

Dr Jared P. Kirtland Amateur of Horticulture

Rebecca M. Rogers

The recent uncovering of several letters and more than 180 books and garden catalogues belonging to Dr Jared Potter Kirtland (1793–1877) opens a window into the early agricultural development in the Connecticut Western Reserve in northeastern Ohio, during the period 1825–1840. Famous for identifying the Kirtland warbler, for writing 'Fish of Ohio' and 'Birds of Ohio', for the first geological survey, and for minute observations of fresh water mollusk, the Niades, in his free time, Kirtland turned his very able hands to gardening and plant propagation. He built an extensive nursery from his and from his family's gardens. He swapped material with his neighbours, patients, social, business and political acquaintances. Further, he bought expensively from East Coast nurseries. Kirtland's skill as a teacher, his enthusiasm for sharing his plants and his remarkable ability to be comfortable with all kinds and sorts of men suggest that he had access to almost any garden where he desired entry. Through his network of contacts, northeastern Ohio gardeners acquired plants shortly after their American nursery introduction to the East, and with them the knowledge of how to utilize them to the best advantage in the local Ohio climate and soils.

When Jared P. Kirtland (figure 1) arrived in the Mahoning Valley of Ohio in the fall of 1823, he was 30 years old and had more than 20 years of gardening experience reaching back to his early childhood.¹ His grandfather, the well-known Connecticut doctor Jared Potter of Wallingford, taught young Kirtland budding, grafting and general garden practices. His grandfather also trained him in observation, a skill he continuously relied upon in his study of natural history. Kirtland further enriched his skill and horticultural education studying botany with Eli Ives while enrolled at the Yale Medical Institute in New Haven, Connecticut. During a year at the Pennsylvania Medical College, in Philadelphia, he became a friend of Benjamin Smith Barton, one of America's leading authorities on native American medicinal plants. His Yale thesis was 'Materia Medica Furnished by Our Indigenous Vegetation', no doubt inspired by the friendship with Barton.

His earliest American gardening book is a first edition of Bernard McMahon's *The American Garden Calendar*, which he purchased in 1812, the year before entering Yale.² He made notations on how to begin a nursery of fruit trees, how to espalier fruit trees and prune grapes, how to mound up root crops to keep them all winter and how to grow two medicinal plants, licorice and rhubarb. In the plant lists at the end of the book, Kirtland marked trees, shrubs, vines, perennials, bulbs, annuals, evergreens and fruit trees. He noted many popular plants like guelder rose, lilac, primroses, hyacinths and tulips, but at this time, his particular interest lay with medicinal plants, especially American species.³

In 1814, shortly after buying McMahon's garden book, Kirtland purchased one of his two favourite fruit guides: William Forsyth's *A Treatise on the Cultivation and Management of Fruit Trees*.⁴ This book explains fruit tree cultivation and identifies most recognizable fruits



Figure 1. Jared P. Kirtland
(Photo: courtesy of Historical
Divisions, Cleveland Health
Sciences Library).

by shape, colour, taste, etc. Kirtland made frequent marks and references in this book. Undoubtedly he relied upon it to identify unnamed trees and scions that he acquired.

Kirtland's earliest seed catalogue, McMahon's fourth edition, is dated 'Dec. 1815'. From it, the young farmer purchased \$3.00 worth of unspecified fruit trees. This was at the same time that Kirtland was beginning his medical practice in Wallingford.

Considerable evidence shows that Kirtland had a large inventory of plants and fruit trees by the time he left Connecticut for Ohio. His eulogist, Professor J. S. Newberry, says that every moment not spent in medical practice, while in Connecticut, was spent in the '... cultivation of the natural sciences. Plants, flowers, fruit trees, birds, fishes, insects, and shells all received a share of his attention...' ⁵ In a letter to a friend in Connecticut three months after reaching Ohio, Kirtland refers to a list of grafts requested from an Esquire Chauncy. He continues, 'I am going extensively into the cultivation of a nursery. Fruit trees are in high demand here.' ⁶ By 1826, just three years after arriving in Ohio, Kirtland offered Ephraim Brown, a state legislator who was an acquaintance of his uncle Jared Kirtland, a choice of 182 kinds of fruit trees and grape vines. ⁷

Yet Kirtland seldom appears to have been in the nursery business. Rather, he shared his plants with 'Amateurs of Horticulture' from whom he asked cuttings of choice plants not in his own garden collections. As Kirtland acquired more and rarer plants, often producing his own hybrids, he sent carefully wrapped cuttings with detailed instructions for cultivation and declined monetary payment. From Ephraim Brown, in exchange for six varieties of grape, Kirtland requested 'any variety of Flower or ornamental shrub, particularly fine varieties of Roses in Your Garden'. ⁸

How extensive was Jared P. Kirtland's network of sources for plants once he moved to Ohio? During the period 1803–1823, when Jared's family was living in the Mahoning Valley, young Kirtland, Grandfather Potter and other Connecticut friends undoubtedly sent plants to Jared's father. Jared's brother Henry, an accomplished gardener,⁹ travelled extensively for his mercantile business, providing more than annual opportunities for bringing new plants and gardening books back to Ohio from the Ohio River Valley, Philadelphia, Baltimore, New York and New England. Jared bought plants from McMahon's and Landreth's in Philadelphia, Floy's and Thorburn's in New York, Prince's on Long Island and Buel & Wilson's in Albany.¹⁰ Jared's father, Turhand Kirtland, was a member of an unofficial oligarchy in the Western Reserve made up of proprietors of the Connecticut Land Company and proprietors' friends who settled in Ohio. These men controlled many of the land sales in the Western Reserve, an area the size of Connecticut. They were the gentlemen farmers, judges, legislators and founders of Western Reserve College; they and their families shared visits, books and plants. Through his father, Jared knew most of these men and had access to their gardens. Jared P. Kirtland was a renowned and popular doctor, working as far away as the shores of Lake Erie and the Ohio River Valley. Such travel brought him new acquaintances and new plants. Beginning in 1828, Jared P. Kirtland served three terms in the Ohio Legislature in Columbus. There he established horticultural contacts with Ohioans outside the Western Reserve, notably the doctors and grape growers of Cincinnati.¹¹ Kirtland also sought out well-known plant



Figure 2. The Jared P. Kirtland house, constructed 1823–25. In 1832, the tax assessment for the two-storey frame house was \$625.00. In the 875 square miles of Trumbull County, northeast Ohio's most established county, this house was one of only 62 buildings with an appraised value of \$300.00 or more.

growers like the German Pietist Father Jacob Rapp, head of the Harmonist Society who lived at Economy, Pennsylvania, on the Ohio River.¹²

Within two months after arriving in the Mahoning Valley, Kirtland began collecting material for the construction of his residence and farm.¹³ The 243 acres his father gave him faced the main east-west road about a mile from the Poland village green. His house (figure 2) is a commodious, two-storey, late federal frame house with kitchen ell; the yard had a front walk and fence. The site sloped gently to the east and southeast. This, according to good nineteenth-century gardening practices, should have been the site of the garden. East of the house, along the road, is a 1½ storey board-and-batten carriage house with root cellar beneath. The whole farm site has been severely disturbed, so that no knowledge or evidence of other out-buildings or yards or gardens has survived into this decade.

Kirtland's property must have been handsomely planned, planted and maintained, as Kirtland professed fondness for all that was pretty and well-cared for, elaborating that he liked wealth not to have money but to be able to purchase all that he desired. He added that he thought he had great taste in his choice of what he purchased.¹⁴ His plant lists attest both to his good taste and his desire to purchase all he wanted. J. S. Newberry said of Kirtland's later residence in Cleveland:

He lived surrounded by the beautiful things which he had created from materials within the reach of all: the flowers blooming for him as for no other, the fruits blending for him their fairest forms and richest flavors, the very *weeds* and *stones* becoming eloquent and poetical at his beck.¹⁵

Romantic as these words now sound, their sentiment surely applied to the Poland farm as well.

Fruit trees were Kirtland's first major horticultural interest and expenditure. From 1815–1830, he bought trees from McMahon's, Floy's Prince's and Buel & Wilson's. He traded with other gardeners. Both his orchard and his nursery must have been large. In 1826 he could offer Ephraim Brown a choice of 71 kinds of apple trees, 32 kinds of peaches, 17 kinds of cherries, 13 kinds of grapes, nine kinds of plums and five kinds of apricots.¹⁶ He espaliered fruit trees to gain the largest and most perfectly formed fruits. A 'Plan of my Fruit Trees' in the front cover of William Cox's *A View of the Cultivation of Fruit Trees* (figure 3), shows plum trees espaliered against a barn and a mix of apple, peach, pear, plum and apricot trees and grape vines along fencing leading to this barn. He wrapped and lay down or protected his more winter-tender trees and vines. He began experiments in hybridizing. In the 1850s Ellwanger & Barry of Rochester sold Kirtland's hybrid cherries throughout the United States and Europe under Kirtland's name.

Kirtland's vegetable garden probably followed the general plan recommended by Willim Cobbett in his *American Gardener*, a book Kirtland called 'Horticulture Said Right'. This garden plan continued in common use in the Western Reserve well into the 1870s: a fenced square or rectangular area divided into eight raised beds each separated by three- to four-foot paths. Along the fencing, there may have been a six-foot border for seedlings, clumps of herbs, flowers and flowering shrubs and cold frames. Usually this garden also contained strawberries, goosberries and currants, in addition to herbs and vegetables. Like all gardens grown before refrigeration and safe home-canning, Kirtland's garden held many root vegetables that could be stored in the ground and perennial greens that would be edible in earliest spring. Most other plants could be pickled or dried. Kirtland bought large Scotch leeks, early Savoy cabbages and white Cape or cauliflower broccoli from Thorburn's 1828

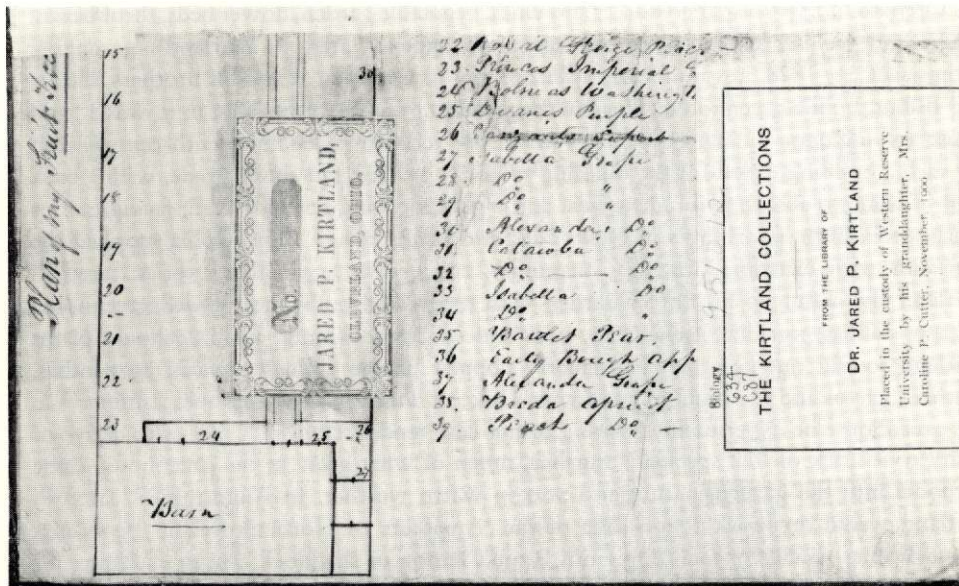


Figure 3. 'Plan of my Fruit Trees' from the inside front cover of William Cox's *A View of the Cultivation of Fruit Trees* (Courtesy of Historical Divisions, Cleveland Health Sciences Library).

catalogue.¹⁷ He showed interest in 76 different herbs and vegetables in his copy of Cobbett.¹⁸ Surely he shared these plants with the 'Amateurs of Horticulture', though no record of it survives.

The custom in all but the grand houses of the early nineteenth century was to have flowers and shrubs in the borders of the vegetable garden or a few hardy plants in the busy dooryard near the house. The sheer number of flowers, shrubs and shade trees owned by Jared P. Kirtland suggests that the Poland farm had some kind of landscaped yard or 'pleasure ground' with flower beds, clustered and individual trees and shrubs, walks and perhaps arbors or trellises for the many vines.¹⁹ No notion of these plantings survived to be recorded in modern memory. Kirtland's choice of flowers was comprehensive, including spring bulbs like striped and parrot tulips, snowdrops, hyacinths and fritillarias. There were varieties of perennials that had been grown throughout the colonial period: iris, columbine, baby's breath, carnations, hollyhocks. Some plants were indigenous or curious looking like crane's bill, hepatica, trillium, lady slippers, pitcher plant. Annuals included Chinese asters, amaranth, larkspur, morning glories, balsam, lupins and sweet peas. Popular shrubs and trees of this period all had either showy flowers or fruit. They often had a sweet smell. Many were native American plants. Nearly all of Kirtland's trees and shrubs were deciduous; only hemlock, red cedar, balm of Gilead, laurel and rhododendron were not. Kirtland particularly favoured franklinia, fringe tree, paper mulberry and swamp magnolia. Even before their surge in popularity in the late 1840s, Kirtland manifested a great interest in vines. He bought 17 kinds between 1812 and 1830, with scarlet trumpet vine and birthwort (Dutchman's pipe) his favourites.²⁰

Orchard, nursery, espaliered trees and vines, vegetable garden, flower beds, shrubberies, arbors and trellises had not enough spaces to expend Jared P. Kirtland's gardening enthusiasm. By 1828, just four years after moving to Ohio, Jared and his brothers, Henry and Billius, built a greenhouse. This building, judging by the plants kept in it, was a 'cold house' relying upon the sun's heat, not a stove. The recommended nineteenth-century plan for such a building called for the building's floor to be elevated above grade, with a back wall of stone to absorb and radiate heat and a glazed ceiling and side wall, facing east or southeast.²¹ Both Thorburn's in New York and Landreth's in Philadelphia supplied the Kirtlands with camellias, fuschias, magnolias, rubbertrees, and other exotics. Jared P. Kirtland also indulged his flower garden with tubers and bulbs that needed greenhouse storage: dahlias, tigridias, lachenalias, ixias and tuberose. Among his greenhouse plants Kirtland sought out new and particularly popular plants: Chinese azaleas, agapanthas, heathers, cactus and the highly prized vine, Duke of Tuscany's large double jasmine.²² In this greenhouse he experimented with grafting cold tender scions of a species to native or hardy root stock of that species.²³ Further, much of what grew in the greenhouse came outdoors into the garden in tubs and pots in warm weather. In August 1828, Jared P. Kirtland wrote Frederick Rapp, one of the 'Amateurs of Horticulture', in Economy, Pennsylvania, asking for a cutting from Rapp's lemon or shaddock tree in exchange for 'Monthly roses, Hydrangea, Geranium, Figs, Oranges, or Lemons'.²⁴

Besides offering interested 'Amateurs of Horticulture' fruit trees, vegetable seeds, flowers, shrubs, shade trees and greenhouse plants, Kirtland encouraged northern Ohio farmers to improve soils, crop yields and general agricultural practices. He continuously worked to have low, wet areas drained, especially pastures where wetness promoted hoof diseases and animal parasites. He wanted all farm animals to have shelter in winter weather. He campaigned to convert farms to dairy farming because he saw Ohio soils depleted by wheat farming. He encouraged adding lime to the acid, clayey soils to improve yields.²⁵ After his death, S. J. Newberry said of him:

He became the teacher of thousands, of doctors, and farmers, and florists, and horticulturalists, and naturalists; teaching all of them things of which they would have been ignorant but for him—things that made them better doctors, better farmers, better naturalists, better men!²⁶

In the late 1830s Kirtland began preparations to move to the shores of Lake Erie, near Cleveland. He purchased a large farm, improved the soil, planted orchards, vineyards and gardens and built a stone house and several outbuildings. He finally vacated his Poland farm in 1841. In the years until his death in 1877, the Lake Erie farm was a mecca for students of horticulture and a centre for Kirtland's other interests. In the 1850s, his agricultural column in *The Family Visitor* was a larger mouthpiece for his teaching better farming methods and the advantages of seldom planted shade trees, flowering shrubs and native wild flowers. He was also a founder of the statewide movement to set up county agricultural societies to promote better farming practices. No description of the Lake Erie experimental farm has been found. Unlike the more than 900 plants known to have been cultivated by Kirtland before 1835, the plants purchased to landscape the Lake Erie farm are largely unrecorded. The earlier plant lists and Kirtland's correspondence from the Poland farm give a view of what plants were available to a young, pioneer society far away from America's few East Coast nurseries.

Notes

1. J. S. NEWBERRY, 'The Ohio Naturalist', *Cleveland Herald* (Saturday, 24 May 1879), p. 10. This eulogy is the source for every biographical sketch of Dr Jared P. Kirtland.
2. BERNARD MCMAHON, *The American Garden Calendar* (Philadelphia: B. Graves, 1806); Cleveland Health Sciences Libraries Archives, Cleveland, Ohio.
3. See list of plants noted by Kirtland, Appendix 1.
4. Jared P. Kirtland, *The Family Visitor*, I, 4, (4 January, 1850), p. 29.
5. Newberry, 'Ohio Naturalist'.
6. Jared P. Kirtland to Wentworth Wadsworth, 25 December 1823, Poland, Ohio; Western Reserve Historical Society Library, Cleveland, Ohio.
7. Jared P. Kirtland to Ephraim Brown, 4 December 1826, Poland, Ohio; Western Reserve Historical Library, Cleveland, Ohio. See Appendix 2.
8. Kirtland to Brown.
9. Henry T. Kirtland developed the Kirtland pear from a Seckle pear in 1819.
10. Appendix 1.
11. Kirtland was invited to teach at The Medical College of Ohio in Cincinnati in 1835. Undoubtedly he became known to the Cincinnati medical community through contacts with Cincinnati legislators.
12. Jared P. Kirtland to Frederick Rapp, 19 August 1828, Poland, Ohio; Pennsylvania Bureau of Archives and History, Harrisburg, Pennsylvania.
13. Kirtland to Wadsworth.
14. R. H. COLLYER, MD, *Manual of Phrenology* (Cincinnati: Alexander Flash, 1838), p. 82. Kirtland annotated his copy of this book with comments about his own character.
15. Newberry.
16. Kirtland to Brown.
17. See list of vegetables, Appendix 3.
18. WILLIAM COBBETT, *American Gardener* (London: C. Clement, 1821).
19. Appendix 1.
20. Appendix 1.
21. BERNARD MCMAHON, *American Gardener* (Reprint: New York: Funk & Wagnalls, 1976), pp. 99–100.
22. Appendix 1.
23. KIRTLAND, *The Family Visitor*, I, 17 (16 May 1850).
24. Kirtland to Rapp.
25. KIRTLAND, *The Family Visitor*, I, 5 (31 January 1850).
26. Newberry, 'Ohio Naturalist'.

Appendix 1: Plants

The following lists are compiled from Kirtland's copies of

| | |
|---|---|
| Bernard McMahon's <i>The Garden Calendar</i> , purchased 1812 | M |
| Michael Floy's catalogue, 1823 | F |
| G. Thorburn & Son's catalogue, 1828 | T |
| David & Cuthbert Landreth's catalogue, 1828 | L |
| Buel & Wilson's catalogue, 1830 | B |
| William Kendrick's catalogue, 1836–37 | K |

The lists are separated into categories of Trees, Shrubs, and Vines; Flowers; and Greenhouse Plants. Within each category, plants are listed according to how frequently they are mentioned in his orders. For all plants, the Latin name given by each nineteenth-century seedsman is listed, together with the current Latin name, when it is known or likely known. The common name from the nineteenth-century source is given, except when no common name was given or when each source had a different common name. Trees, shrubs, vines and flowers native to the United States are noted by 'n'; those brought from outside the United States of the 1830's are marked 'f'.

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Trees, shrubs, and vines

| | | | |
|---|------------------------------|---|------------|
| <i>Gordonia pubescens</i> (now <i>Franklinia alatamaha</i>) | Franklinia | n | M, M, F, K |
| <i>Aralia spinosa</i> | angelica tree | n | M, F, K |
| <i>Aristolochia siphon</i> (now <i>A. durior</i>) | birthwort | n | F, T, L |
| <i>Bignonia radicans</i> (now <i>Campsis radicans</i>) | trumpet creeper | n | F, F, B |
| <i>Chionanthus virginiana</i> (now <i>C. virginicus</i>) | fringe tree | n | M, F, K |
| <i>Magnolia glauca</i> (now <i>M. virginiana</i>) | swamp magnolia | n | T, F, K |
| <i>Morus papyrifera</i> (now <i>Broussonetia papyrifera</i>) | paper mulberry | f | F, B, K |
| <i>Calycanthus floridus</i> | Carolina allspice | n | M, F |
| <i>Cassia marilandica</i> | Maryland cassia | n | M, M |
| <i>Celastrus scandens</i> (now <i>Celastrus scandens</i>) | bittersweet | n | M, F |
| <i>Colutea arborescens</i> | bladder senna | f | M, F |
| <i>Comptonia asplenifolia</i> (now <i>peregrina asplenifolia</i>) | sweet fern | n | M, F |
| <i>Convolvulus major purpureus</i> (now <i>Ipomoea purpurea</i>) | dark blue morning glory | f | M |
| <i>Cornus florida</i> | dogwood | n | M, F |
| <i>Cornus sanguinea</i> | red-twig dogwood | n | M, F |
| <i>Daphne mezereum</i> | | f | M, F |
| <i>Dirca palustris</i> | marsh leatherwood | n | M, F |
| [Latin name not given] (now <i>Fraxinus excelsior</i>) | European ash | f | F, B |
| <i>Fraxinus alba</i> (now <i>F. americana</i>) | American white ash | n | M, F |
| <i>Fraxinus nigra</i> | American black ash | n | M, F |
| <i>Hibiscus syriacus</i> | rose of Sharon | f | M, F |
| <i>Juniperus virginiana</i> | red cedar | n | M, F |
| <i>Kalmia latifolia</i> | sheep laurel | n | M, F |
| <i>Laurus benzoin</i> (now <i>Lindera benzoin</i>) | spicebush | n | M, F |
| <i>Laurus sassafras</i> (now <i>Sassafras albidum</i>) | sassafras | n | M, F |
| <i>Lavatera trimestris</i> | tree mallow | f | M, M |
| <i>Ligustrum vulgare</i> | privet | f | M, F |
| <i>Lonicera caprifolium</i> | English honeysuckle | f | F, B |
| <i>Lonicera diervilla</i> (now <i>Diervilla lonicera</i>) | yellow bush honeysuckle | n | M, F |
| <i>Morus alba</i> | white Italian mulberry | f | M, F |
| <i>Myrica cerifera</i> | wax myrtle | n | M, F |
| <i>Prinos verticillatus</i> (now <i>Ilex verticillata</i>) | winterberry | n | M, F |
| <i>Sorbus americana</i> | American mountain ash | n | M, F |
| <i>Robinia pseudoacacia</i> | common locust | n | M, F |
| <i>Rubus odoratus</i> | flowering raspberry | n | M, F |
| <i>Solanum dulcamara</i> | woody night shade | n | M, F |
| <i>Spiraea tomentosa</i> | steplebush | n | M, F |
| <i>Staphylea trifoliata</i> (now <i>S. trifolia</i>) | leaved bladdernut | n | M, F |
| <i>Syringa vulgaris, alba and purpurea</i> | lilac, white, purple | f | M, F |
| <i>Tilia americana</i> | American black lime tree | n | M, F |
| <i>Viburnum opulus var. sterile</i> | guelder rose | f | M, F |
| <i>Vinca major</i> | large periwinkle | f | M, M |
| <i>Abies balsamea</i> | balm of Gilead | f | F |
| <i>Aesculus flava</i> (now <i>A. octandra</i>) | yellow-flower horse chestnut | n | M |

| | | | |
|--|------------------------------|---|---|
| <i>Aesculus parviflora</i> | dwarf horse chestnut | n | K |
| <i>Aesculus pavia</i> | red-flowering chestnut | n | K |
| <i>Ampelopsis quinquefolia</i> (now <i>Parthenocissus quinquefolia</i>) | Virginia creeper | n | F |
| <i>Amygdalus nana</i> fp (now <i>Prunus tenella</i>) | double-flowering almond | f | F |
| <i>Amygdalus persica</i> fp (now <i>Prunus persica</i> 'Alboplana') | double-flowering peach | f | M |
| <i>Anoma glabra</i> (now <i>Asimina trioba</i>) | paw paw | n | F |
| <i>Azalea nudiflora</i> (now <i>Rhododendron periclymenoides</i>) | pinxter | n | F |
| <i>Azalea viscosa</i> glauca (now <i>Rhododendron viscosum</i>) | swamp azalea | n | M |
| <i>Berberis canadensis</i> | barberry | n | F |
| <i>Betula lenta</i> | black birch | n | f |
| <i>Betula lutea</i> (now <i>B. alleghaniensis</i>) | yellow birch | n | F |
| <i>Betula papyrifera</i> | American white birch | n | F |
| <i>Buxus sempervirens</i> | boxtree | f | M |
| <i>Ceanothus americanus</i> | New Jersey tea | n | M |
| <i>Cephalanthus occidentalis</i> | marsh buttonbush | n | M |
| <i>Clematis virginiana</i> | woodbine | n | M |
| <i>Clethra alnifolia</i> | sweet pepperbush | n | M |
| <i>Convolvulus rosea</i> (now <i>Ipomoea coccinea</i>) | rose-coloured morning glory | f | T |
| <i>Convolvulus tricolor</i> | dwarf convolvulus | f | M |
| <i>Cornus sericea</i> (now <i>C. rugosa</i>) | blueberry dogwood | n | M |
| <i>Crataegus</i> (now <i>Crataegus crus-galli</i>) | white hawthorne, fp | n | B |
| <i>Diospyros virginiana</i> | persimmon | n | F |
| <i>Evonymus americana</i> | burning bush | n | F |
| <i>Fagus castanea</i> (now <i>Castanea pumila</i>) | spring chestnut | n | M |
| <i>Fagus grandifolia</i> | beech | n | F |
| [Latin name not given] | English ash | f | F |
| <i>Gaultheria procumbens</i> | tea berry | n | M |
| <i>Gleditsia triacanthos</i> | honey locust | n | M |
| <i>Glycine</i> (now <i>Wisteria sinensis</i>) | Chinese wisteria | f | K |
| <i>Halesia tetraptera</i> (now <i>H. carolina</i>) | silver bell | n | F |
| <i>Hamamelis virginiana</i> | witch hazel | n | M |
| <i>Hedera helix</i> | English ivy | f | F |
| <i>Hydrangea hortensis</i> (now <i>H. macrophylla macrophylla</i>) | china red and blue hydrangea | f | F |
| <i>Ilex aquifolium</i> | English holly | f | F |
| <i>Ipomea quamoclit</i> (now <i>Ipomoea quamoclit</i>) | cypress vine | f | T |
| <i>Jasminum fruticans</i> (now <i>Gelsemium sempervirens</i>) | yellow jasmine | n | F |
| <i>Juglans compressa</i> (now <i>Carya ovata</i> or <i>C. laciniosa</i>) | shagbark hickory | n | M |
| <i>Juglans nigra</i> | black walnut | n | M |
| <i>Kalmia latifolia</i> | mountain laurel | n | F |
| <i>Lavandula spica</i> (now <i>Lavandula angustifolia</i>) | common lavender | f | F |
| <i>Liriodendron tulipifera</i> | tulip poplar | n | M |
| [Latin name not given] (unknown) | fragrant honeysuckle | | B |
| <i>Magnolia acuminata</i> | blue-flowered cucumber | n | F |

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|---------------------------------------|----------------------------|---|---|
| <i>Menispermum candense</i> | Canadian moonseed | n | M |
| <i>Morus rubra</i> | large American mulberry | n | F |
| <i>Philadelphus coronarius</i> | syringa | f | F |
| <i>Philadelphus inodorus</i> | Carolina syringa | n | M |
| <i>Pinus strobus</i> | white pine | n | M |
| <i>Populus tremula</i> | trembling aspen | f | M |
| <i>Prunus cerasus</i> fp | double-flowered cherry | f | F |
| <i>Prunus virginiana</i> | choke cherry | n | M |
| <i>Quercus obtusiloba</i> | | | |
| (unknown) | upland oak | | M |
| <i>Rhamnus catharticus</i> | | | |
| (now <i>R. cathartica</i>) | official buckhorn | f | F |
| <i>Rhododendron maximum</i> | | | |
| (now <i>Rhododendron maximum</i>) | swamp laurel | n | F |
| <i>Rhus copallinum</i> | | | |
| (now <i>R. copallina</i>) | lentiscus-leaved sumach | n | M |
| <i>Rhus cotinus</i> | | | |
| (now <i>Cotinus coggygria</i>) | Venetian sumach | | F |
| <i>Rhus glabrum</i> | | | |
| (now <i>R. glabra</i>) | smooth sumach | n | M |
| <i>Rhus radicans</i> | poison ivy | n | M |
| <i>Rhus typhinum</i> | | | |
| (now <i>R. typhina</i>) | staghorn sumach | n | M |
| <i>Rhus vernix</i> | poison sumach | n | M |
| <i>Ribes oxycanthoides</i> | hawthorn-leaved gooseberry | n | M |
| <i>Robinia glutinosa</i> | | | |
| (now <i>R. viscosa</i>) | scarlet-flowered locust | n | F |
| <i>Robinia hispida</i> | rose acacia | n | F |
| <i>Sambucus canadensis</i> | Canada red berry elder | n | M |
| <i>Salix babylonica</i> | weeping willow | f | M |
| <i>Sorbus americana</i> | American mountain ash | n | F |
| <i>Spirea opulifolia</i> | | | |
| (now <i>Physocarpus opulifolius</i>) | ninebark spirea | n | F |
| [Latin name not given] | | | |
| (unknown) | European basswood | f | F |
| <i>Tsuga canadensis</i> | hemlock | n | F |
| <i>Ulmus americana</i> | American elm | n | M |
| <i>Vaccinium macro carpon</i> | common cranberry | n | M |
| <i>Viburnum oxycoccus</i> | | | |
| (perhaps <i>V. trilobum</i>) | cranberry tree | n | F |
| <i>Zanthoxylum clavaherculus</i> | | | |
| (now <i>Z. clava-herculis</i>) | Hercules club | n | F |

Flowers: Annuals, perennials and bulbs

| | | | |
|----------------------------------|----------------------------|---|----------|
| <i>Ranunculus asiaticus</i> | garden ranunculus | f | M, M, T, |
| <i>Bellis perennis</i> | double European daisy | f | M, T, T |
| <i>Cheiranthus annuus</i> | | | |
| (now <i>Cheiranthus cheiri</i>) | ten-week stockgilly flower | f | M, M, T |
| <i>Dahlia</i> | | f | F, F, B |
| <i>Paeonia officinalis</i> | peony, red, white | f | M, B, T |
| <i>Agrostemma githago</i> | corm rose campion | f | M, M |
| <i>Alcea rosea</i> | hollyhock | f | M, M |
| <i>Anemone hepatica</i> | | | |
| (now <i>Hepatica americana</i>) | hepatica | n | M, M |
| <i>Anemone hortensis</i> | garden anemone | f | T, T |
| <i>Apocynum androsaemifolium</i> | Tuscan-leaved dogbone | n | M, M |
| <i>Aquilegia vulgaris</i> | European columbine | f | M, M |
| <i>Arethusa verticillata</i> | | | |
| (uncertain) | verticillate arethusa | n | M, M |
| <i>Asclepias decumbens</i> | | | |
| (now <i>A. tuberosa</i>) | butterfly weed | n | M, M |

| | | | |
|---|---------------------------------|---|------|
| <i>Aster chinensis</i> (now <i>Callistephus chinensis</i>) | China aster | f | M, M |
| <i>Carthamus tinctorius</i> | bastard saffron | f | M, M |
| <i>Chrysanthemum coronarium</i> | garden chrysanthemum | f | M, M |
| <i>Crocus officinalis</i> (perhaps <i>C. sativus</i>) | true saffron | f | M, M |
| <i>Cypripedium acaule</i> | purple lady slipper | n | M, M |
| <i>Cypripedium canadense</i> (now perhaps <i>C. calceolus</i>) | yellow lady slipper | n | M, M |
| <i>Dianthus caryophyllus</i> , max var. <i>variegatus</i> | clove pink | f | M, M |
| <i>Erythronium den canis</i> (now <i>E. dens-canis</i>) | dogtooth violet | f | M, M |
| <i>Ferraria tigridia</i> (now <i>Tigridia pavonia</i>) | Mexican tiger-flower | f | F, T |
| <i>Galega virginiana</i> (unknown) | Virginia galega | n | M, M |
| <i>Gentiana saponaria</i> | soapwort-leaved gentian | n | M, M |
| <i>Gerardia flava</i> (now <i>Aureolaria flava</i>) | yellow-flowered gerardia | n | M, M |
| <i>Helianthus annuus</i> | sunflower | n | M, M |
| <i>Hesperis matronalis</i> | garden rocket | f | M, M |
| <i>Hibiscus trionum</i> | bladder hibiscus | f | M, M |
| <i>Hyacinthus orientalis</i> | garden hyacinth, many varieties | f | M, M |
| <i>Hypoxis erecta</i> (now <i>H. hirsuta</i>) | upright hypoxis | n | M, M |
| <i>Iberis umbellatum</i> (now <i>I. umbellata</i>) | purple candytuft | f | M, M |
| <i>Iris florentina</i> (now <i>Iris x germanica</i> var. <i>florentina</i>) | orris root | f | M, M |
| <i>Iris persica</i> | dwarf Persian iris | f | M, M |
| <i>Iris pumila</i> | dwarf flag iris | f | M, M |
| <i>Lathyrus odoratus</i> | sweet pea | f | M, M |
| <i>Lilium candidum</i> | madonna lily | f | M, M |
| <i>Lilium philadelphicum</i> | woods lily | n | M, M |
| <i>Limodorum tuberosum</i> (now <i>Calopogon tuberosus</i>) | | n | M, M |
| <i>Lupinus hirsutus</i> | great blue lupin | f | M, M |
| <i>Lupinus luteus</i> | yellow lupin | f | M, M |
| <i>Lupinus perennis</i> | wild lupin | n | M, M |
| <i>Lupinus pilosus</i> | rose lupin | f | M, M |
| <i>Nigella damascena</i> | love in a mist | f | M, M |
| <i>Nigella hispanica</i> | devil in a bush | f | M, M |
| <i>Papaver somniferum</i> | opium poppy | f | M, M |
| <i>Papaver somniferum</i> , fp | double white poppies | f | M, M |
| <i>Phlox paniculata</i> | garden phlox | n | M, M |
| <i>Polianthes tuberosa</i> | double tuberose | f | T, T |
| <i>Primula vulgaris</i> | European primrose | f | M, M |
| <i>Reseda odorata</i> | mignonette | f | M, M |
| <i>Sanguinaria canadense</i> (now <i>Sanguinaria canadensis</i>) | bloodroot | n | M, M |
| <i>Sedum anacampseros</i> | evergreen orpine | f | M, M |
| <i>Senecio aureus</i> | golden grousel | n | M, M |
| <i>Tagetes patula</i> | French marigold | f | T, M |
| <i>Tradescantia virginiana</i> | spiderwort | n | M, M |
| <i>Trillium cernuum</i> | nodding trillium | n | M, M |
| <i>Triosteum perfoliatum</i> | fever root | n | M, M |
| <i>Tropaeolum majus</i> | nasturtium | f | M, M |
| <i>Tulipa gesnerana</i> | garden tulips, many varieties | f | M, M |
| <i>Veratrum luteum</i> (unknown) | | | M, M |
| <i>Veratrum viride</i> | green-flowered veratrum | n | M, M |
| <i>Viola palmata</i> | bird-foot violet | n | M, M |

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| | | | |
|--|-----------------------------|---|---|
| <i>Aconitum napellus</i> | blue monk's hood | f | M |
| <i>Actea racemosa</i> | | | |
| (now <i>Actaea racemosa</i>) | black snakeroot | n | M |
| <i>Actea spicata</i> | | | |
| (now <i>A. spicata</i> v. <i>alba</i> or <i>A. pachypoda</i>) | white snakeroot | n | M |
| <i>Adonis autumnalis</i> | | | |
| (now <i>A. annua</i>) | birdseye | f | M |
| <i>Agrostemma cacti-rosa</i> | | | |
| (now <i>Lychnis coeli-rosa</i>) | smooth-leaved campion | f | M |
| <i>Agrostemma coronaria</i> | | | |
| (now <i>Lychnis coronaria</i>) | rose campion | f | M |
| <i>Alyssum balmifolia</i> | | | |
| (unknown) | | | M |
| <i>Amaryllis atamasco</i> | | | |
| (now <i>Zephyranthes atamasco</i>) | atamasco lily | n | T |
| <i>Amaryllis formosissima</i> | | | |
| (now <i>Sprekelia formosissima</i>) | Jacobean lily | f | T |
| <i>Anagallis arvensis</i> | red pimpernel | f | M |
| [Latin name not given] | double anemone | f | T |
| <i>Aralia racemosa</i> | spikenard | n | F |
| <i>Arum triphyllum</i> | | | |
| (now <i>Arisaema triphyllum</i>) | Indian turnip | n | M |
| <i>Asclepias purpurascens</i> | purple Virginia swallowtail | n | M |
| <i>Asclepias syriaca</i> | common milkweed | n | M |
| <i>Asclepias verticillata</i> | whorled milkweed | n | M |
| <i>Bartsia coccinea</i> | | | |
| (perhaps <i>Odonites serotina</i>) | scarlet bartsia | f | M |
| <i>Bartsia coccinea</i> v. <i>lutea</i> | | | |
| (unknown) | yellow bartsia | | M |
| <i>Cacalia coccinea</i> | | | |
| (now <i>Emilia javanica</i>) | scarlet cacalia | f | M |
| <i>Caltha palustris</i> , fp | double marsh marigold | n | M |
| <i>Campanula medium</i> | Canterbury bells | f | M |
| <i>Campanula pyramidalis</i> | chimney campanula | f | B |
| <i>Campanula speculum</i> | | | |
| (perhaps <i>Legousia speculum-veneris</i>) | Venus' looking-glass | f | M |
| <i>Centaurea americana</i> | great American centaurea | n | T |
| <i>Centaurea moschata</i> | purple sweet sultan | f | M |
| <i>Centaurea moschata</i> , v. <i>alba</i> | white sweet sultan | f | M |
| <i>Cheiranthus cheiri</i> v. <i>glaber alba</i> | white stockgilly flower | f | T |
| <i>Cheiranthus cheiri</i> v. <i>glaber purpurea</i> | purple Prussian | f | T |
| <i>Claytonia virginica</i> | virginia claytonia | n | M |
| <i>Coix lacryma jobi</i> | Job's tears | f | M |
| <i>Coreopsis elegans</i> | | | |
| (now <i>C. tinctoria</i>) | elegant coreopsis | n | T |
| <i>Crepis barbata</i> | | | |
| (now <i>Tolpis barbata</i>) | yellow hawkweed | f | M |
| <i>Cucubalus stellatus</i> | | | |
| (now <i>Silene stellata</i>) | four-leaved campion | n | M |
| <i>Datura fastuosa</i> | | | |
| (now <i>D. metel</i>) | double purple stramonium | f | M |
| <i>Delphinium ajacis</i> | | | |
| (now <i>Consolida ambigua</i>) | upright garden larkspur | f | M |
| <i>Delphinium elatum</i> | bee larkspur | f | M |
| <i>Dianthus barbatus</i> | sweet william | f | M |
| <i>Dianthus chinensis</i> | China pink | f | M |
| <i>Digitalis purpurea</i> | purple foxglove | f | M |
| <i>Epigaea repens</i> | creeping epigaea | n | M |
| <i>Euphorbia variegata</i> | | | |
| (perhaps <i>E. marginata</i>) | variegated euphorbia | n | T |
| <i>Fritillaria imperialis</i> | crown imperial | f | M |

| | | | |
|---|---|---|---|
| <i>Fumaria bulbosa</i> (now <i>F. officinalis</i>) | bulbous fumatory | f | M |
| <i>Fuminaria capnoides</i> X (unknown) | white flower fumatory | | M |
| <i>Galanthus nivalis</i> | spring snowdrop | f | M |
| <i>Gentiana ciliata</i> (unknown) | fringed gentian | n | M |
| <i>Geranium maculatum</i> | spotted crane's bill | n | M |
| <i>Gerardia pedicularia</i> (now <i>Aureolaria pedicularia</i>) | louseworted-leaved gerardia | n | M |
| <i>Gomphrena globosa</i> (now <i>G. globosa</i>) | globe amaranth | f | M |
| <i>Heuchera americana</i> | sanicle | n | M |
| <i>Houstonia caerulea</i> (now <i>Hedyotis caerulea</i>) | bluet | n | M |
| <i>Muscari comosum</i> v. <i>monstrosum</i> | large, purple, feathered single hyacinths | f | T |
| <i>Impatiens balsamina</i> (now <i>Impatiens balsamina</i>) | garden balsam | f | M |
| <i>Impatiens noli tangere</i> (now <i>Impatiens noli-tangere</i>) | touch me not | f | M |
| <i>Ixia</i> | corn lily | f | T |
| <i>Lachenalia</i> | cape cowslip | f | T |
| <i>Lathyrus latifolius</i> | everlasting pea | f | M |
| <i>Lobelia cardinalis</i> | cardinal flower | n | M |
| <i>Lupinus albus</i> | white lupin | f | M |
| <i>Martynia probisidea</i> (now <i>Proboscidea louisianica</i>) | cuckold's horns | n | M |
| <i>Mesembryanthemum lipidum</i> (unknown) | transparent fig marigold | | M |
| <i>Mimosa pudica</i> | sensitive or humble plant | f | M |
| <i>Mirabilis jalapa</i> | four o'clock | f | M |
| <i>Monardia dydima</i> (now <i>M. didyma</i>) | oswego tea | n | M |
| <i>Oenothera biennis</i> | broad-leaved primrose tree | n | M |
| <i>Oenothera purpurea</i> (unknown) | purple-flowered primrose tree | | M |
| <i>Oxalis violacea</i> | purple oxalis | n | M |
| <i>Phlox maculata</i> | spotted stalk phlox | n | M |
| <i>Physalis viscosa</i> | clammy winter cherry | f | M |
| <i>Podalyria tinctoria</i> (perhaps <i>baptisia tinctoria</i>) | bastard indigo | n | M |
| <i>Podophyllum peltatum</i> | mayapple | n | M |
| <i>Polyanthus narcissus</i> | grand monarque de France | f | T |
| | white with yellow cups | | |
| | Belle legoise | f | T |
| | yellow in six sorts, by name | f | T |
| | double cups, in six sorts | f | T |
| | double roman, early and very sweet scented | f | T |
| <i>Pyrrola rotundifolia</i> | round-leaved wintergreen | n | M |
| <i>Rhexia virginica</i> | hairy-leaved rhexia | n | M |
| <i>Ricinus communis</i> | caster oil plant | f | M |
| <i>Rosa cinnamomea</i> | cinnamon rose | | M |
| <i>Rosa moscata</i> (now <i>R. centifolia</i> v. <i>muscosa</i>) | white moss rose | f | T |
| <i>Rosa provincialis, flora alba</i> | white common provincial rose | f | M |
| <i>Rosa provincialis, flora rubra</i> | red common provincial rose | f | M |
| <i>Rudbeckia purpurea</i> (now <i>Echinacea purpurea</i>) | purple rudbeckia | n | M |
| <i>Saponaria officinalis</i> | common soapwort | f | M |
| <i>Sarracenia flava</i> | yellow sidesaddle flower | n | M |

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|---|--------------------|---|---|
| <i>Tulipa gesneriana</i> , var. <i>dracontia</i> | parrot tulip | f | T |
| <i>Verbascum blattaria</i> (now <i>V. blattaria</i>) | moth mullein | n | M |
| <i>Veronica virginica</i> (now <i>Veronicastrum virginicum</i>) | Virginia speedwell | n | M |

Greenhouse plants (all foreign origins except where noted)

| | | | |
|---|----------------------------------|---|---------|
| <i>Cactus grandiflorus</i> (now <i>Selenicereus grandiflorus</i>) | great night blooming cereus | | L, T, T |
| <i>Erica ciliaris</i> | ciliated heath | | L, T, T |
| <i>Fuchsia coccinea</i> (now <i>F. coccinea</i> or <i>F. magellanica</i>) | scarlet ladies' eardrop | | L, T, T |
| <i>Hoya carnosia</i> | splendid Chinese hoyo | | B, T, L |
| <i>Magnolia pupurea</i> (now <i>M. quinquepeta</i>) | Chinese purple magnolia | | B, T, T |
| <i>Arum dracunculus</i> (now <i>Dracunculus vulgaris</i>) | dragonplant | | T, T |
| <i>Aucuba japonica</i> | Japan gold dust tree | | T, L |
| <i>Azalea indica</i> (now <i>Rhododendron indicum</i>) | Chinese red flower azalea | | T, L |
| <i>Cactus melo cactus</i> (now <i>Melocactus communis</i>) | turkscap | | T, T |
| <i>Cactus triangutaris</i> (unknown) | superb night-blooming cereus | | T, T |
| <i>Camellia sasanqua rosea pleno</i> | double blush tea-leaved camellia | | T, T |
| <i>Citrus myrtifolia</i> (now <i>C. aurantium</i>) | myrtle-leaved orange | | T, L |
| <i>Corchorus japonica</i> (now <i>Kerria japonica</i>) | Japan globe flower | | T, T |
| <i>Nerium rubo pleno</i> (now <i>N. oleander</i>) | double red oleander | | T, T |
| <i>Oxalis versicolor</i> | oxalis versicolor | | T, T |
| <i>Punica granatum</i> (now <i>Punica granatum</i>) | common pomegranate | | L, L |
| <i>Pelargonium grandiflorum</i> | great-flower geranium | | T, T |
| <i>Protea argentia</i> | Cape silver tree | | T, L |
| <i>Viburnum tinus v. lucida</i> (now <i>V. tinus lucida</i>) | shiny-leaved laurustinus | | T, L |
| <i>Abroma augustifolia</i> (unknown) | maple-leaved aboma | | T |
| <i>Agapanthus umbellatus</i> (now <i>Agapanthus africanus</i> or <i>orientalis</i>) | large African blue lily | | T |
| <i>Agapanthus umbellatus v. folstriata</i> (now <i>A. africanus</i> or <i>orientalis</i>) | stripe-leaved agapanthus | | T |
| <i>Agave americana</i> | great American aloe | | T |
| <i>Aloe arborea</i> | tree aloe | | T |
| <i>Alstromeria pelegrina</i> (now <i>Alstroemeria pelegrina</i>) | Peruvian spotted alstromeria | | T |
| <i>Anemone thalictroides</i> (now <i>Anemonella thalictroides</i>) | rue-leaved anemone | n | T |
| <i>Arbutus uneda</i> (now <i>A. unedo</i>) | European strawberry tree | | T |
| <i>Cactus ferox</i> (unknown) | ferocious cactus | | T |
| <i>Cactus flagelliformus</i> (now <i>Cereus flagelliformis</i>) | creeping cereus cactus | | L |
| <i>Cactus manillaris</i> (unknown) | small melon cactus | | T |
| <i>Camellia coccinea</i> (perhaps <i>C. japonica v. anemoniflora</i>) | double scarlet warrata | | T |
| <i>Camellia japonica</i> | single red camellia | | L |

| | | |
|---|--|---|
| <i>Citrus aurantium</i> | Seville orange | T |
| <i>Citrus homile</i> (perhaps <i>C. reticulata</i>) | dwarf China orange | T |
| <i>Citrus nobilis</i> (now <i>C. reticulata</i>) | Chinese dwarf or mandarin orange | L |
| <i>Chrysanthemum indicum</i> | superb white chrysanthemum | L |
| <i>Correa alba</i> | white flower correa | L |
| <i>Daphne odora</i> | sweet-scented daphne | L |
| <i>Epacris grandifolia</i> (now <i>E. impressa</i>) | large-flower epacris | L |
| <i>Erica grandiflora</i> (likely <i>E. renricosa</i> , v. <i>grandiflora</i>) | great-flower heath | L |
| <i>Erica mediterranea</i> | Mediterranean heath | B |
| <i>Erica multiflora</i> | many-flowered heath | T |
| <i>Ficus elastica</i> | true Indian rubber tree | T |
| <i>Gardinia</i> (perhaps <i>G. jasminoides</i>) | Cape jasmine | L |
| <i>Gorteria pavona</i> (unknown) | splendid peacock gorteria | T |
| <i>Hopea tinctoria</i> (unknown) | dyer's hopea | L |
| <i>Jasminum toscanum</i> v. <i>tri foliatum</i> (now <i>J. sambac</i> , double form) | Duke of Tuscany's large double jasmine | T |
| <i>Langerstroemia indica</i> (now <i>Lagerstroemia indica</i>) | crimson langerstroemia | L |
| <i>Myrtus australis</i> v. <i>sp</i> (now <i>Syzygium paniculatum</i>) | double flower myrtle | T |
| <i>Olea</i> (likely <i>Olea europaea</i>) | olive | L |
| <i>Sempervivum arboreum</i> | treehouse leak | T |
| <i>Yucca aloë folia</i> (now <i>Y. aloëfolia</i>) | Adam's needle | L |
| <i>Yucca gloriosa</i> | Adam's needle | T |

Appendix 2: recommended fruit

Fruit-growing books were among Kirtland's earliest purchases. He preferred Forsyth before 1823, then Forsyth and Coxe, while living in the Mahoning Valley. He marked fruit trees in McMahon's *The American Garden Calendar*, purchased in 1812; McMahon's catalogue, fourth edition, 1815; David & Cuthbert Landreth's catalogue, 1828; William Prince's catalogue, 1829; Buel & Wilson's catalogue, 1830; and William Kendrick's catalogue, 1836-37. In his copy of James Thatcher's *The American Orchardist*, he listed some apples observed at various farms in the Mahoning Valley in 1830. From various notes in Thatcher, Coxe, Forsyth, and later in *The Family Visitor's* agricultural column, it appears that a good bit of Kirtland's time was occupied in identifying different varieties of fruit. The discrepancy in varietal names, indeed the wide numbers of kinds of fruit, in part occurred from propagation by seed rather than by grafting. New varieties of fruit often provided greater blight resistance, greater frost resistance, longer storage life, greater soil tolerance, a longer period of fruit yield, as well as better flavours for a variety of uses.

Three years after moving to Ohio, in 1826, Kirtland sent his handwritten nursery list to Ephraim Brown at Brownwood Farm, Bloomfield Township, Trumbull County, Ohio. From each of these trees Kirtland would provide scions to other 'Amateurs of Horticulture' in exchange for plants not found in his own garden.

Grapes

1. White Sweetwater
 2. Millers or Burgundy
 3. Isabella
 4. Clapiers White
 5. Gillinghams Bleu
 6. Blands Virginia
 7. Cape of Good Hope (supposed)
 8. From Floy's
 9. Brought from England by
 10. Mr Whittlesey of Wall'fd Ct.
 11. White Fox
 12. Black Fox
 13. Bullet
 14. Lisbon from Walling'd
- A variety of seedlings

Apples

1. English Redstreaks
2. Winesap
3. Witherells White Sweeting
4. Newton Spitzenberg
5. Kaighns Spitzenberg
6. New England Seek No Further
7. Summer Rose
8. Hewes Virginia Crab
9. Ninepartmus Russet
10. Campfield
11. Winter Pearmain
12. Ruckman Pearmain
13. Sheepnose
14. Catlin or Grigson
15. Woods, Greening
16. Wine
17. Rambo
18. Harrison
19. Summer Pearmain
20. Bell flower
21. English Codling
22. Maindes Blush
23. Red Doctor
24. *Pome D Apis*
25. Roman Stern
26. Hunts Green Pippin
27. Pennock
28. White Juneating
29. Newark Yellow Pippin
30. Ribston Pippin
31. *Gloria Mundi*
32. Marriotts Permain
33. Woomans Long Pippin
34. Ladies Finger
35. Coliers Sweet
36. Gennet Moile
37. Early Bough
38. American Pippin
39. Tewksbury Winter Blush
40. Black
41. White claville
42. Gilpin or Cart House
43. Styre

44. Hank or Grey House
45. Summer Queen
46. Siberian Crab
47. New Jersey Redstreak
48. Fall Permain
49. Roxbury Russet
50. Boston Russet
51. Winter Sweeting
52. Rhode Island Greening
53. Talcott Sweeting
54. Esq Millus Best
55. Gilly flower
56. Seymors Long Red
57. Lafayette Sweeting
58. Vandevea
59. Fall Spitzenberg
60. Drap D'or
61. Philadelphia Jenetting
62. Fall Seek no further
63. Middlefield Greening
64. Early Harvest
65. Black Brittos
66. Swanns Seek no further
67. Canfield Pie
68. Holland Pippin
69. Esopus Spitzenberg
70. Golden Pippin
71. Russet Sweeting

Pears

1. Winter Virgoleuse
2. St Michaels
3. Muscat Allemand
4. Brown Buerre
5. Orange D'hyver
6. Genuine
7. Seckle
8. Green Chissel
9. Harvest
10. St Germaine
11. Wadsworth
12. Crasanne
13. Prince's
14. Jargonelle
15. Matchless
16. Bon Chretien
17. Holland Green
18. Jenetting
19. Swanns Egg

Peaches

1. Swalsh
2. Oldmixten Cling
3. Red Cheek Milancaton
4. Early Heath Cling
5. Livingston N. York Rareripec
6. Royal Kensington
7. Favorite
8. Alberge
9. Early York

10. Yellow Preserving
11. Early Ann
12. Scarlet Nutmeg
13. White Rareripec
14. Red Freestone
15. Old Mixton Freestone
16. President
17. Teton D'Venus
18. Columbia
19. Pineapple Free
20. Yellow Raripe
21. Chaunceys Best
22. Lemon Clingstone
23. Cearly Fellow
24. Blood
25. Late Yellow
26. Lemon Freestone
27. Large White Freestone
28. Atwater
29. Mileus Fellow
30. White Blow
31. Pineapple Cling
32. Nectarine

Plums

1. Bolmars Washington
2. Rein Claude
3. Burlington Red
4. G. Walsh
5. Drap D'or
6. White Egg
7. Red Egg
8. Yellow Gage
9. Seyberts Cherry Plum

Cherries

1. Bleeding Heart
2. May Duke
3. June Duke
4. Black Tartarian
5. Yellow Spanish
6. Late Spanish
7. Carnation
8. Sweedish
9. Amber
10. Elkhorn
11. Rockwells Morello
12. Common Morello
13. Sweet May Duke
14. Bishops Large
15. Black Heart
16. Lewiston Black Heart
17. Kentish Pie

Apricots

1. Brussels
2. Golden Blotched
3. Chaunceys
4. Transparent
5. Moorspark

Appendix 3: vegetables and herbs

In the seed and plant lists used up to 1840, Kirtland only marked two vegetables: white cape or cauliflower and savoy cabbage, both in Thorburn's 1828 catalogue. However, in his copy of William Cobbett's *The American Gardener* (purchased in 1824), Kirtland marked vegetables and herbs into two lists:

List 1

| | | |
|---------------------|----------|-----------------------|
| asparagus | marjoram | rosemary |
| kidney beans | marigold | rutabaga |
| beets | melon | salsify |
| cabbages | onion | savoy |
| capsicum [a pepper] | parsnip | shallot |
| carrots | peas | squash |
| celery | pepper | tomatum [in the husk] |
| corn | potatoe | turnip |
| cucumber | pumpkin | |
| lettuce | radish | |

List 2

| | | |
|------------------|---------------------------------------|---------------------------------|
| artichoke, globe | endive | sweet potatoe |
| balm | fennel | purslane |
| beans | garlick | rape |
| broccoli | gourd | rhubarb |
| burnet | hops | rue |
| calabash | horseradish | sage |
| cole | hyssop | samphire [a pickle] |
| sea cale | Jerusalem artichoke | savory, summer & winter |
| caraway | lavender | scorzenera [similar to salsify] |
| chevil | leek | skirret |
| cives | mangel worzel [similar to sugar beet] | sorrel |
| coriander | mint | spinach |
| corn salad | mustard | tansy |
| cress | nasturium | tarragon |
| dandelion | parsley | tyme |
| dock | pennyroyal | wormwood |

Appendix 4: Botany and horticulture books, published before 1840, known to have been in the library of Dr Jared Potter Kirtland

- ALDUM, JOHN, *A Memoir of the Cultivation of the Vine in America, etc.* (Washington, DC: Davis & Force, 1823). Signed 'Jared P. Kirtland 1827'. Many marks on grape culture.
- Annals of the Lyceum of Natural History of New York (Vol. I, New York: J. Seymour, 1824; Vol. III, New York: G. P. Scott & Co., 1828–36).
- ARMSTRONG, JOHN, *A Treatise on Agriculture, etc.* (New York: Harper & Bros., 1840).
- BARRATT, JOSEPH, MD, *Salices Americanae, North American Willows, etc.* (Middletown, CT: Charles H. Pelton, 1840). Given to Kirtland by the author.
- BECK, LEWIS CALEB, MD, *Botany of the Northern and Middle States; etc.* (Albany: Webster & Skinners, 1833).
- BEVAN, EDWARD, *The Honey-bee; its Natural History, Physiology, and Management* (London: Baldwin, Cradock & Joy, 1827).
- BIGELOW, JACOB, MD, *Florula Bostoniensis; etc.* (Boston: Cummings & Hilliard, 1814). Frequent marks. This seems to be the basis for the New Haven notebook.
- BLAKE, JOHN L., *Conversations on Vegetable Physiology; etc.* (Boston: Crocker & Brewster, 1830).
- Boston Journal of Natural History (Vol. I, Boston: Hilliard, Gray and Co., 1834–37; Vol. II, Boston: C. Little and James Brown, 1838–39; Vol. III, Boston: Charles C. Little and James Brown, 1840–41). Vol. III has Kirtland's 'Fish of Ohio', pp. 338–352. There are marks in 'Birds of Massachusetts'.
- BRADLEY, RICHARD, *General Treatise on Husbandry and Gardening; etc.* (London: J. Peele, 1725). Mark next to 'How to construct a fish pond'.

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- BRIDGEMAN, THOMAS, *The Young Gardener's Assistant; etc.* (8th ed., New York: 1840). Many fruits marked in a variety list.
- BUEL, J., *The Farmer's Instructor; etc.* (New York: Harper & Bros., 1840), 2 vols. Signed 'J. P. Kirtland' in each volume.
- BUEL & WILSON, *Catalogue of Fruit Trees and of Ornamental Trees, Shrubs, Herbaceous and Greenhouse Plants, etc.* (Albany: Packard & Van Benthuysen, 1830). See Appendix 1.
- BUTLER, FREDERICK, *The Farmer's Manual; etc.* (Hartford: Samuel G. Goodrich, 1819). Signed 'Jared P. Kirtland'.
- COBBETT, WILLIAM, *The American Gardener; etc.* (London: C. Clement, 1821). Signed 'JPK 1824', 'Horticulture Said Right' on the frontispiece. Vegetables and some shrubs marked; see Appendix 2.
- COXE, WILLIAM, *A View of the Cultivation of Fruit Trees; etc.* Signed '1823'. Part of a plan for a barn, fencing and fruit tree layout is in the fly leaf. Used with Forsyth until the 1840s by Kirtland.
- DARLINGTON, WILLIAM, MD, *Flora Cistrica: An Attempt to Enumerate and Describe Plants of Chester County* (West-Chester, PA: S. Sigfried, 1837). Signed 'J. P. Kirtland, Cleveland, Ohio'.
- DUFOUR, JOHN JAMES, *The American Vine Dresser's Guide, etc.* (Cincinnati: S. J. Browne, 1826). 'Forwarded to Jared P. Kirtland, Esq., by his h. ser. John J. Dufour Nov. 28, 1826'. Signed 'Jared P. Kirtland'.
- ELLIOT, STEPHEN, *A Sketch of the Botany of South Carolina and Georgia* (Charleston: J. R. Schenck, 1821 & 1824). Signed 'Jared P. Kirtland, 1826' with occasional marks.
- FESSENDEN, THOMAS, G., *The New American Gardener; etc.* (5th ed., Boston: Carter, Handee, & Babcock, 1831). Probably the book ordered from Thorburn's 1828 catalogue as Fessenden's *Treatise of Gardening, Agriculture, etc.*
- FESSENDEN, THOMAS, G., *The Complete Farmer and Rural Economist; etc.* (2nd ed., Boston: Russell, Ordinoorne & Co., 1835).
- FLOY, MICHAEL, *A Catalogue of Ornamental Trees, Flowering Shrubs, Herbaceous Plants, etc.* (New York: John C. Totten, 1823). See Appendix 1.
- FORSYTH, WILLIAM, *A Treatise on the Cultivation and Management of Fruit Trees; etc.* (Albany: D. & S. Whitney, 1803). Signed '1814'. Used exclusively by Kirtland before 1823, then with Coxe until the 1840s. Many checks next to fruits, no comments.
- HICKEY, WILLIAM ROSS, [pseudonym Martin Doyle], *Practical Gardening, etc.* (Dublin: William Curry, Jr. & Co., 1833). A four-page list of roses written in the 1870s is in the back of the book.
- HOOKER, WILLIAM JACKSON, *The Journal of Botany, etc.* (Vol. I, London: Longman, Rees, Orme, Brown, Green & Longman, 1834).
- JOHNSON, S. W., *Rural Economy; etc.* (New Brunswick, NJ: J. Riley & Co., 1806). Signed 'Jared P. Kirtland'. A check next to comment on grape vine culture.
- KENDRICK, WILLIAM, No. 1 *Abridged Catalogue, 1836-7* (Boston: Tuttle, Weeks & Dennett, 1836). See Appendix 1.
- KENT, ELIZABETH, *Flora Domestica: or the Portable Flower Garden* (London: Taylor & Hessey, 1823). No longer in Kirtland's books; this was the volume ordered from Thorburn's catalogue of 1828.
- LANDRETH, DAVID and CUTHBERT, *Catalogue of Greenhouse Plants, Hardy Trees, etc.* (Philadelphia: William Staveland, 1828). See Appendix 1.
- LINDLEY, JOHN, *The Theory of Horticulture; etc.* (1st American ed., New York: John Wiley & Putnam, 1841). Signed 'J. P. Kirtland'. There are a few marks on text emphasizing pruning for increased productivity and the problems of cross-breeding dissimilar plants.
- LINDLEY, GEORGE, *A Guide to the Orchard and Kitchen Garden, etc.* (London: Longman, Rees, Orme, Brown, Green and Longman, 1831). In the front, there is a list of 'BK [Billious Kirtland] fruit wanted' with 115 entries. In the text, there are many checks with fruit identification features.
- LOUDON, JOHN CLAUDIUS, ed., *An Encyclopedia of Plants, etc.* (London: Longman, Rees, Orme, Brown, Green and Longman, 1836).
- LOUDON, JOHN CLAUDIUS, *Greenhouse Companion; etc.* (London: Harding, Triphook & Lepard, 1825). This was ordered from Thorburn's 1828 catalogue. It is no longer in Kirtland's books.
- LOUDON, JOHN CLAUDIUS, *Loudon's Hortus Britannicus; etc.* (London: Longman, Rees, Orme, Brown, Green and Longman, 1839).
- A Manual of Botany for the Northern States; etc.* By the members of the botanical class at Williams College (Albany: Webster & Skinner, 1817). Signed 'Jared P. Kirtland'. Many marks next to plant descriptions. It is similar to Kirtland's notebook for New Haven and to Bigelow's *Florula Bostoniensis*.
- McMAHON, A., *A Catalogue of Garden, Grasses and Flower Seeds; etc.* (Philadelphia: n.d.). Signed 'Dec. 1815' and 'Fruit Trees—\$3-00'.
- McMAHON, BERNARD, *The American Gardener's Calendar* (Philadelphia: B. Graves, 1806). Signed '1812'. Marks next to various parts of the text. See Appendix 1.
- MARSHALL, HUMPHRY, *Arbustum Americananum: The American Grove; etc.* (Philadelphia: Cruikshank, 1785).
- MUTENBERG, HENRY MELCHIOR, *A catalogue of Hitherto Unknown Native and Naturalized Plants of North America; etc.* (Lancaster, PA: William Hamilton, 1813). Signed 'Jared P. Kirtland'. Many marks against plant descriptions. Like Bigelow, perhaps a prototype for Kirtland's notebook.

- NUTTAL, THOMAS, *The Genera of North American Plants and a Catalogue of the Species, to the year 1817* (Philadelphia: D. Heartt, 1818). No longer at Case Western Reserve University.
- PRINCE, WILLIAM, *An Annual Catalogue of Fruit and Ornamental Trees and Plants; etc.* (New York: T. & J. Swords, 1829). Fruit trees were ordered from this catalogue.
- PRUSH, FREDERICK, *Flora Americanae Septentrionalis, or a Systematic Arrangement and Description of Plants of North America; etc.* 2 vols. (London: White, Cochrane, & Co., 1814).
- RICH, OLIVER O., *A synopsis of the Genera of American Plants, etc.* (Georgetown, DC: J. M. Carter, 1814).
- RIDDELL, JOHN L., *A synopsis of the Flora of the Western States* (Cincinnati: E. Denning, 1835).
- SAYERS, EDWARD, MD, *The American Fruit Grower's Companion; etc.* (Boston: Weeks, Jordan & Co., 1839).
- SILLIMAN, BENJAMIN and SILLIMAN, BENJAMIN, JR, *The American Journal of Science and Arts* (Vol. I, New Haven: B. L. Hamlen, 1845).
- SMITH, JAMES EDWARD, MD, *The English Flora; etc.* (London: Rees, Orme, Brown and Green, 1824-36). 4 vols. The pages in all volumes are still uncut.
- SMITH, JAMES EDWARD, MD, *An Introduction to Physiological and Systematic Botany* (1st American ed., Boston: Bradford & Read, 1814). Signed 'Jared P. Kirtland, 1816'. One note on grafting fringe trees.
- THATCHER, JAMES, *The American Orchardist; etc.* (2nd ed., Plymouth, MA: Ezra Collier, 1825). A few marked varieties. Notes in the front of Mahoning Valley fruits, 'New Varieties of Apples, 1830', 'grapes 1848' and a list of things to do called 'Castles in the Air'.
- THORBURN, G., *Catalogue of Kitchen Garden Herb, Flower, Tree, and Grass Seeds; etc.* (New York: G. Thorburn & Son, 1828). See Appendix 1.
- THORNTON, ROBERT JOHN, MD, *The British Flora; etc.* (London: J. Whiting, 1812). 5 vols. With a volume of plates, signed 'Jared P. Kirtland'.
- TORREY, JOHN, MD, and GRAY, ASA, MD, *Flora of North America; etc.* (New York, London: Wiley & Putnam, Vol. I, 1838-40; Vol. II, n.d.).