

APPLE
PEDIGREES

or

hey 'Wayne,' whose your momma and
poppa?

(Momma) 'Northwestern Greening' x **(Poppa)** 'Red Spy,' New York State
Agriculture Research Station, Geneva, New York, introduced, 1962

APPLE PEDIGREES

Apple Pedigrees – **Over 955 pedigrees** listed. Knowing the parents of apple varieties will allow you to select a pollinator. Usually, the parents of a variety will not pollinate the offspring. Example: ‘Summerred’ – ‘McIntosh’ x ‘Golden Delicious,’ K. O. Lapins, Canadian Department Agricultural Research Station, Summerland, British Columbia, Canada, introduced, 1964. ‘McIntosh’ and ‘Golden Delicious’ should not be used to pollinate Summerred.

The primary objective of state and world apple breeding programs is one of developing cultivars with improved commercial characteristics. Recently, especially in the European Union, disease and pest resistance is being pursued. Many of the finest apples from these breeding programs eventually fail commercial tests and are now virtually unavailable, unless the fruit lover grows trees in their own backyard.

When two varieties are crossed the female parent is always shown first. That just means that the apple grew on the female variety and the pollen that fertilized it came from the male variety. Often one of the parents of a cross has outstanding characteristics, yet is difficult to grow (i.e., ‘Cox’s Orange Pippin,’ the fruit cracks, or ‘McIntosh,’ cursed with premature fruit drop). Progeny of a cross, using one of these varieties as a parent, may result in good taste without growing difficulties. You may elect to try growing that cultivar.

Knowing the pedigree of a fruit may help overcome a potential pollination problem. In general, do not use the parent to pollinate the first generation offspring, they are not cross fruitful. For example, ‘Golden Delicious’ and ‘Idared’ would not be used as pollinators for ‘Arlet’ (‘Swiss Gourmet’) because they are parents of ‘Arlet.’ Another example is ‘Gala’ a ‘Kidd’s Orange Red’ and ‘Golden Delicious’ cross, ‘Gala’ will not pollinate ‘Golden Delicious’ or other ‘Gala’ sports.

The pedigree crosses use the following format: cultivar name (bold), female pollen parent x male pollen parent, place of origin and introduction.

The following is a partial alphabetical listing of genetic crosses that have produced apples that have merit and selected to be propagated.

A

‘**Acme**’ – ‘Worcester Pearmain’ x ‘Rival,’ possibly pollinated by ‘Cox’s Orange Pippin,’ W. P. Seabrook & Sons, Boreham, Essex, England, 1944

‘**Adanac**’ – ‘Heyer 12’ x ‘Battlford,’ USA

'Adersleber Calville' – 'Calville Blanc d'Hiver,' x 'Gravenstein,' c1870, Lichtard, Adersleber, Saxony, Germany

'Advance' (ENGLAND) – 'Cox's Orange Pippin' x 'Gladstone,' 1908, Laxton Brothers Ltd., Bedford, England, introduced, 1928

'Advance' (Canada) – 'Columbia' x 'Wealthy,' 1944, Dr. C. F. Patterson, University of Saskatchewan, Saskatoon, Saskatchewan, Canada, introduced, 1959

'Agori #1' – 'Jonathan' x 'McIntosh,' Aomori Apple Experiment Station, Aomori, Japan, introduced, 1953

'Akane' – 'Jonathan' x 'Worcester Pearmain,' 1937, Morioka Experiment Station, Japan, introduced, 1970

'Akibae' – 'Senshu' x 'Tsugaru,' T. Odagiri, grower in Nagano, Japan, patented, Japan, 1993

'Akita Gold' – 'Golden Delicious' x 'Fuji,' 1974, Experiment Station, 65 Aza-Kaidoshita, Daigo, Hiraka-Machi, Hiraka-gun, Akita-ken, Akita Prefecture, Japan, patented, 1993

'Alfa 68' – 'Belle de Boskoop' x 'Filippa,' 1936, Agriculture College, Alnarp, Sweden, introduced, 1958

'Alice' – 'Ingrid Marie' x, 1943, H. Jensen, Balsgård Fruit Breeding Institute, Sweden, introduced, 1951

Alkmene – 'Cox's Orange Pippin' x 'Doktor Oldenburg,' 1930s, M. Schmidt, Kaiser Wilhelm Institute, Mückeberg, Germany

'Allington Pippin' – 'Cox's Orange Pippin' x 'King of Pippins,' before 1884, Thomas Laxton, Lincolnshire, England, introduced, 1896

'Almata' – ('Beautiful Arcade' x 'FIEnglande 38 Crab') x 'Red Flesh,' Dr. Neils E. Hansen, South Dakota Experiment Station, Brookings, South Dakota, USA, introduced, 1942

'Alnarps Favourite' ('Favorite') – 'McIntosh' x 'Alfa 68,' 1945, Agriculture College, Alnarp, Sweden, selected, 1967

'Alps' – 'Cotone' – 'Jonathan' x 'Fuji,' K. Hatakoshi, Nagamo Station, Prefectural Fruit Tree Experiment Station, Japan

'Aired' – *Malus pumila* var. *niedzwetzkyana* x *M. baccata*, Canada Department Agriculture Research Station, Brooks, Alberta, introduced, 1937, crabapple

'Alton' – 'Early McIntosh' x 'New York 845' ('Red Canada' x 'Yellow Transparent'), 1923, R. Wellington, New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1938

'Ambitious' – 'Toko' open pollinated, Aomori Apple Experiment Station, Aomori, Japan, introduced 1985

'Amanishiki' – 'Ralls Janet' x 'Indo,' 1936, Aomori Apple Experiment Station, Japan, introduced, 1948

'Ames' – 'Allen Choice' x 'Perry Russet,' H. L. Lantz, Iowa Experiment Station, Ames, Iowa, USA, introduced, 1921

'Amorosa' – 'Ingrid Marie' x 'Filippa,' colored sport of Aroma originating, Sweden

'Ancuta' – 'Jonathan' x 'Sugag,' Nagamo Station, Prefectural Fruit Tree Experiment Station, Japan

'Angold' – 'Antonovka' x 'Golden Delicious,' Research Breeding Institute, of Pomology, Holovousy, Ltd. Horice, Czech Republic, prior to 1993

'Ann Trio' – 'Tony' x 'Mercer,' Neils. E. Hansen, Brookings, South Dakota, South Dakota Agriculture Experiment Station, introduced, 1938, crabapple

'Anna Boelens' – 'Cox's Orange Pippin' x 'Freiherr von Berlepsch,' Netherlands or Germany, prior to 1945

'Anoka' – 'Mercer' x 'Duchess,' South Dakota Experiment Station, USA

'Aori' – 'Toko' x 'Richard Delicious,' originating from Aomori Apple Research Station, Japan

'Aori-9' – 'Akane x 'Orin,' originating from Aomori Apple Research Station, Japan

'Aori-13' – 'Sekai Ichi' x 'Akane,' originating from Aomori Apple Research Station, Japan

'Appel van Paris' – 'Brabant Bellefleur' x 'Jonathan,' 1935, Sprenger Institut Voor de Veredeling van Tuinbouwgewassen Wageningen, Netherlands

'Ardelan' – 'Jonathan' x 'Peasgood Nonsuch,' Romania

'Ariane'® – P7R25A27 ('Florina' x 'Prima') x P21R4A30 ('Golden Delicious' x unknown), 1979, by F. Laurens, Y. Lespinasse and A. Fouillet, Institut National de la Recherche Agronomique, Angers, France, introduced, 2001

'Ariwa' – 'Golden Delicious' x Selection A849–5, Federal Research Station Wädenswil, Wädenswil, Switzerland, introduced, 1996

'Arkcharm' – 'Prima' x Hybrid 36055, University of Arkansas, USA

'Arlet' (Swiss Gourmet) – 'Golden Delicious' x 'Idared,' Federal Research Station Wädenswil, Wädenswil, Switzerland, introduced, 1984

'Arnold's Beauty' – 'Northern Spy' x ('Wagener' x 'Spitzenberg,') , before 1876, Charles Arnold, Paris, Ontario, Canada

'Aroma' – 'Ingrid Marie' x 'Filippa,' 1945, Balsgård Fruit Breeding Institute, Sweden, introduced, 1973

'Aromat de Vara' – 'Parmain Dor' x 'Jonathan,' Romania

'Arthur W. Barnes' – 'Gascoyne's Scarlet' x 'Cox's Orange Pippin,' 1902, N. F. Barnes, head gardener, Heaton Hall, Chester, England, introduced, 1928

'Ascot' – 'Northern Spy' cross, 1898, Experiment Farm, Ottawa, Canada, introduced, 1913

'Ashton Bitter' – 'Dabinett' x 'Stoke Red,' (cider) 1947, Bristol, England

'Astillisch' – 'Red Astrachan' x 'Sign Tillisch,' c1924, Max Planck Institute, Cologne, Germany

'Astramel' – 'Red Astrachan' x 'James Grieve' x 'Melba,' 1993, Fruit Research Station, Jork, Hamburg, Germany

'Atika Gold' – 'Golden Delicious' x 'Fuji,' 1974, Akita Fruit-Tree Experiment Station, 65 Aza-Kaidoshita, Daigo, Hiraka-Machi, Hiraka-gun, Akita-ken, introduced, 1990

'Atlanta' – 'Sternrenette' ('Reinette Rouge Etoilée') x 'Cox's Orange Pippin,' 1935, Sprenger Institut Voor de Veredeling van Tuinbouwgewassen Wageningen, Netherlands

'Atlas' – 'Winter Saint Lawrence' x, 1898, Central Experiment Farm, Ottawa, Canada, introduced c1924

Auralia (Tumanga) – ‘Cox’s Orange Pippin’ x ‘Schöner aus Nordhausen,’ 1930, M. Schmidt, Kaiser Wilhelm Institute, Mückeberg, Brandenburg, Germany

‘Aurora Golden Gala’™ – ‘Splendour’ x ‘Gala’ (‘Kidds D-8’), 1981, by C. Hampson, R. MacDonald, H. Quamme, D. L. McKenzie and W. D. Lane, Pacific Agri–Food Research Center, Summerland, British Columbia, Canada, introduced, 2003

‘Autento’® – ‘Delgollune x ‘Cox’s Orange Pippin,’ G. Delbard, Delbard Nursery, Malicorne, France

‘Autumn Arctic’– ‘Arctic’ x ‘Northern Spy’?, USA, 1952

B

‘Bailey’s Record’ – ‘Blenheim Orange’ x ‘Devonshire Quarrenden,’ Buckinghamshire, England

‘Balder’ – ‘James Grieve’ x ‘Irish Peach,’ 1950, A. A. Achaap, Ivy, Wageningen, Netherlands

‘Ballerina’ – 1976, trade name for columnar trees developed by R. Watkins and K. Tobutt, East Malling Research Station, Kent, England, from crosses with ‘Wijcik McIntosh’, introduced, 1989

‘Balls Bittersweet’ – ‘Médaille d’Or’ x ‘Old Foxwhelp,’ (cider) Herfordshire, England

‘Ball’s Pippin’ – ‘Cox’s Orange Pippin’ x ‘Strummer Pippin,’ J. C. Allgrove, Langley, Royal Horticulture Society, England, introduced, 1923

‘Bancroft’ – ‘Forest’ x ‘McIntosh’, 1930, Horticulture Experiment Farm, Ottawa, Canada, introduced, 1935

‘Barnack Orange’ – ‘Barnack Beauty’ x ‘Cox’s Orange Pippin,’ W. H. Divers, Belvoir Castle, Leics, England, 1904

‘Barnes, A. W.’ – ‘Gascoyne’s Scarlet’ x ‘Cox’s Orange Pippin’, 1902, N. F. Barnes, Chester, England, introduced, 1923

‘Barry’ – ‘McIntosh’ x ‘Cox’s Orange Pippin,’ 1937, New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1957

‘Baujade’ – ‘Granny Smith’ x P5R42–52 (PRI 672–3 x Reinette du Mans), 1989, France

'Beacon' – 'Malinda' x 'Wealthy,' 1908, University of Minnesota Experiment Breeding Farm, USA, introduced, 1936

'Beauty of Blackmoor' ('Apollo') – ('Worcester Pearmain' x 'Beauty of Bath') x 'Beauty of Bath,' 1947, G. T. Sparks, Long Ashton Research Station, Bristol, England

'Beauty of Bedford' – 'Lady Sudeley' x 'Beauty of Bath,' Laxton Brothers, Bedford, England, before 1913

'Bedford Pippin' – 'King of the Pippins' x 'Ribston Pippin,' Laxton Brothers, Bedford, England, before 1934

'Bel-el' – 'Ingrid Marie' x 'Golden Delicious,' more highly colored sport of 'Elstar'

'Belfleur Kitaika' – 'Yellow Bellefleur' x 'Kitaika' (*Malus prunifolia* selection) 1914, Russia

'Belfleur Krasnyi' – 'Belfleur Kitaika' x 'Jahontonoye' ('Antonovka' x Asian species *Malus sieversii* spp. *niedzwetzkyana*), 1908, I. V. Michurin, Michurinsk, Russia, fruited 1914

'Bellida' – 'Idared' x 'Elstar,' ('Golden Delicious' x 'James Grieve') Center for Plant Breeding & Reproduction Research, Ir. Bert Meulenbroek, breeder, Wageningen, Netherlands

'Belmac' – Ottawa 521 ('Melba' X PRI 11-151 which has *M. floribunda* 821 in its ancestry) X 'Spartan,' R.L. Granger, Shahrokh Khanizadeh, Yvon Groleau, Charles N. Fortin, G.L. Rousselle, L.P.S. Spangelo, not a sport of 'McIntosh', Canada, introduced, 1996

'Belvior Seedling' – 'Annie Elizabeth' x 'Dumelow Seedling,' W. H. Drivers, head gardener, Belvior Castle, Leics, England, prior to 1935

'Benenden Early' – 'Saint Edmund's Pippin' x 'Lady Sudeley,' c1945, J. J. Gibbons, Southampton, England, introduced, 1952

'Benifuji' – 'Fuji' x unknown, 1977, by Mr. Tsuneo Murakami, No. 2, Shinzo Nagane, Gonohe cho, Sannohe gun, Aomori Prefecture, Japan, USPP 7,327 (1990) expired

'Ben's Red' – 'Devonshire Quarrenden' x 'Farleigh Pippin?', C1830, Cornwall, England

'Berlepsch' ('Freiherr von Berlepsch') – 'Ananas Renette' x 'Ribston Pippin,' c1880, Von d Uhlhorn, Grenenbrioch, Rhineland, Germany

'Berna' – 'Belle de Boskoop' x unknown, received by the National Fruit Collection, Brogdale, England, 1993 from Belgium

'Bessemyanka Michurina' – 'Skrizhapel' x 'Komsin Bessemyanka,' 1912, I, V, Michurin, Michurinsk, Russia

'Best Ever' – 'Gravenstein' x ('Red Rome' x Delicious'), 1945, William E. Silva, Sebastopol, California, introduced, 1963

'Beverly Hills' – 'Melba' x 'Early McIntosh,' Dr. W. H. Chandler, UCLA, California, USA, introduced, 1939

'Bingo' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1911

'Bismer' – 'Bismark' x 'Mercer Crab,' Neils E. Hansen, South Dakota Agriculture Experiment Station, Brookings South Dakota, USA, introduced, 1927

'Blair' – 'McIntosh' x 'Fameuse,' D. S. Balir, P. Roy and R. L. Granger, Federal Agriculture Research Station, Ottawa, Ontario, Canada, named, 1973

'Blaze' – 'Collins' x 'Fanny,' 1939, Illinois Agriculture Experiment Station, Urbana, Illinois, USA, introduced, 1958

'Blush Rosette' – 'Surprise' X, c1994, California, USA

'Bohemia' – 'Lord Lambourne' x 'Golden Delicious,' raised in 1912 by I. V. Michurin at Michurinsk, Russia.

'Bolero' – 'Wijcik McIntosh' x 'Greensleeves,' raised 1976, East Malling Research Station, ENGLAND, introduced, 1989, columnar tree

'Bonanza' – 'King' x 'Rome,' William E. Silva, Sebastopol, California, USA, introduced, 1965

'Bonfire' – 'Rome' x 'Red Delicious,' William E. Silva, Sebastopol, California, USA, introduced, 1965

'Bonnie Best' – possible 'Wolf River' x 'Secor,' discovered in Cooksville, Wisconsin

'Bountiful' – 'Cox's Orange Pippin' x 'Lane's Prince Albert'?, 1964, Dr. F. Alston, East Malling Research Station, Kent, England, introduced, 1985

'Bowden Seedling' – 'Cox's Orange Pippin' x 'Cornish Aromatic,' cross made by a Devon gardener, England

'Bringewood Pippin' – 'Golden Pippin' x 'Golden Harvey,' 1800, Shropshire, England

'Britemac' – ('Melba,' 'McIntosh') x ('Kildare,' 'Langford Beauty'); by M.A. Blake, New Jersey Agriculture Station, New Brunswick, New Jersey, USA, introduced, 1964

'Brightness' – 'Columbia' x 'Wealthy,' by C. F. Patterson, University of Saskatchewan, Saskatoon, Saskatchewan, Canada' introduced, 1959

'Brock' – 'Jonathan' x 'Golden Delicious,' 1933, by James Bailey, University of Maine, USA, named after Henry Brock, orchardist from Alfred, Maine, introduced, 1941

'Brookland' – 'Heyer 12' x 'Haralson,' Morden Research Station, Agriculture Canada, by Dr. C. R. Ure, for the Prairie Fruit Breeding Cooperative, selected as 17C-23-33 at the AHRC, Brooks, Alberta, Canada and tested as PF1, introduced, 1980

'Burgundy' – 'Monroe' x NY 18491 ('Macoun' x 'Antonovka'), New York State Experiment Station, Geneva, New York, USA, introduced, 1974

'Bushy Grove' – believed 'Queen' x 'Bismarck,' raised by Mrs. Good, Bushy Grove, Hertshire, England, flowers deep pink, introduced, 1926

'Byfleet Seedling' – 'Bramley's Seedling' x 'Lane's Prince Albert,' George Carpenter, head gardener, West Hall Byfleet, Surrey, England, introduced, 1915

C

'Cacanska Ponza' – 'Starking Delicious' x 'Jonathan,' SRBIJA Institute, Fruit, & Grape Research Centre, Cacak, Yugoslavia, introduced, 1973

'Cadel' – 'Starking Delicious' x 'Jonathan,' SRBIJA Institute, Fruit, & Grape Research Centre, Cacak, Yugoslavia, introduced, 1984

'Caravel' – 'Melba' x 'Crimson Beauty' ('Early Red Bird'), Central Experimental Farm, Ottawa, Canada, introduced, 1964

'Carlos Queen' – 'Manitoba' x 'Antonovka,' Robert Erskine, Rocky Mountain House, Alberta, Canada, introduced, 1972

'Carlton' – 'Montgomery' x 'Red Astrachan,' 1912, New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1923

'Carpenter' ('Victory') – 'Bismarck' x 'Blenheim Orange,' George Carpenter, head gardener, West Hall, Byfleet, Surrey, England, introduced, 1923

'Carroll' – Moscow Pear Seedling x 'Melba,' 1955, Dr. C. R. Ure and W. L. Kerr Agriculture Canada, Morden Research Station, Manitoba, Canada, introduced, 1961

'Carswell's Honeydew' – 'Cox's Orange Pippin' x, 1938, J. W. Carswell, Ashtead, Surrey, England

'Caudal Market' – 'Lane's Prince Albert' x 'Hambledon Deux Ans,' F. W. Wastie at Eynsham, Oxford, England, introduced, 1953

'Ceeval' – 'Geheimrat Dr. Oldenburg' x 'Cox's Orange Pippin,' red sport of 'Alkmene'

'Celia' – 'Langley Pippin' x 'Worcester Pearmain'

'Centennial Crab' – 'Wealthy' x 'Dolgo,' Minnesota Agricultural Experiment Station, introduced, 1957

'Chad's Favourite' – 'Northern Greening' x 'Cox's Orange Pippin,' M. B. Crane Merton, London, England, named, 1952

'Chantecler' – 'Golden Delicious' x 'Reinette Clochard,' 1977, France

'Charden' – 'Golden Delicious' x 'Reinette de Clochard,' Institut National de la Recherche Agronomique, Angers, France, named, 1969

'Charles Ross' – Peasgoods Nonsuch' x 'Cox's Orange Pippin,' Charles Ross, head gardener, Welford Park Gardens, Newbury, Berkshirehire, England, 1890

'Charlotte' – 'Wijcik McIntosh' x 'Greensleeves,' 1975, selected 1982, Institute of Horticultural Research, East Malling, Maidstone, Kent, England, columnar tree

'Chautauqua' – 'Esopus Spitzenburg' x 'Ben Davis,' New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1915

'Cheddar Cross' – 'Allington Pippin' x 'Star of Devon,' 1916, G. T. Spinks, Long Ashton Research Station, Bristol, England, introduced 1949

'Chervena Jubileina' – 'Golden Delicious' x 'Jonathan,' Fruit Growing Institute, Plovdiv, Bulgaria

'Chief' – 'Moore Sweet' x 'Williams,' by William E. Silva, Sebastopol, California, USA, introduced, 1946

'Chieftain' – 'Jonathan' x 'Delicious,' 1917, S. A. Beach, Iowa State University, Ames Iowa, USA, introduced, 1966

'Chinook' – 'Splendour' x 'Gala' ('Kidd's Orange Pippin' x 'Golden Delicious'), 1980, Dr. David A. Lane, Pacific Agri-Food and Agriculture Research Centre Summerland apple breeding program, Summerland, British Columbia, Canada, named by Dr. H. A. Quamme, 1997

'Chipman' – 'Columbia' x 'Melba,' C. F. Patterson, University of Saskatchewan, Saskatoon, Saskatchewan, Canada, introduced, 1960

'Chistotelj' – 'Antonovka' x SR0523, 1989, Russia

'Choko 64' – 'Jonathan' x 'Terry,' Nagamo Station, Prefectural Fruit Tree Experiment Station, Japan, introduced 1976

'Choupette' – Sel. X 4598 x Sel. X3174, Centre de Recherches, Institut National de la Recherche Agronomique, Angers, France

'Christmas Pink' – 'Surprise' X, c1994, California, USA

'Civg198'TM – 'Gala' x Liberty,' 1996, Michelangelo Leis, Alessio Martinelli, Gianfranco Castagnoli and Francesco Tagliani in S. Giuseppe di Comacchio (Ferrara), Italy, introduced, 2005

'Civina'TM (**'Rubens'**TM) – 'Elstar' ('Golden Delicious' x 'Ingrid Marie') x 'Gala' ('Kidd's Orange' x 'Golden Delicious'), Michelangelo Leis, Gianfranco Castagnoli and Alessio Martinelli, Ferrara, Italy, USPP #14177, 2003, expires, 2020

'Clinton' – 'Ben Davis' x 'Green Newton,' New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1914

'Clivia' – 'Geheimrat Dr. Oldenburg' x 'Cox's Orange Pippin,' c1930, M. Schmidt, Kaiser Wilhelm Institute, Mückeberg, Brandenburg, Germany, introduced, 1961

'Cloden' – 'Golden Delicious' x 'Reinette Clochard,' Institut Nationale de la Recherche Agronomique (INRA), Angers, introduced, 1977

'Clopton Red' – 'Cox's Orange Pippin' cross, 1946, Justin Brooke, Clopton Hall, Wickambrook, Suffolk, England, introduced, 1961

'Colonel Yate' – 'Lane's Prince Albert' x 'Peasgood Nonsuch,' c1905, Surry, England

'Columbia' (Crab) – 'Siberian Crab' x 'Broad Green,' Dr. Charles Saunders, Central Experimental Farm, Ottawa, Agriculture Canada

'Conrad' – 'Ben Davis' x 'Jonathan,' Missouri Agriculture Experiment Station, Mt. Grove Missouri, USA, introduced, 1935

'Co-op 1' – PRI 1235-101 = PRI 47-147 x N.J. 123249, PRI, cooperative introduction from the State Universities in Purdue, Rutgers and Illinois, USA

'Co-op 3' – PRI 1686-1 = N.J. 8 x PRI 558-1, PRI, cooperative introduction from the State Universities in Purdue, Rutgers and Illinois, USA

'Co-op 4' ('Pricilla') – PRI 1659-1 = 'Starking Delicious' x PRI 610-2PRI, cooperative introduction from the State Universities in Purdue, Rutgers and Illinois, USA

'Co-op 12' – , PRI, cooperative introduction from the State Universities in Purdue, Rutgers and Illinois, USA

'Co-op 15' – , PRI, cooperative introduction from the State Universities in Purdue, Rutgers and Illinois, USA

'Co-op 22' – , PRI, cooperative introduction from the State Universities in Purdue, Rutgers and Illinois, USA

'Co-op 27' – Illinois #2 X PRI 1042-100, PRI, cooperative introduction from the State Universities in Purdue, Rutgers and Illinois, USA

'Co-op 28' – PRI 1982 X 'Prima,' PRI, cooperative introduction from the State Universities in Purdue, Rutgers and Illinois, USA

'Co-op 36' – , PRI, cooperative introduction from the State Universities in Purdue, Rutgers and Illinois, USA

'Co-op 39' ('CrimsonCrisp™') – PCFW2-134 x PRI 669-206, 1971, J. Janick, Edwin B. Williams, Joseph C. Goffreda, Schuyler S. Korban, Purdue-Rutgers-Illinois, USA

'Co-op 42' – , PRI, cooperative introduction from the State Universities in Purdue, Rutgers and Illinois, USA

‘Corail’® (‘Pinova,’ ‘Sonata’) – ‘Clivia’ (‘Duchess of Oldenberg’ x ‘Cox’s Orange Pippin’) x ‘Golden Delicious,’ Institu fur Obst. Pillnitz–Dresden, Germany, introduced 1986

‘Corry’s Wonder – ‘Beauty of Stoke’ x ‘Lane’s Prince Albert’?, 1917, Oxon, England

‘Cortland’ – ‘Ben Davis’ x ‘McIntosh,’ 1898, S. A. Beach, New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1915

‘Cortland Early’ – ‘Cortland’ x ‘Lodi,’ Dr. Roger Way, New York State Experiment Station, Geneva, New York, USA, introduced, 1982

‘Cox’s Orange Pippin’ – ‘Ribston Pippin’ X, c1825, believed to be Ribston Pippin seedling, raised, Richard Cox, retired brewer, ColnbrookLawn, Slough Buckinghamshire, England, introduced, c1850, said to be one of "best" dessert apples in the world

‘Cox’s Pomona’ – possible seedling of ‘Ribston Pippin’ x ‘Blenheim Orange,’ c1825 by Richard Cox, Colnbrook Lawn, Slough, Buckinghamshire, England

‘Crandell’ – ‘Rome Beauty’ x ‘Jonathan,’ 1914, developed in Illinois, USA, selected, 1925, introduced, 1952

‘Creston’ – ‘Golden Delicious’ x NJ 38 1049, Summerland Breeding Program, British Columbia, Canada

‘Crimson Beauty’ (‘Early Red Bird’) – ‘New Brunswick’ x ‘Fameuse,’ raised 1850-80s by Francis Peabody Sharp, Canada’s first plant breeder, Upper Woodstock, St. Johns Valley, New Brunswick, Canada

‘CrimsonCrisp™’ (‘Co-op 39’)– PCFW2-134 x PRI 669-206, 1971, J. Janick, Edwin B. Williams, Joseph C. Goffreda, Schuyler S. Korban, Purdue-Rutgers-Illinois, USA

‘Crispin’ (‘Mutsu’) – ‘Golden Delicious’ x ‘Indo,’ 1937, Aomori Apple Experiment Station, Aomori, Japan, introduced to US, 1948

‘Criterion’ – ‘Golden Delicious’? x ‘Red Delicious’ x ‘Winter Banana,’ discovered, 1968, by Francis Cites in his Parker Heights orchard, near Wapato, Washington, USA, introduced, 1973

‘Currie’ – ‘Northern Spy,’ cross, Ottawa Experiment Farm, Canada, introduced, 1920

'Custer' – 'Red Siberian Crab' x 'Wealthy,' by W. F. Baird, U. S. Northern Great Plains Field Station, Mandan, North Dakota, USA, introduced, 1952

'Cybele® Delouval' – 'Cox's Orange Pippin' x 'Idared,' France, introduced 1990s

D

'Dakota' – 'Wealthy' x 'Whitney Crab,' W. A. Otto, Northern Great Plains Field Station, Mandan, North Dakota, USA, introduced, 1965

'Dalili' – 'Golden Delicious' x 'Stark Jonagrimes,' more highly colored clone of Delcorf, France

'Dalinco' – 'Elstar' x Selection X3191, Centre de Recherches, Institut National de la Recherche Agronomique, Angers, France

'Dalitron' – 'Golden Delicious' x 'Pilot,' 1994, by G. Ligonniere, Angers, France, USPP appleid for 2006

'Davey' – 'McIntosh' x, 1928, Lothrop Davenport, North Grafton, Massachusetts, USA, introduced, 1950

'Dawn' (Crab) – 'Columbia' x 'Melba,' 1945, Dr. C. F. Patterson, University of Saskatchewan, Canada, introduced, 1959

'Dearborns Unknown' – possible cross of 'Rescue' x 'Chinese Golden Early' x 'Summered,' Dr. Curtis Dearborn, Arkansas, USA

'Decosta' – 'Golden Delicious' x 'Jonathan,' slightly striped, dark red clone of Jonagold, received by the National Fruit Trials, 1988, from Mr. H. Decoster, Belgium

'Delawine' – 'Red Delicious' x 'Stayman Winesap,' W. f. Hines, Port Washington, Ohio, introduced by Henry Field Seed and Nursery Co., Shenandoah, Iowa, USA, 1948

'Delbard Jubilee' – 'Golden Delicious' x 'Lundbytorp,' Delbard Nursery, France

'Delbarestivale® Monidel' – 'Golden Delicious' x 'Stark Jonagrimes,' Delbard Pepinieres International, Commeny, France

'Delblush'™ – 'Golden Delicious' x 'Grifer,' mid 1980s, Gerard Guillier, Delbard Nursery, France, known as Tentation®

'Delcon' – 'Conrad' x 'Red Delicious,' 1916, by Paul B. Shepard, Missouri State Fruit Experiment Station, Mountain Grove, Missouri, USA, introduced, 1948

'Delcorf' – (registered name 'Delbarestivale') – 'Stark Jonagrimmes' x 'Golden Delicious,' c1960, G. Delbard, Malicorne, France

'Delgrared' – 'Jenimota' x 'Akane,' G. Delbard, Malicorne, France, introduced, early 1990s

'Delgollune' – 'Golden Delicious' x 'Lundbytorp,' registered name Delbard Jubile, 1962, Delbard Nurseries, France

'Delia' – 'Jonathan' x 'Wagener,' Romania

'Deli-Jon' – Red Delicious' x 'Jonathan'

'Deljeni' – 'Jenimota' x 'Stark Jonagrimmes,' c1960, G. Delbard, Malicorne, France

'Deljoram' – 'Jonalicious' x 'Law Red Rome,' rasied by G. Delbard, Malicorne, France, 1990s

'Delkistar' – 'Kidd's Orange Red' x 'Starkimson,' registered as 'Regali.' 1978, George Delbard, Malicorne, France

'Delnimb' – 'Maigold' x 'Golden Delicious,' c1960, G. Delbard, Malicorne, France, introduced 1995

'Delor' – 'Golden Delicious' x 'Lord Lambourne,' France

'Delorgue' – 'Delcorf' x 'Akane,' G. Delbard, Malicorne, France, introduced, late 1990s

'Delorina' – 'Grifer' x 'Florina,' c1995, G. Delbard, Malicorne, France

'Delprim' – 'Delcorf' ('Delbarestivale') x 'Akane,' c1960, G. Delbard, Malicorne, France, introduced, mid 1990s

'Delprivale' – 'Delcroft' x 'Akane,' 1960s, G. Delbard, Malicorne, France, introduced, late 1990s

'Delrovale' – 'Goldenspur' x 'Jonagrimmes,' nurseryman G. Delbard, Malicorne, France, introduced, 1990s

'Delrouval' – 'Delcrof' x 'Akane,' c1995, G. Delbard, Malicorne, France

'Delshel' – 'Shelred' x 'Akane,' c1995, G. Delbard, Malicorne, France

'Devale' – 'Goldspur' x 'Jonagrimes,' G. Delbard, Malicorne, France, introduced, 1990s

'Directeur van de Plassche' – 'Cox's Orange Pippin' x 'Jonathan,' 1935, Instituut voor de Veredeling van Tuinbouwgewassen Wageningen, Netherlands, introduced, 1966

'Discovery' – 'Worcester Pearmain' x 'Schöner aus Bath,'? 1949, K. Drummer, Blacksmiths Corner, Langham, Essex, England, introduced, 1964

'Diwa'® – ('Idared' x 'Maigold') x 'Elstar,' Federal Research Station, Wädenswil, Switzerland

'Dominant' – 'Red Delicious' x 'King,' William E. Silva, Sebastopol, California, USA, introduced, 1965

'Donald' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1912

'Douglas Wormless' – 'Stone' x 'Duchess,' USA

'Downingland' – 'Golden Delicious' x Cox 'Rome Beauty,' 1934, Ernest J. Downing, New Madison, Ohio, USA, named, 1968

'Downtown Pippin' – 'Orange Pippin' x 'Golden Pippin,' T. A. Knight, Elton Manor, Ludlow, Shrops, England, introduced, 1806

'Drakenstein' – ('Wemmershoek' x 'Granny Smith') x 'Red Delicious,' ARC–INFRUITEC, Stellenbosch, Republic of South Africa

'Duchess of Bedford' – 'Cellini' x 'Beauty of Bath,' Laxton Brothers, Bedford, England, introduced, 1918

'DEnglandat' – 'Golden Delicious' x 'Cox's Orange Pippin,' Czechoslovakia, prior to 1974

'DEnglandat Spur Type' – 'Golden Delicious' x 'Cox's Orange Pippin,' spur type clone of DEnglandat, producing larger fruit, selected by A. Dvorak, 1982, Plant Breeding Station, Techobuzice, Czechoslovakia

'Dunning' – 'Early McIntosh' x 'Cox's Orange Pippin,' 1923, Richard Wellington, New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1938

E

'Earlidel' – 'Delicious' x 'McIntosh,' Granite Belt Horticultural Research Station, Applethorpe, Queensland, Australia, introduced, 1988

'Early Cortland' – 'Cortland' x Lodi,' New York State Agriculture Experiment Station, Geneva, New York, USA, introduced 1982

'Early McIntosh' – 'Yellow Transparent' x 'McIntosh,' 1909, R. Wellington, New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1923

'Early Red Bird' ('Crimson Beauty') – 'Fameuse' x 'Brunswic,' raised 1850-80s by Francis Peabody Sharp, Canada's first plant breeder, Upper Woodstock, St. Johns Valley, New Brunswick, Canada

'Early Victoria' ('Emneth Early') – 'Lord Grosvenor' x 'Keswick Codlin,' William Lynn of Emneth, Wisbeck, Cambs, England, introduced, 1899

'Earlycrisp' (NJ-107) Complex but includes, 'Grimes Golden,' 'Twenty Ounce' and 'Red Melba,' New Jersey Agriculture Experiment Station, New Brunswick, New Jersey, USA, introduced, 1994.

'Ecolette' – 'Elstar' x 'Prima,' Center for Plant Breeding & Reproduction Research, Ir., Bert Meulenbroek, breeder, Wageningen, Netherlands

'Eden'TM – 'Linda' x 'Jonamac,' 1971, by S. Khanizadeh, Agri-Food, Canada Horticultural Research Development Center, St.-Jean-sur-Richelieu, Quebec, Canada, does not brown for several days after cutting

'Eden' – 'John Standish' x 'Cox's Orange Pippin,' 1948, E. J. Ingleby, 'Forest' and Orchard Nurseries, Falfield, Gloucs, England, introduced, 1957

'Edgar' – 'McIntosh' x 'Forest,' Central Experiment Farm, Ottawa, Canada, introduced, 1929

'Edgewood' – Salome x 'Jonathan,' Iowa Agriculture Experiment Station, Ames, Iowa, USA, introduced, 1921

'Edward VII' – 'Blenheim Orange' x 'Golden Noble,' before 1902, Messrs Rowe, Worcester, cooks to a red translucent purée, favorite pie apple in British Columbia, Canada

'Egeria' – 'Lobo' x 'Redspur Delicious,' Research Institute of Pomology and Floriculture, Skierniewice, Poland

'Ein Shemer' – 'Zabidani' x 'Golden Delicious,' Abba Stein in Doar Na Shomron, Israel, introduced, 1963

'Eir' – 'Katja' x 'Buckley Giant,' Ullensvang Research Centre, division Njos, Leikanger, Norway

'Elan' – 'Golden Delicious' x 'James Grieve,' Center for Plant Breeding & Reproduction Research, Ir. Bert Meulenbroek, breeder, Wageningen, Netherlands, 1974

'Elektra' – 'Cox's Orange Pippin' x 'Geheimrat Dr. Oldenburg,' c1930, M. Schmidt, Kaiser Wilhelm Institute, Mückeberg, Brandenburg, Germany, introduced, 1930s

'Elise' ('Red Delight,' 'Roblos'®) – 'Septer' x 'Cox's Orange Pippin,' Center for Plant Breeding & Reproduction Research, Ir. Bert Meulenbroek, breeder, Wageningen, Netherlands

'Ella' – 'Northern Spy' x ('Wagener' x 'Spitzenberg'), before 1876, Chalmers Arnold, Paris, Ontario, Canada

'Ellison's Orange' – 'Cox's Orange Pippin' x 'Calville Blanc,' Rev. C. C. Ellison, Bracebridge, Lincolnshire and Mr. Wrijf, Hartsholme Hall, England, introduced, 1911

'Elmer' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1912

'Elstar' – 'Ingrid Marie' ('Cox's Orange Pippin' x 'Delicious') x 'Golden Delicious,' 1955, Vissar, Instituut voor de Veredeling van Tuinbouwgewassen Wageningen, Netherlands, introduced, 1975

'Elton Beauty' – 'James Grieve' x 'Worcester Pearmain,' Ince Orchards, Chester, England, introduced, 1952

'Emilia' – 'Northern Spy' cross, 1915, T. W. Macoun, Central Experiment Farm, Ottawa, Canada

'Emneth Early' ('Early Victoria')– 'Lord Grosvenor' x 'Keswick Codlin,' W. Lynn, Emneth, Wisbeck, Cambs., England, introduced, 1899

'Empire' – Delicious x 'McIntosh,' 1945, Dr. Roger D. Way, New York State Experiment Station, Geneva, New York, USA, introduced, 1966

'Empress' – 'Jonamac' x 'Vista Bella,' New York State Experiment Station, Geneva, New York, USA, named, 1966, introduced, 1988

'Encore' – 'Warners King'? x 'Northern Greening,' Charles Ross, head gardener, Welford, Park, Newbury, Berkshirehire, England, introduced, 1906

'Enterprise' – complex, PRI 1661–2 x PRI 1661–1, PRI breeding program includes 'McIntosh' and 'Delicious,' USA, introduced, 1971

'Epicure' – 'Wealthy' x 'Cox's Orange Pippin,' 1909 Laxton Brothers Ltd., Bedford, England, introduced, 1932

'Epson' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1913

'Ernst Bosch' – 'Ananas Reinette' x 'Eva' ('Manks Codlin'), Diedrick Uhlhorn Jnr, Grevenbroich, Rhineland, Germany, introduced, 1908

'Eros' – 'Worcester Pearmain' x 'Charles Ross,' 1947, W. P. Seabrook, Boreham, Essex, England

'Erwin Baur' – 'Geheimrat Doktor Oldenburg' ('Oldenburg') cross, 1928, M. Schmidt at Kaiser Wilhelm Institut, Müncheburg, Brandenburg, Germany, named, 1955

'Estiva' – 'Usta Gorria' (Basque variety) x 'Red McIntosh,' 1957, Institut National de la Recherche Agronomique, Angers, France, introduced, 1978

'Etters Gold' – 'Wagener' x 'Transcendent,' California, USA

'Exterer' – 'Columbia' x 'Melba,' 1945, Dr. C. F. Patterson, University of Saskatchewan, Canada, introduced, 1959

'Exeter Cross' – 'Worcester Pearmain' x 'Beauty of Bath,' G. Spinks at Long Ashton Research Station, Bristol, England, raised, 1924

'Exquisite' – 'Cellini' x 'Cox's Orange Pippin,' Laxton Brothers Ltd., Bedford, England, raised, 1902

'Eynsham Challenger' – 'Blenheim Orange' x 'Lord Derby,' 1935, F. W. Wastie, Eynsham, Oxon, England

F

'Fall Red' – 'Duchess' x 'Haralson,' Dr. C. R. Ure, Morden Research Station, for the Prairie Fruit Breeding Cooperative, selected as AA–18–66 at University of Alberta, Edmonton, Canada, tested as PF 50, introduced, 1986

'Falstaff' – 'James Grieve' x 'Golden Delicious,' 1965, Dr. F. Alston, East Malling Research Station, Kent, England, introduced, 1986

'Falticeni' – 'Jonathan' x 'Wagener,' Romania

'Fantazja' – 'McIntosh' x 'Linda,' 1944, A. Rejman, Warsaw, Poland, introduced, 1960

'Faurot' – 'Ben Davis' x 'Jonathan,' Missouri Agriculture Experiment Station, Mt. Grove Missouri, USA, introduced, 1935

'Feltham Beauty' – 'Cox's Orange Pippin' x 'Gladstone,' Veitch, nurseryman, Buckinghamshire, England, introduced, 1908

'Festival' – 'Delcorf' x 'Akane,' Delbard Nursery, France, introduced, 1992

'Fiesta' ('Red Pippin') – 'Cox's Orange Pippin' x 'Idared,' 1972, Dr. F. Alston, East Malling Research Station, Kent, England, introduced, 1987

'Fireside' – 'McIntosh' x 'Longfield,' 1917, Charles 'Haralson', Minnesota Agricultural Experiment Station, Excelsior, Minnesota, USA, introduced, 1943

'Flame' – 'Worcester Pearmain' x 'Rival,' 1925, W. P. Seasbrook & Sons, Boreham, Essex, England

'Florina' ('Querina') – Complex parentage involving 'Rome Beauty,' 'Golden Delicious,' 'Starking,' 'Simpsons Giant Limb' and 'Jonathan,' Station de Recherches dArboriculture Fruitiere, Angers, France, introduced, 1977

'Fon's Spring' – 'John Standish' x 'Cox's Orange Pippin,' 1948, E. J. Ingleby, 'Forest' and Orchard Nurseries, Falfield, Gloucs, England, introduced, 1957

'Forpear' – 'Forest', cross, Central Experiment Farm, Ottawa, Canada, introduced, 1926

'Fortosh' – 'McIntosh' x 'Forest,' Central Experiment Farm, Ottawa, Canada, introduced 1926

'Fortune' ('Laxton's Fortune') – 'Cox's Orange Pippin' x 'Wealthy,' 1904, Laxton Brothers Ltd., Bedford, England, introduced, 1931

'Fortune' ('NY #429') – 'Red Spy' (red sport of 'Northern Spy') x 'Empire,' 1962, Dr. Roger Way, Cornell Universitys New York State Experiment Station, Geneva, New York, USA, introduced, 1996

'Franklin' – 'McIntosh' x 'Delicious,' 1937, Ohio Agriculture Research and Development Center, Wooster, Ohio, USA

'Frau Margarete von Stosch' – 'Minister von Hammerstein' x 'White Winter Calville,' 1895, at Fruit, Vine Horticulture, St. Geiwsenheim, Rhine, Germany, first recorded, 1914-15

'Freedom' – 'NY 18492' x 'NY 49821-46,' New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1983

'Freiherr Von Berlepsch' – 'Ananas Reinette' x 'Ribston Pippin,' c1820, Germany

'Freyberg' – 'Golden Delicious' x 'Cox's Orange Pippin,' 1934, J. H. Kidd, Greytown, Wairarapa, New Zealand, introduced, 1958

'Frumos de Voinesti' – 'Jonathan' x 'Belle de Boskoop,' Romania, introduced, 1980

'Fuji' – 'Ralls Janet' x 'Red Delicious,' 1939, H. Niitsu, Tohoku Horticulture Research Station, Japan, introduced, 1962

'Fufunishiki' – 'Jonathan' x 'Ralls Janet,' 1933, Kuroishi, Aomori, Apple Experiment Station, Japan

'Fukutami' – 'Jonathan' x 'Ralls Janet,' 1949, Kuroishi, Aomori, Apple Experiment Station, Japan, introduced, 1974

'Fukunishiki' – 'Ralls Janet' x 'Delicious,' 1933, Aomori Apple Experiment Station, Japan, named 1949

'Fyan' – 'Ben Davis' x 'Jonathan', Missouri Agriculture Experiment Station, Mt. Grove Missouri, USA, introduced, 1920

G

'Gala' – 'Kidd's Orange Red' x 'Golden Delicious,' c1934, J. H. Kidd, Greytown, Wairarapa, New Zealand, named 1965, note: 'Kidd's Orange Red' is 3/4 'Cox's Orange Pippin'

'Galarina'TM – 'Gala' x 'Forina' ('Querina'), 1978, Fruit and Ornamental Plant Breeding Unit, of the Institut National de la Recherche Agronomique, Angers, France

'Galer' – 'Red Delicious' x 'Spitzenburg,' Walter Galer, Hood River, Oregon, USA, introduced, 1951

'Galton' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1915

'Ganjin' – 'Red Delicious' x 'Pear Pinggvoli,' China (true apple pear hybrid)

'Garland' – 'Melba' x 'Haralson,' 1949, Dr. C. R. Ure, Morden Research Station, Agriculture Canada, Mnitoba, Canada, introduced, 1961

'Garnet' – 'Rival' x 'Worcester Pearmain,' 1936, Essex, England

'Garrison' – 'Duchess of Olbenburg' x 'Starking Delicious,' W. P. Baird, Northern Great Plains Filed Station, Mandan, North Dakota, USA, introduced, 1957

'Gavin' – 'Merton Worcester' x scab resistant seedling ('Jonathan' x *Malus floribunda* x 'Rome Beauty'), Gavin Brown, JI, Bayforbury Herts, England, raised, 1956

'Geheimrat Brouhaha' – 'Halberstadter Jungfernapfel' cross, 1895, Fruit, Vine, Horticulture Research Station, Geisenheim, Rhine, Germany, introduced, 1934

'Geheimrat Doktor Oldenburg' ('Oldenburg') – 'Minister von Hammerstein' x 'Baumanns Reinette,' raised 1897, Fruit, Vine, Horticulture Research Station, Geisenheim, Rhine, Germany

'Gene Pitney' – 'Cox's Orange Pippin' x 'Golden Delicious,' selected by D. W. McKenzie, Havelock North, New Zealand, introduced, 1964

'Generosg' – 'Frumos de Voinesti' x ('Golden Pearmain' x *M. kaido*) x 'Jonathan'), 1972, Romania

'Geneva Early' – 'Quite' x 'July Red,' New York State Experiment Station, Geneva, New York, USA, introduced, 1982

'George Carpenter' – 'Blenheim Orange' x 'King of the Pippins,' 1902, Surry, ENGLAND

'Gibb' – 'Yellow Siberian Crab' x 'Fall Greening,' by George P. Pepper, PewaEnglantee, Wisconsin, crabapple

'Glebe Gold' – 'Yellow Ingestrie' x 'Cellini', James Walker, Ham, Surry, England

'Glenton' – 'Northern Spy,' cross, Central Experiment Station, Ottawa, Canada, introduced, 1911

'Gloster' – 'Weisser Wintrglockenapfel' ('Glockenapfel') x 'Richardred Delicious,' 1951, Germany, introduced, 1969

'Gloucester Cross' – 'Cox's Orange Pippin,' cross, raised 1913, G. T. Spinks, Long Ashton Research Station, Bristol, England

'Gloucester Royal' – 'McIntosh,' cross, c1930, J. W. Thornhill, Dursley, Gloucestershire, England, introduced, 1956

'Gold Chief'® ('Gold Pink') – 'Starkcrimson' x 'Golden Delicious,' Instituto di Coltivazioni Arboree (DCA), Bologna, Spain

'Golden Beauty' (England) – 'Cox's Orange Pippin' x 'Early Victoria,' 1940, Sussex, England

'Golden Beauty' (USA) – 'Golden Delicious' x 'Red Sheet Pippin,' William E. Silva, Sebastopol, California, USA, introduced, 1966

'Golden Bounty' 'Cox's Orange Pippin' x possibly 'Early Victoria,' raised, c1940, by A. C. Nash, Scutes Farm, Hastings, Sussex, England

'Golden Gift' – 'Cox's Orange Pippin' x 'Golden Delicious,' ARC-INFRUITEC, Stellenbosch, Cape, Republic of South Africa, introduced, 1992

'Golden Melon' – 'Golden Delicious' x 'Indo,' 1931 Aomori Apple Experiment Station, Japan, named, 1948

'Golden Nugget' – 'Cox's Orange Pippin' x 'Golden Russet,' raised 1932, C. J. Bishop, Kentville Agriculture Station, Nova Scotia, Canada, introduced, 1964

'Golden Orange' – 'Ed Gould Golden' x Selection PRI 1956, ISF, Trento, Italy

'Goldjon' – 'Golden Delicious' x 'Jonathan,' Prof. Carlone, Turin University, Italy, introduced, 1967

'Gold-n-Rose' ('Maigold') – 'Franc Roseau' x 'Golden Delicious,' 1944, F. Kobel, Swiss Federal Agriculture Research Station, Wädenswil, Switzerland, introduced, 1964

'GoldRush' – 'Golden Delicious' x 'Co-op 17,' Purdue University, West Lafayette, Indiana, USA, introduced 1995

'Goldsmith' – 'Golden Delicious' x 'Granny Smith,' 1975, South Africa

'Goodmac' – 'Goodland' x 'McIntosh,' H. Temmerman Morden Nursery, USA, introduced, 1990

'Goro' – 'Golden Delicious' x 'Schweizer Orange' ('Ontario' x 'Cox's Orange Pippin'), 1951, Swiss Federal Agriculture Research Station, Wädenswil, Switzerland, introduced, 1973

'Gosho' – 'Jonathan' x 'Northern Spy,' Aomori Apple Experiment Station, Aomori, Japan, introduced, 1925

'Gourmet Golden' – 'Delicious'? x 'Golden Delicious,' 1990, Washington, USA

'Great Expectations' – 'Red Cox' x 'Egremont Russet,' c1945, by A. Nobbs, ENGLAND

'Green Star'® – 'Delcorf' x 'Granny Smith'

'Greendale' – 'McIntosh' x 'Lodi,' New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1938

'Greensleeves' – 'James Grieve' x 'Golden Delicious,' 1966, Dr. Alston, East Malling Research Station, Maidstone, Kent, England, introduced, 1977

'Greenstar'® (**'Nicogreen'**) – 'Delbarestival' x 'Granny Smith,' Belgium

'Grove' – 'Ingram' x 'Delicious,' P. H. Shepard, Missouri State Fruit Experiment Station, USA, introduced, 1935

'Guelph' – 'Charles Ross' x 'Rival,' W. Pope, Welford Gardens, Newbury, Berkshirehire, ENGLAND, recorded, 1912

'Gunmameigetsu' – 'Akagi' x 'Fuji,' originating from Gunma Horticultural Experiment Station, Japan

H

'Hacnine' – 'Fuji' x 'Tsugaru,' c1995, Japan

'Hadlock Reinette' – 'McIntosh' x 'Golden Russet,' New York, USA

'Hakko'– 'Jonathan' x 'Northern Spy,' Aomori Apple Experiment Station, Aomori, Japan, introduced, 1925

'Hanaiwai' – 'Wealthy' x American Summer Pearmain, Aomori Apple Experiment Station, Aomori, Japan, introduced, 1930

'Hanfu' – 'Donguang' x 'Fuji,' Shenyang Agricultural University, Dongling, Shenyang, Liaoning Province, China, introduced, 1995

'Hangro' – 'Spur Earliblaze' x 'Spur Golden Delicious,' 1989, Korea

'Haralson' – 'Malinda' x 'Wealthy,' 1913, Seth Kelly, Morrilton, developed by University of Minnesota Fruit Breeding Farm, Excelsior, Minnesota, USA, introduced, 1922

'Hardy Cumberland' – 'Lyons' x 'Detroit Red' (both antique varieties), USDA Apple Breeding Program, Blacksburg, Virginia, USA, introduced, 1993

'Harmonie'® – 'Grifer' x 'Florina,' G. Delbard, Delbard Nursery, Malicorne, France

'Hatsuaki' – 'Jonathan' x 'Golden Delicious,' 1939, Monoka Station, Japan, introduced, 1976

'Hawaii' – 'Gravenstein' x 'Golden Delicious,' William E. Silva, Sebastopol, California, USA, introduced, 1963

'Hazen' – 'Duchess' x 'Starking Delicious,' Mandan, North Dakota, Neal S. Holland at the Department of Horticulture, North Dakota State University, Fargo, and USDA, USA, introduced, 1980

'Helios' – 'Oldenburg' x unknown, Institute for Agriculture and Horticulture, Munchenberg-Mark, Germany, introduced, 1969

'Hercules' – 'Wijcik' x 'Greensleeves,' columnar apple, 1976, Tobutt, Kenneth R., East Malling Research Station, East Malling, Kent, England, USPP 9,061 (1995), expires, 2008

'Hereford Cross' – 'Cox's Orange Pippin,' cross, 1913, G. T. Spinks, Long Ashton Research Station, Bristol, ENGLAND

'Herkimr' – 'Ben Davis' x 'Green Newton,' New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1914

'Herman Smith' – 'Orleans' x 'Gravenstein,' 945, by Herman Smith, Riverside, California, USA, introduced, 1958

'High View Pippin' – 'Strummer Pippin' x 'Cox's Orange Pippin,' 1911, F. Fitzwater, Ernst Hill Weybridge, Surrey, England

'Himekami' – 'Fuji' x 'Jonathan,' Morioka Experiment Station, Japan, introduced, 1983

'Hirano' – 'Jonathan' x 'Northern Spy,' Aomori Apple Experiment Station, Aomori, Japan, introduced, 1925

'Hokuto' – 'Fuji' x 'Mutsu' ('Crispin'), Aomori Apple Experiment Station, Japan, introduced, 1983

'Holiday' – 'Macoun' ('McIntosh' x 'Jersey Black') x 'Jonathan,' 1940, F. S. Howlett, Ohio Agriculture Experiment Station, Wooster, Ohio, USA, introduced, 1964

'Holly' – 'Jonathan' x 'Delicious,' Ohio Agricultural Research Center, Wooster, Ohio, USA, introduced, 1971

'Homer' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1910

'Honeycrisp'[™] – 'Keepsake' x unknown, 1960, University of Minnesota, USA, selected in 1974, introduced, 1991

'Honeygold' – 'Golden Delicious' x 'Haralson,' 1935, University of Minnesota, USA, introduced, 1969

'Honey Queen' – 'Megumi' x unknown, 1995, Gunma Agricultural Research Center, Japan

'Hongbaoshi' – 'Ralls Janet' x 'Red Delicious,' Shanxi Fruit Research Institute, Taigu County, Shanxi Province, China introduced, 1988

'Horei' – 'Ralls Janet' x 'Golden Delicious,' 1931, Aomori Apple Experiment Station, Japan, introduced, 1949

'Houblon' – 'Peasgoods Nonsuch' x 'Cox's Orange Pippin,' Charles Ross, head gardener, Welford Park, Newbury, Berkshirehire, England, introduced, 1901

'Howgate Wonder' – 'Blenheim Orange' x 'Newton Wonder,' 1915–1916, G. Wratten, Howgate Lane, Bembridge, Isle of Wight, England, introduced, 1932

'Haufa' – unknown x 'Fuji,' by Yang ZhenYing; Xue GuangRong; Su JiaMing; Chi FuMei; Niu JianZhe; Cong PeiHua, China

'Huaguan' (USPP#11,077) – 'Golden Delicious' x 'Fuji,' Zhengzhou Fruit Research Institute, Henan Province, China, introduced, 1988

'Huahong' – complex involves 'Golden Delicious' x 'Mequim,' Liaoning Fruit Research of Pomology, Xingeheng municipality, Liaoning Province, China, introduced, 2000

'Huajin' – 'Gold Spur Delicious' x Well Spur,' Cheng CunGang; Cong PeiHua; Man ShuDuo; Wang QiAng; Kang GuoDong, China

'Huashuai' (USPP#11076) – 'Fuji' x 'Bisbee Red Delicious,' Zhengzhou Fruit Research Institute, Henan Province, China, introduced, 1988 (English translation Huashuai = Chinese Marshal)

'Hume' – 'McIntosh,' cross, 1989, Experiment Farm, Ottawa, Canada, introduced, 1921

'Hunters Majestic' – 'Worcester Pearmain,' cross, before, 1914, Miss. E. Balding, Upwell, Wisbech Cambs, England, introduced, 1928

'Hwahong' – 'Fuji' x 'Seka Ichi,' Institute of South Korea, Suwon City, South Korean, Introduced, 1992

'Hybrid 142' – 'Golden Delicious' x *Malus zumi*, Fruitgrowing Institute, Plovdiv, Bulgaria

I

'Idagold' – 'Wagener' x 'Esopus Spitzenburg,' Leif Verner, Idaho Agriculture Experiment Station, Moscow, Idaho, USA, introduced, 1949

'Idajon' – 'Wagener' x 'Jonathan,' Leif Verner, Idaho Agriculture Experiment Station, Moscow, Idaho, USA, introduced, 1942

'Idared' – 'Jonathan' x 'Wagener,' Leif Verner, Idaho Agriculture Experiment Station, Moscow, Idaho, USA, introduced, 1942

'Iduna' – 'Glockenapfel' x 'Golden Delicious,' Federal Research Station Wädenswil, Wädenswil, Switzerland, introduced, 1993

'Idunn'– 'Katja' x Buckley Giant,' Ullensvang Research Centre, division Njos, Leikanger, Norway

'Imrusi' – 'Antonovka' x PRI 240–57, 1989, Russia

'Imuna' – 'Jolana' x 'Early Red Bird,' 1990, Czechoslovakia

'Ingol' – 'Ingrid Marie' x 'Golden Delicious,' Jork Fruit Research Station, near Hamburg, Germany, raised, 1945

'Initial' – 'Gala' x 'Redfree,' Centre de Recherches Institut National de La recherché Agronomique, Angers, France

'Ivette' – 'Cox's Orange Pippin' x 'Golden Delicious,' 1950, A. A. Schaap, Instituut Voor de Veredeling van Tuinbouwgewassen Wageningen, Netherlands, introduced, 1966

'Iwakami' – 'Fuji' x 'Jonathan,' Morioka Experiment Station, Japan, introduced, 1984

J

'Jamba 69' – 'Melba' x 'James Grieve,' Dr. E. L. Loewel, Jork Fruit Research Station, near Hamburg, Germany, introduced, 1954

'James Lawson' – 'Cellini' x 'Gravenstein,' 1918, England

'Jan Steen' – 'Sternrenette' ('Reinette Rouge Etoilée') x 'Cox's Orange Pippin,' Instituut Voor de Veredeling van Tuinbouwgewassen Wageningen, Netherlands, prior to 1955

'Jazz'® ('Scifresh'™) – 'Braeburn' x 'Royal Gala,' 1985, by A. White, The Horticulture and Food research Institute of New Zealand, Havelock, North, New Zealand, USPP 13,888

'Jeanne Hardy' – 'Alexander,' cross, 1879, M. Hardy, School of Horticulture, Versailles, France

'Jenner Sweet' – 'Fameuse' x 'Crab,' New York, USA, 1964

'Jennifer' – 'Duchess Favourite' x 'Beauty of Bath,' F. W. Wastie, Eynsham, Oxon, England prior to 1944

'Jennifer Wastie' – 'Ribston Pippin' x 'Barnack Beauty,' F. W. Wastie, Eynsham, Oxon, England, prior to 1945

'JerseyMac' ('NJ-38') – 'NJ 24' ('Melba' x 'Wealthy' x 'Starr') x ('Red Rome' x 'Melba') x 'July Red,' 1961, L. P. Hough and C. Baley, Rutgers University College of Agriculture, New Brunswick, New Jersey, USA, introduced, 1971

'Jerseryred' – 'Gallia Beauty' x 'White Winter Permian,' New Jersey Agricultural Experiment Station, New Brunswick, USA, introduced, 1954

'Jester' – 'Worcester Pearmain' x 'Starkspur Golden Delicious,' 1966, Dr. F. Alson, East Malling Research Station, Kent, ENGLAND

'Jim Brian' – 'Golden Delicious' x 'Granny Smith,' raised by B. C. du Toit, South Africa

'Joan' – 'Anisim' x 'Jonathan,' Ames, Iowa, USA, introduced, 1932

'Joe Trio' – *Malus baccata cerasifeera* x 'Mercer,' by Dr. Neils E. Hansen, South Dakota Agriculture Experiment Station, Brookings, South Dakota, USA, introduced, 1936 hardy crabapple

'John Divers' – 'Jenkinson's Seedling' x 'Baumann's Reinette,' 1905, probably by W. H. Divers, Surbiton, Surrey, England

'John Huggett' – 'Allington Pippin,' cross, 1940, John Huggett, Grange–Over–Sands, Lancs, England

'Jolana' – 'Spartan' x PRI 370–15, 1985, Czechoslovakia

'Jomured' – 'Golden Delicious' x 'Jonathan' darker flushed, non–striped clone of Jonagold, National Fruit Collection, Brogdale, 1989, from nurseryman J. Nicolai, Belgium

'Jonadel' – 'Jonathan' x 'Delicious,' 1923, H. L. Lantz, Iowa Agriculture Experiment Station, Ames, Iowa, USA, introduced, 1958

'Jonager' – 'Jonathan' x 'Egri Piros,' University of Horticulture and Food Industry, Budapest, Hungary, introduced, 1985

'Jonagold' – 'Golden Delicious' x 'Jonathan,' 1943, Dr. Roger D. Way, New York State Agriculture Research Station, Geneva, New York, USA, introduced, 1968

'Jonagram' ('Jangram') – 'Jonathan' x 'Ingram,' Missouri Agriculture Experiment Station, Mt. Grove Missouri, USA, introduced, 1966

'Jonalicious' – believed 'Jonathan' x 'Red Delicious,' discovered, 1933, by Anna Morris Daniels, Abilene, Texas, USA, introduced by Stark Brothers Nursery, 1960

'Jonamac' – 'McIntosh' x 'Jonathan,' 1944, New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1972

'Jono' – 'Summer Champion' x 'Jonathan,' Stillwater, Oklahoma, USA, introduced, 1972

'Jonsib' – 'Jonathan' x 'Ikutsk,' N. E. Hansen, Brookings, South Dakota, South Dakota, USA, Agriculture Experiment Station, introduced, 1938, crab apple

'Jonwin' – 'Jonathan' x 'Baldwin,' Albert Etter, Ettersberg, California, USA, introduced, 1944

'Jordan Russet' – 'Duchess' x 'Starking Delicious,' North Dakota, USA

'Jored' – 'Golden Delicious' x 'Jonathan,' red fruited mutation of Jonagold, 80–90% red blush color, 1985, Johann Nicholai, St Truiden, Belgium

'Joyce' – 'McIntosh' x 'Livland Raspberry,' 1898, Experiment Farm, Ottawa, Canada, introduced, 1924

'Jubilee' – 'McIntosh' x 'Grimes Golden,' 1926, R. C. Palmer, Canada
Department of Agriculture, Research Station, Summerland, British Columbia, Canada, introduced, 1939

'Judaine' – 'Reinette du Mans' x 'Priam,' 1986, France

'Judeline' – 'Golden Delicious' x 'Priam,' 1986, France

'Julia' – 'Quinte' x 'Discovery'

'Juliet' – complex series of crosses, including, 'Viking,' 'Delicious,' 'Jonathan,' 'Melba,' 'Red Rome,' 'Early McIntosh,' 'Wealthy,' 'Starr' and others, 1970, by D. Dayton, S Korban, J Goffreda, J. Janick, selected, 1977, Purdue-Rutgers-Illinois, (PRI), USA, introduced, 1995

'July Delicious' – 'Hackworth' x 'Delicious,' R. L. Baker, Baileytoon, Cullman county, Alabama, USA, introduced, 1948

'July Red' ('Julyred') – ('Petrel' x 'Early McIntosh') x 'Williams' x 'Starr,' 1949, G. W. Schneider, New Jersey Agriculture Experiment Station, New Brunswick, New Jersey, USA, introduced, 1962

'Jumbo' – 'Red Charles Ross' x 'Jonathan' (tetraploid 4x), Hugh Erman, England

'Jumbo Orin' – 'Golden Delicious' x 'Indo,' Sukerkuro Tanuichi, Aomori Apple Experiment Station, Aomori, Japan, introduced 1977

'Juno' – 'Ontario' x 'London Pippin,' by H. Schmidt & H. Muraski, Institute of Agriculture and Horticulture, Münchenberg-Mark, Germany, introduced, 1971

'Jupiter' – 'Cox's Orange Pippin' x 'Starking,' 1966, Dr. F. Alston, East Malling Research Station, Kent, England, introduced, 1981

K

'Kaiser Wilhem' – 'Harberts Reinette' cross in distribution since mid 1800s

'Kaneb Sweet' – 'Tolman Sweet' x 'Yellow Transparent,' St. Lawrence Nurseries, Canada

'Kanki'TM – 'Senshu' x 'Tsugaru,' 1981, Seiichi Kudo, No. 63, aza Izumida, Ooaza Ishikawa, Hirosaki City, Aomori prefecture, Japan, USPP 11,508, 2000

'Kanzi'[®] (**'Nicoter'**) – 'Gala' x 'Braeburn,' Belgium

'Kaori' – 'Richard Delicious' x ('Ralls Janet' x 'Delicious'), Japan

'Karmen' – 'Lord Lambourne' x 'Linda,' Czechoslovakia, selected 1962

'Karmen de Sonnaville' ('Karmine') – 'Cox's Orange Pippin' x 'Jonathan' or 'Belle de Boskoop,' 1949, Piet de Sonnaville Institut Voor de Veredeling van Tuinbouwgewassen Wageningen, Netherlands, introduced, 1971

'Karmina' – 'Karmen' x UEB 1725/6 (PRI 370–15 x 'Spartan'), 1990, Czechoslovakia

'Katja' ('Katy') – 'James Grieve' x 'Worcester Pearmain,' 1947, Fruit Breeding Institute, Balsgård, Sweden, introduced, 1966

'Katka' – 'Jolana' x Rubin,' 1990, Czechoslovakia

'Kathrine' – 'Wagener' x 'Reinette Ananas,' USA

'Katy' ('Katja') – 'James Grieve' x 'Worcester Pearmain,' 1947, Fruit Breeding Institute, Balsgård, Sweden, introduced, 1966

'Keepsake' – ('Melinda' cross) x 'Northern Spy,' 1936, W. H. Alderman, University of Minnesota Horticultural Research Center, Excelsior, Minnesota, USA, introduced, 1978

'Kendall' – 'Zusoff' x 'McIntosh,' 1912, Richard Wellington, New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1932

'Kent' ('Malling Kent') – 'Cox's Orange Pippin' x 'Jonathan,' East Malling Research Station, England, introduced, 1960s

'Kerr' – 'Dolgo' x 'Haralson,' Morden Research Station, Agriculture Canada, Manitoba, Canada, selected and tested as Morden 352, introduced, 1952, crabapple

'Kestrel' – 'New York Red Spy' x 'Macoun,' C. J. Bishop, 1950, Kentville Research Station, Nova Scotia, Canada, selected by R. P. Longley, 1961, named, released 1975

'Kidd's Orange Red' – 'Cox's Orange Pippin' x 'Delicious,' 1924, J. H. Kidd, Greytown, Wairarapa, New Zealand, introduced, 1932

'Killand' – 'McIntosh' x 'Dolgo,' W. P. Baird, Northern Great Plains Field Station, Mandan, North Dakota, USA, introduced, 1957

'Kim' – 'Cortland' x 'Ingrid Marie,' 1946, P. Bergenal, Agriculture College, Balsgård, Sweden, introduced, late 1970s

'King Cole' – 'Dutch Migrone' x 'Jonathan,' (possible reverse cross) R. G Cole, Lang Lang, Victoria, Australia, introduced, 1912

'King David' – believed 'Jonathan' x 'Arkansas Black,' 1893, Durham, Washington County, Arkansas, USA, introduced by Stark Brothers Nursery, 1902

'Kings Acre Pippin' – 'Sturmer Pippin' x 'Ribston Pippin,' Kings Acre Nursery, Hereford, ENGLAND, introduced, 1899

'Kinrei' – 'Golden Delicious' x 'Delicious,' 1932, Japan

'Kinsei (Sato cv.)' – 'Golden Delicious' x 'Ralls Janet,' private Japanese breeder, Mr. Hajime Sato, Japan, introduced, 1972

'Kio' – 'Orin' x 'Hatsuaki,' Iwate Agriculture Research Center, Narita, Kitakami, Iwate, patent holder, Iwate Prefecture, Japan, introduced, 1992

'Kit trio' – 'Mercer' X Sweet Russet,' Dr. Neils E. Hansen, South Dakota Experiment Station, Brookings South Dakota, USA, introduced, 1938 (obsolete)

'Kitakami' – ('McIntosh' x 'Worcester Pearmin') 'Tohoku #2' x 'Redgold,' Monoka Station, Japan, introduced 1983

'Kitanosachi' – 'Tsugaru' x 'American Summer Pearmain,' Aomori

'Kitaro' – 'Fuji' x 'Hatsuaki,' originating from Fruit Research Center of NIAFF in Morioka, Japan

'Kizashi' – 'Gala' x 'Fuji,' Monoka Station, Japan, introduced 1991

'Klimchka' – 'Wealthy' x seedling of 'Melba,' Morden Research Station, Agriculture Canada, selected in 1950 and tested as M359, later tested as PF 49, and never officially named but released by the H. Temmerman, Morden Nursery, c1980

'Kola' – 'Elk River' x 'Duchess,' Dr. Neils E. Hansen, South Dakota Experiment Station, Brookings South Dakota, USA, introduced, 1922

'Köningin Juliana' – 'Reinette Rouge Étoilée' x 'Cox's Orange Pippin,' 1935
Institut Voor de Veredeling van Tuinbouwgewassen Wageningen, Netherlands,
introduced, 1952

'Korei' – 'Golden Delicious' x 'Indo,' 1935, Aomori Apple Experiment Station,
Japan, named, 1949

'Korona' – 34–91–13 ('Mother' x 'Red Rome Beauty') x 'Scotia' ('McIntosh'
open-pollinated seedling), 1952, C. J. Bishop and L. E. Aalders, Kentville
Research Center, Nova Scotia, Canada, selected by A.D. Crowe, 1976

'Kotau' – 'Toko' open pollinated, Aomori Apple Experiment Station, Aomori,
Japan, introduced 1985

'Kougetsu' – 'Golden Delicious' x 'Jonathan,' 1961, Aomori Apple Experiment
Station, Aomori, Japan, introduced 1981

'Kovauguszt' – 'Jonathan' x 'Egri piros,' University of Horticulture and Food
Industry, Budapest, Hungary, introduced, 1993

'Kovelit' – 'Jonathan' x 'Egri piros,' University of Horticulture and Food Industry,
Budapest, Hungary, introduced, 1992

'Kosmonaut' – 'Golden Delicious' x 'Jonathan,' 1965, by Frantisek Vancura,
Prague, Czech Republic

'Krasava' – 'Otcovo' x 'Wagener,' 1970, at Institute Experimental Botany,
Strizovice, Czech Republic

'Krasnyi Shtandart' – 'Pepin Shafrannyi' x 'Rubynovoye' ('Antonovka' x Asian
species *Malus sieversii* ssp *niedzwetzkyana*) 1915, I. V. Michurin, Michurinsk,
Russia

'Kyokko' – 'Ralls Janet' x 'McIntosh,' 1931, Aomori Apple Experiment Station,
Japan, named, 1938

L

'Lady Williams' – 'Granny Smith'? x 'Jonathan,' c1935, Australia

'Lakeland' – 'Malinda,' cross, 1907, University of Minnesota Fruit Breeding
Farm, Excelsior, Minnesota, USA, introduced, 1950

'Lambton' – 'Columbia' x 'Melba,' C. F. Patterson, University of Saskatchewan, Saskatoon, Saskatchewan, Canada, introduced, 1960

'Lane's Prince Albert' – 'Russet Nonpareil' x 'Dumelow's Seedling,' Herts., England

'Langley Pippin' – 'Cox's Orange Pippin' x 'Gladstone,' Veitch at Langley Nursery, Buckinghamshire, England, 1898

'Lawfam' – 'Lawver' x 'Fameuse,' 1898, Experimental Farm, Ottawa, Canada, introduced, 1922

'Laxton's Early Crimson' – 'Worcester Pearmain' x 'Gladstone,' Laxton Brothers Ltd., Bedford, England, introduced, 1931

'Laxton's Epicure' – 'Cox's Orange Pippin' x 'Wealthy,' Laxton Brothers Ltd., Bedford, England, introduced, about 1930, received Royal Horticultural Society First Class Certificate, 1931

'Laxton's Exquisite' ('Exquisite') – 'Cellini' x 'Cox's Orange Pippin,' raised, 1902, Laxton Brothers Ltd., Bedford, received Royal Horticultural Society Award of Merit, 1926

'Laxton's Favourite' – 'Cox's Orange Pippin' x 'Exquisite,' 1925, Laxton Brothers Ltd., Bedford, England, introduced, 1951

'Laxton's Fortune' ('Fortune') – 'Cox's Orange Pippin' x 'Wealthy,' 1904, Laxton Brothers Ltd., Bedford, England, introduced, 1931, received Royal Horticultural Society First Class Certificate, 1948, Award of Garden Merit, 1993

'Laxton's Herald' – 'Worcester Pearmain' x 'Beauty of Bath,' 1906, Laxton Brothers, Ltd., Bedford, England, introduced, 1939

'Laxton's Leader' – 'Gladstone' x 'Worcester Pearmain,' 1905, Laxton Brothers Ltd., Bedford, England, introduced, 1939

'Laxton's Pearmain' – 'Cox's Orange Pippin' x Wyken Pippin, '1897, Laxton Brothers Ltd., Bedford, England, introduced, 1922

'Laxton's Pioneer' ('Pioneer') – 'Cox's Orange Pippin' x 'Worcester Pearmain,' Laxton Brothers Ltd., Bedford, England, introduced, 1934

'Laxton's Rearguard' – 'Court Pendu Plat' x 'Ribston Pippin,' 1907, Laxton Brothers Ltd., Bedford, England

'Laxton's Reward' – 'Epicure,' cross, 1925, Laxton Brothers Ltd., Bedford, England

'Laxton's Royalty' – 'Cox's Orange Pippin' x 'Court Pendu Plat,' 1908, Laxton Brothers Ltd., Bedford, England, introduced, 1932

'Laxton's Superb' – 'Wyken Pippin' x 'Cox's Orange Pippin,' 1897, Laxton Brothers Ltd., Bedford, England, introduced, 1922

'Laxton's Triumph' – 'King of the Pippin' x 'Cox's Orange Pippin,' 1902, Laxton Brothers Ltd., Bedford, England, introduced, 1930

'Laxton's Victory' – 'Cox's Orange Pippin' x 'Exquisite,' 1926, Laxton Brothers Ltd., Bedford, England, introduced, 1945

'Leelanau' – reported to be 'McIntosh' x 'Wagener,' C. W. Leofleer, Leelanau county, Michigan, USA, introduced, c1928

'Legana' – 'Democrat' x 'Delicious,' c1940, J. Bulman, Legana, Tasmania, Australia, introduced, c1940

'Lent Rise' – 'Blenheim Orange' x 'Wellington,' Buckinghamshire. England

'Leonie de Sonnaville' – 'Cox's Orange Pippin' x 'Jonathan,' P. Sonnaville, Institut Voor de Veredeling van Tuinbouwgewassen Wageningen, Netherlands, prior to 1974

'Liberty' – 'Macoun' x 'Purdue 54-12,' New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1978

'Ligol' – 'Linda' x 'Golden Delicious,' Poland

'Limelight' – 'Discovery' x 'Greensleeves,' c1985, H. Ermen, Faversham, Kent, England, introduced, 2000

'Linda' – 'Langford Beauty,' cross, before 1908, Central Experiment Farm, Ottawa, Canada, introduced, 1925

'Linda Sweet' – 'Malinda' x 'Sweet Russet,' Dr. Neils E. Hansen, South Dakota Experiment Station, Brookings South Dakota, USA, introduced, 1922

'Lindel' – 'Delicious' x 'Linda,' Agriculture Canada, Smithfield Experiment Farm, Trenton, Ottawa, Canada, named, 1971

'Lipton' – 'Northern Spy,' cross, Central Experiment Farm, Ottawa, Canada, introduced, 1915

'Lobo' – 'McIntosh,' cross, 1898, Central Experiment Farm, Ottawa, Canada, introduced, 1910

'Lodi' – 'Montgomery' x 'Yellow Transparent,' 1911, Richard Wellington, New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1924

'Lodel' – 'Redspur Delicious' x 'Lobo,' Poland

'Lonjon' – 'London Pippin' x 'Jonathan,' Maribor, Yugoslavia, introduced, 1975

'Lord Beauty' – 'Cox's Orange Pippin' x 'Lady Sudeley,' Laxton Brothers, Ltd., Bedford, England, exhibited, 1919

'Lord Lambourne'– 'James Grieve' x 'Worcester Pearmain,' 1907, Laxton Brothers Ltd., Bedford, England, introduced, 1923

'Lucullus' – 'Jonathan' x 'Cox's Orange Pippin,' 1935 Institut Voor de Veredeling van Tuinbouwgewassen Wageningen, Netherlands, introduced, 1955

'Lynn's Pippin' – 'Cox's Orange Pippin' x 'Ellison's Orange,' 1942, William Lynn, Wisbech, Cambs, England

M

'Maayan' – ('Calville St. Sauveur' x 'Damascus') x 'Delicious,' Chanan Oppenheimer, Rehovot, Israel, introduced, 1967

'MacExcel' – O-522 ('Red Melba' x R6T68 (include 'Jonathan,' 'Rome Beauty' and *M. Floribunda* 821 in its ancestry)) x 'Starkspur Compact Mac' ('McIntosh Wijcik'), 1971, by S. Khanizadeh, J. Cousineau, R. Granger, Y. Groleau, G. Rouselle, L. Spangelo, Agriculture and Agri-Food Canada, Ottawa Research Station, Canada, introduced, 2002, becomes sweeter after storage

'Macoun' – 'McIntosh' x 'Jersey Black,' Richard Wellington, New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1923

'Macross' – 'McIntosh,' cross, Central Experiment Farm, Ottawa, Canada, introduced, 1925

'Macwood' – 'McIntosh' x 'Forest,' Ontario, Canada, introduced, 1932

'Macy' – 'Northwestern Greening' x 'Wealthy,' H. L. Lantz, Iowa Agriculture Experiment Station, Ames, Iowa, USA, introduced, 1921

'Madresfield Court' – 'Worcester Pearmain' x 'Ribston Pippin,' raised by William Crump, head gardener, Madresfield Court, Worcester, received Royal Horticultural Society Award of Merit, 1915

'Mahe' – ('Indo' x 'Golden Delicious') x 'McIntosh,' 1956, Aomori Apple Experiment Station, Japan

'Mahogany' – 'Red Hook' ('McIntosh' seedling) x 'Strummer Pippin,' 1962, New York State Agriculture Experiment Station, Geneva, New York, USA

'Maidstone Favourite' – 'Alexander' x 'Beauty of Bath'?, 1913, G. Bunyard, Maidstone, Kent, England

'Maigold' ('Gold-n-Rose') – 'Frauotacher' ('Franc Roseau') x 'Golden Delicious,' 1944, F. Kobel, Swiss Federal Agriculture Research Station, Wädenswill, Switzerland, introduced, 1955

'Mairc'® – 'Gala' x 'Maigold,' Research and Breeding Institute of Pomology located near Holovousy, Czech Republic

'Majda' – 'Jonathan' x 'Golden Noble,' Maribor, Yugoslavia, introduced, 1986

'Majestic' – 'Rome' x 'Cook,' William E. Silva, Sebastopol, California, USA, introduced, 1965

'Makedonia' – 'Golden Delicious' x 'Jonathan,' 1973, G. Syrgianidis, National Agricultural Research Foundation, Naoussa, Greece

Malling 26 (M. 26) – Malling XVI x Malling IX, selected, 1929, East Malling Research Station, Maidstone, Kent, England, introduced, 1959, resistant to phytophthora cactorum Leb. & Cohn,. used as clonal rootstock, produces tree,

'Malling-Merton' ('M.M. 102') – 'Northern Spy' x 'Malling I,' selected, 1933, by John Innes Horticulture Institution, Merton, England, and East Malling Research Station, Kent, England, introduced, unknown, produces tree,

'Malling-Merton' ('M.M. 104') – 'Malling II' x 'Northern Spy,' selected, 1930-31, by East Malling Research Station, Kent, England, introduced, 1952, USA, 1954, produces tree,

'Malling-Merton' ('M.M. 106') – 'Northern Spy' x 'Malling I,' selected, 1930-32, by East Malling Research Station, Kent, England, introduced, 1952, USA, 1954, produces tree,

'Malling Merton' ('M.M. 111') – 'Northern Spy' x 'Merton 793,' selected, 1932, by John Innes Horticulture Institution, Merton, England, and East Malling Research Station, Kent, England, introduced, 1952, USA, 1954, produces tree,

'Mandan' – 'Duchess' x 'Starking Delicious,' W. A. Otto, Northern Great Plains Field Station, St. Mandan, North Dakota, USA, introduced, 1965

'Manitoba' – 'Duchess of Oldenburg' x 'Tolman Sweet,' Canada Department Agriculture Research Station, Morden, Manitoba, Canada, introduced, 1931

'Mantet' – 'Tetofsky,' cross, Dominion Experiment Station, Manitoba, Canada, introduced, 1929

'Marcus' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1912

'Margery' – 'Pioneer' x 'Northern Spy,' Ottawa Experiment Farm, Canada, introduced, 1911

'Margol' – 'Ingrid Marie' x 'Golden Delicious,' Obstbaliverslichsanstalt, Jork, Hannover, Germany

'Mariborka' – 'Jonathan' x 'Golden Pearmain,' 1949, raised by Professor J. Priol, Institute, Za Vocarstvo, Cacak, Srbija, Slovenia, named, 1961

'Marigold' ('Gold-N-Rose') – 'Franc Roseau' x 'Golden Delicious,' 1944, F. Kobel, Federal Research Station, Wädenswil, Switzerland, introduced, 1964

'Marina' – 'Kidd's Orange Red' x 'Idared,' Federal Research Station, Wädenswil, Switzerland, introduced, 1963

'Marne' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1915

'May Beauty' – 'Newtown Pippin' x 'Golden Pippin,' D & J Walker, Ham, Surry, England, prior to 1945

'Maypole' – 'Wijcick 'McIntosh,' cross, 1976 (columnar tree) East Malling Research Station, Kent, England, introduced, 1989

'McIntosh-Pound' – 'Pound' x 'McIntosh,' 1926, by students in Advanced Plant Breeding, Dr. C. E. Myers, instructor, Penn State University, University Park, Pennsylvania, USA, 1955

'McLean' – 'Columbia' x 'Melba,' 1946, Dr. C. F. Patterson, University of Saskatchewan, Saskatoon, Saskatchewan, Canada, introduced, 1960

'Mclicious' – 'Early McIntosh' x 'Golden Delicious,' Thomas A. Zalesak, Plattekill, New York, USA, introduced, 1963

'McPrince' – 'Prince' x 'McIntosh,' Canada Department Agriculture Research Station, Ottawa, Ontario, Canada, introduced, 1922, crabapple

'McSweet' – 'McIntosh,' cross, Central Experiment Farm, Ottawa, Canada, introduced, 1920

'Medea' – 'Lobo' x 'Red Delicious,' Research Institute of Pomology and Floriculture, Skierniewice, Poland

'Medina' – 'Deacon Jones' x 'Delicious,' 1911, Richard Wellington, New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1922

'Megumi' – 'Ralls Janet' x 'Jonathan,' 1931, Aomori Apple Experiment Station, Japan, introduced 1950

'Meku' – 'Tsugaru' x 'Amerian Summer Pippin,' Japan

'Melba' – 'McIntosh' x 'Liveland Raspberry,' 1909, W. T. Macoun, Central Experiment Farm, Ottawa, Canada, introduced, c1927

'Melfree' – 'Melrose' x 'Freedom,' Research Institute of Pomology, Skierniewice, Poland

'Mellow' – 'Golden Delicious' x 'Indo,' Japan

'Melodied' – 'Sampion' x PRI 370–15, 1989, Czechoslovakia

'Melrose' – 'Jonathan' x 'Delicious,' Freeman S. Howlett, Ohio Agriculture Experiment Station, Wooster, Ohio, introduced, 1937 (State apple of Ohio)

'Melran' – 'Golden Delicious' x 'Morgenduft,' Italy, introduced, 1966

'Melrouge' – 'Jonathan' x 'Delicious,' redder sport of 'Melrose'

'Meran' – 'Golden Delicious' x 'Morgenduft,' 1966, K. Zanon and F. Waldner, Meran (Bozen), Italy

'Meridian' – 'Cox's Orange Pippin' X 'Falstaff,' 1972, Frank Alston, Horticulture Research International, East Malling, Kent, England, introduced, 2000

'Merlijn' – 'Jonagold' x Liberty,' Fruitteeltcentrum K.U. Leuven, Heverlee, Belgium, introduced, 1989

'Merlyn' – 'Jored' x 'Liberty,' raised by nurseryman J. Nicolai, Belgium

'Merton Beauty' – 'Ellison's Orange' x 'Cox's Orange Pippin,' 1932, M. B. Crane, John Innes Institute, Merton, London, England, introduced, 1962

'Merton Charm' – 'McIntosh' x 'Cox's Orange Pippin,' 1933, M. B. Crane, John Innes Institute, Merton, London, England, introduced, 1962

'Merton Delight' – 'Cox's Orange Pippin' x 'Golden Russet,' M. B. Crane, John Innes Institute, Merton, London, England, introduced, 1953

'Merton Joy' – ('Cox's Orange Pippin' x 'Strumer Pippin') x 'Cox's Orange Pippin,' 1946, M. B. Crane, John Innes Institute, Merton, London, England, introduced, 1965

'Merton Knave' – 'Laxton's Early Crimson' x 'Epicure,' 1948, John Innes Institute, Merton, London, England, named, 1970

'Merton Pearmain' – 'Laxton's Superb' x 'Cox's Orange Pippin,' 1934, M. B. Crane, John Innes Institute, Merton, London, England

'Merton Pippin' – 'Cox's Orange Pippin' x 'Strummer Pippin,' 1914, M. B. Crane, John Innes Institute, Merton, London, England, introduced, 1953

'Merton Prolific' – 'Northern Greening' x 'Cox's Orange Pippin,' 1914, M. B. Crane, John Innes Institute, Merton, London, England, named 1950

'Merton Reinette' – 'Cox's Orange Pippin' x 'Herrings Pippin,' 1933, M. B. Crane, John Innes Institute, Merton, London, England, introduced, 1962

'Merton Russet' – 'Strummer Pippin' x 'Cox's Orange Pippin,' 1921, M. B. Crane, John Innes Institute, Merton, London, England, named, 1943

'Merton Worcester' – 'Cox's Orange Pippin' x 'Worcester Pearmain,' 1914, M. B. Crane, John Innes Institute, Merton, London, England, named, 1947

Michaelmas Red' ('Tydeman's Michaelmas Red') – 'McIntosh' x Worcester Pearmain,' raised 1929, H. M. Tydeman, East Malling Research Station, Kent, England

'Michal' – ('Calville St. Sauveur' x 'Damascus') x 'Delicious,' Chanan Oppenheimer, Rehovot, Israel, introduced, 1967

'Michinoku' – 'Kitakami' x 'Tsugaru,' Aomori Apple Experiment Station, Aomori, Japan, introduced 1981

'Middle Green' – 'Frogmore Prolific' x 'Blenheim Orange,' by Mr. Seden, Middle Green, Langley, Bucks, Enland, introduced by J. Veitch, Chelsea, recorded, 1909

'Miki-Life'TM – 'Senshu' x 'Tsugaru,' 1981, by Seiichi Kudo, Izumida, Ooaza Ishikawa, Hirosaki City, Aomori prefecture, Japan, US Plant Patent #11,511, (2000), expires 2017

'Milfor' – 'Milwaukee' x 'Forest,' W. T. Macoun, Central Experiment Farm, Ottawa, Canada, introduced, 1925

'Millicent Barnes' – 'Gascoyne's Scarlet' x 'Cox's Orange Pippin,' 1903, N. F. Barnes, Head Gardener to Duke of Westminster, Eaton Hall, Chester, England

'Milton' – 'White Transparent' x 'McIntosh,' 1909, Richard Wellington, New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1923

'Mimi' – 'Jonathan' x 'Cox's Orange Pippin,' Institut Voor de Veredeling van Tuinbouwgewassen Wageningen, Netherlands, introduced, 1935

'Minister von Hammerstein' – 'Landsberger Reinette' cross, raised, 1822, by R. Goethe, Geisenheim, Germany, named after then Minister of Agriculture, first fruited 1891, introduced, 1900

'Minjon' –probably 'Wealthy' x 'Jonathan,' c1912, University of Minnesota Fruit Breeding Farm, Excelsior, Minnesota, USA, introduced, 1942

'Minnehaha' – 'Malinda' cross, University of Minnesota Fruit Breeding Farm, Excelsior, Minnesota, USA, introduced, 1920

'Minnewashta' – 'State Fair' x 'MN 1691,' 1974, by James J. Luby and David Bedford, University of Minnesota Horticultural Research Center, located in Carver, Minnesota, USA

'Mio'– 'Worcester Pearmain' x 'Orange,' 1932, Emil Johansson, Horticulture Research Station, Alnarp, Sweden

'Moira' – 'McIntosh' x unnamed scab resistant selection (DG 22–81), Agriculture Canada, Trenton, Ottawa, Canada, named 1978

'Mollies Delicious' – ('Golden Delicious' x 'Edgewood') x ('Red Gravenstein' x 'Close'), 1948, G. W. Schneider, New Jersey Agriculture Experiment Station, New Brunswick, New Jersey, USA, introduced, 1956

'Monarch' – 'Peasgood Nonsuch' x 'Dumelow's Seedling,' 1888, introduced by W. P. Seabrook, Essex, England, 1918

'Monark' – 'Red June' x 'King,' by William D. Silva, Sebastopol, California, USA, introduced, 1965

'Monoa' – 'Wolf River' x 'Harrington,' Iowa Agriculture Experiment Station, Ames, Iowa, USA, introduced, c1922

'Monroe' – 'Jonathan' x 'Rome Beauty,' 1910, Richard Wellington, New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1947

'Morden 347' – 'Martha' x 'Dolgo,' Canada Department Agriculture Research Station, Morden, Manitoba, Canada, introduced, 1941

'Morden 359' – 'Wealthy' x 'Melba,' Canada Department Agriculture Research Station, Morden, Manitoba

'Morden 363' – 'Haralson' x 'Melba,' Canada Department Agriculture Research Station, Morden, Manitoba, Canada

'Morley's Seedling' – 'Alfriston' x 'Lane's Prince Albert,' C. Morley, Ely, Cambs, England, prior to 1928

'Morgenrot' – 'Cox's Orange Pippin,' cross, Max Plank Institute, Cologne, Germany, named, 1973

'Mrs Phillimore' – 'Cox's Pomona' x 'Mother,' Charles Ross, head gardener, Welford, Park, Newbury, Brooks, England, recorded, 1896

'Murasaki' – 'Jonathan' x 'Delicious,' 1935, Aomori Apple Experiment Station, Japan, named, 1948

'Murray' – 'McIntosh' x 52-05-26 ('Red Melba Platts' x PRI 69-52), 1978, Canada

'Mutsu' ('Crispin') – 'Golden Delicious' x 'Indo,' Aomori Apple Experiment Station, Aomori, Japan, introduced US, 1948

N

'Nagano Apple No 1' – 'Golden Delicious' x 'Senshu,' Nagano Fruit Tree Experiment Station, not named but patented in Japan

'Nagano Apple No 10' – 'Fuji' x 'Tsugaru,' Nagano Fruit Tree Experiment Station, not named but patented in Japan

| **'Nagano Apple No 12'** – 'Tsugaru' x 'Vista Bella,' Nagano Fruit Tree Experiment Station, not named but patented in Japan

'Nanna' – 'Katja' x 'Buckley Giant,' Ullensvang Research Centre, division Njos, Leikanger, Norway

'Naoussa' – 'Golden Delicious' x 'Granny Smith,' 1973, G. Syrgianidis, National Agricultural Research Foundation, Naoussa, Greece

'Nassau' – 'Esopus Spitzenburg' x 'Ben Davis,' New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1914

'Natsumidori' – 'Kitakami' x 'Meki #10,' Aomori Apple Experiment Station, Aomori, Japan, introduced 1983

'Nebo' – 'Alexander' x 'Mercer' crab apple, Dr. Neils E. Hansen, South Dakota Agriculture Experiment Station, Brookings, South Dakota, USA, introduced, 1940, crabapple

'Nebuta' – 'Kitakami' x 'Tsugaru' (sister of 'Michinoku'), K. Maeda, Aomori Apple Experiment Station, Aomori, Japan, introduced 1981

'Nestor' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1912

'Nettlestone Pippin Alexander' – 'James Grieve' x 'Cox's Orange Pippin'

'Neue Goldparmäne' – 'Golden Winter Pearmain' x Parkers Grey Pippin,' Germany, prior to 1951

'Nevis' – *Malus ioensis* cross, Dr. Neils E. Hansen, South Dakota Agriculture Experiment Station, Brookings, South Dakota, USA, introduced, 1930, crabapple

'New Gold' ('NJ 89) – 'Golden Delicious' x ('Crown Prince Rudolf' x 'James Grieve'), 1974, Rutgers Cream Ridge Fruit Research Center, New Jersey, USA

'Newfane' – 'Deacon Jones' x 'Delicious,' 1911, Richard Wellington, New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1927

'Newport Cross' – 'Devonshire Quarrenden' x 'Cox's Orange Pippin,' 1920, G. T. Spinks, Long Ashton Research Station, Bristol, England

'Newtosh' – 'McIntosh' x 'Yellow Newtown Pippin,' 1922, Central Experiment Farm, Ottawa, Canada, introduced, 1962

'Newton Wonder' – said to be 'Dumelow's Seedling' x 'Blenheim Orange,' Mr. Taylor, King's Newton, Melbourne, Derbyshire, introduced, c1887, very large, cooks to a yellow purée, baked, creamy, frothy, not a pollinator, sterile pollen

'Newtown Delicious' – 'Yellow Newtown' x 'Red Delicious,' Edwin R. Wray, White Salmon, Washington, USA, introduced, c1937

'Niagara' – 'Carlton' x 'McIntosh,' New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1962

'Nicogreen'TM – 'Delcorf' x 'Granny Smith,' Johan Nicolai, in Sint-Truiden, Belgium, USPP 16,559 (2006) ,expires, 2023

'Nicola'TM – 'Splendour' x 'Gala' ('Kidds D-8'), 1981, by C. Hampson, R. MacDonald, H. Quamme, D.-L. McKinzie, W. D. Lane, Agriculture and Agri-Food Canada, Summerland, British Columbia, Canada, introduced, 1999

'Niobe' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1911

'NJ 90'TM – 136055 x 'Spartan' (136055 = NJ15 x 'Red 'Melba,' NJ15 = 35934 Open pollinated; 35934 = 'Gallia Beauty' x 'Mavis'), Rutgers Fruit Research and Development Center, USA

'NJ 105'TM – Complex but includes, 'Grimes Golden,' 'Twenty Ounce' and 'Red Melba,' New Jersey Agriculture Experiment Station, New Brunswick, New Jersey, USA, introduced, 1994

'NJ 109'TM – 'Golden Delicious' x NJ88 (NJ88 = 'Golden Delicious' x M2439; M2439 = 'Crown Prince Rudolf' x 'James Grieve'), Rutgers Fruit Research and Development Center, USA

'Noran' – 'Columbia' x 'Redant,' 1961, Dr. C. R. Ure, Morden Research Station, Agriculture Canada for the Prairie Fruit Breeding Cooperative, tested and selected in 1961 at the Beaverlodge Research Station, Canada, introduced 1976

'Norcue' – 'Heyer 12' x 'Rescue,' Dr. C. R. Ure, Morden Research Station Agriculture, Canada, Beaverlodge Research Station, Alberta, Canada, introduced 1976

'Norda' – 'Rosilda' x 'Trail,' 1960, Dr. C. R. Ure, Morden Research Station for the Prairie Fruit breeding Cooperative, University of Alberta and the Beaverlodge Research Station, Agriculture Canada, introduced, 1976

'Noret' – 'Rescue' x Mantet,' Dr. C. R. Ure, Morden Research Station Agriculture, Canada, introduced, 1975

'Norfolk Beauty' – 'Warner's King' x 'Waltham Abbey,' Mr. Allen, head gardener, Gunton Park, Norwich, Norfolk, ENGLAND, recorded, 1901

'Norhey' – 'Heyer 12' x 'Dr. Bill,' Dr. C. R. Ure, Morden Research Station Agriculture, Canada, selected in 1960 at the Beaverlodge Research station, Alberta, Canada, introduced, 1975

'Noris' – 'Osennee Polostaoe' x 'McIntosh,' Pavlovsk Experiment Station of Valvilov Institute, St. Petersburg, Lithuania, prior to 1976

'Norkent' – 'Haralson' x 'Rescue,' Dr. C. R. Ure, Morden Research Station, Agriculture Canada, the Prairie Fruit Breeding Cooperative, selected as P. A. 13 by the University of Alberta, Edmonton, tested as PF51, and introduced for commerce by the Beaverlodge Research Station, introduced, 1990

'Norland' – 'Rescue' x 'Red Melba,' Dr. C. R. Ure, Morden Research Station, Agriculture Canada for the Prairie Fruit Breeding Cooperative, introduced, 1979

'Norson' – 'Haralson' x 'Rescue,' 1958, Dr. C. R. Ure, Morden Research Station, Agriculture Canada, for the Prairie Fruit Breeding Cooperative, selected at the University of Alberta and Beaverlodge Research Station, introduced, 1976

'Norspy' – 'Northwest Greening' x 'Northern Spy,' Canada Department Agriculture Research Station, Ottawa, Ontario, Canada, introduced, 1929

'Northern Lights' (NY 17–207) – 'Haralson' x 'McIntosh,' 1938, New York State Agricultural Station, USA, introduced, 1990

'Northland' – 'McIntosh' x 'Dolgo,' 1926, University of Minnesota, Fruit Breeding Farm, Excelsior, Minnesota, USA, introduced, 1957, crabapple

'Northwestern Greening' – 'Golden Russet' x 'Alexander,' Wisconsin, USA

'Nova Easygro' – 'Spartan' x progeny 565 (Ill. 5 ('Fanny' x 'Jefferies') x 27435 ('Wealthy' x R12740–7A), 1966 L. E. Aalders, Kentville Research Station, Nova Scotia, Canada, pollen supplied by D. F. Dayton, selected by A. D. Crowe, released, 1971

'Nova Mac' – 'McIntosh' x TSRIT187 (1018–3)=NJ 16–109 x DgR23T35 (47–147) 47–147='Jonathan' X F226829–2–2, 1963, D. F. Dayton and E. B. Williams, Sturgeon Bay, Wisconsin, USA, introduced, 1978, Kentville Research Centre, Kentville, Nova Scotia, Canada

‘Novaspy’ – ‘Nova Easygro’ x ‘New York 44411–1’ (‘Red Spy’ x ‘Golden Delicious’), A. C. Crowe, Kentville Research Center, Nova Scotia, Canada, introduced, 1986

‘Nuvar® Gold’ – ‘St Edmonds Pippin’ x ‘Greensleeves,’ raised by John Breach in Kent, England, in 1979 from seeds supplied by Hugh Ermen

‘Nuvar® Golden Hills’ – ‘Greensleeves’ x ‘Greensleeves,’ raised by John Breach in Kent, England, in 1979 from seeds supplied by Hugh Ermen

‘Nurvar® Home Farm’ – ‘Greensleeves’ x ‘Egremont Russet,’ raised by John Breach in Kent, England, in 1979 from seeds supplied by Hugh Ermen

‘Nuvar® Red Gloss’ – ‘Golden Delicious’ x ‘Jersey Mac,’ raised by John Breach in Kent, England, in 1979 from seeds supplied by Hugh Ermen

‘NY 469’ – ‘Golden Delicious’ x ‘Northwest Greening,’ Cornell Universitys New York State Agricultural Experiment Station, USA, advanced selection that is being tested

‘NY 616’ – Complex parentage, includes ‘Rome,’ ‘Golden Delicous’ and ‘Bedford,’ Cornell Universitys New York State Agricultural Experiment Station, USA, advanced selection that is being tested

‘NY 65707–19’ – ‘Spartan’ x ‘NY 55140–9’ (sister to ‘Liberty’), 1965, Cornell Universitys New York State Agricultural Experiment Station, USA, advanced selection that is tested under a non–distribution agreement

‘NY 73334–35’ – ‘Liberty’ x ‘Delicious,’ Cornell Universitys New York State Agricultural Experiment Station, USA, advanced selection that is being tested

‘NY 79507–49’ – ‘Empire’ x ‘Redfree,’ 1979, Cornell Universitys New York State Agricultural Experiment Station, Geneva NY, USA, advanced selection that is tested under a non–distribution agreement

‘NY 79507–72’ – ‘Empire’ x ‘Redfree,’ 1979, Cornell Universitys New York State Agricultural Experiment Station, Geneva, NY, USA, USA, advanced selection that is tested under a non–distribution agreement

‘Nyari Zamatós’ – ‘Jonathan’ x ‘Egri piros,’ University of Horticulture and Food Industry, Budapest, Hungary, introduced, 1991

O

‘Obelisk’ (‘Flamenco’®) – (‘Cox’s Orange Pippin’ x ‘Court Pendu Plat’) x ‘Wijcik McIntosh,’ 1970, columnar tree, Kenneth R. Tobutt, East Malling Research

Station, Maidstone, Kent, England, introduced, 1989, USPP 9,060 (1995), expires, 2012)

'Odin' – 'Golden Delicious' x 'Ingrid Marie,' 1953, A. A. Schaap, Institut Voor de Veredeling van Tuinbouwgewassen Wageningen, Netherlands, introduced, 1966

'Odra' – 'Primula' x 'Bancroft,' Research Institute of Pomology and Floriculture, Skierniewice, Poland

'Ogden' – 'Zusoff' x 'McIntosh,' New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1928

'Old Fred' – 'Allington Pippin' x 'Court Pendu Plat,' F. W. Wastie, Eynsham, Oxon, ENGLAND, exhibit, 1944

'Oldenburg' ('Geheimrat Doktor Oldenburg') – 'Minister von Hammerstein' x 'Baumanns Reinette,' raised 1897, Fruit, Vine, Horticulture Research Station, Geisenheim, Rhine, Germany

'Onondaga' – 'Ben Davis' x 'McIntosh,' New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1915

'Ontario' – 'Wagener' x 'Northern Spy,' earliest recorded apple bred in Canada by Charles Arnold, Paris, Ontario, Canada, exhibited in Botona, 1873

'Opal' – 'Rival' x 'Worcester Pearmain,' W. P. Seabrook, Chelmsford, Essex, England, prior to 1936

'Orangeburg' – 'Cox's Orange Pippin' x 'Geheimrat Doktor Oldenburg,' Max Plank Institute, Cologne, Germany, introduced, 1973

'Oranje de Sonnaville' – 'Cox's Orange Pippin' x 'Jonathan,' P. Sonnaville, Fruit Research Station, Wilhelminadorp, Netherlands, introduced, 1971

'Orient' – 'Red Delicious' x 'Junichiro Rishiya,' Aomori Prefecture, Japan, introduced, 1935

'Orin' – probable 'Golden Delicious' x 'Indo,' 1942, TadanosEnglande OtsEnglandi, FEnglandushima Tenkoen Co. Ltd., Japan, introduced, 1952

'Oriole' – 'Yellow Transparent' x 'Liveland Raspberry,' Excelsior, Minnesota, USA, 1949

'Orlando' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1913

'Orleans' – 'Deacon Jones' x 'Delicious,' 1911, Richard Wellington, New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1924

'Orlovimk' – 'Antonovka' x SR0523), 1990, Russia

'Orlovski Pionerl' – 'Antonovka Krasnobochka' x SR0523), 1989, Russia

'Osennee Desertone' – 'Antanovka' x 'Wealthy' ('Uelsi'), Estonian Agriculture Plant Breeding Reserve Institute, Estonia, prior to 1975

'Osman' (Crab) – 'Siberian Crab' x 'Osemoe,' Experimental Farm, Agriculture Canada, Ottawa, Canda, introduced, 1910

'Oswego' – 'Sutton' x 'Northern Spy,' New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1915

'Otava' – 'Sampion' x 'Jolana,' Czech Republic

'Otsego' – 'Ben Davis' x 'McIntosh,' New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1914

'Owen Thomas' – 'Cox's Orange Pippin' x 'Gladstone,' Bedford, England

'Oxford Beauty' – 'Gascoyne's Scarlet' x 'Scarlet Nonpareil,' F. W. Wastie, Eynsham, Oxon, England, prior to 1944

'Oxford Conquest' – 'Blenheim Orange' x 'Court Pendu Plat,' 1927, F. W. Wastie, Eynsham, Oxon, England

'Oxford Friend' – 'Lady Henniker' x 'King's Acre Pippin,' F. W. Wastie, Eynsham, Oxon, England, raised, 1920

'Oxford Hoard' – 'Strummer Pippin' x 'Golden Russet,' F. W. Wastie, Eynsham, Oxon, England, introduced, 1943

'Oxford Pippin' – 'Devonshire Quarrenden' x 'Newtown Wonder,' F. W. Wastie, Eynsham, Oxon, England, introduced, 1944

'Oxford Sunrise' – 'Cox's Orange Pippin' x 'Lane's Prince Albert,' F. W. Wastie, Eynsham, Oxon, England, introduced, 1942

'Oxford Yeoman' – 'Blenheim Orange' x 'Lane's Prince Albert,' 1922, F. W. Wastie, Eynsham, Oxon, England, introduced, 1942

'Ozark Gold' – 'Golden Delicious' x H1291 ('Red Delicious' x 'Conrad'), 'Conrad' is a cross between 'Ben Davis' & 'Jonathan,' Mountain Grove Fruit Experiment Station, Missouri, USA, introduced, 1970

P

'Pacific Beauty'[™] (**'Sci Early'**[™]) – 'Gala' x 'Splendour,' Hort Food Research Institute, Havelock North, New Zealand

'Pacific Queen'[™] (**'Sci red'**) – 'Gala' x 'Splendour,' Hort Food Research Institute, Havelock North, New Zealand

'Pacific Rose'[™] (**'Sci rose'**[™]) – 'Gala' x 'Splendour,' The Horticultural and Food Research Institute of New Zealand, Havelock North, New Zealand, not available in US as of 2006

'Pandora' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1913

'Parentene' – 'Gravenstein' x 'Transparent'?, Washington, USA

'Park Farm Pippin' – 'Falstaff' x 'A 409-21,' East Malling Research Station, ENGLAND, introduced, 2002

'Parkland' – 'Rescue' x 'Red Melba,' Morden Research Station, Agriculture Canada, by Dr. C. R. Ure for the Prairie Fruit Breeding Cooperative, selected as 51-101-1 at Lacombe, tested as PF 26, Canada, introduced, 1979

'Paroquet' – 'Peasgoods Nonsuch' x 'Cox's Orange Pippin'?, Charles Ross, head gardener, Welford Park, Newbury, Berkshire, England, recorded, 1897

'Patricia' – 'McIntosh' cross, 1898, Central Experimental Farm, Ottawa, Canada, introduced, 1921

'Patterson' – 'Columbia Crab' x 'Melba,' 1946, Dr. C. F. Paterson, University of Saskatchewan, Saskatoon, Saskatchewan, Canada, introduced, 1960

'Payette' – 'Ben Davis' x 'Wagener,' L. Verner, Agriculture Experiment Station, Moscow, Idaho, USA, introduced, 1944

'Peace Garden' – 'Malinda' x 'Duchess,' W. P. Baird, Northern Great Plains Field Station, Mandan, North Dakota, USA, introduced, 1957

'Peacemaker' – 'Houblon' x 'Rival,' Charles Ross, head gardener, Welford Park, Newbury, Berkshire, ENGLAND, introduced, 1913

'Pearl' – 'Worcester Pearmain' x 'Rival,' W. Seabrook & Sons, Ltd., Boreham, Essex, ENGLAND, introduced, 1938

'Pedro' – 'McIntosh,' cross, Experiment Farm, Ottawa, Canada, introduced, 1913

'Peggy Wastie' – 'Devonshire Quarrenden' x 'Newton Wonder,' F. W. Wastie, Eynsham, Oxon, England

'Peggy's Pride' – 'Allington Pippin' x 'Golden Spire,' F. W. Wastie, Eynsham, Oxon, England, prior to 1944

'Pépin Shafrannyi' – 'Orleans Reinette' x ('Glogerovka' x 'Kitaika'), Kitaika is *Malus prunifolia*, I. V. Michurin, Michurinsk, Russia, fruited, 1915

'Pervinkam' – 'Antonovka Krasnobochnka' x SR0523, 1990, Russia

'Pewakee' – 'Northern Spy' x 'Duchess of Oldenburg,' George F. Pepper, PewaEnglandee, Wisconsin, USA, recorded, 1870

'Pia'– 'Idared' x 'Helios,' Christa Fischer, J. Schmadlak, H. Murawski, Federal Centre of Breeding Research on Cultivated Plants, Dresden, Germany, introduced, 1995

'Pierce Pasture' – 'Bethal' x 'Alexander,' Canada

'Piflora' – 'Idared' x 'Golden Delicious,' Christa Fischer, J. Schmadlak, H. Murawski, Federal Centre of Breeding Research on Cultivated Plants, Dresden, Germany, introduced, 1999

'Pikant' – 'Udine' x 'Carola,' c1906, Germany

'Pikkolo' – 'Clivia' x 'Auralia,' Institute of Fruit Research, Dresden–Pillnitz, Germany

'Pilot' – 'Clivia' x 'Undine,' Institute of Fruit Research, Dresden–Pillnitz, Germany, introduced, 1988

'Piñata'[™] (**'Pinova,' 'Sonata,' 'Coarial'**) – 'Duchess of Oldenburg' x 'Cox's Orange Pippin' x 'Golden Delicious,' Germany

'Pingo' – 'Idared' x 'Bancroft,' Christa Fischer, J. Schmadlak, H. Murawski, Germany, introduced, 1999

'Pink Lady'[™] – 'Golden Delicious' x 'Lady Williams,' Horticulture research Center, south of Perth, Southwestern tip of Australia, introduced, 1995

'Pink Princess' ('Pink Old Lady') – 'Pink Pearl' x 'King of the Pippins,' 1967, Fred Janson, Ontario, Canada, introduced, 1997

'Pink Sugar' – probably 'Red Delicious' x 'Golden Delicious'

'Pioneer' ('Laxton's Pioneer') – 'Cox's Orange Pippin' x 'Worcester Pearmain,' Laxton Brothers Ltd., Bedford, England, introduced, 1934

'Piotet' – 'Pioneer' x 'Tetofsky, Central Experiment Farm, Ottawa, Canada, introduced, early 1930s

'Pirella' – 'Golden Delicious' x 'Alkmene,' Christa Fischer, J. Schmadlak, Federal Centre of Breeding Research on Cultivated Plants, Dresden, Germany, introduced, 1997

'Pirja' – 'Huvitus' x 'Melba,' 1961, Institute of Horticultural and Agricultural Research Centre, Piikki, Finland

'Piros' – 'Helios' x 'Apollo,' Institute of Fruit Research, Dresden–Pillnitz, Germany, introduced, 1985

'Pixie Crunch'™ (Co-op 33) – complex pedigree, PRI1018 x Viking, 1971, by J. Janick, E. Williams, J. Goffreda, S. Korban, from Purdue-Rutgers-Illinois Universities (PRI), introduced, 1993, named, 2001

'Plymouth Cross' – 'Allington Pippin' x 'Star of Devon,' 1916, G. T. Spinks, Long Ashton Research Station, Bristol, England

'Pobeda Chernenko' – 'Anton'ovka' x 'Pepin Londondski,' Chernenko, Valvilov Institute, St. Petersburg, Russia, known, 1953

'Polka' – 'Wijcik McIntosh' x 'Golden Delicious,' 1976 (columnar tree) East Malling Research Station, Kent, England, introduced, 1989

'Polly Prosser' – 'Cox's Orange Pippin' x 'D'Englande of Devonshire,' 1946, J. H. Cooper, Maidstone, Kent, England

'Prairie Gold' – 'Robin' (crabapple) x 'Duchess of Oldenburg,' W. P. Baird, Northern Great plains Field Station, Mandan, North Dakota, USA, introduced, 1952

'Present Van Holland' – 'Present Van Engeland' x 'Brabant Bellefleur,' Netherlands

'President Boudewijn' – 'Jonathan' x 'Cox's Orange Pippin,' 1935 Institut Voor de Veredeling van Tuinbouwgewassen Wageningen, Netherlands, introduced, 1952

'Priam' – PRI 14–126 x 'Jonathan,' 1952, Purdue, Rutgers and Illinois Universities (PRI), USA, introduced, 1974

'Prima' – complex heritage involving *Malus floribunda*, carries gene for scab resistance, from Purdue, Rutgers and Illinois Universities (PRI), USA, fruited 1963, introduced, 1970

'Prime Red' – 'Prima' x 'Summerred,' Istituto di Coltivazioni Arboree (DCA), Bologna, Spain

'Primevere' – 'Graham' x 597NJ1 (has *M. floribunda* 821 scab resistance in its ancestry), bred by R. L. Granger, S. Khanizadeh, Y. Groleau, C.N. Fortin, J. Janick, J. C. Goffreda and S. S. Korban, Agriculture and Agri–Food Canada, St–Jean–sur–Richelieu, Quebec, Canada, introduced, 1997

'Primus' – 'Reinette Rouge Etoilée' x 'Cox's Orange Pippin,' 1935 Institut Voor de Veredeling van Tuinbouwgewassen Wageningen, Netherlands

'Prince Charles' – 'Lord Lambourne' x 'Cox's Orange Pippin,' 1940–45, Herbert Robinson, Victorian Nurseries, Burbage Leicester, ENGLAND

'Prince Edward' – 'Cox's Pomona' x 'Cellini,' 1887, Herts, England

'Prince George' – 'Lane's Prince Albert' x 'Peasgood Nonsuch,' Surry, England

'Prins Bernhard' – 'Jonathan' x 'Cox's Orange Pippin,' 1935, Institut Voor de Veredeling van Tuinbouwgewassen Wageningen, Netherlands

'Princes Beatrix' – 'Cox's Orange Pippin' x 'Jonathan,' 1935, Institut Voor de Veredeling van Tuinbouwgewassen Wageningen, Netherlands

'Prinses Irene' – 'Jonathan' x 'Cox's Orange Pippin,' 1935, Institut Voor de Veredeling van Tuinbouwgewassen Wageningen, Netherlands, introduced, 1955

'Prinses Magriet' – 'Jonathan' x 'Cox's Orange Pippin,' 1935, Institut Voor de Veredeling van Tuinbouwgewassen Wageningen, Netherlands, introduced, 1955

'Prinses Marijke' – 'Jonathan' x 'Cox's Orange Pippin,' 1935, Institut Voor de Veredeling van Tuinbouwgewassen Wageningen, Netherlands, introduced, 1952

'Princess' – complex pedigree, PNJ75 x DIR101T117, Purdue, Rutgers and Illinois Universities (PRI), USA

'Prinz Albrecht Von Preussen' – 'Jonathan' x 'Cox's Orange Pippin,' 1935, Instituut Voor de Veredeling van Tuinbouwgewassen Wageningen, Netherlands

'Priols Delicious' – 'Golden Delicious' x 'Yellow April,' Institute Fruit Growing Maribor, Yugoslavia, prior to 1972

'Pristine'TM (Co-op 32 cv.) – 'Camuzat' x PRI 1659–10, 1974, complex pedigree, includes 'Starking Delicious,' 'McIntosh,' 'Golden Delicious,' 'Rome,' from Purdue, Rutgers and Illinois Universities (PRI) program, USA, introduced, 1994

'Priscilla' – complex heritage involving *Malus floribunda*, carries gene for scab resistance and 'Rome Beauty,' from Purdue, Rutgers and Illinois Universities, (PRI), USA, fruited 1966, introduced, 1972

'Priolov Delises' – 'Golden Delicious' x 'Yellow April,' 1947, Professor J. Priol, Institute Horticulture, Maribor, Slovenia, introduced, 1967

'Prolific' – 'Columbia' x 'Wealthy,' C. F. Patterson, University of Saskatchewan, Saskatoon, Saskatchewan, Canada, introduced, 1960

'Puritan' – 'McIntosh' x 'Red Astrachan,' c1931, F. C. Sears, Massachusetts Agriculture Experiment Station, Amherst, Massachusetts, USA, introduced, 1953

Q

'Qinquan' – 'Golden Delicious' x 'Jiguan,' Shaanxi Fruit Research Institute, Yangling, Wugong County, Shaanxi Province, China, introduced, 1970

'Querina' ('Florina') – Complex parentage involving 'Rome Beauty,' 'Golden Delicious,' 'Starking,' 'Simpsons Giant Limb' and 'Jonathan,' Station de Recherches dArboriculture Fruitiere, Angers, France, introduced, 1977

'Quinti' – 'Crimson Beauty' ('Early Red Bird') x 'Red Melba,' Experiment Farm, Ontario, Canada, introduced, 1962

R

'Rafzubin' ('Rubinette') – 'Golden Delicious' x 'Cox's Orange Pippin,' 1966, Walter Hauensetain, Rafz, Canton Zurich, Switzerland, introduced prior to 1987

'Rajka' – 'Sampion' x 'UEB 12/1,' Czech Republic

'Ranger' – 'Crimson Beauty' ('Early Red Bird') x 'Melba,' Experiment Farm, Ontario, Canada, introduced, 1964

'Raritan' – ('Melba' x 'Sonora') x ('Melba' x ['Williams' x 'Starr']), 1949, G. W. Schneider, Rutgers University, Agriculture Experiment Station, New Brunswick, New Jersey, USA, introduced, 1966

'Rebella'TM – 'Golden Delicious' x 'Remo,' 1986, Christa Fischer, Federal Centre of Breeding Research on Cultivated Plants, Dresden-Pillnitz, Germany, USPP 15,134, 2004, introduced, 1997

'Recolor'TM – 'Regine' x 'Reglindis,' Dresden-Pillnitz, Germany

'Red Berlepsch' – 'Ananas Reinette' x 'Ribston Pippin,' Germany, 1880

'Red Army' – 'Chatleys Kernel' x 'Worcester Pearmain,' F. W. Wastie, Eynsham, Oxon, ENGLAND, prior to 1945

'Red Baron' – 'Golden Delicious' x 'Daniels Red Duchess,' University of Minnesota Horticulture Research Center, USA, introduced, 1969

'Red Devil' – 'Discovery' x 'Kent,' H. F. Ermen, Faversham, Kent, England, introduced, 1975

'Red Flesh' – *Malus pumila* var. *niedzwetzkyana*, (red crab) x 'Elk River,' by Dr. Neils E. Hansen, South Dakota Agriculture Experiment Station, Brookings, South Dakota, USA, introduced, 1928, hardy crabapple

'Red Granny Smith' – 'Granny Smith' x 'Jonathan,' West Australia, introduced, 1961?

'Red Hook' ('Redhook') – 'McIntosh' x 'Carlton,' 1923, Richard Wellington, New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1938

'Red Ingestrie' – 'Orange Pippin' x 'Yellow Pippin,' c1800, by T.A. Knight, introduced, 1811

'Red Regent' – 'Red Duchess' x 'Red Delicious,' 1941, University of Minnesota Horticulture Research Center, USA

'Red River' – 'Dolgo' x 'Red Delicious,' A. F. Teager, North Dakota Agriculture Experiment Station, Fargo, North Dakota, USA, introduced, c1937

'Red Sauce' – 'Deacon Jones' x 'Wealthy,' 1910, Richard Wellington, New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1926

'Red Scarlet' – 'Red Bellflower' x 'Baldwin,' William E. Silva, Sebastopol, California, USA, introduced, 1965

'Red Sparkle' – 'Trail' x 'Melba,' Dr. C. R. Ure, Morden Research Station, Agriculture Canada, for the Prairie Fruit Breeding Cooperative, selected at AHRC, Brooks, Alberta, Canada, introduced, 1990

'Redbow' – 'Democrat' x 'Jonathan,' F. T. Bowman, New South Wales Department Agriculture, New South Wales, Australia, introduced, 1956

'Redfield' – 'Wolf River' x *Malus pulila* var. *niedzwetzkyana*, (red –flesh crab), Geneva Research Station, New York, USA

'Redfree' (Co-op 13 cv.) – complex pedigree, 'Raritan' x PRI 1018–101, from Purdue, Rutgers and Illinois Universities, (PRI), USA, introduced, 1981

'Redgold' – 'Golden Delicious' x 'Richared Delicious,' F. A. Schell, Cashmere, Washington, USA, introduced by Stark Brothers Nursery, 1946

'Redhook' ('Red Hook') – 'McIntosh' x 'Carlton,' 1923, Richard Wellington, New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1938

'Redkroft' – Hybrid 1,296–100 x 'Bancroft,' Poland

'Redsleeves' – 'Exeter Cross' x (scab resistant seedling), Dr. F. Alston, East Malling Research Station, Kent, ENGLAND, introduced, 1986

'Redwell' – 'Scotts Winter,' cross, c1911, University of Minnesota Fruit Breeding Farm, Excelsior, Minnesota, USA, introduced, 1946

'Regali' – 'Kidd's 28' x 'Starkrimson Delicious,' c1994, France

'Regent' – 'Daniels Red Duchess' x 'Duchess,' University of Minnesota Fruit breeding Farm, Excelsior, Minnesota, USA, introduced, 1963

'Regine'[™] – 'Kurzoco' x scab resistant clone, Federal Centre of Breeding Research on Cultivated Plants, Dresden, Germany

'Releika' – 'Clivia' x scab resistant clone, Christa Fischer, H. Murawski, Institute of Fruit Research, Dresden–Pillnitz, Germany, introduced, 1995

'Renora'[™] – 'Clivia' x seedling of *Malus floribunda*, Christa Fischer, H. Murawski, Institute of Fruit Research, Dresden–Pillnitz, Germany, introduced, 1996

'Renown' – 'Peasgood Nonsuch' x 'Cox's Orange Pippin,' Charles Ross, head gardener, Welford Park, Newbury, Berkshire, England, introduced, 1908

'Resi' – 'Clivia' x scab resistant clone, Christa Fischer, M. Fischer, H. Murawski, Institute of Fruit Research, Dresden–Pillnitz, Germany, introduced, 1999

'Resselaer' – 'Ben Davis' x 'Jonathan,' New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1914

'Retina' – 'Apollo' x seedling of *Malus floribunda*, Institute of Fruit Research, Dresden–Pillnitz, Germany, introduced, 1991

'Reverend W. Wilks' – 'Peasgood Nonsuch' x 'Ribston Pippin,' 1908, Berkshire, ENGLAND

'Revival' – 'Red Delicious' x 'Winter Banana'

'Richardson' ('Ashworth') – 'St. Lawrence'? x 'Duchess,' New York, USA, introduced, 1956

'Richelieu' – 'Ottawa–521' ('Melba' x PRI 11–511) x 'Ottawa–541' ('McIntosh' x PRI 47–77), 1983, breeders, R. L. Granger, C. N. Fortin and G. L. Rousselle, Agriculture and Agri–Food Canada, St–Jean–sur–Richelieu, Quebec, Canada, introduced, 1990

'Rival' – 'Peasgood Nonsuch' x 'Cox's Orange Pippin,' Charles Ross, head gardener, Welford Park, Newbury, Berkshire, England, i introduced by Clibrans, Altrincham, Cheshire. Received Royal Horticultural Society Award of Merit, 1900

'Roanoke' – 'Red Rome' x 'Schoharie' ('Northern Spy,' cross), 1949, G. D. Oberle, Virginia Polytechnic Institute, Blacksburg, Virginia, USA, introduced, 1967

'Roba' – 'Geheimrat Dr. Oldenburg' x unknown, more highly colored clone of Erwin Baur

'Robert Blatchford' – 'Blenheim Orange' x 'Reverend W. Wilks,' 1914, Norfolk, ENGLAND

'Robin' – '*Malus baccata*' x 'Simbrisk No. 9,' Experimental Farm, Ottawa, Canada, introduced, 1910

'Robolos'® ('Elise,' 'Red Delight') – 'Septer' x 'Cox's Orange Pippin,' Center for Plant Breeding & Reproduction Research, Ir. Bert Meulenbroek, breeder, Wageningen, Netherlands

'Rocket' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1911

'Rockland' – 'Ben Davis' x 'Mother,' New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1914

'Rosalie' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1911

'Rosana' – 'Jolana' x 'Lord Lambourne,' 1990, Czechoslovakia

'Rosanne' – 'Devonshire Quarrenden' x 'Democrat,' Mr. Waller, Hobart, Tasmania, Australia

'Rosilda' – 'Prince' x 'McIntosh,' William Saunders, Canada Department Agriculture Research Station, Ottawa, Canada, introduced, 1921, large crabapple

'Rosu de Clij' – 'Jonathan' x 'Senator,' Romania

'Rosybrook' (Crab) – 'Trail' x 'Rescue,' 1969, Alberta Horticulture research Centre, Brooks Alberta, Canada, introduced, 1981

'Roumyana' – 'Delicious' x 'Jonathan,' Fruitgrowing Institute, Plovdiv, Bulgaria

'Rouvillec' – 52-05-312 ('Red Melba' x 69-52 ['Wolf River' x *M. atrosanguinea* 804]) x 'McIntosh,' 1983, breeders, R. L. Granger and G. L. Roussele, Agriculture and Agri-Food Canada, St. Jean-sur-Richelieu, Quebec, Canada, introduced, 1983

'Rubens'™ – 'Gala' x 'Elstar,' by M. Leis, G. Castagnoli, A Martinellis, Consorzio Italiano Vivaisti (CIV), Ferrara, Italy, USPP 14,177

'Rubens' – 'Reinette Rouge Etoilée' x 'Cox's Orange Pippin,' Institut Voor de Veredeling van Tuinbouwgewassen Wageningen, Netherlands, introduced, 1954

'Rubin' – 'Lord Lambourne' x 'Golden Delicious,' 1960, University Agriculture, Prague, Czechoslovakia

'Rubinette' (**'Rafzubin'**) – 'Golden Delicious' x thought 'Cox's Orange Pippin,' 1966, Walter Hauensetein, Rafz, Switzerland

'Rubinola' – 'Prima' x 'Rubin,' Institute Experimental Botany, Strizovice, Czech Republic

'Rubinstar' – 'Golden Delicious' x 'Jonathan,' more highly colored clone of Jonagold which also matures one week earlier, 1980, Gaiberg, Germany

'Ruby' – seedling of 'Gallia Beauty' x 'Standard Delicious,' 1953, Ohio State University, Wooster, Ohio, USA

'Ruby' ('Seabrook') – probably 'Worcester Pearmain' x 'Rival,' W. P. Seabrook, Boreham, Essex, England, prior to 1936

'Ruby' ('Thorrington') – 'Cox's Orange Pippin,' cross, F. W. Thorrington, Hornchurch, Essex, England, prior to 1925

'Rutherford' – 'Elsa' x 'Melba,' by C. F. Patterson, University of Saskatchewan, Saskatoon, Saskatchewan, Canada, selected, 1945, introduced, 1959

'Ruzena Blahova' – 'Mother' (American) x 'James Grieve,' 1945, by V. Blaha, Libovice, North Bohemia, Czech Republic, tested in 1960-1970s, not introduced

S

'S. T. Wright' – 'Peasgood Nonsuch' x 'Bismark,' raised by J. Allgrove, manager of Veitch Nurseries, Langley, Berkshirehire, England, received Royal Horticulture Society Award of Merit, 1913

'Saint Ailred' – 'James Grieve' x 'Ellison's Orange,' 1942, Mount St. Bernard Abbey, Coalville, Leics, England

'Saint Everard' – 'Cox's Orange Pippin' x 'Margil,' C. Terry, head gardener, Papworth, Everard, near Cambridge, England, introduced, 1900

'SAJC38R6A74'TM – 'Linda' x 'Jonamac,' 1985, Agriculture and Agri-Food Canada (MFC), within the Horticultural Research and Development Center (HRDC) fruit breeding program, Canada

'Sampion' – 'Golden Delicious' x 'Lord Lambourne,' 1960, by Otto von Loudn, Penecin, Bohemia, Czech Republic, introduced, 1976

'Sandow' – 'Northern Spy,' cross, selected 1912, Central Experiment Farm, Ottawa, Canada, introduced, 1935

'Sansa' – 'Gala' x 'Akane,' bred in New Zealand, 1969 by the late Dr Don McKenzie at the then DSIR Fruit Research Divisions (now HortResearch) station at Havelock North, New Zealand, assigned to Japan for testing, Japan, Monoka Station, introduced, 1988

'Santana' – 'Elstar' x 'Priscilla,' Center for Plant Breeding & Reproduction Research, Ir. Bert Meulenbroek, breeder, Wageningen, Netherlands

'Saratoga' – 'Ben Davis' x 'Green Newton,' New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1914

'Staturm' – PRI 1235 x 'Starkspur' 'Golden Delicious,' Frank Alston and Ray Watkins, Horticulture Research International, East Malling, England, introduced, 1995

'Sayaka' – 'Jonathan' x 'Sekai Ichi,' K. Hatakoshi, Nagamo Station, Perfectural Fruit Tree Experiment Station, Japan, introduced, 1984

'Scarlet' – 'Akane' x 'Starking,' Nagamo Station, Perfectural Fruit Tree Experiment Station, Japan, introduced, 1984

'Scarlet O'hara' (Co-op 25) – complex pedigree, PCF 2–134 x PRI 669–205, from Purdue, Rutgers and Illinois Universities, (PRI), USA, introduced, 2000

'Schenectady' – 'Ben Davis' x 'Mother,' New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1915

'Schohaire Spy' – 'Rails' x 'Northern Spy,' New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1914

'Schweizer Orange' ('Swiss Orange') – 'Ontario' x 'Cox's Orange Pippin,' 1935, Federal Agriculture Research Station, Wädenswil, Switzerland, introduced, 1955

'Sci Early'[™] (**'Pacific Beauty'**[™]) – 'Gala' x 'Splendour,' 1975, Dr. Don McKenzie & Mr. Alan White, The Horticulture Food Research Institute, New Zealand Ltd. Palmerston, New Zealand

'Sci Fresh' ('Jazz'[™]): 'Gala' x 'Braeburn,' 1985, by A. White, The Horticulture and Food research Insitute of New Zeland, Havelock, North, New Zealand, USPP 13,888

'Scired'[™] (**'Pacific Queen'**[™]) – 'Gala' x 'Splendour,' 1975, Dr. Don McKenzie & Mr. Alan White, The Horticulture Food Research Institute, New Zealand Ltd. Palmerston North, New Zealand

'Sciglo'[™] – 'Gala' x 'Splendour,' 1975, Dr. Don McKenzie & Mr. Alan White, The Horticulture Food Research Institute, New Zealand Ltd. Palmerston North, New Zealand

'Sciray'[™] – 'Gala' x 'Splendour,' 1975, Dr. Don McKenzie & Mr. Alan White, The Horticulture Food Research Institute, New Zealand Ltd. Palmerston North, New Zealand

'Scirose'[™] (**'Pacific Rose'**[™]) – 'Gala' x 'Splendour,' 1975, Dr. Don McKenzie & Mr. Alan White, The Horticulture Food Research Institute, New Zealand Ltd. Palmerston North, New Zealand

'Scotia' – 'McIntosh,' cross, Kentville Research Station, Nova Scotia, Canada, introduced, 1961

'Scrumptious' – 'Starkspur Golden Delicious' x 'Discovery,' 1989, by Hugh Ermen, Faversham, Kent, England, introduced, 2000

'Secor' – 'Salmone' x 'Jonathan,' 1908, by S. A. Beach, Iowa Agriculture Experiment Station, Ames, Iowa, USA, introduced, 1928

'Sekai Ichi' – 'Red Delicious' x 'Golden Delicious,' 1930, Prefectural Experiment Station, Amori, Japan, introduced, 1974

'Selena' – 'Briemac' x 'Prima,' 1990, Czechoslovakia

'Sensyu' (**'Senshu'** or **'Senchu'**) – 'Toko' x 'Fuji,' 1966, Akita Experiment Station, Japan, introduced, 1980

'September Ruby' – 'Rescue' x 'Haralson,' Dr. C. R. Ure, Morden Research Station, Agriculture Canada for the Prairie Fruit Breeding Cooperative, Canada, introduced, 1986

'Septer' – 'Jonathan' x 'Golden Delicious,' Institut Voor de Veredeling van Tuinbouwgewassen Wageningen, Netherlands, introduced, 1977

'Sergeant Peggy' – 'Blenheim Orange' x 'Gloria Mundi,' 1922, F. W. Wastie, Eynsham, Oxon, England

'Shamrock' – 'Spur McIntosh' x 'Spur Golden Delicious,' Summerland British Columbia, Canada, introduced, 1986

'Sharon' – 'McIntosh' x 'Longfield,' 1906, S. A. Beach, Iowa State Agriculture Experiment Station, Ames, Iowa, USA, introduced, 1922

'Shay' (**'McShay'**) – 'McIntosh' x PRI 612-4, 1962, Named after Dr. Ralph J. Shay, Oregon State University, USA, introduced, 1980

'Shenandoah' – 'Winesap' x 'Opalescent,' 1942, R. C. Moore, Virginia Polytechnic Institute, Blacksburg, Virginia, USA, introduced, 1968

'Shin Indo' – 'Indo' x 'Golden Delicious,' 1930, Aomori Apple Experiment Station, Japan, named, 1948

'Shinano Gold' – 'Golden Delicious' x 'Fuji,' originating from Nagamo Station, Perfectural Fruit Tree Experiment Station, Japan

'Shinano Red' – 'Tsugaru' x 'Vista Bella,' originating from Nagamo Station, Perfectural Fruit Tree Experiment Station, Japan

'Shinano Sweet' – 'Fuji' x 'Tsugaru,' originating from Nagamo Station, Perfectural Fruit Tree Experiment Station, Japan

'Shinko' – 'Ralls Janet' x 'Jonathan,' 1931, Aomori Apple Experiment Station, Japan, introduced, 1948

'Shinsei' – 'Golden Delicious' x 'Early McIntosh,' 1930, Aomori Apple Experiment Station, Japan, named, 1948

'ShizEnglanda' – 'Indo' x 'Golden Delicious,' T. Murakami, private breeder, Japan

'Shlomit' – ('Calville St. Sauveur' x 'Damascus') x 'Delicious,' Chanan Oppenheimer, Rehovot, Israel, introduced, 1967

'Shoesmith' – 'Lane's Prince Albert' x 'Golden Noble,' E. G. Carpenter, Byfleet, Surry, England, exhibited, 1930

'Shoko' – 'Elk River' x 'Alexander,' by Dr. Neils E. Hansen, South Dakota Agriculture Experiment Station, Brookings, South Dakota, USA, introduced, 1922

'Silken'® – 'Honeygold' x 'Sunrise,' Columbia Agriculture Research Station, Summerland, British Columbia, Canada, introduced, 1996

'Silva' – 'Melba' x 'Stenbock,' 1945, Alnarp Agriculture College, Sweden, introduced, 1970

'Singe Tillisch' – 'Calville Blanc d'Hiver,' cross, circa 1866, Denmark, first described 1889

'Sinta' – 'Golden Delicious' x 'Grimes Golden,' 1956, Dr. K. O. Lapins, Summerland, Canadian British Columbia Agricultural Research Station, Canada

'Sir Prize' – complex heritage involving *Malus floribunda*, carries gene for scab resistance, from Purdue, Rutgers and Illinois Universities (PRI), USA, fruited 1961, released, 1975

'Siv' – 'Katja' x 'Buckley Giant,' Ullensvang Research Centre, division Njos, Leikanger, Norway

'Skinlite' – 'Golden Delicious' x 'Commercio,' 1947, R. Carlone, University Turin, Italy, introduced, 1973

'Slavyanka' – 'Antonovka' x 'Ananas Reinette,' 1889, I. V. Michurin, Michurinsk, Russia, fruited, 1896

'Snövit' – 'Stenbock' x 'Persikerott Sommarapple,' ('Peach Summer Apple'), 1936, Emil Johansson, Agriculture College, Alnarp, Sweden

'SnowSweet' – 'Sharon' x 'Connell Red', University of Minesota, USA, 2006

'Sonata' ('Pivova,' 'Corial,' 'Piñata'™) – ('Duchess of Oldenburg' x 'Cox's Orange Pippin') x 'Gol,' Institute of Fruit Research, Dresden–Pillnitz, Germany

'Sonya' – 'Red Delicious' x 'Royal Gala,' J. McLaren, Nevis Fruit Company, New Zealand, introduced, 2000 (USPP)

'South Dakota Ben' – 'Jonathan' x 'Tony,' by Dr. Neils E. Hansen, South Dakota Agriculture Experiment Station, Brookings, South Dakota, USA, introduced, 1938

'South Dakota Bison' – 'Jonathan' x (*Malus Bacatta* x 'Yellow Transparent'), Dr. Neils E. Hansen, South Dakota Agriculture Experiment Station, Brookings, South Dakota, USA, introduced, 1933

'South Dakota Bona' – 'Jonathan' x 'Sylvia,' Dr. Neils E. Hansen, South Dakota Agriculture Experiment Station, Brookings, South Dakota, USA, introduced, 1938

'South Dakota Eda' – 'Jonathan' x 'Tony,' Dr. Neils E. Hansen, South Dakota Agriculture Experiment Station, Brookings, South Dakota, USA, introduced, 1940

'South Dakota Waldo' – 'FkEnglande 10' x 'Duchess of Oldenburg,' Dr. Neils E. Hansen, South Dakota Agriculture Experiment Station, Brookings, South Dakota, USA, introduced, 1938, crabapple

'South Dakota Winter' – 'Redvein' x 'Elk River,' Dr. Neils E. Hansen, South Dakota Agriculture Experiment Station, Brookings, South Dakota, USA, introduced, 1942, crabapple

'South Park' – 'Cox's Orange Pippin' x 'Winter Queening,' c1940, W. Barkway, South Park, Penhurst, Kent, England

'Southern Snap'™ – 'Gala' x 'Spendour,' Hort Research Breeding Program, Havelock North, New Zealand

'Sowman's Seedling' – 'Grenadier' x 'Ecklinville,' 1914, Mr. Sowman, County Agriculture Station, Hutton, Lancs, England, introduced, 1927

'Sparta' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1914

'Spartan' – 'McIntosh' x 'Golden Delicious,' 1926, R. C. Palmer, Dominion Experiment Station, Summerland, British Columbia, Canada, introduced, 1936

'Spencer' – 'McIntosh' x 'Golden Delicious,' 1926, R. C. Palmer, Dominion Experiment Station, Summerland, British Columbia, Canada, introduced, 1959

'Spiana' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1925

'Spicap' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1929

'Spigold' – 'Red Spy' x 'Golden Delicious,' Dr. Roger W. Way, New York State Agriculture Research Station, Geneva, New York, USA, introduced, 1962

'Spijon' – 'Red Spy' x 'Monroe' ('Jonathan' x 'Rome'), 1944, Dr. Roger W. Way, New York State Agriculture Research Station, Geneva, New York, USA, introduced, 1968

'Spikee' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1926

'Spiland' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1923

'Spiman' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1929

'Spimil' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1922

'Spimore' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1923

'Spiotta' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1920

'Spiretta' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1923

'Spiro' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1920

'Spitone' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1930

'Spiwell' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1927

'Spiza' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1922

'Stark Blushing Golden' – believed, 'Jonathan' x 'Golden Delicious,' R. Griffith, Cobden, Illinois, introduced by Stark Brothers Nursery, USA, 1968

'Stark's Crimson Spire' (Obelisk cv) – Obelisk – (Cox's Orange Pippin x Court Pendu Plat) x Wjck McIntosh, 1970, Kenneth R. Tobutt, East Malling Research Station, Maidstone, Kent, ENGLAND, introduced, 1989, USPP 9,060 (1995), expires, 2012

'Stark's Summer Treat' ('NJ-49') – 'Mollies Delicious' cross, New Jersey Agriculture Experiment Station, New Brunswick, New Jersey, USA, introduced, 1982

'State Fair' – 'Mantet' x 'Oriole,' University of Minnesota, USA, introduced, 1979

'Stellar' – 'Goldspur' x AA-26, University of Arkansas, USA, late 1970s

'Stone' – 'Blue Pearmain' x unknown

'Stonecrop' – 'Stone,' cross, Ottawa Experiment Farm, Canada, introduced, 1925

'Stonehenge' – 'Stone,' cross, Ottawa Experiment Farm, Canada, introduced, 1925

'Stonetosh' – 'Stone' x 'McIntosh,' 1909, Ottawa Experiment Farm, Canada, introduced, 1923

'Stowell' – 'Cox's Orange Pippin' x 'Democrat,' Csiro, Stowell Avenue, Hobart, Tasmania, Australia, prior to 1974

'Sturmer Pippin' – 'Ribston Pippin' x 'Non Pareil,' Suffolk, England, 1831

'Summerdel' – 'Delicious' x 'Earliblaze,' Granite Belt Research Station, Applethorpe, Queensland, Australia, introduced, 1989

'Summerland' – 'McIntosh' x 'Golden Delicious,' 1926, Canadian Department Agricultural Research Station, Summerland, British Columbia, Canada, introduced, 1964

'Summerred' – 'McIntosh' x 'Golden Delicious,' K. O. Lapins, Canadian Department Agricultural Research Station, Summerland, British Columbia, Canada, introduced, 1964

'Sumukoni' – 'Jonathan' x 'Northern Spy,' Aomori Apple Experiment Station, Aomori, Japan

'SunCrisp' – 'Golden Delicious' x ('Cox's Orange Pippin' x 'Cortland'), therefore, 3/4 'Cox's Orange Pippin,' New Jersey, USA, introduced 1995

'Sundance'TM (Co-op 29): 'Golden Delicious' x 1050 NJI ('Winter Banana' x PRI 2-19), 1979, Jules Janik, Edwin B. Williams, West Lafayette, Indiana, PRI, cooperative introduction from the State Universities in Purdue, Rutgers and Illinois, USA, USPP 13,819 (2003)

'Sundowner'TM – 'Lady Williams' x 'Golden Delicious,' Horticulture Research Center, south of Perth, Southwestern tip of Australia, available 1995

'Sungold' – believed 'Golden Delicious' x 'Red Delicious,' A. & A. Caggiano, Bridgeton, New Jersey, USA, introduced, 1963

'Sunhong' – 'Hongro' x 'Chukwang,' 1992, Department of Tree Fruit Breeding, Horticultural Research Institute, Jangan-Gu, Suwon, Kyonggi, Republic of Korea, introduced, 2000

'Sunnybrook' – 'Heyer 12' x 'Morden 359,' Alberta Horticulture Research Centre, Brooks, Alberta, Canada, introduced, 1980

'Sunrise' – ('McIntosh' x 'Golden Delicious') x PCF-3-120, David Lane, British Columbia, Canada

'Suntan' – 'Cox's Orange Pippin' x 'Court Pendu Plat,' 1956, dr. Alston, East Malling Research Station, Maidstone, Kent, England, introduced, 1980

'Superior' – 'Duchess of Oldenburg' x 'Wealthy,' Joseph E. Lang, near Blaney Park, Michigan, USA, introduced, 1930

'SuperMac'TM – 'McIntosh' x PRI 674, 1971, Agriculture and Agri-food Canada (AAFC), Horticultural Research and Development Centre (CRDH), Quebec, Canada, introduced, 2005

'Sweet Caroline' – 'Golden Delicious' x 'McIntosh,' 1954, Institut Voor de Veredeling van Tuinbouwgewassen Wageningen, Netherlands, introduced, 1967

'Sweet Cornelly' – 'Golden Delicious' x 'McIntosh,' 1954 Institut Voor de Veredeling van Tuinbouwgewassen Wageningen, Netherlands, introduced, 1967

'Sweet Delicious' – 'Deason Jones' x 'Delicious,' New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1922

'Sweet McIntosh' – 'Lawver' x 'McIntosh,' New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1922

'Sweet Sixteen' – 'Minnesota447' x 'Northern Spy,' 1950, University of Minnesota, USA, introduced, 1978

'Swiss Orange' ('Schweizer Orange') – 'Ontario' x 'Cox's Orange Pippin,' 1935, Federal Agriculture Research Station, Wädenswil, Switzerland, introduced, 1955

'Sylvia' – 'Gyllenkroks Astrakan' x 'Worcester Pearmain,' Balsgård Fruit Breeding Institute, Sweden, introduced, 1973

'Szampion' – 'Golden Delicious' x 'Cox's Orange Pippin,' Czechoslovakia before 1995

T

'Takane' – 'Red Gold' x unknown, Nagamo Station, Prefectural Fruit Tree Experiment Station, Japan, introduced, 1984

'Tamahime' – 'Foster' x 'Jonathan,' Ehime, Japan, introduced, 1990

'Tasty' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced, 1912

'Taunton Cross' – 'Wealthy,' cross, 1919, G. T. Spinks, Long Ashton Research Station, Bristol, England

'Telamon' – 'Wijcik McIntosh' x 'Golden Delicious,' columnar apple, 1976, Tobutt, Kenneth R., East Malling Research Station, East Malling, Kent, England, introduced, 1989

'Telstar' – 'Golden Delicious' x 'Kidd's Orange Red,' 1934, J. H. Kidd, Grey town, Wairarapa Valley, New Zealand, named, 1965

'Tentation'® – 'Golden Delicious' x 'Grifer,' G. Delbard, Delbard Nursery, Malicorne, France

'Thorberg' – 'Duchess of Oldenburg' x 'Starking Delicious,' W. P. Baird, Northern Great Plains Field Station, Mandan, North Dakota, USA, introduced, 1957

'Thurso' – 'Northern Spy,' cross, 1898, Central Experiment Farm, Ottawa, Canada, introduced, 1908

'Tioga' – 'Suttons Beauty' x 'Northern Spy,' New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1915

'Toba' – 'Rosilda' x 'Angus,' Canada Department Agriculture Research Station, Morden, Manitoba, Canada, introduced, 1936, crabapple

'Toko' – 'Golden Delicious' x 'Indo,' 1939, Aomori Apple Research Station, Kuroishi City, Aomori-Prefecture, Japan, introduced, US, 1963

'Tolman Sweet' – 'Sweet Greening' x 'Old Russet,' Massachusetts, USA, brought to notice, 1822

'Tolmo' – 'Tolman Sweet' x 'Duchess of Oldenburg,' Dr. Neils E. Hansen, South Dakota Research Station, Brookings, South Dakota, USA, introduced, 1932

'Topaz' – 'Rubin' x 'Vanda,' Institute Experimental Botany, Strizovice, Czech Republic

'Toshfor' – 'McIntosh' x 'Forest,' Canada Department Agriculture Research Station, Ottawa, Ontario, Canada, introduced, 1926

'Toshkee' – 'McIntosh' x 'MilwaEnglandee,' Canada Department Agriculture Research Station, Ottawa, Ontario, Canada, introduced, 1923

'Toshlaw' – 'McIntosh' x 'Lawver,' Canada Department Agriculture Research Station, Ottawa, Ontario, Canada, introduced, 1925

'Toshprince' – 'Prince' x 'McIntosh,' Canada Department Agriculture Research Station, Ottawa, Ontario, Canada, introduced, 1905, crabapple

'Totem' – 'Ottawa 521' x 'Mzumi' open pollinated x 'Maypole,' ornamental columnar apple, 1983, Mr. Kenneth R. Tobutt, East Malling Research Station, Maidstone, Kent, ENGLAND

'Trail' (Crab) – 'Northern Queen' x 'Rideau,' Experimental Farm, Ottawa, Agriculture Canada, introduced, 1911

'Trailman' (Crab) – 'Trail' x 'Osman,' Dr. C. R. Use, Morden Research Station, Agriculture Canada for the Prairie Fruit Breeding Cooperative, tested and selected, at the Beaverlodge Research Station, Canada, introduced, 1973

'Trajan' – 'Wijcik McIntosh' x 'Golden Delicious,' 1976, (columnar tree), Kenneth R. Tobutt, East Malling Research Station, Maidstone, Kent, introduced, 1989

'Trakijska Kasna' – 'Jonathan' x 'McIntosh,' Fruitgrowing Institute, Plovdiv, Bulgaria

'Trakijska Slava' – 'Jonathan' x 'McIntosh,' Fruitgrowing Institute, Plovdiv, Bulgaria

'Trenton' – 'Northern Spy' x 'Golden Russet,' P. C. Demsey, Albury Ontario, Canada, introduced, c1920s

'Tsugaru' – 'Golden Delicious,' cross, Aomori Apple Experiment Station, Japan, introduced, 1975

'Tsugaru' – 'Jonathan' x 'Northern Spy,' Aomori Apple Experiment Station, Aomori, Japan, introduced, 1925

'TEnglandker' – 'Lunteraan' x 'Lonneker Apple,' N. Hubbeling, Wageningen, Netherlands, known in 1994

'Tumanga' ('Auralia') – 'Cox's Orange Pippin' x 'Schöner aus Nordhausen,' 1930, M. Schmidt, Kaiser Wilhelm Institute, Mücheberg, Brandenburg, Germany

'Tunda'® – 'Delbarestival' x 'Liberty,' Belgium

'Tuscan' – 'Wijcik McIntosh' x 'Greensleeves,' 1976, East Malling Research Station, Maidstone, Kent, England, introduced, 1989

'Tydeman's Early' – 'McIntosh' x 'Worcester Pearmain,' 1929, H. M. Tydeman, East Malling Research Station, Maidstone, ENGLAND, introduced, 1945

'Tydeman's Late Orange' – 'Laxton's Superb' x 'Cox's Orange Pippin,' 1930, H. M. Tydeman, East Malling Research Station, Maidstone, England, introduced, 1949

'Tydeman's Red' ('Michaelmas Red') – 'McIntosh' x 'Worcester Pearmain,' 1929, H. M. Tydeman, East Malling Research Station, Kent, England

U

'UEB 3264/2'TM – 'Golden Delicious' x 'Topaz,' by Jaroslav Tupy and Otto Louda, J. Zima, selected, 1999, Institute of Experimental Botany, discovered 1999, USPP 15,963 (2005) not available as of 2007

'UEB 3377/2'TM – 'Topaz' x 'Golden Delicious,' Tupy Jaroslav and Otto Louda, selected, 1999, Institute of Experimental Botany, discovered 1999, USPP 16,084 (2005) not available as of 2007

'Undine' – 'Jonathan,' cross, 1930s, M. Schmidt, Kaiser Wilhelm Institute, Mückeberg, Brandenburg, Germany

V

'Van Eseltine' – *Malus arnoldiana* x *M. spectabilis*, New York State Agriculture Experiment Station, Geneva, New York, USA, introduced, 1941, ornamental crab, semi-double light pink flowers

'Vanda' – 'Jolana' x 'Lord Lambourne,' Experimental Botany Station, Strizovice, Czechoslovakia, fruited in 1983.

'Velma' – 'Hudsons Golden Gem' x 'White Winter Pearmain,' 1960s, Larry McGraw, McGraw Experiment Garden, Kimberly, Oregon, USA,

'Vered' – 'Calville St. Sauveur' x unnamed local seedling, 1939, by Chanan Oppenheimer, Agriculture Research Station, Division Subtropical Horticulture, National and University Institute of Agriculture, Rehovot, Israel, introduced, 1953

'Vicking' – Parentage complex, includes 'Jonathan,' 'Delicious,' 'Williams Early Red,' 'Early McIntosh' and 'Starr,' nurseryman G.W. Gurney, Yankton, South Dakota, USA, introduced, 1925

'Victory' ('Carpenter') – 'Bismark' x 'Blenheim Orange,' George Carpenter, head gardener, West Hall, Byfleet, Surrey, England, introduced, 1923

'Virginia Gold' – 'Golden Delicious' x 'Albemarle Pippin,' 1944, Virginia Agricultural Experiment Station, USA

'Vista Bella' – 'Melba' x 'Early McIntosh,' L. P. Hough and C. Baley, University of New Brunswick, New Jersey, USA, introduced, 1978

'Volga' – 'Virginia' x 'Anisim,' Dr. Neils E. Hansen, South Dakota Experiment Station, Brookings, South Dakota, USA, introduced, 1933

'Von Zuccalmaglios Renette' ('Reinette de Zuccalmaglio' or 'Zuccalmaglio') 'Ananas Reinette' x 'Pupurroter Agatapfel,' 1878, Diedrich Uhlhorn, Grevenbioch, Rhineland, Germany

'Voyager' – 'Laxton's Superb' x possible 'McIntosh,' 1952, by A. R. King, Barnet, Herts.

W

'Wahoya' – 'Nevis' (crabapple) x 'Wolf River,' Dr. Neils E. Hansen, South Dakota Experiment Station, Brookings, South Dakota, USA, introduced, 1938

'Wakaga' – 'Nevis' (crabapple) x 'Wolf River,' Dr. Neils E. Hansen, South Dakota Experiment Station, Brookings, South Dakota, USA, introduced, 1938

'Wakapala' – 'Mercer' x 'Tolman Sweet,' Dr. Neils E. Hansen, South Dakota Experiment Station, Brookings, South Dakota, USA, introduced, 1928

'Wakonda' – 'Nevis' (crabapple) x 'Northern Spy,' Dr. Neils E. Hansen, South Dakota Experiment Station, Brookings, South Dakota, USA, introduced, 1931

'Waltz' – 'Wijcik McIntosh' x 'Golden Delicious,' 1976 (columnar tree) East Malling Research Station, Kent, ENGLAND, introduced, 1989

'Wamdesa' – 'Jonathan' x 'Elk River,' Dr. Neils E. Hansen, South Dakota Experiment Station, Brookings, South Dakota, USA, introduced, 1938

'Wanblee' – ('Elk River' x 'Bismark') x 'Wolf River,' Dr. Neils E. Hansen, South Dakota Experiment Station, Brookings, South Dakota, USA, introduced, 1932

'Waubay' – 'Grimes Golden' x 'Mercer,' Dr. Neils E. Hansen, South Dakota Experiment Station, Brookings, South Dakota, USA, introduced, 1933

'Waziya' – 'Nevis' (Crabapple) x 'Northwestern Greening,' Dr. Neils E. Hansen, South Dakota Experiment Station, Brookings, South Dakota, USA, introduced, 1933

'Wayne' – 'Northwestern Greening' x 'Red Spy,' New York State Agriculture Research Station, Geneva, New York, USA, introduced, 1962

'Webster' – ('Ben Davis' x 'Jonathan') x ('Ben Davis' x 'Jonathan'), 1912, Richard Wellington, New York State Agriculture Research Station, Geneva, New York, USA, introduced, 1935

'Wecota' – 'Nevis' (Crabapple) x 'Northwestern Greening,' Dr. Neils E. Hansen, South Dakota Experiment Station, Brookings, South Dakota, USA: introduced, 1929, crabapple

'Welford Park Nonsuch' – ?'Golden Harvey' x 'Lane Abby Pearmain,'
Berkshirehire, England, 1864

'Wellant'® – Selection CPRO x 'Elise,' Centre for Plant Breeding & Reproduction
Research located near Wageningen, Netherlands

'Wellington' – 'Cortland' x 'Crimson Beauty,' New York State Agriculture
Experiment Station, Geneva, New York, USA, introduced, 1955

'Westchester' – 'Ben Davis' x 'Green Newton,' New York State Agriculture
Experiment Station, Geneva, New York, USA, introduced, 1914

'Westland' – 'Heyer 12' x 'De-Bill,' Morden Research Station, Agriculture
Canada by C. R. Ure for the Prairie Fruit Breeding Cooperative, selected as
11E-14-40 at AHRC, Brooks Alberta, tested as PF 8, USA, introduced, 1979

'Wetonka' – 'Nevis' (crabapple) x 'Wolf River,' Dr. Neils E. Hansen, South
Dakota Experiment Station, Brookings, South Dakota, USA, introduced, 1929,
crabapple

'Whetstone' – 'Conrad' x 'Delicious,' 1912, by Paul H. Shepard, Missouri State
Fruit Experiment Station, Mountain Grove, Missouri, USA, introduced, 1935

'Whitten' – 'Ingram' x 'Delicious,' J. C. Whitten at Turner Station Fruit Farm,
Missouri Agriculture Experiment Station, 'Columbia' Missouri, USA, introduced,
1926

'Wickson Crab' – 'Spitzenberg Crab' x 'Newtown Crab,' c late 1920s or c early
1930s, Albert Etter, Humboldt County, California, USA, introduced, 1944

'Wijcik' – 'Fameuse' or 'Saint Lawrence' x unknown, discovered by Anthony
Wijcik, mutation of 'McIntosh' producing original columnar tree, Kelowna, British
Columbia, Canada

'Wildung'™ – 'Sharon' x 'Connell Red,' 1970, University of Minnesota
Horticultural Research Center in Excelsior, Minnesota, USA, introduced, 2005

'Wilgar' – 'Northern Spy,' cross, Ottawa Experiment Farm, Canada, introduced,
1923

'William Crump' – 'Cox's Orange Pippin' x 'Worcester Pearmain,' Crump was a
gardener at Madresfield Court, Worcestershire, England, introduced, 1910

'William's Pride' (Coop 23) – complex pedigree, PRI 1018-101 x NJ 50, from
Purdue, Rutgers and Illinois Universities (PRI), USA, introduced, 1988

'Winchester' – 'York Imperial' x 'Lowry,' Virginia Agricultural Experiment Station, USA,

'Winston' – 'Cox's Orange Pippin' x 'Worcester Pearmain,' 1920, William Pope, Welford Park, Berkshire, England, introduced, 1935 as Winter King

'Winter Gem' – 'Cox's Orange Pippin' x 'Grimes Golden,' Hugh Ermen, introduced by Mr. F. P. Matthews of Worcestershire, England, 1993

'Winter Queen' – 'Osman' x 'Wealthy,' C. F. Patterson, University of Saskatchewan, Saskatoon, Saskatchewan, Canada

'Woolbrook Russet' – 'Bramley's Seedling' x 'Kings Acre Pippin,' 1903, J. H. Stevens & Son, Woolbrook Nursery, Sidmouth, Devon, England, introduced, 1930

'Worcester Cross' – 'Cox's Orange Pippin' x 'Wealthy,' 1920, G. T. Spinks, Long Ashton Research Station, Bristol, ENGLAND, introduced, 1932

'Wright' – 'Ben Davis' x 'Jonathan,' Missouri Agriculture Experiment Station, Mt. Grove Missouri, USA, introduced, 1942

'WSU AxP'[™] – 'Prima' x 'Alkmene,' Washington State University, USA, edible crab

Y

'Yanshanhong' – 'Ralls Janet' x 'Ruchard Delicious,' Hebei Changli Fruit Institute, Changli County, Hebei Province, China, Introduced, 1989

'Yellow Beauty' – 'Columbia' x 'Wealthy,' C. F. Patterson, University of Saskatchewan, Saskatoon, Saskatchewan, introduced, 1960

'Yellow Ingestrie' – 'Orange Pippin' x 'Golden Pippin,' c1800, T. A. Knight, Elton Manor, near Ludlow, Shropshire, England

'Yoko' – 'Golden Delicious' open pollinated, Gunma Agricultural Research Center, Japan, introduced, 1981

Z

'Zari'® – 'Elstar' x 'Delbarestival,' 1988, Johan Nicolai, Paul Van Laer, Johan Keulemans, Hendrik Eyssen, Els Pauwels and Inge De Wit, Rillaar, Belgium, introduced, 2006

'Zestar!'TM – 'State Fair' x 'MN 1691,' University of Minnesota Horticulture Research Center, USA, introduced, 1999

'Zhigulevskoe' – 'Borovinka' ('Duchess of Oldenburg') x 'Wagener,' Prizovoe, Pavlovsk Experiment Station, St. Petersburg, Russia, prior to 1976

'Zonga'[®] – 'Alkmene' x 'Delbarestival,' Belgium

References

- Beach, S. A. 1905. *The apples of New York, Volumes I & II*. Report of the New York Agricultural Experiment Station for the Year 1903. J. B. Lyon Company, Printers, Albany. New York.
- Crawford, Martin. 2001. *Directory of apple cultivars*. Agro'Forest'ry Research Trust, 46 hunters Moon, Dartington, Totnes, Devon TQ9 6JT. England.
- Hanson, Beth, Editor. 2005. *The best apples to buy and grow*. Brooklyn Botanic Garden, Inc. Handbook #181. Sterling Publishing Company, Inc. 387 Park Avenue South, New York, New York 10016.
- Hedrick, U. P. 1925. *Systematic pomology*. The Macmillan Company, New York. Keepers Nursery
- Manhart, Warren. 1995. *Apples for the 21st century*. North American Tree Company, D.B.A. Portland Nursery, 5050 S.E. Stark Street, Portland, OR 97215.
- Sanders, Rosanne. 1988. *The apple book*. Philosophical Library, Inc. 200 West 57th Street, New York, NY 10019.
- Smith, Muriel W. G. 1971. *The national apple register of the United Kingdom*. Ministry of Agriculture, Fisheries and Food. London.
- Whealy, Kent, Editor. 2001. *Fruit, berry and nut inventory*. Seed Savers Exchange, 3076 North Winn Road, Decorah, Iowa 52101.

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