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DESCRIPTIVE CIRCULAR

OF

FRUIT TREES

PLANTS, VINES, &c,

OFFERED AT THE

BLUE GRASS NURSERIES,

BY

H. F. HILLENMEYER,

LEXINGTON, KENTUCKY,

For the Fall of 1890 and Spring of 1891.

WE EMPLOY NO AGENTS BUT SELL DIRECT TO THE PLANTER.

Lexington, Ky.
Jas. M. Byrnes, Printer and Binder.
1890.
# Price List

## For the Fall of 1890

### Standard Apples

<table>
<thead>
<tr>
<th>Type</th>
<th>1</th>
<th>10</th>
<th>100</th>
<th>1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extra trees, 3 to 4 years, 5 to 7 feet</td>
<td>.25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good trees, 2 to 3 years, 5 to 6 feet</td>
<td>.20</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Pears

<table>
<thead>
<tr>
<th>Type</th>
<th>1</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard trees, 5 to 6 feet, fine</td>
<td>.35</td>
<td></td>
</tr>
<tr>
<td>Light trees, 4 1/2 to 5 feet</td>
<td>.25</td>
<td></td>
</tr>
<tr>
<td>Dwarf trees 2 years</td>
<td>.25</td>
<td></td>
</tr>
</tbody>
</table>

### Peaches

<table>
<thead>
<tr>
<th>Type</th>
<th>1</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>One year, 5 to 7 feet, very fine</td>
<td>.20</td>
<td></td>
</tr>
<tr>
<td>One year, 4 to 5</td>
<td>.10</td>
<td></td>
</tr>
</tbody>
</table>

### Cherry

<table>
<thead>
<tr>
<th>Type</th>
<th>1</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two year trees</td>
<td>.30</td>
<td></td>
</tr>
<tr>
<td>One year, or light two year</td>
<td>.25</td>
<td></td>
</tr>
</tbody>
</table>

### Plum

<table>
<thead>
<tr>
<th>Type</th>
<th>1</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trees on plum roots, 4 1/2 to 6 feet</td>
<td>.30</td>
<td></td>
</tr>
</tbody>
</table>

### Currants and Gooseberries

<table>
<thead>
<tr>
<th>Type</th>
<th>1</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two year plants</td>
<td>.50</td>
<td></td>
</tr>
</tbody>
</table>

### Raspberries

<table>
<thead>
<tr>
<th>Type</th>
<th>1</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black, (Special rates on large orders)</td>
<td>1.00</td>
<td>7.50</td>
</tr>
<tr>
<td>Red,</td>
<td>.75</td>
<td>5.00</td>
</tr>
</tbody>
</table>

### Grapes—Large Stock

<table>
<thead>
<tr>
<th>Type</th>
<th>1</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catawba and Cottage, 2 year</td>
<td>.20</td>
<td></td>
</tr>
<tr>
<td>Concord, Ives and Elvira, extra, 2 year</td>
<td>.15</td>
<td></td>
</tr>
<tr>
<td>&quot; &quot; &quot; &quot; good, 2 year</td>
<td>.10</td>
<td></td>
</tr>
<tr>
<td>Reisling, Perkins' Brighton</td>
<td>.20</td>
<td></td>
</tr>
<tr>
<td>Martha Noah, Pocklington, 2-year</td>
<td>.20</td>
<td></td>
</tr>
<tr>
<td>Norton, Delaware, Worden, 2-year</td>
<td>.25</td>
<td></td>
</tr>
<tr>
<td>Niagara, Vergenees, Ea Victor, Wyoming</td>
<td>.30</td>
<td></td>
</tr>
<tr>
<td>Empire State, Woodruff</td>
<td>.50</td>
<td></td>
</tr>
</tbody>
</table>

### Persimmon

<table>
<thead>
<tr>
<th>Type</th>
<th>1</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two year, seedless</td>
<td>.35</td>
<td></td>
</tr>
<tr>
<td>From seed</td>
<td>.20</td>
<td></td>
</tr>
</tbody>
</table>

### Strawberries

(Special Catalogue in February.)
### QUINCES.

<table>
<thead>
<tr>
<th>Description</th>
<th>1</th>
<th>10</th>
<th>100</th>
<th>1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two-year Figs, fine plants</td>
<td>.25</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### ASPARAGUS.

<table>
<thead>
<tr>
<th>Description</th>
<th>1</th>
<th>10</th>
<th>100</th>
<th>1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colossal, 1 year</td>
<td></td>
<td></td>
<td>$0.50</td>
<td></td>
</tr>
<tr>
<td>Colossal, 2-year, fine roots</td>
<td></td>
<td></td>
<td>75</td>
<td>5.00</td>
</tr>
<tr>
<td>Colossal, 3-year, extra</td>
<td></td>
<td></td>
<td>1.00</td>
<td>7.50</td>
</tr>
</tbody>
</table>

### RHUBARB.

<table>
<thead>
<tr>
<th>Description</th>
<th>1</th>
<th>10</th>
<th>100</th>
<th>1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Victoria Linnaeus, divided crowns, fine roots</td>
<td>50</td>
<td></td>
<td>3.00</td>
<td></td>
</tr>
</tbody>
</table>

### SAGE.

<table>
<thead>
<tr>
<th>Description</th>
<th>1</th>
<th>10</th>
<th>100</th>
<th>1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fine plants</td>
<td>5</td>
<td></td>
<td>4.00</td>
<td></td>
</tr>
</tbody>
</table>

### ORNAMENTAL TREES.

<table>
<thead>
<tr>
<th>Description</th>
<th>1</th>
<th>10</th>
<th>100</th>
<th>1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ash, European, 7 to 10 feet</td>
<td>.25</td>
<td></td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td>Alder, English, 7 to 8 feet</td>
<td>.25</td>
<td></td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td>Birch, European, White, 6 to 8 feet, fine</td>
<td>.30</td>
<td></td>
<td>2.50</td>
<td></td>
</tr>
<tr>
<td>Catalpa, Speciosa, 9 to 10 feet</td>
<td>.25</td>
<td></td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td>Chestnut, 4 to 5 feet</td>
<td>.30</td>
<td></td>
<td>2.50</td>
<td></td>
</tr>
<tr>
<td>Elms, in variety, 8 to 10 feet; stems 1 to 1½ in</td>
<td>.30</td>
<td></td>
<td>2.50</td>
<td></td>
</tr>
<tr>
<td>Horse Chestnut, 4 feet</td>
<td>.25</td>
<td></td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td>Laburnum, Liquidambar, 6 to 8 feet, fine</td>
<td>.25</td>
<td></td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td>Linden, European or American, 7 to 10 ft</td>
<td>.30</td>
<td></td>
<td>2.50</td>
<td></td>
</tr>
<tr>
<td>Maple, Silver, 1½ inch stems</td>
<td>.30</td>
<td></td>
<td>2.50</td>
<td></td>
</tr>
<tr>
<td>Maple, Silver, 1-inch stems</td>
<td>.25</td>
<td></td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td>Maple, Sugar, 8 to 10 feet, fine</td>
<td>.30</td>
<td></td>
<td>2.50</td>
<td></td>
</tr>
<tr>
<td>Maple, Norway and Sycamore, 6 to 8 feet</td>
<td>.30</td>
<td></td>
<td>2.50</td>
<td></td>
</tr>
<tr>
<td>Mulberry, Russian</td>
<td>.25</td>
<td></td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td>Oak, English, 5 feet</td>
<td>.30</td>
<td></td>
<td>2.50</td>
<td></td>
</tr>
<tr>
<td>Poplar, Lombardy and Carolina, 10 to 12 ft</td>
<td>.30</td>
<td></td>
<td>2.50</td>
<td></td>
</tr>
<tr>
<td>Poplar, Tulip, 6 to 7 feet</td>
<td>.35</td>
<td></td>
<td>3.00</td>
<td></td>
</tr>
<tr>
<td>Willow, Weeping, 6 to 8 feet</td>
<td>.25</td>
<td></td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td>Walnut, English, 4 feet</td>
<td>.25</td>
<td></td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td>White Fringe</td>
<td>.35</td>
<td></td>
<td>2.50</td>
<td></td>
</tr>
<tr>
<td>Hydrangea, Paniculata</td>
<td>.25</td>
<td></td>
<td>2.00</td>
<td></td>
</tr>
</tbody>
</table>

### SHRUBS—Hardy, Fine Plants in Variety.

<table>
<thead>
<tr>
<th>Description</th>
<th>1</th>
<th>10</th>
<th>100</th>
<th>1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Althea, Deutzia, Calycanthus, Dogwood, Red-bud, Syringa, Wigelia, Tamerax, Pyrus-Japonica, Spirea, Lilac, Purple, Fringe, Honey-suckle, Burning Bush, &amp;c., &amp;c.</td>
<td>.20</td>
<td></td>
<td>1.50</td>
<td></td>
</tr>
</tbody>
</table>

### EVERGREENS.

<table>
<thead>
<tr>
<th>Description</th>
<th>1</th>
<th>10</th>
<th>100</th>
<th>1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arbor Vitae, American, 28 to 40 inches</td>
<td>.30</td>
<td></td>
<td>2.50</td>
<td></td>
</tr>
<tr>
<td>Hemlock, 3 to 4 feet, very fine</td>
<td>.30</td>
<td></td>
<td>2.50</td>
<td>20.00</td>
</tr>
<tr>
<td>Juniper, Irish, 3 feet, fine</td>
<td>.35</td>
<td></td>
<td>3.00</td>
<td></td>
</tr>
<tr>
<td>Retinspora, in variety, fine</td>
<td>.40</td>
<td></td>
<td>3.50</td>
<td></td>
</tr>
<tr>
<td>Norway Spruce, 3 to 4 feet</td>
<td>.35</td>
<td></td>
<td>3.00</td>
<td></td>
</tr>
<tr>
<td>Norway Spruce, 2 to 3 feet</td>
<td>.30</td>
<td></td>
<td>2.50</td>
<td></td>
</tr>
<tr>
<td>Silver Fir, 2 to 3 feet</td>
<td>.35</td>
<td></td>
<td>3.00</td>
<td></td>
</tr>
<tr>
<td>White Pine, 5 feet, fine</td>
<td>.35</td>
<td></td>
<td>3.00</td>
<td></td>
</tr>
<tr>
<td>White Pine, 3 to 4 feet, fine</td>
<td>.30</td>
<td></td>
<td>2.50</td>
<td>20.00</td>
</tr>
</tbody>
</table>
TO OUR PATRONS.

It is with pleasure that this general catalogue of nursery stock is again presented to our patrons and the tree planting public. We wish to express our gratitude for a generous support and many evidences of kindly feeling, and promise as a partial return the closest personal attention to our occupation.

The summer has been favorable both to a good growth and perfect maturity of wood. Our stock has been increased each year, and is, perhaps, the largest in the State. Our soil is especially adapted for the purpose, and, almost without exception, all goods sent out are propagated and grown on our own place.

Raising fruit and trees for commercial purposes has been our only occupation, and with the experience of nearly half a century in Central Kentucky, the opportunity has been ample to determine means and methods valuable in achieving success.

Part of our work is to test new kinds, but it is not our policy to disseminate such until they are proven of value. We have, perhaps, the largest assortment of novelties in the Ohio Valley; and, while of great value and pleasure, we are free to say that it has been a source of pecuniary loss, and to the general planter would at once invite destruction.

NO AGENTS.

We employ no agents, and never have. Our methods are incompatible. It is our purpose to grow standard stock of known value, name and price. Our stock requires cultivation and care. It is liable to failure on unsuitable ground. It is not iron-clad. Heat, cold, insects, blight and unsuitable weather may destroy both tree and fruit. As a fruit grower, we would desire stock such as the average agent sells, but his promises are not realized in practice. It is better to tell the exact truth, of success under ordinary conditions and of failure under others. Half the fruit trees in Kentucky were sold by agents under promise that neither heat, cold, insects, nor adverse conditions would injure, and yet this year there is failure everywhere—no peaches, pears, or plums, and few apples or cherries.

Much annoyance has been caused by unscrupulous persons who claim to be our agents, and we can only reiterate we have none and desire none. We sell goods to nurserymen, agents and dealers, but are in no way responsible for their representations, which, in some cases are exactly as ours would be, and again in others are far from the truth.
Many patrons have voluntarily used their influence in our behalf, and this evidence of good will has been highly appreciated and no opportunity of reciprocating has been lost.

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**A CHAT WITH OUR PATRONS.**

It should be the ambition of every land owner to plant trees and vines, that with his own hand he may gather the rich fruit that ripens under our bright skies, or rest in the shade of a tree that shall yet be young and expanding into graceful symmetry when he shall be gone. Fruit and tree growing adds so much to the comfort and luxury of rural life, that to attain success is worthy of intelligent effort. Many succeed and are richly repaid, and then many others fail, and it is for these that this little manual is intended.

For fruit growing, a dry soil of at least moderate fertility is required. The summit of a hill or its slope, with exposure to the north or west is to be preferred, but is not essential. The preparation of the soil should be thorough, and after planting, cultivation should continue at least until the trees are established. Cultivation is success, neglect failure. "To dress the garden" was the incumbency of its first occupant. To plant an orchard, and then to till perfectly, will bring success and pleasure; to plant one, large or small, and then to wait supinely for the reward, is to wait in vain. To gain with certainty anything desired requires its measure of effort. To have fruit in abundance, and lawns filled with vigorous trees and shrubs, is not the work of any fairy wand at our command. Patience, effort, intelligent care—these are required. In a life-long experience with fruit, no profit has come except through the labor applied.

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**HINTS FOR TRANSPLANTING, ETC.**

When trees are received from the nursery they should be unpacked and planted at once, if the ground is in suitable condition. If too wet, they may be heeled in the garden until wanted. If received frozen or in inclement weather they should be thawed in the cellar without unpacking, and no injury will follow. The roots of nearly all trees and plants are many times frozen during the winter. In planting, the holes should be ample to receive the roots in a natural position, and if the earth is quite dry it may be firmly trodden, The branches of all trees should be shortened one-half when replanted, and in this omission lies a great source of failure. Pear and cherry trees should be encouraged to form low heads, that will shelter the stems from intense heat. A wrapping of straw or paper around the stem of these, and *all trees planted near*
walls, fences or buildings, where the heat is intensified by radiation and reflection, is greatly beneficial. All the orchards planted on our own place in recent years have been thus protected, and the labor has been amply repaid. The stems of young trees two or three years planted may be whitewashed in May or July with great benefit. It is but an instant's work, and removes all scales, lichens, and insects, leaving the bark with the gloss of perfect health. This wash is superior to more expensive ones of potash or soda, and is applied to all young orchard trees on our place.

The cultivation of a young orchard should continue for several years, and any hoed or tilled crop may be planted, but never small grain. It is almost a waste of effort to plant trees in the vacancies of an old orchard or near large trees on the lawn.

Opinions differ whether planting should be done in the Spring or Fall. There are advantages peculiar to each season, as also disadvantages. Trees planted in the Fall are quite certain to make a larger growth the first season, as the earth becomes firmly settled and root-growth begins before the winter is over. In severe winters transplanted trees are liable to be injured by intense cold, and rabbits are especially destructive. These risks are obviated by Spring planting, but a continued drouth at this time is very injurious.

Our custom is to plant when the work can be most thoroughly done, irrespective of the season. Lawn planting should, however, be done in the Fall when practicable.

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NOTICE TO PURCHASERS.

Our terms are cash, unless otherwise agreed. At the price named, five will be furnished at half the cost of ten; fifty at half the cost of one hundred, etc. We pack trees in such a manner that they may reach the purchaser in good order, charging for time and material only. Please instruct how goods are to be marked and forwarded. We deliver all goods free to carriers in Lexington, taking receipts therefor, after which our responsibility ceases. Mail wagons and stage lines issue no receipts for goods entrusted to them, and we assume no responsibility in the event of loss when instructed to send over such lines. Small bales, boxes, and parcels are best sent by express. We do not grow plants to be sent by mail, our soil not favoring the production of such light stock. The selection of varieties must be in part left to us; but if we are especially instructed to send only as named, the order will be filled in so far as we have the stock wanted. On lists without privilege, please state if smaller or larger sizes than the one named may be used. We wish to give perfect satisfaction in our dealings, and would rather return an order untouched than fill it unacceptably to the purchaser.
The propagation of all stock is under our immediate charge, and is true to name. We have always been, and are ever ready to correct cheerfully all errors and shortcomings, and it is with pride that we say, that in a sale of many millions of trees and vines, covering many years, not half a dozen complaints have been made of inaccuracy in labeling. Errors may and do occur, but they are not in the line of our interest.

We do not guarantee trees or plants purchased of us to live. No stock of doubtful vitality will be sent out, and we cannot insure against adverse seasons or the neglect of the purchaser in receiving promptly and planting with care, such as will insure success. Any loss that may occur through our fault will of course be adjusted at once and satisfactorily.

We cannot fill long lists of trees, etc., one of a kind, except at the price per single tree. All letters answered at once when received, but write name and post office address plainly. Please order early, while stock is complete. We do not require trees to be taken when ordered, but will save them and send when wanted. The price list of this catalogue abrogates the prices of all previous issues. Money may be safely sent by check, postoffice order, or registered letter. Our nursery is two miles north of Lexington, near the Georgetown pike, and on the Cincinnati Southern Railroad. Hillemeyer Station, at which all accommodation trains stop, is but five minutes walk from our grounds.

We have no office in Lexington, and during the busy season can only be found at our packing grounds and plant rooms. A small Fruit Catalogue will be published in February and sent to patrons when issued, and others on application. We cordially invite the personal inspection of tree-buyers and planters.

Address all communications to

H. F. Hillemeyer,

Lexington, Ky.

APPLES.

The apple is the first fruit, both in commercial value and general adaptation. By a judicious selection of varieties, a supply of this indispensable fruit may be had almost during the entire year. We are south of the latitude in which the apple attains its best estate, and few of the fine Northern varieties attain the same degree of perfection here. Northern winter apples ripen here during autumn. The apple requires four to eight years to attain the age of fruitage, and with ordinary care will reach an age of forty or more years. The second or third year after planting, the trees should be examined, and crowded or crossed branches should in March be removed. If this work is begun early, and a little pruning done each year, the trees will develop into handsome shape,
and the necessity of removing large branches will never arise. The head of an apple tree should be kept open, and in the early state of development, when a pocket knife will suffice, is the time to determine its character. The saw and hatchet are the instruments of a heroic treatment under which many trees are permanently injured. Determine the character of head while it is small, and in the day of fruitage it will need little attention. It is unfortunate that many orchards are neglected until the trees are a mass of tangled branches. The pruning of such should be done from February to April 1st. Branches more than two inches in diameter are removed at great hazard. The pruning of badly neglected orchards should not be completed in one year, but by degrees.

Large wounds should be covered with thick lead paint.

The diseases and injuries to which the apple tree is most liable are stem-borers of various kinds, blight, aphides, cancre, and the gnawing of rabbits. We have found whitewash applied in May to the stems of young trees a preventative of the borer, and greatly beneficial otherwise. Twig blight and aphides seldom inflict serious harm, and cancre follows injury sustained by severe frost or the removal of large branches. No remedy can be applied when the injury arises from the first cause, and the correct treatment for the second has been indicated.

During periods of deep snow-fall rabbits frequently destroy young orchards by gnawing the bark near the snow-line. If the stems are protected with straw, hemp or corn-stalks, they will escape injury. To rub the stems with flesh, such as liver or other animal offal, is also an effectual remedy. The fruit of the apple tree is also liable to loss from many causes. The curculio and the codling moth are ever present enemies, and insidious fungous-growths attack the young fruit when atmospheric conditions favor these low forms of life. Intense heat and protracted drought are also frequent sources of failure. Indeed, premature ripening and falling off in consequence thereof, is the greatest of all the causes of the failure of winter apples in our State. Our dry and warm autumns ripen varieties in September that should only be gathered in November.

It has been our unvarying custom to gather apples when ripe, whether it be the conventional season or not. Our crop has in the main, for many years, been gathered before September 15th, and there has rarely been difficulty in keeping it until May following.

Many excellent apples—Northern Spy, Rambo, Fallawater, Non-such, Bellflower, Milam, Grimes' Golden, etc., etc.—are a total loss, falling from the trees early in September. If these be carefully gathered and packed in sugar or other barrels and the heads closely fitted they will keep a long time. Early gathered apples must be free from all decay and bruises.

Spraying apples to destroy the curculio and codling moth has been
thoroughly tried here with the most gratifying results. The pump used was a Field’s Force Pump, made at Lockport, N. Y.—inexpensive and very efficient. Our trees are twice sprayed early in May with water, in which is mixed one quarter of a pound of London purple to fifty gallons. A tree may be sprayed in two or three minutes, and we have no hesitancy in advising our friends to procure an outfit.

It is customary to seed the apple orchard with grass, but by occasional cultivation after the trees are in bearing and by timely care in pruning, we are satisfied that half the climatic and insect cause of injury would be removed, and that the fruit would be larger and better, and the yield far certain.

Apple trees at a given age vary materially in size, some kinds being of more vigorous growth than others. Our stock is unusually large this year and of fine quality.

SUMMER APPLES.

Astrachan—Red. A fine, showy apple; tart, rich and good; ripens over a long period. One of the best early apples.

Chenango Strawberry—Medium; striped with red. A handsome and good apple; tree hardy and productive. August.

Early Harvest—Medium size, yellow, flesh white, juicy and aromatic; bears regularly, and is one of the most desirable of early apples.

Early Pemock—a popular apple; large medium and of good quality.

Early Transparent—(From Russia)—Resembles Early Harvest, rather earlier, but not so good. This may prove of value.

Fourth of July—Medium, whitish yellow, with red. An excellent early apple; productive.

Gravenstein—A famous old German apple, that is equally good here; large, red and yellow.

Golden Sweet—A very popular early sweet apple; excellent for baking; fine size. August.

Garden Walk—A superb new apple raised by Mr. James Garrett, of Woodford County; size large medium, pale, greenish yellow, striped with red; superb in quality. August and September.

Lexington—Medium, with two shades of red; good quality; tree hardy and productive. July 20th.

Maiden’s Blush—Large, waxy yellow, with bright blush; flesh firm, fine grained and aromatic; tree a regular bearer and most valuable in every way. August.

Oldenburgh—Medium, yellow, deeply splashed with red. A regular bearer.

Primate—Medium, yellow, with blush; fine quality. August.
William's Favorite—Large medium, red, mostly, flesh white; juicy and highly flavored. August.

Red June—A very popular early apple, almost as well known as Early Harvest, and of same season; medium size.

Summer Pearmain—Best of all in quality; medium, red with russet; moderately productive. Tree small from nursery, but vigorous in orchard.

AUTUMN APPLES.

Bailey Sweet—A large, fine apple, red mostly; quality good; very productive. September.

Fall Pippin—Large, rich yellow; one of the very best for drying; tree vigorous; a moderate but regular bearer.

Fallawater—Large, pale yellow when fully ripe; flesh soft, rather coarse, tender and pleasant; tree vigorous, very productive, and one of the most valuable late autumn or early winter kinds.

Grimes' Golden—Medium to large; deep yellow. This is a standard of excellence among apples. The tree is hardy, vigorous and productive. We prize this variety very highly. October to December.

Hubbardston's Nonsuch—A superb October apple; yellow; deeply shaded with red; vigorous and productive.

Northern Spy—A large apple of the highest quality; well-known. September and October.

Rambo—Medium size, yellow, striped with red; flesh white, crisp and aromatic. Best on warm soils.

Twenty-Ounce—Very large, pale yellow. Tree healthy and productive.

Wine Apple—Large, pale red with yellow. A superb apple that succeeds well here.

WINTER APPLES.

Baldwin—A superb market apple that succeeds only moderately here. Bright red; large and good. December.

Ben Davis—Large, handsome red; fruit very uniform in size; tree hardy, vigorous and productive; blooms late; a valuable apple for market.

Bellflower—A large yellow apple, of superior quality; well known. Not reliable.

Berry Red—Medium, deep red. Not tried here.

Black Twig—Twitty—Kinnaird's Choice—Seedlings of Wine Sap from Tennessee and likely to prove of value. Very vigorous here; quality best.
Clayton—A superb winter fruit, much resembling Red Pearmain. New and very promising.

Dr. Walker—A seedling of the Janet; larger and brighter in fruit and of more vigorous growth. This variety promises to be of great value.

Huntsman—Mo. Pippin—Both popular West; fine size and quality; worthy of trial here. Trees healthy, strong growers.

Jonathan—Medium size, red; fine quality and quite reliable.

King (Thompkins Co.)—A magnificent large red apple of the highest quality; tree a handsome grower, but not very hardy.

Lady Apple—Small, waxy, transparent, with crimson cheek, superb quality and very late keeper. Tree hardy and productive.

Limbertwig—Resembles Janet; larger and brighter; but not equal in quality; tree vigorous, hardy and productive; a very late keeper.

Lawver—We hope that all is true that has been said of this. Tree vigorous but not fruited here.

Milam—Medium size, red, of excellent quality; a regular and abundant bearer. December.

Nickajack—A very popular Southern apple of good quality, and a late keeper.

Paradise Sweet—Yellow, with blush, medium size, good in quality, and a late keeper.

Romanite (Small)—An old and very reliable late-keeping winter apple. Fruit medium size; good quality; deep red; tree an abundant and regular bearer.

Ravels' Janet—This has been the most popular apple West and South; size medium; mostly red; flesh firm, crisp and sprightly; tree blooms late. Has rotted very badly in late years before maturity.

Red Pearmain—An old and much esteemed variety; hardy, prolific and reliable.

Rome Beauty—Large, with two shades of red; flesh firm, white and pleasant; tree most productive; a late keeper, worthy of a place in the smallest orchard.

Russell (Perry)—Large, yellow, very crisp and good. Unreliable.

Smith's Cider—Large, striped with yellow and red; flesh tender, juicy and crisp; valuable for market or home use; reliable as Ben Davis. January.

Stark—Red and yellow; flesh firm, crisp, and good; tree hardy and vigorous; growing in favor for its many excellencies.

Talman's Sweet—Medium, pale yellow; one of the very best late sweet apples.

Vandivere—Superb quality, fine size; tree vigorous and productive; falls badly.
White Pippin—A fine, large fruit, the very best for canning; flesh white, juicy and aromatic. December.

Waggener—Medium to large; yellow, with bright blush; flesh juicy and fine grained.

White Winter Pearmain—A very popular apple, large, pale yellow with blush; a late keeper. Not so reliable as West.

Wine Sop—Medium dark red; flesh yellow, tender, crisp and spicy; tree a small, tangled, irregular grower, enormously productive and valuable on warm, rich soils.

Winter Rambo—In size and appearance as Fall Rambo, but a late keeper.

CRABS.

Hewes' Crab—Small, striped, enormously productive; very tart, making a dry cider unsurpassed for spice and piquancy; tree small and compact.

Hyslop—Large, dark red; tree vigorous and productive.

Montreal Beauty—Most beautiful of crabs; waxy, yellow and carmine.

Red Crab—An improvement on Hewes's Crab in point of size and vigor of tree. Valuable for cider.

Siberian—Red and yellow. These apples are used only for preserving; size small; stem as long as that of a cherry; color waxy with carmine blush.

Transcendent—An early ripening variety.

PEACHES.

This admirable fruit attains its highest excellence on the rich, dry soil of Central Kentucky. To be successful in the raising of the peach, it is necessary that the land be dry and the site elevated, as the fruit buds are more liable to loss on low ground from winter or late spring frosts. The trees should be annually pruned in November or March, after they are in full fruitage. This consists in the removal of three-fourths of the current growth. The borer found under the bark and just beneath the surface of the earth must be faithfully removed. If this be done in October, the worms, still on the outside, may be easily removed by scraping the bark. Moist weather is most favorable for this work.

When but few peach trees are kept, perhaps the most perfect remedy for the borer is to make a slight cavity around the collar of the tree at the same season as advised above, and apply from a quart to a gallon of hot water, dependent on the size of the tree. The water may be nearly boiling, and the treatment is promotive of health.

We have less peach trees this year than usual, but they are of fine growth.
Alexander—This is certainly one of the very best of extra earlies, ripening about July 1st. The fruit is of moderate size and excellent quality. Of beautiful color it neither rots on the tree nor is too soft for market. Tree very hardy and productive.

Crawford’s Early—This noble variety in thrift, productiveness, large size and general excellence, is unsurpassed among yellow-fleshed peaches; freestone. September 5th.

Dr. R. J. Spurr—Originated here; large, red and white; flesh soft and melting; tree vigorous and productive. September 20th.

Early Rivers—This is a superb early peach of large size and fine quality. Color, pale straw, with blush; flesh very soft and melting. July 15.

George Fourth—Large freestone, ripening after Early York; unsurpassed in size, quality and appearance; desirable.

Hale’s Early—Medium size; deep red; tree vigorous, very hardy and productive. July 20th.

Heath Cling—This best known of peaches is unequalled among clingstones; size large; pale, with occasional blush; flesh firm, crisp, very white, without a trace of red; stone small and flattened. October 1st.

Large Early York—Large; pale, mingled with red; superlative in quality. If confined to the planting of one tree this would be our choice. August 1st to 10th.

Lagrange—A very large, pale freestone, with bright blush; flesh very white to the stone.

Lemon Cling—Best of clingings; large, beautiful and good; productive.

Large White Cling—This superb peach, cream color, with bright blush, is unrivalled among clingstones. September 1st.

Oldmixon Cling—Resembles the large White Cling closely. 

Oldmixon Free—Large red; flesh firm and rich; stone small; exceedingly valuable for home use or market. September 20th.

Piequet’s Late— Fully as large as Crawford’s Late, and superior in every way to that popular variety. September 20th.

Smock Free—Large yellow and red; an old and popular variety. October. Not so good as the above.

Stump the World—A magnificent peach, very large, pale, with light red; flesh melting, rich and aromatic.

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PEARS.

The ripening of this fruit, like the apple, extends over a long period. The earliest ripen the last of June, and winter pears will keep until February. Our bright, dry, warm autumns, however, are not fa-
vorables to the winter pear, for, like many apples, they ripen very much out of season under such circumstances. Standard pear trees are worked on seedlings, and are best suited for orchard.

The stems of young trees should be wrapped with straw for several years. Pears are greatly improved by being gathered a few days before maturity, and then house-ripened in a dry, airy room.

The pear generally fruits in five or six years after planting, and is nearly as reliable as the apple. The tree is entirely hardy; and is healthy save in being liable to blight. Not much blight has prevailed in late years, and as this disease returns only in long re-occurring cycles, we trust that many years of exemption from its ravages are at hand.

Dwarf pears are grown on quince roots, and are more especially adapted for the garden than standards. If planted on good ground, ten or twelve feet apart, and manured liberally, they will yield very fine fruit in three years, and prove a source of much pleasure.

Our stock both of these and standards is larger than ever before and of extra quality.

- **Bartlett**—Best known of pears; very productive; large, yellow, rich and melting. August.
- **Beurre D'Anjou**—A fine, large pear; flesh fine-grained and vinous; tree hardy and productive. October.
- **Brandywine**—Medium to large; color, russet and green; tree hardy and productive. August.
- **Clapp's Favorite**—A seedling of the Bartlett, but larger, earlier and as valuable; tree vigorous and as productive.
- **Duchess D'Angouleme**—Very large, yellow and russet; best as a dwarf. October.
- **Flemish Beauty**—A large, showy pear; most valuable for marked. September.
- **Howell**—Large, yellow, of fine quality, ripening September 1st; an early and abundant bearer.
- **Keifer**—A hybrid pear, ripening in October and November; tree vigorous, hardy and productive.
- **LeConte**—Tree hardy, most vigorous and productive. September.

The above two varieties are now fully tested and are of great vigor, almost entirely exempt from blight and exceedingly productive, often bearing in nursery row. If left hanging until nearly ripe and then finished in a cool room or cellar they are of excellent quality. For preserving, cooking and canning, they far surpass other pears. To those who have failed in growing pears we confidently recommend these. Their handsome appearance will make them valuable for market.

- **Lawson** (Comet)—We much fear that this is a worthless old pear, well known in Kentucky, and of no value even for market.
Louise Bonne de Jersey—Large, beautiful, an excellent pear, succeeding best as a dwarf.

Lawrence—Most valuable of winter pears; medium size; flesh melting and rich; tree hardy, productive, and an early bearer.

Seckel—A well-known, small, russety fruit; the most exquisite of pears; of slow growth in nursery row. September.

Sheldon—A noble American pear, worthy of a place in the smallest collection. September.

Tyson—Medium, bright yellow, with red; flesh very sweet and aromatic.

Urbanist—An excellent pear; pale yellow; medium size. October.

Vicar of Wakefield—A very showy pear, of medium quality; tree hardy, vigorous and productive.

CHERRIES.

This first fruit of the season succeeds best on dry, gravelly, or stony soil. Heart or Bigarreau cherries are liable to injury from extremes of temperature, and if planted on our rich soils make such luxuriant growth that they will surely winter-kill. If planted in sheltered places, among trees and buildings, and not stimulated to luxuriance, if the heads are kept low and the stems wrapped with straw, these dangers are greatly lessened. Wet soils are surely fatal; even on dry ground, in nursery row after protracted rain, great loss frequently occurs during the season of rapid growth.

The fruit bud of the cherry is more hardy than that of the peach, and if this tree is consistently managed, a full or partial crop may be had almost every year. Cherries of the Early May type are entirely hardy, and while not equal to the others in use from hand, except if permitted to hang until thoroughly ripe, are very desirable, being exempt from most dangers that render the soft-wood kinds unsatisfactory. These are indicated by a star.

Black Tartarian—Best known and most valuable of Heart cherries; fruit large, dark, half-tender, rich and pleasant; tree hardy, vigorous and productive.

Bigarreau Grafion—Yellow Spanish; large, pale yellow, with red cheek; flesh firm, crisp and juicy; tree vigorous, hardy and productive.

*Belle Magnifique—Large, bright red, late; moderately vigorous and productive.

*Carnation—Large, light red, esteemed for preserving; tree vigorous; moderately productive.

Downer’s Late—Medium, light red; flesh soft, juicy, and pleasant; very late and most valuable.
*Early May—Known also as May Cluster and Early Richmond; is a tree of small growth; an early and most abundant bearer, and unexcelled for all culinary purposes. It is fully as hardy as the apple and rarely fails to yield a full or partial crop.

*Empress Eugene—A small-growing tree, very productive and hardy.

Gov. Wood—The best raised by Dr. Kirtland; large, light, with blush; tree vigorous and great bearer; very popular.

*May Duke—This popular variety has all the excellencies of Early May and is of more vigorous habit.

Napoleon Bigarreau—Very large, waxy, with carmine blush; flesh firm, rich and delicious; trees symmetrical and productive.

Ohio Beauty—Large, pale and dark red; tender, juicy and good; quite early.

Rockport—Large, pale and red mingled; tree upright and symmetrical.

Reine Hortense—A late, large kind, and best of its class for use from hand.

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PLUMS,

The plum succeeds best on heavy clay loams, making a compact tree, rather smaller than the peach. The plum is quite hardy, and will endure very nearly as much frost as the apple without injury. Trees planted where the ground is hard-trodden yield best, but they should be cultivated until well established. The American varieties, as Wild Goose, Miner, etc., though inferior to the European type, are more hardy, healthy and productive, and generally escape the curculio with but little injury. The plum, when planted in city yards, is notably exempt from the attack of the curculio, the greatest enemy of the plum. We have observed plum trees in town inclosures bearing magnificently year after year and recommend with confidence this tree for such locations. The tree itself is compact, with clean, healthy foliage, and when covered with fruit is a striking object on the lawn or in the garden.

The European plum is of superior quality and value, but is prone to the black knot. If the trees are closely watched in June and July, and the excrescences cut away while soft, the remedy is perfect. To stimulate the trees to a vigorous annual growth is also excellent remedial practice, the disease seldom attacking trees in full thrift. The curculio frequently destroys every plum, and then almost entirely disappears. In the past, the insertion in the stem of an iron pin, upon which to strike with a hammer has shown good results. The injury inflicted by the curculio is done from early May to mid June, and the jar-ring of the trees was labor well repaid.
We now hope to destroy the curculio with the sprayer, our first years' experience being quite satisfactory.

American plums yield best when several varieties are planted near each other, the flowers being thus more surely fertilized. Plum cultivation for profit presents an inviting field if intelligent and persistent care be bestowed.

*Bradshaw*—A popular, large and good plum; tree vigorous, hardy and productive.

*Coe's Golden*—Late, large, and good; tree moderately vigorous and productive.

*Damson*—A variety too well known to need description; succeeds well almost everywhere.

*Douane's Purple*—Very large; purple with white plume; flesh soft, sprightly, and adheres to the stone. August 1.

*Green Gage (Reine Claude)*—Medium size; yellow, with plume; flesh soft, rich and aromatic; one of the best in every way; tree moderately grower. August.

*Imperial Gage*—As above, but nearly twice as large; not so rich; color, bright yellow. September.

*Lombard*—Medium size; violet red; flesh yellow, brisk and pleasant. August 15th.

*Miner*—An improved Chickasaw; quite late and good quality; resists the curculio well.

*Marianna*—Not so early as Wild Goose, nor so good.

*Pond's Seedling*—Large, red and yellow; tree vigorous and productive.

*Weaver*—One of the Iron Clads; fruit medium, purple and of good quality. September 15th.

*Wild Goose*—An improved Chickasaw; size medium; color, deep red, with bright plume; quality, medium to good. A most abundant bearer; of great value. July.

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**QUINCE.**

The Quince delights in a deep, retentive soil, and should be cultivated or mulched if fine fruit is expected.

The trees bear in three or four years and are enduring, hardy and productive.

*Apple or Orange*—This is the most highly esteemed variety; productive of smooth and perfect fruit. September.

*Champion*—More vigorous than above and later; not very productive here.
CURRANTS.

These succeed best on deep, cool soil, and should be planted four feet apart and kept well manured or mulched. A north wall is a favorable place for them. So far south they are prone to lose their foliage at mid-summer, and many desirable kinds north are valueless.

The fruit is highly esteemed for many culinary purposes, and will hang on the bushes for a month or more. The white varieties are of no value here. The old wood should be thinned occasionally.

Black Naples—The best black-fruit ed variety; very vigorous and quite productive; bunch small; flavor peculiar.

Cherry—Very large; plant vigorous; not reliable.

Pay—Long cluster and of good quality; not so promising this year as last.

La Versailles—A foreign variety, of great beauty, size and productiveness.

Red Dutch—The best of currants; very vigorous, hardy and enormously productive; the only variety on our grounds that retains its foliage through periods of extreme heat or drought, and better for all purposes than any variety we have tested,

Victoria—A standard kind that succeeds fairly well here.

GOOSEBERRIES.

This fruit requires the same soil and management as above. The oldest wood should be annually removed to insure abundant crops of fine fruit. The foreign varieties are worthless in this warm climate.

American—Vigorous, fruit medium size; enormously productive; one of the best.

Houghton—Vigorous; very productive.

Shaker—A very vigorous, hardy kind, and quite productive; late with large fruit.

STRAWBERRIES.

Experience and observation has taught us that these do not succeed well planted in autumn. In earlier years we furnished plants at this season, but the loss to the purchaser was so certain that we do not care to furnish plants, save when the buyer is prepared to lose both his money and labor.

Our plant blocks are very promising, and an ample stock is expected. A strawberry catalogue will be issued about February 1st.
These succeed the strawberry in time of ripening and are of easy growth, hardy, productive and indispensable. The plants should be set three feet apart in rows five feet asunder. In planting red varieties, draw a deep furrow, drop the plants, draw enough earth around to hold them in position, and then cast earth from both sides with plow, shortening the canes at top of ridge thus formed. The young canes will push from beneath the surface, and are frequently quite late in appearing. Black varieties should also be planted in a deep furrow, to prevent the stools from being blown down in later years when heavy with fruit and foliage. The plants should, however, be covered only an inch or two at the time of setting, as the young canes do not penetrate readily any great depth of covering. The drills are leveled by subsequent cultivation. When plants are set in the fall, they should be amply covered, to prevent drawing by winter frost. Part of this covering should be removed at the approach of spring. Raspberries do best on moderately rich, moist soil. The raspberry is one of the most certain fruits that can be planted in this latitude. For many years we have had large stocks of bearing plants, and have uniformly gathered crops that paid handsomely. This fruit is not found in the majority of gardens, from a mistaken idea as to its proper management. It will not flourish in fence corners, unpruned, uncultivated and neglected. The planting should be done as indicated, and the succeeding year cultivation should be frequent, though quite shallow. After the first season's growth, the young canes should in November or March be severely pruned, leaving the plants from twelve to eighteen inches high, shortening also the side branches to a length of six or eight inches. The second year there should be a very satisfactory crop of fruit and a great development in the size of the plant. The cultivation should be as the year preceding. Red varieties will sprout abundantly from every root; but unless all these are destroyed, save such canes as spring up within the stool itself, failure will ensue, as the plant is unable to support a crop of sprouts and perfect a crop of fruit. As the young canes reach a height of two feet they should be pinched in, thus causing short, stocky wood, well branched.

In gathering raspberries the basket must be held in one hand, leaving only the other disengaged. To obviate this we have devised a basket holder, strapped to the person, leaving both hands free for work. This contrivance facilitates the work very much. The design is original to us, we have no patent, and confidently recommend its use to those who have berries to gather.

Immediately after the last gathering, the old canes are removed and the young ones thinned, five to ten being left, dependent on the strength of the stool. It is indispensable to success that the cultivation
be perfect; that the sprouts on red varieties be destroyed by hoe and plow; that the plants be pinched in to obviate the necessity of staking, and that the winter pruning be thorough, no lateral branch being more than a foot long.

Caroline—Yellow raspberries are not desirable. This is one of the best, and we have plants of several other kinds, but do not recommend them except for amateur growers.

Gregg—A late and large berry, black, firm, moderate in quality; ripening very uniformly. It is a good variety for market.

Ohio—An early, black cap that in vigor and productiveness is almost unequalled. Fruit medium in size and of good quality.

Queen of the Market, or Cuthbert—We find this fairly hardy, vigorous and productive. The fruit is large, late, rather dark, firm, but only moderate in quality. Its size, firmness and late ripening are valuable qualities in a market variety.

Shaffer—The largest berry we have and plant very vigorous and productive. Though of bad color it has become very popular; late, quality good; best for canning and jam.

Turner—Best of the red varieties; hardy, vigorous and most productive. Neither heat nor cold seem to injure the plant. Turner has no thorns. If the numerous sprouts springing from the roots of bearing plants be hoed off as soon as they appear nothing further in thrift, hardihood, quality or productiveness need be desired.

ASPARAGUS.

Earliest of vegetables, and should be in every garden. This vegetable is not as generally found in gardens as its merit deserves, from the prevalence of many erroneous impressions and practices in its management and culture.

The soil must be rich and should be dry and warm. A pit filled with manure as a bed for the plants is not needed. After a thorough preparation of the soil, draw three drills, eighteen inches apart, four or five inches wide, and four inches deep. Spread the roots spider shaped in the drills, twelve or fourteen inches apart, and cover. No covering of manure is needed at this time. When the plants appear, cultivate and continue throughout the season to keep the earth clean and mellow. When the tops are frosted, mow and apply two or three inches of manure. Fork the beds lightly the following spring, continuing the culture as the year previous, and a similar application of manure in November each year thereafter. If the growth the first two seasons has been vigorous, the plants may be cut for the table slightly the third season.
If growing for the market, the plants may be set in checks three feet apart each way. With more room for development, less manure will be required to produce fine stalks. The success of Asparagus culture is, however, dependent on the liberal application of manure annually, and the suppression of weeds during the period of growth.

The causes of failure are many. If the plants are set six or eight inches deep when received they will not penetrate the depth of covering, and will perish. A covering of manure on new-set plants is also generally fatal. To cut plants for the table the first year after planting is ruinous. To mow the tops of the plants while in growth is a prevailing custom, and it is the practice employed to destroy such plants as Ironweed, Poke, etc. It is needless to say such practice would kill outright any save a plant of vigorous constitution. To mow the tops when the seed ripens is also erroneously recommended. The seeds will not injure, and not one in a million will make a plant.

A curbing of stone is a useless appendage to an Asparagus bed. Moles do not injure Asparagus plants, and the curbing will not prevent their entrance.

Salt, liberally applied, renders the ground cold and clammy, and, while its use is quite general, our experience does not indicate that the practice is a wise one.

The fertility of an Asparagus bed is greatly promotive of rank weeds. When the plants stand uniformly they will generally suppress such growth, but in vacancies they will spring up with great vigor, much to the injury of the bed, and must be removed. In late years, immediately after discontinuing the cutting of our beds for the table, we loosen the soil and cover with three or four inches of straw or hemp shives, which effectually suppresses all growth of weeds, and is conservative of both moisture and fertility.

From many years experience with various varieties, we question whether there is a difference. Individual plants are superior to others, but the superiority cannot be perpetuated by seed, which is the universal method of propagation. This view is held by the best of botanists. Excellence is the result of liberal manuring and the selection of the heaviest and best seed. Our method of seed-saving is peculiar, and in size and weight cannot be surpassed. The stock of plants on hand this year is very fine and large.

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RHUBARB.

This, like the foregoing, is an indispensable early vegetable. The success of this plant is also dependent largely upon clean culture and abundant manure. The plants should be set three feet feet apart, with crown of plant three inches below the surface. The plants should be
manured annually and, heavily mulched with straw. A division of
crowns every third year greatly increases the size of the stalks. When
the stools are old the leaf-stems are numerous, but small, hence the ne-
cessity of division. Victoria is one of the best kinds, being unsurpass-
ed in size of leaf-stem.

GRAPES.

There is no branch of fruit-growing at present attracting so much
attention in Kentucky as grape culture, and the reason is quite appar-
rent. The grape-vine is very hardy, of easy growth, bears the third
year after planting, and seldom fails to yield a full or partial crop. Aside
from the certainty of the crop, the yield per acre exceeds that of any
other fruit, the apple not excepted, nor even the potato. Grapes,
while hardy and prolific, are imperious in their demand for specific
management. They should be planted seven or eight feet apart, each
way, the plants being inclined at an angle of 45 degrees, and the roots
covered six or eight inches. No stakes are needed the first year. The
cultivation the first year and ever after should be frequent, but not
deep. After the first season's growth the vines should be pruned in
November, removing the entire growth save two or three buds. Stakes
or a trellis made with wire and posts is needed to support the growth
of the second season, each vine being limited to the making of but one,
or if very vigorous, two canes. It is imperative that all others be re-
moved after danger of frost is past. At the end of the second year
these canes must be shortened to four feet. The third year the vines
will fruit, but they will require an annual pruning proportionate to the
vigor of the plant. We rarely leave more than one-fourth of the wood
of current growth; and if the plant lacks vigor the pruning should be
more severe. Trimming and cultivation are the secrets in grape cul-
ture, and if neglected failure is certain.

It is unfortunate that when a vine is trellised to an old building it
will yield abundantly and even very fine clusters without pruning.
Such locations always engender the deposition of large quantities of ni-
tre, which is extremely promotive of vigor in the grape-vine. When
pruning is named as a necessity to success, these vines are always cited
as evidence of the incorrectness of the advice given. The peculiar cir-
cumstances of the location are the cause of the favorable result. It is the
experience of vine dressers of all time and countries, that the vine,
save the Scuppernong, must be annually dressed.

Grape-vines of native stock are not subject to any disease. The
fruit when quite small is slightly liable to mildew in humid weather, and
when half-grown under the same atmospheric conditions rot sometimes
prevails, greatly lessening the yield. No successful treatment can perhaps be applied to large vineyards, and the best practice is to have the vines well distributed on the trellis, that full sun and free circulation of the air may favor rapid drying of fruit and foliage. Both rot and mildew may be entirely prevented if the clusters are covered with paper sacks when the fruit is quite small.

Sacking grapes not only obviates disease, but greatly favors handsome development and high quality. Sacked grapes are free from bees, wasps, birds, etc., and will keep perfect on the vine until severe frosts.

We have protected grapes in this way at very small cost for several years and recommend the practice with confidence. Grapes may be kept for several months if placed in thin layers in a dry, frost-free room.

We have been so greatly impressed with the value of the grape for general planting that great pains have been taken in collecting and testing new varieties and old ones not generally disseminated. After many years of patient care and observation we find that few varieties possess the qualities requisite for general planting, and to-day we have hundreds of dollars worth of high priced grape-vines consigned to the brush heap, and as many more in our vineyard that will likely prove of as little value.

The demand from nine-tenths of our patrons is for vines that are hardy, healthy, vigorous and productive, and in quality at least fairly good. After a full test of hybrid vines—crosses between the vine of Europe and native types—we find them worthless. Many other varieties of purely native origin are not valuable. The list appended is short but on our grounds they have stood the severest test of adverse condition incident to the climate of our State. Most of the varieties named are so vigorous in growth that the foliage in July may seem superabundant and injurious, inducing many cultivators to summer prune. This we have invariably found injurious to both fruit and the vigor of the vine. The better way is to pinch the ends of the cane as soon as it is indicated that the trellis is insufficient to accommodate the unchecked growth. Pinching stops terminal growth and causes a sturdier habit of wood, superior for next year's fruiting to the more attenuated wood of a vine whose growth has been at will. In addition to the list named we can furnish wood or vines of perhaps one hundred other kinds. Our stock of vines 1, 2 and 3 years, is the largest we have ever raised—our plant of 1-year stock alone being more than one-quarter of a million. Our vines of all sizes have made superb growth and very low rates will be made on all orders of 500 or over. We have the vines and intend to sell them.

Brighton—A superb red grape; hardy and moderately vigorous. In quality many have pronounced it superior to Delaware.
Catawba—This old grape is unsurpassed in quality. It did poorly for a long time, but of late years, save this, our vines bore heavy crops of handsome fruit.

Concord—This is undoubtedly the best grape we have for general planting. The vine is perfect in thrift, hardihood and productiveness. The bunch and berry are large, and the flesh melting. The flavor is somewhat foxy, but when well ripened, especially in sacks, this grape, under our warm skies, is truly excellent.

Cottage—A seedling of the above, closely resembling its parent, but ten days earlier. Not quite so good in bunch and quality, but one of best early grapes in our collection and the hardiest. Not a bud frozen with the thermometer at 24 below zero.

Delaware—This noble grape, in quality, is the best, and is perfect in color and beauty of cluster. The vine is hardy, but a very tardy grower. It must have rich soil and good culture.

Elvira—The best white grape we have; hardy and very productive. Bunch perfect; berry medium; flavor pure; ripening after Concord. This variety must be pruned very closely, or it will overbear, the fruit then being quite insipid.

Eu. Victor—One of the earliest, cluster very perfect and large; berry medium; color, black; vine moderate grower and very productive.

Ives Seedling—This vine is nearly as hardy as Concord; more vigorous and twice as productive. It is not a good table grape, but the best wine grape for general planting yet introduced. Color black; bunch large and perfect; flavor rather foxy, but when fully ripe sweet and aromatic. It will hang on the vine until shriveled.

Martha—This standard white grape is larger in bunch and berry than Elvira, but is not so productive or reliable.

Norton's Virginia—This old and reliable grape is a general favorite. Rampant grower, ordinarily hardy and very productive. The bunch is very perfect and large, and berry small. It ripens late and will hang until frost falls.

Noah—This white grape will prove an acquisition. It is perfectly hardy, very healthy, and our vines have proved thus far astonishingly productive. It ripens late. Bunch and berry resemble Martha. Quality moderate. Drops from cluster when ripe.

Niagara—This new white grape proves a fine grower here, and if vigor and hardihood, combined with moderate quality, suffice, it will be quite generally planted. Cluster perfect.

Perkins—Vine hardy, vigorous and productive; cluster medium; berry large, dull red, very musky in flavor.

Pocklington—A seedling of the Concord, with large bunch and berry. This and Niagara are more prone to rot than many other standard kinds.
Reisling (Missouri)—This white grape has done so well here that it will prove an acquisition. Bunch and berry medium; season late; vine hardy, healthy and productive; quality moderate.

Worden—Closely resembles Concord in leaf, wood and habit of vine. A trifle earlier; cluster and berry large. Pulp soft and melting; vine hardy, vigorous and productive. This grape has come to stay.

Wyoming—This new red variety is of good quality, with handsome clusters. Hardy, vigorous and productive.

Woodryff—Another red variety, of which we hope great things. Quality moderate.

PERSIMMON.

This admirable native fruit has been very much neglected. The persimmon fruits quite early, and, blooming very late, entirely escapes untimely frosts. The tree, yearly laden with its golden fruit, is highly ornamental on the lawn, and months after the orchard is brown and bare retains its fruit quite uninjured by midwinter frost.

The persimmon does not transplant kindly, even when nursery grown, and should be set with extra care, protecting the stem with straw. Clay soils are most congenial to this tree.

ORNAMENTAL TREES.

Nothing adds so much to a home in monetary value and true comfort as a well planted lawn. A home without trees and shrubs is forlorn indeed. Tree planting on the lawn is not so generally satisfactory as in the orchard, from a neglect to have the holes large and well prepared, and from a failure to mulch or at least to suppress the grass immediately around the roots. To sod around a newly planted tree means failure. If the season is dry complete loss is almost certain, and at best but feeble growth may be expected. For rapid growth and vigorous trees thorough planting and a perfect mulch are necessary. The branches of most lawn trees should be shortened one-half when set, and the stems wrapped.

Ash (European)—Resembles the white Ash, but more rapid in growth and erect in habit. A fine stock this year.

Carolina Poplar—A most rapid growing tree, resembling Lombardy Poplar, but with larger leaves and more open habit. Valuable for street planting and rapid effect.
Catalpa Speciosa—A fine lawn tree, with large dark foliage, more erect than the common Catalpa, blooming later, and very largely planted at present for timber.

Catalpa Japan—Resembles the above, but more erect; foliage darker, with very abundant flowers; very rapid while young.

Chestnut (American)—A well-known nut tree, of rapid growth and fine form. It establishes slowly.

Elm (Slippery)—Well known for the peculiarities of the inner bark. Tree of rapid growth, with large foliage.

Elm (Camperdown and Scotch)—Not so rapid in growth as the American, but more graceful, and very pretty. Fine stock.

English Alder—A pretty and rapid growing tree, desirable on the lawn.

English Walnut.—Well known as furnishing the imported walnut of commerce. Tree hardy here and of rapid growth. Fruits moderately. Fine stock this year.

English Oak.—More rapid than native kinds.

Horse Chestnut—Not so valuable here as north, except on retentive soils. Dark foliage and perfect contour.

Hydrangea—Hardy; a most desirable late blooming shrub, bearing immense spikes of white flowers and remaining a conspicuous object on the lawn at a season when few shrubs are in bloom.

Laburnum—A pretty, small growing tree, with handsome flowers.

Larch (European)—A very graceful tree, with foliage resembling that of an evergreen.


Linden (European)—Broad-leaved and red-twigged. These are graceful trees, rapid in growth, with smaller foliage and more erect in habit than the American.

Linden (American)—A noble native tree, of extremely rapid growth, with excellent habit and foliage. It is largely planted by apiarians, yielding an extra article of honey.

Maple-Sycamore—An erect and vigorous tree, developing into perfect form; foliage dark. Desirable.

Maple (Norway)—A superb tree, with very dense globose head. The foliage is much darker than that of Sugar Maple. Large stock.

Maple (Silver)—The Silver Maple is unequaled for general lawn planting. Of easy and rapid growth; it requires but a few years to attain considerable size: is hardy, healthy and free of insects. It is first in expanding its leaves, and retains them green as ivy until severe frost. Of these we have many thousands, and can furnish orders with choice trees, admirably rooted, being one or more times transplanted.
Maple (Sugar)—To our mind, "the finest tree that grows." It is of rather slow growth until established, but makes up for lost time afterwards, developing into a majestic and symmetrical tree: earliest green in spring, and gorgeous with crimson and gold for a month or more in autumn. Our trees are nursery grown and extra good.

Mountain Ash—A tree of rapid growth, bearing large clusters of red berries until severe frost.

Poplar—Lombardy—A very erect tree, of extraordinarily rapid growth, valuable on the lawn to produce striking contrasts.

Purple Fringe or Smoke Tree—A popular shrub, much admired for its large clusters of flowers, which are very persistent, making it a striking object on the lawn.

Red Bud—A well known tree, blooming very early in the spring, before the foliage expands.

White Fringe—A very ornamental shrub, bearing white racemes of flowers in June.

White Birch (European)—A graceful tree, of neat habit; bark white; foliage dark and glossy.

Willow (Weeping)—A tree well known for its pendulous habit of growth.

Yellow Poplar (Tulip Tree)—A native tree of fine foliage and erect habit. It is very rapid in growth and remarkably free from disease. It bears tulip-shaped flowers; establishes slowly.

Mulberry (Russian)—Hardy and rapid ornamental tree. Fruit valuable for poultry.

Virginia Creeper—A most desirable vine for covering walls, &c.

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HARDY FLOWERING SHRUBS.

We offer a fine stock of shrubs for the lawn, entirely hardy and of fine blooming size. The list consists mostly of Altheas, Calycanthus, Deutzias, Burning Bush, Lilacs, Honeysuckles, Syringas, Weigelas, Tamerax, Snowballs, Spirias, Koelrutria, etc., etc.
Type of the immortal, and amid the desolation of winter, keeping bright the promise of life! These should be found on every lawn. They are easily transplanted as other trees, and are more rapid in growth than many. Most evergreens have soft fibrous roots, and if placed in position and earth shoveled over them without using the hand to lift and spread them into a plane of earth as the one occupied before digging, they are liable to fail. This is especially true of Hemlock, Arborvitae and Juniper. A superb stock this year, and special rates on all large orders.

_Hemlock_—This native tree, when well grown, is unsurpassed among evergreens. It is erect, yet pendant, of symmetrical contour, and delicate foliage. Succeeds here admirably.

_Juniper (Irish)_—The best of our erect evergreen shrubs, attaining a height of ten feet. In favorable soil it makes a magnificent pyramid of brightest green.

_Arborvitae (American)_—A pretty tree of rather dwarf growth. It is much used for screens and ornamental hedges. Our stock this year is unusually fine.

_White Pine_—This well known tree is most rapid in growth, developing into a majestic and symmetrical form, with foliage perfect in color.

_Retinospora (in variety)_—Dwarf shrubs, with dense, slender, feathery branches; very ornamental; fine stock; These are not as popular as their merit deserves.