

accomplishment is choice of variety, and the *Journal* continues to provide vital information on varietal adaptation and performance.

Lest we become complacent, however, we must admit that APS is not functioning to its full capability. The *Journal*, our primary means of communication with members, is not receiving enough articles and notes on fruit varieties and fruit growing. We have a very able and dedicated Editor, but he can only publish articles that are submitted to him. Specifically, we need more input into the organization from fruit growers and amateur fruit enthusiasts, both in *Journal* articles and advice to the Society. After all, the Society was founded for, and still exists, to serve the fruit growing industry.

There is also a need to increase memberships in APS. There is strength in numbers. Every fruit grower, fruit enthusiast, professional fruit research and extension worker, and state horticultural society should be a member of APS. I challenge each member with the responsibility of ob-

taining one new membership to APS in 1980.

What of the future? With the increased submission of articles to the *Journal*, which I urge, it will grow and become even better. For the past two years, APS has sponsored workshops on the national variety situation of specific fruit crops. These have been very successful, and the papers are being published in the *Journal* for those who cannot attend. A similar workshop on additional fruit and nut crops is planned for 1980. In 1980, I will activate some old committees and establish some new ones in an effort to improve services of the Society. I will be asking many of you to serve on these committees and trust that you will actively participate in making APS a more viable organization. I also solicit your suggestions on methods that the Society can better serve its members and the fruit industry.

It is an honor for me to serve as President of APS. I ask your help in upholding the long term tradition of service of the Society to its members.

Scionwood of Apple Cultivars, Rootstocks and Species Available from the Plant Introduction Station

H. E. WATERWORTH¹

The U. S. Department of Agriculture maintains a large collection of apple germplasm at its Plant Introduction Station, Glenn Dale, Maryland. The items are clonal introductions assembled from countries during the past 50 years. Nearly all are included and partially described in "Fruit and Tree Nut Germplasm Resources Inventory" by Fogle and Winters (2). Their origin and the purpose for bringing them into the U.S.A., along with some of their unusual virtues are

given in the Published Inventory Series which is available in most State College of Agriculture Libraries (4). The introductions represent a diverse collection of exotic varieties, breeding lines, wild types, root stocks and species. Some of the older introductions have endured prolonged adverse environmental conditions and exposure to several diseases. Fireblight, scab, and leaf-spot (caused by *Fabraea maculata*) are among the diseases seen in our orchards. Ackerman and Win-

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ters (1) described varieties in the collection that originated in warm climates and hence have low chilling requirements.

In 1968 Ritter (3) listed by name some 1500 apple varieties and species. He also gave the addresses of the source of the scionwood. The apple collection at this Station was not included in that report.

Below are listed about 550 apple varieties which were not included in Ritter's report. A limited amount of scionwood of these is available to fruit breeders. All have passed through quarantine. Those with P.I. numbers of 300,000 or higher have been indexed for virus and mycoplasma infections by described procedures (5). This latter group is free of disease agents that are not known to occur in the U.S.A. About half of the items contain one or more latent viruses that are widespread in the U.S.A. and Canada. For these items (not designated in the list) a statement is required from the state quarantine officer, stating that it is permissible to ship virus-infected scionwood into the state in question. The name and address of this officer will be provided as necessary upon receipt of request for scionwood.

Many of the varieties were received with only foreign language names, some of which may be near synonyms to U.S. or other better known names. Since none has been tested for true-ness-to-type, the Government assumes no liability regarding any misidentity.

Requests for scionwood should be mailed to The Plant Introduction Station, U.S.D.A., SEA, Glenn Dale, Maryland 20769.

Literature Cited

1. Ackerman, W. L. and H. F. Winters. 1966. Apple Introductions from Warmer Climates. *Fruit Var. and Hort. Dig.* 20 (1):11-17.
2. Fogle, H. W. and H. F. Winters. 1977. Fruit and Tree Nut Germplasm Resources Inventory. U. S. Department of Agriculture Publication #NE-76. 321 pp.
3. Ritter, C. M. 1968. Sources of Scionwood of Apple Cultivars, Rootstock and Species in Agricultural Experiment Stations of the United States and Canada. *Fruit Var. and Hort. Dig.* 22:23-39.
4. U. S. Department of Agriculture. 1898-1979. Plant Exploration and Introduction Inventories. Nos. 1-184. Washington, D.C.
5. Waterworth, H. E. 1979. Control of Plant Disease by Exclusion: Quarantines, and Disease Free Stocks. In "Pest Management." D. Pimentel, Ed. CRC Press, Gainesville, FL.

Apple Introductions on Inventory at the Plant Introduction Station Glenn Dale, Maryland — September 1979

Acme	325531	Ananas Reinette X James Grieve...	280008
Adams Pearmain	280022	Anaros Rosthern #2	139664
Adersleber Kalvill	132758	Anissovka	105200
Akane	255899	Antonovka Mitchurin	295282
Alba	154154	Antonovka X EM IX. P-I	316495
Aldenham Purple	76590	" X EM IX. P-II	316496
Alkmene	344547	Apfel aus Grunheide	125223
Allen's Everlasting	280023	Argile var. Peau d'Ane	136244
Amanishiki	199525	Aromat de vara	Q-19483
Amasya (Clone 1-6)	320869-874	Arthur Lewis	157201
Amelia	316482	Auralia	344548
Amere de Belleuvre	162060		
Ames 550	151489	B-59	337433
Amsib Crab (ionensis x baccata)...	127686	B-87	337434
Amzr Gauthier	136243		

B-94	337435	Caillouett	161759
B-113	337436	Calville Du Mont Dore	162720
Baladi	187099	Camuzat	231939
Banon's Seedling	287160	Canadian Reinette TB 38/60 ..	158588
Barbarie	125744	(open pollinated)	
Bashkirian Beauty	383502	Canavial-14	183961
Beau Roger #123	162706	Cap of Liberty (Red Soldier) ..	161830
Bedford Pippin	127004	Cartigny #3231	162710
Belfler Kitaika	107200	Casa Nova De Alco Baca-9 ..	183957
Bella de Jardines	105498	Champagne Reinette	264688
Bella di Pontoise	102537	Cheal's Golden Gem	286787
Belle de Boskoop	300258	C'Huero Biz Bras	187297
Belle de Crollon #2232	162708	C'Huero Ru Bienn	187298
Belle Fille #1342	162709	Chulanka	383503
Bellefleur de Brabant Rouge ..	161757	Circassian	102639
" Double	137090	Clarke	392306
Bellefleur X Katayka	104992	Clark's Flowering Crab	212643
Belle Fleur Kitajka	154157	Claudius Herbstapfel	131001
Belle Fleur Rogue	245048	Claygate Pearmain	280024
Belle Imperiale	126495	Cleopatra	307378
Belle Norman (Perthyres)	161829	Clivia	344550
Berglander	131964	Coast Apple	349324
Bessemianka Michurina #5	292929	Coe's Golden Drop	264566
Betty Geeson	141234	Cole	129820
Binet Blanc	122598	Colozette	162712
Binet Blanc Dore	158729	Col. Vaughan	141236
Binet Rogue	158730	Cox	300688
Bismark X Astrakan (No. 11C) ..	312809	Cox's Orange-Denmark Strain ..	247021
Bismer Crab (syl. x Ioensis) ..	127687	Cox's Orange Otago	247023
Bisquet	162766	Cox's Orange Pippin X Golden	
Bitterforest	160387	Delicious*	279643
" "	160388	Crawley Reinette	157728
Blaħa's Orange Reinette	358736	Creamy Kitaika	383504
(Blaħa's) Mrs. R.	358737	Cremiere	123735
Blanc Mollet	162719	Crimson Bramley	113703
Blood Red Gravenstein	199096	Crollon	162721
Blushred Calvilla #2	141869		
Boche	162549	Damelot	162722
Bodil Neergaard	104781	D'Aroy Spice x 1304 ..	279321
Bouteille	187296	Del Cirio	105505
Boutteville	162723	Desertnoe Petrova	277336
Bowden Seedling	194199	Devonshire Quarrenden	125266
Bramley	238786	Directeur Lesage	162725
Bravo De Esmolte-10	183958	Discovery	344060
Brunnerling	134820	Djulabia	264689
Brunnsapple	102135	Domaine	173979
Brusnichnoe #1446	293887	Doucet Rouge	161760
Budagovski	324523	Doux-Amer	122616
Budimka	131291	Doux Tardif	162547
BV 49.11	172605	" "	162715
BV 82.10	172608	Drap D'or Guement ...	131823
BV 8421	172609	Dr. Clifford	131283

Druzhba #1443 . . .	293884	Greenchisel	203813
Duchess Favorite .	126873	Greenmeadows Cox's Orange	
Dukat	341069	Pippin #1163	256108
"	358738	Grise Dieppoise	125746
Dymock Red	161836	"	158734
"	162441	Gros Bois de Doudeville	122618
"		" Frequin	131105
Early Strawberry	143177	Grosse Launette	161761
Edith	307503	" Mouche #3124	162545
Edward VII	392312	Grotz Liebling	307505
Egremont Russet	280025	Grozhovka of Moscow	383510
Eickhoff	302301	Guldborg	265301
Elektra	344551	"	299452
Elsie Ratkee	238028		
E.M. XIII	392913	Hai tan kuo	44283
Encore	104726	Hakko	135688
Erick Newmann's Red James Grieve	263566	Halberstadter Jungfernapfel	132149
Ermak	383505	"	132759
Euzia	137042	Harlan	170036
Excellenz Thiel	66298	Hawkes Bay Red Delicious	392304
		Hedwigiae	307501
Fenouillet Gris	136591	Heiya	135689
Fey's Recork	125686	Herma	344552
Finson's Orange	392307	Hermann	274066
Flintynskie	131035	Herring's Pippin	136001
Frederick	161837	Hillieri	344089
Frequin	162503	Holstein	318745
" Audievre	161838	Horner	161850
" Lacaille	247314	Howgate Wonder	131077
" Rouge	162729	Hozeri	307502
Frettinghan Victoria	307689	Huidobro	247025
Frogmore	104790	Hybride Aus Mlejewo	154160
Frumos 1-f Voinesti	352655	Imperial	127011
Fuero Rous	187352		
Fuji (Ralls X Delicious)	282898	Ingers	114318
		Ingrid Marie O.P. BM6029	256483
Gale	392303	Ingrid Red Strain	214079
Gardener Delicious	B-57029	Isayev's Desertnyi	307515
Gibb's Golden Gage	306321	Iunost #1444	293885
Glocken	134808	Ivory's Double Vigout	133097
Gold Canel	157207	Jakob Fischer	341744
Golden X Commercio	318410	James Kirk	141362
Golden Delicious X Jonathan	318683	Jaune Lu Desert	161762
Golden Gem (ornamental)	141210	Jewel	148478
Golden Hornet	213405	Johannes Bottner	194106
Golden Kitaika	383506	Jonathan X Cox #6327	280016
Golden Reinette	383507	" " #6427	280017
" "	383508	Jouveaux	162731
Golden Uralian	383509	Juicy Uralian	383511
Goldjon	318409		
Goldreinette v. Cazis	134807	K-32-100-3	213554
Grange's Pearmain	131437	K-33-112-3	214145
Gravensteiner	205862	Kavlas	104799

Kendall Kitaiki .....	.. 322714	Mannington Pearmain	141240
Kerry Pippin .....	.. 264557	Margid X 1330	279322
Kestrel .....	.. 415845	Mauenerbe	162713
Khashabi .....	.. 292134	May Bloom (or Kemp)	206030
Kidd's Orange .....	.. 249924	May Queen	123749
Kimbal Giant McIntosh ..	.. 237701	Melon	342430
King Harry .....	.. 175010	Merton #779	133100
Kizil Alma .....	.. 30327	Merton #789	133101
Kokko Standard .....	.. 347267	Messire Jacques	162505
Kokko Strain 3 .....	.. 347269	Metais	173983
Komlensk .....	.. 383512	Mettais (Sauvagion Adrienne) ...	162717
Korobovka (curkurins) ..	.. 262972	Michelin	136487
Kosmonaut .....	.. 369714	Michurin's Bessiemianka	259451
Kouleman .....	.. 188516	Miller's Seedling (Red Sport)	260001
Krapchatoe .....	.. 293889	Minister von Hammerstein	131007
Krievu Rosmarins .....	.. 262970	Miron Sacharanij	154164
Kulon Kitaika .....	.. 259450	Mitshurins Samenloser	154165
Kuotesshaho .....	.. 157209	Mobb's Royal	134431
Kurosh sibirica X Belfleur	.. 135983	Mottais	162735
		Mr. Prothero	126887
Lady Ilgen .....	.. 215796	Mrs. R. Blahas	358737
Lady Imperial Clarendon ..	.. 307742	Muscadet de Bernay	200576
Lalla .....	.. 242011	Muz-alma #826	30326
Lambrook Pippin .....	.. 161839		
Langworthy .....	.. 161851	Nanny	131215
Large transparente Astrakan	.. 104802	Nanot	161763
Launette .....	.. 162732	Neverblight	161843
Laxton's Fortuni .....	.. 127009	Nevis Wild Crab (Ioensis x syl.) .	127701
" Herald .....	.. 131463	Niedzwetzkyana (ornamental) .	B-39105
" Leader .....	.. 127013	Niewland (M. coronaria)	182831
" Pioneer .....	.. 127015	Nitschners Erbeerptel	154166
" Reward .....	.. 176819	Nœl Deschamps	173986
Lemoen .....	.. 131968	Norfolk Beefing	157733
Lemon Pippin .....	.. 157731	Norfolk Royal	123729
Lewis Incomparable .....	.. 131970	Notaire	137094
Leyda .....	.. 349325	Notaris	161408
Liestnaya Antonoffka .....	.. 35636		
Lindo Da Insua .....	.. 183955	Oekonomierat Echter-meyer	78170
Laljce .....	.. 264690	Oetwiler Renette	134809
Lord Hindlip .....	.. 123746	Old Nonpareil	280027
Lord Lamborne .....	.. 203815	Olga Crab	127702
Lord Lambourne MXVI ..	.. 205048	Oporte (red leafed orn.)	136020
Lord Lambourne M.139 ...	.. 300689	Orient	199532
Lorna Doone .....	.. 161840	Ottawa #3	325176
		" #12	325177
		" #322	137581
		" #541	296775
M 26 (1) B6/10 .....	.. 339549	Oxbo	127703
Major .....	.. 150649		
Malabols .....	.. 262964	PI	Q-20226
Malling-Merton 106 (5) B6/10...	.. 286634	PII	Q-20227
Manche Rouge .....	.. 162716	PI MIX X "Antonovka"	352652
Manito (M. syl. var. Niedzwetzkyana sdlg.) .....	.. 148494		

P-16	Q-20329	Reinette de Chenee	131828
P XXII	Q-20228	Reinette Jaegers	131561
Padley's Pippin	199420	Reinette Jamin	135645
Paide's Winter Apple	383514	Reinette Jaune de Butzel	131978
Paides Ziemas Abols	262969	Reinette Tres Tardive	162741
Panera	245143	Reinette van Ekenstein	188521
Paradisaica Atrosanguinea	136488	Reneta Woskowa	132830
Paradis de Vayre	162507	Renetta Dorata	104034
Paradiso	105388	Renown	131081
Paraquet	123964	Reginaldo de Liebana	105528
Peau D' Ane	162740	Reveles Bumbierabols	262968
Pederstrup	104807	Rogu de Cluj	352656
Pepin Safrannij	262967	Rokewood	307381
Pervenec Samarkanda	276718	Rome Beauty Glengyle Red Str... ..	199694
Pigeonnet Blanc	132272	Rose de Benauges	322033
" Rouge	132273	Rott Jarnapple	102148
Pine Golden Pippin	157734	Rougemont	141243
Pitmaston Pine	131439	Rousse Latour	136604
Pitmaston Pineapple	280029	Royal Jersey	175545
Pixie	370145	Royal Wilding	150650
Pomme Framboise	131975	Royale d'Angleterre	136605
" Raisin	134669	Rozovoe #1447	293888
" Thoury	162548	Rozovoye Priewoskhodnoye	307517
Ponsford	125267	Rubra Precoce Breviglieri	282934
Porter's Perfection	161844	Ruhm aus Kirchwarder	126588
Potter	392309		
Potts Seedling	126586	St. Anna Rode Boskoop	223666
Pres. Descours-Desarces	122620	St. Cecilia	125269
Present Van Holland	188520	St. Everard	123732
Prince Nicolas	137047	St. Laurent	158739
Priol's Delicious (L. Banana X James Grieve)	280018	St. Lawrence Winter	142465
Prof. Grebnicka Renete	262962	Saint Martin	200781
		Saltcote Pipin	123967
		Sam Young	264559
Quarrenden Red	126889	Sandling	123751
		Sandringham	157735
Rambourg d'Automme	132276	San Juan	260002
" Mortler	161765	Scarlet Crofton	203817
Red Australian Rome Beauty	214080	" "	206033
Red Bellflower	264692	" Nonpareil	126879
Red Canel	157211	Scedraja	276903
Red Cinnamon	207636	Schone Ban Iephof	188522
Red Cox's Pomona	246461	Schoner Aus Itzstedt	131011
Red Gravenstein Oratia Beauty... ..	249962	Seestermuber Zitronenapfel	131010
Red Jersey (Royal Drin)	161845	Sekaiichi	Q-20124
Red Joaneting	123730	Sensacion	105531
Red Pomme de Neige	133565	Severnii Bujon	107245
Red Siberian Crab	215543	Sharopa	383517
Reine des Hatives	158736	Shellinkhout	188523
Reineta de Caravia	105524	Sherrington Norman	175546
Reinette D'Armorique	188606	Siberian Crab	148421
Reinette Da Mans	322032	Sikora (Type 1)	205559