potato Leaf Roll	219	1984	G. Bishop	PLRV symptoms
Potato Leaf Roll	232	1984	F. Manzer	PLRV symptoms and ELISA tests
Potato Leaf Roll	2264	1984	P. Thomas	PLRV symptoms and ELISA tests
Potato Leaf Roll	972	1986		1986 NRSP-6 Inventory
PSTV	60	1986		1986 NRSP-6 Inventory
Potato Virus A	167	1986		1986 NRSP-6 Inventory
Potato Virus B	3	1986		1986 NRSP-6 Inventory
Potato Virus C	7	1986		1986 NRSP-6 Inventory
Potato Virus F	19	1986		1986 NRSP-6 Inventory
Potato Virus G	1	1986		1986 NRSP-6 Inventory
Potato Virus M	125	1986		1986 NRSP-6 Inventory
Potato Virus S	115	1986		1986 NRSP-6 Inventory
Potato Virus X	430	1986		1986 NRSP-6 Inventory
Potato Virus Y	388	1986		1986 NRSP-6 Inventory
Tobacco Mosaic	24	1986		1986 NRSP-6 Inventory
Tobacco Rattle	42	1986		1986 NRSP-6 Inventory
<u>FUNGI</u>				
Common Scab	1	1986		1986 NRSP-6 Inventory
Early Blight	268	1985	D. Corsini	Visual symptom rating
Early Blight	201	1986	D. Corsini	Visual symptom Index
Early Blight	247	1985	F. Manzer	Visual defoliation rating
Early Blight	183	1986		1986 NRSP-6 Inventory
Fusarium Dry Rot	209	1986		1986 NRSP-6 Inventory
Fusarium Wilt	54	1986		1986 NRSP-6 Inventory
Late Blight	689	1986		1986 NRSP-6 Inventory
Rhizoctonia	210	1989	D. Carling	Visual rating
Verticillium Wilt	121	1984	R. Young	Percent wilt
Verticillium Wilt	121	1984	R. Young	Percent defoliation
Verticillium Wilt	199	1983	N. Anderson	Verticillium propagule count
Verticillium Wilt	491	1984	N. Anderson	Verticillium propagule count
Verticillium Wilt	329	1984	D. Corsini	Visual symptoms / stem colonization
Verticillium Wilt	212	1985	R. Rowe	Visual wilt rating
Verticillium Wilt	135	1984	K. Deahl	Visual wilt rating
Verticillium Wilt	131	1983	D. Corsini	Visual symptoms / stem colonization
Verticillium Wilt	34	1993	S. Jansky	Visual symptoms
Verticillium Wilt	1163	1986		1986 NRSP-6 Inventory
Wart	200	1986		1986 NRSP-6 Inventory
<u>BACTERIA</u>				
Bacteria Wilt	1535	1986	L. Sequeria	Survival rating
Bacteria Wilt	725	1986		1986 NRSP-6 Inventory
Blackleg	204	1987	A. Kelman	Percent survival
Blackleg	188	1988	A. Kelman	Visual resistance index
Blackleg	118	1986		1986 NRSP-6 Inventory

Ring Rot	1275	1986	S. Slack	Visual symptom rating
Ring Rot	15	1993	S. Jansky	IFAS rating
Ring Rot	149	1988	F. Manzer	Visual symptom rating
Ring Rot	1051	1986		1986 NRSP-6 Inventory

NEMATODES

Blackroot	118	1986		1986 NRSP-6 Inventory
Columbia Root-knot	127	1986	S. Hafez	Root gall rating
Columbia Root-knot	294	1987	J. Sasser	Root gall rating
Columbia Root-knot	294	1987	J. Sasser	Egg mass rating
Columbia Root-knot	294	1987	J. Sasser	Reproduction rate rating
Golden Potato Cyst	482	1986		1986 NRSP-6 Inventory
Northern Root-knot	118	1986	S. Hafez	Root gall rating
Northern Root-knot	214	1987	R. Reidel	Root gall rating
Northern Root-knot	199	1987	R. Reidel	Colony count
Northern Root-knot	744	1987	J. Sasser	Root Gall rating
Northern Root-knot	744	1987	J. Sasser	Egg mass rating
Northern Root-knot	744	1987	J. Sasser	Reproduction rate rating
Horsenettle Cyst	22	1986		1986 NRSP-6 Inventory
Osborne's Cyst	22	1986		1986 NRSP-6 Inventory
Root-Knot	197	1986		1986 NRSP-6 Inventory
White Potato Cyst	170	1986		1986 NRSP-6 Inventory

INSECTS

Colorado Potato Beetle	255	1984	C. Carter	Defoliation percentage
Colorado Potato Beetle	168	1984	W. Tingey	Visual defoliation rating
Colorado Potato Beetle	263	1983	L. Sanford	Visual defoliation rating
Colorado Potato Beetle	723	1983	E. Radcliffe	Visual defoliation rating
Colorado Potato Beetle	349	1983	D. Sherrod	Visual defoliation rating
Colorado Potato Beetle	996	1986		1986 NRSP-6 Inventory
Potato Flea Beetle	1190	1985	E. Radcliffe	Adult counts
Potato Flea Beetle	357	1986		1986 NRSP-6 Inventory
Potato Aphid	1189	1985	E. Radcliffe	Adult counts
Potato Aphid	930	1986		1986 NRSP-6 Inventory
Potato Leaf Hopper	1188	1985	E. Radcliffe	Adult counts
Potato Leaf Hopper	1188	1985	E. Radcliffe	Nymph counts
Potato Leaf Hopper	423	1986		1986 NRSP-6 Inventory
Green Peach Aphid	1292	1986		1986 NRSP-6 Inventory
Tarnish Plant Bug	690	1985	E. Radcliffe	Adult counts
Tarnish Plant Bug	690	1985	E. Radcliffe	Nymph counts
Mites	44	1986		1986 NRSP-6 Inventory

TEMPERATURE STRESSES

Frost	2625	1992	J. Bamberg	Visual frost damage rating
Frost	286	1986		1986 NRSP-6 Inventory
Heat	185	1985	E. Ewing	Fresh weight ratio (hot/temperate)
Heat	144	1986	P. Li	Heat killing time
Heat	60	1986		1986 NRSP-6 Inventory

GLYCOALKALOIDS

Glycoalkaloids	606	1986	K. Deahl	Total foliar glycoalkaloids
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VIGOR

Vine Vigor	2626	1992	J. Bamberg	Vine vigor rating
Flowering Vigor	2626	1992	J. Bamberg	Flowering rating

TABLE 3. ELITE STOCKS

ACCESSIONS WITH REPUTED RESISTANCE TO
POTATO LEAF ROLL VIRUS
 404 OF 2477 ACCESSIONS REPORTED

acg	473514	280968	blb	chc	161693
365313	473518	280972	243507	133713	161725
	498081	280987	243511	133718	175403
acl	498187	280991	243512	175401	175405
246504	498190	280999	243513	175415*	175408
266386	498196*	281000	275184	175446	175411
275129	498277	281008	275185	189220	175423
472639		281013	275186	201846	186551
472640	adg	281016	275194	217451	201850
472642*	161136	281019	275196	230582	201851
472646*	161695	281063	275197	275140	201852
472648	195162	281065	275198		205515
472651	197932	281081	275199	chm	205516
472652	230470	281093		266387	205625
472655	233992	281139	blg	310991	230487
472662	243365	281154	442702	365324	230578
472664	243388	281155			230589
472667	243391	292073	blv	chg	230591
472670	243403	292118	310928	473459	230592
472674	243407		310974		275206
472675	243414	alb		cmm	275208
472678	243425	365308	brd	458318	275210
472679	243427		218228*	458319	310962
472681	243443	aln	245763	472834	310967
472683	243449	498090	245764	472839	338618
472686	247355				338619
472687	255493	bcp	bst	cnd	347760
472690	255496	243344	251720	498226*	347761
472693	255507	275179	283095		347762
472694	258875	275180		cph	473520
472695	280863		buk	186549	
472707	280868	ber	266385	275213	etb
472715	280869	265858		275216	245924*
472727	280887	283069	can		245939
472728	280889	310926	283074	dms	498311*
472752	280903	310927	458375	161149	498412*
472762	280908	473330		161155	
473316	280936	473333	cap	161169	fen
473482	280960	473338	473458	161179	251062
473486	280961	473339		161365	262895
473511	280963			161366*	275156

275158	239423	<u>lyc</u>	<u>pcs</u>	251741	<u>sto</u>
275162		255549	473489	283105	160224
275164	<u>ifd</u>	365378		283143	160225
275167	442675		<u>phu</u>		160226
283100	472867	<u>mcd</u>	225681	<u>pur</u>	160371
283102	472877	195185	225688	310997	160372
458409	472884	195200	225691		161150
458412	472890	473170	225697	<u>rap</u>	161160
	472894	473176	225703	210049	161170
<u>gnd</u>	472896		225710	246539	161171*
283076	472902	<u>med</u>	283116	310950	161172
	472914	310994	283118	320262	161281
<u>grl</u>	472915	320261	283135*		186555
473004	472916		310489	<u>scr</u>	186557
473006	472917	<u>mga</u>		473367	195164
473011	472919	473125	<u>pld</u>		195167
473014		473136	175444	<u>sct</u>	195169
473016	<u>inm</u>	473137	230463*	218221	230557
473018	473069	473158	275237	320323	243458
473019		473357	310963		253219
473020	<u>iop</u>		320342	<u>sgr</u>	255532*
473026	275181	<u>mlt</u>	347768	365360	275245
473030		210044			275246
473031	<u>jam</u>	210052	<u>plt</u>	<u>spg</u>	275249
473043	275170	473352	186547	205394	275253
473053	275171		255522	208876	283109
473055	275264	<u>mrn</u>	255526	275144	
473071	275265	283078	255547	458336	<u>tar</u>
473072	458426	283079	275240		265577
473079		310945*	338620	<u>spl</u>	458364
473081	<u>ktz</u>	310946*	365393	246536	473220
473084	133695			265859	473230
473107	320297	<u>opl</u>	<u>pnt</u>	275153	473231
	458332	442682	184774	458386	473239
<u>hcb</u>	458333	458361	190115	473373	473242
365406	472927	473184	230489*	473375	473244
	472928	473191	275230	473376	
<u>hjt</u>	472929	473198	275231	473383	<u>tor</u>
186560	472931	473368	275232	473503	473389
251065	472944	473500	275233		498142*
251067	472945		275235*	<u>stn</u>	
	472957	<u>pam</u>		234013	<u>trf</u>
<u>hou</u>	472958*	275275	<u>pta</u>	283141	255538
161174	472959	458381	249929		255541
161726			251740		283065

<u>unk</u>	<u>ver</u>	251756	275260	<u>vio</u>
230465	195170	275250		498314
320258	195171	275259		

ACCESSIONS WITH REPUTED RESISTANCE TO
POTATO SPINDLE TUBER VIROID
 21 OF 60 ACCESSIONS REPORTED

<u>acl</u>	<u>chc</u>	<u>imt</u>	<u>med</u>	<u>stn</u>	<u>ver</u>
473442	133708	365330	210045	234013	338624
			310994		
<u>ber</u>	<u>grr</u>	<u>iop</u>		<u>sto</u>	<u>vrn</u>
310926	161730	275182	<u>mlt</u>	160226	230468
310927			210044	161160	458370
	<u>hit</u>	<u>ktz</u>		275246	
<u>blb</u>	186560	175435	<u>mrn</u>		
275199			210040		

ACCESSIONS WITH REPUTED RESISTANCE TO
POTATO VIRUS A
 76 OF 167 ACCESSIONS REPORTED

<u>adg</u>	232041	243436	197760	<u>mcd</u>	<u>sto</u>
161695	232044	243450	201846	195185	160226
186180	232057		230580	195200*	161158
197933	233982	<u>chc</u>		208866	195169*
205393	233983	133085	<u>dms</u>	218223	205510
214421	233984	133618	160221		205522*
214424	233985	133656	161366	<u>phu</u>	230477
214425	233988	133662	161367	225709	230557*
214431	233990	133663	175404*	225710	
214435	233993	133708	205517		<u>tbr</u>
214440	233997	133718	218047*	<u>pld</u>	209771
225628	233999	133720	230578*	230480	
230457	234002	133722	230579		
230472	234585	175401		<u>pnt</u>	
230496	243390	189217*	<u>ktz</u>	230489	
230498	243396	189219	175435		
230499	243400	189221			

ACCESSIONS WITH REPUTED RESISTANCE TO
POTATO VIRUS C
 2 OF 7 ACCESSIONS REPORTED

<u>chc</u>	<u>mcd</u>
189217*	195200*

ACCESSIONS WITH REPUTED RESISTANCE TO
POTATO VIRUS F
 18 OF 19 ACCESSIONS REPORTED

<u>chc</u>	133663	133720	189217	209411
133085	133708	133722	189219	230580
133618	133710	175401	189220	230581
133656	133718	189215	197758	

ACCESSIONS WITH REPUTED RESISTANCE TO
POTATO VIRUS M
 61 OF 125 ACCESSIONS REPORTED

<u>adg</u>	<u>cap</u>	<u>gnd</u>	<u>mcd</u>	<u>oka</u>	<u>sct</u>
161695	205560	265866	208866	320327	230464
214427			218223	320328	
230474	<u>chc</u>	<u>grl</u>			<u>sgt</u>
243390	217451	320322	<u>med</u>	<u>phu</u>	230510
280981	230580	473065	310994	225681	
			320261	225682	<u>spg</u>
<u>ber</u>	<u>chm</u>	<u>grr</u>			208876
218215	243340	161730	<u>mga</u>	<u>pld</u>	
310926			210034	230480	<u>spl</u>
310927	<u>chn</u>	<u>ktz</u>	275148		230502
	338615	175435		<u>plt</u>	
<u>blb</u>			<u>mlt</u>	184770	<u>stn</u>
243512	<u>clr</u>	<u>lph</u>	210044	186545	195188
275189	243355	283090			230512
			<u>mrn</u>	<u>pur</u>	234013
<u>bst</u>	<u>cmm</u>	<u>lyc</u>	310946	310997	
320265	243503*	365378			<u>tar</u>
			<u>mtp</u>	<u>rap</u>	230466
<u>can</u>	<u>cph</u>	<u>mcc</u>	275272	210049	
265863	186548	338616			

<u>tor</u>	<u>ver</u>	<u>vio</u>	<u>vnt</u>	<u>vrn</u>	<u>wbr</u>
195210	161173	258856	218220	320330	265880
	338624				

ACCESSIONS WITH REPUTED RESISTANCE TO
POTATO VIRUS S
 19 OF 115 ACCESSIONS REPORTED

<u>ber</u>	<u>grl</u>	<u>mcd</u>	<u>mtp</u>	<u>pld</u>
310926	320322	218223	275272	347768
310927				347770
<u>cap</u>	<u>grr</u>	<u>med</u>	<u>oka</u>	<u>tor</u>
205560	161730	310994	320327	195210
		320261	320328	
<u>chc</u>	<u>mcc</u>	<u>mrn</u>	<u>phu</u>	<u>vnt</u>
133662	338616	310946	225710	218220

ACCESSIONS WITH REPUTED RESISTANCE TO
POTATO VIRUS X
 79 OF 430 ACCESSIONS REPORTED

<u>acl</u>	209415	280866	310927	<u>grr</u>	<u>pam</u>
175395*	217448	280867		161730	275274
175396*	225629	280883	<u>chc</u>		
195160*	230472	280896	217451	<u>ktz</u>	<u>phu</u>
208856	230475	280919	230580	175434*	225675
208874	230499	280935		175435	225677
217450	232044	280970	<u>chm</u>		243469
230493	232057	281041	310991*	<u>lph</u>	
230529	233982	281096		458378	<u>pnt</u>
230554*	233989	281125*	<u>dms</u>		184764*
230555*	233995	281130	175403*	<u>med</u>	
230556*	233996		175405*	310994	<u>tbr</u>
320277*	243440	<u>bcp</u>			209771
473515*	243450	239402	<u>etb</u>	<u>mrn</u>	245317
	255496		245939*	310946	245320
<u>adg</u>	255505	<u>ber</u>			245940
161143	258886	208881	<u>grl</u>	<u>oka</u>	
186180	258927	265858*	320322	320327	<u>ver</u>
197932	279291*	283070*		320328	195170
205622	280865	310926			

ACCESSIONS WITH REPUTED RESISTANCE TO
POTATO VIRUS Y
 101 OF 388 ACCESSIONS REPORTED

<u>acl</u>	<u>chc</u>	251731*	<u>grr</u>	<u>mga</u>	161281
208856*	133618	275214*	161727*	275147*	161364*
473515*	133656	279272*	161730*		186557
	133663	279274*		<u>phu</u>	195164*
<u>bcp</u>	133708	283063*	<u>hjt</u>	195198*	195166*
275179*	175401*		186560*	225673	195167*
275180*	175402*	<u>dms</u>		225685	195169*
	175415*	160227	<u>hou</u>	225696	195195*
<u>ber</u>	175419*	161154	161726*	225703	205522*
265857*	175443*	161176			230477
	175446*	161731	<u>ifd</u>	<u>pnt</u>	230557*
<u>blb</u>	189215*	175404*	265867*	184764	253219*
283096*	189217*	175408*		230489	275244*
	189219	175409*	<u>jam</u>	253214*	275248*
<u>blv</u>	195183*	175411*	195190		283109*
265860*	197760*	175423*	275170*	<u>spl</u>	
	201846	186562*	275171*	310984*	<u>tar</u>
<u>brd</u>	217451*	195165*	275264*		217457*
245764*	275136*	205516*	275265*	<u>sto</u>	
	275138*	230579*		160224*	<u>ver</u>
<u>buk</u>	275139*	275211*	<u>ktz</u>	160226*	275257*
210051			175435*	160372	
	<u>cph</u>	<u>etb</u>		161150*	<u>vrn</u>
<u>can</u>	184762	245939*	<u>mcd</u>	161170*	230468*
210035	251725*		208866*	161171*	
	251729*		218223*	161172*	

ACCESSIONS WITH REPUTED RESISTANCE TO
TOBACCO MOSAIC VIRUS
 4 OF 24 ACCESSIONS REPORTED

<u>acl</u>	<u>cph</u>	<u>etb</u>	<u>vrn</u>
208856*	283063*	245939	230468*

ACCESSIONS WITH REPUTED RESISTANCE TO
TOBACCO RATTLE VIRUS
 22 OF 42 ACCESSIONS REPORTED

<u>acl</u> 195160	<u>buk</u> 365318	320266	<u>lxs</u> 283088	365338	<u>vrn</u> 320333
<u>blb</u> 243509 275192	<u>can</u> 310938	<u>etb</u> 245939	<u>mcc</u> 365334	<u>spl</u> 365343	<u>wbr</u> 265880
<u>brd</u> 218228	<u>chc</u> 320292	<u>ktz</u> 320297	<u>mcd</u> 320319	<u>stn</u> 365344	
	<u>cmm</u> 243503	<u>lph</u> 320340	<u>mtp</u> 365337	<u>ver</u> 338624	

ACCESSIONS WITH REPUTED RESISTANCE TO
EARLY BLIGHT
 77 OF 676 ACCESSIONS REPORTED

<u>abn</u> 458404	<u>buk</u> 265876	<u>col</u> 310983*	<u>nrs</u> 473202	<u>pnt</u> 184774 186554 230489	<u>tar</u> 275154
<u>abz</u> 498206	<u>can</u> 246533 458375	<u>cph</u> 186549 275214	<u>oka</u> 458367	275231 275233 275234	<u>tor</u> 195210 458397 472805*
<u>acl</u> 225620 472637 473517 473518 473519	<u>chc</u> 133085 189217 189219 189220	<u>etb</u> 245939	<u>opl</u> 473182	347766	
		<u>frn</u> 320270	<u>pcs</u> 365340*	<u>pta</u> 251741	<u>tuq</u> 246971* 498177
<u>adg</u> 233992	<u>chm</u> 243340* 266387 310943	<u>imt</u> 365330	<u>phu</u> 195198 225669* 225672* 320353 320370 320372	<u>rap</u> 210049 458406 473528	<u>unk</u> 320258*
<u>bcp</u> 498025	<u>clr</u> 283099	<u>iop</u> 275181		<u>san</u> 195168*	<u>ver</u> 160228
<u>blb</u> 243510 275184	<u>cmm</u> 243503 320269 472840	<u>lyc</u> 255549	<u>pld</u> 275237 275239	<u>sgr</u> 230510	<u>vrn</u> 320329 458370 473308*
<u>blg</u> 442702		<u>mlt</u> 210043	<u>plt</u> 275241	<u>stn</u> 205526 234011	
<u>brd</u> 245763	<u>cnd</u> 498227*	<u>mtp</u> 498267*			

ACCESSIONS WITH REPUTED RESISTANCE TO
FUSARIUM DRY ROT
 39 OF 209 ACCESSIONS REPORTED

<u>adg</u> 230499 280884 280895 280915 280930 280932	280935 280942 280957 280960 280964 280967 280977	281010 281059 281062 281066 281070 281080 281084	281092 281107 281108 281119 281125 281127 281131	281132 281139 281144 281149 281152 281153 281176	281185 281186 281208 281217 281220
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ACCESSIONS WITH REPUTED RESISTANCE TO
FUSARIUM WILT
54 OF 54 ACCESSIONS REPORTED

<u>adg</u>	<u>dms</u>	<u>iop</u>	<u>mrn</u>	<u>pnt</u>	205527
225632	365380	275181	310945	186554	230512
232839	365391		310946	275234	234011
		<u>lgl</u>	365332	275236	234013
<u>alb</u>	<u>fen</u>	275273			234015
365305	262895	310993	<u>pam</u>	<u>pta</u>	365344
365306			275274	275229	
	<u>gnd</u>	<u>mcd</u>		283143	<u>tbr</u>
<u>ber</u>	265866	320306	<u>phu</u>		245317
208881		320314	320375	<u>spg</u>	
218215	<u>grr</u>		320376	208876	<u>tor</u>
265857	161727	<u>med</u>	320378		320302
		310994	320382	<u>spl</u>	
<u>blb</u>	<u>hjt</u>	320261		275276	<u>vrn</u>
243507	186560		<u>pld</u>		230468
243508	251065	<u>mga</u>	161728	<u>stn</u>	320329
		265873		195188	320330
		275147		205526	

ACCESSIONS WITH REPUTED RESISTANCE TO
LATE BLIGHT
156 OF 687 ACCESSIONS REPORTED

<u>adg</u>	243448	<u>blb</u>	<u>bst</u>	161167*	201853
161716	243449	243345*	283095	161169*	205514*
186178	243450	243504*	320265	161175	205516
225629	296086	243505*		161176*	205517*
233984		243506*	<u>cph</u>	161366*	205518
237208	<u>adr</u>	243507	283062	161725	205519
243361	247360	243508*	283063	161731	205625
243390		243509*		175403	218047*
243404	<u>bcp</u>	243510*	<u>dms</u>	175404*	230487*
243406	230459	243511*	160208	175408*	230558
243411	239402	243512*	160220*	175409	230559
243416		275184	160221*	175423	230578
243435	<u>ber</u>	275185	160222	186551	275206
243437	265857	275188	160227	186556	275208*
243439	265858	275192*	160230*	186562	275209*
243443	310925		161149	201851	275210

<u>fen</u>	<u>phu</u>	225708	<u>pld</u>	275233	239410*
225661*	225668	225709	230480	275234	243459
	225670	225710	275237	275235	275248
<u>grr</u>	225671	243461	275238	275236*	275249
161727*	225675	243463	310963*		310980
	225676	243468	320342	<u>sto</u>	
<u>hjt</u>	225678	275110		161158*	<u>tor</u>
283103	225681	320349	<u>pnt</u>	161178*	195210
	225683	320350	184764	161281	
<u>mcd</u>	225685	320351	184774	186563	<u>trf</u>
195185	225689	320352	186553	195166*	283064
218224	225694	320353	186554	195195	283065
473166	225698	320359	230489	201855	283104
473171	225701	320360	275230	205510*	
	225706	320363	275231	205522	<u>ver</u>
	225707		275232	230490*	161173*

ACCESSIONS WITH REPUTED RESISTANCE TO
RHIZOCTONIA SOLANI
 18 OF 210 ACCESSIONS REPORTED

<u>brd</u>	217451*	195165*	275204*	217457*
<u>acl</u>	498104*	<u>hjt</u>	<u>mrn</u>	<u>plt</u>
472686	275138*	251065*	310946	275240*
473326*	<u>fen</u>		<u>ku</u>	
	498240*	<u>ifd</u>	<u>opl</u>	<u>spg</u>
<u>ber</u>		472884*	458360*	320299*
498094*	<u>grl</u>		473499*	161170*
498095	473031	<u>ktz</u>		<u>spl</u>
498096	473084	442680*		233693*

ACCESSIONS WITH REPUTED RESISTANCE TO
VERTICILLIUM WILT
 659 OF 1239 ACCESSIONS REPORTED

<u>abn</u>	473519*	161136	209417	214435	229895*
458403		161683*	209421	214437*	230470
	<u>acs</u>	161695*	209433*	214440*	230471
<u>acl</u>	365314*	161699*	214421*	214443*	230473
210029*		186179*	214422*	225629*	230496*
473328	<u>adg</u>	186180	214423	225632	230498*
473329*	160215*	205622	214427*	225635	230499
473517	160373*	209415	214431*	225637*	232036*

232041*	243444*	258918*	281031	275184	133656*
232045	243446*	258919*	281032	275187	133659*
232054	243450	258921*	281040	275193*	133664*
232060*	243452*	258922	281064	275197	133708*
232840	243455*	258923	281068	310960	133710
232841	243456	258924*	281070		133713*
233987*	246516*	258925*	365402	<u>blv</u>	133718*
233988*	246521*	258926*	365403	265860	175401*
233990	246540*	258929*	473196*		175419*
234002*	246545	258931*		<u>brc</u>	175443*
243378	246554	258934	<u>adr</u>	310929*	189215
243380*	247334	280863*	230458		189217*
243382	247337	280866*	247360	<u>brd</u>	189220
243384*	247348*	280867*		218228*	189221*
243385	253707*	280868	<u>agf</u>	245763	195183*
243390	255492*	280869*	243350		197758*
243391*	255493	280874*		<u>bst</u>	197760*
243401*	255496*	280880*	<u>alb</u>	249927	209412
243402*	255504	280887*	266381	251720	217451
243403*	255507*	280888		255527	230580
243404*	258857*	280889	<u>bcp</u>		230585
243406	258862*	280890*	243344	<u>buk</u>	275139*
243407	258863*	280891*	275183	265876*	320282
243410*	258864*	280902*		266385*	320283
243411*	258868*	280905*	<u>ber</u>	365318	320286
243412*	258870*	280907*	208881*	365320	320287
243413*	258871*	280910*	218215*	365349	320288
243414*	258874	280923*	265857*	473450	320291
243418*	258875	280926*	265858	473452	414143
243419*	258877*	280929*	283069*		472810*
243420*	258878*	280932	283070	<u>can</u>	472812
243422*	258879*	280935*	310925*	265865	472813*
243425*	258880*	280936*	310926	458375*	472819*
243431*	258882*	280943	310927	458376	472820*
243432*	258883*	280944*	310971*	458377*	472823*
243433*	258888*	280945*	310981*	473346*	472826*
243434*	258890*	280957*	320257		472828*
243435	258891*	280958*	473331*	<u>cap</u>	472832*
243436	258893*	280999	473333	473458*	
243438	258894*	281007	473334		<u>chm</u>
243439*	258895*	281014*		<u>chc</u>	243340*
243440	258896	281023	<u>blb</u>	133085*	
243441	258897	281025	243504*	133124*	<u>chn</u>
243442*	258915	281026	243510	133127*	338615*
243443	258917*	281027	253210	133619*	442699

<u>clr</u>	458412	283103*	458330	320312	<u>mrn</u>
243355	458417*		472923*	320314	210040*
		<u>hou</u>	472924*	473166	310944
<u>cmm</u>	<u>gnd</u>	161174*	472928*	473169*	310945*
320267	265866*	161726	472945*	473170*	310946*
320269*	283076*	283107	472946*	473176*	365332
472834*			472965	473180	
472836*	<u>grl</u>	<u>ifd</u>			<u>mtp</u>
472850*	320322	275146*	<u>les</u>	<u>med</u>	265886*
	414145	283077*	442694*	210045*	365336*
<u>col</u>	442668*	320295*		230507*	365338*
473462	442669*	442675*	<u>lgl</u>	265872*	498265*
	442670	442676*	275273*	283081*	498266*
<u>cph</u>	442671*	458321	473351*	310994	498267*
184765	442673*	458322*		320260*	
184766	458340*	472858*	<u>lmb</u>	320261*	<u>oka</u>
186548*	458341*	472871	473468*	458402	458367*
255519	473000*	472891*		473496*	
275212*	473001*	472896*	<u>lph</u>		<u>opl</u>
275213	473003*	472898*	283090*	<u>mga</u>	265885*
279272*	473009*		320340*	210034*	442682
283062*	473014*	<u>imt</u>	473451	233124*	442685*
283063*	473018*	365330*	473495*	233125	442693*
347759*	473019*	365331*		265578*	458360*
	473020*	458401*	<u>lyc</u>	275148*	458361*
<u>dds</u>	473029*		365378*	310977*	458390*
473350*	473054*	<u>iop</u>		310978*	458392*
	473055*	275181	<u>mcc</u>	435072*	473182*
<u>dms</u>	473057*	275182*	283114*	435077*	473194*
338618	473059*		365334*	458346*	473368*
338619	473061*	<u>jam</u>		473109*	473499*
347760	473063*	275169*	<u>mcd</u>	473111*	
347761*	473073*	275262*	195185	473113*	<u>oxc</u>
347762*		275265*	195200	473125	275224*
365382	<u>hcb</u>	458423*	218222*	473136	275226*
365383	365406*	458425*	218223	473155	
	458400*	458428*	218225	473159*	<u>pam</u>
<u>etb</u>			218226		275275
245924	<u>hdm</u>	<u>ktz</u>	265881*	<u>mlt</u>	458381*
	498067*	175434	310979	210044*	
<u>fen</u>		320271*	320304	210052*	<u>pcs</u>
275163	<u>hit</u>	442680*	320305	210055*	365340*
275164*	251063*	442681*	320306	310955	473489
275165	251065*	458328*	320310	473352*	
283102*	251067*	458329	320311*		

phu	pld	473372*	310972*	473236	458372*
225674*	175444*		311000*	473237*	458373*
225678	230463	scb	311001*	473239*	473308*
225679	230480	365363*	458386*	473245*	
225681*	275238		473504*	473332	wbr
225688	310963	scr			442703*
225697	320342	258906*	stn	tbr	
225698	347769	258909*	195186*	209771	
225701*	347770*	290959*	195214*	245796	
225705		442691*	205526*	245931*	
225706	plt	442692*	230512	245940	
230586	184770*	458391*	234007*		
230867	186545*		234008*	tor	
243461*	186547*	sct	234010	458396*	
243463*	255526*	218221*	234011*	458397*	
243464	275240*	230464*	234012	472804	
243465*	275241	473200*	234013*	472806	
243466	279280*		234015		
243467		sgr	283141*	trf	
243468*	pnt	230510*	365344*	255536*	
243469	190115*			255537*	
283118*	275232*	spg	sto	255539*	
283119	275233*	205407*	160224		
283121		208562*	161171	unk	
283125	pta	208876*	186555*	230465*	
283126	249929*	275143*	195164*	233961*	
283135	275227*	310985	195166	234009*	
310489	275228*	320299*	205522*		
320349*		458334*	230490*	ver	
320351*	pur	458336*	239411*	195170*	
320354*	473501*	458398*	275246	195172*	
320363*		472974*	365397	310966*	
320364	rap	472989			
320365*	210048*	472990*	tar	vio	
320372*	210049*		195206*	258856*	
320373	265862*	spl	217457*	473395	
320378*	296126	210039*	217458*		
320382*	473466*	230502*	230466*	vrn	
320383*	473467*	230503*	265577*	230468	
320384*	473526	234014*	275154*	230562*	
320385*	473527	246536*	458365*	320330	
320386	473528*	265859*	472815*	320332	
320388*		265869*	473218*	458369*	
320389*	san	275276*	473228	458370	
320394*	195168*	310959*	473230*	458371*	

ACCESSIONS WITH REPUTED RESISTANCE TO

WART

107 OF 200 ACCESSIONS REPORTED

<u>acl</u>	<u>can</u>	<u>hjt</u>	320261	243460	<u>sgt</u>
205507	265863	251067		320349	230510
320272			<u>mga</u>	320352	
472644	<u>cap</u>	<u>ifd</u>	210034	320357	<u>spl</u>
472657	205560	472889	265874	320358	311000
473316			265879	320359	
473510*	<u>chc</u>	<u>jam</u>	283082	320360	<u>stn</u>
	189220	275169	473113	320364	195204
<u>adg</u>	201846		473128	320366	195214
197932	320282	<u>ktz</u>	473129	320368	205527
205622	320285	320271	473133	320369	
205624	320291	472942	473137		<u>sto</u>
280897		472948		<u>pld</u>	320343
280951	<u>cmm</u>	472956	<u>mrn</u>	230561	
280981	320269		310945	275237	<u>tar</u>
		<u>lgl</u>	310946	275239	195206
<u>alb</u>	<u>cph</u>	310993		310963	
310986	283062		<u>mtp</u>	347767	<u>tor</u>
		<u>lph</u>	275272	347768	195210
<u>bcp</u>	<u>dms</u>	283090		347770	
255514	205517		<u>oka</u>		<u>trf</u>
	338619	<u>mcc</u>	320327	<u>plt</u>	255539
<u>ber</u>	365388	283114		255546	283064
265858			<u>opl</u>		
310926	<u>grl</u>	<u>mcd</u>	442684	<u>pnt</u>	<u>vnt</u>
310927	210038	195200*		184764	218220
	320322	265881	<u>pam</u>		
<u>blb</u>	473057	320311	275274	<u>rap</u>	
243512		320312		296126	
243513	<u>grr</u>	320315	<u>phu</u>		
	161727		225679	<u>sct</u>	
<u>bst</u>	161730	<u>med</u>	225686	320325	
283095		210045	225694		
		310994	225696		

ACCESSIONS WITH REPUTED RESISTANCE TO
BACTERIAL WILT
 58 OF 1862 ACCESSIONS REPORTED

acl	blv	dms	175411	365382	plt
473483	310974	160208*	175423*	365386	365393*
498081		160220*	186551*		498274*
498178*	chc	160222	186556*	phu	
498183	201846	161149	201850	320358	rap
	472827	161151	201853	320363*	458406*
		161155	205516	320365	473466*
bcp	chm	161164*	205518*	320367	
275180*	310990	161169	225711	320369	sto
		161365	230488*	320371*	365395
ber	cmm	161366*	230559	320379*	
498096	320266*	161719	230579	320380	
	458319*	161729	338619*	320381	
blg	472837*	175408	365381	320386	
365368					

ACCESSIONS WITH REPUTED RESISTANCE TO
BLACKLEG
 268 OF 423 ACCESSIONS REPORTED

acg	230499	280923	473285	ber	243508
365313*	230500	280925	498294*	208881*	243510
498204	232044*	280935*	500056	218215	243512*
	243398	280942		265857	243513
acl	243404*	280945	agf	283070	255516*
205507	243422*	280951	243352	310927*	255518
208874	243430	280960		310971*	275184*
472657	243439	280967	aln	320257	275186*
473314	243440*	280970	498090	473330	275187*
	243450*	280981		473338*	275188
acs	246516*	280985	amb	473339*	275189*
365315	255496	280997	365316	498095	275192*
	258877*	281014	458405	498101*	275194*
	258886*	281037		498102	275195*
adg	265868	281059	bcp	498106	275196*
161350*	280867	281113	230459		275197*
197932	280869	281133	255514*	blb	275199*
214421*	280891	281142	275183*	243505*	310960
225632*	280896	338623	498024	243506*	347757*
225637*	280897	365402	498249*	243507	347758*
230474					

<u>blv</u>	320285	160222	435074	<u>inm</u>	473361
265860*	320286*	160230	442667	473089	498414
310928	320291	161149	442670		
	414143*	161155	458339	<u>jam</u>	<u>mlt</u>
<u>brd</u>	458313	161166	458340*	275169	210043
245764*	458314	161167*	458341	283145	
	472809	161180	458342	458423*	<u>mrn</u>
<u>bst</u>	472810	161366	458343	458428	283078
249927	472812	161725	458344		310945*
255527	472819*	161731	472920	<u>ktz</u>	
255528	472820	161732	472992	472942	<u>nrs</u>
255529	472821	161769	472993	498422	473529
255530*	472823	175409	473003		
283095	472824	175423	473015	<u>les</u>	<u>oka</u>
320265	472825*	186551	473018	442694	320327
497993*	472829*	201853	473019		500061
	473406	205519	473025	<u>lgl</u>	
<u>buk</u>	498317	218047	473050	310993	<u>opl</u>
265876	498324	225652	473053		265885
275271	500042	230559	473057	<u>lph</u>	442693*
414155*		230579	473072	283090	473189
473450	<u>chm</u>	230587		320340	473191
473452*	243340	230589	<u>grr</u>	473448	473500
473492		230590	161727		
473494	<u>cmm</u>	275206	161730	<u>mcc</u>	<u>pam</u>
	320267*	275208		283114	275274
<u>can</u>	320269	275209	<u>hcb</u>		
230511	498416	310962	458400	<u>mcd</u>	<u>phu</u>
283080		338618		218222*	195191*
	<u>cnd</u>	338619	<u>hcr</u>	218223*	195198
<u>cap</u>	498227*	347761	473477*	218224	225665
205560				310979*	225675
	<u>cph</u>	<u>fen</u>	<u>hit</u>	320304	225678*
<u>chc</u>	184762	251062	186559	320312*	225679*
133664	186549	275163*	251063	320314	225696
175415	279272	275164*	251067		225697
189215		283100	283103	<u>mga</u>	225701
189221	<u>dds</u>	498240		210034	225705
197760	442690*		<u>hou</u>	265873	225706
217451*	473350*	<u>frn</u>	161726	265879	225709
230580*		320270		275148	225710
230582	<u>dms</u>		<u>ifd</u>	275149	243463
230862	160208	<u>grl</u>	320295	283082	243469*
275137	160212	320322*		473111	283116*
275140	160221	435073		473359	320349

320350	275230	498306	<u>stn</u>	498287*	245931*
320352	275231		234008		
320353*	275232	<u>sct</u>	234015	<u>tar</u>	<u>tor</u>
320372	275233	205397		195206	458397*
	275234	230464	<u>sto</u>	217457	498144
<u>pld</u>	275235		160224	217458*	
175444	275236	<u>sgr</u>	160225	230466	<u>trf</u>
230463	347766*	230510	160226	265577*	255536
275237			160372	275154*	255541
310963	<u>pta</u>	<u>snk</u>	161170	414150*	255542
320342	249929	275261*	161171*	414152	283104
347768	275227	498041	161281*	458365*	
347770	498035	498280	161364*	473223*	<u>unk</u>
498273			186555*	473228*	320341
	<u>pur</u>	<u>spg</u>	195164*	473229	
<u>plt</u>	310997	205394	195167	473230*	<u>ver</u>
184770	473501*	208876	195195	473234*	160228
184773		275143	201855*	473236*	
186545	<u>rap</u>	275144	205510*	473237*	<u>vio</u>
255526	210049	310985	205522*	473238*	473398
255545	265878		230477*	473239*	
275240		<u>spl</u>	230557*	473241*	<u>vnt</u>
275241	<u>sch</u>	210039	243458*	473242*	218220
283106	365363	246536*	275246*	473244*	
498276		310959	275248*	473245*	<u>vrn</u>
	<u>scr</u>	310984	275249*	473336*	230468
<u>pnt</u>	442691	458388	283108*	500054	
186553*	442692*		283109*		
186554	473392	<u>spnov</u>	310980*	<u>tbr</u>	
230489*	498302*	498295	498002*	209771*	

ACCESSIONS WITH REPUTED RESISTANCE TO

RING ROT

454 OF 1853 ACCESSIONS REPORTED

<u>acl</u>	266386	472643	472675	472754	498081
175396*	320272	472646	472686	473314	498196
208856	320273	472651	472693	473316	
210029	320276	472652	472707	473319	<u>adg</u>
225621	320279	472653	472727	473323	209433
230493	365312	472654	472731	473324	214421
230529	472638*	472655	472738	473327	214435
230554	472640*	472657	472744	473329	225637
246504	472642	472670	472752	473442	230473

232054	<u>ber</u>	473447	472820	<u>cur</u>	473045
233983	320257	473453	472821	186181	473048
233984	473331	473469	472822	234005	473050
243452	498075	473493	472823		473059
255504	498141	473494	472830	<u>dcm</u>	473079
280883		498219	473403	498234	473081
280928	<u>blb</u>	498220		498237	473094
281007	243504	498221	<u>chm</u>		473100
281012	243505	498222	266387	<u>dds</u>	498330
281034	243506		310943	473350	
281035	243507	<u>can</u>	310990		<u>hcb</u>
281073	243508	210035		<u>dms</u>	498243
281128	243510	246533	<u>chn</u>	160220	498244
281146	243512	265863	338615	160222	
281200	243513	310940		161149	<u>hcr</u>
281248	275184	442695	<u>cmm</u>	161155	473477
285005	275185	458377	320267	161167	
285012	275186	473345	320269	225711	<u>hdm</u>
338623	347757	473348	458317	230559	473365
365402		473355	458318	230589	498067
473196	<u>blg</u>		472838	230591	
473261	442701	<u>cap</u>	472839	275206	<u>hit</u>
473277	442702	205560	472841	275207	283103
498175		210036	472844	275210	
498291	<u>blv</u>	498120	472849	338619	<u>hou</u>
498292	265860		473408	347761	161726
498293	265861	<u>chc</u>	498417	365384	283107
498294	310975	133123	498419	365386	
		189221		365388	<u>ifd</u>
<u>adr</u>	<u>brc</u>	197760	<u>cnd</u>	498015	283077
498148	473378	209412	498226		310976
	498114	230580		<u>fen</u>	414146
<u>agf</u>		230581	<u>col</u>	262895	458320
243349	<u>brd</u>	230582	310983	275159	458324
243350	218228	265576	320346	458422	472869
	245763	275138			472873
<u>alb</u>	473401	275141	<u>cph</u>	<u>grl</u>	472877
498201		320285	184762	320322	472879
	<u>bst</u>	320286	186548	458339	472887
<u>bcp</u>	255530	320288	275212	458341	472894
251721	498217	458309	275213	472912	472899
275180		458310	283062	472996	472903
498022	<u>buk</u>	458316		473000	472908
498023	210042	472810	<u>crc</u>	473001	473414
	275271	472816	498116	473004	473522
	365351	472819		473029	498248

<u>inm</u>	458346	320348	498276	<u>spl</u>	<u>tor</u>
473066	458347	320349		310959	195210
473067	458348	320359	<u>pnt</u>	498305	320303
473068	458349	320362	184774		458397
473069	458350	320363	186553	<u>spnov</u>	472808
473089	473111	320364	186554	473205	473389
	473130	320365	230489	473387	
<u>iop</u>	473140	320366	253214	473473	<u>trf</u>
275182	473524	320367	275231		255536
	498260	320371	275232	<u>stn</u>	255537
<u>iam</u>		320376	275234	195214	283104
275263	<u>mlt</u>	320377	275235	205526	498303
275264	210043	320378		205527	
275265	210052	320383	<u>pta</u>	230512	<u>trn</u>
	310955	320385	498029	234007	498047
<u>ktz</u>	473354	320386		234008	498048
442678	498304	320387	<u>rap</u>	234011	
442679		320388	290944	234013	<u>tuq</u>
442680	<u>mtp</u>	320389	310999	365344	246971
442681	498265	320390	458384		
458328	498312	320391	458407	<u>sto</u>	<u>unk</u>
472922		320392	473369	275247	498172
472923	<u>nrs</u>	320393	473465	283109	
472926	473202	320394	473466	498005	<u>ver</u>
472927				498007	161173
472929	<u>opl</u>	<u>pld</u>	<u>scr</u>	498052	195170
472935	442683	161728	283091	498058	195171
472959	442685	175444	442691	498287	195172
472960	458359	230480	458391		310966
497992	458361	275237	473367	<u>tar</u>	
	458362	320342	473379	217457	<u>vio</u>
<u>les</u>	458390	347767	473381	217458	473396
442694	473185	347768	498286	265577	
	473187	498036	498301	414148	<u>vnt</u>
<u>lgl</u>	473191			458394	218220
310993	473193	<u>plt</u>	<u>sgr</u>	472815	
473351	473194	184770	230510	473226	<u>vrn</u>
	473500	255522		473227	320330
<u>mcd</u>	498270	255526	<u>snk</u>	473228	458370
473167		255545	275261	473233	458371
473172	<u>pam</u>	255546			
498127	275274	255547	<u>spg</u>	<u>tnd</u>	<u>wbr</u>
		275241	208562	473474	442703
<u>mga</u>	<u>phu</u>	279308	472969	473476	
275147	195191	498037	472976		
275149	225705	498274	472986		

ACCESSIONS WITH REPUTED RESISTANCE TO
BLACK ROOT NEMATODE
 96 OF 118 ACCESSIONS REPORTED

<u>acl</u>	310975	338618	<u>mcd</u>	<u>plt</u>	310959
365307			218222	283106	311000
365309	<u>bst</u>	<u>fen</u>	218223		311001
	320265	262895	218224	<u>pta</u>	
<u>alb</u>			320312*	251740	<u>sto</u>
365305	<u>buk</u>	<u>grl</u>		283143	230557
365306	365349	320322	<u>mga</u>		243458
365308			233124	<u>rap</u>	
365311	<u>can</u>	<u>grr</u>	275148	265862	<u>tar</u>
	265863	161727	310977	310953	217457
<u>amb</u>	265875		310978	310999	217458
365316		<u>hou</u>			265577
	<u>cap</u>	161726	<u>mlt</u>	<u>sct</u>	275154
<u>bcp</u>	205560		210043	218221	
275183		<u>ifd</u>		283089	<u>tbr</u>
	<u>chc</u>	275146	<u>pam</u>		245926
<u>ber</u>	230582		275274	<u>sgr</u>	245931
218215	275141	<u>jam</u>		230510	245935
265857		275169	<u>phu</u>		245940
265858	<u>cmm</u>	275263	320361	<u>spg</u>	
310925	320269	275264	320362	275144	<u>ver</u>
			320365	310985	320344
<u>blb</u>	<u>cph</u>	<u>ktz</u>	320370	320299	
243507	275213	320271	320371	320300	<u>vrn</u>
243508			320372	320301	230468
243513	<u>dms</u>	<u>lgl</u>	320373		320329
	218047	310993		<u>spl</u>	320330
<u>blv</u>	230487		<u>pld</u>	310933	
310928	230587	<u>mcc</u>	161728	310957	
310974	230592	365334	175444	310958	

ACCESSIONS WITH REPUTED RESISTANCE TO
COLUMBIA ROOT-KNOT NEMATODE
 65 OF 390 ACCESSIONS REPORTED

<u>acg</u>	<u>acl</u>	<u>adr</u>	<u>alb</u>	<u>aln</u>	<u>amb</u>
365313	175395	230458	230494	498088	458405
		320345	266381	498090	
		498148			

<u>avl</u>	243512	<u>brd</u>	175401	<u>hou</u>	<u>plt</u>
498091	255518	245763	265576	161174	275240
498093	275187*		275138	161726*	
	275189	<u>bst</u>	320282	239423	<u>rap</u>
<u>bcp</u>	275191*	249927	320283	283107	210049
230459	275194	283095	320284		
498249	275195	320265	320294	<u>med</u>	<u>spl</u>
	275197	498216		283081	275276
<u>ber</u>	275198		<u>clr</u>		
310925	275199	<u>buk</u>	275203	<u>phu</u>	<u>sto</u>
310971*		442698		225674	161364
	<u>blv</u>		<u>cph</u>		
<u>blb</u>	265861	<u>can</u>	186548	<u>pld</u>	<u>trf</u>
243345*	310928	265865		230480	283104
243504	310974		<u>hit</u>	275237	
243505*	310975	<u>chc</u>	186560		
243508		133619			

ACCESSIONS WITH REPUTED RESISTANCE TO
GOLDEN POTATO CYST
 48 OF 481 ACCESSIONS REPORTED

<u>acl</u>	<u>ber</u>	275200	251067	<u>pld</u>	<u>sto</u>
230556	265857			275238	275246
		<u>blv</u>	<u>ifd</u>		275248
<u>adg</u>	<u>blb</u>	265860	275146	<u>rap</u>	
205624	243508			283086	<u>tbr</u>
230457	243512	<u>buk</u>	<u>lph</u>		245320
233987	255518	230506	320340	<u>spg</u>	245321
233993	275187			205407	
246516	275189	<u>clr</u>	<u>mga</u>	208562	<u>vrn</u>
258877	275191	283099	210034	275143	230468
258886	275194		265879	275144	
	275195	<u>grl</u>			
<u>agf</u>	275196	265579	<u>phu</u>	<u>spl</u>	
275177	275197		195191	210039	
	275198	<u>hit</u>		233692	
	275199	251065		246536	

ACCESSIONS WITH REPUTED RESISTANCE TO
NORTHERN ROOT-KNOT NEMATODE
684 OF 974 ACCESSIONS REPORTED

<u>abn</u>	197932	243375	458405	243513*	473447
442700	205623	243376		255518	473449
458403	209419	243377	<u>avl</u>	275187	473452
458404	209433	243390	498091	275189*	
	214423*	246497	498092	275194	<u>can</u>
<u>abz</u>	214425*	246499	498093	275195	210035
498206	214427*	246514		275196	230511
	214430*	246516	<u>bcp</u>	275197*	246533
<u>acl</u>	214431*	246540	230459	275198	265863
175395	214435*	246541	275179	275199	265865
175396	214436	246544	275180	275200	265875
186176*	214443	246545	275183	498223	283074
195160	217448	246551	498249	498224	
205395	225628*	246554	498251	498225	<u>cap</u>
208874	225632	246555			473458
210029*	225633	246979	<u>ber</u>	<u>blg</u>	498120
275126	229894	255493	218215	442702	
310924*	230457*	255504	265858		<u>chc</u>
310970	230471	258886*	310925	<u>blv</u>	133073
320274*	232041		310926	265860*	133123
365310	232046	<u>adr</u>	310981	265861	133618
435070	232054	320345	320257	310928	133619
472637*	232060		473331	310974	133663
472639	232839	<u>agf</u>	473333*	310975	133664
472640	232840	243349	473334		133708
	232842		473337	<u>brc</u>	133710
<u>acs</u>	233114	<u>alb</u>	473338	310929	175401
365314	233982	230494	498094		175402
	233984	266381	498109	<u>bst</u>	175415
<u>adg</u>	233992	365306	558033	249927*	175419
160215	233994	365376		251720*	189215
161131	233997		<u>blb</u>	255528	189217
161136*	233998	<u>aln</u>	243504*	283095*	189218
161348	234001	498085	243505*	320265	189219
161350	234002	498088	243506*	498216	189220
161677	234585	498090	243507		189221
161683	237208*		243508*	<u>buk</u>	195183
161699	243365	<u>amb</u>	243509	210042	209411
186178	243368	365316	243510*	275271	209412
186179*	243371	365317	243511*	365351	217451
195162	243372	365362	243512*	442698	230580

230582	320346	<u>etb</u>	239423*	<u>lph</u>	265872
265576	473407	245924	283107*	283090	283081
275136	498149	245939		473445	320260
275137	498228		<u>ifd</u>	473448	320261
275138		<u>fen</u>	275146	473451	458402
275139	<u>cph</u>	251062	283077	473495	473496
275140	184765	262895*	310976		
275141	184766	275156		<u>lxs</u>	<u>mga</u>
275142	184767	275157	<u>inm</u>	498252	210034
320282	184771	275158	473066		233125
320284*	251725	275159		<u>mcc</u>	265578
320285	251729	275161	<u>iop</u>	283114	265873
320289	251731	275162	275181	338616	265874
320290	251759	283102			265879
320291	255519		<u>jam</u>	<u>mcd</u>	275147
320293		<u>frn</u>	275169	195185	275148
320294	<u>crc</u>	320270	275262	195200	275149
414144*	498116		275264	208866	283082
458314	498117	<u>gnd</u>	275266	218223	310978
472810	498119	265866	458424	218224	
472812		283076	458425	218225	<u>mlt</u>
472820	<u>cur</u>			218226	210043
472823	186181	<u>grl</u>	<u>ktz</u>	265575	
472824	225650	210038	175434	265881	<u>mrn</u>
472825		414145	320271	275150	210040
	<u>dcm</u>	442667	320296	275151	283078
<u>chm</u>	498234	442668	320297	310979	
243341	498235	442669	442678	320304*	<u>mrn</u>
310943	498237	442673	442679	320305	283079
310991		473005	442680	320306	310944
473460	<u>dms</u>	473006	458327	320307	310945
	160221		458330*	320309	310946
<u>chn</u>	160230	<u>hcb</u>	458331*	320310	365333
338615	161151	365406	472923*	320311	458380
	161153		472926*	320312	498254
<u>clr</u>	175403	<u>hit</u>	472929	320314*	498255
283099	175404	186559	472931	320315	
	175405	186560	472932	320316	<u>oka</u>
<u>cmm</u>	186551	251063	472933*	320317	320327
243503	186552	251065		320318	498130
320267	230559	251067	<u>lgl</u>	320319*	
	275206		275273	320320	<u>opl</u>
<u>col</u>	275207	<u>hou</u>	310993		265885
247322	275208	161174*	473351	<u>med</u>	458360
310983		161726		230507	458390

458392	243462	320391	310951	275276	195167
498069	243463		310998	310933	195169
	243464	<u>pld</u>	458383	310957	195195*
<u>pam</u>	243465	175444	458384	310958	201849
210046	243466	230463	458406	310959	201855*
275274	243467	230480	473466	310972	205510*
275275	243468	230561		310984	205522
442697	243469	275237	<u>scr</u>	311000	230477*
458381	258855		258906	365343	230490
	275110	<u>plt</u>	258913	458385	230557
<u>pcs</u>	283116	184770	283091	458386	239410
365340	283118	184773	290959	473373	239411*
	283119	186545	442692		243458
<u>phu</u>	283120	186547	458389	<u>stn</u>	243459
195191	283121	255522	458391	195186	253219
195198	283123	255545	473392	195188*	255525
197761	283125	255547	498302	205526	255534
197762	283127	275240		205527	275244
225665	283135	279280	<u>sct</u>	230512	275245
225667	283137	279308*	275152*	234007	275246
225668	310489	283106		234008	275247
225669	320348	498274	<u>snk</u>	234010*	275248*
225670	320349		275261	234011	275249
225671*	320350	<u>pnt</u>	498250	234012*	283108
225672	320352	230489		234013	283109
225673	320353	275231	<u>spg</u>	234015	310964*
225674	320354	275234	208876	283141	310980
225676	320355		275143		
225677	320359	<u>psc</u>	275144	<u>sto</u>	<u>tar</u>
225678	320360	365339	320299	160224	195206
225679	320362		320300	160225	217457
225681	320363	<u>pta</u>	320301	160226	230466
225683	320366	249929	458338	160372	265577
225689	320367	251740	458398	161152	275154
225694	320370	251741		161158	414149
225695	320371	275227	<u>spl</u>	161160*	473220
225697	320372	275229	210039	161170	473222
225701	320373	283105	230502	161172*	473227
225703	320374		233692	161364	473229
225705	320375	<u>rap</u>	233693	161770	473230
225707	320376	210048	234014	186544	473232
225708	320380	210049	246536	186555	473332
225709	320383	265862	265859*	186563	498290
225710	320386	265878	265869	195164*	
243461	320390	283086	265871	195166	

<u>tbr</u>	458397	255542*	<u>ver</u>	275258	<u>vrn</u>
209770	472807	498303*	160228	275260	230562
245796	473389		161173*		320330
245850		<u>tug</u>	195171	<u>vio</u>	320333
	<u>trf</u>	246971	195172	473396	458370
<u>tor</u>	255536*		251756	473397	458371
195210	255537	<u>unk</u>	255544	473398	458373
310934	255538	310931	275250		
310936	255539*	320258	275255	<u>vnt</u>	<u>wbr</u>
320302	255540*	338617	275256	218220	265880
458396	255541	338622	275257		

ACCESSIONS WITH REPUTED RESISTANCE TO
HORSENETTLE CYST NEMATODE
 16 OF 22 ACCESSIONS REPORTED

<u>acl</u>	<u>ber</u>	133708	<u>pam</u>	<u>spl</u>	<u>tar</u>
186176	218215	189217	210046	230502	195206
217450					
	<u>chc</u>	<u>dms</u>	<u>phu</u>	<u>stn</u>	
<u>adg</u>	133127	161151	195191	195188	
205622	133663		225685	195214	

ACCESSIONS WITH REPUTED RESISTANCE TO
OSBORNE'S CYST NEMATODE
 20 OF 22 ACCESSIONS REPORTED

<u>acl</u>	<u>ber</u>	189217	<u>pam</u>	<u>spl</u>	<u>sto</u>
186176	218215		210046	230502	195169
217450		<u>dms</u>			205510
	<u>chc</u>	161151	<u>phu</u>	<u>stn</u>	
<u>adg</u>	133127		195191	195188	<u>tar</u>
205622	133663	<u>fen</u>	225685	195214	195206
	133664	251062			
	133708				

ACCESSIONS WITH REPUTED RESISTANCE TO
ROOT-KNOT NEMATODE
 135 OF 197 ACCESSIONS REPORTED

<u>acl</u>	310975	161366	<u>mcc</u>	<u>plt</u>	311000
208874		218047	365334	184770	311001
210029	<u>bst</u>	230487		184773	365343
365307	283095	230559	<u>mcd</u>	255526	
365309	320265	230587	208866	283106	<u>stn</u>
		230592	218222		234015
<u>adg</u>	<u>buk</u>	338618	218223	<u>pnt</u>	283141
280889	365321		218224	275230	
280924	365349	<u>fen</u>	218226	275232	<u>sto</u>
280935		262895	310979	275235	160224
	<u>can</u>	275163	320312*		161170
<u>agf</u>	265863			<u>pta</u>	186555
243351	265875	<u>grl</u>	<u>mga</u>	251740	230477
		320322	233124	283143	230557
<u>alb</u>	<u>cap</u>		275148		243458
365306	205560	<u>grr</u>	310977	<u>rap</u>	
365308		161727	310978	265862	<u>tar</u>
365311	<u>chc</u>			310953	217457
	175401	<u>hcb</u>	<u>mlt</u>	310999	217458
<u>amb</u>	175443	365406	210043		265577
365316	189217			<u>sct</u>	275154
365317	197760	<u>hjt</u>	<u>ocr</u>	218221	
	230580	283103	230519	283089	<u>tbr</u>
<u>bcp</u>	230582				245926
275183	275136	<u>hou</u>	<u>pam</u>	<u>sgr</u>	245931
	275141	161726	275274	230510	245935
<u>ber</u>					
218215	<u>cmm</u>	<u>jam</u>	<u>phu</u>	<u>spg</u>	<u>ver</u>
265857	320269	275169	320361	310985	275260
310925		275263	320365	320299	320344
	<u>cph</u>	275264	320370	320300	
<u>blb</u>	186548		320371	320301	<u>vrn</u>
243507	186549	<u>ktz</u>	320372		320329
243508	275213	320271	320373	<u>spl</u>	320330
243513	283063		320374	230502*	320333
		<u>lgl</u>		310933	
<u>blv</u>	<u>dms</u>	310993	<u>pld</u>	310957	
310928	160230		161728	310958	
310974	161153		175444	310959	

ACCESSIONS WITH REPUTED RESISTANCE TO
WHITE POTATO CYST NEMATODE
 12 OF 170 ACCESSIONS REPORTED

<u>dms</u> 275208	<u>opl</u> 473191	<u>pnt</u> 275230	283086	<u>spg</u> 205407	<u>vrn</u> 230468
			<u>sct</u> 473200	472988	458374
<u>ifd</u> 275146	<u>plt</u> 275240	<u>rap</u> 265862			

ACCESSIONS WITH REPUTED RESISTANCE TO
COLORADO POTATO BEETLE
 323 OF 1064 ACCESSIONS REPORTED

<u>acl</u>	498108	175401	458315	458318	<u>frn</u>
473326	498109	175402	458316	458319	473463
473328	558033	175415	472809	472833	
		175419	472810	472835	<u>grl</u>
<u>adg</u>	<u>blb</u>	189215	472813	472838	458342
243361	498223	189217	472816	472839	473020
243384		189221	472817		473044
473255*	<u>blg</u>	195183	472818	<u>cph</u>	473059
	442701	197758	472819	283063	473061
<u>aln</u>	442702	197760	472820		
498086		201846	472821	<u>crc</u>	<u>hdm</u>
	<u>blv</u>	209411*	472822	473461*	498067
<u>amb</u>	310975	209412*	472823	498116*	
365362		217451*	472824	498117	<u>ifd</u>
	<u>bst</u>	230580	472827		458326
<u>ber</u>	255527	230582	472828	<u>dcm</u>	472884
208881		230862	472829	498236*	472885
218215	<u>buk</u>	265576*	472832		472908
265857	265876*	275138*	473402*	<u>dms</u>	<u>imt</u>
265858*	473494	275139	473403	160208	365330*
283069		275141	473404	160221	458401*
310925	<u>can</u>	275142	473405*	161155*	
310926	210035	320282	473406	161167	<u>jam</u>
310927	230511	320283	498325	161169	275169
310981	265863	320285		161176	275170
473330	283074	320286	<u>chm</u>	161179	275171
473331*	283080	320287	266387	161181	275173
473333	442696	320288	310943	161731	275262
473334		320290	310991	161769	275263
473338	<u>cap</u>	320291*		186552	275264
498094	205560	320293	<u>chn</u>	186562	275265
498095	210036*	414143	338615	201850	275266
498096		414144		230590	279278
498100	<u>chc</u>	414153	<u>clr</u>	275207	458423
498101	133073	458308	283099*	347760	458424
498102	133085	458309			458427
498103	133123*	458310	<u>cmm</u>	<u>fen</u>	
498104	133656	458311*	243503	275167	
498105	133659	458312	320267	497998	<u>ktz</u>
498106	133663	458313	320269	498240	472945
498107	133664	458314	458317		472965

<u>lgc</u>	<u>mtp</u>	347769	<u>sgf</u>	265577	473242*
208780	498266	347770	230510	275154	473243
		498273		414148*	473244*
<u>lgl</u>	<u>oka</u>		<u>spg</u>	414149	473245
275273	320327	<u>pnt</u>	205394	414150	473332
	458367	184764	208876	414152	473336*
<u>lph</u>	458368	184774*	275143	442689	
458378		186553*	320300	458364*	<u>tor</u>
	<u>opl</u>	186554*	472974	458365	320302
<u>lyc</u>	442693	190115*	472989	458366	320303
255549	473194	230489	472990	472815	
365378	473368	253214*		473217	<u>trf</u>
	473499	275230	<u>spl</u>	473218	255536
<u>mcd</u>		275231	230503	473219	255538
320304	<u>pam</u>	275232	473503	473221	255539
	458381	275233*	473504*	473223	255540
<u>mga</u>		275234*		473224	255541
283082	<u>pcs</u>	275235	<u>spnov</u>	473225	255542
310977	365340	275236	473209	473226	283065
473118		347766*		473227*	283104
473136	<u>pld</u>		<u>stn</u>	473228	498303
	161728*	<u>pta</u>	234013	473229	
<u>mlt</u>	175444	498028		473230	<u>unk</u>
210043	230463*		<u>sto</u>	473232	265883
473352	230480	<u>rap</u>	255534	473233	
	230561*	473465	275252	473234	<u>vrn</u>
<u>mrl</u>	275237	473467	320343	473235	458371
275222	275238	473526		473236	
	275239	473527	<u>tar</u>	473237	
<u>mrn</u>	310963	473528*	195206	473238	
458380*	320342		217457	473239	
498254	347767	<u>scr</u>	217458	473240	
	347768	498306	230466	473241*	

ACCESSIONS WITH REPUTED RESISTANCE TO
POTATO FLEA BEETLE
 266 OF 1305 ACCESSIONS REPORTED

<u>acg</u>	275132	205622	<u>adr</u>	<u>aln</u>	265857
365313		217448	230458	498089	265858
	<u>adg</u>	230457	498148		283069
<u>acl</u>	161695	243387		<u>ber</u>	310926
217450	197932			208881	310927

320257	<u>buk</u>	283062	<u>les</u>	<u>mrn</u>	275239
473330	210051	347759	442694	283078	310963
473331	473449			310944	320342
473333		<u>crc</u>	<u>lgl</u>	310945	347767
473334	<u>can</u>	473461	275273	310946	347768
498094	230511		310993	498256	347769
498103	265863	<u>dcm</u>	473351		347770
498107	283074	498235		<u>mtp</u>	498273
498108	310937	498237	<u>mcc</u>	265886	
498109	310939		283114	365336*	<u>plt</u>
558033	310941	<u>dms</u>	338616	498266	184773
		160227			186547
<u>blb</u>	<u>chc</u>	161151	<u>mcd</u>	<u>nrs</u>	255526
243506	133618	161163	195185	473202	275240
243509	133662	161365	218222		275241
243510	133663	161366	320306	<u>ocr</u>	338620
243512	133709	161725	320317	473498	365393
255516	133710	161731	320318		
275184	133713	175411	320319	<u>pam</u>	<u>pnt</u>
275186	133722	201850	320320	275274	184764
275187	175401	230579	473169	275275	186553
275188	175446		473170		186554
275189	189219	<u>fen</u>	473176	<u>phu</u>	230489
275192*	197758	251062	473178	225675	275233
275194	197760	262895	500038	225677	347766
275197	201846	275157		225678	
275198	275138	275158	<u>med</u>	225682	<u>pta</u>
275200	275142	283102	210045	225683	275227
310960	320291		265872	225685	275229
347757	458314	<u>grl</u>	310994	225696	
	472819	320322		225697	<u>sct</u>
<u>blg</u>	472823	472920	<u>mga</u>	225701	218221
442701	472824		210034	225703	230464
442702		<u>ifd</u>	233124	225709	275152
498214	<u>chm</u>	265867	265578	243461	283089
	365325	472902	265874	243463	320323
			265879	243467	473200
<u>bst</u>		<u>imt</u>	275147		498392*
255528	<u>cmm</u>	365330	275148	<u>pld</u>	
255530	243503		283082	161728	<u>sgr</u>
283095		<u>iop</u>	473109	175444	230510
320265	<u>cph</u>	275181	473136	230480	
497993	186548		473141	230561	<u>spg</u>
498216	186549	<u>jam</u>		275237	472974
498217	275213	195190		275238	472982
	279272				

sto	186557	275246	tar	tor	ver
160225	195164	275249	195206	195210	275260
160226	195167	275252	414149	472805	
160372	195169	283108	414150	472806	vio
161150	205510	283109	414152	472808	498314*
161158	230477	310964	442689	473389	
161160	230557	310980	458366		
161170	243458	338621	473217	trf	
161172	243459	347771	473240	255536	
161364	255532	347772	473332	255538	
186544	255534	365394	473336	255541	

ACCESSIONS WITH REPUTED RESISTANCE TO

POTATO APHID

310 OF 1618 ACCESSIONS REPORTED

abn	adg	281012	aml	275194*	365364*
442700	186177	281119	365356	275195*	414155
458404	195162	296086		275196*	442698
	209419	365345*	bcp	275197	473447*
abz	214435*	365346	230459	275198	473449
498206	214436	473250	243344	275199	473452*
	225630	473251	275183	275200	473453
acl	225632	473264	498022	310960	473491
175395	225637	473275*		347757	473492*
210030*	230470	473281	ber	347758*	
217449*	230500*	498171*	208881*	365379	can
225621*	232054	498294*	473331	498225	210035
246504	233993				230511
275126	243373	adr	blb	blg	265864
365312*	243378	230458	243505	498214	265875
472647*	243380	247360	243506		310937
472656	243384		243508	bst	310941
472674	243406	alb	243509	498216	
472676	243422*	230494	243510		cap
473329	246499	266381	243512	buk	473458
473431	255496	365305*	243513*	210042	498120
473434	255503	365306*	255516*	230506	
473436	280869	365376*	255518*	266385	chc
473484*	280907*		275186	275271	472824
473518	280909	amb	275187	365318	
	280921	365317	275188*	365320	chm
acs	280971	498210	275189	365349	310943
365314	280981*	498212	275191*	365350	310990
	281005		275192*	365355*	310991

365324*	347760	<u>iop</u>	<u>mtp</u>	<u>scb</u>	230490*
365325	347761*	275181	365338*	365363*	243458
365327*		275182	498266		255525
365328	<u>etb</u>			<u>scr</u>	275246
	245939	<u>lgc</u>	<u>ncd</u>	473392*	275247
<u>chn</u>		186568	498129		275248
338615*	<u>fen</u>			<u>sgr</u>	275249*
442699	225661	<u>lgl</u>	<u>opl</u>	230510	283108*
	251062	275273*	473193*	365360	283109
<u>clr</u>		473351			310964
243355*	<u>frn</u>		<u>oxc</u>	<u>snk</u>	310980*
283099	320270	<u>lph</u>	230479	498250	338621
		320340*	275224		347772
<u>cmm</u>	<u>gnd</u>	473451*	275226	<u>spg</u>	498002
320267*	265866			208562	
		<u>mcd</u>	<u>pcs</u>	320300*	<u>tar</u>
<u>col</u>	<u>grl</u>	458356	473489		275154*
473407	320322	500038*		<u>spl</u>	
	458340		<u>phu</u>	365343	<u>tor</u>
<u>cph</u>	458342	<u>med</u>	225665*		195210
251759*	473015*	230507*	225678	<u>spnov</u>	310936
275214	473049*	265872	225679	473387	472808
275215*	473084	310994*	225687*	498295	473389
279272	498329*		225693*		
347759		<u>mga</u>	225705*	<u>stn</u>	<u>trf</u>
	<u>grr</u>	233125*	283116*	234010	255539
<u>crc</u>	161727	473118*	320352	234013	283104
473461		473143	320357*	365344*	
498116	<u>hjt</u>	473159	320363*		<u>ver</u>
498119*	186559	473361	320373*	<u>sto</u>	195171*
	186560*			160224	195172*
<u>dcm</u>	251065	<u>mlt</u>	<u>plt</u>	160226*	275256*
498235		210043	184770*	160372*	275258
	<u>hou</u>	210044	184773	161171	275259
<u>dms</u>	161726	210055	283106	161172	310966*
160222	161741	310955		161178*	320344
160229		473353*	<u>pnt</u>	161364	
161155	<u>ifd</u>	473354*	275236	186563	<u>vio</u>
161164	283077*			195164	258856*
161167	414146	<u>mrn</u>	<u>psc</u>	195166	473396
161732	442675	283078*	365339	195167	498296
186561	458322	310944		195195	
218047	472867*	310945	<u>rap</u>	201849	
230589*	472871	310946	210049	201855	
230592*	472883*	458380	310999	205510*	
275206*	472905*	498256		205522	

ACCESSIONS WITH REPUTED RESISTANCE TO
POTATO LEAF HOPPER
378 OF 1360 ACCESSIONS REPORTED

<u>abz</u>	365317	498109	<u>buk</u>	175415	<u>cmm</u>
498206*	498210	558033	210051	175419	472850
	498212		266385	175443	
<u>acg</u>	498213	<u>blb</u>	473449	189215	<u>cnd</u>
365313		243505	498219	189219	498226
	<u>avl</u>	243508		189220	498313
<u>acl</u>	498092	243512	<u>can</u>	189221	
246504		255516	210035	197760	<u>col</u>
246571	<u>bcp</u>	275185	230511	201846	247322*
255501	230459	275186	246533	230580	310983*
275128	275179	275187	265875	230581	473407
	498024	275188	458375	230582	
<u>adg</u>	498251	275189	458376	230585	<u>cph</u>
161716		275194	473355	230862	186548
186177	<u>ber</u>	275195		275141	255520
214427	208881	275200	<u>cap</u>	320281	275212
225630*	218215	347758	473458	320282	275213
225632	265857	498224		320283	275214
243369	265858	498225	<u>chc</u>	320285	275216
243390	283069		133073	320286*	279272
243404	283070	<u>blg</u>	133085	320289	283063*
243406	310926	442701	133123	320294	347759
243407	310927	498214	133124	414153	
280921	310981		133127	458310	<u>crc</u>
281092	320257*	<u>brc</u>	133618	458313	473461
281093*	473330	310930	133619	458315	498116*
	473331		133656	458316	
<u>adr</u>	473335	<u>brd</u>	133659	472827	<u>dcm</u>
230458	473338	218228*	133662	472831	498234
320345	498094		133663	473406*	498235*
498148	498095	<u>bst</u>	133664	498320	498236*
	498097	249927	133708		
<u>agf</u>	498098	251720	133709	<u>chm</u>	<u>dms</u>
243349	498099	255527	133710	266387	160222
243352*	498100	255530	133713	365325	160227
	498101	283095	133718		160230
<u>aln</u>	498103	320265	133720	<u>chn</u>	161149
498089	498105*	498216	133722	338615	161155
	498106	498217	133723		161167
<u>amb</u>	498107		175401	<u>clr</u>	161168
365316	498108		175402*	283099	161169

161179	161726	<u>lyc</u>	<u>oka</u>	255547	161160
161181	239423	255549	320327	275240	161364
161365		365378	320328	275241*	186557
161366	<u>ifd</u>		458368	283106	230477
161686	472908	<u>mcc</u>			243458
161693		283114	<u>opl</u>	<u>pnt</u>	283108
161719	<u>inm</u>		458361	184764	283109
161725	473067	<u>mcd</u>		184774	
161732	473070	195185	<u>oxc</u>	186553	<u>tar</u>
175423		473176	230479*	186554	195206
186551	<u>iop</u>		275224	230489	217457
201850	275181	<u>med</u>	498272*	275230	217458
218047		265872		275231	230466
230578	<u>jam</u>	283081	<u>pam</u>	275232	265577
230589	275168	310994*	275274	275233	275154
338618	275266	320260*	275275	275234	414148
338619	458424	473496	458381	275235	414150
347761	458425			347766	458364
365383	458426	<u>mga</u>	<u>pcs</u>		458365
	458428	233124	473489	<u>sgr</u>	473216
<u>etb</u>		275147		230510	473222
245924	<u>ktz</u>	473109	<u>phu</u>		473223
245939	133687	473118*	225670	<u>snk</u>	473226
	133695	473136	225677	498250	473228
<u>fen</u>	230584	473141			473230
275167	458328	473159	<u>pld</u>	<u>spg</u>	473232
458417	472921		161728	208562	473235
	472923	<u>mlt</u>	175444	320299	473237
<u>frn</u>	472924	210043	230463	472987	473238
320270	472927	310955	230480		473242
473463*	472928	473349	275237	<u>spl</u>	473245
	472945		275238	230503	473332
<u>gnd</u>	472963	<u>mtp</u>	275239	246536	473336
265866		265886	310963		
283076	<u>les</u>	275272	320342	<u>spnov</u>	<u>tor</u>
	442694	498265	347767	473421	195210*
<u>grl</u>		498266	347768		310936*
265579	<u>lgc</u>	498267	347769	<u>stn</u>	458396
472995	186568*		347770	195188	473389
		<u>ncd</u>		234012	
<u>hjt</u>	<u>lgl</u>	498129	<u>plt</u>		<u>trf</u>
186559	275273		184770	<u>sto</u>	255537
	310993	<u>ocr</u>	184773	160224	255540
<u>hou</u>		230519	186547	160225	
161174		473498	255526	160226	

<u>unk</u>	<u>ver</u>	255544	<u>vio</u>	473397
234009	160228		473395	498296
	195170		473396*	498314*

ACCESSIONS WITH REPUTED RESISTANCE TO
GREEN PEACH APHID
 120 OF 1290 ACCESSIONS REPORTED

<u>acg</u>	<u>bst</u>	310990	472908	<u>pld</u>	473228
365313*	249927	310991	473521	230463	473230
	251720	365325		320342	473231
<u>aml</u>	255530*	365328	<u>jam</u>		473234
365356	320265		195190	<u>sct</u>	473236
		<u>cph</u>	275169	205397	473237
<u>blb</u>	<u>buk</u>	184767		218221	473238
243505	210051	186548	<u>lgl</u>	230464	473239*
243506	275271	275213	473351*	283089	473241
255516*	365349	275214		473200	473242
255518*	365355	275216	<u>mcd</u>		473243
275186*	414155	279272	195185	<u>spg</u>	473244
275188	473450			472983	
275189*		<u>etb</u>	<u>med</u>	472987*	<u>tbr</u>
275194*	<u>can</u>	245924	230507*		245940
275195*	246533	245939		<u>stn</u>	
275196	265864		<u>mga</u>	195214	<u>tor</u>
275197*	283074	<u>grl</u>	473114		458396
275200*	310941	210038	473118	<u>sto</u>	
310960	473348*		473360	161150	<u>trf</u>
347757*		<u>hou</u>	473361	161152	255536*
347758	<u>cap</u>	161741*		195167	255537
365379	205560*		<u>mrn</u>	201855	255538
		<u>ifd</u>	283078*	230477	255540*
<u>blg</u>	<u>chc</u>	265867	310945	275248	255541
442702	230580	414146	365332*	275249	255542*
		442675	458380		283064
<u>brd</u>	<u>chm</u>	458321		<u>tar</u>	283104*
245763*	243340	458322	<u>mtp</u>	414150	
	266387	472858	275272	458365	<u>tug</u>
	310943	472866		473223	338614

ACCESSIONS WITH REPUTED RESISTANCE TO
TARNISH PLANT BUG
563 OF 690 ACCESSIONS REPORTED

<u>abn</u>	243406*	275183	275186	498217*	189215
442700	243407*	498021	275187*		189220
458403	246979*	498022	275188	<u>buk</u>	195183
458404	255494	498023*	275189*	210042	201846
	255496*	498024*	275194*	210051	230582
<u>abz</u>	255497	498249	275196*	230506	265576
498206*	258898	498251*	275197*	266385	275141*
	258936		275198*	275271	320281*
<u>acg</u>	280909	<u>ber</u>	275199*	473449	320282
365313*	280921*	208881	275200*	473453	320283
	280926	218215	310960*		320285
<u>acl</u>	280941*	265857	347757	<u>can</u>	320286
246504	280952*	265858	347758*	210035*	320288*
473517	280971	283069	365379	230511*	414153
473518		310927*	498224*	265863*	458313
473519	<u>agf</u>	310971	498225	265865	458315
	243349*	310981		265875	458316
<u>acs</u>	243352*	473331	<u>blg</u>	283074*	472820
365314		473334	442701*	310938	472827
365315	<u>aln</u>	473335*	442702*	442696*	472829
	498085	473338*	498214*	458375	472830
<u>adg</u>	498087*	473339*		458376	472831
161716*	498088	498094	<u>blv</u>	473347*	473404
195162*	498089	498095*	265861	473348*	473406
205622*		498098*	310928	473355	
214426	<u>amb</u>	498099	498215*		<u>chm</u>
214430	365316	498101		<u>cap</u>	243340
225630	458405	498102	<u>brc</u>	205560*	266387*
225632	498208	498103*	498110	210036*	310943*
230470	498209	498106*	498111	473458*	365325*
230472	498210*	498108		498120	
232046	498212*	558033	<u>brd</u>		<u>chn</u>
233984*	498213*		218228	<u>che</u>	338615*
233996*		<u>blb</u>		133085*	442699*
243362*	<u>avl</u>	243505*	<u>bst</u>	133123	
243369	498093	243506*	249927*	133656	<u>cmm</u>
243380*		243510*	255527*	133659	458319
243384	<u>bcp</u>	243512*	283095*	175401	472850
243390*	230459	255516*	320265*	175402	
243401	243344*	255518	497993*	175415	<u>cnd</u>
243404*	275179	275184*	498216*	175419	498226

498227	161725	<u>grr</u>	275182*	<u>mcc</u>	498255
498313	175423*	161727*		283114	498256*
	186551	161730	<u>jam</u>	338616*	
<u>col</u>	201850		195190*	365334*	<u>mtp</u>
247322*	218047	<u>hcb</u>	275168		265886*
310983*	230589	498243	275169	<u>mcd</u>	275272
473407*	338618	498244	275262	208866*	498265*
	338619*		275263*	320304*	498266
	347761	<u>hcr</u>	275264*	458354*	498267*
<u>cph</u>		473477*	275265*	473169	
186548*			275266*	473170*	<u>ncd</u>
255520*	<u>etb</u>		458423*	473173*	498129
275213*	245924	<u>hjt</u>	458424*	473176	
275214*	245939	186559*	458425		<u>nrs</u>
275216*		251065	458426	<u>med</u>	473201
279272*	<u>fen</u>	283103	458427*	210045*	473529
	225661*		458428*	265872*	
<u>crc</u>	262895	<u>hou</u>		283081*	<u>oka</u>
473461*	275157*	161174	<u>ktz</u>	310994*	320327
498116*	275164	161726	320271*	473496*	320328*
498117*	275167*		320297		498130
	283102	<u>ifd</u>	458328*	<u>mga</u>	
<u>cur</u>	458412	414146*	472921	233124*	<u>opl</u>
186181*	458417	442675*	472923*	265578	442682
258900		458321	472928	265874	458361
	<u>frn</u>	458322*	472945	265879	473189
<u>dcm</u>	320270	458326*		275147*	473198
498234*	473463*	472858*	<u>les</u>	473109	
498235*		472865	442694	473141	<u>oxc</u>
498236	<u>gnd</u>	472866*		473143	275224*
	265866*	472885*	<u>lgc</u>	473159*	498272*
<u>dds</u>	283076	472908*	186568*	473360	
442690*		473521*			<u>pam</u>
	<u>grl</u>				275274
498084*	210038	<u>imt</u>	<u>lgl</u>	<u>mlt</u>	275275
<u>dms</u>	320322	365330*	310993*	210043*	
160222*	458342	458401	473351*	310955*	
160230*	472995			473349*	<u>pcs</u>
161149	473030	<u>inm</u>	<u>lph</u>		365340*
161155	473041	473067	473445	<u>mrn</u>	473489*
161164	473061	473068*		283078*	
161169	473071	473069	<u>lxs</u>	310944*	<u>phu</u>
161181	473084	473070	498252*	310945*	195191
161366	473088			310946*	225670
161686	473090	<u>iop</u>	<u>lyc</u>	458380*	225675
161693	473099	275181*	255549*	498254*	225676*
161719*					

225677*	230489*	<u>sg</u>	<u>sto</u>	473245	<u>vrn</u>
225678	253214	230510	160224*	473336	230562
225681	275230	365360	160225		320330
225703*	275231*		161150*	<u>tbr</u>	473304
225710	275232	<u>snk</u>	161160	161401	473310
243463	275233*	498040	161170	245928	473480
243469	275234*	498041	195167		<u>wbr</u>
275110	275235	498042*	201855	<u>tor</u>	265880*
283118	275236	498250*	230477	195210*	442703*
283119	347766	498280	230557	310936	
283121			239411	458396*	
283123	<u>pta</u>	<u>spg</u>	243458	472804	
320355	249929	205394	255532*	472805	
320369	251740	208562	275246	472806*	
	251741	208876	498002*	472807*	
<u>pld</u>	283105	275143		472808	
161728*	283143*	320299	<u>tar</u>	473389	
175444		472974	217457*		
230463	<u>pur</u>	472982	217458*	<u>trf</u>	
230480*	310997		230466	255536*	
230561*	473501	<u>spl</u>	265577	255537*	
275237*		230503	275154	255538*	
275238	<u>rap</u>	246536	414148	255540*	
275239*	210048*	275153	414150	255542*	
310963*	265862	310972	458364	283104*	
320342	283086*	311000*	458365		
347767	310951	458386	473216	<u>unk</u>	
347769	310999	473373	473217	230465	
	473466	473375	473220*	234009	
<u>plt</u>			473223		
184770	<u>san</u>	<u>spnov</u>	473226	<u>ver</u>	
184773	473372*	473209	473227*	160228	
186547		473421*	473228	195170*	
255526*	<u>scr</u>		473230	255544*	
255547*	442691	<u>stn</u>	473231	275250	
275240*		205526	473232	275257	
275241*	<u>sct</u>	205527*	473233	275260	
283106	205397	230513	473234	338624	
338620	218221	234008	473235*		
365393	230464	234011*	473236	<u>vio</u>	
	275152*	234012	473237	473395	
<u>pnt</u>	283089	234015*	473238	473396	
184774*	473200*	283141	473241	473397*	
186553		365344	473243	498296*	
186554		458393	473244		

ACCESSIONS WITH REPUTED RESISTANCE TO

MITES

13 OF 44 ACCESSIONS REPORTED

<u>ber</u>	473330	133664	<u>pld</u>	473336
265857	473331		320342	
265858		<u>cmm</u>		<u>vrn</u>
310926	<u>chc</u>	320269	<u>tar</u>	320333
310927	133073		473232	

ACCESSIONS WITH REPUTED TOLERANCE FOR
COLD STRESS
744 OF 2761 ACCESSIONS REPORTED

acg	275130	472663*	472705*	472746*	472788*
365313	275131*	472664*	472706*	472747*	472789*
	275132*	472665*	472707*	472748*	472790*
acl	275133*	472666*	472708*	472749*	472791*
175395	310923*	472667*	472709*	472750*	472792*
175396*	310970*	472668*	472710*	472751*	472793*
186176	320272*	472669*	472711*	472752*	472794*
195160*	320273	472670*	472712*	472753*	472795*
195161*	320274*	472671*	472713*	472754*	472796*
205395*	320275*	472672*	472714*	472755*	472797*
205507*	320276*	472673*	472715*	472756*	472798*
205508*	320277*	472674*	472716*	472757*	472799*
205520*	320278	472675*	472717*	472758*	472800*
205521*	320279	472676*	472718*	472759*	472801*
208856*	320280*	472677*	472719*	472760*	472803*
208874*	365307*	472679*	472720*	472761*	473165*
208875*	365312*	472680*	472721*	472762*	473313*
210029*	435070*	472681*	472722*	472763*	473314*
210030*	435071*	472682*	472723*	472765*	473315*
210031*	472637	472683*	472724*	472766*	473316*
210032*	472638*	472684*	472725*	472767*	473317*
210033*	472639*	472685*	472726*	472768*	473319*
217449*	472641*	472686*	472727*	472769*	473320*
217450*	472642*	472687*	472728*	472770*	473322*
225620*	472644*	472688*	472729*	472771*	473323*
225621*	472645*	472689*	472730*	472772*	473324*
230469*	472646*	472690*	472731*	472773*	473326*
230493*	472647*	472691*	472732*	472774*	473328*
230554*	472648*	472692*	472733*	472775*	473329*
230555*	472649*	472693*	472734*	472776*	473399*
230556	472650*	472694*	472735*	472777*	473400*
246504*	472652*	472695*	472736*	472778*	473423*
246571*	472653*	472696*	472737*	472779*	473431*
255501*	472654*	472697*	472738*	472780*	473433*
266386*	472656*	472698*	472739*	472781*	473434*
275124*	472657*	472699*	472740*	472782*	473435*
275125*	472658*	472700*	472741*	472783*	473436*
275126*	472659*	472701*	472742*	472784*	473437*
275127*	472660*	472702*	472743*	472785*	473438*
275128*	472661*	472703*	472744*	472786*	473439*
275129*	472662*	472704*	472745*	472787*	473440*

473441*	498190*	545945*	<u>bst</u>	320269	161153
473442*	498191*	545946*	255529	414154	161154
473443*	498192*	545947*	255530	458317*	161155
473444*	498193*	545948*		458319*	161163*
473480*	498194*	545949*	<u>buk</u>	472833*	161164
473481*	498195*	545950*	210042	472834*	161165*
473482*	498196*	545951*	275271	472835*	161166
473483*	498197*	545952*	473449	472836*	161167*
473484*	498198*	545953*	473450	472837*	161168
473485*	498199*	545954*	473452*	472838*	161169
473486*	498200*	545955*	473491	472839*	161175
473487*	498202*	545956*	473492*	472840*	161176*
473488*	498277*	545957*	473493*	472841*	161179*
473509*	498297*	558019*	473494*	472842*	161180*
473510*	498353*	558020*	498219*	472843*	161181*
473511*	500008*	558021*	498220*	472844*	161365
473512*	500009*	558022*	498221	472845*	161366
473513*	500010*	558023*	498222	472846*	161367
473514*	500011*	558024*		472847*	161686*
473515*	500012*	558025*	<u>can</u>	472848*	161693
473516*	500013*	558026*	210035	472849*	161725
473517*	500014*	558027*	246533	472851*	161729
473518*	500015*	558028*	265864	472852*	161731
473519*	500016*	558029*	283074	472853*	161732
497990*	500017*	558030*	283084	472854*	175403
498066*	500018*		310938	472855*	175404
498078*	500019*	<u>alb</u>	310941	473408*	175405
498079*	500047*	365376*	310956	473410*	175409
498080*	545840*	498201*	458375	473411*	175411
498081*	545841*	498203*		473413*	175423
498082*	545842*		<u>chc</u>	498408	186551
498083*	545843*	<u>bcp</u>	275136	498416	186552
498084*	545931*	230459	275141	498417*	186556
498178*	545932*			498418*	186561
498179*	545933*	<u>blv</u>	<u>chm</u>	498419*	186562
498180*	545934*	265861	243340		195165
498181*	545935*	283071	243341	<u>dms</u>	201850
498182*	545936*	310974	266387*	160208	201851
498183*	545938*	310975	310943	160212	201852
498184*	545939*		310990	160221	201853
498185*	545940*	<u>brd</u>	310991	160222	201854*
498186*	545941*	218228		160227	205514
498187*	545942*	245763	<u>cmm</u>	160229	205515
498188*	545943*	245764	243503*	160230	205516
498189*	545944*	558283	320266	161151	205517

205518	498229	<u>grl</u>	473126	498367	<u>oka</u>
205519	498230	472993	473127	498368	458367
205625	498231		473128	498369	
218047*	498232	<u>hcb</u>	473129	498370	<u>pcs</u>
225652*	498233	365406	473130	498372	365340
225711	498299	458400	473131*	498373	473489
230487	545756		473133	498374	
230488	545759	<u>ifd</u>	473134*	498375	<u>phu</u>
230560	545760	472857	473135*	498376	225694
230578	545761	472858	473136	498377	
230579	545762		473137	498378	<u>pld</u>
230587	545763	<u>ktz</u>	473138	498379	320342
230589	545765	458327	473139	498380	
230590	545766	472930	473140	498381	<u>psc</u>
230591	558051		473141	498382	365339
230592	558052	<u>med</u>	473142	498383*	
275206	558386	310994	473143	498384	<u>rap</u>
275207	558387		473144	498385	265862
275208	558388	<u>mga</u>	473145	498414	296126
275209	558389	233125	473146	500029	320262
275210	558390	265578	473147	500030	473370
275211	558391	265873	473148	500031*	
310961	558463	265874	473149	545999*	<u>sct</u>
310962		275147	473150	546000*	205397
310967	<u>etb</u>	275148	473156	558093	230464*
338618	245924	275149	473157	558094	275152
338619	245939	283082	473158	558095	283089
347760	498311	310977	473159	558096	320324
347761	498412	435072	473162		320325
347762	558053	435077*	473163	<u>mlt</u>	473200*
365380	558054	458347	473164	210043	498391
365381	558055	473110	473356	210044	498392
365382	558289	473111	473358	210052	498393
365383	558290	473112	473359	210055	
365384	558294	473113	473360	310955	<u>sgr</u>
365386	558295	473115	473361	473352	230510
365387	558296*	473116*	473497	473353	
365388	558298	473117	498261	498304*	<u>spg</u>
365389	558299	473118	498262		275144
365390	558301	473119	498361	<u>mrl</u>	
365391	558302	473120	498362*	275223	<u>spl</u>
365392	558307	473122	498363		210039
473520	558311	473123	498364	<u>msh</u>	275276
498013		473124	498365		
498015		473125	498366		

<u>stn</u>	280896	473389	<u>trf</u>	<u>vrn</u>
195214		498142	255540	230468
234011	<u>tor</u>	498144	255541	320329*
	320302	498145		320330
<u>tbr</u>	320303	498263	<u>vnt</u>	320333
246540	458396*	545892	218220	458371
255496	458397	546015*		473305

ACCESSIONS WITH REPUTED TOLERANCE FOR
HEAT STRESS
72 OF 318 ACCESSIONS REPORTED

<u>acl</u>	<u>chc</u>	<u>ktz</u>	<u>mlt</u>	<u>pta</u>	320343
230556	189220	320296	210043	283143	
266386	320282				<u>tbr</u>
472731	320283	<u>mcc</u>	<u>mrl</u>	<u>rap</u>	245317
	320285	283114*	243357*	265862	245319
<u>bcp</u>	320286	338616			245320
275183	320287		<u>pam</u>	<u>sct</u>	245321
	320289	<u>mcd</u>	275275	205397	
<u>ber</u>	320290	218222*		473200	<u>tor</u>
218215		320304	<u>phu</u>		472806
310926	<u>dms</u>	320305	225701	<u>sgr</u>	
310927	160208*	320306		230510	<u>ver</u>
		320314	<u>pld</u>		195170
<u>blb</u>	<u>fen</u>	320315	320342	<u>spg</u>	
275187	262895	320317		208562	<u>vrn</u>
275193	283102	320319	<u>plt</u>	208876	320329
275194		473171	184773		473303
275196	<u>grr</u>		255522	<u>spl</u>	473304
347757	161727*	<u>mga</u>		234014	
	161730	265578	<u>pnt</u>	246536	
<u>brd</u>		265873	275232		
245764	<u>ifd</u>	283082	275236	<u>sto</u>	
	458322		347766	283109	

ACCESSIONS WHICH WERE REPUTED TO HAVE LOW
FOLIAR GLYCOALKALOID LEVELS
350 OF 606 ACCESSIONS REPORTED

<u>acg</u>	255496*	243512	365349	<u>dds</u>	473036
365313*	258877*	243513	365351	473350	473038*
	258878*	255516	442698		473054*
<u>acl</u>	265868	255518*	473450	<u>dms</u>	473057
175396*	280867	275184	473452	160222	473061
208856	280869	275186		230579	473065
217450	280889	275187	<u>can</u>	347760	473077
230556	280935	275188	442696		473107*
246504	280957	275189*		<u>etb</u>	
365312	280981	275194*	<u>cap</u>	245924	<u>grr</u>
472640	281119*	275195	205560*		161727*
472642	473246*	275196*		<u>fen</u>	161730
472651*	473255	275197*	<u>chc</u>	262895	
472686*		275199*	472826	283102*	<u>ifd</u>
473316	<u>adr</u>	347758*		458412	283077
473442	230458	498225*	<u>chm</u>	498240	414147*
			365325		442674
<u>acs</u>	<u>agf</u>	<u>blg</u>		<u>frn</u>	458320*
365314	243349	365368	<u>chn</u>	320270	458322
		442702	338615	473463	458324
					458326*
<u>adg</u>	<u>alb</u>	<u>blv</u>	<u>clr</u>	<u>grl</u>	472858*
186177	365306	265860	283099	265579*	472863*
186180		310928		320322	472867*
195162*	<u>bcp</u>	310974*	<u>cph</u>	414145	472869
197932	275183	310975*	186548	435073*	472876
214421			251729	442671	472886*
214431	<u>ber</u>	<u>bst</u>	251731	442672*	472887*
214435	208881*	249927	275212	442673	472889*
225632	218215	251720	275213*	458340	472896*
225637*	310927*	255527	275215	472911	
230457	473333*	255529	275216	473002	<u>jam</u>
230472*		283095	279272	473003	275169
230498	<u>blb</u>	320265	283062	473005	
232041	243504	498216	283063	473006*	<u>lgl</u>
232044	243505*	498217		473007	473351
232054	243506		<u>crc</u>	473009	
243404	243507	<u>buk</u>	473461*	473010	<u>lmb</u>
243406*	243508*	210042	498116	473011	473468
243439*	243509*	265876		473016*	
243443*	243510*	365304		473019*	
243450*	243511*				

<u>lph</u>	<u>mtp</u>	320349	<u>sch</u>	<u>tar</u>	<u>vrn</u>
473445*	275272	320350*	365363*	195206*	230468*
	365338	320351*		217458*	320330
<u>mcc</u>	498266	320361*	<u>set</u>	265577*	458369
338616		320363*	218221*	275154*	458370
365334	<u>oka</u>	320365*		414150*	473305
	320327	320368	<u>spg</u>	442689	
<u>mcd</u>		320370	442686	458365*	<u>wbr</u>
208866*	<u>pam</u>	320372	458334	473216	265880
218222*	275274*	320373*	472971	473217	
218223		320377*	472972*	473223*	
218224	<u>pcs</u>	320378*	472974	473228*	
218225*	365340	320380*	472975	473230*	
218226	473489	320385*	472982	473234*	
320304*		320386*		473236	
320312	<u>phu</u>	320390*	<u>spl</u>	473237*	
320314*	195191	320393*	210039	473238*	
	195198		311000	473239*	
<u>med</u>	225665*	<u>pld</u>	311001	473242	
230507	225668*	175444		473243*	
	225669*	275237	<u>spnov</u>	473244*	
<u>mga</u>	225672*	310963	473421	473245*	
210034*	225674*			473332	
233124*	225675	<u>pta</u>	<u>stn</u>		
265879*	225676	283143	195188	<u>tbr</u>	
275147*	225677*		205527*	245931	
275148	225678*	<u>pur</u>	230512*	245940	
310977*	225681*	310997	230513		
310978*	225694*		234011	<u>tor</u>	
473109*	225695	<u>rap</u>	234012	195210*	
473111*	225696	210048*	234015	458396	
473114*	225697*	210049	365344	458397	
473116*	225706	265862		472804	
473136*	225708*	310951*	<u>sto</u>	472806	
473145*	225709*	310999*	160224		
473361*	225710*	458383*	161150	<u>trf</u>	
473524	243463*	458406	186555	255536	
	243468	473370*	195166	255537*	
<u>mlt</u>	243469	473467	195167	255541	
210044	283118*	473528	195195*	255542*	
210055	283121		201855		
	283123	<u>san</u>	205522	<u>tuq</u>	
<u>mrn</u>	283125	195168*	243458*	498177	
310945*	283129		275246		
310946	283135*				

ACCESSIONS WHICH EXHIBITED RELATIVELY HIGH
VINE VIGOR WITHIN SPECIES
519 OF 2626 ACCESSIONS TESTED

<u>acl</u>	498180	258871	<u>ber</u>	<u>brc</u>	473355*
275124	498182	258875	310926	473378*	
275131*	498297	280874	310927	498112	<u>chc</u>
472638	500010	281083	310971	498113*	133073
472639	500019	281118	310981	498114	133085
472647	545842	281126	320257*		133656
472677	545931	281203	473330*	<u>brd</u>	175443
472688	545933	281231	473337	473401	209411
472689	545939	281241	473338	498415	209412
472690*	545942	281243	473339	558175	472816
472691*	545943*	281244*	473340	558244	472817
472694	545945	281245	498075	558245*	472823
472695	545946	281246	498094	558246	472824
472701	558020*	281248	498096*	558263	472825
472704	558021*	281250*	498098	558264	472826
472705	558027	281255	498100	558265	472830
472716*	558028	281256	498101	558274	473403*
472736	558029	285009	498103*	558275	498298*
472740	558030	285019	498104	558276	498320*
472749		292073	498106		498321
472756	<u>adg</u>	292087	545961	<u>bst</u>	500042
472757	161695	292118	558033	498216	558043*
472763	205624	292121	558034*	498217*	
472771	209426	292122	558035	518629	<u>cmm</u>
472781	214423*	292128*	558036	545815	458317
472782	214424*	292130*		545817	458319
472794	214430	296082*	<u>blb</u>		472833*
472795	214434	296087	243505	<u>buk</u>	472834
472801	214435	306669	243507	365353	472835
473315	232057	473196	243510*	365361	472838
473317	232839		243511	414155	472839
473328	232840	<u>bcp</u>	253210	442698	473410
473329	232842	498021	275187	458379	473413
473423	233114	498251	545751	473492	
473513	233981	545769*		473493*	<u>cph</u>
473514	243367	545772*	<u>blv</u>	498222	184767
473515	243369	558417	545853		186548
498066	246514*	558426	545963*	<u>can</u>	275214
498078	247334	558427*	545966	458375	279303
498082*	247338			458376*	283062*
498083	247348			473345*	283063

518631	458411	279278	473119	243465	<u>pta</u>
	498239	458428	473122	243468	251740*
<u>dms</u>	558058*	498407	473128	310490*	251741
160230	558060		473162	310491	275229
161154*	558395*	<u>ktz</u>	473356	310493*	545725
161166*		133687	473358*	320348	
161167*	<u>grl</u>	442681	473360	320349	<u>rap</u>
161168	472911	458328	498369	320351	265878
161169	473072	472930	500030	320352	310950
161179*	473077*	472942	545999	320354	310999*
161180*	473078	472944	546000	320356	320262
161181*	473080	472945		320357	473466
161729*	473096	472952	<u>oka</u>	320358*	473528
161732	473523	472956	320327	320367	498278
218047*	498332	472957	320328*	320369	
225652*	500022	472958	458367	320370*	<u>scr</u>
225711	500024	472959*	498403	320376*	258906
230487	500049	498421	500061	320377*	258913*
230488*	545866			320378	473374
310961*	545867*	<u>lph</u>	<u>opl</u>	320379*	498300
310962*	558074	473342	442684	320380	498301*
338618*	558075	473343	458362		498306*
365384	558076	545896*	473187	<u>pld</u>	545918
365389*	558077	545989	473188*	275237	545929
365390*	558079	545992	473192	275239*	546008*
365391*	558080*	545994	473368	310963*	
498013	558082	545995	473500	320342	<u>sct</u>
498229	558083	545996	498068*	347770	283089
545763*			498269		473200
558386	<u>ifd</u>	<u>mcd</u>	545909*	<u>plt</u>	498391
558390*	310976	195200	558108	255547*	498392*
	431500	275150*		545784	
<u>etb</u>	435075*	320311	<u>phu</u>	545785	<u>spg</u>
498311*	442675	320315	225675*	545786	310985*
558284*	472883	320320*	225677	545788*	458338
558285	472908	498123*	225687	558447	472967
558288*	472909	500040	225688*	558448	472976
558290	472913		225689	558451	472977
558304*	472914*	<u>mga</u>	225697		472978
558305*	498355	265874	225701*	<u>pnt</u>	472979*
558306	558086*	275148	225702	186553*	
		283082	225705*	253214	<u>spl</u>
<u>fen</u>	<u>jam</u>	310978*	225706	275231*	230502
275162*	275171*	458349	225708*	275235	265869
458409	275263	458351	225709		265871

310972	458393	545738	458395	558130	546013*
365357*	545980*	545794	472815*		
414151		545795	473216	<u>tbr</u>	<u>ver</u>
458386	<u>sto</u>	545799	473222	245316	251756
458387	161150	558462	473228	245815*	275255
473383	161364	558467	473233	245928	275257*
473385	186555	558468	473234	245940	365404
498136	195167	558469	473239		545746
498139	243459	558475	473240*	<u>tor</u>	
498140*	310980		473243*	310936	<u>vrn</u>
498305	365394*	<u>tar</u>	473244*	498144*	320332
545912*	365395	217458*	473245*	498145	320333*
	365396	414148*	500055	546009	458372
<u>stn</u>	498058	442689*	545922	546010	558150
234013*	498288	458365	558129	546012*	558151

ACCESSIONS WHICH EXHIBITED RELATIVELY HIGH
FLOWERING VIGOR WITHIN SPECIES
583 OF 2626 ACCESSIONS TESTED

<u>acl</u>	498021*	<u>brd</u>	<u>chc</u>	<u>dms</u>	225711*
472685*	498022*	558161	133656	160208*	230487*
472694*	498023*	558164	209411	160212*	230488*
472695*	498251*	558171	209412	160222*	230560*
472703*	545769*	558174	472816	160230*	230578*
472716*	545772*	558175*	472817	161151*	230587*
473317*	558419*	558241*	472823	161153*	230589*
473514*	558426*	558244	472824	161154*	230590*
473515*		558245	472825	161163*	275206*
498182*	<u>ber</u>	558269*	472827	161165*	275207*
498184*	310927*	558271	472830*	161166*	275209*
498185*	310981*	558272	472831	161167*	275210*
498186*	320257*	558273	498298	161168*	275211*
500011*	498096*	558274	498317*	161169*	310961*
545940*	558033*	558275*	498318	161176*	310962*
558025*	558034*	558276*	498321	161179*	310967*
	558035*	558278*	498325	161180*	338618*
	558036*	558279	500020	161181*	338619*
<u>adg</u>		558280	500042	161365*	365380*
161695			558043	161686*	365381*
161698	<u>blb</u>			161693*	365382*
186178	243508*	<u>bst</u>		161725*	365383*
205622	243510	498217*	<u>cmm</u>	161729*	365384*
205623	243511	545812	458317*	161731*	365386*
205624	253210*	545814*	458319*	161732*	365387*
209426	275200*	545815*	472833*	161732*	365388*
217448			472834*	175403*	365388*
225627	<u>blv</u>	<u>buk</u>	472835*	175404*	365389*
225632	545853	365361	472837	175405*	365390*
243367	545889*	414155	472838*	175409*	365391*
243402	545963*	442698*	473408	175411*	365392*
280868	545966*	458379	473410	186556*	473520*
281083		473493*	473411	186561*	498013*
281255	<u>brc</u>	498222*	473413	186562*	498015*
281256	310929*			201850*	498229*
292128	498110*	<u>can</u>	<u>cph</u>	201852*	498230*
292130*	498112*	265865*	184767	201853*	498231*
296082	498113*	310939*	186548	201854*	498232*
498175	498114*	310940*	279303	205514*	498233*
	498115*	458376*	283062*	205518*	498299*
	498218*	473355*	283063	218047*	545756*
<u>bcp</u>	545971*		518631	225652*	545760*
275180*					

545761*	545975*	458328*	473146*	225688*	275239*
545762*	558063*	458330*	473162*	225689*	310963*
545763*	558064*	472930*	473163*	225696*	320342*
545765*	558065*	472943*	473164*	225697*	347770*
545766*	558066*	472944*	473356*	225701*	498036*
558051*	558067*	472945*	473358*	225702*	558485
558052*	558074*	472946*	473360*	225708*	
558386*	558075*	472947*	473497*	225709*	<u>plt</u>
558387*	558076*	472948*	498262*	243460*	255545*
558388*	558077*	472956*	500030*	243461*	255546*
558389*	558078*	472957*	546000*	243466*	255547*
558390*	558080*	472958*		243468*	545784*
558391*	558083*	472959*	<u>mrn</u>	258855*	545785*
	558084*		283078*	283121*	545786*
<u>etb</u>		<u>lph</u>	498256	283123*	545788*
558304	<u>ifd</u>	473342*		283126*	545789*
558305	442674*	473343*	<u>oka</u>	283127*	558447*
558307*	442675*	545896*	320327*	310490*	558448*
	472857*	545991*	320328*	310491*	
<u>fen</u>	472882	545992*	458367*	310493*	<u>pnt</u>
275162*	472896	545993*	458368*	320348*	275231*
458409*	472907*	545994*	498403*	320349*	275235*
458411*	472908*	545995*	500061*	320351*	
458412*	472909*	545996*	558102*	320352*	<u>pta</u>
498238*	472913		558104*	320353*	251740*
498239*	472914	<u>mcd</u>		320354*	251741*
498240*	473521*	275150*	<u>opl</u>	320357*	275229*
558057*	473522	320315	442684	320361*	545725
558058*	498247	473525	473184*	320362*	
558059*	498340	500040	473194*	320364*	<u>rap</u>
558060*	498348		498068*	320365*	310951*
558395*	558086	<u>mga</u>	498270	320367*	310999*
		233125*	545909*	320369*	320262
<u>grl</u>	<u>inm</u>	265874*	558107	320370*	458406
473065*	500048*	275148*	558108	320374*	473528
473071*		283082*		320376*	498278
473080*	<u>jam</u>	310977*	<u>phu</u>	320377*	
473081*	275263	458349*	225668*	320379*	<u>scr</u>
473096*	275266	458350*	225670*	320381*	258906
473104*	279278	458351*	225671*	320383*	258913
473523*	458428	473117*	225673*	320389*	283091
500022*	498407*	473119*	225674*	320390*	473533
500049*		473120*	225675*		498301*
545866*	<u>ktz</u>	473122*	225677*	<u>pld</u>	498306*
545867*	442681*	473123*	225687*	230561*	545918*

545929*	473504*	195195*	498057*	473218*	545922*
546008*	498074*	201849*	498058*	473219*	558129*
	498135*	201855*	545792*	473220*	558130*
<u>sct</u>	498138*	230490*	545794*	473222*	
283089	498139*	243459*	545795*	473223*	<u>tbr</u>
498391*	498140*	255525*	545798*	473225*	245928*
498392	498305*	255532*	545799*	473227*	
	545912*	255533*	545800*	473228*	<u>tor</u>
		275245*	545803*	473229*	310936*
<u>spg</u>	<u>stn</u>	275246*	545830*	473233*	498144
472967*	195213	275247*	558462*	473234*	498145
472970*	230512	275248*	558465*	473235*	546015
472976*	292110*	275249*	558467*	473236*	
472978*	458393	275252*	558468*	473237*	<u>ver</u>
472979*		283109*	558469*	473238*	251756*
472984*		310964*	558472*	473239*	365404*
473426*	<u>sto</u>	310980*	558473*	473240*	545746*
500050*	160372*	347772*	558475*	473241*	
500051*	161150*	365394*	558476*	473243*	<u>vrn</u>
	161152*	365396*		473244*	320333*
	161160*	365399*	<u>tar</u>	473245*	458372
<u>spl</u>	161364*	498007*	414148*	498290*	473308
310972*	186555*	498008*	414149*	498399*	558150
365357*	186563*	498054*	442689*	500043*	558151
458386*	195164*	498055*	458365*	500054*	
473375*	195166*	498056*	472815*	500055*	
473385*	195167*				
473503*					