

*Alberta*

R3142

**A Guide  
to Forest Tree Collections  
of Known Source or Parentage**

**in Northeastern and North Central  
United States and  
Adjacent Canadian Provinces**



A GUIDE TO FOREST TREE COLLECTIONS  
OF KNOWN SOURCE OR PARENTAGE IN NORTHEASTERN  
AND NORTH CENTRAL UNITED STATES AND ADJACENT CANADIAN PROVINCES

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## INTRODUCTION

During the past generation, the number of plantations of trees of known origin or parentage has increased enormously in the northeast and north central regions of the United States and adjacent provinces in Canada. With this increase have come attendant problems of record keeping and maintenance. It has also become difficult for foresters, tree breeders, and others in related disciplines to keep track of the number and location of plantations that might contain useful materials for their programs. The purpose of this guide is to provide a listing of such plantations so that forest tree workers will be aware of, and hopefully able to utilize, this regional resource.

Although existing plantations may have a useful life of fifty years or more, the continual addition of new plantations, and elimination of old ones, requires periodic updating of files to maintain their usefulness for research and production operations. Such updating is most easily accomplished if listings are stored in a computer for easy retrieval and manipulation. A key feature of this guide is that all information used in its development is contained in a computerized database management system. Future revisions of this guide will utilize the present base, with additions and deletions incorporated as needed. The frequency of such revisions will depend upon the rate of plantation establishment and the perceived value of this guide to forest tree workers.

This guide is not the first to develop a listing of forest tree plantings of known source or parentage. Similar guides are available for the western United States and the states of Michigan and New Hampshire. References to these guides are provided below. We have not attempted to

provide listings of collections at the many arboreta located within the region, although we recognize that such collections may provide a valuable source of germ plasm for breeders.

Finally, we note that the present guide is somewhat incomplete. Approximately fifty percent of the agencies contacted responded to our questionnaire. Gaps existing in the guide hopefully will be filled during the next few years and a future version will provide the comprehensive listings desired for the region. Persons having information regarding plantations of known source or parentage are encouraged to complete copies of the questionnaire forms provided in Appendix E and return them to the senior author.

Baldwin, H. I. 1965. A key to plantations established to test provenances of forest trees. New Hampshire Dept. Res. and Econ. Dev., Concord, NH, 48p.

Hanover, J. W., O. Okafo, J. Brissette, and J. W. Wright. 1980. A directory of forest genetic plantings in Michigan. Res. Rpt. #395, Mich. State U. Ag. Expt. Stn., 16p.

Stettler, R. F. and J. C. Cummings. 1973. A guide to forest tree collections of known source or parentage in the western United States and Canada. Bull. #3, Ecosyst. Anal. Stud., US/IBP, 59p.



## HOW TO USE THE GUIDE

Plantations are listed in one of four categories:

- 1) Provenance tests;
- 2) Families of known parentage;
- 3) Clonal seed orchards, clone banks, or clonal tests;
- 4) Hybrid collections.

Assignment of a planting to one of these categories is usually straightforward, but occasionally a planting could be listed under more than one category. We have tried to assign plantings to those categories which, in the eyes of the originating or maintaining agency, most closely fit the intended purpose of the planting.

While most information presented for each planting is the same regardless of category, certain items unique to each category require that separate formats be used for each type of planting. Accordingly, a description of the information contained in each column for all entries is provided at the start of the listing for each category.

To maximize the amount of information provided for each entry, we have relied upon a series of codes to designate such items as species identification, contact person and maintaining agency, and references. The appendices at the end of the listings provide keys to these codes. Additional explanation may be found at the start of each category listing.

The basic sorting sequence followed for all categories was to sort first by species (using the U. S. Forest Service species codes; see Appendix A), then to sort alphabetically by state or country of planting location, and finally to sort alphabetically by county or province for all plantings of the same species. Alternative sorting sequences (e.g. by maintaining agency) can be provided; please contact the senior author.

### PROVENANCE TESTS

A total of 478 provenance test plantings representing 37 conifer and 29 hardwood species were reported. Among the most widely planted conifers were balsam fir (32 plantings), white spruce (33 plantings), black spruce (26 plantings), jack pine (39 plantings), eastern white pine (30 plantings) and scotch pine (37 plantings). The hardwood provenance tests were dominated by black walnut (13 plantings), and various Eurasian elm species (19 plantings).

A major function of provenance testing has been the identification of the best seed sources for reforestation activities. Provenances assembled for testing usually represent a large part or an entire species range. Column 6 (Source Range) provides the latitudes and longitudes encompassed by each particular test. For those instances where a collection area was delimited by political boundaries, we have provided geographic coordinates as shown in a world atlas.

A large number of publications have been produced using data from these provenance test plantings, especially among the spruces and pines. Most of these publications have resulted from the extensive tests initiated by cooperators in the north central (NC-99) and northeastern (NE-27) regional tree improvement programs.

- Col. 1. Species designation (see Appendix A).
- Col. 2. State or country in which planting is located (postal code).
- Col. 3. County or province in which planting is located
- Col. 4. Plantation designation assigned by maintaining agency.
- Col. 5. Code number of maintaining agency (see Appendix C).
- Col. 6. Source range (in geographical coordinates).
- Col. 7. Size of planting (hectares).
- Col. 8. Year in which planting was established.
- Col. 9. Is plant material available (Y=yes;N=no;C=conditionally).
- Col. 10. Code for contact person at maintaining agency (see Appendix B).
- Col. 11. Are publications available (Y=yes;N=no) on materials in the planting, and references provided by cooperators (see Appendix D).
- Col. 12. Sorting code.

PROVENANCE TESTS														
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	SOURCE RANGE				SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
					N	S	E	W						
010	CN	QUEBEC	328C VALCARTIER	A045	4554	4530	7720	12150	.60	71	C	CA		407
012	CN	MANITOBA	RIDING MTN.	A045	5700	5300	6500	2100	.60	63	C	KJ	Y 76 80	58
012	CN	MANITOBA	RIDING MTN.	A045	5700	5300	6500	2100	1.9	62	C	KJ	N	57
012	CN	NEWFOUNDLAND	CORMACK	A004	4900	4525	5255	6625	.77	61	C	KM	Y	1
012	CN	QUEBEC	200M STMAGLOIRE	A045	5400	4800	1400	600	.48	61	Y	CA		405
012	CN	QUEBEC	310E1VALCARTIER	A050	5400	4900	2400	1400	1.0	69	Y	CA		403
012	CN	QUEBEC	320C VALCARTIER	A045	5100	4635	2655	1120	.64	70	C	CA		404
012	CN	QUEBEC	328C VALCARTIER	A045	3600		13800			71	C	CA		397
012	CN	QUEBEC	384B VALCARTIER	A050	5400	4900	2400	1400	1.7	78	C	CA		402
012	CN	QUEBEC	520 VALCARTIER	A005	4728	4517	7008	7328	.76	72	Y	CA		370
012	CN	QUEBEC	550 VALCARTIER	A109	6826	6416	2410	2826	.40	78	C	CA		401
012	CN	QUEBEC	57A DRUMMONDVIL	A045	5400	4800	600	2000	.60	55	C	CA	Y	389
012	CN	QUEBEC	57B POINTTAILL	A045	5400	4800	600	2000	.80	56	C	CA		390
012	CN	QUEBEC	57C ST. ROCHE DE	A045	5400	4800	600	2000	.96	57	C	CA		391
012	CN	QUEBEC	57C ST. ROCHE DE	A045	4652	4640	7132	7240	.16	57	C	CA		393
012	CN	QUEBEC	57C ST. ROCHE DE	A045	4652	4640	7132	7240	.16	57	C	CA		392
012	CN	QUEBEC	57D STE. ANNA DE	A045	4529		7142			56	C	CA		395
012	CN	QUEBEC	57D STE. ANNE DE	A045	5400	4800	600	2000	.72	56	C	CA		394
012	CN	QUEBEC	57E PINKNEY CRK	A045	5400	4800	2000	600	.88	57	Y	CA		396
012	MI	CASS	DECATUR 2-70	A088	RANGE	WIDE			.20	70	C	WJ	Y 111 112	179
012	MI	HILLSDALE	TIPTON 11-70	A088	RANGE	WIDE			.36	70	C	WJ	N	178
012	MI	KALAMAZOO	AUGUSTA 10-73	A088	RANGE	WIDE			.12	73	C	WJ	N	176
012	MI	KALAMAZOO	AUGUSTA 3-70	A088	RANGE	WIDE			.36	70	C	WJ	N	177
012	MN	CARLTON	CLOQUET-T	A083	5200	4300	6500	1030	1.2	69	C	MC	Y 112	2
012	MN	ITASCA	NORTHCENTRAL-C	A027	5100	4300	6600	10200	.80	70	C	MC	Y 96	125
012	NE	ADAMS	HASTINGS NE.	A012	4735	4717	2534	2510	.40	78	N	VH	N	85
012	NH	COOS	COLEMAN ST. PK.	A085	5100	4300	7200	10100	1.2	70	Y	ER	Y 99	48
012	NH	HILLSBORO	IUFRO	A035	6558	4350	2643	810		42	Y	VP	Y	240
012	WI	BAYFIELD	SAND RIVER	A088	4800	4200	8200	9200	.40	72	C	GR	N	353

PROVENANCE TESTS														
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	SOURCE RANGE				SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
					N	S	E	W						
012	WI	FOREST	G-392KAINELAKE	A088	5358	4419	6619	10117	.60	70	Y	NH	Y	272
012	WI	LACROSSE	BANGOR 1-69	A088	4500	2500	6500	10000	.60	69	C	GR	Y 111 112	309
012	WI	LANGLADE	POLAR 2-72	A088	4800	4200	8200	9200	.20	72	C	GR	N	211
012	WI	LANGLADE	POLAR 3-69	A088			6500	10000	.60	69	C	GR	N	212
015	MI	CASS	DECATUR 13-65	A027	4000	3200	10500	11500	.60	65	C	WJ	Y 202	135
015	MI	INGHAM	LANSING 11-65	A027	4000	3200	10500	11200	.16	65	C	WJ	Y 223	315
015	MI	KALAMAZOO	AUGUSTA 14-63	A027	3900	3200	10500	11200	.60	63	C	WJ	Y 202	136
015	MI	KALAMAZOO	AUGUSTA 3-65	A027	3900	3200	10500	11200	1.4	65	C	WJ	Y 202	137
015	MI	OSCEOLA	MARION 6-65	A027	4000	3200	10500	11200	.28	65	C	WJ	Y 202	138
060	NE	ADAMS	HASTINGS, NE.	A012	4820	2940	9425	11310	4.0	80	Y	VH	N	91
060	NE	BOXBUTTE	ALLIANCEJUNIPER	A033	4800	3200	9600	11000		80		LW	N	139
060	NE	CASS	HORNING ST. FM.	A012	4820	2940	9850	11000	4.0	80	Y	PG		101
060	SD	SULLY	KOENIG P.H.A.	A012	4800	2800	9500	11300	.28	80	C	VH	N	73
069	CN	ONTARIO	2A-78 NIAGRA	A113						77	N	RM	N	473
069	CN	ONTARIO	BROCKVILLE	A113						77	N	RM	N	461
070	CN	SASKATCHEWAN	PLOT 43	A077	URAL	MTNS.	USSR			12	Y	HG	N	140
070	MI	CASS	G-109PIKEBAY EF	A013	6000	4600	800	2500	.60	49	Y	NH	N	271
070	MI	HILLSDALE	.TIPTON 1-4-67	A032					.56	76	C	WJ	N	244
070	MI	WASHTENAW	NEWCOMB TRACT	A038	5400	3500	900	13800	.80	61	C	BA	Y 4	262
070	MI	WASHTENAW	NEWCOMB TRACT	A038	5400	3500	900	13800	1.6	60	C	BA	Y 4	263
070	NH	HILLSBORO	KIMBALL FARM	A035						58	Y	VP	N	229
070	WI	FOREST	G-109ARGONNE EF	A013	6000	4600	800	2500	.40	49	Y	NH	N	270
071	CN	ONTARIO	2A-78 NIAGRA	A113						77	N	RM	N	472
071	CN	ONTARIO	4A-79-CORNWALL	A113						79	N	RM	N	447
071	CN	ONTARIO	4B-79-OTTAWA	A113						79	N	RM	N	448
071	CN	ONTARIO	5-79-OTTAWA	A113						79	N	RM	N	449
071	CN	ONTARIO	BROCKVILLE	A113						77	N	RM	N	460
071	MI	ALGER	CHATHAM 9-69	A083					.32	69	C	WJ	N	311
071	MI	CASS	DECATUR 1-67	A083					.64	67	C	WJ	N	204

PROVENANCE TESTS														
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	SOURCE RANGE				SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
					N	S	E	W						
071	MI	CASS	DECATUR 15-69	A083					.44	69	C	WJ	Y	205
071	MI	CHIPPEWA	SAULTSTEMA12-69	A083					.80	69	C	WJ	N	241
071	MI	HOUGHTON	HOUGHTON 15-67	A083					.40	67	C	WJ	N	243
071	MI	HOUGHTON	HOUGHTON 21-67	A083					.52	68	C	WJ	N	242
071	MI	KALAMAZOO	AUGUSTA 6-69	A083					.64	69	C	WJ	N	206
071	MI	KALAMAZOO	AUGUSTA4,5,6-66	A083					.76	66	C	WJ	N	207
071	MN	CARLTON	CLOQUET-K	A083	5500	4100	6200	10500	.40	65	C	MC	Y 129	3
071	MN	ITASCA	BLACKBERRY-L	A083	6500	4000	6000	13000	.20	69	C	MC		4
071	WI	FOREST	KAINE LAKE	A013	5639	4210	6503	11114	.04	67	Y	NH	Y 51	269
071	WI	ONEIDA	L.TOMAHAWK G259	A013	5639	4210	6503	11114	.30	67	Y	NH	Y 51	268
074	CN	ONTARIO	2A-78 NIAGRA	A113						77	N	RM	N	470
074	CN	ONTARIO	4A-78FT.FRANCES	A113						78	N	RM	N	462
074	CN	ONTARIO	4B-78 CORNWALL	A113						78	N	RM	N	465
074	CN	ONTARIO	6A-79 CORNWALL	A113						79	N	RM	N	451
074	CN	ONTARIO	6B-79 CORNWALL	A113						79	N	RM	N	454
074	CN	ONTARIO	6C-79 NAPANEE	A113						79	N	RM	N	456
074	CN	ONTARIO	BROCKVILLE	A113						77	N	RM	N	458
074	IA	ALLAMAKEE	YELLOWRIVER S.F	A090	3647	3536	13932	13734	.16	60	C	HR	Y 233	44
074	MI	BARAGA	L'ANSE 8-60	A027					.16	60	C	WJ	Y 37 109	245
074	MI	CASS	DECATUR 4-60	A027					.20	60	C	WJ	Y 37 94	133
074	MI	CASS	DECATUR 6-61	A027	RANGE	WIDE			.60	61	C	WJ	Y 37 109	322
074	MI	CHIPPEWA	SAULTSTEMA10-60	A027					.24	60	C	WJ	Y 37 109	248
074	MI	KALAMAZOO	AUGUSTA 1-61	A027					.60	61	C	WJ	Y 37 94	134
074	MI	KALAMAZOO	AUGUSTA 2-60	A027					.24	60	C	WJ	Y 37 109	249
074	MI	MANISTEE	BEULAH 9-60	A027					.12	60	C	WJ	Y 37 109	247
074	MI	MANISTEE	THOMPSONVI11-60	A027					.20	60	C	WJ	Y 37 109	246
074	MI	SHIAWASSEE	LANSING 6-60	A027					.20	60	C	WJ	Y 37 109	312
074	MN	DAKOTA	ROSEMONT-3	A027	3648	3524	13930	13742	.40	61	C	MC	Y	120
074	MN	ITASCA	GUNN PARK-F	A027	3647	3527	13734	13932	.36	69	C	MC	Y 132 37	5

PROVENANCE TESTS														
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	SOURCE RANGE				SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
					N	S	E	W						
074	NE	CASS	HORNING ST. FM.	A012	3648	3524	13930	13736	.20	60	Y	VH	Y 37 116	93
075	CN	ONTARIO	2A-78 NIAGRA	A113						77	N	RM	N	471
075	CN	ONTARIO	4A-78FT.FRANCES	A113						78	N	RM	N	463
075	CN	ONTARIO	4B-78 CORNWALL	A113						78	N	RM	N	466
075	CN	ONTARIO	6A-79 CORNWALL	A113						79	N	RM	N	452
075	CN	ONTARIO	6C-79 NAPANEE	A113						79	N	RM	N	457
075	CN	ONTARIO	BROCKVILLE	A113						77	N	RM	N	459
075	CN	QUEBEC	570 VALCARTIER	A005	5015	5000	1720	1730	.08	76	Y	CA		371
075	CN	QUEBEC	570 VALCARTIER	A005	4815	4605	6923	7240	.20	76	Y	CA		372
075	IA	ALLAMAKEE	YELLOWRIVER S.F	A090	5200	4400	2000	500	.36	58	C	HR	Y 41	42
075	MI	CASS	DECATUR 7-61	A027	RANGE WIDE				.60	61	C	WJ	Y 37 109	172
075	NH	HILSBORO	FOX FOREST	A035	6148	4617	2942	747		48	C	VP	Y	209
075	WI	ONEIDA	MSFGP-22-60	A027					.40	60	C	GR	N	161
076	CN	ONTARIO	4A-78FT.FRANCES	A113						78	N	RM	N	464
079	CN	ONTARIO	6A-79 CORNWALL	A113						79	N	RM	N	450
079	CN	ONTARIO	6B-79 CORNWALL	A113						79	N	RM	N	453
079	CN	ONTARIO	6C-79 NAPANEE	A113						79	N	RM	N	455
086	CN	ONTARIO	5A-70 WINGHAM	A113						74	N	RM	N	477
086	CN	ONTARIO	5B-70 TWEED	A113						74	N	RM	N	467
086	CN	ONTARIO	5C-70BRACEBRDGE	A113						74	N	RM	N	476
089	CN	ONTARIO	5A-70 WINGHAM	A113						74	N	RM	N	478
089	CN	ONTARIO	5B-70 TWEED	A113						74	N	RM	N	469
089	CN	ONTARIO	5C-70BRACEBRDGE	A113						74	N	RM	N	475
090	MN	ST.LOUIS	G-21 SUPERIOR	A013					.80	36	Y	NH	Y	296
090	WI	FOREST	G-21NICOLET N.F	A013					4.8	36	Y	NH	Y 90	334
090	WI	ONEIDA	76-2L.TOMAHAWK3	A013					.40	65	Y	NH	N	422
091	CN	ONTARIO	5A-70-WINGHAM	A113						74	N	RM	N	446
091	CN	ONTARIO	5B-70 TWEED	A113						74	N	RM	N	468
091	CN	ONTARIO	5C-70BRACEBRDGE	A113						74	N	RM	N	474

PROVENANCE TESTS														
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	SOURCE RANGE				SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
					N	S	E	W						
091	CN	QUEBEC	277D VALCARTIER	A045	5533	4635	3000	1120	.88	69	Y	CA	416	
091	CN	QUEBEC	277D VALCARTIER	A045	4641		7241		.12	69	Y	CA	417	
091	CN	QUEBEC	349C1VALCARTIER	A045	6045	5000	4010	1120	2.6	76	Y	CA	414	
091	CN	QUEBEC	349C1VALCARTIER	A045	4750	4600	6923	7726	.32	76	Y	CA	415	
091	CN	QUEBEC	349C2BONAVENTUR	A045	6045	5000	4010	1120	2.6	76	Y	CA	412	
091	CN	QUEBEC	349C2BONAVENTUR	A045	4750	4600	6923	7726	.32	76	Y	CA	413	
091	CN	QUEBEC	349C3 MONTLAURI	A045	4750	4600	6923	7726	.32	76	Y	CA	411	
091	CN	QUEBEC	349C3 MONTLAURI	A045	6045	5000	4010	1120	2.6	76	Y	CA	410	
091	CN	QUEBEC	350A AMQUI	A050	4600		7726		.08	71	Y	CA	409	
091	CN	QUEBEC	350A AMQUI	A050	4932	4138	2336	1640	1.8	71	Y	CA	408	
091	CN	QUEBEC	57G HARTHILL	A045	4652	4529	7132	7145	.24	57	C	CA	420	
091	CN	QUEBEC	57G HARTHILL	A045	7000	4800	3000	600	.76	57	C	CA	421	
091	CN	QUEBEC	57H CAUSAPSCAL	A045	7000	4800	3000	600	1.0	57	C	CA	419	
091	CN	QUEBEC	57H CAUSAPSCAL	A045	7000	4800	3000	600	1.0	57	C	CA	418	
091	IA	ALLAMAKEE	YELLOWRIVER S.F	A090	4930	4300	2500	1900	.16	60	C	HR N	43	
091	ME	AROOSTOOK	HOLST NOR.SPRUC	A060	6320		1400		10.	66	Y	HK N	304	
091	MI	INGHAM	LANSING 3-67	A027					1.6	67	C	WJ N	316	
091	MI	KALAMAZOO	AUGUSTA 6-76	A027					1.5	76	C	HJ N	443	
091	MN	CASS	SM-222 PIKE BAY	A013	6245	4600	6430	7730	.20	62	Y	NH Y 191	338	
091	MN	DAKOTA	NORTHCENTRAL-A	A045	5700	5345	5700	2030	.72	62	C	MC N	127	
091	MN	ITASCA	GUNN PARK-C	A045	5622	5334	5715	2029	.02	62	C	MC N	6	
091	MN	ITASCA	NORTHCENTRAL-D1	A027	4717	4735	2530	2510	.04	76	C	MC N	124	
091	ND	ROLETTE	SM-222 DENBIGH	A013	6245	4600	6430	7730	.20	62	Y	NH Y 191	339	
091	WI	ONEIDA	LK.TOMAHAWK-2	A013	CENT. EUROPE					.40	65	Y	NH N	333
093	MI	KALAMAZOO	AUGUSTA 2-71	A090	RANGE WIDE					.30	71	C	HJ N	166
093	MI	KALAMAZOO	AUGUSTA 2-76	A027					.16	76	C	HJ N	165	
094	CN	MANITOBA	RIDING MTN.	A045	4854	4418	6900	8054	1.8	59	C	KJ Y 126	60	
094	CN	NEWFOUNDLAND	NORTH POND	A004	5000	4300	6800	9300	2.6	63	C	KM	256	
094	CN	NEWFOUNDLAND	WOODDALENURSERY	A004	6400	4400	5200	14200		78	C	KM N	257	

PROVENANCE TESTS														
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	SOURCE RANGE				SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
					N	S	E	W						
094	CN	QUEBEC	194I1ST. JACQUES	A045	4836	4418	6807	9838	2.6	64	C	CA		379
094	CN	QUEBEC	194-I2GRANDESPI	A045	4836	4418	6807	8938	.84	65	C	CA		380
094	CN	QUEBEC	194-I3 CASEY	A045	4836	4418	6807	8938	.80	65	C	CA		381
094	CN	QUEBEC	194G HARRINGTON	A045	4836	4418	6807	9312	2.6	64	C	CA	Y	377
094	CN	QUEBEC	194H BASKATONG	A045	4836	4418	6807	9329	2.6	64	C	CA	Y	378
094	CN	QUEBEC	530A VALCARTIER	A005	5360	4905	11435	12750	1.4	72	C	CA		382
094	CN	QUEBEC	57E PINKNEY CRK	A045	4529		7142			57	C	CA		406
094	CN	QUEBEC	93-E DRUMONDVIL	A045	4923	4415	6910	8212		58	C	CA		375
094	CN	QUEBEC	93-F HARRINGTON	A045	4415	4323	6910	8212		58	C	CA		376
094	ME	PENOBSCOT	WS 194-I-6	A045	4842	4406	6748	8736	1.0	65	Y	HK	Y 173 176	306
094	MI	BARAGA	G-113 L'ANSE	A013	6635	4410	5626	14511	.44	63	Y	NH	Y 126 227	360
094	MI	CASS	DECATUR 9-63	A090	RANGE	WIDE			.48	63	C	WJ	Y 126 227	197
094	MI	GOGEBIC	G-169WATERSMEET	A013	4852	4409	6910	8050	.12	58	C	NH	Y 126 227	359
094	MI	HOUGHTON	G-141 LK.LINDEN	A013	4643	4422	8330	8908	.32	63	Y	NH	Y 126 227	358
094	MI	KALAMAZOO	AUGUSTA 1-60	A090	N.QUE	BEC,E	.ONTA	RIO	.08	60	C	WJ	Y 126 227	175
094	MI	KALAMAZOO	AUGUSTA5,6,7-63.	A090	RANGE	WIDE			.80	63	C	WJ	Y 126 227	196
094	MI	MACKINAC	201	A061						68	C	MJ	N	429
094	MI	MACKINAC	G-141 MORAN	A013	4643	4422	8330	8908	.32	63	Y	NH	Y 126 227	357
094	MI	ONTONAGON	G-113 BERGLAND	A013	6635	4410	5626	14511	2.2	62	Y	NH	Y 126 227	363
094	MI	WEXFORD	G-113 CADILLAC	A013	6635	4410	5626	14511	2.4	62	Y	NH	Y 127 227	361
094	MI	WEXFORD	G-113 PINERIVER	A013	6635	4410	5626	14511	2.2	62	Y	NH	Y 126 227	362
094	MN	CARLTON	CLOQUET-B	A013	6500	4500	6000	15000		62	C	MC	Y 130	23
094	MN	CASS	G-113 PIKE BAY	A013	6635	4410	5626	14511	2.2	62	Y	NH	Y 126 227	365
094	MN	ITASCA	GUNN PARK-A	A045	5500	4500	8000	9500	.72	58	C	MC	Y 168	10
094	MN	ITASCA	GUNN PARK-B	A013	6000	4300	6000	14000	.80	62	C	MC	Y	9
094	MN	LAKE	G-113WANLESSFRM	A013	6635	4410	5626	14511	2.2	62	Y	NH	Y 126 227	364
094	MN	ST.LOUIS	BURGESONSLAND 3	A013	5500	4000	6000	12400	.40	62	C	MC		122
094	ND	MCHENRY	DENBIGH 1962	A013	6300	4400	6800	14600	.24	62	Y	VJ	N	67
094	NE	ADAMS	HASTINGS,NE.	A012	4946	4440	7650	9043	.62	80	N	VH	N	90



PROVENANCE TESTS														
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	SOURCE RANGE				SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
					N	S	E	W						
094	WI	FOREST	G-113ARGONNE EF	A013	6635	4410	5626	14511	2.2	62	Y	NH	Y 126	366
095	CN	ALBERTA	RENO, ALTA.	A045	6444	4603	6023	14818	.32	75	Y	KJ	N	55
095	CN	MANITOBA	MULEKING	A045	5637	4412	5307	12128	.40	75	Y	KJ	N	53
095	CN	MANITOBA	MULEKING REP-4	A045	5637	4412	5307	12128	.12	75	Y	KJ		52
095	CN	NEWFOUNDLAND	BIGFALLS	A004	5325	4518	5252	7725	.16	74	C	KM	Y	302
095	CN	NEWFOUNDLAND	COCHRANE POND	A004	5325	4518	5252	7725	.12	74	C	KM		301
095	CN	NEWFOUNDLAND	LITTLEGEORGESLK.	A004	5325	4518	5252	7725	.21	74	C	KM	Y	300
095	CN	NEWFOUNDLAND	MILLERTOWNJUNCT	A004	6400	4300	5307	6023	1.6	75	C	KM		297
095	CN	NEWFOUNDLAND	NEWBAY POND	A004	5325	4518	5252	7725	.14	74	C	KM	Y	299
095	CN	NEWFOUNDLAND	RODDICKTON	A004	5325	4518	5252	7725	.29	74	C	KM		259
095	CN	NEWFOUNDLAND	RODDICKTON	A004	6400	4300	5307	13600	1.4	75	C	KM		258
095	CN	NEWFOUNDLAND	SANDYBROOK	A004	5325	4518	5252	7725	.30	74	C	KM	Y	260
095	CN	NEWFOUNDLAND	SERPENTINE LAKE	A004	6400	4300	5307	6023	1.6	75	C	KM		298
095	CN	NEWFOUNDLAND	SOUTH BROOK	A004	5325	4518	5252	7725	.31	72	C	KM	Y	303
095	CN	QUEBEC	353B1 MONTLAURI	A005	6715	4413	5308	15131	6.4	74	C	CA	Y	383
095	CN	QUEBEC	353B2 LACSTIGNA	A005	6715	4413	5308	15131	6.4	74	C	CA		384
095	CN	QUEBEC	353B3 CHIBOGAMA	A005	6715	4413	5308	15131	6.4	74	C	CA		385
095	CN	QUEBEC	353B4VALCARTIER	A005	6715	4413	5308	15131	5.6	75		CA		386
095	CN	QUEBEC	353B5 LABRIEVIL	A005	6715	4413	5308	15131	5.2	75	C	CA		387
095	CN	QUEBEC	353B6 AMOS	A045	6715	4413	5308	15131	5.2	75	C	CA		388
095	CN	SASKATCHEWAN	BIG SANDY LAKE	A045	6444	4438	5307	14818	.56	75	Y	KJ	N	54
095	ME	YORK	GP-4-74	A013	4936	4153	5307	9355	1.2	74	C	WR	N	219
095	MI	KALAMAZOO	AUGUSTA 3-73	A090					.60	73	C	HJ	N	164
095	MI	KALAMAZOO	AUGUSTA 5-76	A027					.20	76	C	HJ	N	169
095	MN	DAKOTA	ROSEMONT-C	A045	6700	4200	6500	15500	.80	74	C	MC	N	118
095	MN	ITASCA	BLACKBERRY-0	A045	6300	4100	5300	13500	.80	74	C	MC	N	132
095	WI	ONEIDA	HARSHAW G-394	A013	6700	4153	5307	15535	.52	74	Y	NH	N	266
096	CN	SASKATCHEWAN	COL. SPRUCE-G.C.	A077	4500	3200	10200	11300	1.1	68	C	HG	N	145
096	ME	YORK	GP-2-74	A027	4300	3200	10500	11230	.92	74	C	WR	N	218

PROVENANCE TESTS														
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	SOURCE RANGE				SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
					N	S	E	W						
096	MI	HOUGHTON	HOUGHTON 5-73	A027					.36	73	C	WJ	N	163
096	MI	MANISTEE	WELLSTON 18-75	A027					.72	75	C	HJ	N	170
096	MN	DAKOTA	ROSEMONT	A083	4430	3345	10530	11235	.60	59	C	SH	N	26
096	MN	REDWOOD	MORRIS	A083	4430	3345	10530	11235	.60	60	C	SH	N	27
096	MN	WASECA	5WASECA	A083	4430	3345	10530	1123	.60	61	C	SH	N	28
096	ND	MCHENRY	DENBIGH 1975	A027	4348	3220	10515	11212	.60	75	Y	VJ	N	65
096	NE	ADAMS	HASTINGS, NE.	A012	4318	3300	10512	11200	.80	74	N	VH	N	86
096	NE	CASS	HORNING ST. FM.	A012	4318	3300	10515	11200	.80	73	Y	VH	N	92
096	OH	COSHCOCTON	B. SPR. SEEDSOUR	A027	4300	3200	10500	11300	.96	73	Y	HD	N	31
096	OH	DELAWARE	MSU-PP75	A027	4300	3300	10400	11200	.80	75	Y	HJ	N	235
096	WI	ONEIDA	LK. TOMAHAWK77-1	A027	4318	3041	10450	11048	.60	75	Y	NH	N	267
097	CN	NEWFOUNDLAND	NORTH POND	A004	4713	3840	6227	6914	.40	64	C	KM		255
097	CN	QUEBEC	95-D VALCARTIER	A045	4655	3530	6300	8330	2.0	59	C	CA	Y 241	367
097	CN	QUEBEC	95-E DRUMONDVIL	A045	4655	3530	6300	8330	2.0	59	C	CA	Y 241	368
097	CN	QUEBEC	95-E L.MEGANTIC	A045	4655	3530	6300	8330	2.0	59	C	CA	Y 241	369
097	MN	ITASCA	GUNN PARK-D	A013	4530	3530	6330	7800	.04	62	C	MC	N	25
097	NH	COOS	COLEMAN ST.FOR.	A035	4655	3536	4655	8327		60	C	VP	Y	208
098	CN	NEWFOUNDLAND	BIGFALLS	A004	5707	4445	12000	13520	.51	69	C	KM	Y	254
098	CN	NEWFOUNDLAND	CRABBES RIVER	A004	5705	4445	12000	13520	.51	69	C	KM	Y	253
098	CN	NEWFOUNDLAND	LITTLEGEORGESLK	A004	5705	4445	12000	13520	.51	69	C	KM	Y	252
098	CN	NEWFOUNDLAND	MOBILE	A004	5705	4445	12000	13520	.51	69	C	KM	Y	251
098	CN	NEWFOUNDLAND	NEWBAY POND	A004	5705	4445	12000	13520	.51	69	C	KM	Y	250
098	CN	NEWFOUNDLAND	NORTH POND	A004	5705	4445	12000	13520	.51	69	C	KM	Y 75 76 80	16
098	CN	NEWFOUNDLAND	RODDICKTON	A004	5705	4445	12000	13500	.51	69	C	KM	Y 75 76 80	15
098	CN	NEWFOUNDLAND	SANDY BROOK	A004	5705	4445	12000	13520	.51	69	C	KM	Y 75 76 80	14
098	CN	NEWFOUNDLAND	SHEFFIELD LAKE	A004	5705	4445	12000	13520	.51	69	C	KM	Y 75 76 80	13
100	ME	PENOBSCOT	MARYLAND WP.PRO	A081	5400	3448	6236	10000	.80	65	Y	HK	N	305
105	CN	MANITOBA	SUNDOWN	A045	6180	4360	6030	12130	.56	72	Y	KJ	N	51
105	CN	QUEBEC	255E10 CLOVA	A045	6316	4311	6019	12327	1.7	66	Y	CA		399

PROVENANCE TESTS														
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	SOURCE N	RANGE S	E	W	SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
105	CN	QUEBEC	255E9 BASKATONG	A045	6316	4311	6019	12327	1.7	66	Y	CA		400
105	MI	ALLEGAN	ALLEGAN 1-66	A045	6400	4300	6000	13100	2.2	66	C	WJ	Y 18	195
105	MI	CHIPPEWA	SAULTST22,23-66	A045	6400	4300	6000	13100	1.4	66	C	WJ	N	193
105	MI	EMMETT	PELLSTON G-114	A013	WIS.	MICH.	MINN.		2.0	54	C	NH	Y 1 84	189
105	MI	GOGEBIC	G-114 OTTOWA NF	A013	4803	4426	8354	9547	2.0	54	Y	RD	Y 53 86 84 87	283
105	MI	GOGEBIC	G-114WATERSMEET	A013					2.0	54	C	NH	Y 1 84	352
105	MI	GRANDTRAVERS	G-114 FIFE LAKE	A013	4803	4426	8354	9547	2.0	54	Y	RD	Y 53 54 84 86	282
105	MI	GRANDTRAVERS	G-114 FIFE LAKE	A013	4900	4300	MICH.	MINN.	2.0	54	C	NH	Y 1 84	190
105	MI	KALAMAZOO	AUGUSTA 7,8-66	A027					.44	66	C	WJ	Y 18	192
105	MI	OSCODA	MIO 15-66	A027	6400	4300	6000	13100	.96	66	C	WJ	N	194
105	MI	ROSCOMMON	G-114 ROSCOMMON	A013	LAKE	STATE	S		2.0	54	C	NH	Y 1 84	320
105	MI	WASHTENAW	DEXTER UM-34	A082					1.4	40	C	BB	N	36
105	MN	BELTRAMI	G-114 CHIPPEWA	A013	4803	4426	8354	9547	2.0	54	Y	RD	Y 53 84 86 87	293
105	MN	CARLTON	CLOQUET-P	A027	6300	4300	6000	12300	1.2	66	C	MC	Y 49 123	7
105	MN	CARLTON	G-114CLOQUETCFC	A013	4803	4426	8354	9547	2.0	54	Y	RD	Y 53 84 86 87	288
105	MN	CASS	G-114 PILLSBURY	A013	4803	4426	8354	9547	2.0	54	Y	RD	Y 53 54 84 86	292
105	MN	ITASCA	BLACKBERRY-J	A027	6300	4300	6000	12300	1.2	66	C	MC	N	8
105	MN	LAKE	G-114 SUPERIOR	A013	4803	4426	8354	9547	2.0	54	Y	RD	Y 54 84 86 87	294
105	MN	PINE	G-114GEN.ANDREW	A013	4803	4426	8354	9547	2.0	54	Y	RD	Y 53 54 84 87	291
105	NE	ADAMS	HASTINGS,NE.	A012	4955	4355	8547	9530	.66	79	N	VH	N	89
105	NE	CASS	HORNING ST. FM.	A012	6312	4406	6354	12324	.80	65	Y	VH	Y 138	94
105	NH	HILLSBORO	HONEYBROOK	A035	6148	4335	6348	12118		65	Y	VP	N	228
105	NH	HILLSBORO	MASTYARD	A035	6148	4335	6348	12118		65	Y	VP	N	226
105	NH	HILLSBORO	WINDSOR PEAK	A035	6148	4355	6348	12118		65	Y	VP	N	227
105	WI	BAYFIELD	G-114CHEQUAMEGO	A013	4803	4426	8354	9547	2.0	54	Y	RD	Y 53 54 84 86	287
105	WI	BURNETT	G-114 BURNETT	A013	4803	4426	8354	9547	2.0	54	Y	RD	Y 53 54 86 87	290
105	WI	FOREST	ARGONNE EX.FOR.	A013	14720		9400		.40	54	C	RT	Y 154 156	265
105	WI	FOREST	G-114 ARGONNE	A013	4803	4425	8354	9547	2.0	54	Y	RD	Y 86 87 54 53	285
105	WI	JACKSON	BLACKRIVERFALLS	A013					2.0	66	C	GR	N	308

PROVENANCE TESTS														
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	SOURCE RANGE				SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
					N	S	E	W						
105	WI	JEFFERSON	NC-1401-79-03	A013	4955	4355	8547	9503	.80	79	Y	NH	N	280
105	WI	MARINETTE	G-114 MARINETTE	A013	4803	4426	8354	9547	2.0	54	Y	RD	Y 84 86 87 54	284
105	WI	ONEIDA	G-223L.TOMAHAWK	A013	6313	4313	6019	12332	1.6	65	Y	RD	Y 85 149	335
105	WI	ONEIDA	LAKE TOMAHAWK	A013	4535		8943		.80	69	C	RT	Y 154 156	264
105	WI	ONEIDA	NC-1401-79-03LT	A013	4955	4355	8547	9503	.80	79	Y	NH	N	281
105	WI	ONEIDA	R-9JP HARSHAW	A013	4800	4410	8830	9430	2.6	76	Y	RD		340
105	WI	WASHBURN	G-114MOSINEE IF	A013	4803	4426	8354	9547	2.0	54	Y	RD	Y 86 54 84 87	289
105	WI	WOOD	G-114 NEPCO IF	A013	4803	4426	8354	9547	2.0	54	Y	RD	Y 53 54 87 84	286
110	IL	FRANKLIN	FREEMANSPUR	A010	3900	3430	8300	9500	1.6	49	Y	CK	Y	152
110	IL	HARDIN	KASKASKIA	A010	3900	3430	8300	9500	2.0	49	Y	CK	Y	151
110	IL	POPE	TRIGGSTOWER	A010	3900	3430	8300	9500	.40	49	Y	CK	Y	150
113	NE	CASS	HORNING ST. FM.	A012	5100	3155	10405	11510	.40	64	Y	VH	Y 197 198	98
119	MI	KALAMAZOO	AUGUSTA 8-70	A090					.72	70	C	WJ	Y 189	162
119	MI	MARQUETTE	CHATHAM 15-70	A090	4900	4600	11600	11700	.12	70	C	WJ	Y 189	310
119	MI	WASHTENAW	DEXTER-16-70	A090	4900	4800	11600		.80	70	C	BB	N	35
120	ME	PENOBSCOT	GP-7-60	A100	4900	3446	6000	9500	.80	60	Y	GP	Y	39
122	CN	SASKATCHEWAN	PON. PINE-G.C.	A013	4816	3209	9946	11956	1.6	67	C	HG	N	146
122	KS	GEARY	MILFORD	A090	4700	3212	9848	11148	4.0	68	Y	LK	Y	424
122	MI	ALLEGAN	ALLEGAN 16-68	A090					.84	68	C	WJ	N	184
122	MI	ALLEGAN	ALLEGAN 6-62	A090	5500	3200	10000	12500	.32	62	C	WJ	Y 193 221	185
122	MI	CASS	DECATUR 3-62	A027	5000	3200	10000	12500	1.4	62	C	WJ	Y 193 221	181
122	MI	CASS	DECATUR 8-68	A027	4600	3700	9900	11400	.76	68	C	WJ	N	191
122	MI	KALAMAZOO	AUGUSTA 1-62	A027	5100	3200	10000	12500	1.5	62	C	WJ	Y 193 192 221 102	183
122	MI	KALAMAZOO	AUGUSTA 4-68	A090					1.4	68	C	WJ	N	182
122	MN	DAKOTA	NORTHCENTRAL-B	A064	4818	3206	10306	11218	.80	70	C	MC	Y 149	126
122	MN	REDWOOD	LAMBERTON-A	A090	4900	3200	9800	12400	1.6	68	C	MC	Y 149	117
122	MN	REDWOOD	MORRIS-A	A090	4900	3200	9800	12400	1.2	68	C	MC	Y 149	116
122	ND	MCHENRY	TOWNER 1968	A064	4818	3212	9948	12118	4.2	68	C	VJ	N	68
122	NE	ADAMS	HASTINGS, NE.	A012	4818	3212	9948	12000	16.	68	Y	VH	N	88

PROVENANCE TESTS														
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	SOURCE N	RANGE S	E	W	SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
122	NE	BOXBUTTE	ALLIANCE, NE	A012	4818	3212	9948	12000	4.0	68	Y	VH	N	34
122	NE	CASS	HORNING ST. FM.	A012	4818	3212	9948	12000	4.0	68	Y	PG	N	100
122	NE	THOMAS	HORSESHOE BAR PLA	A012	4818	3212	9948	12000	4.0	68	Y	VH	N	33
122	SD	CODINGTON	BIGSIOUX NURSERY	A012	4818	3212	10036	12118	4.0	68	C	VH	Y 2	74
122	SD	CODINGTON	SDSU-PP	A090	4900	3000	10000	11200	1.5	68	Y	CP	Y 2	237
125	CN	MANITOBA	PINEY	A045	4924	4500	6300	9400	.44	58	Y	KJ	Y 79 124	59
125	CN	QUEBEC	96-C VALCARTIER	A045	4924	4505	6355	9436	.80	58	C	CA		374
125	MI	ALLEGAN	ALLEGAN 14-62	A027	5000	4000	6000	9500	2.5	62	C	WJ	Y 211 215 231 232	188
125	MI	CASS	DECATUR 10-63	A027	5000	4000	6000	9500	1.9	63	C	WJ	Y 211 215 231 232	186
125	MI	KALAMAZOO	AUGUSTA 2-63	A027	5000	4000	6000	9500	1.0	63	C	WJ	Y 211 215 231 232	187
125	MI	SHIAWASEE	LANSING 17-62	A027	RANGE WIDE				.92	62	C	WJ	Y 190 194 210 211	130
125	MN	CARLTON	CLOQUET-E	A027	4900	4300	6500	9400	.40	63	C	MC	Y 232	22
125	MN	ITASCA	BLACKBERRY-E	A027	4905	4450	7005	9540	.08	64	C	MC	N	17
125	MN	LAKE	CAMP 8 ELY, MN	A013						33	Y	NH	Y 110 125 147 148	337
125	NE	CASS	HORNING ST. FM.	A012	4730	4118	6536	9430	.80	63	Y	VH	Y 139	96
125	WI	JUNEAU	NEW MINER	A088	4500	4000	8000	9000	.40	63	C	GR	N	354
129	IL	HARDIN	KASKASKIA	A010	4730	3448	6600	9400	1.2	59	Y	CK	Y	157
129	IL	JACKSON	S. APPALACH. TEST	A027	3900	3400	8000	8500	6.0	70	C	RP	Y	430
129	IN	PERRY	MAGNET	A096	4800	3200	6500	9300	1.2	59	Y	WI	Y	156
129	MD	CHARLES	GP-3-59	A100	4900	3446	6000	9500	.80	59	Y	GP	Y	222
129	ME	YORK	GP-4-60	A100	4000	3446	6000	9000	.80	60	Y	GP	Y	38
129	ME	YORK	GP-5-60	A100	4900	3446	6000	9000	.80	60		GP		37
129	ME	YORK	GP-6-60	A100	4900	3446	6000	9000	.80	60	Y	GP	Y	224
129	MI	CASS	DECATUR 1-70	A027	MARYL AND-S OUTH				1.2	70	C	WJ	Y 101 220 222	351
129	MI	CASS	DECATUR 24-66	A081	RANGE WIDE				.88	66	C	WJ	Y 101 220 222	348
129	MI	CASS	DECATUR 5-60	A013	RANGE WIDE				.32	60	C	WJ	Y 207	347
129	MI	HILLSDALE	TIPTON 10-70	A027	MARYL AND-S OUTH				.96	70	C	WJ	Y 225	350
129	MI	INGHAM	LANSING 10-65	A081					.40	65	C	WJ	Y 101 220 222	314
129	MI	KALAMAZOO	AUGUSTA 3-60	A013	4800	3400	6400	9400	.40	60	C	WJ	Y 107 116 207	346

PROVENANCE TESTS														
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	SOURCE RANGE				SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
					N	S	E	W						
129	MI	KALAMAZOO	AUGUSTA 8-69	A027	MARYL	AND-S	OUTH		2.0	69	C	WJ	Y 101 220 222	349
129	MI	NEWAYGO	G-119 NEWAYGO	A013	4759	3446	6435	9431	2.9	62	Y	NH	Y 88 89	276
129	MI	NEWAYGO	G-191 NEWAYGO	A013	RANGE	WIDE			2.0	62	C	NH	N	342
129	MI	NEWAYGO	NEWAYGO 25-62	A013	RANGE	WIDE				62	C	NH	Y 207	343
129	MI	SCHOOLCRAFT	G-119MANISTIQUE	A013	4759	3446	8548	9431	.80	62	Y	NH	Y 88 89	279
129	MI	WEXFORD	CADILLAC 26-62	A013	RANGE	WIDE				62	C	NH	Y 207	345
129	MI	WEXFORD	G-191 CADILLAC	A013	RANGE	WIDE			.80	62	C	NH	N	344
129	MI	WEXFORD	G-191 PINERIVER	A013	4759	3446	6435	9431	1.0	62	Y	NH	Y 88 89	275
129	MN	CASS	G-119 PIKEBAY	A013	4759	3446	8548	9431	.80	62	Y	NH	Y 88 89	278
129	NE	CASS	HORNING ST. FM.	A012	3930	3428	7900	8430	1.2	69	Y	VH	Y 140	95
129	NY	FRANKLIN	GP-2-60	A100	4900	3446	6000	9500	.80	60	Y	GP	Y	220
129	PA	CENTRE	GP-2-59	A100	4900	3446	6000	9500	.80	59	Y	GP	Y	11
129	PA	CHESTER	GP-1-59	A100	4900	3446	6000	9500	.80	59	Y	GP	Y	12
129	PA	WARREN	GP-3-60	A100	4900	3446	6000	9500	.80	60	Y	GP	Y	40
129	VT	RITTENDEN	GP-12-60	A100	4900	3446	6000	9000	.80	60	Y	GP	Y	223
129	WI	FOREST	G-119 WABENO	A013	4759	3446	8548	9431	1.0	62	Y	NH	Y 88 89	277
129	WV	TUCKER	GP-5-59	A100	4900	3446	6000	9500	.80	59	Y	GP	Y	221
130	CN	MANITOBA	CARBERRY	A045	6500	5000	6800	2600	1.0	60	Y	KJ	Y 76 82	49
130	CN	MANITOBA	PINEY	A045	6500	5000	6800	2600	1.0	60	Y	KJ	Y 76 82	50
130	CN	SASKATCHEWAN	HOLBEIN	A045	5800	5000	6800	3000	2.9	60	Y	KJ	Y 82 152	56
130	CN	SASKATCHEWAN	USSR PINE F15	A077	5930	3130	3000	9600	1.3	61	Y	HG	N	144
130	CN	SASKATCHEWAN	USSRPINEPLOT S1	A077	6440	5200	5700	2600	.40	60	C	HG	N	143
130	IA	ALLAMAKEE	YELLOWRIVER S.F	A090	6400	4100	2500	430	.56	58	C	HR	N	41
130	MI	ALLEGAN	ALLEGAN 11-61	A027	6500	4000	1000	9000	1.8	61	C	WJ	Y 145 146 165 226	329
130	MI	ALLEGAN	ALLEGAN 15-62	A027	6000	5000	9000	10000	1.5	62	C	WJ	Y 145 204 206 226	328
130	MI	ALLEGAN	ALLEGAN 28-61	A027						61	C	WJ	N	295
130	MI	BARAGA	L'ANSE 20,21-61	A027					2.4	61	C	WJ	N	128
130	MI	CASS	DECATUR 17-63	A027					.20	63	C	WJ	Y 234	323
130	MI	CASS	DECATUR 7,8-61	A027	NORTH	EUROP	E		4.5	61	C	WJ	Y 145 202 203 209	171

PROVENANCE TESTS

SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	SOURCE RANGE				SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
					N	S	E	W						
130	MI	CHIPPEWA	SSM13-15,19-61	A027	6000	5000	E500	E2000	.48	61	C	WJ	Y 181 182 185 188	71
130	MI	CRAWFORD	HIGGENSLK.10-61	A027	6500	4000	13000	500	1.3	61	C	WJ	Y 164 202 203 226	326
130	MI	KALAMAZOO	AUGUSTA 2-4-61	A027	4000	6500	RANGE	WIDE	6.5	61	C	WJ	Y 164 177 178 183	325
130	MI	KALAMAZOO	AUGUSTA 3,4-63	A027	CEN.E	UROPE	,SIBE	RIA	.92	63	C	WJ	Y 145 204 206 226	324
130	MI	NEWAYGO	NEWAYGO 9-61	A027	6500	4000	13000	500	2.8	61	C	WJ	Y 213 234 202 145	327
130	MI	SHIAWASEE	LANSING 12-61	A027	6000	5000	9000	10000	1.8	61	C	WJ	Y 165 206 226 234	313
130	MI	SHIAWASEE	LANSING 17-62	A027					.92	62	C	WJ	Y 127 181 182 185	129
130	MI	WASHTENAW	DEXTER 17-19	A082					11.	25	C	BB	Y 102	76
130	MI	WASHTENAW	DEXTER 22-B	A082	NOT	KNOWN			2.4	30	C	BB	Y 102	75
130	MI	WASHTENAW	DEXTER 23	A082					.88	33	C	BB	Y 102	78
130	MN	BENTON	RICE SCOT PINE	A027	5500	3500	3000	0000	2.4	61	C	MC	Y 56 58 207	131
130	MN	CARLTON	CLOQUET-A	A083	6100	4000	3000	000	.80	62	C	MC	Y 55 56 57 59	24
130	MN	CARLTON	CLOQUET-H	A027	6024	4030	9000	300	.80	64	C	MC	Y 62 63 64 131	21
130	MN	ITASCA	BLACKBERRY-A	A027	6030	4650	312	9400	.40	62	C	MC	Y 55 56 57 59	19
130	MN	ITASCA	BLACKBERRY-D	A027	6020	4200	E9000	W 300	.08	64	C	MC	Y 55 58 59 207	18
130	MN	ST. LOUIS	BURGESONSLAND 2	A027	7000	3500	4000	1000	.40	62	C	MC	N	123
130	ND	MCHENRY	DENBIGH 1961	A064	6015	5000	12400	3000	1.7	61	Y	VJ	Y 24	61
130	ND	MCHENRY	DENBIGH 1963	A064	6745	4030	13140	1405	.12	63	Y	VJ	Y 24	62
130	ND	RANSOM	RANSOM 1961	A064	6015	5000	12400	3000	.24	61	Y	VJ	Y 24	63
130	ND	RICHLAND	RICHLAND 1961	A064	6015	5000	12400	3000	.24	61	Y	VJ	Y 24	64
130	NE	CASS	HORNING ST. FM.	A012	5730	3954	9618	512	.80	62	Y	VH	Y 116	99
130	NH	HILLSBORO	IUFRO 1942	A035	6910	4540	1840	455		42	Y	VP	Y	225
130	WI	FOREST	SM-99 WABENO,WI	A013	6015	5130	4500	12400	.20	61	Y	NH		336
130	WI	JEFFERSON	PALMYRA	A027						61	C	GR	N	214
130	WI	ONEIDA	ST. GERMAIN	A027						61	C	GR	N	213
131	IL	FRANKLIN	FREEMANSPUR	A010	3700	3100	7600	9300	1.6	49	Y	CK	Y	155
131	IL	HARDIN	KASKASKIA	A010	3700	3100	7600	9300	2.0	49	Y	CK	Y	154
131	IL	POPE	TRIGGSTOWER	A010	3700	3100	7600	9300	.40	49	Y	CK	Y	153
132	MI	KALAMAZOO	AUGUSTA 1-60	A081					.40	60	C	WJ	Y 42	174

PROVENANCE TESTS														
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	SOURCE RANGE				SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
					N	S	E	W						
133	IA	ALLAMAKEE	YELLOW RIVER	A027					.16	58	C	HR		341
133	MI	CASS	DECATUR 6-61	A027	4700	3700	500	3500	.80	61	C	WJ	Y 105 106 108 210	261
133	MI	CHIPPEWA	SAULT STE.MARIE	A027	4500	3600	3200	300	.96	61	C	WJ	Y 174	69
133	MI	KALAMAZOO	AUGUSTA 5-61	A027	4200	3700	3500	500	.80	61	C	WJ	Y 106 108 195 210	180
133	NE	CASS	HORNING ST. FM.	A012	4812	3700	3400	300	.80	62	Y	VH	Y 118	97
135	MI	CASS	DECATUR 10-64	A027	5000	3200	10500	12500	.32	64	C	WJ	Y 167 208 219	330
135	MI	KALAMAZOO	AUGUSTA 11-64	A027					.88	64	C	WJ	Y 167 208 219	332
135	MI	KALAMAZOO	AUGUSTA 2-68	A027					.20	68	C	WJ	Y 167 208 219	331
200	CN	QUEBEC	510-B AMQUI	A105	5335	4950	11721	12250	.60	71	Y	CA		373
200	CN	QUEBEC	510A VALCARTIER	A005	5335	4950	11712	12250	.60	71	Y	CA		398
200	MI	CASS	DECATUR 12-65	A027					.60	65	C	WJ	Y 143 195 196 208	83
200	MI	CASS	DECATUR 26-66	A044					.40	66	C	WJ	Y 30 166 216 229	173
200	MI	INGHAM	E.LANSING 12-67	A044	5000	3200	10500	12500	.24	67	C	WJ	Y 30 143 195 208	82
200	MI	KALAMAZOO	AUGUSTA	A027					.56	52	C	WJ	Y 146	84
200	MI	KALAMAZOO	AUGUSTA 14-67	A027	5000	3200	10500	12500	.20	67	C	WJ	Y 30 143 195 208	77
200	MI	KALAMAZOO	AUGUSTA 4-70	A079					.08	70	C	WJ	Y 202	80
200	MI	KALAMAZOO	AUGUSTA 9-66	A044	5000	3200	10500	12500	.72	66	C	WJ	Y 143 195 196 208	79
200	MI	OSCEOLA	MARION 5-65	A044	5000	3200	10500	12500	.80	67	C	WJ	Y 30 143 195 208	81
200	NE	CASS	HORNING ST. FM.	A012	5100	3224	10524	12441	.40	65	Y	VH	Y 119 208	87
200	NH	HILLSBORO	FOXFOREST D.FIR	A035						52	Y	VP	Y	210
241	MI	CASS	DECATUR 14-69	A083	RANGE	WIDE			.12	69	C	WJ	N	102
241	MI	CHIPPEWA	SAULTSTEMA13-70	A083	RANGE	WIDE			.52	70	C	WJ	N	106
241	MI	CHIPPEWA	SAULTSTEMA14-77	A027	RANGE	WIDE			.12	77	C	WJ	N	104
241	MI	GOGEBIC	G-391 MARENISCO	A083	5128	3706	6509	9200	.80	69	Y	NH	Y 52	274
241	MI	GOGEBIC	SEEDSOURCESTUDY	A013	5128	3706	6509	9137	.64	69	C	MJ	N	428
241	MI	HILLSDALE	TIPTON 12-70	A083	RANGE	WIDE			.28	70	C	WJ	N	105
241	MI	KALAMAZOO	AUGUSTA 5,6-70	A083	RANGE	WIDE			.28	70	C	WJ	N	103
241	MN	CARLTON	CLOQUET-S	A083	5100	3700	6500	9300	.80	69	C	MC	N	20
241	WI	IOWA	EDMUND	A083	4800	3700	6500	9300	.40	69	C	GR	N	355



PROVENANCE TESTS																
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	SOURCE RANGE				SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT		REFERENCES	CODE	
					N	S	E	W								
241	WI	ONEIDA	G-391L.TOMAHAWK	A013	5128	3706	6509	9200	.60	69	Y	NH	Y	52	273	
316	OH	DELAWARE	NCRL-RM	A040	4817	3240	5414	9336	3.2	74	Y	TA	Y	187 190	236	
318	VT	FRANKLIN	FAIRFAX	A075	4720	3530	7007	9745	1.3	68	Y	GW	N		232	
318	WV	TUCKER	PARSONS W.VA.	A075	4715	4232	7007	9430	.64	68	Y	GW	Y	195	231	
350	IA	MARSHALL	RHODES	A023	6412	3635	5201	840	.32	79	C	HR	N		46	
352	MN	ITASCA	AUDETTE-S	A083	6000	5000	3000	1000	.40	77	C	MC	N		29	
370	MI	CASS	DECATUR 15-76	A027					.40	76	C	HJ	N		444	
370	MI	CHIPPEWA	SAULTSTEMA13-77	A027	MICHIGAN					1.1	77	C	HJ	N		168
370	MI	INGHAM	LANSING 7-76	A027					.76	76	C	HJ	N		167	
371	MI	KALAMAZOO	AUGUSTA 1-68	A032					.72	68	C	WJ	Y	23	113	
375	MN	DAKOTA	ROSEMONT-1	A083	6000	3600	8000	14000	1.6	61	C	MC	N		121	
491	MI	KALAMAZOO	AUGUSTA 8,9-75	A027	RANGE WIDE					.88	75	C	WJ	N		115
491	MI	KALAMAZOO	AUGUSTA10,11-75	A027	RANGE WIDE					.24	75	C	WJ	N		114
541	NE	ADAMS	HASTINGS	A012	4648	3130	7224	9542		77		BA	N		158	
541	PA	FOREST	SCOTT RUN 665	A010	4542	3054	6900	9542	8.4	76	C	DD	N		431	
541	WI	IOWA	GOV.DODGE S.P.	A010	4550	3050	6800	9300	.60	76	C	GR	N		356	
543	IA	MARSHALL	RHODES	A044	5334	3405	8007	11330	.60	78	C	HR	N		45	
543	IL	UNION	LARUE 674	A011	3050	3745	7600	9148	2.3	76	C	MJ	N		70	
543	ND	BOTTINEAU	BOTTINEAU 1979	A064	4854	4054	9642	10842	1.4	79	Y	VJ	N		66	
543	NH	STRAFFORD	THOMPSON FARM	A044	5300	3700	7300	11300	.68	78		ER	N		47	
543	SD	CODINGTON	BIGSIOUXNURSERY	A064	4900	4100	9600	10800	1.4	79	C	VJ	N		72	
544	KS	POTTAWATOMIE	TUTTLE CREEK	A084	4745	3445	9520	10300	.64	71	Y	LK	Y		426	
544	ND	MORTON	MANDAN 1979	A090	4854	4054	9642	10842	1.4	79	Y	CR	N		307	
544	NE	ADAMS	HASTINGS	A086						78	Y	BA	N		159	
544	NE	CASS	HORNING ST. FM.	A084	4645	3435	9520	10300	1.4	71	Y	BA	N		217	
544	PA	CENTRE	78-1	A044	5335	3405	7153	11332	2.8	78	C	SK	N		230	
544	SD	BROOKINGS	SDSU-FP-A	A099					.32	61	Y	CP	Y		238	
544	SD	BROOKINGS	SDSU-FP-B	A099					.72	71	Y	CP	Y		239	
602	IL	ALEXANDER	ABERCROMBIE	A010	4220	3134	7928	9600	.80	67	Y	CK	Y		149	

PROVENANCE TESTS														
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	SOURCE RANGE				SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
					N	S	E	W						
602	IL	ALEXANDER	ABERCROMBIE	A010	4220	3134	7928	9600	.80	67	Y	CK	Y	234
602	IL	HARDIN	RENDLEMAN	A010	4200	3140	7908	9735	.40	72	Y	CK	N	148
602	IL	HARDIN	RENDLEMAN TRACT	A010	4200	3140	7908	9735	.40	72	Y	CK	N	233
602	IN	LAWRENCE	HURON	A010	4201	3410	7710	9400	1.6	67	Y	CK	Y	147
602	KS	POTTAWATOMIE	TUTTLE CREEK	A090	3800	3650	8640	9000	.64	74	Y	LK	N	427
602	KS	POTTAWATOMIE	TUTTLE CREEK	A090	4220	3103	7845	9512	.48	67	Y	LK	N	425
602	MI	KALAMAZOO	AUGUSTA 1-77	A027					.04	77	C	HJ	N	201
602	MI	KALAMAZOO	AUGUSTA 12-60	A027					.08	60	C	WJ	N	202
602	MI	KALAMAZOO	AUGUSTA 5-67	A027	RANGE	WIDE			.28	67	C	WJ	Y 15 212	199
602	MI	KALAMAZOO	AUGUSTA 6-72	A090					.80	72	C	WJ	N	200
602	MI	ST. CLAIR	COLUMBUS 2-77	A027					.08	77	C	HJ	N	203
602	NH	MERRIMACK	BLK.WAL.PROGENY	A069	5000	3900	7100	9200		79	C	AI	N	445
742	KS	POTTAWATOMIE	TUTTLE CREEK	A080	4500	2800	8500	9800	1.4	65	Y	LK	N	423
742	MI	KALAMAZOO	AUGUSTA 5-65	A080						65	C	WJ	Y 51	112
742	MN	DAKOTA	ROSEMONT-4	A080	4500	3200	8000	10000	.40	65	C	MC	Y 31 33 53 105	119
742	NE	SAUNDERS	U NEB.FIELD LAB	A080	4500	3000	8000	10000	2.4	66	Y	BA	Y 238 239	160
746	MN	ITASCA	AUDETTE-C	A083	4800	4300	9000	9600	.40	71	N	MC	Y 120	30
762	MI	KALAMAZOO	AUGUSTA 9-67	A076					.80	67	C	WJ	Y 4	107
823	NE	SAUNDERS	UNEB FIELDLAB-M	A084	4954	3525	7529	10314	.92	66	Y	BA	N	215
833	MI	KALAMAZOO	AUGUSTA 2-62	A041						62	C	WJ	N	321
833	NE	CASS	HORNING ST. FM.	A042	4615	3535	7025	9630	3.8	62	Y	BA	N	216
833	OH	COSHCOCTON	TVA RED OAK	A076	3708	3415	8158	8900	3.2	73	Y	HD	N	32
840	MI	CASS	DOWAGIAC-B	A027					.08	62	C	WJ	Y 205	198
840	MI	KALAMAZOO	AUGUSTA-A	A027					.08	62	C	WJ	Y 184	108
967	WI	COLUMBIA	PERM.COLLECTION	A088	6000	5000	3000	000			C	SE	N	439
967	WI	COLUMBIA	PERM.COLLECTION	A088	6000	5500	3000	2000			C	SE	N	442
968	WI	COLUMBIA	PERM.COLLECTION	A088	4500	3500	14000	12000			C	SE	N	438
969	WI	COLUMBIA	PERM.COLLECTION	A088	4000	3000	14000	13500			C	SE	N	433
970	CN	SASKATCHEWAN	ULMUSJAPONICA	A077	MANCH	URIA				29	C	HG	N	142

PROVENANCE TESTS													
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	SOURCE RANGE				SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT REFERENCES	CODE
					N	S	E	W					
970	CN	SASKATCHEWAN	ULMUSJAPONICAF1	A077	KURIY	AMA	JAPAN		76	C	HG N	141	
970	MI	EATON	LANSING 1-72	A027					.68	72	C WJ N	317	
970	MI	EATON	LANSING 2-72	A027					.64	72	C WJ N	318	
970	MI	EATON	LANSING 4-73	A027					.16	73	C WJ N	319	
970	MI	JACKSON	JACKSON 3-72	A027	EUROP	E,ASI	A		.48	72	C WJ N	111	
970	MI	KALAMAZOO	AUGUSTA 4,5-72	A027	EUROP	E,ASI	A		.48	72	C WJ N	110	
970	MI	KALAMAZOO	AUGUSTA 7-72	A027	EUROP	E,ASI	A		.32	72	C WJ N	109	
971	WI	COLUMBIA	PERM.COLLECTION	A088	3500	3000	8000	9000			C SE N	437	
972	WI	COLUMBIA	PERM.COLLECTION	A088	4500	3500	7000	9000			C SE N	434	
974	WI	COLUMBIA	PERM.COLLECTION	A088	6500	3000	14000	3000			C SE N	441	
976	WI	COLUMBIA	PERM.COLLECTION	A088	3500	3000	8000	9000			C SE N	436	
977	WI	COLUMBIA	PERM.COLLECTION	A088	4500	4000	8000	9000			C SE N	435	
978	WI	COLUMBIA	PERM.COLLECTION	A088	5500	4500	3000	1500			C SE N	440	
979	WI	COLUMBIA	PERM.COLLECTION	A088	4000	3000	14000	12000			C SE N	432	

FAMILIES OF KNOWN PARENTAGE

A total of 341 plantings of families of known parentage representing 22 species of conifers and 22 species of hardwoods were reported. The conifer plantings were dominated by white spruce (29 plantings), jack pine (55 plantings), and eastern white pine (26 plantings). Among the hardwoods, yellow birch (24 plantings), black walnut (43 plantings), yellow poplar (20 plantings), and black cherry (20 plantings) were the species most reported.

Open-pollinated families (O) accounted for over 90 percent of the plantings, with half-sib families (H) a distant second. In fact, these two types may be synonymous in the eyes of many reporting agencies, but we have simply listed them as reported on the survey forms. Full-sib families (F) and selfed families (S) account for a very small proportion of the families included here. A number of agencies have included two types of families in the same planting in some instances and these are duly noted in Column 6 by a double letter designation.

A number of publications have been generated based upon data collected for some sets of plantations, notably balsam fir, white spruce, jack pine, red pine, and eastern white pine.

- Col. 1. Species designation (see Appendix A).
- Col. 2. State or country in which planting is located (postal code).
- Col. 3. County or province in which planting is located.
- Col. 4. Plantation designation assigned by maintaining agency.
- Col. 5. Code number of maintaining agency (see Appendix C).
- Col. 6. Type of family (O=open-pollinated; H=half-sib; F=full-sib; S=selfed).
- Col. 7. Number of families included in planting.
- Col. 8. Size of planting (hectares).
- Col. 9. Year in which planting was established.
- Col. 10. Is plant material available (Y=yes; N=no; C=conditionally).
- Col. 11. Code for contact person at maintaining agency (see Appendix B).
- Col. 12. Are publications available (Y=yes; N=no) on materials in the planting, and references provided by cooperators (see Appendix D).
- Col. 13. Sorting code.

FAMILIES OF KNOWN PARENTAGE												
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	TYPE OF FAMILY	NO. OF FAMILIES	SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
012	NH	MERRIMACK	B.FIR PROGENY	A069	O	14		78	C	AI	N	206
012	WI	FOREST	76-01ARGONNE 1	A013	O	10		68	Y	NH	Y 112 245 246	99
012	WI	LACROSSE	BANGOR 2-69	A088	O	20	.40	69	C	GR	Y	150
012	WI	LANGLADE	POLAR 4-69	A088	O	42	.60	69	C	GR	Y 112 245 246	98
012	WI	ONEIDA	7601LTOMAHAWK39	A013	O H	59	1.2	71	Y	NH	N	100
012	WI	ONEIDA	G392 L.TOMAHAWK	A088	O H	39	1.0	70	Y	NH	Y	93
071	CN	ONTARIO	3-79 THUNDERBAY	A113	O	4		79	N	RM	N	327
071	CN	ONTARIO	5-78 THUNDERBAY	A113	O	5		78	N	RM	N	329
074	WI	ONEIDA	LARCH TRIAL 1	A021	O	1		58	C	ED	N	222
074	WI	SHAWANO	LARCH TRIAL 3	A021	O	3		61	C	ED	N	217
075	WI	ONEIDA	LARCH TRIAL 1	A021	O	1		58	C	ED	N	221
075	WI	ONEIDA	LARCH TRIAL 1	A021	O	1		58	C	ED	N	220
075	WI	SHAWANO	LARCH TRIAL 3	A021	O	1		61	C	ED		213
076	WI	SHAWANO	LARCH TRIAL 3	A021	O	1		61	C	ED	N	216
077	WI	ONEIDA	LARCH TRIAL 1	A021	O	1		58	C	ED	N	219
078	WI	SHAWANO	LARCH TRIAL 3	A021	O	2		61	C	ED	N	218
089	WI	ONEIDA	L.TOMAHAWK 7	A013	O H	9	.20	65	Y	NH	N	101
090	WI	ONEIDA	VICKS LAKE	A013	O H	1		65	Y	NH		75
090	WI	ONEIDA	VICKS LAKE	A013	O H	4		65	Y	NH		74
090	WI	WALWORTH	KETTLE MORRAINE	A013	O H	18		71	Y	NH		76
090	WI	WALWORTH	KETTLEMORRAINE 1	A013	O H	12	.60	68	Y	NH		214
090	WI	WALWORTH	KETTLEMORRAINE 2	A013	O H	18	.40	68	Y	NH		215
091	CN	ONTARIO	2C-78-LINDSAY	A113	O	37		78	N	RM	N	340
091	CN	ONTARIO	3A-78-ALGONQUIN	A113	O	10		78	N	RM	N	324
091	CN	ONTARIO	3B-78-LINDSAY	A113	O	10		78	N	RM	N	339
091	MI	ALGER	CHATHAM 10-69	A027	O	117	1.7	69	C	WJ	N	151
091	MI	KALAMAZOO	AUGUSTA 12-68	A027	O	68	1.1	68	C	HJ	N	128
091	OH	COSHOCTON	NS GALL APHID	A041	F	37	.48	76	Y	HD	Y 182	81
093	MI	CHIPPEWA	PICKFORD 2-73	A027	O	12	.92	73	C	HJ	N	127

FAMILIES OF KNOWN PARENTAGE												
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	TYPE OF FAMILY	NO. OF FAMILIES	SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
093	MI	KALAMAZOO	AUGUSTA 1-73 B	A027	O	10	1.1	73	C	WJ	N	189
093	MI	KALAMAZOO	AUGUSTA 22-70-B	A027	O	16	1.7	71	C	WJ	N	192
094	CN	ONTARIO	1A-70BRACEBRIDG	A113	O	15		74	N	RM	N	338
094	CN	ONTARIO	1A-79-ATIKOKAN	A113	O	19		79	N	RM	N	333
094	CN	ONTARIO	1B-79THUNDERBAY	A113	O	20		79	N	RM	N	328
094	CN	ONTARIO	2A-78-NIAGRA	A113	O	39		78	N	RM	N	337
094	CN	QUEBEC	292-P VALCARTIE	A045	H	40	.72	69	Y	CA		92
094	CN	QUEBEC	410-D-1MT.LAUR	A005	O	310	2.6	80		CA		86
094	CN	QUEBEC	410-D-2RIVBLEUE	A005	O	310	2.6	80	N	CA	N	87
094	CN	QUEBEC	410-D-3MATAPEDA	A005	O	310	3.2	80	N	CA		88
094	CN	QUEBEC	560-A-1 LAPATRI	A005	O	250	3.2	79	Y	CA		89
094	CN	QUEBEC	560-A-2 LASALLE	A005	O	250	3.2	79	Y	CA		90
094	CN	QUEBEC	560-A-3 MASTI	A005	O	215	2.8	79	Y	CA		91
094	ME	YORK	GP-3-74	A100	O	36	1.4	74	C	WR	Y 196	224
094	MI	ALGER	W.SPR. 273	A090	O	120	2.0	77	C	MJ	N	260
094	MI	CHIPPEWA	SAULTSTEMA61-19	A027	O	15	.44	61	C	WJ	Y 126 197 227	194
094	MI	DELTA	RP-203	A027	O	300	2.0	64	C	MJ	Y 232	266
094	MI	GOGEBIC	RP-204	A027	O	280	.72	64	C	MR	N	265
094	MI	MACKINAC	G251MORAN	A013	O H	55	1.4	68	Y	NH	Y 50	177
094	MN	CASS	WS-271	A090	O	105	2.0	77	C	MJ	N	263
094	MN	ITASCA	AUDETTE-B	A083	O	239	1.6	67	C	MC	Y 139	80
094	OH	OSHOCTON	WS GALL,APHID	A041	F	47	.40	76	Y	HD	Y 179 180	82
094	WI	ASHLAND	W.SPR. 272	A090	O	120	2.0	77	C	MJ	N	261
094	WI	FOREST	G251 WABENO	A013	O H	39	1.0	68	Y	NH	Y 50	122
094	WI	FOREST	G251ARGONNE EF	A013	O H	17	.40	68	Y	NH	Y 50	125
094	WI	OCONTO	WS-274	A090	O	120	2.0	77	C	MJ	N	259
094	WI	ONEIDA	G-251 HARSHAW 8	A013	S	9	.20	76	Y	NH		341
094	WI	ONEIDA	G251 SAUER NUR.	A013	O S	12	.80	74	Y	NH	N	175
094	WI	ONEIDA	G251L.TOMAHAWK5	A013	O H	28	.60	68	Y	NH	Y 50	123

FAMILIES OF KNOWN PARENTAGE												
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	TYPE OF FAMILY	NO. OF FAMILIES	SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
094	WI	ONEIDA	G251LTOMAHAWK10	A013	O H	92	2.4	69	Y	NH	Y 50	176
094	WI	ONEIDA	G251LTOMAHAWK17	A013	F	24	.80	70	Y	NH	N	124
095	CN	ONTARIO	1A-78-IGNACE	A113	O	42		78	N	RM	N	331
095	CN	ONTARIO	1B-70THUNDERBAY	A113	O	46		78	N	RM	N	326
095	CN	ONTARIO	1C-70-WINGHAM	A113	F	8		74	N	RM	N	208
095	CN	ONTARIO	1C-78-GERALDTON	A113	O	38		78	N	RM	N	334
095	CN	ONTARIO	2A-79-SIOUXLOOK	A113	O	22		79	N	RM	N	336
095	CN	ONTARIO	2B-79-GERALDTON	A113	O	22		78	N	RM	N	335
095	CN	ONTARIO	3A-70THUNDERBAY	A113	O	20		74	N	RM	N	325
095	CN	ONTARIO	3B-70-NIPIGON	A113	O	12		74	N	RM	N	330
095	CN	ONTARIO	3C-70KAPUSKASIN	A113	O	13		74	N	RM	N	332
095	MN	CARLTON	CLOQUET-U	A083	O S	300	1.2	78	C	MC		65
095	MN	CARLTON	POTLATCH-A	A047	O	200	1.2	78	C	SR	N	55
095	MN	ITASCA	BLACKBERRY-P	A013	O S	200	1.2	73	C	MC	N	63
095	MN	ITASCA	GUNN PARK-E	A083	O	1	.04	62	C	MC	Y 141	71
095	MN	PINE	EAGLEHEAD A	A029	O	200	1.2	78	C	MC	N	56
096	CN	SASKATCHEWAN	COLORADOBLUESPR	A077	S	87		72	Y	HG		142
096	MI	CHIPPEWA	KELLOGG 1-73	A027	O	208	.92	73	C	HJ	N	141
096	MI	CHIPPEWA	PICKFORD 1-73	A027	O	208	.92	73	C	HJ	N	207
096	MI	KALAMAZOO	AUGUSTA 1-73 A	A027	O	211	1.1	73	C	WJ	N	190
096	MI	KALAMAZOO	AUGUSTA 22-70-A	A027	O	222	1.7	70	C	WJ	Y 43 44	191
096	MI	KALAMAZOO	AUGUSTA 4-77	A027	O	37	.44	77	C	HJ	N	133
096	MI	MACKINAC	REXTON 10-77	A027	O	37	.24	77	C	HJ	N	132
096	MI	MANISTEE	WELLSTON 17-75	A027	O	130	1.1	75	C	HJ	N	134
096	MI	MONTCALM	SIXLAKES 20-75	A027	O		.48	75	C	HJ	N	131
100	WI	ONEIDA	VICKS LAKE	A013	O H	15			Y	NH		73
103	MI	WEXFORD	BUCKLEY 15-68	A027	O	217	2.5	68	C	WJ	Y 17	117
105	CN	MANITOBA	HALFWAY TOWER	A004	O	215	.96	72	Y	KJ	Y 91 92 96	37
105	CN	MANITOBA	HARTE MOUNTAIN	A004	O	216	2.0	76	Y	KJ	Y 91 93	44

FAMILIES OF KNOWN PARENTAGE												
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	TYPE OF FAMILY	NO. OF FAMILIES	SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
105	CN	MANITOBA	OAKBANKS	A004	O	220	.28	72	Y	KJ	Y	33
105	CN	MANITOBA	SHALLOW LAKE	A004	O	216	2.0	76	Y	KJ	Y 91 93	45
105	CN	MANITOBA	STEAD TOWER	A004	O	215	1.8	72	Y	KJ	Y 91 92 96	35
105	CN	MANITOBA	SUNDOWN NORTH	A004	O	209	9.7	72	Y	KJ	Y 91 92 96	34
105	CN	MANITOBA	SUNDOWN SOUTH	A004	O	215	.97	72	Y	KJ	Y 91 92 96	36
105	CN	QUEBEC	BASKATONG	A060	O	325	40.	79	C	LY	Y 104 236 237	31
105	CN	SASKATCHEWAN	ALCOTT CREEK	A004	O	216	2.0	74	Y	KJ	Y 91 93	41
105	CN	SASKATCHEWAN	MILE 30 SASK106	A004	O	216	2.0	74	Y	KJ	Y 91 93	38
105	CN	SASKATCHEWAN	MILE 31 SASK106	A004	O	216	2.0	74	Y	KJ	Y 91 93	39
105	CN	SASKATCHEWAN	RICE RIVER	A004	O	216	2.0	76	Y	KJ	Y 91 93	42
105	CN	SASKATCHEWAN	TURTLE LAKE RD.	A004	O	216	2.0	74	Y	KJ	Y 91 93	40
105	CN	SASKATCHEWAN	TWIN MOOSE CRK.	A004	O	216	2.0	76	Y	KJ	Y 91 93	43
105	MI	ALLEGAN	ALLEGAN 5-7-68	A027	H	201	4.4	68	C	WJ	N	116
105	MI	ANTRIM	MANCELONA 13-14	A027	O	229	2.8	62	C	WJ	Y 17	121
105	MI	CASS	JP301	A090	O	180	3.2	75	C	MR	N	258
105	MI	DELTA	JP306	A090	O	180	3.2	75	C	MR	N	248
105	MI	DELTA	JP314	A090	O	120	2.8	79	C	MJ	N	254
105	MI	EMMET	BRUTUS 1,2-69	A027	O	276	2.0	69	C	WJ	Y 17	193
105	MI	KALKASKA	KALKASKA 3-69	A027	O	276	2.3	69	C	WJ	Y 17	9
105	MI	MANISTEE	WELLSTON 8-77	A027	H	13	.12	77	C	WJ	Y 17	118
105	MI	WEXFORD	CADILAC 307	A013	O	180		75	C	NH	N	119
105	MI	WEXFORD	JP307	A090	O	180	3.2	75	C	MR	N	249
105	MI	WEXFORD	JP315	A090	O	120	2.4	79	C	MJ	N	255
105	MI	WEXFORD	ST. IGNACE 11-69	A027	O	116	1.5	69	C	WJ	Y 17	120
105	MN	BELTRAMI	BEMIDJI JACKPIN	A047	O	80	.80	73	C	SR	Y 140	52
105	MN	CARLTON	CLOQUET-G	A083	H F	24	.40	63	N	MC	N	70
105	MN	CARLTON	CLOQUET-I	A083	O	9	.16	64	C	MC	Y 55 56 57	68
105	MN	CARLTON	CLOQUET-N	A083	O	4	.40	65	C	MC	Y 55 56 57	69
105	MN	CARLTON	CLOQUET-V	A013	O	80	1.1	79	C	MC	N	67



## FAMILIES OF KNOWN PARENTAGE

SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	TYPE OF FAMILY	NO. OF FAMILIES	SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
105	MN	CARLTON	POTLATCH RUST O	A083	O	29	2.0	74	C	FD	N	46
105	MN	CASS	JP311	A090	O	120	2.8	79		MJ		251
105	MN	HUBBARD	BACLOURA JACKPI	A047	O	189	2.2	74	C	SR	Y 140	53
105	MN	HUBBARD	KALLSTROM JACKP	A047	O	189	2.0	74	C	SR	Y 140	54
105	MN	ITASCA	BLACKBERRY-F	A013	F	9	.20	64	N	MC	N	66
105	MN	ITASCA	BLACKBERRY-N	A013	S	45	.60	73	C	MC	N	64
105	MN	ITASCA	G390 BLACKBERRY	A013	F	45	.60	73	Y	RD	N	102
105	MN	REDWOOD	MORRIS B	A088	O	50	.64	79	C	MC	N	57
105	WI	ASHLAND	JP302	A090	O	180	3.2	75	C	MJ	N	257
105	WI	ASHLAND	JP312	A090	O	107	2.8	79	C	MJ	N	252
105	WI	OCONTO	G390OCONTO R.SO	A013	F	51	1.2	73	Y	RD	N	103
105	WI	OCONTO	JP19	A013	F	51	1.2	73	C	RD	N	270
105	WI	OCONTO	JP303	A090	O	65	1.5	75	C	MR	N	256
105	WI	OCONTO	JP304	A090	O	93	2.2	75	C	MR	N	246
105	WI	OCONTO	JP305	A090	O	38	.80	75	C	MR	N	247
105	WI	OCONTO	JP313	A090	O	110	2.4	79	C	MJ	N	253
105	WI	ONEIDA	G390HARSHAW 1	A013	F	99	2.4	73	Y	RD	N	104
105	WI	ONEIDA	HARSHAW 12	A013	O H	80	2.4	79	Y	RD	N	174
105	WI	ONEIDA	HARSHAW FARM	A013	O	71	.42	78	C	RT	Y 132 134 136	14
105	WI	ONEIDA	HARSHAW S.O. 16	A013	O H	50	.80	80	Y	RD	N	178
105	WI	ONEIDA	LAKE TOMAHAWK	A013	O H	38	.40	72	C	RT	N	11
105	WI	ONEIDA	LAKE TOMAHAWK	A013	S	57	.40	72	C	RT	N	12
105	WI	ONEIDA	VICKS LAKE	A013	S F	77	.40	66	C	RT	Y 150 151 152	13
105	WI	VILAS	JP-308	A090	O	148	2.2	75	C	MR	N	250
125	MI	ALGER	CHATHAM 19-66	A027	O	91	1.0	66	C	WJ	Y 16 214 235	152
125	MI	ALLEGAN	ALLEGAN 1-3-64	A027	H	285	5.6	64	C	WJ	Y 16 213 235	115
125	MI	ALLEGAN	ALLEGAN 1-65	A027	O	80	1.9	65	C	WJ	Y 101 220 222	114
125	MI	CRAWFORD	ROSCOMMON 5-64	A027	H	359	2.4	64	C	WJ	Y 16 214 235	154
125	MI	CRAWFORD	ROSCOMMON 6-64	A027	O	359	1.8	64	C	WJ	Y 16 214 235	155

## FAMILIES OF KNOWN PARENTAGE

SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	TYPE OF FAMILY	NO. OF FAMILIES	SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
125	MI	CRAWFORD	ROSCOMMON 7-64	A027	O	359	2.7	64	C	WJ	Y 16 214 235	156
125	MI	CRAWFORD	RP-208	A027	H	300	5.6	64	C	MR	Y 232	264
125	MI	DELTA	RAPIDRIVER 8-64	A027	O	359	2.7	64	C	MJ	Y 16 213 235	112
125	MI	GOGEBIC	MARENISCO 9-64	A027	O	309	.96	64	C	MJ	Y 16 213 235	113
125	WI	IOWA	AVOCA	A088	O	310	6.8	70	C	GR	N	149
125	WI	ONEIDA	LAKE TOMAHAWK	A088	O	310	6.8	70	C	GR	N	188
125	WI	WOOD	WISCONSINRAPIDS	A088	O	310	6.8	70	C	GR	N	187
129	ME	OXFORD	E. ANDOVER	A085	O F	37	.48	77	C	ER		4
129	ME	OXFORD	FOWELL MTN	A085	O	28	.24	77	C	ER	Y 244	1
129	ME	OXFORD	NEWRY	A085	O	32	.80	77	C	ER	N	2
129	ME	WASHINGTON	WOODLAND	A085	O F	32	.48	76	C	ER	N	3
129	MI	ALGER	CHATHAM 16-66	A027	O	44	.88	66	C	WJ	Y 101 220 222	153
129	MI	BARAGA	LANSE 18-67	A027	O	125	2.0	67	C	WJ	Y 101 220 222	161
129	MI	CASS	DECATUR 14-65	A027	O	97	.68	65	C	WJ	Y 101 220 222	109
129	MI	CHARLEVOIX	E. JORDAN 12-66	A027	O	83	1.2	66	C	WJ	Y 101 220 222	162
129	MI	CHIPPEWA	SAULTE STE21-66	A027	O	66	1.4	66	C	WJ	Y 101 220 222	105
129	MI	CRAWFORD	ROSCOMMON 14-66	A027	O	116	1.5	66	C	WJ	Y 101 220 222	158
129	MI	CRAWFORD	ROSCOMMON 5-69	A027	O	189	1.6	69	C	WJ	Y 101 220 222	157
129	MI	CRAWFORD	ROSCOMMON3,4-75	A027	O	200	1.0	75	C	WJ	N	159
129	MI	GOGEBIC	WP-200	A088	H	20	.08	67	C	MR	N	269
129	MI	INGHAM	E.LANSING 12-75	A027	O	200	.44	75	C	WJ	N	106
129	MI	INGHAM	E.LANSING 5-74	A027	O	68	.84	74	C	WJ	N	195
129	MI	INGHAM	E.LANSING 5-75	A027	O	200	.60	75	C	WJ	N	107
129	MI	KALAMAZOO	AUGUSTA 2-65	A027	O	113	2.0	65	C	WJ	Y 101 220 222	108
129	MI	KALAMAZOO	AUGUSTA 3-66	A081	O	113	.80	66	C	GJ	Y 101 220 222	205
129	MI	OSCEOLA	MARION 1,2-75	A027	O	200	1.4	75	C	WJ	N	111
129	MI	OSCEOLA	MARION 3,4-74	A027	O	200	.88	74	C	WJ	N	110
129	MI	WEXFORD	BUCKLEY 7-65	A027	O	113	.84	65	C	WJ	Y 101 220 222	160
129	MN	ITASCA	AUDETTE-L	A083	O	29	.16	72	N	MC	N	78

## FAMILIES OF KNOWN PARENTAGE

SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	TYPE OF FAMILY	NO. OF FAMILIES	SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
129	NH	MERRIMACK	W. PINE PROGENY	A069	O	21	.80	75	Y	AI	N	204
129	NH	STRAFFORD	PEASE	A085	O F	38	2.0	73	Y	ER	N	5
129	OH	WAYNE	AC-14	A041	F	33		67	C	KH		319
129	OH	WAYNE	AC-15	A041	F	44		66	C	KH		320
130	MI	MACKINAC	REXTON 11-78	A027	O	4	.24	78	C	HJ	N	129
130	MI	MANISTEE	WELLSTON 7-78	A027	O	4	.24	78	C	HJ	N	130
130	MN	BENTON	RICE A	A027	O	20	1.6	61	C	MC	N	62
130	MN	BENTON	RICE B	A027	O	20	.40	61	C	MC	N	61
130	MN	BENTON	RICE C	A027	O	10	1.6	61	C	MC		60
130	MN	BENTON	RICE D	A027	O	10	.40	61	C	MC		59
130	MN	ST. LOUIS	BURGESONS LAND.	A027	O	10	.20	61	C	MC	N	58
130	ND	BOTTINEAU	BOTTINEAU 1979	A064	F	30	1.2	79	Y	VJ	N	47
130	ND	MORTON	MANDAN 1979	A090	F	30	1.2	79	Y	CR	N	229
130	SD	CODINGTON	BIGSOUIX NURSERY	A064	F	32	1.4	78	C	VJ	N	173
133	NE	CASS	AUSTRIAN PINE	A027	O		2.0	75	Y	LW	Y 133	85
133	NE	CASS	HORNING ST. FARM	A090	O	30	.40	79	Y	VH	N	84
149	ME	YORK	FS-NE-1401-46	A100	O	56	.80	76	Y	GP	N	228
149	NJ	SUSSEX	FS-NE-1401-46	A100	O	56	.80	76	Y	GP	N	227
316	MN	CARVER	CHUSKA	A040	O	14	.30	75	C	MC	Y 190	94
316	WI	COLUMBIA	ARLINGTON	A040	O	67	1.6	74	C	GR	Y	184
317	KS	GEARY	MILFORD	A033	O	105	2.2	79	N	LK	N	245
317	NE	HARLAN	79-1	A033	O	120	4.0	79	Y	LW	N	95
317	NE	STANTON	79-2	A033	O	113	4.0	79	Y	LW	N	96
318	MI	KALAMAZOO	AUGUSTA 2-74	A090	O	93	.60	74	C	WJ	N	50
318	MI	KALAMAZOO	AUGUSTA 5-78	A090	O	46	.72	78	C	HJ	N	51
318	NH	GRAFTON	HUBBARD BRK. 680	A061	O	30	.12	79	C	DD	N	271
318	VT	ADDISON	BEAVER MDWS. 679	A061	O	42	.92	79	C	DD	N	272
318	VT	CHITENDEN	PROCTER FARM	A090	S	25	.61	61	N	GW	Y	15
318	VT	FRANKLIN	LAKE CARM	A090	O	48	1.6	78	C	GW	Y 38	16

FAMILIES OF KNOWN PARENTAGE												
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	TYPE OF FAMILY	NO. OF FAMILIES	SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
318	VT	RUTLAND	OLD JOB 678	A061	O	41	.92	79	C	DD	N	273
370	MI	CASS	DECATUR 9-76	A027	O	250	.72	76	C	HJ	N	137
370	MI	MONTCALM	SIXLAKES 11-76	A027	O	250	.72	76	C	HJ	N	135
370	MI	ST. CLAIR	COLUMBUS 10-76	A027	O	237	.64	76	C	HJ	N	136
371	MI	DICKENSON	RALPH 13-78	A082	O	100	.36	78	C	HJ	N	6
371	MI	KALAMAZOO	AUGUSTA 4-78	A082	O	119	.48	78	C	HJ	N	140
371	MI	MACKINAC	REXTON 9-78	A082	O	134	.28	78	C	HJ	N	139
371	MI	MONTCALM	SIXLAKES 8-78	A082	O	117	.24	78	C	HJ	N	138
371	MI	WASHTENAW	ANN ARBOR 1-69	A082	O	40	.81	69	C	BB	Y 159 160 28 29	8
371	NH	COOS	KILKENNY 622	A061	O	28	.40	73	C	DD	N	297
371	NH	COOS	KILKENNY 650	A061	O	29	.52	74	C	MJ	N	288
371	NH	COOS	KILKENNY 659	A061	O	35	.21	75	C	DD	N	283
371	NH	COOS	KILKENNY 670	A061	O	28	.52	74	C	DD	N	276
371	NH	GRAFTON	KELLY BRK. 623	A061	O	30	.58	73	C	DD	N	296
371	NH	GRAFTON	KELLY BRK. 651	A061	O	29	.52	74	C	MJ	N	287
371	NH	GRAFTON	KELLY BRK. 660	A061	O	42	.52	75	C	MJ	N	282
371	NH	GRAFTON	KELLY BRK. 671	A061	O	40	.52	76	C	DD	N	275
371	VT	ADDISON	BEAVER POND 646	A061	O	25	.44	74	C	MJ	N	289
371	VT	ADDISON	BEAVER POND 657	A061	O	41	.32	75	C	DD	N	284
371	VT	ADDISON	BEAVER POND 668	A061	O	29	.44	76	C	DD	N	277
371	VT	RUTLAND	CHITTENDEN 620	A061	O	28	.52	73	C	DD	N	298
371	VT	RUTLAND	CHITTENDEN 656	A061	O	41	.36	75	C	MJ	N	285
371	VT	RUTLAND	CHITTENDEN 667	A061	O	30	.28	75	C	DD	N	278
371	VT	WINDSOR	MOSES POND 618	A061	O	29	.52	73	C	DD	N	299
371	VT	WINDSOR	MOSES POND 645	A061	O	24	.44	74	C	MJ	N	290
371	VT	WINDSOR	MOSES POND 655	A061	O	44	.40	75	C	MJ	N	286
371	VT	WINDSOR	MOSES POND 666	A061	O	39	.32	76	C	DD	N	279
371	WI	ONEIDA	HUGO SAUER NURS	A013	H	458	.40	78	C	RT	Y 135	10
375	NH	COOS	TWIN MOUNTAIN	A085	O	27	1.0	79	N	ER		32

FAMILIES OF KNOWN PARENTAGE												
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	TYPE OF FAMILY	NO. OF FAMILIES	SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
541	IL	UNION	TRAIL OF TEARS	A010	O	52	1.6	76	Y	CK	Y 25	200
541	KS	DOUGLAS	KV NATURAL AREA	A090	O	45	.17	76	Y	LK	N	244
602	IA	ALLAMAKEE	YELLOWRIVER S.F	A022	O	100	1.2	76	C	GJ	N	230
602	IA	LUCAS	STEPHENS S.F.	A022	O	100	1.2	76	C	GJ	N	97
602	IL	ALEXANDER	ABERCROMBIE	A010	O	26	.80	68	Y	CK	N	209
602	IL	ALEXANDER	ABERCROMBIE	A010	O	26	.80	70	Y	CK	N	18
602	IL	ALEXANDER	PLEASANT VALLEY	A010	O	52	2.0	73	Y	CK	N	17
602	IL	ALEXANDER	PLEASANTVALL633	A090	O	54	1.6	73	C	MJ	Y	170
602	IL	HARDIN	RENDLEMAN TRACT	A010	S	18	.40	72	Y	CK	N	19
602	IL	JACKSON	BYER TRACT	A010	O	23	1.2	73	Y	CK	Y	20
602	IL	JACKSON	TREE IMPR.CNTR.	A066	O	5	.08	71	C	RP	Y	268
602	IL	JACKSON	TREE IMPR.CNTR.	A066	O	5	.08	72	C	RP	Y	267
602	IL	JACKSON	UNIVERSITY FARM	A010	O	87	2.0	70	Y	CK	Y	22
602	IL	UNION	UNION CO. NURS.	A010	O	87	2.0	70	Y	CK	Y	21
602	IN	CLARK	1977 BWPT-CLARK	A019	O H	13	.60	78	Y	CM	N	233
602	IN	CLARK	CLARK ST.FOREST	A059	O	13	.80	78	N	BE	N	181
602	IN	CRAWFORD	1973 BWPT-HCSF	A108	O	23	.28	75	Y	CM	N	236
602	IN	CRAWFORD	1976 BWPT-HCSF	A019	O H	49	1.1	77	Y	CM	N	235
602	IN	CRAWFORD	STINKINGFORK640	A090	O	51	.84	74	C	ME	Y	148
602	IN	DUBOIS	FLICK	A059	O	9	.20	71	N	BE	Y 6 10	23
602	IN	FRANKLIN	HILLENBRAND	A059	O	20	.40	73	N	BE	N	27
602	IN	HARRISON	1975 BWPT-HCSF	A019	O H	20	.88	76	Y	CM	N	238
602	IN	HARRISON	1979 BWPT-HCSF	A108	O H	44	.80	80	Y	CM	N	237
602	IN	HARRISON	CAMPS	A059	O F	26	.40	76	N	BE	N	29
602	IN	HARRISON	CAVES	A059	O F	41	1.2	77	N	BE	N	30
602	IN	JACKSON	1978 BWPT-VAL	A019	O H	10	.04	79	Y	CM	N	231
602	IN	JACKSON	1979 BWPT-VAL	A019	O H	37	.12	80	Y	CM	N	232
602	IN	JACKSON	VALLONIA	A059	O	10	.20	79	N	BE	N	183
602	IN	JASPER	1978 BWPT-JP	A019	O H	10		79	Y	CM	N	239

## FAMILIES OF KNOWN PARENTAGE

SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	TYPE OF FAMILY	NO. OF FAMILIES	SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
602	IN	JASPER	1979 BWPT-JP	A019	O H	31	.08	80	Y	CM	N	240
602	IN	JASPER	JASPER-PULASKI	A059	O	10	.20	79	N	BE	N	182
602	IN	MORGAN	MARTINSVILLE	A059	O	22	.60	77	N	BE	Y 13	179
602	IN	ORANGE	YOUNGSCREEK 635	A090	O	51	1.2	74	C	MJ	Y	165
602	IN	PARKE	PARKE 1970	A059	O	10	.40	71	N	BE	Y 184	24
602	IN	PARKE	PARKE 1972	A059	O	16	.40	73	N	BE	N	28
602	IN	TIPPECANOE	MARTELL	A059	O	14	.20	76	N	BE	N	26
602	IN	WABASH	MISSISSINEWA	A059	O	13	.20	76	N	BE	N	25
602	IN	WABASH	MISSISSINEWA 77	A059	O	35	.60	78	N	BE	N	180
602	IN	WABASH	SALAMONIE	A090	O	40	2.0	63	Y	WI	N	210
602	OH	WASHINGTON	COVEREDBRIDG634	A090	O	68	1.8	75	C	ME	Y	166
602	WI	GRANT	WYALUSING	A088	O	97	2.8	78	C	GR	N	186
602	WI	GRANT	WYALUSINGCANADA	A088	O	34	2.8	78	C	GR	N	185
602	WV	POCAHONTAS	FITZWATER 663	A061	O	26	.32	76	C	MJ	N	281
602	WV	TUCKER	FERNOW 664	A061	O	34	.44	76	C	MJ	N	280
602	WV	TUCKER	FERNOW 677	A061	O	36	.24	76	C	DD	N	274
621	IL	HARDIN	KASKASKIA 637	A090	O	46	.48	73	C	MJ	Y	163
621	IL	HARDIN	KASKASKIA 653	A090	O	34	.24	74	C	MJ	Y	143
621	IL	JERSEY	PRINCIPIA	A076	O	54	1.2	78	Y	CK	N	197
621	IL	UNION	HUTCHINS CRK632	A090	O	58	.64	73	C	MJ	Y	167
621	IL	UNION	HUTCHINSCRK.641	A090	O	34	.40	74	C	MJ	Y	147
621	IN	CRAWFORD	1976 TPPT-HCSF	A019	O H	25	.96	77	Y	CM	N	234
621	IN	CRAWFORD	HEMLOCKCLIFF636	A090	O	56	.24	73	C	ME	Y	164
621	IN	CRAWFORD	HEMLOCKCLIFF643	A090	O	30	.24	74	C	ME	Y	146
621	IN	JACKSON	1978 TPPT-VAL	A019	O H	15	.08	79	Y	CM	N	242
621	IN	JACKSON	1979 TPPT-VAL	A019	O H	21	.08	80	Y	CM	N	243
621	IN	JACKSON	675	A018	O	14	.24	76	C	ME	Y	49
621	IN	JACKSON	MAUMEE 630	A090	O	73	.80	73	C	ME	Y	168
621	IN	JACKSON	MAUMEE 644	A090	O	30	.44	74	C	MJ	Y	145

FAMILIES OF KNOWN PARENTAGE												
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	TYPE OF FAMILY	NO. OF FAMILIES	SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
621	IN	JASPER	1979 TPPT-JP	A019	O H	17	.08	80	Y	CM	N	241
621	NY	ERIE	ZOAR VALLEY 638	A061	O	76	1.1	73	C	MJ	N	293
621	NY	ERIE	ZOAR VALLEY 639	A061	O	25	.20	74	C	DD	N	292
621	OH	WASHINGTON	676 COVERED BRI	A018	O	13	.20	76	C	MR	Y	48
621	OH	WASHINGTON	PENNCENTRAL 652	A090	O	25	.28	74	C	ME	Y	144
621	WV	RANDOLPH	WESTERN RUN 629	A061	O	40	.64	73	C	MJ	N	294
621	WV	WEBSTER	BISHOP KNOB 642	A061	O	20	.36	74	C	DD	N	291
740	MI	INGHAM	DANSVILLE 1-78	A027	O	140	.40	78	C	HJ	N	126
740	MI	WASHTENAW	ANN ARBOR 2-69	A082	O	50	1.6	69	C	BB	N	7
740	MN	ITASCA	AUDETTE-H1	A083	O H	6	.40	71	N	MC	Y 120	79
742	CN	SASKATCHEWAN	HYBRIDPOPLAR OP	A077	O H			73	Y	HG	Y	201
742	CN	SASKATCHEWAN	POPLAR HYBRIDS	A077	F	4		79	Y	HG	N	196
742	WI	OUTAGAMIE	TRIAL 34	A021	F	6		66	C	ED	N	212
742	WI	OUTAGAMIE	TRIAL 7	A021	F	25		57	C	ED	N	211
746	MN	ITASCA	AUDETTE-P	A083	H F	68	.20	77	N	MC	N	72
746	WI	OCONTO	WS-20	A013	F	15	.08	71	C	HE		262
746	WI	ONEIDA	TRIAL 14	A021	F	4		65	C	ED	N	223
747	MN	ITASCA	AUDETTE-O	A083	O	28	.40	76	C	MC	N	77
762	NY	ERIE	ZOAR VALLEY 603	A061	O	50	.44	70	C	DD	N	310
762	PA	FOREST	BLUE JAY 100	A061	O	17	.20	69	C	MJ	Y 247	318
762	PA	FOREST	BLUE JAY 102	A061	O	50	.44	70	C	MJ	N	317
762	PA	FOREST	BLUE JAY 104	A061	O	55	.56	72	C	DD	N	315
762	PA	FOREST	BLUE JAY 108	A061	O	61	1.6	74	C	DD	N	313
762	PA	FOREST	TWINLAKES 602	A061	O	17	.16	69	C	DD	N	311
762	PA	MCKEAN	HEMLOCK RUN 600	A061	O	17	.16	69	C	DD	N	312
762	PA	MCKEAN	HEMLOCK RUN 606	A061	O	50	.44	70	C	DD	N	307
762	PA	MCKEAN	HEMLOCK RUN 612	A061	O	55	.57	72	C	DD	N	303
762	WV	POCAHONTAS	BUZZARD RDGE609	A061	O	50	.44	70	C	DD	N	306
762	WV	POCAHONTAS	BUZZARD RDGE615	A061	O	55	.56	72	C	DD	N	302

FAMILIES OF KNOWN PARENTAGE

SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	TYPE OF FAMILY	NO. OF FAMILIES	SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
762	WV	POCAHONTAS	BUZZARD RDGE624	A061	O	42	.58	71	C	DD	N	295
762	WV	RANDOLPH	ELK LICK 604	A061	O	17	.17	69	C	DD	N	309
762	WV	RANDOLPH	ELK LICK 610	A061	O	50	.44	70	C	DD	N	305
762	WV	RANDOLPH	ELK LICK 616	A061	O	55	.58	72	C	DD	N	301
762	WV	RANDOLPH	FIVE LICK 605	A061	O	17	.17	69	C	DD	N	308
762	WV	RANDOLPH	FIVE LICK 611	A061	O	50	.44	70	C	DD	N	304
762	WV	RANDOLPH	FIVE LICK 617	A061	O	55	.56	72	C	DD	N	300
762	WV	WEBSTER	BISHOP KNOB 103	A061	O	50	.44	70	C	MJ	N	314
762	WV	WEBSTER	BISHOP KNOB 105	A061	O	55	.56	72	C	DD	N	316
800	PA	CHESTER	GP-9-57	A100	O	78	1.6	57	C	GP	Y	225
802	IL	UNION	TRAIL OF TEARS	A010	O	10		76	Y	CK	N	199
802	MO	CRAWFORD	WESTOVER 500	A090	O	4	.20	76	C	ME	Y	172
802	MO	CRAWFORD	WESTOVER 501	A090	O	2	.10	79	C	MJ	Y	171
802	PA	CHESTER	GP-3-58	A100	O	22	1.6	58	C	GP	N	226
831	IL	HARDIN	SOLWINTERSTRACT	A076	O	134	1.2	73	Y	CK	N	203
833	IN	PARKE	PIERSONHOLLOWELL	A076	O	134	.80	73	Y	BJ	N	202
833	MO	HOWELL	MIDDLEINDIAN503	A090	O	8	.40	79	C	MJ	Y	169
837	OH	GUERNSEY	RO OP PROG TEST	A041	O	90	1.2	74	Y	HD	N	83
840	IL	UNION	TRAIL OF TEARS	A027	O	62	1.2	76	Y	CK	N	198
972	WI	COLUMBIA	BUSSIAN FARM	A088	F	65			C	SE	N	322
972	WI	COLUMBIA	BUSSIAN FARM	A088	S	5			C	SE	Y 251	321
974	WI	COLUMBIA	BUSSIAN FARM	A088	F	20			C	SE	N	323



### CLONAL PLANTINGS

A total of 152 clonal plantings representing 20 species of conifers and 15 species of hardwoods were reported. Among the conifers, white and black spruce and jack, eastern white and scotch pine predominated. Of the hardwoods, poplar species, especially eastern cottonwood, accounted for over 75 percent of the listings.

Conifer clonal plantings were about equally divided among seed orchards (SO), clone banks (CB) and clonal tests (CT) (Column 6). Clonal tests dominated the hardwood plantings, especially the poplars. Of the 9 hardwood seed orchards reported, 5 were black walnut.

As most of these plantings serve production or clone bank functions, very few publications have resulted from research using these plantings.

- Col. 1. Species designation (see Appendix A).
- Col. 2. State or country in which planting is located (postal code).
- Col. 3. County or province in which planting is located.
- Col. 4. Plantation designation assigned by maintaining agency.
- Col. 5. Code number of maintaining agency (see Appendix C).
- Col. 6. Type of planting (SO=seed orchard;CB=clone bank;CT=clonal test).
- Col. 7. Size of planting (hectares).
- Col. 8. Year in which planting was established.
- Col. 9. Is plant material available (Y=yes;N=no;C=conditionally).
- Col. 10. Code for contact person at maintaining agency (see Appendix B).
- Col. 11. Are publications available (Y=yes;N=no) on materials in the planting, and references provided by cooperators (see Appendix D).
- Col. 12. Sorting code.

CLONAL PLANTINGS											
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	TYPE OF PLANTING	SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
012	NH	MERRIMACK	B.F.S.O.	A035	SO		65	C	AI	N	38
070	NY	CORTLAND	S.O. 31	A036	SO	4.6	71	C	DR	N	99
070	WI	ONEIDA	HARSHAW LAR.ARB	A013	CB	1.4	75	Y	NH		10
074	NY	CHENANGO	S.O. 13	A036	SO	.64	66	C	DR	N	76
074	NY	CORTLAND	S.O. 30	A036	SO	1.3	71	C	DR	N	100
074	NY	MADISON	S.O. 28	A036	SO	.29	71	C	DR	N	80
074	NY	SARATOGA	S.O. 18	A036	SO	3.5	67	C	DR	N	78
074	NY	SARATOGA	S.O. 21	A036	SO	1.6	68	C	DR	N	79
075	NY	ONEIDA	S.O. 20	A036	SO	4.8	71	C	DR	N	91
075	NY	SCHENECTADY	S.O. 3	A036	SO	1.5	70	C	DR	N	92
076	NH	HILLSBORO	HYB.LARCH PLANT	A035	CT		60	Y	VP	N	25
087	CN	ONTARIO	7A-78-LINDSAY	A113	CT		78	N	RM	N	147
087	CN	ONTARIO	7B-78-HURONIA	A113	CT		78	N	RM	N	140
089	CN	ONTARIO	7A-78 LINDSAY	A113	CT		78	N	RM	N	152
089	CN	ONTARIO	7A-78 LINDSAY	A113	CT		78	N	RM	N	151
089	WI	OCONTO	206B-ORSO S.O.	A013	SO	.30	77	Y	NH	N	4
090	CN	ONTARIO	7A-78-LINDSAY	A113	CT		78	N	RM	N	146
090	CN	ONTARIO	7B-78-HURONIA	A113	CT		78	N	RM	N	143
090	CN	ONTARIO	7B-78-HURONIA	A113	CT		78	N	RM	N	142
090	WI	OCONTO	S.O. 206	A061	SO	.52	77	C	MJ	N	124
090	WI	ONEIDA	L.TOMAHAWK 1	A013	CB	.20	67	Y	NH	N	111
090	WI	ONEIDA	L.TOMAHAWK 1	A013	CB	.40	65	Y	NH	Y 126	108
090	WI	ONEIDA	L.TOMAHAWK 3	A013	CB	.04	67	Y	NH	N	113
091	CN	QUEBEC	VALCARTIER	A005	CB		76	C	CA		89
091	NY	CORTLAND	S.O. 26	A036	SO	1.6	68	C	DR	N	101
091	NY	ONEIDA	S.O. 23	A036	SO	1.6	68	C	DR	N	90
091	NY	SARATOGA	S.O. 19	A036	SO	2.1	68	C	DR	N	77
091	NY	WASHINGTON	S.O. 29	A036	SO	1.0	71	C	DR	N	26
091	WI	ONEIDA	L.TOMAHAWK 5	A013	CB	.20	65	Y	NH	N	109

CLONAL PLANTINGS											
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	TYPE OF PLANTING	SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
091	WI	ONEIDA	L.TOMAHAWK 6	A013	CB	.20	65	Y	NH	N	110
094	CN	ONTARIO	7A-78-LINDSAY	A113	CT		78	N	RM	N	145
094	CN	ONTARIO	7B-78-HURONIA	A113	CT		78	N	RM	N	139
094	CN	QUEBEC	VALCARTIER	A005	CB		76		CA		88
094	MN	CARLTON	POTLATCH WS.CLO	A083	SO	2.0	77	C	SR	N	51
094	MN	ITASCA	BLANDIN WS CLON	A083	SO	1.2	76	C	MC	Y	50
094	MN	PINE	STURGEONLAKE WS	A083	SO	1.5	79	C	MC	N	52
094	MN	SAINT LOUIS	COTTON WHT.SPRU	A083	SO	4.0	77	C	MC	N	53
094	NH	MERRIMACK	WSSO	A035	SO	1.6	76	C	AI	N	39
094	NY	CHENANGO	S.O. 8	A036	SO	.40	63	C	DR	N	102
094	WI	OCONTO	205-ORSO S.O.	A013	SO	.84	77	Y	NH	N	5
094	WI	OCONTO	S.O. 205	A061	SO	.84	77	C	MJ	N	125
094	WI	OCONTO	W.SPRUCE ORCH.4	A061	SO	8.4	69	C	MJ	N	129
094	WI	OCONTO	W.SPRUCE ORCH.6	A061	SO	8.8	69	C	MJ	N	130
094	WI	OCONTO	W.SPRUCE ORCH14	A061	SO	5.6	73	C	MJ	N	134
094	WI	OCONTO	W.SPRUCE ORCH16	A061	SO	2.0	73	C	MJ	N	135
094	WI	ONEIDA	FSL ARBORETUM-1	A013	CB	.10	63	Y	NH		150
094	WI	ONEIDA	FSL VICKS LAKE	A013	CB	.20	64	Y	NH		6
094	WI	ONEIDA	G251 HARSHAW	A013	CB	.08	77	Y	NH		9
094	WI	ONEIDA	G251 HARSHAW 7	A013	CT	.30	76	Y	NH	N	107
094	WI	ONEIDA	G251L.TOMAHAWK4	A013	CT	.20	65	Y	NH	Y 127	117
094	WI	ONEIDA	G251L.TOMAHAWK8	A013	CT		65	Y	RD	N	104
094	WI	ONEIDA	G251LTOMAHAWK12	A013	CT	.40	69	Y	NH	N	105
094	WI	ONEIDA	G251N.DIF.FERT2	A013	CT	.80	75	Y	NH	N	115
094	WI	ONEIDA	G251N.DIF.FERT3	A013	CT	.04	75	Y	NH	N	116
094	WI	ONEIDA	HARSHAW-14 ONT.	A013	CB	.10	79	Y	NH		8
094	WI	ONEIDA	L.TOMAHAWK 2	A013	CB		67	Y	NH	N	112
094	WI	ONEIDA	NC1401-79-03LTO	A013	CT	.80	80	Y	NH	N	1
095	CN	ONTARIO	7A-78-LINDSAY	A113	CT		78	N	RM	N	148

CLONAL PLANTINGS											
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	TYPE OF PLANTING	SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
095	CN	ONTARIO	7B-78-HURONIA	A113	CT		78	N	RM	N	141
095	CN	QUEBEC	BOUTURES-EPN-73	A005	CB	1.5	75	C	DA	N	81
095	MN	PINE	STURGEONLAKE BS	A029	CB	.40	79	C	BW	Y	54
095	WI	OCONTO	206A-ORSO S.O.	A013	SO	.30	77	Y	NH	N	3
095	WI	OCONTO	B.SPRUCE ORCH.8	A061	SO	8.4	71	C	MJ	N	131
095	WI	OCONTO	B.SPRUCE ORCH10	A061	SO	8.0	73	C	MJ	N	132
095	WI	OCONTO	HIAWATHA ORCH24	A061	SO	1.6	76	C	MJ	N	126
099	CN	ONTARIO	7B-78-HURONIA	A113	CT		78	N	RM	N	144
100	CN	QUEBEC	VALCARTIER	A005	CB		79	C	CA		106
105	CN	ALBERTA	CHILAKE NURSER	A031	CB	2.8	77	Y	KJ	Y 91 98	43
105	CN	ALBERTA	WHITECREST	A031	CB	2.8	77	Y	KJ	N	44
105	CN	MANITOBA	OAKBANK	A031	CB	.04	69	Y	KJ	Y 91	45
105	WI	ONEIDA	G390 L.TOMAHAWK	A013	CB	.28	65	Y	RD	N	103
105	WI	ONEIDA	HUGO SAUER	A013	CB	.40	76	C	RT	N	83
105	WI	ONEIDA	LAKE TOMAHAWK	A013	CB	.40	72	C	RT	N	84
105	WI	ONEIDA	VICKSLAKE	A013	CB	.40	66	C	RT	N	82
110	AR	MONTGOMERY	OUACHITA-400	A062	CB	34.	71	C	ME	Y	49
125	WI	OCONTO	G393ORSO LAKEWD	A013	SO	2.0	73	Y	NH	Y 110	7
125	WI	OCONTO	R.PINE ORCH.12	A061	SO	2.0	72	C	MJ	N	133
125	WI	ONEIDA	FSL ARBORETUM-2	A013	CT	.10	63	C	NH		149
129	CN	QUEBEC	VALCARTIER	A005	CB		79	C	CA		87
129	NH	MERRIMACK	WHITEPINE S.O.	A035	SO	1.6	64	C	AI	N	37
129	NH	STRAFFORD	KINGMANFARMCLON	A085	CB	.60	65	C	ER	Y 34	42
129	NY	CHEMUNG	S.O. 11	A036	SO	1.4	66	C	DR	N	93
129	NY	CHENANGO	S.O. 10	A036	SO	2.2	66	C	DR	N	27
129	NY	CORTLAND	S.O. 12,12A	A036	SO	7.2	66	C	DR	N	95
129	NY	ONEIDA	S.O. 14	A035	SO	4.0	67	C	DR	N	86
129	WI	OCONTO	WP BREED.ORCH 1	A061	CB	15.	69	C	MJ	N	127
129	WI	OCONTO	WP SEED ORCH.3	A061	SO	4.0	69	C	MJ	N	128

## CLONAL PLANTINGS

SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	TYPE OF PLANTING	SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
130	NE	SAUNDERS	SCOTCHPINE S.O.	A041	SO	4.0	71	Y	LW	Y 132 228	64
130	NH	MERRIMACK	SPSO	A035	SO	.40	68	C	AI	N	41
130	NY	LEWIS	S.O. 1	A036	SO	2.0	63	C	DR	N	97
130	NY	SARATOGA	S.O. 25	A036	SO	4.9	67	C	DR	N	96
130	NY	WASHINGTON	S.O. 4	A036	SO	1.5	66	C	DR	N	94
132	IN	JACKSON	VPSO-VAL	A109	SO	2.2	71	Y	CM	N	118
200	NY	CORTLAND	S.O. 22	A036	SO	2.2	68	C	DR	N	98
318	VT	FRANKLIN	GRANDISLE	A075	SO	1.4	70	C	GW	Y 40	85
375	NH	COOS	CRAWFORDNTCH114	A061	SO	.80	78	C	DD	N	137
541	PA	MCKEAN	NYSTROM 117	A061	SO		79	C	DD	N	136
544	ND	BOTTINEAU	GREEN ASH BREED	A064		1.6	75	Y	VJ	N	46
591	NJ	MIDDLESEX	HOLLY ARBORETUM	A006	CT	1.6	47	Y	OE	N	23
600	IL	JACKSON	TREEIMPROVEMENT	A010	CB	4.0	70	Y	CK	N	69
602	IN	JACKSON	NEW BWSO-VAL	A109	SO	1.0	77	Y	CM	N	119
602	IN	JACKSON	OLD BWSO-VAL	A109	SO	2.4	64	Y	CM	N	121
602	IN	JACKSON	SHL B.W.-S.O.	A109	SO	.40	80	Y	CM	N	120
602	IN	LAWRENCE	MITCHELL BWSO	A109	SO	9.2	70	Y	CM	N	122
602	IN	TIPPECANOE	MARTELL FOREST	A059	CB	1.6	69	C	BE	Y 8 11 12 114	114
602	NH	MERRIMACK	BLK.WALNUT S.O.	A035	SO		68	C	AI	N	40
740	CN	NEWFOUNDLAND	FORESTNURS,PASE	A037	CT	.04	72	C	KM	Y	33
740	CN	NEWFOUNDLAND	GOOSE ARM	A037	CT	.65	78	C	KM	Y	30
740	CN	NEWFOUNDLAND	MILLERTOWNJUNCT	A037	CT	.60	78	C	KM	Y	29
740	CN	NEWFOUNDLAND	ROBINSONRIVER	A037	CT	.69	78	C	KM	Y	31
740	CN	NEWFOUNDLAND	WOODDALE	A037	CT	.43	78	C	KM	Y	28
740	CN	NEWFOUNDLAND	WOODDALEFORESTN	A037	CB	.29	79	C	KM	Y	32
740	CN	SASKATCHEWAN	CLONAL LIBRARY	A077	CB	.56	74	Y	HG	N	67
740	IA	STORY	WILCOX FARM	A023	CB	.10	79	Y	HR	Y	36
740	MI	CASS	DECATUR 26-75	A027	CT	.60	75	C	HJ	N	16
740	MI	CASS	DECATUR 3-76	A027	CT	.32	76	C	HJ	N	15

CLONAL PLANTINGS											
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	TYPE OF PLANTING	SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
740	MI	CASS	DECATUR 4-76	A027	CT	.72	76	C	HJ	N	14
740	MI	CASS	DECATUR 8-76	A027	CT	.40	76	C	HJ	N	13
740	MI	GLADWIN	GLADWIN 6-78	A027	CT	.96	78	C	HJ	N	21
740	MI	INGHAM	DANSVILLE 3-78	A027	CT	.44	78	C	HJ	N	22
740	MI	MACKINAC	REXTON 10-78	A027	CT	1.2	78	C	HJ	N	11
740	MI	MACKINAC	REXTON 15-77	A027	CT	.64	77	C	HJ	N	12
740	MN	GOODHUE	HAYCREEK-A	A029	CT	1.6	72	C	MC	Y	55
740	MN	ITASCA	AUDETTE-J	A083	CT	.40	72	C	MC		62
740	MN	ITASCA	AUDETTE-N	A083	CT	.40	75	C	MC		59
740	MN	WABASHA	ZUMBRO RIVER	A083	CT	1.6	72	C	MC		56
740	ND	MORTON	POPULETUM	A089	CB	1.0	79	Y	CR	N	35
740	NH	HILLSBORO	1935 HYBRIDPOPL	A035	CT		35	Y	VP	Y	24
742	IL	UNION	502-DUTCH CREEK	A080	CT	1.1	77	C	JJ	Y	48
742	IL	UNION	POTTSVILLE 673	A080	CT	2.4	76	C	JJ	Y	47
742	KS	GEARY	MILFORD	A111	CB	2.8	69	Y	LK		123
742	MI	CASS	DECATUR 9-68	A027	CT	.32	68	C	WJ	Y 59	17
742	MI	KALAMAZOO	AUGUSTA 20-68	A027	CT	.24	68	C	WJ	Y 59	20
742	MI	KALAMAZOO	AUGUSTA 7-69	A027	CT	.24	69	C	WJ	Y 59	19
742	MI	KALAMAZOO	AUGUSTA 7-70	A027	CT	.44		C	WJ	Y 59	18
742	NE	LANCASTER	EASTCAMPUS	A083	CB		80	Y	BA	Y 238	71
742	NE	LANCASTER	EASTCAMPUS	A083	CB		80	Y	BA		70
742	NE	STANTON	77-2	A084	CT	.40	77	Y	LW	N	65
742	NE	VALLEY	77-1	A084	CT	.40	77	Y	LW	N	66
742	OH	WAYNE	COTTONWOODCLONE	A041	CT	.60	70	Y	HD	Y 48 181	63
742	WI	ONEIDA	TRIAL 10	A021	CT		59	C	ED	Y 36 34	74
742	WI	ONEIDA	TRIAL 25	A021	CT		65	C	ED	N	75
742	WI	OUTAGAMIE	TRIAL 103	A021	CT		70	C	ED	N	73
742	WI	OUTAGAMIE	TRIAL 23	A021	CT		66	C	ED	N	72
746	MN	ITASCA	AUDETTE-Q	A083	CT	.40	77	C	MC	N	57

## CLONAL PLANTINGS

SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	TYPE OF PLANTING	SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
746	MN	ITASCA	AUDETTE-R	A083	CB	.04	77	C	MC		58
747	MN	DAKOTA	ROSEMONT-8	A083	CT	.40	75	C	MC	Y 119 170 171	60
747	MN	ITASCA	AUDETTE-M	A083	CT	.40	74	C	MC	Y 119 171	61
755	NE	LANCASTER	EASTCAMPUS	A084	CB		78	Y	BA	Y 3	2
762	PA	MCKEAN	NYSTROM FARM106	A061	SO	2.2	75	C	DD	N	138
920	CN	SASKATCHEWAN	CLONAL LIBRARY	A077	CB	.56	74	Y	HG	N	68
974	ND	MORTON	ULMUS CLONEBANK	A089	CB	.88	79	Y	CR	N	34

### HYBRID PLANTINGS

A total of 130 hybrid plantings including crosses involving 27 conifer species and 20 hardwood species were reported. Spruces (35 plantings) and pines (62 plantings) accounted for the bulk of the conifer hybrid plantings, while the elms (14 plantings) represented about one-half of the hardwood plantings. Most entries involve interspecific hybrids of two species, with several three-species combinations reported. Intra-specific crosses involving different varieties or races were common in the pines and spruces. For all two-species combinations, the species which served as female is noted first.

With very few exceptions, crosses produced  $F_1$  families; in a few instances,  $F_2$  families, backcross (B) families, or open-pollinated (OP) families are noted in Column 6.

- Col. 1. Species designation (♀ x ♂).
- Col. 2. State or country in which planting is located (postal code).
- Col. 3. County or province in which planting is located.
- Col. 4. Plantation designation assigned by maintaining agency.
- Col. 5. Code number of maintaining agency (see Appendix C).
- Col. 6. Type of cross ( $F_1$ =first generation;  $F_2$ =second generation; B=backcross; OP=open-pollinated from  $F_1$  cross).
- Col. 7. Size of planting (hectares).
- Col. 8. Year in which planting was established.
- Col. 9. Is plant material available (Y=yes; N=no; C=conditionally).
- Col. 10. Code for contact person at maintaining agency (see Appendix B).
- Col. 11. Are publications available (Y=yes; N=no) on materials in the planting, and references provided by cooperators (see Appendix D).
- Col. 12. Sorting code.



HYBRID PLANTINGS											
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	CROSS	SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
070X070	WI	FOREST	LARCH EVAL.250	A013	F1	.40	76	C	MJ	N	90
074X075	WI	ONEIDA	G-397 HARSHAW 3	A013	F1	1.0	76	C	NH		121
074X075	WI	ONEIDA	LARCH TRIAL 1	A021	F2		58	C	ED	N	42
075X074	IA	ALLAMAKEE	YELLOWRIVER SF	A027	F1	.08	66	C	HR	Y 41	67
075X074	WI	SHAWANO	LARCH TRIAL 3	A021	F1		61	C	ED	N	64
085X090	WI	ONEIDA	HARSHAW PICEAXS	A013		.12	76	Y	NH	Y 128	129
089X085	WI	ONEIDA	HARSHAW PICEAXS	A013		.12	76	Y	NH	Y 128	127
089X087	WI	ONEIDA	HARSHAW PICEAXS	A013		.12	76	Y	NH	Y 128	128
089X089	WI	ONEIDA	HARSHAW PICEAXS	A013		.12	76	Y	NH	Y 128	126
089XOPEN	WI	ONEIDA	HARSHAW PICEAXS	A013		.12	76	Y	NH	Y 128	130
090X090	MI	CHIPPEWA	SAULTSTEMA22-71	A027	F1	.08	71	C	HJ	N	74
090X090	MI	CHIPPEWA	SAULTSTEMA22-72	A027	F1		72	C	HJ	N	73
090X090	MI	KALAMAZOO	AUGUSTA 21-70	A027	F1	.14	70	C	HJ	Y 45 240	77
090X090	MI	KALAMAZOO	AUGUSTA 21-71	A027	F1		71	C	HJ	N	76
090X090	MI	KALAMAZOO	AUGUSTA 21-72	A027	F1		72	C	HJ	N	75
090X090	MI	KALAMAZOO	AUGUSTA 21-73	A027	F1		73	C	HJ	N	78
090X090	MI	KALAMAZOO	AUGUSTA 21-74	A027	F1		74	C	HJ	N	79
091X091	WI	WALWORTH	G124KETTLEMOR-A	A013	F1	.60	68	Y	NH		80
091X091	WI	WALWORTH	G124KETTLEMOR-B	A013	F1	.60	59	Y	NH		81
091X091	WI	WALWORTH	G124KETTLEMOR-C	A013	F1	.60	58	Y	NH		82
091X091	WI	WALWORTH	G124KETTLEMOR-D	A013	F1	.60	68	Y	NJ		83
091X099	CN	QUEBEC	253F STMAGLOIRE	A045	F1	.23	61	C	CA		89
094X087	WI	ONEIDA	HARSHAW PICEAXS	A013		.12	76	Y	NH	Y 128	123
094X088	CN	ONTARIO	2A-70 WINGHAM	A113			74	N	RM	N	113
094X088	CN	ONTARIO	2B-70 TWEED	A113			74	N	RM	N	114
094X088	CN	ONTARIO	2C-70BRACEBRIDG	A113			74	N	RM	N	118
094X088	WI	ONEIDA	HARSHAW PICEAXS	A013		.12	76	Y	NH	Y 128	124
094X089	WI	ONEIDA	G-396HARSHAW 10	A013	F1	1.2	77	Y	NH	Y 128	120
094X093	WI	ONEIDA	HARSHAW PICEAXS	A013		.12	76	Y	NH	Y 128	125

HYBRID PLANTINGS											
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	CROSS	SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
094X094	CN	QUEBEC	348C VALCARTIER	A045	F1	.48	71	C	CA		88
094X094	WI	ONEIDA	HARSHAW PICEAXS	A013		.12	76	Y	NH	Y 128	122
094X095	MN	CARLTON	CLOQUET-J	A083	OP		64	C	MC	Y 113 130 198 199	27
094X098	CN	ONTARIO	2A-70 WINGHAM	A113			74	N	RM	N	112
094X098	CN	ONTARIO	2B-70 TWEED	A113			74	N	RM	N	115
094X098	CN	ONTARIO	2C-70BRACEBRIDG	A113			74	N	RM	N	119
095X095	CN	ONTARIO	1B-70KAPUSKASIN	A113			74	N	RM	N	117
095X097	CN	ONTARIO	1B-70KAPUSKASIN	A113			74	N	RM	N	116
097X095	CN	QUEBEC	540 VALCARTIER	A005	F1	.85	72	N	CA		85
098X094	CN	QUEBEC	135A VALCARTIER	A107	F1	.56	59	C	CA		86
098X094	CN	QUEBEC	135B DRUMONDVIL	A107	F1	.56	59	C	CA		87
105X105	CN	QUEBEC	268-E5 CLOVA	A045	F1	.80	66	C	CA	Y	84
105X105	WI	ONEIDA	HARSHAW 15	A013	F1	1.0	80	N	RD	N	41
108X105	WI	ONEIDA	LAKE TOMAHAWK	A013	F1	.40	68	C	RT	N	21
113X165	OH	WAYNE	H-7	A032	F1		62	C	KH		97
119X129	OH	WAYNE	H-7	A032	F1		62	C	KH		96
119X165	OH	WAYNE	H-7	A032	F1		62	C	KH		94
119X166	OH	WAYNE	H-7	A032	F1		62	C	KH		95
119X167	OH	WAYNE	H-7	A032	F1		62	C	KH		93
126X131	KY	LIVINGSTON		A090	F1	.40	71	Y	KD	Y	46
126X131	KY	LIVINGSTON		A090	F1	.80	72	Y	KD	Y	39
126X131	MA	DUKES		A090	F1	2.0	75	Y	KD	Y	58
126X131	MA	WORCESTER		A090	F1	1.2	75	Y	KD	Y	57
126X131	MD	CECIL		A090	F1	.80	72	Y	KD	Y	49
126X131	MD	CECIL		A090	F1	1.6	73	Y	KD	Y	50
126X131	MD	HOWARD		A090	F1	2.8	75	Y	KD	Y	61
126X131	NH	MERRIMAC	BOW	A085	F1	1.0	76	C	ER	N	70
126X131	NH	MERRIMAC	LITCHFIELD	A085	F1	.62	77	C	ER	N	69
126X131	NH	MERRIMACK		A090	F1	1.6	76	Y	KD	Y	38

HYBRID PLANTINGS											
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	CROSS	SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
126X131	NH	ROCKINGHAM		A090	F1	.80	77	Y	KD	Y	45
126X131	NJ	OCEAN		A090	F1	1.2	73	Y	KD	Y	52
126X131	NJ	OCEAN		A090	F1	2.8	75	Y	KD	Y	60
126X131	NJ	OCEAN		A090	F1	1.6	74	Y	KD	Y	55
126X131	NJ	SUSSEX		A090	F1	1.6	76	Y	KD	Y	35
126X131	NJ	SUSSEX		A090	F1	1.2	75	Y	KD	Y	32
126X131	NY	SARATOGA		A090	F1	1.6	76	Y	KD	Y	36
126X131	NY	SARATOGA		A090	F1	1.2	75	Y	KD	Y	56
126X131	PA	HUNTINGDON		A090	F1	1.8	74	Y	KD	Y	54
126X131	PA	JUNIATA		A090	F1	.80	77	Y	KD	Y	44
126X131	PA	MIFFLIN		A090	F1	1.2	75	Y	KD	Y	59
126X131	VA	BUCKINGHAM		A090	F1	.80	77	Y	KD	Y	40
126X131	VA	PATRICK		A090	F1	1.6	76	Y	KD	Y	34
126X131	VA	PATRICK		A090	F1	1.2	75	Y	KD	N	33
126X131	WV	GREENBRIAR		A090	F1	1.4	72	Y	KD	Y	48
126X131	WV	HAMPSHIRE		A090	F1	.40	76	Y	KD	Y	37
126X131	WV	HAMPSHIRE		A090	F1	.40	77	Y	KD	Y	43
126X131	WV	MONRIE		A090	F1	1.4	71	Y	KD	Y	47
126X131	WV	RITCHIE		A090	F1	2.0	73	Y	KD	Y	51
126X131	WV	RITCHIE		A090	F1	1.8	74	Y	KD	Y	53
129X113	OH	WAYNE	AC-12	A041	F1		62	C	KH		99
129X119	OH	WAYNE	L-19	A041	F1	.01	70	C	KH		102
129X165	OH	WAYNE	AC-12	A041	F1	.02	62	C	KH		98
129X165	OH	WAYNE	H-7	A041	F1		64	C	KH		91
130X130	MI	INGHAM	ELANSING 5-74	A027	F1	.84	74	C	WJ	N	71
130X130	MI	INGHAM	ELANSING8-10-72	A027	F1	.44	73	C	WJ	N	5
130X130	MI	INGHAM	LANSING 6-8-73	A027	F1	.44	73	C	WJ	N	3
130X130	MI	INGHAM	LANSING 9-70	A027	F1	.52	70	C	WJ	N	2
130X130	MI	KALAMAZOO	AUGUSTA 1-74	A027	F1	1.9	73	C	WJ	N	8

HYBRID PLANTINGS											
SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	CROSS	SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
130X130	MI	KALAMAZOO	AUGUSTA 3-71	A027	F1	.80	71	C	WJ	N	7
130X130	MI	KALAMAZOO	AUGUSTA 4,5-71	A027	F1	.72	71	C	WJ	N	6
130X130	MI	KALAMAZOO	AUGUSTA 9-73	A027	F1	.16	73	C	WJ	N	4
134X133	MI	CASS	DECATUR 2-67	A027	F1	.12	67	C	WJ	Y 224	9
134X133	MI	INGHAM	E.LANSING 5-76	A027	F1	1.1	76	C	WJ	Y 224	15
134X133	MI	INGHAM	ELANSING 5-74	A027	F1	.84	74	C	WJ	Y 224	72
134X133	MI	JACKSON	JACKSON 6-75	A027	F1	.04	75	C	WJ	Y 224	13
134X133	MI	KALAMAZOO	AUGUSTA 6-74	A027	F1	.04	74	C	WJ	Y 224	11
134X133	MI	KALAMAZOO	AUGUSTA 6-8-67	A027	F1	.24	67	C	WJ	Y 224	10
134X133	MI	KALAMAZOO	AUGUSTA 7-75	A027	F1	.08	75	C	WJ	Y 224	12
134X133	MI	MANISTEE	WELLSTON13-75	A027	F1	.24	75	C	WJ	Y 224	26
134X133	MN	ITASCA	NORTHCENTRAL-D2	A083	F1	.04	76	C	MC	N	20
165X129	OH	WAYNE	AC-12	A041	F1		65	C	KH		100
165X129	OH	WAYNE	H-7	A004	F1		64	C	KH		92
166X129X129	OH	WAYNE	AC-12	A041	F1	.02	65	C	KH		101
318X314X314	VT	CHITTENDEN	ESSEX JUNCTION	A075	F1	.40	75	N	GW	Y 39	22
375X380	MN	DAKOTA	ROSEMOUNT-2	A083	OP	1.6	61	C	MC	Y 19 20 21 22	19
600X600	MI	CASS	DECATUR 10-68	A066	F2	.16	69	C	WJ	N	17
600X600	MI	KALAMAZOO	AUGUSTA 11-68	A066	F2	.36	68	C	WJ	N	16
621X621	OH	FAIRFIELD	Y.POPLAR HYB.	A041	F1	1.4	78	Y	HD	Y 47	31
621X621	OH	WAYNE	OARDC-YPOPLARHY	A041	F1	1.7	78	Y	HD	Y 47	30
742X742	MN	DAKOTA	ROSEMOUNT-7	A083	F1	.02	74	C	MC	Y 31 33 120	18
746X743	MN	ITASCA	AUDETTE-H3	A083	B	.40	71	N	MC	Y 120	28
746X753	MN	ITASCA	AUDETTE-H2	A083	B	.40	71	N	MC	Y 120	29
746X753	WI	ONEIDA	TRAIL 24	A021	F1		65	C	ED	N	63
746X753	WI	ONEIDA	TRIAL 10	A021	F1		59	C	ED	Y	65
749X743	IA	IOWA	AMANAPLANTATION	A090	F1	.24	55	C	HR	Y 46 117	68
749X743X746	IA	POLK	BIGCREEK	A023	F1		76	C	HR	Y 242	66
762X762	NE	CASS	HORNING ST. FM.	A085	B	.08	61	Y	BA	N	62

## HYBRID PLANTINGS

SPECIES	STATE/ COUNTRY	COUNTY/ PROVINCE	PLANTATION NAME	AGENCY	CROSS	SIZE (ha)	YEAR ESTAB.	MAT. AVAIL.?	CONTACT	REFERENCES	CODE
970X970	OH	DELAWARE	DELAWARE,OH	A040	F2		70	Y	TA	Y 188 186	1
972X972	MA	HAMPSHIRE	SHADETREEELAB	A103	OP				HF	Y	14
974X973	OH	DELAWARE	DELAWARE-2	A040	F2	.01	71	Y	TA	Y 186	25
974X975	WI	COLUMBIA	BUSSIAN FARM	A088	FF			C	SE	Y 248 249 250	106
974X975X974	WI	COLUMBIA	BUSSIAN FARM	A088	4			C	SE	N	109
974X975X974	WI	COLUMBIA	BUSSIAN FARM	A088	B			C	SE	N	103
974X978	WI	COLUMBIA	BUSSIAN FARM	A088	F1			C	SE	N	104
974X979	WI	COLUMBIA	BUSSIAN FARM	A088	F1			C	SE	N	105
974X979X973	OH	DELAWARE	DELAWARE-1	A040	F2	.05	71	Y	TA	Y 186	23
974X979X974	WI	COLUMBIA	BUSSIAN FARM	A088	4			C	SE	Y 248 249 250	107
974X979X975	WI	COLUMBIA	BUSSIAN FARM	A088	3			C	SE	Y 248 249 250	108
974X979X979	WI	COLUMBIA	BUSSIAN FARM	A088	3			C	SE	N	111
975X975	WI	COLUMBIA	BUSSIAN FARM	A088	F1			C	SE	N	110
975X976	SD	BROOKINGS	ELM HYBRIDS	A099	B	.32	64	Y	CP	Y 26	24

Appendix A.

Code numbers, common and scientific names, and types of plantings by which each species was reported. Code numbers are those used in the U.S. Forest Service Select Tree Register. Code numbers followed by an asterisk are not included in the Register and were assigned by us.

CODE	COMMON NAME	GENUS-SPECIES	TYPE
010	FIR SPECIES	ABIES	P
012	BALSAM FIR	ABIES BALSAMEA	CF P
015	WHITE FIR	ABIES CONCOLOR	P
060	JUNIPER SPECIES	JUNIPERUS	P
069*		LARIX XEUROLEPTIS	P
070	LARCH SPECIES	LARIX	C HP
071	TAMARACK	LARIX LARICINA	P
074*	JAPANESE LARCH	LARIX LEPTOLEPIS	CFHP
075*	EUROPEAN LARCH	LARIX DECIDUA	CFHP
076*	SIBERIAN LARCH	LARIX SIBERICA	CF
077*	POLISH LARCH	LARIX DECIDUA V. POLONICA	F
078*	DAHURIAN LARCH	LARIX GMELINI	F
079*	WESTERN LARCH	LARIX OCCIDENTALIS	P
085*		PICEA ORIENTALIS	H
086*		PICEA SCHRENKIANA	P
087*	KOYAMAI SPRUCE	PICEA KOYAMAI	C
088*	YEDDO SPRUCE	PICEA JEZOENSIS	H
089*	SERBIAN SPRUCE	PICEA OMORIKA	CF
090	SPRUCE SPECIES	PICEA	CFHP
091	NORWAY SPRUCE	PICEA ABIES	CFHP
093	ENGELMANN SPRUCE	PICEA ENGELMANNII	F P
094	WHITE SPRUCE	PICEA GLAUCA	CFHP
095	BLACK SPRUCE	PICEA MARIANA	CFHP
096	BLUE SPRUCE	PICEA PUNGENS	F P
097	RED SPRUCE	PICEA RUBENS	C HP
098	SITKA SPRUCE	PICEA SITCHENSIS	HP
099*	ASPERATA SPRUCE	PICEA ASPERATA	H
100	PINE SPECIES	PINUS	CF P
105	JACK PINE	PINUS BANKSIANA	CFHP
108	LODGE POLE PINE	PINUS CONTORTA	H
110	SHORTLEAF PINE	PINUS ECHINATA	C P
113	LIMBER PINE	PINUS FLEXILIS V. FLEXILIS	HP
119	WESTERN WHITE PINE	PINUS MONTICOLA	HP
120	BISHOP PINE	PINUS MURICATA	P
122	PONDEROSA PINE	PINUS PONDEROSA	P
125	RED PINE	PINUS RESINOSA	CF P
126	PITCH PINE	PINUS RIGIDA	H
129	EASTERN WHITE	PINUS STROBUS	CFHP
130	SCOTCH PINE	PINUS SYLVESTRIS	CFHP
131	LOBLOLLY PINE	PINUS TAEDA	HP
132	VIRGINIA PINE	PINUS VIRGINIANA	C P
133*	AUSTRIAN PINE	PINUS NIGRA	FHP
134*	JAPANESE RED PINE	PINUS DENSIFLORA	H
135*	SOUTHWESTERN WHITE	PINUS STOBIFORMUS	P
165*	BLUE PINE	PINUS GRIFFITHII	H
166*	MEXICAN WHITE PINE	PINUS AYACAHUITE	H
167*	BALKAN PINE	PINUS PEUCE	H
200	DOUGLAS-FIR	PSEUDOTSUGA MENZIESII	C P
241	N. WHITE CEDAR	THUJA OCCIDENTALIS	P
314	BLACK MAPLE	ACER NIGRUM	H
316	RED MAPLE	ACER RUBRUM	F P
317	SILVER MAPLE	ACER SACCHARINUM	F
318	SUGAR MAPLE	ACER SACCHARUM	CFHP

CODE	COMMON NAME	GENUS-SPECIES	TYPE
350	ALDER SPECIES	ALNUS	P
352	BLACK ALDER	ALNUS GLUTINOSA	P
370	BIRCH SPECIES	BETULA	F P
371	YELLOW BIRCH	BETULA ALLEGHANIENSIS	F P
375	PAPER BIRCH	BETULA Papyrifera V. Papyrifera	FHP
380	GLANDULAR BIRCH	BETULA GLANDULOSA	H
491	FLOWERING DOGWOOD	CORNUS FLORIDA	P
541	WHITE ASH	FRAXINUS AMERICANA	F P
543	BLACK ASH	FRAXINUS NIGRA	P
544	GREEN ASH	FRAXINUS PENNSYLVANICA	C
591	AMERICAN HOLLY	ILEX OPACA	C
600	WALNUT SPECIES	JUGLANS	C H
602	BLACK WALNUT	JUGLANS NIGRA	CF P
621	YELLOW POPLAR	LIRIODENDRON TULIPIFERA	FH
740	POPLAR SPECIES	POPULUS	C
742	EASTERN COTTONWOOD	POPULUS DELTOIDES	CFHP
743	BIGTOOTH ASPEN	POPULUS GRANDIDENTATA	H
746	QUAKING ASPEN	POPULUS TREMULOIDES	CFHP
747	BLACK COTTONWOOD	POPULUS TRICHOCARPA	C
749	WHITE POPLAR	POPULUS ALBA	H
753	EUROPEAN ASPEN	POPULUS TREMULA	H
755	NOREASTER(NE-237)	POPULUS X CANADENSIS	C
762	BLACK CHERRY	PRUNUS SEROTINA	FHP
800	OAK SPECIES	QUERCUS	F
802	WHITE OAK	QUERCUS ALBA	F
823	BUR OAK	QUERCUS MACROCARPA	F P
831	WILLOW OAK	QUERCUS PHELLOS	F
833	NORTHERN RED OAK	QUERCUS RUBRA	F P
837	BLACK OAK	QUERCUS VELUTINA	F
840*	EUROPEAN WHITE OAK	QUERCUS ROBUR	F P
920	WILLOW SPECIES	SALIX	C
967*	EUROPEAN WHITE ELM	ULMUS LAEVIS	P
968*	CHINESE ELM	ULMUS PARVIFOLIA	P
969*	MOUNTAIN ELM	ULMUS LACINIATA	P
970	ELM SPECIES	ULMUS	HP
971	WINGED ELM	ULMUS ALATA	P
972	AMERICAN ELM	ULMUS AMERICANA	FHP
973	CEDAR ELM	ULMUS CRASSIFOLIA	H
974	SIBERIAN ELM	ULMUS PUMILA	CFHP
975	SLIPPERY ELM	ULMUS RUBRA	H
976	SEPTEMBER ELM	ULMUS SEROTINA	HP
977	ROCK ELM	ULMUS THOMASSII	HP
978*	SMOOTH-LEAVED ELM	ULMUS CARPINIFOLIA	HP
979*	JAPANESE ELM	ULMUS JAPONICA	HP

Appendix B.

Two-letter codes and names and addresses of personnel responsible for each planting included in the guide.

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Appendix C.

Code numbers, agency names, and agency initials for those agencies maintaining plantations included in this guide.

CODE	AGENCY NAME	INITIALS
A001	AMANA SOCIETY	AMANA
A002	BLANDIN PAPER CO.	BLNDN
A003	BROWN COMPANY	BROWN
A004	CANADIAN FORESTRY SERVICE	CFS
A005	CENTRE DE RECHERCHE FOREST.DES LAURENTIDES	CRFDL
A006	COOK COLLEGE, RUTGERS UNIVERSITY	CCRU
A007	DIAMOND NATIONAL CORP.	DIACO
A008	DUPONT FOUNDATION	DUPNT
A009	ENVIRONMENT CANADA	ENCAN
A010	FORESTRY SCIENCES LABORATORY, CARBONDALE	FSLCA
A011	FORESTRY SCIENCES LABORATORY, GULFPORT	FSLGU
A012	FORESTRY SCIENCES LABORATORY, LINCOLN	FSLLI
A013	FORESTRY SCIENCES LABORATORY, RHINELANDER	FSLRH
A014	GEORGIA-PACIFIC CORP.	GEOPA
A015	GLATFELTER CO.	GLATF
A016	HILLEBRAND INDUSTRIES	HILIN
A017	ILLINOIS DIVISION OF FORESTRY	ILLDF
A018	INDIANA DEPARTMENT OF NATURAL RESOURCES	INNR
A019	INDIANA DIVISION OF FORESTRY	INDF
A020	INDIANA DIVISION OF RESERVOIRS	INDR
A021	INSTITUTE OF PAPER CHEMISTRY	IPC
A022	IOWA CONSERVATION COMMITTEE	IACC
A023	IOWA STATE UNIVERSITY	ISU
A024	MAINE FOREST NURSERY	MFN
A025	MICHIGAN CONSERVATION DEPARTMENT	MICD
A026	MICHIGAN DEPARTMENT OF NATURAL RESOURCES	MIDNR
A027	MICHIGAN STATE UNIVERSITY	MSU
A028	MICHIGAN TECHNOLOGICAL UNIVERSITY	MTU
A029	MINNESOTA DEPARTMENT OF NATURAL RESOURCES	MNDNR
A030	MOSINEE PULP AND PAPER MILLS	MOPPM

CODE	AGENCY NAME	INITIALS
A031	NATIONAL FORESTRY RESEARCH CENTER, EDMONTON	NFRCE
A032	NATIONAL INSTITUTE OF FOREST GENETICS, PLACERVILLE CA	NIFG
A033	NEBRASKA FOREST SERVICE	NEFS
A034	NEKOOSA-EDWARDS PAPER CO.	NEPCO
A035	NEW HAMPSHIRE DIVISION OF FORESTS AND LANDS	NHDFL
A036	NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION	NYDEC
A037	NEWFOUNDLAND FOREST RESEARCH CENTRE	NFFRC
A038	NIEDERSACHSEN, W. GERMANY	NWG
A039	NORTHERN GREAT PLAINS RESEARCH LAB	NGPRL
A040	NURSERY CROPS RESEARCH LAB	NCRL
A041	OHIO AGRICULTURE RESEARCH AND DEVELOPMENT CENTER	OARDC
A042	OHIO UNIVERSITY	OHU
A043	P. H. CHADBOURNE CO.	PHCCO
A044	PENNSYLVANIA STATE UNIVERSITY	PSU
A045	PETAWAWA NATIONAL FORESTRY INSTITUTE	PNFI
A046	PIERSON-HOLLOWELL CORP.	PHCOR
A047	POTLATCH CO.	PTLCH
A048	PRINCE ALBERT PULPWOOD LTD	PALTD
A049	PRINCIPIA COLLEGE	PC
A050	PRIVATE OWNERS	PVT
A051	PROVINCE OF ALBERTA	PALB
A052	PROVINCE OF NEW BRUNSWICK	PNBR
A053	PROVINCE OF NEWFOUNDLAND	PNFL
A054	PROVINCE OF NOVA SCOTIA	PNSC
A055	PROVINCE OF ONTARIO	PONT
A056	PROVINCE OF QUEBEC	PQUE
A057	PROVINCE OF SASKATCHEWAN	PSASK
A058	PUBLIC SERVICE CO. OF NEW HAMPSHIRE	PSCNH
A059	PURDUE UNIVERSITY	PU
A060	QUEBEC DEPARTMENT OF FOERSTS AND LANDS	QUDFL
A061	USFS, REGION 9 OFFICE, MILWAUKEE WI	RG9MI

CODE	AGENCY NAME	INITIALS
A062	USFS, REGION 9 OFFICE, ROLLA MO	RG9RO
A063	RUTGERS UNIVERSITY	RU
A064	SHELTERBELT LABORATORY, BOTTINEAU ND	SHLAB
A065	SOUTH DAKOTA GAME, FISH AND PARKS	SDGFP
A066	SOUTHERN ILLINOIS UNIVERSITY	SIU
A067	STATE OF MAINE	ME
A068	STATE OF MASSACHUSETTS	MA
A069	STATE OF NEW HAMPSHIRE	NH
A070	STATE OF NEW JERSEY	NJ
A071	STATE OF NEW YORK	NY
A072	STATE OF OHIO	OH
A073	STATE OF SOUTH DAKOTA	SD
A074	STATE OF WISCONSIN	WI
A075	SUGAR MAPLE RESEARCH LABORATORY	SMRL
A076	TENNESSEE VALLEY AUTHORITY	TVA
A077	TREE NURSERY PFRA	PFRA
A078	UNITED STATES AIR FORCE	USAF
A079	UNIVERSITY OF CALIFORNIA	UC
A080	UNIVERSITY OF ILLINOIS	UILL
A081	UNIVERSITY OF MARYLAND	UMARY
A082	UNIVERSITY OF MICHIGAN	UMICH
A083	UNIVERSITY OF MINNESOTA	UMINN
A084	UNIVERSITY OF NEBRASKA	UNEB
A085	UNIVERSITY OF NEW HAMPSHIRE	UNH
A086	UNIVERSITY OF PENNSYLVANIA	UP
A087	UNIVERSITY OF VERMONT	UVT
A088	UNIVERSITY OF WISCONSIN	UW
A089	USDA-AGRICULTURE RESEARCH SERVICE	ARS
A090	UNITED STATES FOREST SERVICE	USFS
A091	VERMONT AGRICULTURE EXPERIMENT STATION	VTAES
A092	VERMONT DEPARTMENT OF FORESTS AND PARKS	VTDFP

CODE	AGENCY NAME	INITIALS
A093	WAUSAU PAPER CO.	WAUPC
A094	WESTVACO	WVCO
A095	WISCONSIN DEPARTMENT OF NATURAL RESOURCES	WDNR
A096	NORTH CENTRAL FOREST EXPERIMENT STATION, BEDFORD	NCFES
A097	PROVINCE OF MANITOBA	PMAN
A098	STATE OF NEBRASKA	NE
A099	SOUTH DAKOTA STATE UNIVERSITY	SDU
A100	FORESTRY SCIENCES LAVORATORY DURHAM	FSLDH
A101	STATE OF MARYLAND	MD
A102	SHADE TREE LAB BELCHERTOWN MA	STLMA
A103	UNIVERSITY OF MASSACHUSETTS	UMASS
A104	NEW HAMPSHIRE PUBLIC SERVICE COMMISSION	NHPSC
A105	BRITISH COLUMBIA FOREST SERVICE	BCFS
A106	D. KNEZICK	DKNEZ
A107	DANISH HEALTH SOCIETY	DANHS
A108	STATE OF INDIANA	IN
A109	VALLONIA NURSERY	VALNR
A110	UNIVERSITY OF KANSAS	UKAN
A111	KANSAS STATE UNIVERSITY DEPARTMENT OF FORESTRY	KSU
A112	NEW HAMPSHIRE STATE FOREST NURSERY	NHSFN
A113	ONTARIO MINISTRY OF NATURAL RESOURCES	OMNR

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Appendix E.

Survey questionnaires for the four categories of plantations included in this guide. Additional copies of each questionnaire may be obtained from the senior author.

Northeastern Area-State & Private Forestry

Questionnaire for inventory of genetic material of forest trees

CLONAL MATERIAL

Please complete the following for each clone bank, orchard, or clonal test.

Species (sci. name) . . . . .

Criteria for parent or clonal selection? . . . . .

. . . . .

Are clones in the form of: root cuttings ( ) : grafted scions ( )

Number of ortets . . . . . Ave. Number of ramets/ortet . . . . .

Type of planting: clone bank ( ) : seed orchard ( ) : clonal test ( )

If seed orchard, present seed production: high ( ) : med. ( ) : low ( )

If none ( ) ; year expected . . . . .

Plantation information

Name or designation . . . . . Elevation . . . . .

Coordinates: Latitude . . . . . Longitude . . . . .

State . . . . . County . . . . . Acreage . . . . .

Ownership . . . . . Orig. Agency . . . . .

Loc. of records . . . . . Contact person . . . . .

Year established . . . . . Approx. age of parent trees . . . . .

Date of last measurements . . . . . Present survival % . . . . .

Original spacing (feet) . . . . .

Is material available to other agencies?

YES ( ) : NO ( ) : CONDITIONALLY ( )

Permitted type of sampling:

foliage ( ) : cuttings ( ) : seed ( ) : entire plant ( )

Publications on material available? YES ( ) : NO ( ) ; (if yes, list refs. on reverse)

Other comments: . . . . .

. . . . .

. . . . .

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120 Russell Labs  
Madison, WI 53706

Northeastern Area-State & Private Forestry

Questionnaire for inventory of genetic material of forest trees

FAMILIES OF KNOWN PARENTAGE

Please complete the following for each type of family

Species (sci. name) . . . . .

Number of families . . . . .

Criteria for parent selection? . . . . .  
. . . . .

Type of family : open-pollinated ( ) : selfed ( ) : half-sib ( ) : full-sib ( )  
. . . . .

If not open-pollinated, what was mating design?

factorial ( ) : diallel ( ) : other . . . . .

nested ( ) : tester ( )

Type of planting: seed orchard ( ) : progeny test ( ) : other . . . . .

If seed orchard, present seed production:

High ( ) : medium ( ) : low ( )

if none ( ) ; year expected . . . . .

Plantation information

Name or designation . . . . . Elevation . . . . .

Coordinates: Latitude . . . . . Longitude . . . . .

State . . . . . County . . . . . Acreage . . . . .

Ownership . . . . . Orig. agency . . . . .

Loc. of records . . . . . Contact person . . . . .

Year established . . . . . Seedling age at yr. est. . . . .

Date of last measurements . . . . . Present survival % . . . . .

Original spacing (feet) . . . . . Trees/plot . . . . . # reps . . . . .

Are parents available? YES ( ) : NO ( ) ; Are seed from parents available  
YES ( ) : NO ( )

Is material available to other agencies?

YES ( ) : NO ( ) : CONDITIONALLY ( )

Permitted type of sampling:

foliage ( ) : cuttings ( ) : seed ( )

Publications on material available? YES ( ) : NO ( ) ; (if yes, list refs. on reverse)

Other comments: . . . . .  
. . . . .

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Northeastern Area-State & Private Forestry

Questionnaire for inventory of genetic material of forest trees.

PROVENANCE-TEST MATERIAL

Please complete the following for each provenance test.

Species (sci. name) . . . . .

No. of seed sources . . . . .

Range represented: Latitude N . . . . . S . . . . . Longitude E . . . . . W . . . . .

Plantation information

Name or designation . . . . . Elevation . . . . .

Coordinates: Latitude . . . . . Longitude . . . . .

State . . . . . County . . . . . Acreage . . . . .

Ownership . . . . . Orig. Agency . . . . .

Loc. of records . . . . . Contact person . . . . .

Year established . . . . . Seedling age at yr. est. . . . .

Date of last measurements . . . . . Present survival % . . . . .

Original spacing (feet) . . . . . Trees/plot . . . . . # Reps . . . . .

Are exact geographic sources identified YES ( ) : NO ( )

Are seed from parent trees still available; if so, by individual tree ( ), or  
YES ( ) : NO ( ) bulked lot ( )

Is material available to other agencies?  
YES ( ) : NO ( ) : CONDITIONALLY ( )

Permitted type of sampling:  
foliage ( ) : cuttings ( ) : seed ( ) : entire plant ( )

Publications on material available? YES ( ) : NO ( ); (if yes, list refs. on reverse)

Other comments (flowering, seed production, etc.) . . . . .  
. . . . .  
. . . . .

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Northeastern Area-State & Private Forestry

Questionnaire for inventory of genetic material of forest trees

INTERSPECIFIC HYBRIDS

Please complete the following for each type of between-species cross. For such crosses, we wish to know only that the cross was made successfully; it is not necessary to indicate how many crosses have been made.

Parental species (sci. name) . . . . . (♀) X . . . . . (♂)  
(if 3 or 4 way cross) . . . . . (♀) X . . . . . (♂)

Type of cross F<sub>1</sub> ( ) : F<sub>2</sub> ( ) : backcross ( ) :  
other . . . . .

Plantation information

Name or designation . . . . . Elevation . . . . .  
Coordinates: Latitude . . . . . Longitude . . . . .  
State . . . . . County . . . . . Acreage . . . . .  
Ownership . . . . . Orig. agency . . . . .  
Loc. of records . . . . . Contact person . . . . .  
Year established . . . . . Seedling age at yr. est. . . . .  
Date of last measurements . . . . . Approx. # of plants . . . . .  
Present survival % . . . . . Are parents available? . . . . .  
Original spacing (feet) . . . . .

Is material available to other agencies?

YES ( ) : NO ( ) : CONDITIONALLY ( )

Permitted type of sampling:

foliage ( ) : cuttings ( ) : seed ( )

Publications on material available? YES ( ) : NO ( ) ; (if yes, list refs. on reverse)

Other comments: (flowering, seed production, etc.) . . . . .  
. . . . .  
. . . . .

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