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DWARF
TRIAL
COLLECTION
This collection enables you
to plant a choice selection
of Dwarf Tree Fruits at a
reasonable cost. This is a
new collection of good
varieties. You will be
pleased with every one.
1 Dwf. Wealthy Apple $.50
1 Dwf. Yel. Transparent
Apple .50
1 Dwf. Seckel Pear .40
1 Dwf. Montmorency
Cherry .60
1 Dwf. Japan Plum .60
1 Dwf. Peach Tree .40
List Price $3.00
COLLECTION PRICE 2.00

C.C. McKay mgr.
Geneva, N.Y.
A GREETING TO OLD FRIENDS, AND AN INTRODUCTION TO NEW FRIENDS

This booklet is approximately an annual publication. My endeavor is to make each one issued the best one yet—both for you and for me. Assuming you want to set out trees and plants, my "WANT" is to secure your business. I thoroughly enjoy "Blowing my own horn," knowing my products are also going to toot for me wherever they may become planted.

MY BEST ADVERTISERS ARE MY CUSTOMERS

I long ago discovered this. More than ever then, my purpose is to please you. I ship only choice trees, thrifty and full of life. All orders and correspondence come to me personally and receive my full attention, so that you are dealing with me, not with a clerk. If in spite of my personal attention you ever have cause for complaint, all I ask is that you let me know at once, that I may have the chance to make the matter right and convince you more than ever of my personal interest in your dealings with me.

MY BEST SALESMAN

is this very catalogue. In this manner, so far as space allows, I tell you all I can of my trees and the different varieties I offer in the various fruits. I have tried to give much of the information which every prospective planter wants to know before deciding what to plant. I have tried to make it as interesting as the nature and purpose of this catalogue permits. And I expect you to read every page of it—even the blank order form which I have enclosed for your convenience.

MY QUESTION BOX

is at your service. You will always find me glad to answer questions and to give further information than these covers contain, if I know the answer. If I seem to have made mistaken statements in this booklet, let's swap experience and opinions.

MY BUSINESS

is just as eager for small orders as large ones. When you decide to plant let me know your needs. Give me a trial if you want "as good as there is," and I can please you with choice stock shipped direct to you, fresh from my propogating farm.

(Signed) C. C. McKay, Mgr.

OUR GUARANTY—SUBSTITUTIONS

Orders for the Orchard—In respect to such orders we guarantee our customers against wilful or intentional change of labels, and will exercise the greatest care to have every variety exactly what it purports to be. In case of any error we will replace with other stock or refund the purchase price as preferred. On such orders you desire substitutions made in case we are out of a variety ordered, please state this wish when you place your order, otherwise we shall omit such varieties and refund the money for them.

Orders for the Garden—On these orders, showing from the number of each variety ordered that they cannot be intended for commercial orchard, we shall, if out of a variety ordered, send some other variety in its place, correctly labeled. We shall send a variety as nearly like the one ordered as we have, and no low priced variety will be sent for a higher priced one without refunding the difference in cost. This will be our general rule; so if you desire no changes whatever in your order, state the fact and no changes will be made, and the money will be refunded for any varieties that we cannot furnish.

CASH WITH ORDER

We shall decline to fill orders not paid for before shipment. That we ask for cash is no reflection on the credit of our customers, but is an absolute necessity to success in a mail order business where thousands of orders are handled, the average amount of which is very few dollars each. Neither do we ship C. O. D.

MANNER OF REMITTING

Any way most convenient to you—postal, or express order, or your own personal check.

WE DO NOT REPLACE STOCK THAT FAILS TO LIVE

We are asked so many times in regard to this that we make this statement here as plainly as possible. If you bought a horse you would not expect a similar guaranty: the fact that when buying through agents this guaranty is usually given is no reason for asking it from us, for through an agent you would pay from two to three times the prices at which the same stock is listed here. We are always willing to make anything right if we are in any way at fault, but please do not wait till a tree has died before entering a complaint and then ask us to send you another, free.

MANNER OF SHIPPING

All shipments are delivered at express or freight office in Geneva, N. Y., where our responsibility ceases. Any claims for stock not being right in any way must be made within five days from receipt of same.

All shipments will be by express except (1) orders large enough to require boxing, and (2) unless you positively order freight shipment.

The cost on small orders by express is very little more than by freight, and on all small orders packed in bales, we regard it absolutely necessary for their safe arrival to go by express. Don't pay money for good stock and then risk all for a possible small saving in transportation. If you are willing to leave this to us we will consult your interests always in deciding upon the manner of shipment. Late shipments in spring or fall must necessarily go by express to avoid damage, regardless of size.

It is rarely practicable to send trees by parcel post; if of any considerable size the circumference and length of package prohibit it, and for heavy packages the express is the cheaper.
SUMMER APPLES

Description of Varieties

**Early Harvest**—This and the Sweet Bough are the two standard early varieties representing the "Harvest Apples" that we used to steal when we were boys. A large, high-quality, yellow apple. July, August.

**Early Strawberry**—A small apple, of good quality, handsome, dark red, striped. August.

**Golden Sweet**—A good sweet early variety for home use. Medium size, yellow. Middle of August till last of September.

**Red Astrachan**—Medium size, red, striped, with a heavy bloom; flesh very white, juicy, quite acid and fine quality. A fine early cooking variety. Late July to September.

**Sweet Bough**—Large pale yellow, very tender, sweet and juicy, perhaps the most popular of the old early kinds. August and early September.

**Yellow Transparent**—A very light yellow, almost white; good sized and probably the earliest bearing variety of the fifty odd kinds listed here. Late July and August.

(Note—This is one of the really valuable Russian varieties imported by the U. S. Department of Agriculture in 1899. Its size is not up to either Early Harvest or Sweet Bough, but it is good, and about between the two in acidity; but it is such an early bearer of heavy annual crops of wonderfully perfect fruit, that it has become one of the most widely disseminated of the more recently introduced varieties, and seems to hold its own in all localities. Recommended for home use, and for markets, within shipping distance calling for early fruit. C. C. M.)

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**For Vacation Time**

**Summer Collection**

These Three Dwarf Apple Trees

- **RED ASTRACHAN**—Ripe late July to September
- **SWEET BOUGH**—Ripe August and early September
- **YELLOW TRANSPARENT**—Ripe late July and August

(List Price $1.50) Collection Price $1.10

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Half Bushel of Scarlet Beauty

Fall and Early Winter Varieties

**Autumn Strawberry**—A pinkish, medium size apple of very good quality, streaked with carmine. September to December.

**Bismarck**—A very large apple, striped with light and dark red. An extremely early bearer. October to early winter.

**Chenango**—A large pink and white apple, attractive and good to eat or cook. It bears good crops ripening over a period of several weeks in September and October.

**Constantine**—A large bright red apple, heavily striped. Particularly suitable for culinary use and market. September to November.

(Note—This variety we have from buds taken direct from the tree in bearing on the grounds of the N. Y. State Experiment Station at Geneva. It is so similar in every way to Alexander that it may be said to be practically an improved Alexander, in that it is a heavier average cropper with a larger percentage of marketable fruit, begins ripening a little later and continues longer in season. I have watched this particular tree for several years and can assure my customers who are inclined toward Alexander, that Constantine seems the better variety. C.C.M.)

**Fall Pippin**—Large, yellow, sometimes faintly blushed; a splendid dessert and cooking apple. Late September to January.

**Fameuse (Snow)**—Below medium size, but a high quality apple, bright red, somewhat striped. The tree is a crooked grower. October to mid-winter.

**Gravenstein**—Large size and of fine quality; striped with light and dark shades of red. Late September to early November.

**King**—A large, striped red apple, one of the best in quality. October to January. This apple probably ranks fourth in quantity grown in New York State.

**Maiden Blush**—Good size; pale yellow with crimson blush on one side; very juicy, and good for culinary use. September to December.

**McIntosh**—Above medium size; clear whitish-yellow or greenish, washed and deeply blushed with bright red and striped with carmine, highly colored specimens becoming dark purplish red, overspread with a thin lilac bloom. Flesh white, sometimes veined with red; firm, fine, crisp, tender, very juicy, agreeably aromatic, perfumed, sprightly sub-acid, becoming mild and nearly sweet when very ripe, very good to best for dessert.

See Price List on Pages 6 and 7
FALL AND EARLY WINTER APPLES

Description of Varieties

Oldenburg (Duchess)—A medium sized apple with splashes and stripes of bright red and crimson, good for culinary use. Extra hardy, and does well over a very wide territory. Late August and September.

SCARLET BEAUTY—The Big Red Apple

It is only about once in a lifetime that the opportunity comes to a nurseryman of getting hold of such a prize as The Big Red Apple.

A cross between the Pearmain and Stone apples, and a magnificent apple. It is distinctly large without being coarse, of a vivid, brilliant, all over red—as handsome as a fine McIntosh and much larger. It is of fine quality, a regular and heavy bearer, and every admirer of “The Big Red Apple” will get it to absolute perfection in the Scarlet Beauty.

We think this will do extra well as a dwarf, and have planted a small commercial orchard of dwarf Scarlet Beauty.

Stearns—A late fall and early winter variety which has attracted very favorable notice during its test for several years on the State Experiment Station grounds. It is a handsome, bright red, good sized apple, mild sub-acid and of good quality, showing far more than usual those greatest qualities of all for a profitable apple, regular and heavy bearing qualities.

Stump—Stump is a beautiful red and yellow striped apple. It is very good in quality, the flesh being tender, juicy and rich. This is valued chiefly as an eating variety as it bruises easily when shipped.

Twenty Ounce (Collamer)—This apple grows to very large size; it is yellow, splashed with bright red. Good for culinary use. September to early winter.

Wealthy—Large in size, but with tendency to smaller size as trees age. Attractively marked, with narrow red splashes. Very juicy and of high quality. October to January.

Wolf River—Large; deep red blush, with broad carmine stripes. Very showy, only fair quality. September to December.

Crab Apples

Excelsior—Very large, yellow, splashed with red; a beautiful little dessert apple. Early September.

Hyslop—A fine old variety, above medium to large in size; dark purplish red; fine for culinary purposes. Late September and October.

Martha—One of the newest varieties; large, yellow, covered with red, good to very good. September to November.

Transcendent—The “old reliable” crab apple, probably the best jelly crab of them all. Medium to large, bright yellow with bright red cheek. Late August and September.
DESCRIPTION OF APPLES  Continued

WINTER VARIETIES

Bailey Sweet—Fruit above medium in size, and very good in quality. Deep red in color, slightly striped. October to January or later.

Baldwin—A large apple, juicy and of good quality. Bright red blush, striped with carmine. November to March or April.

(Note—This apple originated about 1740 near Lowell, Mass. It was known as the Woodpecker also as Peeler, Butters, and later as Felch, Steele's Red Winter and variations of its final name of Baldwin, which was given it forty or fifty years later. It is the leading commercial apple of New York, New England, Southern Canada, Northern Ohio and the southern peninsula of Michigan. Prof. Beach estimates that over one-half of the apples produced in New York State are of this variety, although it was little planted here till about 1850. The original tree was standing in 1817, but had disappeared prior to 1892. A monument has been erected on the site of the original tree. C. C. M.)

Ben Davis—Above medium in size, mottled with clear dark carmine stripes. Ordinary quality, and a fine keeper. January to June.

(Note—This is the variety which the apostles of "High Quality" unite in cursing. To the man contemplating planting apple trees however, it is worth while perhaps, to note the fact that the man who has a bearing orchard of Ben Davis smiles at the hard things said against this apple, and keeps right on growing it! The Horticultural Professor should remember that the man who grows apples commercially does not expect to eat them himself—he grows them to sell, and it is a fact that this variety is a money maker. Right on my own farm if I were to choose between the Baldwin and the Ben Davis to plant extensively, I should choose the latter without hesitation as the more profitable variety of the two. C. C. M.)

Black Ben Davis—Medium size and good quality. Brilliant red, often with some pale yellow. January to April or May.

Boiken—Large and of good quality. Bright yellow, often with pinkish red blush. November to March.

Delicious—A new variety introduced by the Starks of Missouri. We believe this will prove to be right in a class with Scarlet Beauty and McIntosh.

Delicious is dark red, long and large. It is doubtful if any apple can be handsomer than a good, well grown Delicious. It is in season with Spy, but keeps better. The flavor is fine, a mild subacid, delicious for dessert and good for cooking purposes. The tree is evidently very hardy; originating in Iowa, it grows to perfection also in the extreme northwest apple regions, and it is proving good in the New England states and in New York. The variety seems well adapted to a wide range of country, since some growers claim to raise it profitably as far south as Virginia.

Golden Russet—Above medium in size and very good in quality. Usually well covered with yellowish or golden russet, and often has bronze cheek. December to April or later.

Grimes' Golden—Medium to large in size, and of very good quality. Clear deep yellow in color, with pale yellow or russet dots. November to January.
DESCRIPTION OF APPLES Continued

WINTER VARIETIES (Continued)

Hendrick Sweet (Sweet Winesap)—Medium in size, and good in quality. Bright green or yellow, with reddish spots or with a pronounced brownish red blush. December to April or May.

(Note—Perhaps the best all round sweet apple we offer. It is a choice home variety, and has proven a profitable apple to grow for market in many regions of the state. C. C. M.)

Hubbardston—An apple above medium in size, and of high quality. Yellow, blushed and mottled with red. January to April or later.

Jonathan—This apple is medium or under in size, but of very good quality. In color it is bright yellow, blushed with red and attractively striped with carmine. November to January or later.

Lady—A tiny little apple, just two bites of deliciousness.

Lady Sweet—Fruit generally large and very good in quality. Well over-spread with bright red splashed with carmine. One of the most desirable sweet apples for commercial plantings. November to April or May.

Northern Spy—Large size fruit of high quality. Blushed with bright pinkish red, mottled and splashed with carmine. November to nearly the close of the season.

(Note—This originated as a seedling in this county about twenty-five miles west from Geneva, early in the 19th century. It began to attract attention about 1840, and to-day stands third in the state in the quantity produced. It is distinctly a "highest quality" apple in our estimation ranking next to McIntosh. It is a late, though uncertain keeper, has a very delicate skin, and should be handled with the utmost care. The tree is a very strong, large grower, and should be given plenty of room. Many regions grow good Spy with the one defect that it fails to attain the high color which it should have to bring the best returns. C. C. M.)

Opalescent—A large apple with quality good to very good. Pale yellow overspread with deep red, and very slightly streaked. November to March.

(Note—This is of recent introduction, and as seen at the State Experiment Station during the last few years, is proving to be a far more promising apple than was first supposed. It is at least worth a careful trial. C. C. M.)

Pewaukee—Above medium in size and fair to good in quality. Green or yellow, washed or mottled with orange-red or red. November to April.

Pound Sweet (Pumpkin Sweet)—A very large yellow apple, often with a slight brownish red blush. Good for culinary use, especially for baking. October to January.

Rhode Island Greening—Above medium in size and very good in quality. Green, varying to yellow, sometimes with brownish red blush. October to March or April.

(Note—The apple that dates back over two hundred years and is to-day producing more fruit in New York State than any other variety except Baldwin, deserves more than a passing notice. It originated as a seedling at a place called Green's End near Newport, where a Mr. Green kept an inn. It became known as "Green's Inn" and in other states as "Green's Inn apple from Rhode Island." This variety when first picked, and for several weeks thereafter when kept in common storage, is a rather moderate priced apple; but when handled right and placed in cold storage it has for years brought prices during the winter and spring, well up at the top. It is a prolific cropper and there are few varieties that will give a larger percentage of number one apples than this. This is one of the varieties that we have planted in orchard quite extensively. C. C. M.)

Rome Beauty—Medium size, sometimes becoming very large, and of fair quality. Yellow, more or less mottled with bright red and splashed with bright carmine. November to April or May.

(Note—As a good a keeper as Ben Davis, just as handsome, and better in quality. From our experience here it should be kept till late when the market is cleared up of the better red apples when it will be readily taken at surprisingly good prices.

Roxbury Russet—Above medium size and very good quality. Skin usually covered with greenish or yellowish-brown russet. December to May.
DESCRIPTION OF APPLES—Continued

WINTER VARIETIES—Continued

Seek-no-Further—An apple of above medium size and of high quality. Deep yellow shaded and splashed with rather dull red, but often more highly colored. February.

Senator—Size varies from below medium to large, and quality is high. Deep rich yellow, well covered with bright red, striped. November to February.

Spitzenburg (Esopus)—Below medium to large in size, and of high quality. Rich yellow, often almost entirely covered with bright red striped with darker red. One of the really great apples. November to March.

Stark—Medium to large fruit of fairly good quality. Pale green or yellow, more or less blushed or mottled with red, slightly striped with darker red. January to May or June.

(Note—This is a variety with many excellent features; the tree is one of the strongest growers there is, and bears annually good crops without the tendency to overbear. The fruit averages large, is smooth and uniform, and, having a thick, tough skin, is a splendid keeper. It is not up to Baldwin in quality and is an average low priced variety. For the man, however, who has not access to cold storage, it is an apple that he can put right in common storage and bring into the market in April and May and it will bring him better prices than that could be realized at picking time with fair better and higher priced varieties. The Stark, Ben Davis and Rome Beauty are similar in that they are all medium to low in quality, all good, annual bearers, all handsome, all great keepers, and all will give the best results for the least care of any three varieties on our list. (C. C. M.)

Stayman’s Winesap—A medium to large sized apple; quality good to very good. Green or yellowish, often nearly covered with rather dull mixed reds, striped with carmine. December to May.

Sutton Beauty—Size medium and quality very good. Lively yellow ground color, well covered with attractive bright red striped with carmine. November to March.

Tolman—Below medium in size, quality from good to very good. Pale clear yellow, sometimes a little blushed. November to January.

Wagener—Medium to large in size and very high in quality. Bright pinkish red striped with bright carmine. November to February.

Winter Banana—New. Often very large, quality very good. Pale yellow with pinkish red blush. November to April.

(Note—This apple is considered by many as being beyond question the handsomest of all our varieties. It is a contribution from the “Hoosier” State, originating about 1876. The fruit is large—32 have seen them from Oregon as large as the largest size grapefruit, and with its waxy, almost transparent appearance, and a blush that is really a genuine blush, it makes one of the handsomest fruits I have ever seen. Grown in the east it is more moderate in size, still large enough. It is deservedly growing in flavor and its right to stand up and be counted with such valuable new varieties as Scarlet Beauty, Stearns, Opalescent and Delicious. (C. C. M.)

Yellow Bellflower—Size varies from medium to very large. A good apple for culinary use. Bright lemon yellow, often with brownish red blush on exposed side. December to April.

A pair of “Scarlet Beauties” on one of my own Cordon

Grading and Packing in my own Orchard
STANDARD APPLE TREES—PRICE LIST

Prices of Standard Apple Trees, except as noted, cash with order

<table>
<thead>
<tr>
<th>Extra size, about 5-7 ft...</th>
<th>Each</th>
<th>Per Doz.</th>
<th>Per 100</th>
<th>One year trees</th>
<th>Each</th>
<th>Per Doz.</th>
<th>Per 100</th>
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<td>2 and 3 year trees</td>
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**EARLY VARIETIES**
- Early Harvest
- Early Strawberry
- Red Astrachan
- Sweet Bough
- Yellow Transparent

**FALL VARIETIES**
- Autumn Strawberry
- Bisnarek
- Constantine
- Fall Pippin
- Fameuse
- Gravenstein
- King
- Maidan Blush
- McIntosh
- Oldenburg
- Scarlet Beauty, 50c
- Stearns, 50c
- Twenty Ounce
- Wealthy
- Wolf River

**WINTER VARIETIES**
- Bailey Sweet
- Baldwin
- Black Ben Davis
- Boiken
- Delicious, 50c
- Golden Russet
- Grimes Golden
- Hendrick Sweet
- Hubbardston
- Jonathan
- Lady Sweet
- Northern Spy
- Opalescent
- Pewaukee
- Pound Sweet
- R. I. Greening
- Rome Beauty
- Roxbury Russet
- Senator
- Seek-no-further
- Spitzenburg
- Stark
- Stayman
- Sutton
- Tolman Sweet
- Wagner
- Winter Banana
- Yellow Bellflower
- Yellow Newtown

**CRAB APPLES**
- Excelsior
- Hyalop
- Martha
- Transcendent

If you are planning to plant a commercial orchard of apple trees it is wise under most conditions to plant only a few varieties, no matter how large the planting may be. The apple orchard intended for home use, on the other hand, should consist of more varieties, using only a tree or two of each kind.

By the right selection of kinds you can in the Northern States have your own apples to use from August till the following April or May. For instance, such varieties as Fameuse, Pound Sweet, Tolman, McIntosh and Stearns will keep in common cellar storage till Christmas. Kinds like Delicious, Hubbardston, R. I. Greening and Winter Banana will keep till February. Spitzenburg, Jonathan, Spy and Rome Beauty keep till March. With Baldwin, Ben Davis, Yellow Bellflower and Stark you can have apples till April. Roxbury Russet is one of the longest keepers and will very often be good till May.

For market select the commercial varieties which thrive best in your locality. Plant about 35 feet apart for most kinds. With some few 30 feet apart may be enough, and the strongest growing kinds ought to have 40 feet.

Correspond with me if you are going to put out a commercial orchard. I have the sort of stock you want, clean, vigorous and well-grown; trees I'm proud to sell to you who want the best!—C. C. McKay, Geneva, N. Y.

**EARLY COLLECTION**
Particularly early bearing kinds which will give you some apples the soonest.

**STANDARD TREES ONLY**
1 Std. Yellow Transparent $ .30
1 " Oldenburg .30
1 " Wealthy .30
List price .90
Collection Price $ .75

**Stern's Collection**

**STANDARD TREES ONLY**
1 Std. McIntosh $ .30
1 " Northern Spy .30
1 " Wealthy .30
1 " Stearns .50
List price 1.40
Collection Price $ 1.00

The Kind I Furnish
DWARF APPLE TREES—PRICE LIST

Price of Dwarf Apple Trees, except as noted, cash with order
50c each, $5.00 per dozen, $35.00 per 100

EARLY VARIETIES

| Early Harvest | Red Astrachan |
| Early Strawberry | Sweet Bough |
| Golden Sweet | Yellow Transparent |

FALL AND EARLY WINTER VARIETIES

| Autumn Strawberry | McIntosh |
| Bismarck | Oldenburg |
| Chenango | Scarlet Beauty, 75c |
| Constantine | Stearns, 75c |
| Fall Pippin | Stump |
| Fameuse | Twenty Ounce |
| Gravenstein | Wealthy |
| King | Wolf River |

CRAB APPLES

| Bailey Sweet |
| Baldwin |
| Delicious, 75c |
| Golden Russet |
| Grimes’ Golden |
| Hendrick Sweet |
| Hubbardston |
| Jonathan |
| Lady |
| Lady Sweet |
| Northern Spy |

WINTER VARIETIES

| Opaleneent |
| Pound Sweet |
| R. I. Greening |
| Rome Beauty |
| Senator |
| Spitzenburg |
| Stayman |
| Tolman Sweet |
| Wagner |
| Winter Banana |

For many small gardens and yards standard apples would in time take up too much room. For such locations nothing can beat the dwarfed trees. They may be planted ten feet apart. Ten to sixteen of them can be put in the same space required for a single standard tree.

These trees are budded on special slow growing roots, which produce slow growing or dwarfed trees. It is due to this fact that the wood growth is retarded, that the energy of the tree is directed to the early formation of fruit buds and fruit.

Thus, besides being adapted to folks having limited grounds for such plantings, they have the great advantage of beginning to bear early in life. Many kinds will begin bearing the second summer, in fact from three to six years sooner than most standard trees begin bearing in the North Eastern States. The low heads of these trees put them in easy reach for picking. To get the best results they should be severely headed back each spring.

My Dwarf Apple Trees will be mostly two year old trees more or less branched, and will run about 2 to 3 feet in height. However, there will be occasionally trees under 2 feet and over 3 feet. I guarantee no specific heights of dwarf trees of any variety.

In the dwarfs I also reserve the right to fill with one year old trees if out of two year old. The one year old dwarf trees can be readily distinguished from the older trees, as they are generally straight whips without branches.

DWARF APPLES ON PARADISE STOCK

Paradise roots produce the dwarfast of dwarf trees. Apples budded on this stock make beautiful shapely little trees which are fully as ornamental as they are useful. They can be planted from 6 to 8 feet apart. If you wish to train apples in Cordon forms, I advise these trees for such use, as is the European custom. I offer the varieties given in the adjacent column, which I can supply in two year old trees. As far as possible orders will be filled with two year trees unless you specify one year trees for cordon.

PRICE LIST FOR APPLES ON PARADISE

Prices 75c each, $7.50 per doz.

Early Varieties

| Early Harvest | Red Astrachan |
| Early Strawberry | Sweet Bough |
| Golden Sweet | Yellow Transparent |

Fall and Early Winter Varieties

| Autumn Strawberry | McIntosh |
| Bismarck | Oldenburg |
| Chenango | Scarlet Beauty, 75c |
| Constantine | Stearns, 75c |
| Fall Pippin | Stump |
| Fameuse | Twenty Ounce |
| Gravenstein | Wealthy |
| King | Wolf River |

Winter Varieties

| Delicious |
| Hendrick Sweet |
| Hubbardston |
| Jonathan |
| Northern Spy |

Opaleneent
| Pound Sweet |
| R. I. Greening |
| Rome Beauty |
| Senator |
| Spitzenburg |
| Stayman |
| Tolman Sweet |
| Wagner |
| Winter Banana |

Yellow Newton
PEAR TREES Description of Varieties

Early Varieties
Prior to Mid-October

Bartlett—Stands in the same relation commercially among other pears, as Baldwin does among apples. Large size; rich yellow when ripe, with a beautiful, blush cheek; highly flavored, juicy, buttery, very vigorous, bears very abundantly at a comparatively early age, and is an annual bearer. August and September.

Clapp’s Favorite—Very large; pale yellow, blushed with red: very high, rich quality. Should be gathered very early. August.

Flemish Beauty—Tree hardy, vigorous and productive; fruit large, roundish, very subject to scab if not sprayed; pale yellow, with a reddish brown cheek; fine, high quality. September.

Seckel—Our most highly flavored pear, the standard of excellence. Fruit small, yellowish brown, with a russet-red cheek; flesh very juicy, melting, aromatic, with a rich, spicy flavor; quality, very best. September and October.

Sheldon—Tree vigorous, hardy, productive; fruit medium to large, round, apple shaped; greenish, changing to a yellowish russet when fully ripe. Flesh whitish, very juicy, melting, rich, very high quality. October.

Wilder—A large, pale yellow variety, shaded to a dark, russet red. Very early and good.

Worden Seckel—Seedling of Seckel, by S. Worden originator of the Worden grape. Fruit medium in size, larger than its parent; pale yellow, overspread with red on the sunny side; flesh white, melting, not as rich and vinous as Seckel, but finer grained, very good. September.

Late Varieties
Mid-October and later

Angouleme—Large with uneven surface; greenish yellow, often streaked and spotted with russet; juicy, sweet, very good. October. Best as dwarf.

Anjou—Large; greenish yellow, sometimes faintly blushed; flesh slightly coarse, juicy, aromatic, very good. October, November.

Bar-Seckel. Medium size, with a slightly elongated neck; yellow with red cheek and of excellent quality. October.

Bosc—Large; dark yellow, covered with cinnamon russet and sometimes tinged with red; flesh white, buttery, melting, rich, sweet, aromatic and delicious, best. October 75c each, $7.50 per dozen.

Comice—The tree is a healthy grower and good bearer. Fruit large, roundish pear shaped, sometimes varying somewhat in form; color lemon yellow with a greenish tinge; flecked with patches of pale brown russet, often blushed in the sun. The flesh is yellowish white, fine grained, very tender, rich and sweet. October, November. 50c each, $5.00 per dozen.

Clairgeau—Very large, long; yellowish-brown with an exceedingly handsome, deep red cheek. November.

Howell—Large, sometimes with a short neck. Greenish yellow; grows very large proportion of fair fruit. October.
PEAR TREES—Continued

LATE VARIETIES—Continued

Idaho—Large, round, golden with russet dots; juicy, sprightly; very good. First of October.

Kieffer—Tree very vigorous and an early, heavy and regular bearer; fruit medium to large; yellow, blushed with red on the sunny side; flesh coarse, juicy, of very medium quality, but excellent when canned or cooked. October.

Lawrence—Medium size, very productive; greenish yellow, often marked with russet; very good. Early winter.

Louise Bonne—A large, handsome, distinctly pear shaped variety; greenish yellow with red cheek. Best as dwarf. Heavy bearer. October.

Vermont Beauty—Below medium in size; greenish yellow, blushed and specked with red on the sunny side; of fine quality. Early October.

STANDARD PEAR TREES PRICE LIST

PRICES, except as noted, cash with order

<table>
<thead>
<tr>
<th>2 and 3 year trees</th>
<th>Each</th>
<th>Per Doz.</th>
<th>Per 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extra size, 5-7 ft</td>
<td>.45c</td>
<td>$3.50</td>
<td>$25.00</td>
</tr>
<tr>
<td>Bartlett</td>
<td>Flemish</td>
<td>Seckel</td>
<td>Worden-Seckel</td>
</tr>
</tbody>
</table>

Price of BOSC

<table>
<thead>
<tr>
<th>2 and 3 year trees</th>
<th>Each</th>
<th>Per Doz.</th>
<th>Per 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extra size, 5-7 ft</td>
<td>$1.00</td>
<td>$10.00</td>
<td>$65.00</td>
</tr>
<tr>
<td>One year trees, 3-4 ft</td>
<td>.75</td>
<td>7.50</td>
<td>45.00</td>
</tr>
</tbody>
</table>

Special hundred rates on smaller sizes

<table>
<thead>
<tr>
<th>2 and 3 year trees</th>
<th>Each</th>
<th>Per Doz.</th>
<th>Per 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extra size, 5-7 ft</td>
<td>.75c</td>
<td>$7.50</td>
<td>$45.00</td>
</tr>
<tr>
<td>One year trees, 3-4 ft</td>
<td>.50c</td>
<td>5.00</td>
<td>35.00</td>
</tr>
</tbody>
</table>

Price of COMICE

<table>
<thead>
<tr>
<th>2 and 3 year trees</th>
<th>Each</th>
<th>Per Doz.</th>
<th>Per 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extra size, 5-7 ft</td>
<td>75c</td>
<td>$7.50</td>
<td>$45.00</td>
</tr>
<tr>
<td>One year trees, 3-4 ft</td>
<td>.50c</td>
<td>5.00</td>
<td>35.00</td>
</tr>
</tbody>
</table>

Special hundred rates on smaller sizes

<table>
<thead>
<tr>
<th>Universal Collection Standard Pears</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Bartlett</td>
<td>.35</td>
<td>.35</td>
<td>.35</td>
</tr>
<tr>
<td>Flemish</td>
<td>.35</td>
<td>.35</td>
<td>.35</td>
</tr>
<tr>
<td>Seckel</td>
<td>.35</td>
<td>.35</td>
<td>.35</td>
</tr>
<tr>
<td>Bosc</td>
<td>.35</td>
<td>.35</td>
<td>.35</td>
</tr>
<tr>
<td>Clapp</td>
<td>.35</td>
<td>.35</td>
<td>.35</td>
</tr>
<tr>
<td>Clap's Favorite</td>
<td>.35</td>
<td>.35</td>
<td>.35</td>
</tr>
<tr>
<td>Lawrence</td>
<td>.35</td>
<td>.35</td>
<td>.35</td>
</tr>
<tr>
<td>Kieffer</td>
<td>.35</td>
<td>.35</td>
<td>.35</td>
</tr>
<tr>
<td>Vermont Beauty</td>
<td>.35</td>
<td>.35</td>
<td>.35</td>
</tr>
</tbody>
</table>

Below are given the approximate dates on which the varieties of pears listed are mature at Geneva, N. Y. These should not be confused with picking dates, as most pears should be picked while still green and allowed to ripen to maturity in common storage, such as the house cellar. The weeks indicate the length of time these varieties will last in common storage after reaching maturity.

This table is taken from Bulletin No. 408, issued June, 1915, by the New York State Agricultural Experiment Station:

<table>
<thead>
<tr>
<th>Pears</th>
<th>Dates</th>
<th>Weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angouleme (Duchess)</td>
<td>Oct. 15-25</td>
<td>3</td>
</tr>
<tr>
<td>Bartlett</td>
<td>Sept. 5-15</td>
<td>1</td>
</tr>
<tr>
<td>Belle Lucretive</td>
<td>Sept. 20-30</td>
<td>1</td>
</tr>
<tr>
<td>Bosc</td>
<td>Oct. 20-30</td>
<td>2</td>
</tr>
<tr>
<td>Clairgeau</td>
<td>Oct. 20-30</td>
<td>2</td>
</tr>
<tr>
<td>Clap's Favorite</td>
<td>Sept. 20-30</td>
<td>1</td>
</tr>
<tr>
<td>Howell</td>
<td>Oct. 20-30</td>
<td>2</td>
</tr>
<tr>
<td>Kieffer</td>
<td>Oct. 20-30</td>
<td>3</td>
</tr>
<tr>
<td>Koonce</td>
<td>Aug. 1-10</td>
<td>1</td>
</tr>
<tr>
<td>Lawrence</td>
<td>Nov. 1-10</td>
<td>1</td>
</tr>
<tr>
<td>Louise Bonne</td>
<td>Oct. 1-10</td>
<td>2</td>
</tr>
<tr>
<td>Seckel</td>
<td>Oct. 1-10</td>
<td>3</td>
</tr>
<tr>
<td>Sheldon</td>
<td>Oct. 1-10</td>
<td>4</td>
</tr>
<tr>
<td>Tyson</td>
<td>Aug. 20-30</td>
<td>1</td>
</tr>
<tr>
<td>Vermont Beauty</td>
<td>Oct. 5-15</td>
<td>3</td>
</tr>
</tbody>
</table>
DWARF PEAR TREES—PRICE LIST

40c each, $4.00 per doz., except as noted

Angouleme (Duchess) Howell
Anjoy Idaho
Bartlett Kieffer
Bar-Seckel Koonce
Bosc, 75c Louise Bonne
Clairgeau Seckel
Clapp Sheldon
Comice Bar-Seckel Vermont Beauty
Flemish Wilder

Dwarf Bosc Pear Collection
1 Dwarf Bosc - - - - $ .75
1 Dwarf Bartlett - - - - .40
1 Dwarf Clapp - - - - .40
1 Dwarf Bar-Seckel - - - - .40
1 Dwarf Seckel - - - - .40

List Price in Dwarfs - - - - $2.35

Dwarf Collection Price $2.00

Among all you house-holders, who will not agree that fruit trees in bloom have the ornamental beauty of the lilac, spirea, deutzia and other decorative shrubs: so much so that we are all beginning to combine useful and ornamental purposes by using some of the smaller growing fruit trees for some of our home plantings. Dwarfed fruit trees give a greater range to this practice.

I have seen hedges of dwarf pears which delight both the eye and the palate, in the spring and autumn respectively. In my estimation after the cherry, the dwarf pear is a distinctly ornamental addition to any yard or garden. I have been delighted to correspond with a New England gentleman whose practice so far as consistent is to have the plantings on his place such as will yield returns for home consumption, in addition to the real attractiveness secured by the arrangement of these trees and shrubs.

Dwarf pears lend themselves to special forms of training perhaps even more easily than the other fruits. The U-form cordon, fan and horizontal armed forms are all desirable shapes for espalier training, and the practice is as well adapted to use in this country as in Europe where it has been followed almost for centuries.

The pear is the only fruit being grown commercially in orchards of dwarfed trees. On my own farm I have a standard orchard and a dwarf orchard of Bartletts. The dwarfed trees are outbearing the standards. The dwarfs bring me from $300 to $450 per acre according to the year and I am this spring planting about five more acres to these trees. Aside from the figures given here, I consider pears the one safest of all investment for the fruit grower. My own planting proves my belief.
CHERRY TREES—Description of Varieties

SWEET VARIETIES—LIGHT COLORED

Governor Wood—Here is one that the commercial world would never miss if it were no longer grown, but for just a single tree in the home garden, it could ill be spared. A medium sized, amber colored cherry, with red cheek, a tender, sweet and delicious variety suitable only for home use. First of July.

Napoleon Bigarreau—Probably the best light colored, commercial variety. Fruit very large, heart shaped; skin whitish yellow, changing when fully ripe to a rich yellow with a brilliant red cheek. Flesh very firm, sweet and meaty, very good, ranking, however, in quality below the Yellow Spanish whose season it overlaps, being a little later. Is at its perfection about July 8th to 12th.

Rockport Bigarreau—Fruit large, heart shaped, amber yellow with bright red cheek. A tender, juicy, fine flavored variety for home use, but too tender for shipping. First of July.

Yellow Spanish—Large, heart shaped, amber yellow with a bright red blush; meaty, sweet, very rich, rather more juicy than Napoleon and distinctly higher quality, and at the same time nearly as firm and a good shipper. Early July.

SWEET VARIETIES—BLACK

Black Tartarian—Fruit large, heart shaped, purplish black; quite juicy; very tender and of fine flavor and quality. Not so firm as Windsor, but decidedly higher in quality. If only one black cherry is wanted for home use, this is probably the best.

Bing—One of the most delicious Sweet Cherries grown. Tree very hardy and vigorous with heavy foliage. Fruit is large, dark brown or black and of very fine quality. Bing is a good shipper and should be planted with Lambert for commercial purposes.

Lambert—A valuable Sweet Cherry of the largest size. Skin dark purplish red, almost jet-black when ripe. Flesh firm, rich and juicy. Tree hardy, a strong grower and an enormous bearer.

Schmidt Bigarreau—This is a variety which was brought to the attention of nurserymen 25 or 30 years ago, boomed and then dropped. The trees sold then, however, have lately begun to show up with results which have brought it back into strong demand. It is jet black like the Tartarian. In size, quality, juiciness, season and keeping qualities it comes just about between the Tartarian and Windsor. A prolific bearer.

Windsor—Medium to large, nearly or quite black when fully ripe; flesh somewhat juicy, tender, meaty and very firm, making it a good shipper and valuable commercial variety. In both quality and size is the inferior of Tartarian, but withal is a fine cherry and adds greatly to the length of the season. Middle to last of July.
CHERRY TREES—Description of Varieties

(Continued)

SOUR VARIETIES

Abbesse—This seems to me to be rather the best in quality of all the sour varieties I have tasted. Almost black when fully ripe, its acid becomes greatly moderated to a delicious sprightly flavor had by no other of its class. It is preeminently a cherry for home use, being too juicy and tender to ship. Our buds are from the State Experiment Station’s tree. You cannot have the best assortment without this kind. A dwarf of this variety planted last spring today shows buds for fruit next season.

Bay State—A very large half-sour variety, bright translucent red, heart-shape with a small smooth pit, exceedingly juicy, one of the best eating cherries you will ever taste.

Cluster of Abbesse

About the size of Morello, light red, juicy, and quite acid, a full week earlier than Montmorency, coming early in July. This is perhaps the best of the well known early sour cherries.

Marguerite—A very old variety which we reintroduced a few years ago after seeing it in fruiting. It has proved to be well worthy of our notice. It is a very large, light red cherry with an almost yellowish cheek, yellow flesh, very firm and “meaty,” mildly acid and nearly as late as Morello. This bears very young—we have had them fruit the same season planted. I should certainly place its value well up for home use, and believe the market would be pleased with it also.

Montmorency—Probably the best known variety of cherry grown to-day. This is the one that is used for canning in preference to all other sour varieties. It is larger than Richmond, less acid, firmer of flesh and higher quality. It is from one to two weeks later than Richmond. Its usual picking season commences about July 10 and lasts for two weeks.

Ostheim—This is a rather small, quite highly flavored variety, an extremely heavy bearer and extremely late. It will surprise you when it shows you how late a cherry can hang on the tree.

Princess Christine—A bright red cherry, sour enough to make a good cherry pie; acquires a darker red and a milder acid flavor when dead ripe, the first week in August. The Montmorency itself is no better canner than this little known variety ripening two weeks later than Montmorency when no other equally good red canning cherries are obtainable.

Royal Duke—Not very acid, large, quite dark when fully ripe, high quality and quite late. A very old variety obtained from the Experiment Station’s orchard which impressed me as worth while to plant.

<table>
<thead>
<tr>
<th>PIE COLLECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Trees Only</td>
</tr>
<tr>
<td>1 Princess Christine</td>
</tr>
<tr>
<td>1 Montmorency</td>
</tr>
<tr>
<td>1 Early Richmond</td>
</tr>
<tr>
<td>1 Napoleon</td>
</tr>
<tr>
<td>1 Windsor</td>
</tr>
<tr>
<td>List Price</td>
</tr>
<tr>
<td>Collection Price</td>
</tr>
</tbody>
</table>
My Montmorency “Kindergarten.” These Small Fingers Annually Pick from 20 to 25 Tons of Cherries for Me.

STANDARD CHERRY TREES—PRICE LIST

Prices of Standard Cherry Trees except as noted, cash with order

SOUR VARIETIES. Described on page 12. Plant 16 to 18 feet apart
All sour varieties are lighter growers than the sweets, and are graded correspondingly shorter.

<table>
<thead>
<tr>
<th>Variety</th>
<th>Each</th>
<th>Per Doz.</th>
<th>Per 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 and 3 year trees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extra size, about 5-6 ft.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ABBESSE, 50c each, $5.00 per doz.</td>
<td>40c</td>
<td>$4.00</td>
<td>$30.00</td>
</tr>
<tr>
<td>English Morello</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early Richmond</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MARGUERITE, 50c each, $5.00 per doz.</td>
<td>Montmorency Ostheim</td>
<td>PRINCESS CHRISTINE, 50c each, $5.00 per doz.</td>
<td>ROYAL DUKE, 50c each, $5.00 per doz.</td>
</tr>
</tbody>
</table>

SWEET VARIETIES. Described on page 11. Plant 18 to 20 feet apart

<table>
<thead>
<tr>
<th>Variety</th>
<th>Each</th>
<th>Per Doz.</th>
<th>Per 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 and 3 year trees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extra size, 5-7 ft.</td>
<td>50c</td>
<td>$5.00</td>
<td>$40.00</td>
</tr>
</tbody>
</table>

BLACK VARIETIES

<table>
<thead>
<tr>
<th>Variety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black Tartarian</td>
</tr>
<tr>
<td>Schmidt Bigarreau</td>
</tr>
<tr>
<td>Windsor</td>
</tr>
</tbody>
</table>

LIGHT COLORED VARIETIES

<table>
<thead>
<tr>
<th>Variety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governor Wood</td>
</tr>
<tr>
<td>Napoleon Bigarreau</td>
</tr>
<tr>
<td>Yellow Spanish</td>
</tr>
</tbody>
</table>

DWARF CHERRY TREES—PRICE LIST

60c each, $6.00 per doz., except as noted

SWEET VARIETIES

Bing (Black)
Black Tartarian
Gov. Wood
Lambert (Black)
Napoleon
Rockport
Schmidt (Black)
Windsor (Black)
Yellow Spanish

SOUR VARIETIES

Abbesse, 75c
Bay State, 75c
Early Richmond
English Morello
Marguerite, 75c
Montmorency
Ostheim
Royal Duke, 75c

Dwarf cherries most naturally grow in the bush form. The sweet varieties are the stronger growers, while the sours are very much inclined to begin fruiting almost right away. Some of these sours I find fruiting the first year, and in a year or two at least they will begin giving you crops of fruit quite sufficient to interest the small boys. Both the sweet and sour cherries are wonderfully beautiful and ornamental in the spring-blooming period—fully as attractive as many of your spring-blooming ornamental shrubs. Nature has here done her best to produce trees both ornamental and useful.

In the entire eastern portion of the United States, probably no fruit outside of apples, generally does so well as the cherry. About the only absolutely necessary soil requirement is that it must not be wet.

In northern New York and the coldest parts of New England the sweet varieties cannot stand the severe cold of winter, but there are very few localities indeed where the sour varieties cannot be grown.
PLUM TREES—Description of Varieties

EUROPEAN VARIETIES

Agen. Purple, a favorite Pacific coast prune. One of the most sugary of all if allowed to ripen on the tree. Aside from its sweetness it is rich and of exceedingly high quality.

Arch Duke. Dark blue, large, good quality. Imported from England in 1892 by my cousin, the late Samuel D. Willard of this city, who did a great deal during his life to advance fruit interests in the east. Arch Duke makes naturally, as a dwarf, the most symmetrical growth of all the European varieties. The Ohio Agricultural Experiment Station says of it, "One of the finest, if not the most excellent medium late plum of the entire list, suitable both for home use and market."

Bradshaw—Very large, egg shaped; dark violet red changing to purple when ripe; flesh yellow rather coarse, sweet, rich, juicy, very fine quality, and one of the best if not the best dessert plum, but not valuable as a market variety except for short distances. Half freestone. August fifteenth.

Fellenburg (Italian Prune)— Fruit large, oval, purplish black with thick white bloom; flesh greenish yellow, fine grained, tender, firm, agreeably flavored, very good quality; freestone. September.

SHROPSHIRE DAMSON—The Plum for Jam

Field—Purple, comparatively immune to scale and rot. The Ohio Station rates it among the fifteen best European varieties for home and market.

French Damson—Blue, largest and one of the best of all the Damsons, later than Shropshire.

German Prune—Fruit medium size, oval; skin purplish black, covered with thick bloom; flesh yellow, rather dry, fine grained, firm, sweet, of very good quality; freestone. September.

Grand Duke—Purple, handsome prune shape, very free from rot, a fine cooking plum.

Lombard—Vigorous, very productive, an annual bearer; large, oval, purplish red, becoming very dark; flesh yellow, juicy, fine grained, fairly firm and sweet, good; half freestone. August, September.

(Rate—This is one of the old "standbys" you should have. It's easy to grow and is in good demand. C. C. M.)

Miracle—Dark blue, good quality, a descendent of Agen. You will be surprised when you bite through this plum—it has no stone—this usual accompaniment of a plum having been "wizzed" away by Mr. Burbank. It is very productive and larger than Agen.

Oullins—A handsome, yellow variety of the Reine Claude group. Larger than Reine Claude, a heavier cropper, but hardly up to it in quality. A tree filled with its golden lobes is very beautiful.

Palatine—Fruit very large, roundish, oval, greenish yellow, mottled and blushed on the sunny side; flesh golden yellow, juicy, firm, sweet, and with a very pleasant flavor. High quality. Midseason.

(Palatine—This is an "old settler" being brought in 1700 from Germany to what is now Columbia County this state. The owner moved to Schoharie County taking the tree and naming it Palatine. Throughout Schoharie and Montgomery Counties it has the reputation of being practically immune to black knot; but so far as I know it has been offered by no nurseryman until we offered it, growing the tree from buds obtained from the Experiment Station. C. C. M.)

Pearl—Fruit large, roundish oval; color golden yellow, obscurly striped and splashed with dull green, mottled; flesh deep yellow, juicy, firm, very sweet. Quality very best; midseason.

(Pearl—Prof. Hedrick in his Plums of New York says: "In the mind of the writer and of those who have assisted in describing the varieties for the Plums of New York, it is unsurpassed in quality by any other plum." C. C. M.)

Pond—A prune shaped plum of vivid carnelian color, unusually large, perhaps the most beautiful of all varieties. Quite inferior, however, in quality. Notwithstanding this, it's worth while to grow simply for its beauty, just as you would grow a rose.

Red Egg—A plum having the general appearance of Pond, but not so large. A good tree to plant for contrast with Yellow Egg—the fruit of each gives the effect of a tree full of Easter eggs.

Reine Claude—The true Green Gage—Large, round, green turning to the most perfect golden yellow when ripe, in which stage it compares with Bradshaw as a dessert plum of the very highest quality. Flesh throughout its changes is the same as the skin in color; freestone. September, October.

Shipper—Purplish black, a good keeper and culinary plum.

Shropshire Damson—An improved Damson, grown with success in New York; medium size, oval, purplish black with thick bloom; flesh golden yellow, fine grained; firm, sour, changing to an agreeable, sprightly flavor when ripe; clingstone. September, October.

Sweet Damson—Blue, interesting as a novelty, but for cooking inferior to most other Damsons. Similar to Shropshire except in sweetness.

Tennant—A large, very handsome, reddish purple prune.

Yellow Egg—A vigorous, productive variety; fruit very large, long, oval; an attractive golden yellow covered with white bloom; flesh yellow, juicy, sweet and tender, of good quality; nearly free. September.

GRAND DUKE—A Grand Plum
PLUM TREES—Description of Varieties

(Continued)

Japanese Varieties

Abundance—A dark red plum of good size, a heavy bearer; rather sweet, with a rich, pleasant flavor; very early.

Burbank—This is probably the best of the japans. It is a wonderfully heavy producer, the fruit being a brilliant red with the golden ground color showing through the red in places making an exceedingly handsome fruit. This is one of the very best as a dwarf. August.

Chabot—Various shades of red over yellow; large size, a treat to the eye and not bad to taste. Keeps well and is hardy. The variety is a late bloomer and avoids the killing frosts that sometimes damage the crops of other plums of its species. May be picked green, when it will color up in storage. Dwarf Chabot is a splendid ornamental tree.

Chalco—Chalco is like no other plum we list. It makes a fruit which is unbelievably large and in color is a perfect tomato red. And its shape, too, is the flattened shape of a tomato, not the usual round form of most plums. The tree which produces this marvelous tomato-like plum is shaped, not like a tomato plant, but like a Seckel pear tree. This fruit is not the best in the world for dessert, but it is good eating, having a curious flavor of which some people are very fond.

Climax—Dark red, very large, of striking beauty and of very high quality. A plum unsuited to commerce, but fine for the amateur. The fruits hang in the tree like glowing red Japanese lanterns.

Hale—Yellow on the tree, overspreading with pink blush after picking. This variety holds its leaves late into the fall after most other plums are bare. Foliage very attractive. Good quality fruit.

Maynard—Dark red, changing to purplish black. This has been one of the higher priced plums of the Pacific coast, listed by some at $1.00 apiece. The quality of the fruit is very good; and any of our customers will be well pleased with a tree of this variety.

Occident (Sultan)—Dull red with red flesh. A year ago I saw a tree of this variety fruited, and was struck by the picture it made. It was a beautiful weeping tree, like a Camperdown Elm in form, with a crop of very large, round, red plums like Christmas tree ornaments. The tips of the limbs just touched the ground. The warm red flesh had a luscious tropical flavor, reminding me somewhat of a mango.

October Purple—A large, dark red, juicy plum, with yellow flesh. Sept.

Ogon—Yellow, the freest stone of all Jap plums. As a dwarf it makes a very small tree with an artistic, oriental irregularity of form. Very ornamental.

Red June—A very dark, garnet red, large and good; earlier than Abundance.

Satsuma—Large, round, both skin and flesh very dark red; sweet with a slight almond flavor. September.

NATIVE VARIETIES

America. Yellow with a pink spot on its cheek. Early, middle of August. The fruit is good, is produced in great quantities, and comes exceptionally early in the life of the tree. Very free from rot.

Combination. Light crimson, large, round, slight pineapple flavor.

Daisy. Bright red with yellow points, large, heart-shaped, good quality.

De Soto. Brick red, heavy cropper. Flesh yellow, as juicy as a Sheldon pear. Rollingstone, Terry Weaver and Wolf are similar varieties.

Excelsior. Dark red, medium size, early. This plum comes to us from Florida and great things are claimed for it. Its quality is good.

Golden. Brilliant red over golden yellow, fruit large and very beautiful, but evidently not meant to be eaten. The tree is very productive and showy.

Juicy. Dark, golden yellow so nearly overspread with red that you would call it a red plum. Ripens over a long period.

Rollingstone. Dark purplish red with orange yellow flesh, juicy and tender.

Stella. Purplish red, large globular, good flavor, about as musky as Wickson. Many are fond of this flavor, which somewhat suggests that of a cantaloupe.

Terry. Dark red, large. The tree in fruiting is very handsome.

Weaver. Yellow overlaid with purple, flesh yellow. Very hardy and productive. Good for table purposes and for cooking.

Wild Goose. Bright red, medium sized fruit, juicy and pleasant as to flavor. The tree is a handsome, ornamental, and is hardy and productive if cross-fertilized. There was a small Wild Goose orchard on our farm some years ago, but "that is another story."
STANDARD PLUMS—PRICE LIST

About 5 to 7 feet, 40c each, $4.00 per doz., $30.00 per 100, except as noted

EUROPEAN VARIETIES

Agen
Arch Duke
Bradshaw
Fellenburg
French Damson
German Prune
Grand Duke

Lombard
Palatine, 50c
Pearl, 50c
Reine Claude
Shropshire Damson
Sweet Damson
Yellow Egg

JAPAN VARIETIES

Abundance
Burbank
October Purple

Red June
Satsuma
Wickson

DWARF PLUM TREES—PRICE LIST

EUROPEAN VARIETIES

60c each, $6.00 per doz., $40.00 per 100, except as noted

Agen
Arch Duke
Bradshaw
Fellenburg
Field
French Damson
German Prune
Grand Duke
Lombard
Miracle (Stoneless), $1.00
Oullins
Palatine, 75c
Pearl, 75c
Pond
Red Egg
Reine Claude
Shipper
Shropshire Damson
Tennant Prune
Yellow Egg

JAPAN VARIETIES

60c each, $6.00 per doz.

Abundance
Burbank
Chalco
Chabot
Climax
Hale

Maynard
October Purple
Ogon
Red June
Satsuma
Sultan
Wickson

NATIVE AMERICAN PLUMS

75c each, $7.50 per doz.

America—Yellow, enormously productive.
Combination—Light crimson.
Daisy—Bright red and yellow, heart shaped.
DeSoto—Crimson, one of the best.
Excelsior—Dark red, early.
Golden—Red and gold, large, very showy.
Rollingstone—Dark red, very good.
Stella—Very early, large, fine.
Terry—Dark red, large and good.
Weaver—Purple, very productive.
Wild Goose—Brilliant red, good.
Wilson—Red, very early, fine.
Wolf—Crimson, very attractive.

MISCELLANEOUS PLUMS

Doris—Red, a handsome tree when fruiting. 75c.
Shiro—A Burbank hybrid, bred from four distinct species. 75c.
Plumcot—Cross between Apricot and Plum, $1.00.
PEACH TREES—Description of Varieties

Abundance—This is a strain of Alexander selected by us several years ago, which seemed so superior to all the others in size and bearing qualities, that we have kept it distinct under this name. Aug. 7. Price, 50c each.

Belle of Georgia—A very large peach of exceptionally high quality, resembling Elberta in shape, with white skin and flesh and handsome, red cheek. Sept. 10.

Carmen—Large, pale yellow, overspread with a deep blush; flesh tender, very juicy, fine flavor. Aug. 15.

Chair's Choice—A large size, yellow peach with red cheek; flesh yellow, firm. Follows Willett, and several days earlier than McKay's Late. Oct. 8.

Champion—Very long season and very good. Creamy white, without blush; freestone. Aug. 25.

Crawford's Early—It seems unnecessary to describe this fine old variety. Its large size, fine rich yellow color with red cheek and the high quality of its rich yellow flesh, have made it the basis for comparison in excellence of all varieties which conform more or less to its chief characteristics. The Crawford "type" of peach is so well recognized in the market, that those peaches which come later and are of this general type of peach, have succeeded best as commercial varieties. Two striking instances of this occur in the Willett and Lamoni. Sept. 1.

Crawford's Late—Large, yellow with red cheek; flesh yellow, quality high for so late a variety. Sept. 15.

"Trimming Peach Bud Sticks"—a Step in Propagation

Crimson Beauty—A dainty little dessert peach of which we are the only growers. It originated right in the city of Geneva. The fruit is handsome although of only medium size, being a solid dark crimson in color; and its quality is equal to its appearance. This is a superb variety and will reward a trial. Sept. 1.

Crosby—Medium size; yellow, splashed with crimson; flesh yellow, good quality. One of the very hardiest varieties. Sept. 20.

Elberta—Large to very large; fruit somewhat elongated, flattish; flesh yellow, firm, not very juicy nor of high quality, but without doubt is the most popular market variety of today, on account of its great productiveness, uniformly large size, handsome appearance and remarkable shipping qualities. It follows Early Crawford. Sept. 15.

Eureka—We have watched this variety for years both in the Experimental Station orchard and our own trial orchard, and besides being a good size, yellow freestone peach, it is one of the four or five best and most constant bearers in our entire trial orchard. We grew this ten years ago and dropped it before we really found out how good a variety it is. Very long season. Sept. 20.

Fitzgerald—A new, medium to large size, round peach, same season as Early Crawford. Yellowish green with a decided cheek, yellow flesh and fine quality. It is hardy and very productive, and has sprung into favor very rapidly. Sept. 3.

Foster—A large, yellow peach with red cheek, quite similar to Early Crawford, but larger. Aug. 25.

Greensboro—Claimed to be the largest of the very early varieties. Fine color, rich white flesh. Freestone when fully ripe. July 30.

Hill's Chili—Medium size; dull yellow with more or less red cheek, skin very thick and tough with very heavy down; flesh yellow, not very juicy, exceedingly rich, very firm, stands handling and shipping well. Sept. 25. Highest quality when canned.

Lamont—A large, new peach, fast taking its place in the commercial list. The description of Early Crawford is a description of this variety, except that the Lamont is freer from injury in the bud, from speckling in the fruit, and in every way more resistant to similar faults. Its heavy week follows Elberta. Sept. 20.
PEACH TREES—Description of Varieties

McKay's Late—An extremely late variety originating on our farm about 15 to 18 years ago. We have picked this variety as late as Oct. 23d. Picked perfectly green and hard, Oct. 16th, it carried for ten days and ripened to perfection. Skin greenish yellow, with a red cheek in the sun; medium large to very large, rather flattened in shape. The flesh is yellow, of good quality, and—here comes its most striking characteristic—it is every bit as juicy as an Early Crawford. About all the very late peaches are dry and mealy; there is no juicier peach grown than McKay's Late. Oct. 15.

Mountain Rose—A medium, early freestone peach, yellow nearly covered with a rich crimson; flesh white and excellent quality. Follows Abundance and Greensboro, a week or ten days before Early Crawford. This is a very old variety which for the last ten years has been regaining its popularity. Aug. 25.

Niagara—A large, new peach, native of Western New York said to be of fine quality and a great bearer. Judging by demand for trees no new variety has been so quickly taken up by peach growers. Sept. 5.

The New "Hale" Peach—Budded from trees sold by the introducer as J. H. Hale. Sept. 20.

Old Mixon Free—Large, yellowish white, with red cheek. Is a hardy, productive variety of fine quality. Sept. 15.

Salway—Medium to large; yellow with rather dull red cheek; flesh deep yellow, rich in quality but rather dry. Oct. 10.

Smock—Large, light orange yellow with red cheek; flesh yellow, rich; a splendid old, late variety. Oct. 1.

Steven's Rareripe—Medium size, high color, very productive, good quality. Sept. 10.

Stump—Very large; creamy white, with bright red cheek; flesh white. Sept. 15.

Waddell—A heavy cropper, especially while young. Fruit medium size, creamy white with blush; flesh white, very good. Aug. 15–23.

Willett—The history of this Crawford type peach given in the "Year Book" of the U. S. Department of Agriculture for 1902, reads like a romance.

Among all yellow fleshed peaches without exception, this variety, in respect to flavor and quality, stands at the very top. Its season following Lamont, its great size, unusual beauty and its exceptional quality, all unite to make it probably the choicest peach introduced during the last generation. Oct. 1. Price, 50c each, $5.00 per doz.

Yellow St. John—A large yellow peach of the Crawford type. An unusually juicy, fine flavored peach, excelling the Crawfords in both hardiness and productiveness. Aug. 20.

McKAY PEACH COLLECTION
10 PEACH TREES 10
All Standard Trees, my selection of varieties
Labeled true to Name
An Ideal Garden Assortment

Collection Price • • $1.50
STANDARD PEACH TREES—PRICE LIST

PRICES OF CRIMSON BEAUTY, EUREKA, McKay's LATE, WILLETT

<table>
<thead>
<tr>
<th>Extra size, about 4 ft. and up</th>
<th>Each</th>
<th>Per Doz.</th>
<th>Per 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>40c</td>
<td></td>
<td>$4.00</td>
<td>$24.00</td>
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</table>

PRICES OF ABUNDANCE AND LAMONT

<table>
<thead>
<tr>
<th>Extra size, about 4 ft. and up</th>
<th>Each</th>
<th>Per Doz.</th>
<th>Per 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>30c</td>
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<td>$3.00</td>
<td>$18.00</td>
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</tbody>
</table>

PRICES OF ALL OTHER STANDARD PEACH TREES

<table>
<thead>
<tr>
<th>Extra size, about 4–6 ft</th>
<th>Each</th>
<th>Per Doz.</th>
<th>Per 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>20c</td>
<td></td>
<td>$2.00</td>
<td>$12.00</td>
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</tbody>
</table>

THE McKay LATE PEACH—Keeps Two Weeks after Picking

DWARF PEACH TREES—Price List

40c each, $4.00 per doz., except as noted

- Abundance, 50c
- Belle of Georgia
- Bray Rareripe
- Carman
- Chair's Choice
- Champion
- Crawford Early
- Crawford Late
- Crimson Beauty, 50c
- Crosby
- Elberta
- Elberta, 50c
- Elberta
- Elberta
- Fitzgerald
- Foster
- Foster
- Frances
- Greensboro
- Hill's Chili
- Iron Mountain
- Lamont, 50c
- Miss Lola, 50c
- McKay's Late, 50c
- Mt. Rose
- New Prolific, 50c
- Niagara
- Old Mixon Free
- Salway
- Smock
- Stevens
- Stump
- Waddell
- Willett, 50c
- Yellow St. John

JUNIOR PEACH COLLECTION

5 DWARF PEACH TREES 5

My Selection of Variety Labeled True to Name

Collection Price $1.50

A Promising Dwarf Bush Peach
Standard Apricot Trees

Price of Standards, 35c each, $3.50 per dozen

Montgamet—As good as the best and probably a little harder than most other good varieties.

Smith’s—A good variety equally hardy with the Montgamet.

Dwarf Apricot Trees

This fruit is a rarity in states which have as cold a climate as we have here. People living right here in Geneva who have apricot trees are usually disappointed in a crop, being rewarded only few years by a taste which stays in their memory till the next small crop. The trouble is these people all have standard trees—large handsome trees, but they don’t bear. The reason is that the blooming season of the apricot is so early that the late spring frosts get the blossoms. The way to get fruit is to protect the tree when in bloom, and this cannot be done on a tree as big as your house. Plant Dwarfs: then as soon as the flower buds break, observe the practice of covering each little tree with an old sheet or a square of cheese cloth, even every night when frost threatens, removing this covering every morning. This gives just the little protection needed and insures your having apricots which will be the envy of such of your apricot loving friends as have been discouraged by their struggles with standard trees.

You can plant them close. Nine of these little trees in squares 8 feet apart each way, three on a side, will take about the room, needed for one standard tree. These nine dwarfs will give you a great deal more fruit than the standard tree would, and it is very pleasant to have the assortment extending over a period of two months and including many different colors and flavors. And, remember, dwarf apricots bear very young.

We offer the following varieties:

Alberge de Montgamet—A large, red and yellow apricot, ripening a little before the Large Early Montgamet, about August 10th. **Dwarfs only, 50 cts. each.**

Alexis—Not high quality as most, but very hardy and better adapted to the colder parts of New York and New England than any other offered here. A comparatively poor apricot is better than none. Attractive in appearance. **Ripe about July 15th. Dwarfs only, 50 cts. each.**

Black Apricot. A large, handsome apricot of very dark color. Said to be as hardy as an apple tree—this is probably, however, a fairy tale. **Third week in August. Dwarfs only, 50 cts. each.**

Breda—Not large but of high quality. Has a pleasing, orange colored skin and flesh, and is perhaps the hardiest of the high quality varieties. Freestone. **Third week in August. If you don’t plant more than four dwarfs apricot this year, Breda should be one of them. Dwarfs only, 50 cts. each.**

Early Golden—This little apricot is about two weeks earlier than Breda, and is enough like it to be called an “Early Breda.” Its name, Early Golden, describes its appearance and season; it is a really delightful variety. **Dwarfs only, 50 cts. each.**

Early May. A Russian variety, the earliest of this list. These early varieties ought to be more generally planted. They ripen a full month before the early peaches, in fact, they follow right after the early cherries and late June roses. **Dwarfs only, 50 cts. each.**

Early Moorpark—A medium sized, bright colored, sweet, juicy apricot. Three weeks earlier than the better known, ordinary “Moorpark,” which we do not list. **August 1st. Dwarfs only, 50 cts. each.**

Harris—A bright yellow apricot of high quality, a favorite in New York. A peck or two of Harris apricots every year will be a fine thing to pass out to the neighbors. **Latter part of July. Dwarfs only, 50 cts. each.**

New Large Early—Only medium size, but handsome, with an orange skin and bright cheek. **Juicy and well flavored. First half of August. Dwarfs only, 50 cts. each.**

Large Early Montgamet—Commonly called “Montgamet.” Described above. **Dwarfs 50 cts. each, standards 35 cts. each.**

St. Ambrose—A very large apricot, said to be of high quality. Appears to be an unusually early bearer. Almost sure to fruit the second season planted. **Dwarfs only, 50 cts. each.**

Sardinia. We have not yet seen the fruit of this variety, but having an apricot tree which we are trying to hurry along into fruiting. It makes a very handsome tree. **Dwarfs only, 50 cts. each.**

Smith—Described above. **Dwarfs 50 cts. each, standards 35 cts. each.**

Smyrna—A handsome variety which will fruit very early on our little dwarf bushes. Ripens the latter half of August. **Dwarfs only, 50 cts. each.**

Stella—Ripe the first of September last summer. I picked and ate a large Stella, as big as a small peach, and it had more juice and tasted better than any other apricot of its season. This is a really fine apricot and is worth protecting during the blooming period and until all danger from late frosts is past. A Russian variety, and very hardy. **Dwarfs only, 50 cts. each.**
Dwarf Nectarines

The authorities state that the Nectarine will thrive under the same conditions as peaches. It resembles a plum in appearance, and has the taste of a highly flavored peach. I am inclined to think while it may be a little less hardy than the harder varieties of peach, that in sections where the Early Crawford does well the nectarines will prove satisfactory.

We can furnish the following varieties, Dwarf only, at 50 cts. each.

<table>
<thead>
<tr>
<th>Variety</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boston</td>
<td>Newtown</td>
</tr>
<tr>
<td>Downton</td>
<td>New White</td>
</tr>
<tr>
<td>Ea. Violet</td>
<td>Red Roman</td>
</tr>
<tr>
<td>Eiruge</td>
<td>River’s Orange</td>
</tr>
<tr>
<td>Humboldt</td>
<td>Syracuse</td>
</tr>
</tbody>
</table>

This season we have only a very limited supply of Dwarf Nectarine Trees, and will have to assume more freedom than usual in substituting varieties to fill orders while the supply lasts.

Quince Bushes

The Quince is essentially a dwarf tree, and responds most readily to training to any form the grower desires.

It bears very early, the blossoms coming out at the tips of wood that shoots out the same spring, before the bloom appears. The quince may be trimmed very closely and kept down to any size desired and makes one of the handsomest of fruit trees both from its large, pink blossoms in spring, its dark rich summer foliage and the wonderfully beautiful, golden fruit in the fall.

The quince thrives in a more moist soil than the other fruits, and may be planted anywhere from a few feet apart, if grown as a dwarf, to 12 feet without any trimming whatever.

Price of Quinces, except as noted, cash with order

<table>
<thead>
<tr>
<th>Size</th>
<th>Each</th>
<th>Per Doz.</th>
<th>Per 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extra size, 3-4 ft.</td>
<td>40c</td>
<td>$4.00</td>
<td>$25.00</td>
</tr>
</tbody>
</table>

Bourgeat—A new variety and one that seems to be making for itself a place in the good estimation of growers. It is even a stronger grower than Champion, and shows to quite a degree the same tendency as does the Champion to produce fruit at two years right in the nursery row. A kind that I think will well repay a trial. A late keeper.

Champion—A very vigorous growing variety, better adapted to regions as far south as New Jersey than to growing further north if grown commercially, though for the garden a tree or two is worth while, especially on account of its early bearing qualities. We have seen this bearing in our nursery rows at two years of age when probably every other tree in the row had no fruit.

Orange—This is the variety usually grown in the commercial orchards. It is a very much weaker grower than either of the last two, but if planting for market would advise it. It is a very large, round, golden fruit. This variety may run a little under 3 feet in height.

Sweet Winter Quince—This variety has no value commercially, owing to its small size, but it is the most beautiful quince of all in appearance. It is only medium size, having the perfect pear shape with the long neck, of the Bosc pear. It is quite late, rather sweet and a late keeper, and for the home garden is a little gem. We shall have to fill orders with either one or two year trees as we find necessary; smaller than the other kinds. Price, 50c each, $5.00 per dozen.
Grapes like a warm, loose, well drained soil. Plant in rows 6 to 8 ft. apart and 6 to 12 ft. apart in the row, according to the habit or growth of the variety. For garden culture, of course, it is customary to plant much closer, according to the room one has. Price per dozen, ten times the single rate.

To trim grapes properly bear in mind this one thing—that the fruit is borne at the base of this year's shoots that come from wood formed last year. Applying this general principle, each winter cut back all last year's growth to within two or three buds, only one of which however should be left to bear the coming crop of fruit. Retain the lowest bud that lives of those that are left, rubbing off the rest as soon as you see you have one good strong shoot started. In this way you can trim for a trellis or you can train a grape up to a stake and plant quite closely for garden culture, and still trim your vine so as to get the best results, making it into a trunk from which bearing wood is kept growing the same as in the method described above.

(We desire to make grateful acknowledgment to Professor U. P. Hedrick, Horticulturist at the New York Agricultural Experiment Station, for descriptions of grapes taken from "The Grapes of New York," compiled and edited by him, and published by the State Department of Agriculture, 1908. While these descriptions are necessarily much abbreviated, so far as they touch the vine, fruit cluster, berry and flesh, it has been our intent to follow Professor Hedrick literally. C. C. M.)

**WHITE OR GREEN VARIETIES**

Empire State—Vine fair to good grower, usually healthy, tender in some localities, productive. Fruit ripening a little earlier than Niagara, keeps well. Clusters large to below medium, frequently shouldered, medium to compact. Berries medium to below, covered with gray bloom; moderately firm. Flesh pale yellowish green, very juicy, fine grained, tender, **good to very good.** Among these four white varieties, this is placed third in quality, and fourth in general excellence. **Parentage uncertain.** 20c each.

Moore’s Diamond—(Diamond)—Vine medium, to vigorous, hardy, productive in most localities. Fruit ripens slightly earlier than Niagara, keeps well. Clusters variable in size, often shouldered, compact. Berries above medium to medium glossy, covered with thin gray bloom; firm. Flesh pale green, juicy, tender, melting, fine grained, aromatic, sprightly; **quality very good.** Of Concord parentage. For a green grape of high quality the Diamond ranks probably next to Winchell. 20c each.

Niagara—Vine vigorous to medium, less hardy than Concord, very productive. Ripens with Concord, keeps fairly well. Clusters large to medium, frequently shouldered, moderately compact. Flesh light green, juicy, fine grained, moderately tender, foxy, **as good or better than** Concord in quality. A seedling of Concord, crossed with Cassady. This occupies the same place among the green grapes, that Concord does among the black varieties, and should, with the Concord, be in every garden. 20c each.

Winchell (Green Mountain)—Vine vigorous, hardy, healthy, very productive. Fruit very early, sometimes before Moore Early, keeps and ships well. Clusters large to below medium, often shouldered, loose to moderately compact. Berries above medium to small, light green with thin white bloom, soft. Skin thin, tender. Flesh greenish, juicy, tender, fine grained, sweet, **very good to best in quality.** 30c each.

(Note—"Winchell is at once very early and of very good quality, characters seldom found combined in grapes. **These** defects do not begin to offset the several good characters of Winchell, and it is for New York at least, the standard early green grape and deserving to rank with the best early grapes of any color."—Hedrick.)

**BLACK VARIETIES**

Concord—Vine vigorous, hardy, healthy, usually productive of heavy crops. Fruit ripens midseason, keeps one to two months. Clusters medium to large, shouldered, rather compact. Berries medium to large, black, covered with abundant blue bloom, firm. Flesh pale green, juicy, rather fine grained, slightly foxy, **good in quality.**

(Note—This has been called "The grape for the millions." It is estimated that seventy-five per cent. of the grapes in New York State are of this variety. It in your region you can grow any grapes at all, the Concord will give you, is the long run, more than any other variety. C. C. M.)

Price 15c each, $1.00 per doz., $5.00 per 100.
Campbell’s Early—Vine vigorous to medium, hardy, productive. Variable in season, extending through a long period; earlier than Worden. Clusters from very large to medium, frequently shouldered, compact to slightly loose. Berries usually large, dark purplish black with heavy blue bloom, moderately firm. Flesh greenish, juicy, slightly coarse, not foxy, good, improves by hanging on the vine, superior to Concord. Seeding of Moore Early, hence tracing back to Concord on one side. 30c each.

(Note—"The preeminent meritous qualities of Campbell Early are: High quality when mature; freedom from foxiness and from acidity about the seeds; small seeds which part easily from the flesh; earliness of maturity, ripening about a fortnight before Concord; large size and attractive appearance of bunch and berry; comparative hardness of the vine; and good shipping and keeping qualities. It falls short chiefly in not being adapted to as many soils and conditions as some varieties * * * lacking in that elasticity of constitution so characteristic of Concord. Its reputation for quality has suffered * * because it attains its full size and color before it is ripe."—Hedrick.)

Moore Early—Vine medium to vigorous, hardy, not a heavy yielder. Fruit two to three weeks earlier than Concord, does not keep well. Clusters intermediate in size, shouldered, inclined to looseness. Berries large to above medium, purplish black, covered with abundant blue bloom, nearly firm. Flesh greenish, juicy, fine grained and tough, slight foxiness, fair to good in quality. A seeding of Concord. 20c each.

Worden—Vine vigorous, hardy, healthy, productive, yelding as heavy crops as the Concord. Fruit one to two weeks earlier than Concord; does not keep long. Clusters large, usually shouldered, somewhat compact. Berries large, dark purplish black, glossy, covered with heavy blue bloom; moderately firm. Flesh greenish, juicy, fine grained, tough, good to very good in quality. A seeding from Concord, the most meritorious of them all. 20c each.

RED VARIETIES

Agawam—Vine vigorous, usually hardy, medium to productive. Fruit ripens soon after Concord, keeps till mid-winter. Clusters medium to large, sometimes shouldered, somewhat loose. Berries nearly large, dull purplish red, covered with lilac bloom. Flesh pale green, tough, solid, foxy, good in quality. (A Rogers Hybrid, No 15.) 20c each.

Brighton—Vine vigorous and hardy, producing average to good crops. Fruit mid-season, keeps well for a short time. Clusters very large to medium, often heavily shouldered, loose to compact. Berries medium to large, red, somewhat glossy, covered with dark lilac bloom, handsome, not firm. Flesh greenish, tender, melting, vinous, very good in quality. A cross from Concord. This is one of the very best red varieties. 20c each.

Catawba—Vine vigorous to medium, hardy, productive. Fruit late, keeping till March or later. Clusters large to medium, shouldered, loose to compact. Berries medium, dark purplish red, with a moderate covering of lilac bloom; firm. Flesh green, juicy, fine grained, vinous, somewhat foxy, sweet and rich, very good in quality. Parentage unknown. 20c.

Delaware—Generally considered the highest in quality of any American variety. Vine not a strong grower, hardy except in unfavorable localities, fairly productive. Fruit a few days earlier than Concord, keeps well. Clusters medium to small, regular, usually shouldered, compact. Berries small to medium, light red covered with a thin, lilac bloom, firm. Flesh light green, juicy, tender, vinous, aromatic, sprightly and refreshing, sweet to agreeably tart, best in quality. Parentage unknown. 20c each.

LAKESIDE COLLECTION

12 Varieties 12 Plants Described in Catalogue
4 Red 4 Black 4 White
Total Price, Single Plants, $2.55
COLLECTION PRICE, $1.75

DESSERT COLLECTION

One each of three splendid varieties:
1 Campbell Early Black (30c)
1 Winchell White (30c)
1 Delaware Red (20c)
PRICE 50c

List Price, $1.40
ARBOR COLLECTION

The six varieties pictured on back of cover.
RASPBERRIES

Prices of all varieties on this page, unless otherwise noted, 30c for 6, 50c for 12, 75c for 25, $1.25 for 50, $2.25 for 100.

PURPLE RASPBERRIES

Columbian—A cross between two high quality berries, Cuthbert and Gregg, Columbian fully sustains the reputation of both its parents. Purple berries are apt to run larger than reds and blacks, and this is one of the largest. One of the greatest berries for commercial growing and for home use fresh or canned. Plant an extra strong grower.

(Note—To one accustomed to the bright red varieties, the duller, purple varieties appear unattractive. I have myself run a fruit wagon and peddled thousands of quarts of berries. I have many times persuaded a half unwilling housewife to try a crate of Columbian for canning, and in most such cases she came back the next year for the Columbian for canning. It is unsurpassed as a canning berry. C. C. M.)

Royal Purple—A new variety which is very highly spoken of and certainly seems more than worthy a trial. It goes well with Columbian as the bulk of its crop follows Columbian about two weeks. The plant is very vigorous, the berries large and hold up well; the quality leaves nothing to be desired. 10c for 1, 25c for 3, 40c for 6, 75c for 12, $1.25 for 25, $2.00 for 50, $3.50 for 100.

BLACK RASPBERRIES

Cumberland—A comparatively new variety, but testing out as a really great one, and it must be a great one to vie with the Gregg in excellence.

Gregg—It seems to us that this old standby is the best of the later black varieties. Honors would probably lie between this and Cumberland. The latter, however, is a jet black variety, while Gregg has a heavy, whitish bloom, and is a very attractive, delicious berry. Plants somewhat lighter growers than Cumberland.

Plum Farmer—In a class by itself—it is the Early Black Raspberry, without an equal, and one that should be in every garden. It has quality, productiveness, hardiness.

YELLOW RASPBERRIES

Golden Queen—Commercially worthless. An interesting addition to a garden, however, and the variety here offered is the best one of the very few yellow kinds that have ever been grown. This is a good grower, a good yielder, its quality is first rate, and it has a very long bearing season.

60c for 6, $1.00 for 12, $1.50 for 25, $2.50 for 50, $4.25 for 100.

RED RASPBERRIES

Cuthbert—It is distinctly the “Quality” variety. Also a good commercial variety but not so heavy a producer as Herbert. The latest of all the red varieties we list except St. Regis.

Marlboro—The earliest variety of these four; short and rather poor grower but extremely early and remarkably good quality for so early a variety.

Ruby—Very early a little after Marlboro of which it is a seedling; a better grower and yielder, and everything considered the better berry of the two. We regard it as the best early variety.
RED RASPBERRIES—Continued

HERBERT—A grand, new, red variety—Postpaid

Prices: 60c for 6, $1.00 for 12, $1.50 for 25, $2.50 for 50, $4.25 for 100.

We have fruited this variety commercially, for three seasons. I have always shouted for Cuthbert, so naturally compare Herbert with it as I do June. Herbert is a little larger than Cuthbert, a little darker in color, a trifle earlier perhaps, and while good in quality, hardly up to Cuthbert. The Experiment Station’s experience with Herbert and Cuthbert for two years gave Herbert two quarts to Cuthbert one, and my own experience is practically the same. This one difference is a vital one in favor of Herbert. It is certainly a great berry but in my opinion not up to June. It is enough, later than June to pair well with it however, either for the large planting or for home use.

ST. REGIS EVERBEARING RASPBERRY—Postpaid

Prices: 25c for 1, 50c for 3, 75c for 6, $1.25 for 12, $2.00 for 25, $3.50 for 50 and $6.00 for 100.

The St. Regis is a berry that has attracted much attention the past few years. Like most other new varieties it has had the usual amount of extravagant claims made for it, but after several years since its introduction it seems to have settled down into its rightful position as a valuable acquisition to the family of red raspberries.

It bears a good crop at the usual time for raspberries, which continues into August. By this time the young canes which in other varieties do not bear till next year, commence to bear and are in constant fruiting till about the middle of October.

I believe it is worth trying, and we have added a moderate planting of it to our other varieties.

JUNE RASPBERRY

Cuthbert for a generation has been the standard of excellence for home and market red raspberry; let us compare June with this variety; in size June is very much larger; it is fully as good color, fully as firm and I think it no exaggeration to say that it will outyield Cuthbert two to one. I did not think it quite up to Cuthbert in quality but others in the party the day we visited this place thought otherwise. I have always been a strong Cuthbert man, however, and find it hard to acknowledge that any other berry can quite equal this good old standby in flavor. As I saw it that day I am ready to say that it is the best red raspberry that has yet been introduced.

6 JUNE AND 6 ST. REGIS FOR $1.25;
12 PLANTS OF EACH, $2.00

JUNE—The best yet

GARDEN COLLECTION of Raspberries

<table>
<thead>
<tr>
<th>Variety</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 Columbian, purple</td>
<td>$0.30</td>
</tr>
<tr>
<td>6 Cuthbert, red</td>
<td>$0.30</td>
</tr>
<tr>
<td>6 Herbert, red</td>
<td>$0.60</td>
</tr>
<tr>
<td>6 Marlboro, earliest black</td>
<td>$0.30</td>
</tr>
<tr>
<td>6 Gregg, best black</td>
<td>$0.30</td>
</tr>
<tr>
<td>Total list Price</td>
<td>$1.80</td>
</tr>
</tbody>
</table>

COLLECTION PRICE 30 Plants $1.20
BLACKBERRIES

Our plants are tied in 6's, 12's, and 25's; please order in these numbers or their multiples. Plant in rows 6 to 7 ft. apart, plant 3 ft. apart in the row. Each winter cut out the old canes.
Prices, except as noted. 30c for 6, 60c for 12, $1.00 for 25, $1.75 for 50, $3.00 for 100.

Taylor—Canes light colored very vigorous and hardy; fruit medium elongated, sweet, good flavor and quality. Two weeks later than Snyder, but is not so productive and probably inferior to it as a variety, in most localities.

GOOSEBERRIES

Prices, except as noted, 15c each, $1.50 per doz.

Industry—An English variety best adapted to our climate of all, but still somewhat liable to mildew; fruit very large, good for culinary use when green and a fine dessert fruit when ripe; a brilliant, showy red berry, handsome and wonderfully productive. This should be in every collection. 20c each, $2.00 per doz.

Downing—Fruit medium size, roundish, light green, smooth; flesh soft, juicy, and good; vigorous and very productive.

Houghton—Fruit almost medium size, smooth, red, tender, very good; a good cropper.

Pearl—Similar to Downing, plant a stronger grower and berry larger, and a heavy producer. Immune from Mildew. A new variety which has made an enviable reputation.

Smith's Improved—A more slender grower than Downing, but an exceedingly fine quality, yellowish-green berry, following Downing in season. Is much less thorny than any of the other varieties.
CURRANTS—Two-Year Plants

Postpaid at the single and dozen rate.

10c each, $1.00 per doz., $7.50 per 100, except as noted.

Cherry—Very large, deep red berries, in rather short, heavy clusters, acid; plant very vigorous and productive.

Fay's Prolific—Color deep red; great bearer, clusters longer than Cherry and more thickly borne on the branches. Sweeter than Cherry, higher quality and several days earlier.

Perfection—New, a cross between Cherry and White Grape; color bright red, large size, very productive, clusters very long, size of berry being maintained well to the end; quality good. We have this in fruiting—the clusters hang in perfect ropes on the stem. 20c each, $2.00 per doz., $15.00 per 100.

White Grape—Large, yellowish white, sweet, excellent quality, valuable for table use; vigorous and productive.

Wilders—Red, and as a commercial variety today stands at the top. The plant is vigorous and productive to the highest degree. Like the Perfection, the clusters hang so thick on the bush that there is not room for any more. It is good size in both berry and cluster, good quality and color, firm, a fine shipper, and if when it ripens you are not ready to pick you can leave it a week or two without deterioration. It is a wonderful currant.

RHUBARB POSTPAID

McKay's Mammoth

A strong growing, very tender and mild R h u b a r b. Their growth in spring can be forced to four inches a day by knocking out the heads of a barrel and putting it over the plant. For w i n t e r use, take up big roots in the fall, pack close together with very little soil in cellar under a window. It is a great winter delicacy and will sell for not less than 5c a stalk. 25c each, $2.50 per dozen, postpaid.

ASPARAGUS

For commercial plantings wide intervals are desirable, some advocating 5 feet apart each way. Very much closer planting, however, is allowable for gardens, as close as 1 to 2 feet apart. Plant deep; this enables you to fork over the entire surface in the spring before it starts up. Feed heavily; top dress with manure in the fall and fork it in the following spring.

Price of all varieties of asparagus, post paid, 50c for 25, 75c for 50, $1.00 for 75 and $1.25 for 100.

McKay's Giant—This variety is from a chance seedling or strain which occurred in a plantation of Giant Argenteuil Asparagus grown by a New Jersey grower many years ago. He propagated from this and set out 12 acres. He described it as to color and quality practically the same as the parent, but reports it to be a very much stronger grower, and one season his net return from 12 measured acres was $6,446.35. It is a green variety like Conover's and Palmetto. Its great value, however, is in its wonderful productiveness. The cut shown here is from a photograph, very much reduced, sent me by the originator, and it was with his consent that I named it McKay's Giant.

Conover's Colossal—One of the old standard varieties of green asparagus, prolific and of good quality.

Palmetto—A new green variety, generally proving more productive than Conover's.

$1.00 50 Asparagus Plants

2 Rhubarb Plants $1.00
ROSES

TRIMMING ROSE BUSHES—
As soon as received, trim all roses to within 3 to 5 inches from the ground. The following years, different classes must be treated differently; the Hybrid Teas and Perpetuals, trim nearly as close as when you planted them; these kinds bloom from wood that grows the same year, and the rule is keep them growing and you keep them blooming; severe trimming will keep them growing. "Baby" needs little trimming after the start. The other Ramblers, also the Wichurianas, Climbers, and Summer Roses should be trimmed much more moderately than the Teas and Perpetuals, for the reason that they bloom from last year's growth and if you cut it all away, you get no bloom.

RAMBLERS, WICHURIANAS

Very strong growers—bloom once a year, very profusely—on last year's wood. Climbing habit.

Blue Rambler—Distinctly bluish. Valuable only as a curiosity. 25c.

Crimson Rambler—The best all around Rambler rose. One plant will carry thousands of crimson, clustered blossoms. 25c.

Dorothy Perkins—Beautiful shell pink, the prettiest of all, free blooming as the Crimson. 25c.

Yellow Rambler—Very light straw color, all right in an assortment. 25c.

CLIMBERS

Bloom once a year—on last year's wood.

Baltimore Belle—White with blush center. 25c.

Queen of the Prairie—Bright rose color. 25c.

SUMMER ROSES

Bloom once a year—on last year's wood.

Madame Plantier—In June the bush is buried under a profusion of snow-white blooms in heavy clusters. Thornless. 25c.

Persian Yellow—The first to bloom each year. Abundant blossoms, not in clusters, as yellow as a buttercup. A very satisfactory variety. 35c.

POLYANTHAS

Bloom incessantly from June to November—dwarf habit.

Baby Rambler—A small, deep pink rose, in large clusters. Insures a spot of color in the garden. 25c.

Clothilde Soupert—Blooms in clusters of double white roses, fragrant and finely formed. The best of its class for cut flowers. 30c.

White Baby Rambler—Pure white. 25c.

A Garden Hedge of Dorothy Perkins
ROSES—Continued
HYBRID PERPETUALS, HYBRID TEAS, ETC.

All hardy and bloom during the season.

Coquette des Alpes—White, later blooms having a decidedly flesh tint; blooms right up to freezing time. The best of the blush white roses. 25c.

Frau Karl Druschki (Snow Queen)—A new, pure white rose without one weak point. The bloom is very large, not in the least coarse. Buds are long and pointed, very handsome, opening rather slowly. One of the cut flowers in water lasts for days. The fully opened bloom resembles the camellia. Among all roses, if we had to select one best rose, it would be this one. 50c.

General Jacqueminot—Brilliant crimson; one of the very best. 25c.

Gruss an Teplitz—This is a most delightful rose—blooms almost as freely as Hermosa and Baby—and of all the great bloomers listed here is the only deep colored rose. It is a deep, vivid color, variously described by cataloguers as crimson, scarlet, carmine, red, and all possible combinations of those terms; it’s just Gruss an Teplitz color—a distinctive color we have never seen in any other rose. The blooms are short-lived if picked, having a very slender stem and opening out rather quickly; but it is a most beautiful rose, especially adapted to bedding, and is more than worth white, notwithstanding its one weak point. 35c.

Hermosa—A hardy, pink tea rose, blooms constantly from June till heavy frosts. Next to “Baby” as a free bloomer. 25c.

Kaiserin Augusta Victoria—A hardy, delicate straw or cream white, hybrid tea, uniting the wonderful beauty and free blooming qualities of the tender “tea” class of roses, with the hardness and vigorous growth of the hybrid perpetuals. It blooms at intervals clear up to heavy frosts, blossoms last well, are fine in both bud and when open, and if selecting a rose second to Frau Karl in the greatest number of strong features, we should select this. 50c.

Killarney—Another beautiful hybrid tea having a most delicate flesh pink cast, very long and pointed buds, one of the finest in this respect. A free bloomer all during the season. 35c.

Mad. Caroline Testout—One of the most popular of the Hybrid Teas for the garden. This is the Rose which has made Portland, Oregon, famous. The flowers are extra large, and of a brilliant, shining pink.

Madam Gabriel Luizet—One of the very best pink roses. Blooms at intervals during the season. Plant a strong grower, and very hardy. We regard this as one of the very desirable varieties. 35c.
ROSES—Continued

Madam George Bruant—A fine, white Rugosa rose, with handsome long, pointed buds, quite single when fully opened, but far more attractive than any of the varieties as single as this. A strong grower and blooms throughout the season. 25c.

Magna Charta—A very strong competitor of the Paul Neyron—a perfectly magnificent pink rose, extra strong grower and fine in all respects. 25c.

Mrs. John Laing—This is one of the best pink roses of the type represented also by Madam Gabriel, Paul Neyron and Magna Charta. Large, a bright satiny pink, very fragrant and a constant bloomer at intervals, from June till winter. 35c.

Paul Neyron—Probably the largest rose in cultivation, a fine bright pink, very fragrant, plant exceptionally vigorous. Bloom with a strong stem, lasting a long time after cutting. Blooms the entire season at intervals. 25c.

Prince Camille de Rohan—This is one of the great roses; it is perhaps the deepest crimson of any rose, and is certainly the finest of the extremely dark roses. Its blooms are large, finely formed, fragrant, and it is a profuse bloomer. 30c.

Soleil d'Or—Brilliant yellow with salmon heart. Blossoms are few but very beautiful. 50c.

TREE ROSES

$1.00 each, $10.00 per dozen

- There are few ornamentals so strikingly beautiful as a tree rose in bloom. The list offered is selected with special reference to beauty of blossoms and free blooming qualities.
- If later in the season we sell out of any variety we will fill orders with good substitutes.

The following are described on pages 28 and 29:

<table>
<thead>
<tr>
<th>Variety</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baby Rambler</td>
<td>Kaiserin Augusta Victoria</td>
</tr>
<tr>
<td>Frau Karl Druschki</td>
<td>Mrs. John Laing</td>
</tr>
<tr>
<td>Gen. Jacqueminot</td>
<td>Paul Neyron</td>
</tr>
<tr>
<td>Gruss an Teplitz</td>
<td>Prince Camille de Rohan</td>
</tr>
</tbody>
</table>

Flower of Fairfield—An everbearing variety of the Crimson Rambler. The color and habits are identical with that variety, with the exception that it blooms the entire season.

Tausendschon—The opening flowers are pink, changing to rosy carmine when expended. The clusters are very large.

Jonkheer J. L. Mock—Carmine, changing to imperial pink. A highly recommended variety which is proving to have real merit.

Rose Tree Collection

<table>
<thead>
<tr>
<th>Variety</th>
<th>Price</th>
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<tr>
<td>1 RED VARIETY</td>
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<tr>
<td>1 PINK VARIETY</td>
<td></td>
</tr>
<tr>
<td>1 WHITE VARIETY</td>
<td></td>
</tr>
<tr>
<td>all our selection</td>
<td></td>
</tr>
<tr>
<td>3 Trees</td>
<td></td>
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</tbody>
</table>
PAEONIES

Is there any flower that ever grew, with the possible exception of the rose, that is in itself more beautiful than this old fashioned flower? The "Piney" takes us back to grandmother's garden as does no other flower today. Its requirements are so simple—good, rich soil and a fairly open sunny location—that it is easily grown by anyone. The plants are hardy and require no winter protection. The roots should not be planted too deep as it lessens the blossoms. These are splendid for cutting, rivalling even the rose in perfection of bloom and coloring.

VARIETIES AND PRICES

Couronne d' Or—Very large blooms, beautiful pure white with yellow center, the central petals delicately flecked with carmine. 50 cts. each, $5.00 per doz.

Duchesse de Nemours— Sulphur-white cup-shaped blooms. One of the best late white sorts. The half open bud is particularly beautiful. 40 cts. each, $4.00 per doz.

Festiva—Very full, ivory white, with a few carmine spots on the center petals. 35 cts. each, $3.50 per doz.

Festiva Maxima—A superb white bloom, the finest white paenony in cultivation. 40 cts. each, $4.00 per doz.

La France—Large bloom, a fine pink variety. 40 cts. each, $4.00 per doz.

Louis Van Houte—Very double, bright cherry red. 40 cts. each, $4.00 per doz.

Officinalis Rosea—The earliest pink to bloom, large double flowers. 25 cts. each, $2.50 per doz.

Officinalis Rubra—An early flowering variety, one of the darkest sorts, a dark rich crimson. 25 cts. each, $2.50 per doz.

These Three Plants for 75 Cents

Officinalis Rosea  PINK
Officinalis Rubra  RED

Clematis

The finest class of flowering climbing vines. The large flowered varieties are light in foliage as compared with their blossoming capacity, and where a screen and flowers are both desired, they are very fine planted with American Ivy and allowed to over run the Ivy. Their large, spreading, starlike blooms are familiar to all.

Clematis, Henryii—Large flowered, pure white. A very strong grower. 50c.

Clematis, Jackmanii—Very large, deep purple. 50c.

Clematis, Madam Eduard Andre—Flowers a little smaller than last; deep, rich wine color. 50c.

Clematis, Paniculata—Covered with small white blossoms in late summer. Very strong grower and makes a sufficient screen. The effect of its bloom is similar to that of the Fringes and Van Houttei—it completely covers the plant. 25c.
Hardy Climbing Vines

American Ivy (Virginia Creeper)—Well adapted as a screen or for covering trellises. It makes rapid growth, usually ten feet or more a season. In the autumn its blue berries contrast well with the yellow scarlet and crimson foliage. 25 cts. each.

Ampelopsis Veitchii (Boston Ivy)—Adapted only to stone, brick or cement constructions, but without dispute the handsomest foliaged climber known. Its clusters of dark blue berries intermingled the crimson foliage in the fall, is rivaled only by the Barberry Thunbergii for striking beauty. 25 cts. each.

Dutchman’s Pipe—The very large heart-shaped leaves afford a perfect screen. The brownish flowers are curiously shaped similar to a Dutch pipe. Hardy, and much used for planting before verandas. 50 cts. each.

Hall’s Japan Honeysuckle—Very fragrant white flowers, changing to straw color. Blooms from early spring till frost. Always desirable and dependable and more generally used than other varieties. Grows well in either sun or shade. 25 cts. each.

Monthly Fragrant Honeysuckle—Blooms all summer; red and yellow, very fragrant. Handsome foliage and fruit. 35 cts. each.

Scarlet Trumpet Honeysuckle—A familiar old fashioned flower, handsomest of all; strong rapid grower, bearing long, slender trumpet-like flowers. 35 cts. each.

Trumpet Vine—The large orange-red flowers of this vine are bigger and earlier than the “Scarlet Trumpet.” Makes a fine screen—the rankest grower of all our climbers, and more bushy 25 cts. each.

Wistaria (Chinese Purple)—This has foot-long pendulous clusters of pale violet pea shaped flowers. It is sometimes slow in becoming established, but after that is a great grower. Where the plant has room to develop to perfection, I regard the wistaria as without a peer in the entire list of ornamental climbers. Its blooming season in May is of unusual length, and occasionally it will produce a second and lighter crop of blooms in August. 50 cts. each.

Wistaria (Chinese White)—This White Wistaria possesses the same good qualities as the purple, except it is a somewhat lighter grower. 50 cts. each.

Dutchman’s Pipe

Chinese Purple Wistaria

Hardy Upright Shrubs

Althea (Rose of Sharon)—The altheas are thrifty growing upright shrubs, blooming in great variety of colors during September and October, when the blossoming season of most shrubs is over. It deserves a place in nearly every shrubbery border, and by trimming can be kept at any desired height. As the blossoms come on the new wood they must be trimmed in the winter. The following varieties give an assortment of most beautiful flowers.

Arden—Double. A light reddish purple. 50c.

Coelestis—Slightly double. Light blue, wine colored at the base of the petals. 50c.

Duc de Brabant—Double red. A handsome variety. 50c.

Elegantissima—Slightly double and white. Beautifully marked with wine color at base of petals. 50c.

Jean d’Arc—A most beautiful double, pure white variety. 50c.

Rubra—Single red, very large. 50c.

Totus Alba—Single. Pure white, large. 50c.
HARDY UPRIGHT SHRUBS—Continued

Barberry, Purple-leaved—One of the best purple or violet foliaged shrubs. Very rich and attractive to combine with plants of lighter colored foliage. It holds its color well during the season. In May it is covered with small yellow flowers, followed in the fall by bright red berries. Grows two to three feet in height. 35 cts. each.

Barberry Thunbergii (Japanese)—There is no month in the year when this shrub is not attractive. It has sprung into popularity with wonderful rapidity, and today in public estimation stands ahead of Spirea Van Houttei and the Hydrangea. Its low growing and spreading habits make it specially adapted for hiding foundations of houses and verandas. It succeeds well in either sun or shade and is one of the best hedging plants I offer. It is one of the earliest to come into leaf. The glossy light green foliage changes in the fall to the most brilliant combinations of red, green and yellow. The small white blossoms of May develop in autumn into sprays of bright purplish red berries which stand all during the winter. Price 25 cts. each. Smaller plants for hedging, in lots of 25 or over, $15.00 per 100.

Cornus Siberica (Red Siberian Dogwood)—Bright red bark in winter. 35c.

Deutzia Candida—This produces pure white double blossoms in great abundance in June. A strong grower and very beautiful. 50 cts. each.

Deutzia Crenata—Also blooms in June, bearing long racemes of white flowers with a delicate pink shading. The foliage is a perfect tea green holding its color during the entire season. 25 cts. each.

Deutzia Gracilis—A dwarf variety introduced from Japan. A round dome shaped bush covered with a profusion of white flowers. Does well in shady as well as sunny places. 25 cts. each.

Deutzia, Pride of Rochester—Early, vigorous, profuse bloomer; large double white flowers in June tinged with pink. 25 cts. each.
Forsythia—An early, hardy shrub, stems and foliage deep green, blossoms deep gold. 35c.

Fringe, Purple (Smoke Tree)—A large growing shrub, so named from its brown, thread-like bloom which covers the entire tree, appearing at a distance like a cloud or mass of smoke. 35c.

Fringe, White—Among the most beautiful of all flowering shrubs for its bloom alone. The entire tree is covered with the most delicate racemes of pure white flowers. 50c.

Honeysuckle, Red Tartarian—Strong growing shrub with bright pink flowers in May. 35c.

Honeysuckle, White Tartarian—Similar to above but white. 35c.

Hydrangea, Hill of Snow—Pure white, very large heads of flowers; a superb new variety. 50c.

Hydrangea Paniculata—Flowers in very large heads, yellowish white, changing to pink. Blooms last six weeks. Bush form, 25c, tree form, 50c.

Lilac—These need no description. We offer purple and white varieties, our selection, at 30c.

Magnolia Lennei—Foliage large; a very desirable variety for the color of the reddish purple blossoms which come in abundance. Usually bears some flowers throughout the summer. $2.50 each.

Magnolia Soulangeana—A vigorous grower, blossoming profusely even when quite small. Large white flowers tinged with pink on outside of petals, which appear before the leaves. On good sized trees blossoms may be found any time during the summer. $2.00 each.

Magnolia Speciosa—Flowers similar to above, but a trifle smaller. It blooms somewhat later in the season, but the flowers remain on the tree in perfect condition longer than any other variety. $2.00 each.

Prunus Triloba (Flowering Plum)—A very early bloomer, having large, double pink blossoms. 50c.

Quince Japan—Blooming very early, its brilliant red blossoms preceding the foliage and covering every branch and twig. 25c.

Snowball, Common—This needs no description as its large, greenish white, globular clusters of flowers are familiar to us all. 25c.
HARDY UPRIGHT SHRUBS—Continued

SPIREA VAN HOUTTEI—Rivals even the Hydrangea

RHODODENDRONS

Boule de Neige—Very dwarf and compact; blush white flowers in thick trusses, fading to white. $1.00 each.
Catawbiense Grandiflorum—A very hardy and dependable variety which I highly recommend. It is beautifully colored a soft violet-mauve. $1.00 each.
Ignatius Sargent—One can not speak too highly of this splendid variety. It is probably the largest flowering and finest Rhododendron cultivated. It has rosy scarlet flowers, beautifully marked on the upper petal. $1.00 each.

SPIREAS

These are a class of low, compact and easily grown flowering shrubs, vigorous and hardy, with blossoming period extending over a wide range of seasons. Summer flowering kinds are particularly valuable as they are attractive when few other flowers are in bloom. I offer the following varieties:
Spirea Anthony Waterer—Quite dwarf, with red blossoms. 30c.
Spirea Aurea—Grown for its fine golden foliage only. 35c.
Spirea Callosa Alba—Dwarf white spirea, with soft white form, blooming all summer. 30c.

Syringa Garland (Mock Orange)—One of the earliest flowering shrubs with sweet scented flowers, white. 25c.
Syringa, Golden—Quite dwarf in habit, rich golden foliage, retaining its color perfectly the entire season. This is by far the finest golden foliaged shrub. 35c.

Spirea, Callosa Rosea—A strong growing, rose colored variety. 25c.
Spirea, Van Houttei—This is easily Queen of all the Spireas. No one who has ever seen this variety in full bloom can fail to be impressed by its wealth of snowy flowers. About the end of May, the bush is one complete mass of blossoms equalled in its profusion only by the Fringes. Our plants will have some bloom the same year you plant them. We regard this next in value of all the shrubs, to the Japan Barberry. 25c.

Weigela—A fine class of spreading shrubs having rather large, trumpet-shaped flowers. Latter part of June. We offer the following:
Weigela, Candida—Pure white, with a long blooming period. 35c.
Weigela, Eva Rathke—A beautiful new Weigela with brilliant crimson blossoms. 35c.
Weigela, Rosea—Similar to last only with rose colored flowers. 25c.
Weigela, Variegated Leaved—Rather dwarfish, its green foliage edged with silvery white. 35c.
ORNAMENTAL AND SHADE TREES

**Birch, Cut-leaf**—This ornamental tree grows to the height of 40 feet. One of the most graceful and charming trees grown of the weeping variety. Slender yet a vigorous grower. Silvery white bark $1.00.

**Catalpa, Bungeii** (Round Headed Dwarf)—This tree is very much used for ornamental planting. Has a dense round head of heart shaped leaves. Very hardy. $1.00.

**Catalpa Speciosa**—This ornamental blooms in July when few trees are in bloom. Flowers large, showy and quite fragrant. These are followed by hanging pods about 18 inches long. Especially good variety. 50c.

**Chestnut American**—This variety grows to the height of 50 feet, valuable for both ornament and timber. Profuse in flower, especially desirable for its nuts of sweet and delicious flavor. Also valuable as an article of commerce. 75c.

**Chestnut Japan**—This tree grows to the height of 20 to 30 feet. Bears when five years old. Nuts are three times as large as the American but not so sweet. The burs contain from four to eight nuts of immense size. $1.00.

**Crab Bechtel’s Flowering**—This blooms when quite young. In the spring it bears masses of double rose like flowers. Delicate pink color, and very fragrant. The most beautiful of any of the flowering crabs. 50c.

**Elm American**—This lofty and stately tree is too well known to need description. In the New England States it is a feature of the landscape, which cannot be forgotten. One of the finest street and shade trees. The foliage is not so dense as to interfere with the sod underneath. $1.00.

**Linden American** (Basswood)—This is a vigorous, rapid grower suitable for lawns, parks and streets. Is hardy, will grow in any soil. It bears fragrant yellow blossoms, which is followed in the autumn by beautiful golden foliage. $1.00.

**Linden European**—A very fine pyramidal tree. Grows rapidly and seems well adapted for most any purpose where a good shade tree is needed. Flowers very fragrant. $1.00.

**Maple Ash Leaf**—Generous grower, spreading branches, leaves resemble those of the Ash. Grows well in dry, barren soil, where an inexpensive tree is wanted. 50c.

**Maple Japanese** (Acer polymorphum Atropurpureum)—Probably the most popular of the Japanese Maples, growing to ten feet in height. The foliage is intensely purple, particularly beautiful when new shoots are growing in the early spring. $1.25 each.

**Maple Norway**—Handsome tree, forming wide, round head of spreading branches. Specially desirable for lawn, park or street planting. Very desirable for seaside. Foliage dark, shiny green, turning to pale yellow in the fall. $1.00.

**Maple Silver Leaf**—Reliable grower. Matures so rapidly that it is sought for quick results. The silvery under surface of the deep cut leaves gives it a very handsome appearance. 75c.

**Maple Sugar**—This being somewhat higher headed than the Norway Maple, many people prefer it to that variety. In the autumn its leaves turn to brilliant shades of orange and crimson. The sap is used for sugar making. It was in the Berkshires that the Indians taught the early settlers this art. This also makes it of commercial value. $1.00.
ORNAMENTAL AND SHADE TREES

Maple, Sycamore—This is a quick grower. Wide, handsome spreading. Foliage dark green, silvery underneath. Fine for exposed positions. $1.00.

Maple, Wier’s Cut Leaf—Leaves cut more deeply than the Silver Leaf, also grows more rapidly. Its slender branches droop most as gracefully as the Cut Leaf Birch. $1.00.

Mountain Ash, American—Fine formed tree. Fruits when young and is most desirable. Loaded in the fall with great clusters of red berries. 50c.

Mountain Ash, Oak Leaf—Has Oak-like leaves, green and wooly underneath. One of the finest small trees. 75c.

Poplar, Carolina—No ornamental tree other than the Carolina Poplar has the wonderful qualities which makes this so valuable for certain purposes. It is a very rapid grower, and as it is very easily grown in the nursery; it is the cheapest one to buy. It makes a beautiful individual tree for the lawn; it will give you a substantial shade quickly; it makes an admirable windbreak; planted 6 feet apart it affords a fine background for the rear line of the garden. The tree is very hardy and you almost can’t kill them. Much used for shade trees along the street. 8 to 10 feet trees, 35c each, $3.50 per doz., $25.00 per 100. Special prices on 6 to 8 foot trees, $15.00 per 100.

Poplar, Lombardy—This low branched tree is of narrow, upright and quick growth. It is specially suited for screen planting. When used for this purpose the trees should be set 4 to 6 feet apart. They attain a height of 100 to 150 feet. If not desired so tall, tops can be cut out every few years. 50c.

Tulip—Among the largest of our native trees. Straight trunk, occasionally 200 feet from root to top. The leaves are glossy and fiddle shaped. The flowers resemble tulips. Large and greenish yellow blotched with orange. Bloom in June and very fragrant. Early spring planting for this tree preferred. $1.00.

Walnut, Black—Large size, (Native tree) rapid grower and fine spreading ornamental tree. Nuts excellent. The wood of this tree makes it of commercial value, being much used in the manufacture of furniture. $1.00.

Walnut, English—Ornamental tree with lofty spreading head. Bears immense crops of thin shelled delicious nuts, for which there is great demand. 75c.

Walnut, Japanese—This variety bears young, (usually in two or three years), is hardy and more productive than the English Walnut. The elongated nuts are larger than the hickory nut and grow in clusters. They contain much meat and are fine for eating. The tree is very ornamental. 75c.

EVERGREENS

Arbor Vitae, American (White Cedar)—This specimen should be included in all groups of evergreen planting. Has a soft light green foliage. Very much used for screens to shut out unsightly objects or for wind breaks. They may be kept at any height and may be made more bushy by trimming. 50c.

Arbor Vitae, Pyramidalis—This tree grows to the height of 15 feet. Upright, has dense compact form. Foliage, light green. Very fine. 75c.

Arbor Vitae, Siberian—This variety makes a fine ornamental lawn tree. Great value for screens and hedges. Its bluish green foliage gives it a distinction all its own. One of the hardest and does not die out in hedges. 75c.

Fir, Balsam (Balm of Gilead)—Hardy and rapid grower and very erect tree. Has dark green needles of pleasant fragrance and purple cones. Useful tree along the coast, but does equally well inland. 50c.

Pine, Austrian—Hardy grower, does well in any soil. Has long stiff dark green leaves. 50c.

Pine Scotch—Native of the British Isles. Foliage more silvery than the Austrian. Very desirable for masses and shelter protection. 75c.

Spruce, Colorado Blue—One of the hardest and most beautiful of the Spruces. Foliage a rich blue in color. $2.00.

Spruce, Koster’s Blue—One of the “Bluest” of the blue spruces. Its symmetry and shape make it ideal as a specimen, and without question it is one of the handsomest of the evergreens. $2.50.

Spruce, Norway—Most common of the spruces, known as the Christmas Tree. Lofty, hardy; pyramidal in growth. Rapid grower, often growing to the height of 50 feet. Makes a magnificent spread if left untrimmed. When tree reaches the height of from 15 to 20 feet, it assumes a graceful drooping position. One of the best evergreen hedge plants. 50c.
ACKNOWLEDGMENTS

In compiling this catalogue acknowledgments are made to the following publications:

The Apples of New York, by Prof. S. A. Beach, formerly Horticulturist at the New York Agricultural Experiment Station at Geneva, now Professor of Horticulture in the State Agricultural Colleges, Ames, Iowa.

The Grapes of New York and The Plums of New York, both by Prof. U. P. Hedrick, the successor of Prof. Beach at the New York Agricultural Experiment Station.

The Dwarf Fruit Culturist, by J. J. Thomas, one of our pioneer nurserymen and horticulturists, who in 1839 founded the business which is now "The Van Dusen Nurseries."

Dwarf Fruit Trees, by Prof. F. A. Waugh, Horticulturist, Massachusetts Agricultural College.

The Pruning Book, by Dr. L. H. Bailey, formerly Dean of the New York State Agricultural College.

The Miniature Fruit Garden, by Thomas Rivers, a prominent Horticulturist of England the middle of the last century.


Dwarf Fruit Tree, by Dr. A. W. Thornton, Nurseryman, Ferndale, Washington.

Acknowledgment is also made to the Massachusetts Agricultural Society for use of their library tendered through the Secretary, Mr. W. E. Rich, also to the Library of Harvard University, through Mr. Frank Carney, Superintendent of Circulation, for access to many old and rare English and French works on horticulture, some of the authors of which are referred to in our text.

THE DWARF TREE FOR THE AMATEUR

Perhaps the class of people to whom the dwarfs make the strongest appeal is the amateur grower. By this I mean the man or woman or boy or girl who plants a tree just because he or she wants to; it’s a most delightful plaything, and one too that has for the grower big educational possibilities. The amateur grower is usually perfectly able to buy all the fruit he needs, but to him that one specimen of apple that he may grow on a cordon or little bush a year or two after planting, has more solid delight in it than a car load of Jonathans from the Hood River Valley could give. Its just like our babies; there are millions of just ordinary babies in the world, but our own particular baby is the only one that is really of much account. The most restricted city or village lot has room for a few little bushes, or possibly even 40 or 50 cordons along a fence or building.

When it comes to training it in different ways of growing, you can make it take any shape you wish; if you have room you can make it form the letters of your name or monogram. Professor Waugh reflects the true amateur spirit when he says: "My experience with dwarf apples might be summarized by saying 'bush apples for business, cordons for fun'." Most planters are favoring the bush fruit trees, which require less exact care and give bigger crops of fruit.
THE DWARF TREE FOR THE AMATEUR—Continued

Recommending Dwarf trees for gardens, Corbett's English Garden published in 1820 says: "I do hope if any gentleman makes a garden he will never suffer it to be disfigured by the folly of a standard tree, which the more vigorous its growth the more mischiefous its growth to the garden."

Marshall says "The fewer standard trees in the garden the better."

Also that the dwarfs are less trouble to keep in order and are generally more productive, and that "placed 8 or 9 feet distance, pruned and kept in easy manner, they make a fine appearance and produce better fruit and in greater quantities than when in espalier." W. C. Drury highly regarded as a modern English authority writing in 1900 says: "For the private garden or for market purposes, the dwarf or bush apple tree is one of the best and most profitable forms that can be planted." He also says: "In the garden only bush, pyramid or trained apple trees ought to be grown"; and: "The bush is one of the best forms of all, as it is of a pleasing shape and as a rule bears good and regular crops."

Of the other kinds of fruit in bush form, Nicholas de Bonneferes, writing of the peach in 1675 advises it planted 5 feet each way and adds: "They will produce you a world of fruit by reason of their multitude."

This de Bonneferes evidently had his own troubles two hundred and forty years ago, just the same as some of our present-day orchardists, if we may judge from the following quotation. He says: "It is to no purpose to have well prepared your ground unless you also plant it with the best and choicest fruit which you can find in the nurseries of the Gardeners as have the reputation of honest and trusty men; for the greater part of those who sell usually cheat those who deal with them." He not only gives us his fraternity the above advertisement, but he proceeds to rub it in by advising those who buy even from the "Gardeners as have the reputation of honest and trusty men" to put their seals on the trees as they select them, so that they may be sure of getting the right ones! Horticultural methods may have changed in all these years, but the nurseryman's reputation seems to have remained about the same!

There are two delightful books that those interested in Dwarf Fruit Trees should own, those by Prof. F. A. Waugh, and Dr. A. W. Thornton, mentioned in the next column. The former can be obtained from the publishers, The Orange Judd Company, New York City, and the latter by writing direct to Dr. A. W. Thornton, Ferndale, Washington; each book 50c, post-paid.

Both these writers, one almost within sight of the Atlantic and the other on the shores of Puget Sound, took up the culture of dwarf fruit trees from a thorough love of the work, and into their books each has infused the charm of his own personality and presents his subject with genuine literary ability.

Perhaps the only other distinctly American publication on the subjects is the Cornell Bulletin No. 116 by E. G. Lodeman, published ten years before either of the above publications. Mr. Lodeman's bulletin, however, is mainly historical, while both Dr. Thornton and Prof. Waugh tell what they themselves have actually done with dwarf fruit trees right here at home.
FORMS OF DWARFS FOR DIFFERENT FRUITS
And a General View of Pruning

In Europe the word “standard” is used in contrast to the term “espalier,” standards being self-supporting fruit trees while the espaliers require artificial support. In this country the word “standard” is used in contrast to the term “dwarf,” so that we divide dwarfs into two classes—self-supporting and espalier forms. “Espalier” means a “trellis,” hence trees trained on a trellis came to be called “espaliers.” The term espalier does not refer to any particular method or form of training. The pyramid, bush and globe forms of dwarfed fruit trees are all self-supporting. The fan, palmette, gridiron, many-armed horizontal espalier and the numerous cordon forms are all espalier forms and are grown on a trellis, fence, wire support or a wall. The gardener should understand that there is no essential method of training for any of the fruits. He may take any fruit tree and with proper care train it to whatever form he may desire.

However, we give here some of the forms to which the different fruits are more commonly trained. While these are not essential they seem to represent the more general practice, resulting somewhat from experience with the different habits of growth of the various fruits. Apples, pears, plums, cherries, peaches and apricots can all be grown in either bush or pyramid form. But the bush is preferable for apples, sour cherries, peaches and apricots. This is the most common form of all and requires the least labor of pruning and care in all respects. Fruit trees dwarfed in this form probably yield more fruit for the land and labor than trees trained in any other form.

The pear tree lends itself best to the pyramid form. Plums and sweet cherries will take to the pyramid form a little more naturally than to the bush. The goblet is a bush form where the leaders are trained with geometrical exactness to form the outlines of a rounded, open, symmetrical cup-shaped head.

Next to the bush and pyramid, the rather simple espaliers in the various cordon forms are the most easily managed. All the cordon forms seem particularly adapted to the pear and apple. A few of the strongest growing varieties will do better in the U-form than in the single upright cordon, or will succeed in any of the cordon forms having two or more leaders. Plums are rarely grown as horizontal cordons. Many varieties will be satisfactory as simple upright cordons, but most plums are strong growers and the rankest growing kinds will succeed better in the U-form or the double U-form.

What we say of plums in the cordon forms applies about equally to peaches. The fan and palmette are excellent for peaches and apricots. The fan also is well suited to pears and the Japan plums. The candelabrum, gridiron and many armed horizontal espalier prove well suited to most varieties of apples and pears.

In managing apples and pears, checking the wood growth of side shoots on the leaders in summer induces the development of fruit buds which will bloom the following Spring. These buds form on short lateral branches or fruit spurs borne ordinarily on wood at least one full year old. Pinching back, however, may cause these fruit spurs to form on wood of this year’s growth. Next year’s fruit therefore will bear on wood either a year old or older. There is a tendency for these fruit spurs to produce fruit every other year, the year between being occupied with producing wood growth instead of fruit. This tendency holds for most fruit trees.

With cherries and plums a repression of wood growth induces early fruition same as with the apple and pear. The fruit spurs commonly develop on wood a year old or older, but may be forced to form on wood of this year’s growth. The fruit therefore may bear on spurs growing on wood one full year old or older. Japan plums are especially liable to produce fruit buds on the current year’s growth.

The peach does not bear on fruit spurs, differing thus from the apple, pear, plum and cherry. Fruit buds form on this year’s wood growth, and bear fruit next year. Very often on wood two years old or more, short fruit bearing shoots develop, but these usually bear only once and are not true fruit spurs.

Remember, not to let these detailed descriptions make this subject sound complicated to you. You will find that with even a little experience, the actual management will become a simple practice.
The apricot makes fruit buds upon this year's wood like the peach, and also upon spurs which arise from last year's wood growth as in the case of the plum.

Du Breuil gives the following reasons for training dwarfs to special form:

1. It enables us to impart to trees a form suited to the place they are intended to occupy.
2. Each of the principal branches is furnished with fruit branches throughout its full extent.
3. It renders fruitification more equal; for in removing every year the superabundant buds and branches, we contribute to the formation of new fruit buds for the next year.
4. It conduces to the production of large fruit and of finer quality.

Fruit trees may be induced to dwarf growth in three ways:

1. Budding on a slow growing root;
2. Restricting the growth of the top;
3. Restricting the growth of the roots.

The growth of the top is restricted by summer pruning or pinching back during the growing season, and this followed by severe heading back of the leaders early the next spring. Restricting the root growth is considered in this country rather an excessive measure practiced occasionally on the rankest growing varieties. When necessary it is accomplished by root pruning or by growing the tree with its roots within the confines of a pot, box or tub. In Europe pot grown dwarfs for the orchard house are for sale by many nurserymen, but they are little used in the United States.

Our particular attention is here given to the restriction of the growth of the head and the method of controlling its shape. We must understand at the beginning that the summer pruning or pinching back of the side shoots, and the winter pruning or heading back of the leaders are together necessary to limit the growth of the tree, to train it to the desired shape and to compel early production of fruit.

A leader is one of the main branches of the tree, whether bush, pyramid, cordon or any of these paler forms. This leader originates at the butt or main trunk of the tree and ends in what we may call the leader terminal, which is young wood of this year's growth. This terminal growth of the leader must be allowed to grow at will during the summer without pinching back. This is left unchecked to secure vigorous circulation of sap throughout the tree, and is necessary for its healthy development. The only exception to this rule for allowing the leader terminal to grow unchecked, will occur when the leader makes such rapid and exuberant growth as to absorb all the growing energy and prevent its side shoots from growing strongly enough, or even to prevent these side shoots from starting to grow at all. When this happens, it is advisable, late in June to top-off these leaders. That is, pinch off a few inches of the young terminal growth. This operation should control the growth of the leader and start its side shoots into proper development.

Leaves and side shoots grow out along the length of every leader. These are to be pinched back during the growing season to form fruit buds. If, as might be desired on a dwarf bush, one of the main branches is allowed to divide in two, each of these branches so formed becomes a leader and is treated as such in every respect.

Summer pruning and winter pruning are two distinct sorts. We summer prune or pinch back in the growing season. In New York State we consider the growing season as lasting from the middle of May until August. With us the winter or dormant pruning is usually done in February or early in March; but in any region this should be done before the buds start to grow. Summer pruning restrains growth and causes production of fruit, while, on the contrary, winter pruning causes increase of growth and production of wood. In general, the side shoots are subject to summer pruning and the leaders are subject to winter pruning. Summer pruning consists chiefly of pinching back young side shoots on the leaders. When a side shoot has grown about six leaves pinch off the end so that but three leaves remain. The leader during the summer as often as these shoots send out three additional leaves, pinch off two of them. This must be done every summer. The pinched back side shoots are thus induced to become fruit spurs, and to form fruit buds which should produce fruit the following year. If fruit spurs form too thickly along the leaders remove as many as necessary at the time of the dormant pruning in March. When you come to winter prune the young trees after their first season's growth, select all the leaders and cut away from one-half to two-thirds of their length. Repeat this every winter or in March, till you have the leaders as long or high as you want them; then

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Young Horizontal Cordon

Photograph by Prof. F. A. Waugh

in your winter pruning, cut back the new growth on these same leaders, to within a few inches, or to two or three buds, of the point to which it was cut back the spring before. This process is absolutely necessary to keep the top of the tree down and headed in to the proper size.

WE SELL HANSEN HYBRID PLUMS
Pruning Directions for Specific Dwarf Forms

GENERAL RULES

These general rules apply to all the following forms:

First—When the tree has been planted in the fall, except in the semi-tropics of the South, no pruning is to take place till the following spring, before the buds start.

Second—In all pruning with the knife, make a clean, somewhat slanting cut just above a good thrifty bud: if wood is left on above the bud, there being no growth above it to draw the sap, it dies, and decays down in the heart of the live wood below the bud and may cause trouble. Therefore the knife cut should be made close to the bud.

Third—In all these directions the term "leader" is applied to each branch of the tree, no matter what the form, which is a part of the framework of the tree, whether it be the one branch of a simple cordon, or one of a "U", or an arm of an espalier, or one of the framework of your bush or pyramid. In each and every form, these leaders are allowed to grow unchecked during the summer, but the side shoots from them are kept pinched back during the summer as described on page 41. The next winter or early spring, these leaders are "winter pruned" back to whatever length you desire. Remember as stated on page 41, these leaders may be pinched back in summer to force out side shoots if these do not appear without this checking.

Fourth—In all forms where a certain height is desired, like all forms of the upright cordons, bush and pyramids, when you trim back the leaders in March, leave as much of the leader on as you wish in order to give the tree the additional height you want it to attain this year: after the tree has nearly as much height as you wish it to have, thereafter cut the leaders right down to within an inch or so of last spring's trimming, thus keeping the tree just as you want it in height. If the tree is strong you may leave more wood; if it seems a little weak, trim a little closer to induce wood growth. Bear always in mind the statement on page 41—"Summer pruning restrains growth and causes production of fruit, while on the contrary winter pruning causes increase of growth and production of wood."

I might say right here that the "Authorities" differ widely in regard to this matter of pruning, especially in regard to the summer pruning. Some advocate even leaving the first summer pruning till early in August; this was done at first in the Experiment Station dwarf orchard here, and the result was that it stimulated late summer growth which did not ripen very well for winter. Then, it necessitated knife work instead of the simple pinching with the thumb nail, and disfigured the trees. I believe the method given above is the safest to follow.
THE BUSH FORM

The Bush Form. If your tree is two or more years old it will be more or less branched; if these branches come about as you wish them for the head, keep such as you wish, cutting them back about half or two-thirds their length, making a slanting cut, just above some bud. This bud will shoot out and become a continuation of the pruned branch, forming the leader; side shoots will come from it and probably also from the lower part of the old branch; all these side shoots both on the old branch and on the new growing leader, keep pinching back during the summer as directed on page 41. If the tree is not well enough furnished with branches to form a head, trim back all branches to the lowest bud next the main stem, also cutting back the central leader if there be one, to within a bud or two of its base, and thus compel it to throw out a new set of branches or leaders, of which the terminals will not be checked during the summer, any side shoots from them, however being pinched back as described on page 41. If your tree is a one year old it will be just a straight whip; cut it back to about 8 inches from the ground and of the branches that start out retain such as you desire for a head, cutting out all the others that may start. You will probably retain 3 to 5 buds, and they should be as evenly distributed about the stem as possible. Each of the branches of the head becomes a 'leader,' and is pinched back in summer and pruned in March as described on page 41.

These leaders—which all the time, remember, are the branches of the bush—must be allowed to rebranch as the tree grows, to make a heavier or closer head. To do this select a side shoot at any point where you want another branch or leader, and let it grow unchecked instead of pinching it back; it becomes another branch or "leader" and is thereafter treated as such.

It is quite likely that the leaders of strong growing varieties will need pinching back in summer; no one can tell you in inches just what to leave or to remove; your own good judgment will have to tell you in each individual case: no directions can give more than general rules, and the gardener must apply them with the same discrimination that is needed in about every operation of life.

The process of pinching back the side shoots must take place each year. In this respect each tree will require a few minutes of your time, possibly three or four times during the growing season. If you are at all interested in your garden horticulture you will very easily get the habit of watching the young side shoots on the branches of the bush to see if they have grown enough to require pinching back. If the fruit spurs in time become too numerous, remove as many as necessary at the time of the early spring pruning.

Some varieties may grow straight branches the first year planted, with few or no side shoots to be taken off. In this case let the branches grow at will the first year. Next spring cut them back one-half or two-thirds their length the same as indicated before. The second summer's growth will produce side shoots without fail, and these will be treated by pinching back just as already described. This will induce fruit buds which should produce fruit the following summer, in this case the third summer after planting.
TRAINING THE PEAR TO A PYRAMID

We will follow a dwarf pear tree through the pruning management required to give a good pyramid shape. If starting with a one year whip, in the spring before the buds start cut it off a foot from the ground, or shorter if the tree seems a little weak. The buds on the standing stub will develop into side shoots. The upper one must be made the vertical leader of our tree. To force the growth into this shoot, pinch off the ends of all the other side shoots. But there may be a tendency for the upper side shoots to grow strongest and the lower ones weakest, while we desire just the opposite state of affairs, the bottom shoots strongest and the upper ones shortest. Therefore, we will pinch back the uppermost branches early in the growing season; the shoots just below will have their ends pinched off a little later, and as the season advances the lowest branches will finally be pinched back last of all after we have left them alone long enough to give them the most strength. Leave five or six inches of clear trunk between the ground and the lowest branches, by rubbing off unnecessary buds and shoots. These branches, which we have been controlling to give a pyramidal shape to the tree, are all leaders. As noted previously, the general rule is to allow leaders to grow unchecked in summer and to cut them back only in winter. In this case, however, though we let the vertical leader grow at will, it is often necessary to pinch back most of the lateral leaders once during the summer to make their growth conform to the shape desired. The side shoots which may grow on the lateral leaders are to be pinched back to further repress wood growth and to induce formation of fruit buds. If these side shoots grow rather slowly, pinch their ends off late in June whatever their length may be. But if they grow as many as six leaves, pinch off two of them. Our tree is now carried through its first summer and needs no more care until the winter pruning in March.

If we had in the first place planted a two year branched tree instead of a whip, we would have cut it off to a one foot stub and have treated it in all respects the same as the one year tree.

The second's year pruning is nearly a repetition of the first year. Consider the main or vertical leader of the tree, and in March cut off one-half or two-thirds the growth it made the first year. Make this cut at a bud or branch which will continue the upward growth of the vertical stem of the tree. In summer there will be a new contribution of lateral leaders that grow out at the top of the tree above the lateral leaders which started the summer before. And in this case also these are, when necessary, pinched back once to control their length, so as to retain the pyramidal form of the tree. That is, the shortest lateral leaders must be kept at the top of the tree, letting the lower ones be longer, till at the bottom of the tree we have the longest branches of all. The side shoots on all leaders are pinched back same as the first year, and this must be done every summer.

Every spring cut back the lateral leaders a little, being sure to do it in such a way as to give the tree the symmetrical form of the pyramid. Also cut back the top vertical leader of the tree half its previous year's growth to force side branches above those grown the previous year. The diameter of the pyramid at the bottom should be about one-third the height. After a few years the size of the tree may be controlled by the extent to which the lateral leaders are shortened at the dormant pruning, and the extent to which the vertical leader is cut back.
TRAINING TO PALMETTE FORM

The palmette is an espalier form and must be planted against a building, fence or trellis, or else staked for support and training.

When the tree is planted trim it to a whip if it is not already one. Cut it off twelve or fifteen inches from the ground, cutting to a bud which is to continue the upward growth of the main trunk or central leader of the tree. Also as near the point as possible to which the tree was cut back, select, of all that grow, two side shoots on opposite sides to form the lowest pair of lateral leaders, (see cut), which should be trained upward obliquely, not too near a horizontal direction. The other shoots starting from the stub should be removed, and the butt of the tree kept clean. This is the only pair of lateral arms to be formed the first year, all other side shoots on the vertical leader as well as on the oblique leaders being pinched back. To do this, when young side shoots make six leaves pinch off three leaves and thereafter as often as three new leaves are formed pinch off two of them. The tree will need no other management the first summer unless the two oblique leaders should seem to grow very much slower than the central leader. In this case pinch off the end of the central leader, and this repression should give more impetus to the growth of the lateral arms. The second spring, before the buds start, cut off the previous year’s growth of the central leader to a bud ten inches above the pair of lateral arms started the first summer. Of the buds which start to grow where the central leader is headed back, select one to continue the upward growth of the center of the tree, and two to be trained as a second pair of lateral leaders, in line above the lower pair grown the first year. Pinch back all other shoots, and if they are too numerous remove some entirely. The procedure this second summer will be a repetition of that followed the first season. The summer pruning of side shoots on all leaders must be practised every year. Thus we secure an additional pair of lateral arms each successive year, until we have four or five or six pairs. The lateral arms will be about ten inches apart, one above the other on each side of the tree, the bottom pair being at least a foot from the ground. Each spring the leaders are all cut back part of the previous year’s growth, this being done so as to retain the triangular shape of the tree, with the shorter lateral leaders above and the longer ones below. After a few years the size of the tree is controlled by the amount of heading given the leaders. Whenever shoots start out which are not wanted, or which crowd, they are removed.

Possibly the first pair of branches in the accompanying illustration should be a little nearer the ground. We hope next year to show another pair equally well grown.

The Many Armed Horizontal Espalier is formed exactly like the Palmette. Each of the lateral arms secured is to be managed exactly as a horizontal cordon. The arms may be about twelve inches apart, for large pears or apples, and eight inches apart for small pears. Summer prune thoroughly each summer, and at the dormant pruning cut back as much of the previous year’s growth of leaders as desired.

The Candelabrum, or Palmette Verrier, is trained in much the same manner as the simple Palmette. Two or three, or sometimes even four pairs of lateral arms may be grown, by securing one new pair each year till the tree is completely formed. The center leader is not cut back so far at the very beginning as in the case of the simple palmette. When all the lateral leaders have been formed and been bent vertically, they should be about ten inches apart. The outside vertical branches should be trained a little longer than the inner ones and the central leader.
TRAINING THE PEACH TO FAN SHAPE

When the tree has been planted, and if possible, before the buds start, trim it up to a whip if the tree is not already a whip, and cut the tree off eight or ten inches from the ground. This will force young shoots into growth near the top of the remaining stub. Such shoots as are not wanted should be trimmed off, but before discarding any of them, select the ones favorably located for leading off radially in fan shape arrangement. We want four or five of these leaders on each side of the tree, making eight or ten arms of the fan in all. It may not be possible to get all these radial arms started at once, but use as many as lend themselves to the fan mode of training. When these arms become long enough to require it, fasten them in place against the trellis. Pinch back all side shoots on these arms when necessary, the same as already indicated for side shoots on all leaders. If any of the leaders tend to rapid growth at the expense of others, check them by pinching off the ends of the terminal growth. Keep the butt of the tree free from all growth not wanted in our training management. The second spring, before the buds have started, cut back all the leaders secured the first year, leaving only six or eight inches of the first year's growth. These branches will throw out shoots near their base, and as many of these as needed are kept and allowed to grow as leaders so as to fill in gaps between the few leaders obtained the first year. Shoots not needed for new leaders will be pinched back like all side shoots growing on leaders. If too many side shoots crowd together, cut out as many as necessary. When all the leaders become well started, keep them of uniform growth as possible by pinching off the ends of those growing too fast, annually and winter prune early each spring. Remember fruit buds form

Summer prune all side shoots on this year's wood and bear next year. Therefore, at the time of the spring pruning, as the tree becomes larger, cut back the leaders a little to force growth of side shoots. These will be pinched back as usual, except a few on each leader—two or three or four or even more, according to the size of our tree—which are allowed to grow into side branches to fill up gaps between leaders and also to bear fruit buds. By following this method the tree may be furnished with the young wood necessary to produce the following year's fruit. Whenever any arm ceases to bear or forms fruit buds only near the tip, cut it back to a shoot or bud near the base; and allow that shoot or bud to grow into a new arm to replace the old one.
CORDONS

The upright cordon—This is the simplest cordon of all. It is a single vertical stem with no branches, having only leaves and fruit spurs along its entire length. To secure this, plant your tree and cut it back to within 8 inches of the ground. You need feel no heart burning at this apparently severe treatment. You can truthfully say to the tree, "This hurts me more than it does you." This severe heading back does not harm the young tree in any way, and it is the best method in the end for starting any of the cordon forms.

So then, cut the tree to an 8 inch stub. Buds will start out on this stub; and one bud should be retained as the leader and allowed to grow upward unchecked, the others being rubbed off. The leader may throw out side shoots. These should be pinched back to form fruit spurs as follows: when a shoot has grown six leaves, pinch off three; and as often as three more leaves are pushed out from the same shoot, pinch off two of them.

If side shoots do not start from the leader in the early half of the growing season, they may be forced by pinching off the end of the leader.

One-half or two-thirds of the preceding year's growth of the leader should be cut away early in the following spring. Do this every spring until the cordon is high enough, probably not over six or seven feet. Thereafter each spring cut the leader back to the first bud above the previous year's pruning. At the time of this dormant spring pruning, remove any superfluous spurs or short branches which may have developed late in the previous season.

The oblique cordon—The essential method of management of all cordons follows closely that required for the simple upright cordon. The oblique cordon is practically an upright cordon which early in the growing season has been bent near the ground to the required angle. It may be held in position by tying to a stake set at the desired angle. In this and all the following forms, the butt of the tree, below the bend, should be kept free from all growth.

The horizontal cordon—This is started like an upright cordon, and early in the growing season bent over so that the length of the cordon will be about fifteen inches above the ground.

Horizontal cordon apples, probably two or three years old.

From photograph by Prof. Waugh
CORDONS—Continued

The V-shaped cordon—Stub off the tree eight or ten inches from the ground. Of the shoots which start nearest the top of the stub, select the two most favorably located to train up at an angle, one on each side. Remove all other shoots and keep the butt of the tree clean from all new growth. Manage each arm of the V like an oblique cordon.

The U-form. This is started like the V-shape, except that the two arms are trained off horizontally and then turned vertically upward about ten inches apart. These arms will be tied to the trellis or wall till they have become ripened and set in this shape. Each vertical arm is then treated like an upright cordon.

The double U-form. This is produced by training two U-forms from the same trunk as shown in illustration below.

The double-armed horizontal cordon. Stub off the tree fifteen inches from the ground. Select two shoots nearest the top and lead them off horizontally, one on each side, as shown in figure at head of last page. Manage each arm like the single horizontal cordon.

![Diagram of cordon types]

PLANTING DISTANCES

<table>
<thead>
<tr>
<th>Varieties</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apples, Standard</td>
<td>30 to 40 ft.</td>
</tr>
<tr>
<td>Apples, Dwarf</td>
<td>8 to 10 ft.</td>
</tr>
<tr>
<td>Apples, Dwarfed on Paradise</td>
<td>6 to 8 ft.</td>
</tr>
<tr>
<td>Pears, Standard</td>
<td>18 to 20 ft.</td>
</tr>
<tr>
<td>Pears, Dwarf</td>
<td>10 ft.</td>
</tr>
<tr>
<td>Peaches, Standard</td>
<td>16 to 18 ft.</td>
</tr>
<tr>
<td>Peaches, Dwarf</td>
<td>8 to 10 ft.</td>
</tr>
<tr>
<td>Apricots, Standard</td>
<td>16 to 18 ft.</td>
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<tr>
<td>Apricots, Dwarf</td>
<td>8 to 10 ft.</td>
</tr>
<tr>
<td>Cherries, Sweet, Standard</td>
<td>10 to 12 ft.</td>
</tr>
<tr>
<td>Cherries, Sour, Standard</td>
<td>14 to 18 ft.</td>
</tr>
<tr>
<td>Cherries, Sour, Dwarf</td>
<td>12 to 18 ft.</td>
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<td>Cherries, Sour, Dwarf</td>
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## Appearance of Apple Buds at Right Time for Application of Spray

<table>
<thead>
<tr>
<th>Time to Spray</th>
<th>Dormant Strength 1st Spray</th>
<th>Summer Strength Sprays</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Apples</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Day</td>
<td>1-5 pint lime-sulphur 1 teaspoon black-leaf 40 1 gallon water</td>
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<tr>
<td><strong>Pears</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Day</td>
<td>1-6 pint lime-sulphur 1 teaspoon black-leaf 40 1 gallon water</td>
<td>1-6 pint lime-sulphur 1 teaspoon black-leaf 40 1 gallon water</td>
</tr>
<tr>
<td><strong>Plums</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week</td>
<td>1-6 pint lime-sulphur 1 teaspoon black-leaf 40 1 gallon water</td>
<td>1-6 pint lime-sulphur 1 teaspoon black-leaf 40 1 gallon water</td>
</tr>
<tr>
<td><strong>Cherries</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Day</td>
<td>2-3 ounce arsenate lead 1-6 pint lime-sulphur 1 gallon water</td>
<td>2-3 ounce arsenate lead 1-6 pint lime-sulphur 1 gallon water</td>
</tr>
<tr>
<td><strong>Peaches</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Day</td>
<td>1 gallon lime-sulphur 2-3 ounce lead arsenate 1 gallon water</td>
<td>1 gallon lime-sulphur 2-3 ounce lead arsenate 1 gallon water</td>
</tr>
</tbody>
</table>

### Formula

- **1-gallon mixture**: 1 pint lime-sulphur 1 gallon water
- **50-gallon Mixture**: 5 gallons lime-sulphur 45 gallons water

### Chief Enemies

- **Scale**: Scab Aphis
- **Psylla eggs**: Scab
- **Black Aphis**: Brown Rot Curculio
- **Black-leaf 40**: Brown Rot Curculio
- **Curl Leaf**: Curculio Brown Rot
- **Scab**: Scab Aphis Coding Moth Tent Caterpillar
- **Scab Moth**: Coding Moth Scab Psylla

### Pest Controlled

- **Chief**: Codling Moth Scab Psylla
- **Psylla**: 1 gallon lime-sulphur 2-3 ounce lead arsenate 1 gallon water
- **Scab**: 1 gallon lime-sulphur 2-3 ounce lead arsenate 1 gallon water
- **Brown Rot**: 1 gallon lime-sulphur 2-3 ounce lead arsenate 1 gallon water
- **Curculio**: 1 gallon lime-sulphur 2-3 ounce lead arsenate 1 gallon water
- **Scab Moth**: 1 gallon lime-sulphur 2-3 ounce lead arsenate 1 gallon water
- **Psylla**: 1 gallon lime-sulphur 2-3 ounce lead arsenate 1 gallon water

### Time to Spray

- **Apples**: Just before buds break into clusters of blossom buds
- **Pears**: Just before buds break into clusters of blossom buds
- **Plums**: A few weeks before time of blooming
- **Cherries**: When the first buds are swelling just before they start to open
- **Peaches**: Any time before buds swell

### Mixture Formulations

- **Spray**: A few weeks before time of blooming
- **Chief Pest**: Just before blossom buds open
- **Psylla eggs**: Just after blossom petals fall
- **Black Aphis**: About ten days later, after the fruit has set
- **Black-leaf 40**: About two weeks later
- **Curl Leaf**: Any time before buds swell
- **Psylla**. Brown Rot
- **Scab**: Scab Aphis Coding Moth Tent Caterpillar
- **Scab Moth**: Coding Moth Scab Psylla
- **Brown Rot**: Brown Rot
- **Curculio**: Brown Rot Curculio
- **Psylla**: Brown Rot
- **Scab**: Brown Rot

## Arsenate of Lead

- **Brown Rot**: 2-3 ounce arsenate lead 1-6 pint lime-sulphur 1 gallon water
- **Curculio**: 2-3 ounce arsenate lead 1-6 pint lime-sulphur 1 gallon water
- **Psylla**: 2-3 ounce arsenate lead 1-6 pint lime-sulphur 1 gallon water
- **Scab**: 2-3 ounce arsenate lead 1-6 pint lime-sulphur 1 gallon water
- **Brown Rot**: Give 4x lime-sulphur spray to peaches one month before picking.
- **Psylla**: Brown Rot

### Notes

- **Atomic sulphur**: Generally recommended instead of lime-sulphur solution.
- **Lime-sulphur**: Use high in powdered form. When in powdered form, use half the quantity.
- **Spray injury**: Avoid spray injury. Do not apply peach foliage with lime-sulphur spray. Use lime-sulphur with care.
This page shows the six varieties of our Arbor Collection—the choicest possible collection for so few varieties. Other Grape Collections will be found together with many good tree collections on page 15.

1 Catawba $0.20
1 Campbell Early 0.30
1 Delaware 0.20
1 Niagara 0.20
1 Moore Early 0.20
1 Winchell 0.30
List Price $1.40

COLLECTION PRICE, Postpaid 1.10