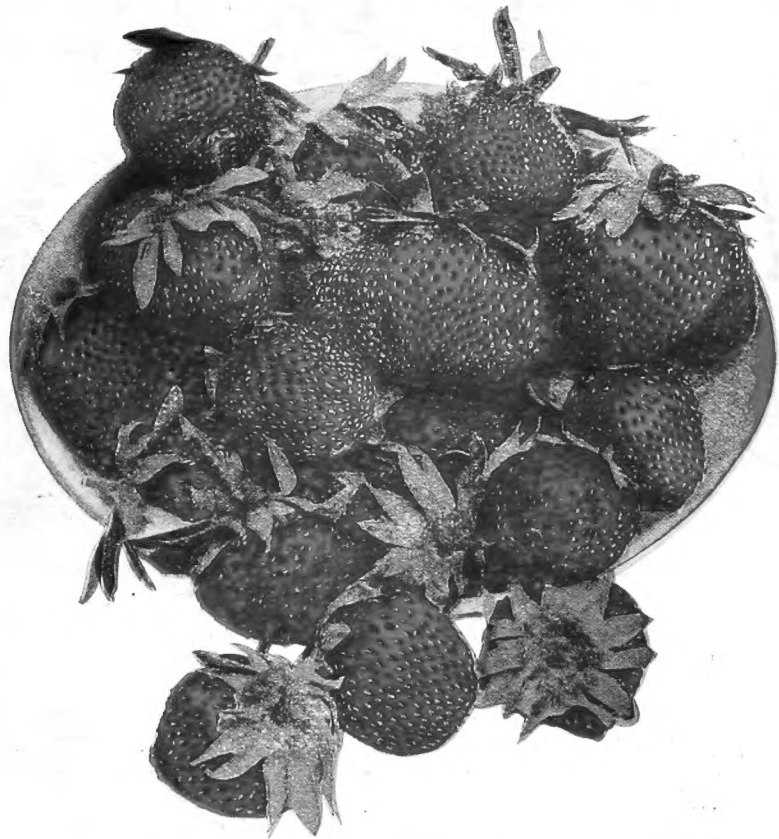


2321

LINN COUNTY NURSERY

Snyder Brothers, Proprietors



DESCRIPTIVE CATALOGUE, SPRING OF 1912

**Fruit Trees, Small Fruits
Evergreens and Ornamentals**

CENTER POINT,

IOWA

State of Iowa

CORNELL UNIVERSITY,
 ITHACA, N. Y.

Certificate of Nursery Inspection

Office of State Entomologist
 Ames, Iowa

THIS IS TO CERTIFY, That in accordance with Chapter 53 of the Acts of the Twenty-seventh General Assembly, as amended by the Thirty-first General Assembly (Code Section 2575-451), the nursery stock for sale by the **Linn County Nursery, Snyder Bros., Props., of Center Point, Iowa**, has been inspected by a duly authorized inspector and has been found apparently free from dangerously injurious insects and plant diseases.

This certificate is invalid after July 1, 1912.

Certificate No. 50.

Dated Aug. 11, 1911.

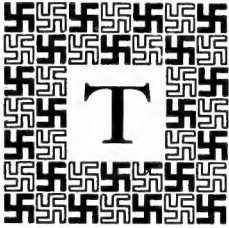
H. E. SUMMERS,
 State Entomologist.



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Historical



THE LINN COUNTY NURSERY was established in 1892 by A. Snyder & Son. After the death of the senior member of the firm, it was conducted for several years by S. W. Snyder, who in 1907 was joined by a younger brother, under the firm name of Snyder Bros. Both the present members, therefore, have had a long experience in this business, and in nineteen years have seen it grow from a few rows of stock on the farm to over thirty acres of stock, growing mostly at Center Point.

The orchard originally planted by A. Snyder has been greatly enlarged and now contains hundreds of varieties and more are being planted every year. From the start, it has been the aim of the proprietors to use as parent trees only those trees of a variety which have produced the best results in the orchard; this makes our trees what many call "pedigreed stock."

Introductory

Descriptions. It is our intention in this catalog to furnish accurate descriptions and in every case avoid exaggerations which are so common in nursery catalogs. We aim to test out every variety in our orchard before giving it a place in the catalog.

We firmly believe in selection, and always cut propagating wood from the trees which produce the best results in the orchard. Practically all our scions are grown in our own orchard. Those which are not are procured from the most reliable sources. We never send out want lists to see where they can be bought cheapest.

Prices. Our prices are not the lowest—the care which we devote to growing stock increases the cost greatly—but our trees are so vastly superior to those grown without particular care that the difference in first cost appears small by comparison. The point to be considered is that of final results, and in this our trees will out-distance the cheaper ones many times over.

Packing. Our large packing-shed and cellar, located near the Rock Island Station at Center Point, gives us splendid facilities for handling orders promptly and accurately. All stock will be delivered from this point, and not from our farm, as formerly.

Guaranty. We exercise great care to keep our varieties true to name, and are ready at any time to replace any stock that may prove untrue, or refund the amount paid for same; but it is mutually agreed that we are not to be held liable for any amount greater than the original price of the goods.

Condition. We accept all orders on condition that they shall be void should any injury befall the stock from hail, frost, storm, fire or other causes over which we have no control.

Certificate. A certificate of Nursery Inspection certifying that our nurseries have been inspected by the State Entomologist and found free from all dangerous insects, pests and diseases is attached to all orders that leave our nurseries.

Visitors Welcome. Tree-lovers find much satisfaction in seeing and selecting the stock they buy; we therefore take pleasure in inviting all interested in nursery stock to visit our nurseries and inspect the stock.

Anyone wanting extra large and fine specimens of Evergreens or Shade Trees can select them at any time of the year. Anything thus selected will be tagged with the customer's name and delivered at the proper time.

Varieties Not Listed in This Catalog. We have some trees of many kinds not listed in this catalog. If you do not see what you want, write us; we can secure for you anything grown by American nurserymen, if we do not have it, and the price will be right.

Directions for Ordering

Always state whether shipment is to be made by freight, express, or mail; if by freight or express, state route preferred. When ordering by mail make your remittance sufficient to cover postage.

Size and Price of stock should be carefully specified. We use every effort to avoid mistakes, but in a busy season these occasionally occur. If notified promptly of any mistakes, however, we will gladly rectify them.

Please Remit Cash With Order whenever possible, especially with small orders. Satisfactory security is required from strangers who desire to open an account with us. Remittance may be by check, draft, money order or registered letter. Stamps are acceptable for amounts less than \$1.00.

We Make No Extra Charge for packing and delivering to freight or express office. The greatest care is taken to pack so that stock will arrive in first-class condition.

Order Early. Every spring we are compelled to refuse orders for certain lines of stock of which we are entirely sold out. Order early and you will be sure of getting what you want, as well as the pick of the stock.

Trees by Mail. For the benefit of our customers living at a distance we are now supplying fruit trees of a size that can be sent by mail, thus saving high express charges. These are one-year trees of named varieties. Should you order a sort of which the supply is exhausted, we reserve the right to substitute a variety equally good and same season. All trees will be well wrapped and packed and sent postpaid at the following prices.

	Each	Per 12	Per 100
Apple, 2 feet	\$.20	\$2.00	\$15.00
Peach, 2 feet .....	.20	2.00	12.00
Pear, 2 feet .....	.20	2.00	12.00
Plum, 2 feet .....	.20	2.00	12.00
Cherry, 2 feet .....	.20	2.00	12.00

Specialties and Novelties

New and Rare Varieties of Much Promise

APPLES

Wild Red Crab. A hybrid of the wild crab and cultivated apple. Fruit is as large as Whitney, red nearly all over, and keeps the year 'round. It has the aroma and flavor of the wild crab which makes it just the thing for people who like sauce of the wild crab, as they are so much larger. The tree is far the most vigorous of any apple tree we ever grew, is very easy to transplant, makes a beautiful symmetrical tree, and is a regular and very young bearer.
5 to 7 feet trees,40c each; 4 to 5 feet trees,30c each.

Mammoth Grimes Golden. A very large strain of Grimes Golden; found in Southern Iowa in an orchard with several trees of common Grimes Golden. These are exactly like the regular Grimes in color, form, quality and season, but are very much larger. They run as large as full sized Northwestern Greenings year after year. We have a limited quantity of these in 2-year old tops. 75 cents.

CHERRIES

Homer. Fruit large, dark red, and good; ripening about the same time as Richmond. This is claimed to be one of the very hardiest of the cherries and has been grown in Minnesota for many years where other varieties are too tender.
5 to 7 feet,50c each; 4 to 5 feet,40c each.

Timme. One of the most promising new cherries. Fruit large, rich and meaty; very hardy and prolific. Ripens with Richmond but is more productive. Pronounced by those who have it to be the best variety for eating off the tree or for canning.
5 to 6 feet,50c each; 4 to 5 feet,40c each.

Yellow Glass. See description under Sweet Cherries. The only sweet cherry tested here which has been satisfactory.

PLUMS.

See Prices on Page 12

First. Large, greenish yellow with some red, very thin skin; cling stone; very sweet and good. Tree thrifty, moderately hardy, and very productive. It ripens early in July, at raspberry time, and is the only real early plum which is thoroughly good for all purposes.

Mirabelle. Small, bright, yellow free stone, with extremely small pit; very sweet and good. The best of all plums in quality. The fruit is so sweet it makes good sauce without sugar, or, at best, requires very little. The delicious flavor of this little plum makes it a great favorite wherever it is known. The tree is a good bearer and very hardy, but susceptible to borers in the top. This variety is very difficult to grow in the nursery on account of growing so slow and crooked, although they afterwards make beautiful, symmetrical orchard trees.

HANSEN'S NEW HYBRID PLUMS.

Some varieties just being introduced by Professor Hansen of South Dakota. The first five varieties are hybrids of the Sand Cherry and various cultivated plums. We have fruited these this year and found them to be as Prof. Hansen represents. The descriptions which we give are taken from his.

These varieties are all remarkably thrifty. Scions set the spring of 1910 grew from five to seven high the first year. This year these trees were the wonder of every one who saw them; they were literally covered with fruit from the ground up, many of them being entirely unable to bear the load. There has never been anything on the place which equals them for productiveness. We believe without doubt they will in time entirely supercede the Compass, as they are certainly hardy throughout the same latitude.

5 to 7 feet,.....75c each; 4 to 5 feet,.....60c each; 3 to 4 feet,.....40c each.

Opa. A cross of the Sand Cherry and Gold Plum. Fruit 1 to 1 3-16 inches in diameter, dark purplish-red with blue bloom; flesh green, and flavor a mingling of the sprightliness of the Sand Cherry with the rich sweetness of the Gold Plum. Pit very small. Season, July 15th.

Sapa. A cross of the Sand Cherry and Burbank's large purple-fleshed plum called Sultan. Fruit slightly larger than Opa. Skin, flesh and juice, very dark purple-red, which makes this entirely unlike any other fruit grown here. Sapa took first prize at Minnesota State Fair in 1909.

Wachampa. Another cross between Sand cherry and Sultan plum. Fruit about as large as Sapa, of uniform size, purplish with light red flesh and very small pit; sweet and good. In our estimation, one of the best of the lot. August.

Sansoto. A cross of Sand cherry and De Soto plum. Fruit round, about the size of the De Soto plum, almost black when fully ripe. Flesh yellowish green, sprightly pleasant; skin thin; pit very small, cling stone. A vigorous growing variety. August.

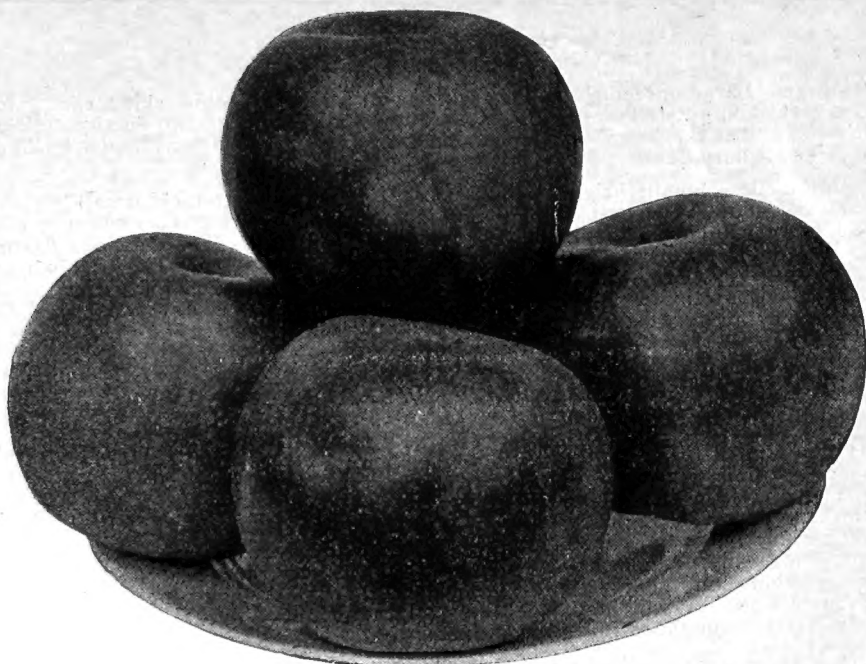
Cheresoto. Same parentage as Sansoto and very much the same except in shape. Cheresoto is long and has a small point at the apex. These two varieties are remarkably thrifty growers and, we believe, far superior to the Compass cherry. August.

Hanska. Fruit large, distinctly flat, bright red, with heavy bloom; flesh firm, yellow, of good quality and richly fragrant. The apricot flavor is brought out to perfection in cooking.

Inkpa, Kaga and Toga. Of the same pedigree as Haska, and very similar to it in fruit. These four varieties are hybrids of native plums and the very large, flat, Chinese Apricot, Prunus Simoni. These varieties are all remarkably vigorous and make the finest nursery trees of anything we have ever grown. We believe there is a great future for this class of hybrids.

Cestena. A cross of the Sand cherry and Purple Leaved plum, Prunus Pissardi. A beautiful, hardy, ornamental shrub with rich purple red leaves; in every way able to fill the place of the Purple Leaved plum, which is too tender for planting here. This is not a fruit tree, and is for ornamental planting only.

3 to 4 feet,50c each; 2 to 3 feet,30c each.



Apples

This most wholesome fruit is being used more extensively every year. An orchard is indispensable to every home, and many diseases are unknown to those who regularly include apples in their diet. Numerous physicians say a person who uses apples freely is not likely to acquire the liquor habit. Surely apples have a value which is being more and more appreciated and is causing a rapidly increasing consumption of them. With proper care in selecting varieties, apples may be had the year round if well cared for.

Iowa is in the heart of the apple producing region of the United States. Iowa apples have quality which cannot be excelled; in addition, they have size and color which compares well with the big tasteless apples of the far West. By the application of intensive methods of orcharding it has already been proved that apples can be made as sure a crop here as anywhere.

Commercial Orcharding is in its infancy in Iowa. There are thousands of acres upon which no more profitable investment could be made than to plant a commercial orchard. The enormous quantity of apples shipped into our state and sold for a high price ought to be incentive enough for those possessing suitable soil and location to embark upon such an enterprise.

Varieties. In planting a commercial orchard it is judicious to plant but few varieties, and these should be selected with reference to securing the best pollination. Experience has shown that large blocks of the single varieties are often more or less barren.

Size to Plant. It is always best to choose small, thrifty trees two or three years old and from four to seven feet high, as these are more safely transplanted, and with more satisfactory results than older and larger trees.

How Propagated. Our apple trees are grafted by the most approved methods, aiming to produce trees best adapted to withstand the rigors of this climate. They are grafted on Vermont seedlings which are much harder than the French Crab seedlings commonly used. We use the piece root and long scion and plant up to the top bud; this causes a tree on its own roots and of known hardiness. Experience has repeatedly proved that trees grafted on whole roots are not harder than the seedling root used, which is very variable and often too tender.

Price List of Apples

	Each	Per 10	Per 100
Large size, 2 and 3 years, 5 to 7 feet.....	\$.40	\$3.75	\$35.00
Medium size, 2 and 3 years, 4 to 6 feet.....	.30	3.25	25.00
Small size, 1 and 2 years, 3 to 4 feet.....	.20	2.00	15.00

5 at 10, and 50 at 100 rates. A few trees of a long list of varieties will be charged for at each rates.

Summer Apples



Duchess of Oldenburg.

Beautiful Arcade—Medium large, yellow with red splashes and streaks. Flesh white, tender, sweet and very pleasant. Last of August and September. Tree an upright grower, very hardy and vigorous; one of the most desirable varieties for the North and Northwest.

Benoni—Medium, round, yellow with red stripes; of excellent quality. August. An old variety much prized by many.

Colton—Early Colton. Medium to large, round, yellow, juicy and rich; excellent for eating or cooking. Superior to, and earlier than Early Harvest. Very hardy, vigorous and prolific.

Duchess—Oldenburg—Duchess of Oldenburg. Large, yellow with red stripes; sour. Very valuable for market and culinary purposes. August and September. A Russian variety

which is very hardy, vigorous and prolific.

Liveland—Liveland Raspberry—Lowland Raspberry. Medium to large, beautifully blushed, round, flesh tender, mild and delicious. Our best and earliest summer apple. Tree very hardy, thrifty and prolific.

Red Astrachan—Large, red, sour, but of good quality. August.

Red June—Small, red striped; flesh mild and of high quality. August.

Sops of Wine—Medium to large, roundish, red; flesh mild and of excellent quality. August and September.

Summer Pear—Large, round, yellow with red cheek; mild, melting and very good. Very hardy, vigorous, and a new variety of great promise.

Tetofsky—Medium, yellowish with red stripes, acid; of good quality. August. A hardy, slow growing variety.

Yellow Transparent—Large, yellow, sour, of good quality, and very early. One of the hardest of varieties, but very subject to blight.

Fall Apples

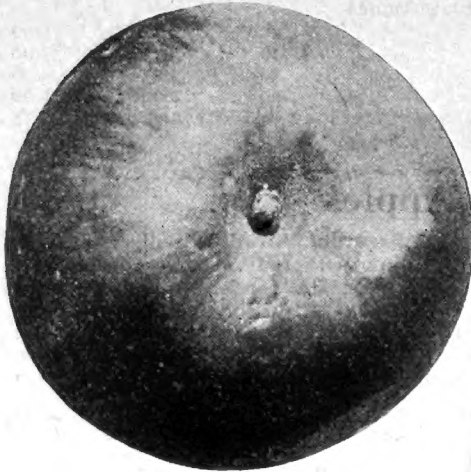
Anisim—Medium, roundish, red, mild and good. September and October. Very hardy and prolific. A Russian variety.

Bailey Sweet—Large, round, red, sweet and good. September to November.

Charlamoff—Large, red striped, sour, good. September. Hardy; a Russian variety.

Chenango—Chenango Strawberry. Large to very large, yellow, red striped, mild and very good. August and September.

Dominie—Large, round, green with some red and yellow, mild and of fair quality. October and November.



Grimes' Golden

der, and richly flavored. October and later. Often bears in the nursery. One of the very best apples on the list for culinary purposes.

Patten—Patten's Greening. Large to very large, round, yellow, and good. October. A very hardy, crooked growing tree. Valuable in the North where it is a winter apple.

Plum Cider—Large, yellow with red stripes, mild, good. October to November and later.

Snow—Medium, roundish, red striped or crimson; flesh mild, snow white, juicy, very highly flavored and delicious. November and December. One of the very best apples of its season.

University—Large, clear yellow with small dots; flesh yellow, pleasant, subacid and very good. Late fall and early winter.

Wealthy—Large to very large, roundish, yellow, red striped; flesh mild, very good. October and November. Valuable for home use or market. It is a winter apple in the North; one of the best varieties for cold storage.

Wolf River—Very large, roundish, white with red stripes and mild; fair quality for cooking.

Winter Apples

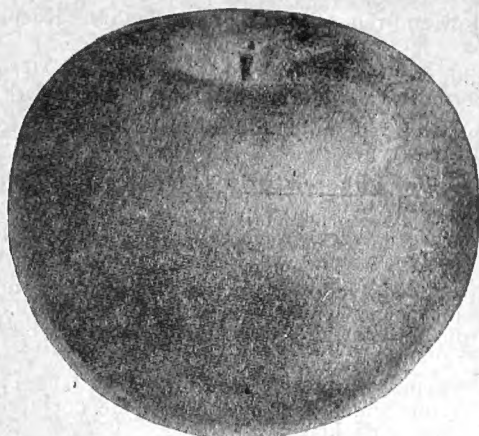
Akin—Akin's Red. Much like Jonathan. Medium, round, red, very good. Vigorous, hardy, and a high quality apple.

Allen—Allen's Choice. Medium, roundish, striped, very good, juicy and aromatic. December to March. A very early bearer; vigorous and hardy.

American Blush—Large, roundish, beautiful, yellow and bright red; flesh yellow, fine grained, mild and richly flavored. December to February. Vigorous and productive.



Northern Spy



Iowa Blush

Arctic—Large, roundish, yellow and red, mild and good. December to February.

Babbitt—Western Baldwin. Large, red, round, mild and good. December to February.

Ben Davis—Large to very large, yellow with red stripes, mild and of fair quality. A late variety, valuable chiefly for market; should not be planted much north of central Iowa.

Black Annette—Medium size, roundish, very dark green and red, mild and good. December to April. One of the most valuable for domestic purposes.

Black Ben Davis—Regan's Red. Large to very large, dark red, mild and very good. December to March. Larger, better colored and somewhat better than Ben Davis, but of about the same hardiness.

Canada Baldwin—Large, roundish, red and good. December to March. A very hardy, vigorous, upright growing variety.

Collin's Red—Champion. Large, bright red, good. A market variety of the Ben Davis type, but keeps longer. Vigorous, healthy, and a regular bearer.

Delaware Red—Medium to large, bright red; flesh fine grained, crisp, juicy, excellent, and a splendid keeper. Tree thrifty and hardy.

Gano—Large to very large, yellow with red stripes, mild and good. December to March. Valuable for a market variety.

Greenville—Downing's Winter Maiden Blush. Large, roundish, greenish yellow with red blush, mild and good. December to March. A seedling of the Fall Maiden Blush which it much resembles, but keeps longer. A very vigorous, healthy tree.

Grimes—Grimes' Golden. Medium to large, deep yellow, mild and of very best quality. December to March. One of the very best apples for domestic or commercial planting.

Hinkley—Lone Tree Seedling—Ideal—Legal Tender. Fruit almost identical with Rome Beauty, but tree much more hardy and vigorous. One of the most promising of the new varieties.

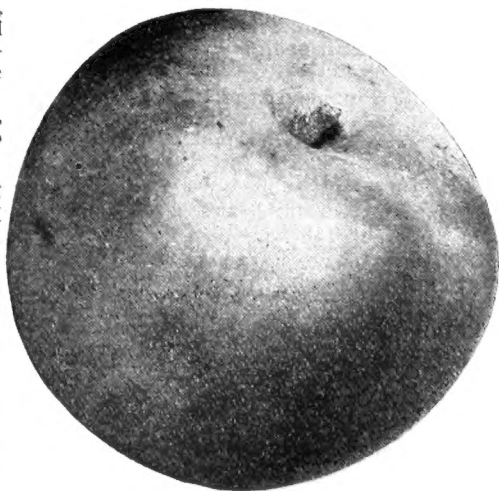
Iowa Blush—Medium or small, roundish, greenish-yellow with red blush, mild and very good. December to March. Valuable for home use; very hardy and productive.

Isham Sweet—Large, roundish, red, sweet and good. November to February.

Isherwood—Large to very large, roundish, yellow with red blush, mild and good. January to April. Healthy and very vigorous. A good variety for Central Iowa.

Janet—Jeniton—Rall's Janet. Medium size, yellow with red stripes, mild and good. December to March. Should not be planted north of central Iowa.

Jonathan—Medium to large, roundish or conical, yellow and red, mild and very good. December to March. One of the most valuable for all purposes, but should not be planted extensively north of central Iowa.



Maiden Blush

Lansingburg—Medium, roundish, yellow and red, mild and of fair quality. Keeps the year 'round.

Malinda—Large, yellow and red, mild and good. December to March. Very hardy, vigorous and prolific. One of the most valuable for planting in the North.

McIntosh Red—Large, round, yellow and red, mild and good. December to February. A splendid apple of the Fameuse type.

Missouri Pippin—Large, roundish, yellow with red stripes, mild and of fair quality. December to March. Not strictly hardy here.

Nelson Sweet—Large, roundish, dark green, very sweet and good. Keeps all winter. A strong, free grower and very hardy.

Northern Spy—Large to very large, roundish, yellow with red stripes, mild and very good. December to March. An old variety which is gaining in popularity. We have been propagating our stock from a superior strain of this variety which we believe to be one of the best things on our list.

North Star—Large, roundish, red and yellow, mild and good. Nov. to January. Very vigorous and hardy; one of the best for commercial planting in the northern part of the state. An apple which is gaining in popularity.

Delicious—Peru. Medium to large, roundish, yellow with red stripes, very mild and good. November to February.

Paradise Winter Sweet—Large, roundish, yellow, sweet and very good. December to March. Hardy and very vigorous, but not very prolific in some localities.

Roman Stem—Medium to large, round, yellow, red blushed, mild, very good. December to April. An old variety unexcelled for home use; one of the very best for cooking.

Salome—Large, round, yellow and red, mild and good. December to April. A very beautiful apple which is rapidly becoming popular.

Sheriff—Medium to large, red, mild and good. December to February. Bears early and regular; a variety too little known.

Stayman—Stayman's Winesap. Large to very large, roundish, red, mild and very good. December to March. A seedling of the old Winesap, of much the same color and quality, but larger and hardier. One of the best for commercial planting.

Talman Sweet—Medium to large, yellow, very sweet and good. December to February.

Wagener—Large, roundish, yellow and red striped, mild and good. December to March.

Walbridge—Medium to large, yellow and red striped, mild and of fair quality. December to March.

White Pippin—Large to very large, roundish, white with a little red and yellow, mild and very good. December to March.

Windsor—Medium to large, round, yellow and red, mild and good. December to February.

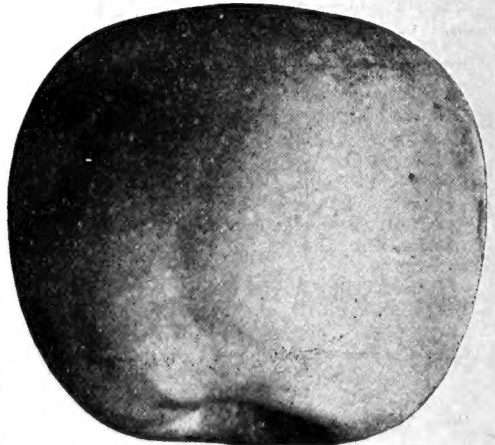
Willow Twig—Large, roundish, yellow and red, mild and good. February to April.

Winter Banana—Large, round, bright yellow, mild, very good. December to March.

Winter Fameuse—Medium size, roundish, not as well colored as Fameuse or Snow; of the same quality, but keeps two or three months longer.

Weismer's Dessert—Medium to large, yellow and red, mild and delicious. December to March. An apple of very high quality.

York Imperial—Johnson's Fine Winter. Large, yellow, red-striped, mild and good. January to March. Valuable in southern Iowa.



Jonathan.

Crab Apples

These hardy and beautiful trees should be among the first things planted. They can be depended upon to stand where other apples are not hardy enough, and produce an abundance of good fruit. Many of them make splendid eating apples and are a great delight to the children. Prices, the same as for other apples.

Alaska—Fruit larger than Transcendent; a good keeper, and very good.

Briar Sweet—Medium yellowish with red blush, very sweet and good. August to September. Slightly bitter if not fully ripe.

Excelsior—Large, handsome and good. Ripens just after Duchess. A seedling of Wealthy and of similar quality.

Florence—Large, yellow and red; very good for all purposes. Very hardy and productive.

Gideon—Large, yellow and white, very good; one of the best of the new varieties.

Golden Beauty—Very large and handsome; golden yellow; very good.

Hyslop—Dark red, popular, and hardy, except for blight. November to February.

Red Siberian—Small but very prolific. September.

Soulard—Very large, yellowish, with the flavor of the Wild Crab. February to June. Valuable for cooking; very hardy and prolific.

Sweet Russet—Large to very large, yellow with some russet; very sweet and rich; a delightful eating apple. September.

Transcendent—Large, yellow and red; very good. Tree very hardy, but blights badly.

White Arctic—Very large, white, tender, rich and juicy. Vigorous and very hardy.

Whitney. "No. 20"—Large to very large, greenish and red, very juicy and good. A splendid variety for eating and cooking. Tree very vigorous, hardy and handsome.

Wild Red Crab—See specialties. Page 2.

Pears

Although formerly considered very unfavorable for Pear growing, the Iowa soil and climate are proving themselves well adapted to the production of several varieties. No one should plant Pears extensively in this state without first assuring himself what varieties will succeed in his soil; but with proper investigation, we are convinced that every section of Iowa will produce one or more varieties of Pears with excellent results. As a commercial fruit the Pear stands close to the apple and the peach, and we are convinced that the time is near at hand when Iowa will grow the Pears needed for its own markets.

The varieties listed below are considered especially free from blight, which is the great enemy of the Pear. This disease, when it appears at all, shows itself by the blackening and drooping of the leaves, and is controlled by cutting off the infected branches several inches beyond the point to which the disease extends and burning them. Dipping the pruning tools frequently during the process in a solution of bichloride of mercury will prevent a spreading of the disease. By selecting our trees and exercising proper care, however, little trouble from blight need be expected in growing Pears.

Price List of Pear Trees.

	Each	10	50	100
Large size, 5 to 7 ft., 2 to 3 years.....	\$0.50	\$4.50	\$20.00	\$37.50
Medium, 4 to 5 ft., 2 to 3 years.....	.40	3.50	15.00	27.50

Dwarf Pears—Varieties marked with a * can be furnished in dwarfs; these are budded upon quince roots. Large size, caliper 3-4 inch and up, same price as large sized standards.

***Bartlett**—Large, yellow and red, juicy, melting and highly flavored. August and September. An early and abundant bearer. This excellent variety blights badly in many places in Iowa, so cannot be recommended for general planting.

Flemish Beauty—Large to very large, yellow with red blush, melting, juicy, sweet and good. September.

Garber—Large to very large, yellow and red, firm and granular, juicy and acid; of fair quality. October. A very vigorous grower.

Golden Russet—Large, golden yellow, russeted, firm, granular, juicy and good. A very thrifty and healthy variety; very promising for southern and central Iowa.

Howell—Large, yellow and red, very juicy and good. September.

***Kieffer**—Large, yellow, russeted, granular, juicy and sweet. October and November. A very hardy, vigorous variety, remarkably free from blight. An early and abundant bearer; valuable chiefly for cooking and canning. The fruit should be kept

Vermont Beauty—Medium size, yellow and red, rich and juicy, very good. October. Very hardy, vigorous and prolific.

***Wilder**—Small to medium, yellow, shaded crimson, fine grained, tender and good. Vigorous and productive. August.

Worden Seckel—A seedling of Seckel; of similar quality, but much superior in size and color. Hardy and productive. October.

until well ripened before using.

Krull—Large, yellowish green, firm, becoming juicy, melting, rich and sweet. A very late keeping variety; healthy and vigorous.

Lincoln—Large, yellow and red, buttery, melting, sweet and very good. September. Hardy and prolific.

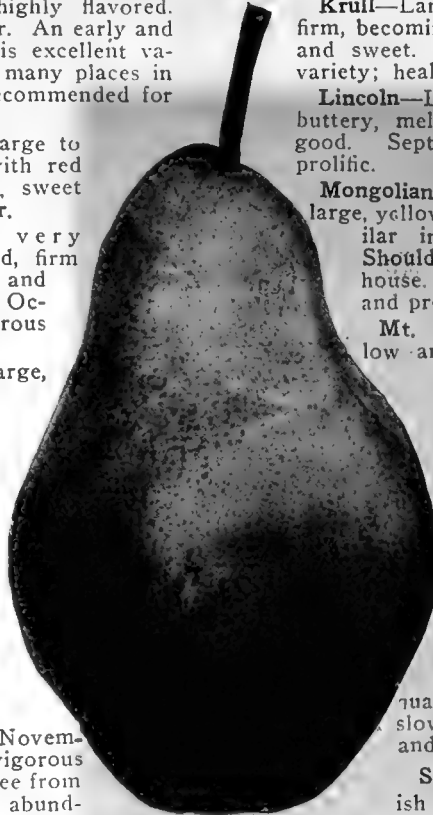
Mongolian Snow—Medium to large, yellow, russeted, firm; similar in quality to Kieffer. Should be ripened in the house. Very vigorous, hardy and productive.

Mt. Vernon—Large, yellow and red, granular, melting, juicy and good. October.

Rossney—Large, yellowish, buttery, juicy, melting and very good. Hardy, vigorous and free from blight.

***Seckel**—Small, brownish green with red russet, buttery, melting, juicy and delicious; of the very best quality. September. A slow growing, very hardy and healthy variety.

Sheldon—Large, greenish yellow, russeted, melting, juicy, sweet and good. October.



Bartlett

We wish to call the attention of our customers to the fact that our line of Plums is the most extensive grown by any nursery in the middle west, and careful selection will give a supply of this fruit through the summer.



Peaches

Hardy Peaches are one of our leading specialties. The list of varieties we offer is the result of years of experimenting in endeavoring to find varieties hardy enough to endure the trying Iowa winters. Our greatest success has been with varieties originating here in Iowa. The following list cannot be excelled for hardiness. We do not claim that Peach trees are as hardy as plum and apple, but they have succeeded in living through our most severe winters. While they may be more or less injured by an occasional trying winter, yet by proper pruning and cutting back they will out grow their injuries and continue to bear profitable crops of fruit.

Our Peach trees are budded upon the hardiest stock in existence, namely, seedlings produced from seed of the Bailey Peach grown here in Linn County. Plant them about a foot deeper than they stood in the nursery, so that if the tree is ever killed back to the ground it will throw up a sprout from above where it was budded and thus renew the tree.

Prices of Peach.

	Each	10	100
Five to six feet	\$0.30	\$2.75	\$25.00
Four to five feet.....	.25	2.00	18.00
Three to four feet .....	.20	1.50	14.00

Arctic—Large, yellow, red cheeked; flesh yellow, good; free stone. October. A hardy peach in both tree and fruit bud.

Bailey—Friday Seedling. Medium size, whitish with red cheek; flesh white, juicy, sweet and good. Pit very small and free. September. This variety has been grown in Iowa for over seventy years and has averaged three crops every five years.

Banner—A Canadian variety; medium to large, deep yellow with crimson cheeks; free stone. Flesh yellow, rich, firm and very good. September.

Bednar—Originated in Cedar Rapids, Iowa. Large, oblong, yellow, free stone; very good. September.

Bokara No. 3—Medium to large, free stone; yellow with red cheek; flesh yellow, juicy and good. September. A hardy variety from Asia.

Champion—Large, creamy white with red cheek; flesh white, very sweet, juicy and rich. August. One of the best and hardiest of the early varieties.

Elberta—Very large, yellow with red blush, free stone; flesh yellow, juicy and good. Vigorous and moderately hardy. September.

Leigh—Originated in Mt. Vernon, Iowa. Large, white with red blush, free stone. Flesh white, very sweet, juicy and good. August. The original trees have produced as many as eight bushels at a crop. This season's experience with this variety, again confirms our opinion that its fruit buds are as hardy as those of any variety we have.

Lone Tree—Originated in Johnson Co., Iowa. Medium to large, golden yellow; flesh yellow, juicy, rich and very good. Pit very small and free. September.

Myers—Medium to large, yellow and red. Free stone; flesh yellow, juicy and rich. This peach has been grown in Southeastern Iowa for many years, and has made a splendid record.

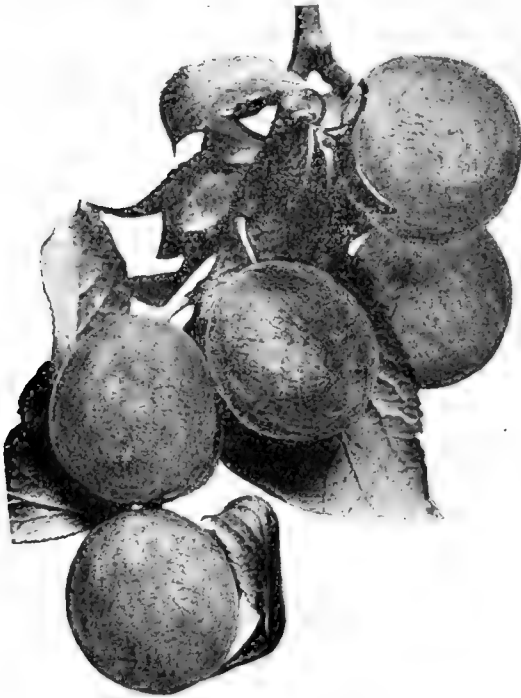
Pierpont—Another Linn Co. seedling; large, yellow with red cheek; flesh white, juicy and excellent. Pit very small and free. September. Apparently very hardy and promising.

Robins—A local variety of much promise. Medium size, yellow and red, free stone; flesh light yellow, sweet and good. This is the earliest variety of the list, ripening the last of July or first of August.

Russell No. 1—Medium size, whitish with red cheek; pit small and free; flesh greenish white, juicy and good. Middle of August to September.

Stearns—Originated in Western Michigan. Large, round, yellow with brilliant red. Pit small and perfectly free; flesh firm, yellow and very good. A promising new variety.

Wolf. Wolf's Lone Tree Seedling—A seedling of the Lone Tree; its equal in size and quality, but has a bright red cheek and ripens ten days earlier. Tree hardy and very productive. Very promising.



German Prune

Plums

No other fruit has a greater variety of uses, or is capable of satisfying a greater variety of tastes than the Plum. It is in its native element in Iowa soil and climate, this section having been favored with many choice varieties in its primitive state.

Varieties.—We are making this fruit a specialty and our experimental orchard is our delight. Up to the present we have planted in it 275 varieties, many of which have been discarded. It is our aim to test all varieties which come well recommended and propagate only the best. By careful selection one may enjoy fresh plums from early in July until late October.

Cultivation.—If you give them your best land and as thorough and frequent a cultivation as you do your cornfield or garden, you will succeed. Clean cultivation is one of the remedies for the plum curculio.

Crooked Trees.—It is practically impossible to grow what some people would call a "decent" tree of some varieties, yet these same trees afterward develop into well shaped orchard trees.

Prices of Plum Trees.

	Each	10	50	100
5 to 7 feet, 2 to 3 years.....	\$0.50	\$4.50	\$20.00	\$37.00
4 to 5 feet, 2 to 3 years.....	.40	3.50	15.00	27.50
3 to 4 feet, 1 to 2 years.....	.30	3.00	10.00	18.00
2 to 3 feet, 1 year switches.....	.15	1.50	7.00	12.50

Five at 10, 25 at 50, and 50 at 100 rates. Orders for 25 or 50 trees containing a long list of varieties cannot be filled at 50 or 100 rates.

Grouping—We group the different varieties in the families to which they belong.

THE AMERICAN OR NATIVE GROUP

These include our common red and yellow plums, and are native to this part of the United States. These are the hardiest of the plums.

Beatty—Large to very large, oblong, very beautiful, yellow and red, free stone; very good. Last of August. Equal to De Soto for cooking and dessert. An upright growing, symmetrical tree; very hardy and thrifty.

De Soto—Our old standby. Medium to large, roundish, bright yellow and red, free stone; very good for every purpose. Last of August. Very hardy and healthy; its one fault is overbearing. Thin the fruit for best results.

Hawkeye—Large to very large, oblong, thick skinned, grayish purple; good for dessert, but cooks very sour. Last of August. Hardy and productive.

Snyder—Originated by J. H. Fairchilds, Coggon, Iowa. Large to very large, reddish purple, thick skinned; very good for dessert, but cooks sour. Thrifty and productive.

Stoddard—Large, round, red; good for dessert. August. Develops too much acid for cooking.

Terry—Large to very large, purplish red, thin but tough skinned; very good. A thrifty and prolific variety, especially valuable for market.

Wyant—Large, purplish red, free stone, thick skinned, easy to peel. August. One of the very best plums for dessert but develops too much acid in cooking to suit most people. Very productive and hardy.

MINER GROUP

The varieties comprising this group are comparatively late in ripening, but uniformly productive of large, beautifully colored fruit of the best quality. They are usually self sterile, but the kinds effectually pollinate each other if thoroughly mixed through the orchard.

Miner—An old variety; large, round, dull red, cling stone; valuable for all purposes. September. Should be planted with other varieties to secure pollination, otherwise, it may be a shy bearer.

Surprise—Large, red, cling stone, rich, sugary and delicious. September. Good for all purposes. Prolific, vigorous and hardy far into the Northwest. One of the most valuable for market or home use.

WILD GOOSE GROUP

This we regard as the commercial group of the native plums. The varieties listed can be relied upon to produce a good crop three years out of five. They are not as a rule as hardy as varieties of other groups, and for this reason should not be planted beyond, if quite to, the north line of Iowa.

Chas. Downing—Large, round, and very bright red, thin skinned, but a good keeper and of the very best quality. This variety must be planted with others to secure pollination.

Pottawattamie—Medium to large, round, red, and good. August. Valuable for market.

Whitaker—Large, bright red, cling stone, sweet, juicy and very good. Skin thin, and peels like a scalded tomato. The best and most dependable early variety; it very rarely fails. Middle of July.

JAPANESE GROUP

The varieties of this numerous family which we consider worthy to be retained in the orchard are very limited. The reason we retain any of them is on account of their superior quality of fruit and great productiveness. In point of hardiness and other characteristics of tree, none of them can be highly recommended. We continue to propagate a few of the best varieties, which we list below.

Abundance—Sweet Botan. Large to very large, greenish yellow with red blush and marked suture; excellent. One of the very sweetest of fruits. A vigorous, upright grower and extremely prolific.

Burbank—Large to very large, marbled and overspread with dull red; cling stone. August. Flesh yellow, very sweet and agreeable. Very productive.

First—See page 3.

Maynard—Very large, round, dull red, firm, juicy, rich and sweet; very good. A very vigorous grower; one of Burbank's recent introductions.

Red June—Large, dull red, firm, sweet and good. July. One of the first to ripen.

DOMESTIC GROUP

This family embraces the European varieties of plums and prunes. They must be sprayed regularly to prevent the curculio and brown rot from destroying the crop. If it were not for these pests, this class of plums, including prunes, could be as easily and profitably produced as any of the common natives, and it is, in fact, a serious question whether it is profitable to try to grow the common natives without spraying regularly.

Spraying is so beneficial to trees and fruit that no one should hesitate at the time and trouble it involves. Once we succeed in bringing a crop of these garden plums, as they are sometimes called, to maturity, there is a greater satisfaction to be derived from the various uses to which they may be applied than from any other class of plums. Many of them are most delicious dessert fruits, some are unexcelled for culinary use. We submit a short list of the best of this class for this section.

Blue Moldovka—Large to very large, blue, free stone; flesh juicy, rich and luscious; especially good for dessert. A Russian variety; productive, hardy and desirable.

Communia—Large, roundish-oblong, dark blue; flesh yellow, juicy, sweet and very good for all purposes. September.

Deaton—Large, light green; free stone. Excellent for dessert or culinary use. Last of August.

French Damson—Medium size, dark blue, almost black; free stone; flesh yellowish green. Splendid for dessert or cooking. Fruit colors long before ripe. Last of September. Very prolific, hardy and vigorous.

German Prune—Large, oblong, purple or blue, rich, juicy and very good. Vigorous and productive. One of the best of the prune family.

Mirabelle—See page 3.

Reine Claude—Bavay's Green Gage. Large, oval, greenish; good. A great favorite wherever known. September. A spreading, rather slow growing tree.

Richland—Medium to large, oblong, reddish purple or coppery, free stone; flesh yellow, sweet; valuable for market. Last of August.

Shipper's Pride—Very large, dark purple, and very showy. Flesh juicy, sweet and good; valuable for market. Last of August.

Shropshire Damson—Medium size, dark purple; very good. Fruit is borne in clusters. Very fine for cooking and preserving. October.

Spanish King—Large, roundish-oblong, blue; flesh yellow, juicy, sweet and very good. One of the best of this class of plums for all purposes. Hardy and vigorous. September.

Tatge—Large, roundish-oblong, dark blue; flesh yellow, sweet and good. Similar to Spanish King. Makes an excellent prune. September.

Ungarnished Prune—Large, dark blue; freestone; very good when well ripened. Not an early bearer, but very productive. A variety which has proven very profitable for us.

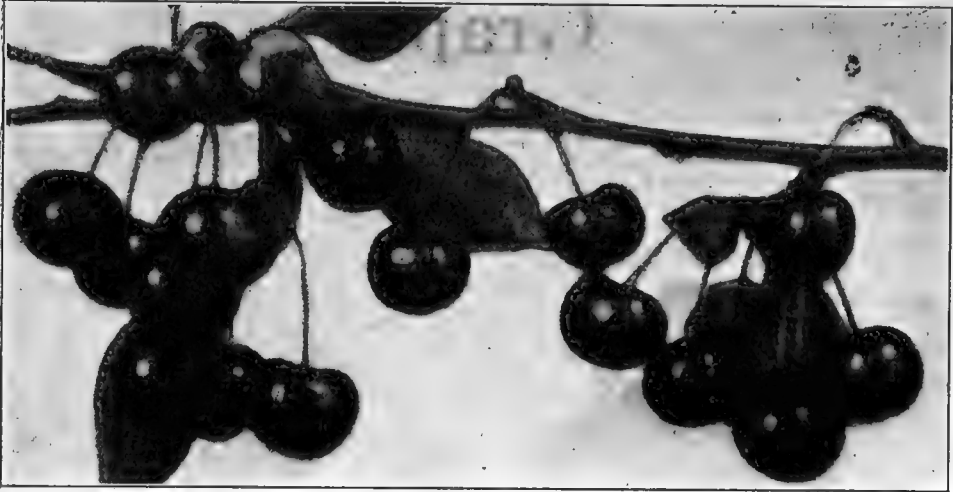
HYBRID GROUP

Our list of Hybrids is rapidly increasing. See novelties on page 3 for other varieties.

Compass (Miner Plum and Sand Cherry)—Small, purplish-red, very good for cooking. Tree wonderfully productive; thrifty, healthy and hardy far into the Northwest.

Gold—(Robinson and Botan)—Large to very large, golden yellow with some red, juicy, sweet and good. Very productive, fairly hardy and vigorous.

**When You Buy from Us You Get the Best
Tested Fruit for Profit : : : : : : : : :**



Cherries

Cherry trees thrive on almost any well drained soil, but not where water stands about the roots. Our stock of cherry trees for this year is by far the largest and finest we have ever grown. We know they will give far better results than any shipped in stock. The following is a list of the best out of many varieties.

	Each	10	50	100
First-class, 2 years, 5 to 6 feet.....	\$.50	\$4.50	\$20.00	\$37.50
First-class, 2 years, 4 to 5 feet.....	.40	3.50	15.00	27.50
First-class, 1 year, 3 to 4 feet.....	.30	3.00	10.00	18.00
First-class, 1 year, 2 to 3 feet.....	.20	2.00	8.00	15.00

Five at 10, 25 at 50, and 50 at 100 rates; the above rates only to apply when the quantity taken is of one variety; orders for 25 or 50 trees containing a long list of varieties cannot be filled at 50 and 100 rates.

Baldwin—Very large, dark red, round, good. Tree vigorous and healthy; very resistant to leaf diseases. A promising new variety.

Dyehouse—Large, round, red and good. Slightly earlier than Richmond and much like it.

English Morello—Almost identical with Wragg. One of the best of this class of cherries.

Homer—See page 2.

Montmorency—Large to very large, round, red; ten days later than Richmond. Flesh firm, meaty, much superior to Richmond in quality. Tree very hardy and productive. One of the most profitable varieties to plant.

Ostheim—Large, dark red, almost black; tender, juicy, mild, almost sweet; very good. A hardy Russian variety; the best of the Morellos.

Richmond—Early Richmond. The standard early variety. Red, round, juicy. First of June. Valuable for market or home use. Tree hardy, and a regular bearer.

Timme—See page 2

Wragg—Large, handsome, dark red, good. Early July. Should not be picked until dark colored. Hardy and productive.

SWEET VARIETIES

Yellow Glass—Double Glass. Large, roundish, heart-shaped, bright yellow, juicy, very sweet and good; one never tires of eating them. Tree very vigorous; certainly the hardiest of sweet cherries. Imported by Professor Budd from Silesia in 1882. 1-year buds, 5 to 6 feet, 50c; 4 to 5 feet, 40c; 3 to 4 feet, 30c.

Grapes

There is not a yard so small but there is room for from one to a dozen grape vines. They may be trained on a building, arbor, or fences if necessary, and they will richly reward the planter with an abundance of the most healthful fruit. The great quantity of grapes used for making grape juice makes it almost impossible to have an overproduction of this fruit now. Any well drained land will produce grapes.

Plant them in rows, 6 to 8 feet or more apart. Dig holes so as not to have to fold the roots in planting, cut back the top to two buds, prune off most of the new growth each fall, lay down the vines and cover with dirt for winter protection.

Agawam—Red; large to very large, aromatic, sweet and good. Very vigorous and productive. Needs winter protection. 10c each; \$1.00 per dozen; \$8.00 per 100.

Brighton—Red; large; sweet and delicious. Should be planted with other varieties for pollination. Requires protection. 10c each; \$1.00 per dozen; \$8.00 per 100.

Campbell's Early—Black; very sweet, juicy and good. This variety does not seem to be adapted to this part of the country. In our vineyard the vines have not paid for themselves and do not promise to do so. 25c each; \$2.75 per dozen.

Concord—Black. The well known standard variety for all purposes. Size medium; succeeds wherever grapes are known. 10c each; 90c per dozen; \$7.00 per 100.

Delaware—Light red; bunch and berry small and compact; very sweet and highly flavored. Best in quality of all American grapes. Needs winter protection for good results. 10c each; \$1.00 per dozen.

Diamond—Moore's Diamond. Large, round, greenish white, sweet, juicy and very good. Healthy, vigorous, prolific and very hardy. One of the best of the white varieties. 10c each; \$1.00 per dozen; \$8.00 per 100.

Moore's—Moore's Early—Black; berries large to very large, round, very sweet and good. Two to three weeks earlier than Concord.

Concord. This variety grows in favor every year; one of the most profitable for market and should be in every garden. 15c each; \$1.50 per dozen; \$10.00 per 100.

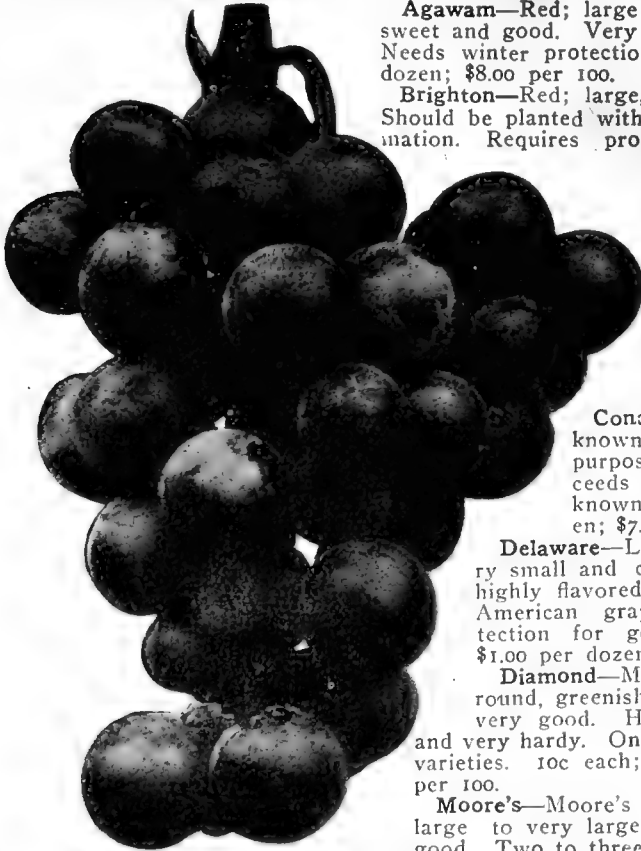
Niagara—White; large to very large, melting, sweet, with a peculiar, agreeable flavor. Hardy and productive. The best and most satisfactory of white grapes for all purposes. 10c each; \$1.00 per dozen; \$8.00 per 100.

Pocklington—White; very large and showy, sweet and good. Vigorous and hardy. Ripens with Concord. 10c each; \$1.00 per dozen; \$8.00 per 100.

Woodruff Red—Woodruff. Large to very large, very sweet and good. A little earlier than Concord. Very vigorous, hardy and healthy. 25c each; \$1.00 per dozen; \$8.00 per 100.

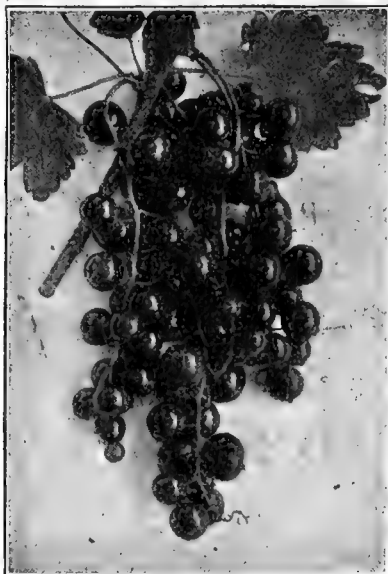
Worden—Black; berry and bunch large and compact. Sweeter, better, and a little earlier than Concord. A strong grower, heavy yielder, healthy and very hardy. The best and most satisfactory variety to plant for home use or market. 15c each; \$1.50 per dozen; \$10.00 per 100.

Wyoming Red—Light red; bunch and berry small, tender, sweet and good. Vigorous, hardy, and the earliest red grape. 10c each; \$1.00 per dozen; \$8.00 per 100.



Currants

Currants do best on good, rich, moist soil and should be well manured. Plant 4 to 6 feet apart, and prune closely at the time of setting. Keep the old wood pruned out every year. The currant worm can be destroyed by a timely use of any of the arsenicals, or by white hellebore, if the fruit is too near maturity to use poisons. This fruit has been in great demand the last few years and without doubt is one of the most profitable fruits of all to grow.



Perfection

very best currants of all. 15c each; \$1.50 per dozen; \$10.00 per 100.

Cherry—Berries very large, bright red, mild and good. An early variety, well adapted for market. 15c each; \$1.50 per dozen; \$10.00 per 100.

Fay's—Fay's Prolific. Berries very large, bright red, mild and good. Another good market variety. 15c each; \$1.50 per dozen; \$10.00 per 100.

London Market—Berries large, bright red, firm and good. Clusters compact and very long. Vigorous and hardy; very healthy. One of the best for market. 15c each; \$1.50 per dozen; \$10.00 per 100.

Perfection—A cross between Fay's and White Grape, retaining the valuable characteristics of both; beautiful bright red, as large as Fay's; holding its size to the end of the bunch. Easy to pick, very prolific, mild and of very good quality. A valuable new variety. 2-year No. 1, 25c each; \$2.75 per dozen.

Pomona—Berries large, bright red, very mild and good. One of the most productive varieties known. 15c each; \$1.50 per dozen; \$10.00 per 100.

Victoria—A standard variety; very large, bright red, mild and good. Very productive. A splendid variety. 10c each; \$1.00 per dozen; \$8.00 per 100.

White Grape—Berries very large, white, sweet and very mild; excellent. One of the

Gooseberries

All we have said about currants is also applicable to gooseberries. In addition to the arsenical, they should be sprayed with a fungicide to prevent mildew in unfavorable seasons.

Champion—Large, roundish, greenish yellow, very good. One of the most productive of all. Entirely free from mildew. We consider this our leading variety; the very best for all purposes. 2-year No. 1, 20c each; \$2.00 per dozen; \$15.00 per 100.

Downing—Large to very large, round, green, juicy and good. A very satisfactory variety. 2-year No. 1, 15c each; \$1.50 per dozen; \$12.00 per 100.

Houghton—Medium, roundish, pale red; very good. Enormously productive. An old standby. It has the genuine gooseberry flavor. 2-year No. 1, 10c each; \$1.00 per dozen; \$8.00 per 100.





Raspberries

A common plan for laying out a raspberry plantation is to plant in rows 6 to 8 feet apart and from 2 to 3 feet or more in the row; but recent experience has convinced us that there is a better plan. It is to plant in hedge rows, 8 to 10 feet apart and 12 to 18 inches apart in a row. The dense hedge row smothers out all weeds and renders cultivation easier and quicker. The space between the rows should be frequently and well cultivated.

It is a well known fact that raspberries are always finer, larger and sweeter if grown partially in the shade; the hedge row furnishes this condition. It also protects the young canes from being twisted and broken by the wind. The result is more canes, finer fruit, and easier and quicker cultivation. Give this plan a trial and you will soon be convinced of its advantages over the old way.

BLACK VARIETIES

Conrath—A large, hardy variety; ripening between Older and Gregg. Productive, and a good shipper. 5c each; 50c per dozen; \$2.50 per 100; \$15.00 per 1,000.

Cumberland—Very large, firm, sweet and very good; splendid for any purpose. Very vigorous, healthy and hardy. A little earlier than Gregg; one of the best varieties. 5c each; 50c per dozen; \$3.00 per 100; \$25.00 per 1,000.

Gregg—Very large and productive, sweet and good, very firm. One of the best shippers. Eight to ten days later than Older. Same price as Conrath.

Kansas—Large, early, moderately firm, very good. Enormously productive; withstands drought splendidly. Many give it first place for home use or market. Same price as Conrath.

Older—Large, roundish, very early, rich and good. A great drought resister. Ripens perfectly; seeds small. Originated in Iowa, and is one of the hardiest on the list; a fine variety for home use or local market; not firm enough for long shipments. Same price as Conrath.

Plum Farmer—Large to very large, sweet and juicy, but firm; early and very productive. Splendid for every purpose; the most vigorous, healthy and hardy of any variety we have tested. A new and promising variety. Same price as Cumberland.

PURPLE CAP VARIETIES

Cardinal—Large, dark red, firm, with an agreeable, rich flavor which develops to perfection in cooking. There is no better variety for canning or jam; it ripens rather late. The canes are very strong and vigorous, with few thorns, and very free from diseases. One of the hardiest and most productive of all raspberries. Transplants, 1-year old, 10c each; 75c per dozen; \$5.00 per 100. Tip plants, 50c per dozen; \$3.50 per 100.

Haymaker—A rival of the cardinal; large, dark red, firm and excellent. Very vigorous and hardy. Claimed to be the most profitable raspberry on earth. 5c each; 50c per dozen; \$3.50 per 100.

RED VARIETIES

These multiply by suckers and sprouts all over the ground near them, so they must be confined to narrow rows by running the plow through frequently during the growing season. With proper care and cultivation they excel all other raspberries in quality, and equal them in productiveness.

Colorado Ironclad—Medium to large, bright red, sweet and delicious, but too soft for market use. Canes are very healthy, vigorous and hardy. A splendid variety for home use. Ripens with King. 5c each; 50c per dozen; \$2.50 per 100.

King—Generally considered the best early red raspberry. Berries large, bright red, moderately firm. It ripens with the earliest black variety. Canes are hardy, productive and vigorous. 5c each; 50c per dozen; \$3.00 per 100.

Loudon—Very large, beautiful dark crimson, splendid quality and very productive. It endures our coldest winters without protection. One of the very best of the red raspberries. Same price as King.

Juneberries

Improved Dwarf—This is one of our most wholesome fruits. A delicious fruit to eat out of hand, or for pies and canning. Perfectly hardy and never fails to bear. Fruit resembles the blueberry and is borne in attractive clusters. Should be in every garden. 20c each; \$1.80 per dozen.

Blackberries

Practically the same general directions apply as for the raspberries. Our plants are root-cutting plants, and are worth tenfold more to the fruit grower than sucker plants from old, exhausted patches; be sure you get the genuine nursery propagated plants and you will succeed. The blackberry is a stronger bush than the raspberry and should be planted in rows 8 feet apart, and from 2 to 3 feet apart in a row; otherwise, its culture is the same as for the raspberries.

Improved Snyder—For some time we have been working up a stock of a superior strain of this variety which is in every way superior to the common Snyder. Several years' experience with this new strain leads us to believe them to be hardier, more vigorous, and to produce more and better fruit than the common Snyder. This year, for the first time, we have a sufficient stock to offer them exclusively.

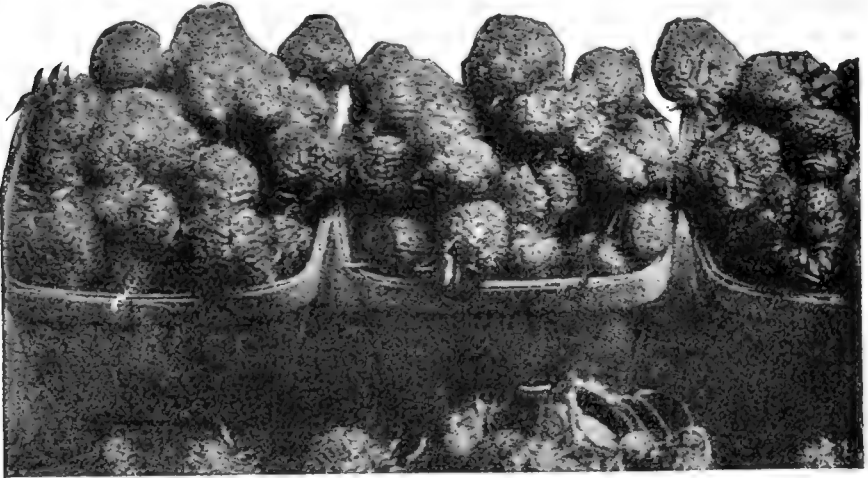
The canes are extremely hardy and very productive, the fruit is medium to large in size, contains no hard, sour core, and is sweet and juicy, but firm. We have shipped them over 500 miles in good condition. 5c each; 50c per dozen; \$3.00 per 100. \$20.00 per 1,000.

Dewberries

Great care and peculiar treatment are necessary for successful dewberry growing. They do best in high, well-drained clay soil, but can be grown with reasonable success on almost any good soil. Plant in rows 7 feet apart and 4 to 5 feet in the row. Begin pruning by pinching out the ends of the canes as soon as they reach a length of three feet, and of the laterals when they reach two feet. In the fall prune away all but six of the best canes to each hill and these canes to a length of 4 to 5 feet. Press them closely to the ground lengthwise of the row

and cover with three inches of forest leaves or by throwing a light furrow upon them. Uncover in spring when all danger of freezing is past, and tie to a wire trellis.

Lucretia—Claimed to be the best of the blackberry family, and as productive as any. The berries are far larger and incomparably better than any blackberry, and of unequalled excellence; soft, sweet and luscious throughout; of brightest, glossy black color. The Lucretia dewberry has received the indorsement and praise from the best horticulturists in the country. Its eminent success in all soils, from Maine to California, from Minnesota to Florida, is something phenomenal in small fruit culture. 10c each; 75c per dozen; \$3.00 per 100; \$20.00 per 1,000.



Senator Dunlap

Strawberries

No one owning a home, or for that matter, one who is renting for a term of years, can put a little money to a better use than to buy three or four hundred plants of the standard variety of strawberries. If given the proper care, a good sized family can hardly use all the fruit they will produce the next season after planting. Nothing will bring quicker and greater satisfaction to the planter, more keen delight to his children, or lessen the burdens of his good wife in providing for the table than a well kept strawberry bed.

The best time to plant strawberries is in early spring and on fertile new soil, or old land brought to a high state of cultivation. If horses are to be used in cultivation, plant in rows 3 1-2 to 4 feet apart, and 1 to 3 feet in the row, but for hand culture, 1 to 2 feet will answer.

Here is the plan we have found the most profitable and which always gives large, fine fruit. Set plants as early in spring as the season will permit, and pinch off all the blossom stalks which appear the first season; this throws all the strength into a good stand of new plants for the next year. About November 1st cover with rye or wheat straw just deep enough so they can come up through it; if too much is on, remove a part of it when spring comes and leave the rest of it to keep the berries off the soil. Now dig enough of these new plants to start a new bed, which treat as before, and as soon as the crop is off, plow the old bed under. Keep this up year after year and you will have the finest fruit that can be produced.

Our plants are strictly nursery grown and will give far greater satisfaction than can possibly be obtained with plants taken from an old fruiting bed. Such plants are not worth the digging. Out of a long list of more than thirty varieties which

we used to catalog we now retain but one, the **Senator Dunlap**—a product of the Mississippi Valley and especially adapted to it. Probably no other variety of fruit ever introduced here has given as universal satisfaction as this one. Every claim made for it has been more than met. Some of its strong points are:

(1) A clean, healthy and vigorous plant, capable of resisting intense cold and severe drought, and making an abundance of good and strong plants when almost every other variety fails.

(2) A long blooming season, with an abundance of pollen, making it one of the best self-fertilizers, and also the best for fertilizing pistillate varieties.

(3) A long fruiting season—coming in with the medium early and holding out when most others are gone—developing and ripening all of its berries.

(4) Uniformly large, well-shaped, dark bright red, glossy berries with a very large bright green calyx. Berries of the finest quality and flavor.

(5) A good keeper. Its long keeping qualities and attractive appearance make it more salable than most others.

(6) A good canner, retaining its bright red color in the cans.

We obtained our breeding stock direct from the introducer. Our plants are pure, no other variety being grown upon our grounds, and the best that can be produced. 25c per dozen; \$1.00 per 100; \$2.00 per 250; \$3.50 per 500; \$6.00 per 1,000.

Asparagus

Asparagus is one of the earliest and finest of spring vegetables; so easy of culture, profitable and wholesome, that every family garden should have a very liberal supply.

Choose well-drained fertile soil, work it up fine and deep, and place the plants in rows 4 feet apart and 8 inches apart in the row; spread out the roots in a trench made deep enough to permit their crowns to be covered with three or four inches of mellow soil; give the rows a liberal dressing of well rotted manure at least once each year, and fifteen pounds of salt per rod length early every spring. Do not cutting the first season.

Any or all of the following described varieties will give entire satisfaction if managed as above. Prices, 2 year roots, 50c per dozen, 75c per 25, \$1.25 per 50, \$2.00 per 100.

Columbian Mammoth White—A distinct variety of strong, vigorous growth, producing very large white shoots that in favorable weather remain white until two or three inches high, or as long as fit for use. Market gardeners and those growing for canning will find this a very profitable variety.

Palmetto—A very early variety extensively grown for early markets; even, regular size, of excellent quality, and considered by many as the best variety in cultivation.

Conover's Colossal—A mammoth variety of vigorous growth; tender and excellent quality; sends up fifteen or twenty very large sprouts each year. Color deep green, and crown very close.

Barr's Mammoth—A variety that comes highly praised. Said to be nearly double the size, and much more productive, than Conover's Colossal.



Rhubarb or Pie Plant

Linnaeus—Large, early, tender and fine. 10c each; \$1.00 per dozen; \$6.00 per 100.

Victoria—A large variety of excellent quality. Same price as Linnaeus.

Evergreens

The following are the best kinds of Evergreens to plant in this state for shelter belts and ornaments. There is nothing which will add more to the value of a farm or more comfort to the occupants than a well arranged plantation of Evergreens. Their shade is cool and refreshing in summer, and a belt of them is the greatest barrier against winter blasts that can be provided. Our Evergreens have been two or three times transplanted; are heavily rooted, stocky and thrifty plants. Failure with Evergreens is usually due to careless handling, planting or cultivation. Any soil that will grow corn or garden vegetables is suitable for Evergreens.

Directions for Planting and Caring for Evergreens.

Handling.—Evergreen roots must always be very carefully protected from the sun and dry air. If they ever become thoroughly dried, the tree, unlike other trees, can never be revived. The roots should be dipped in a paste of mud before placing in the hole.

Planting.—Dig holes large, so that the roots are not crowded, using the top soil in the bottom of the hole and arranging the roots carefully, working the fine soil around and among them with your hand and shaking the tree occasionally as the filling is going on, to settle the soil. When the roots are well covered, hold the tree upright, treading the soil very firmly around and over them with the feet. When this is done you have a basin or a hole around the tree that will hold half a pail of water; fill this basin with water and in half an hour or so, after the water has soaked away, fill the basin with good mellow soil without much tramping.

Watering.—The month of August is the critical period for newly planted Evergreens, for during this month, unlike deciduous trees, Evergreens make a new root growth, which requires moisture. If rains have not been plentiful the trees should be watered. Make a basin around each tree by pulling away the soil with a hoe and water as above. If the season is very hot and dry, this watering should be commenced the latter part of July and continued through the period of drought.

Cultivation.—Thorough cultivation is very essential to the growth of vegetation of all kinds and nothing appreciates it more than Evergreens. They should be cultivated at least once a week up to August 1st, when a good mulching of partially rotted hay or straw may be given. Care should be taken not to use green manure as it is detrimental.

Seedlings.—The largest sizes of seedlings may be planted and treated as above; smaller sizes should be planted in well prepared beds with a dibble, and shaded the first season.

Windbreaks.—Plant Spruces, Firs and Arborvitae in single rows, 4 to 6 feet apart; double rows, 10 feet apart. Scotch and Austrian Pines; single row, 8 feet, double row, 10 to 12 feet. White Pine; single row, 8 feet, double row, 12 to 14 feet.

Hedges.—Arborvitae, 10 to 18 inches, 15 inches apart; 18 to 24 inches, 18 inches apart; 2 feet and larger, 2 feet apart. Spruce and Cedar, 2 to 4 feet apart, according to size.

Descriptions.

White Pine (Pinus strobus).—One of the best, largest and longest lived Evergreens. The foliage is a warm light green, often with a bluish tinge. The leaves are in fives, three or four inches long, very soft and delicately fragrant. After getting well started it is the most rapid grower of all Evergreens and adapts itself to a great variety of soils. It is one of the best for shelter, and the best large growing Evergreen to plant near buildings or along streets to be trimmed up for shade; few trees unite so many elements of beauty and utility as our native White Pine. 3 to 4 feet, 50c each, \$4.50 per 10, \$40.00 per 100; 2 to 3 feet, 40c each, \$3.50 per 10, \$30.00 per 100; 18 to 24 inches, 30c each, \$2.50 per 10, \$20.00 per 100.

Bull Pine or Western Yellow Pine (Pinus ponderosa).—A heavy wooded pine and a rapid grower, forming a tree of great size. Its very long coarse foliage is a beautiful light green and stands out squarely from the limbs, thus making it very valuable for landscape or windbreaks. This tree requires the best of care in transplanting, but when once started, thrives in almost any location, either wet or very dry. Undoubtedly this is the best pine for Western Iowa and beyond. 18 to 24

inches, 40c each, \$3.00 per 10, \$25.00 per 100; 12 to 18 inches, 25c each, \$2.00 per 10, \$17.50 per 100.

Scotch Pine (*Pinus sylvestris*).—A rapid growing, hardy variety with stout, erect shoots and green foliage. Good for shelter or landscape planting. It is one of the hardiest Evergreens, and adapts itself rapidly to the trying climate of the North and Northwest. It also thrives in the Southwest or West. It is rather short lived and cannot be depended upon for more than twenty-five or thirty years. 2 to 3 feet, 40c each, \$3.50 per 10, \$30.00 per 100; 18 to 24 inches, 30c each, \$2.50 per 10, \$20.00 per 100.

Mugho or Dwarf Mountain Pine (*Pinus Mugho*).—This unique Alpine species forms a very compact, dark green, dome-shaped bush, broader than high. It is very valuable for planting on lawns, terrace banks, hillsides, rockeries, etc. 12 to 18 inches broad, 50c each, 18 to 24 inches, 60c each.

Balsam Fir (*Abies balsamea*).—A well known popular tree; very handsome while young, assuming an upright, conical form. Leaves dark green above, silvery beneath; retains its color throughout the winter; grows rapidly, and is desirable in every way, but should be planted where there is plenty of moisture. 5 to 6 feet, \$1.00 each; 4 to 5 feet, 75c each; 3 to 4 feet, 50c each; 2 to 3 feet, 40c each; 18 to 24 inches, 30c each.

Concolor Fir—White or Silver Fir (*Abies concolor*).—This Evergreen is of the rarest beauty; its beautiful silvery green foliage is the same the year round. It is a good grower and makes a large tree. It does best where somewhat protected from severe Southwest or West winds and sun. 3 to 4 feet, \$3.00 each; 2 to 3 feet, \$2.50 each; 12 to 18 inches, \$1.00.

American White Spruce (*Picea alba*).—A pyramidal tree of dense growth, with light silvery green foliage. A longer lived, more compact, and in all respects a better tree than Norway Spruce. One of the best for general use, and very fine for lawn planting. 2 to 3 feet, 50c each, \$4.50 for 10; 18 to 24 inches, 40c each, \$3.00 for 10; 12 to 18 inches, 30c each, \$2.50 for 10.

Black Hills Spruce.—A strain of the White Spruce; native to the Black Hills. Slower growing, more dense, and better colored than White Spruce. Some specimens rival Colorado Blue Spruce in color. One of the hardiest, and easiest to transplant of all the Spruces. 4 feet, \$1.50 each; 3 1-2 feet, \$1.25 each; 3 feet, \$1.00 each, \$9.00 for 10; 2 1-2 feet, 85c each, \$7.50 for 10; 2 feet, 65c each, \$5.50 for 10; 18 to 24 inches, 50c each, \$4.50 for 10, \$40 per 100; 12 to 18 inches, 40c each, \$3.50 for 10, \$30 per 100; 8 to 12 inches, 30c each, \$2.50 for 10, \$20 per 100.

Colorado Blue Spruce or Silver Spruce (*Picea pungens*).—This Evergreen grows over a greater range of territory than any other member of the Evergreen family. Its home is in the clefts and recesses of the Rocky Mountains, where it grows on barren soils, exposed to the roughest weather. It heads the family of Spruces for hardiness and longevity and is the most ornamental of the Evergreen family. Seedlings vary from dark green to silvery blue; no description can do it justice; it has to be seen to be appreciated. The grafted specimens are the purest blue it is possible to produce. Selected blue specimens, \$1.00 per ft.; green or bluish green, 60c per ft. Sizes, 1 to 6 feet.

Koster's Grafted Blue Spruce, \$1.50 per ft. Sizes, 1 to 4 feet.

Norway Spruce (*Abies excelsa*).—A very popular variety from Europe. It has been more extensively planted in this country than any other Evergreen. It is a rapid grower, easy to transplant, and adapted to a great variety of soils, but rather short lived. 2 to 3 feet, 40c each, \$3.00 for 10, \$25.00 per 100; 18 to 24 inches, 30c each, \$2.00 for 10, \$17.50 per 100; 12 to 18 inches, 20c each, \$1.50 for 10, \$12.50 per 100.

Virginia Juniper (Red Cedar).—A well known American tree which varies much in habit and color of foliage. It succeeds well on the Western plains and dry, sandy soils where other Evergreens fail. Very desirable for ornamental purposes, windbreaks and hedges. 18 to 24 inches, 40c each, \$3.50 per 10; 12 to 18 inches, 25c each, \$2.50 per 10, \$20.00 per 100.

American Arborvitae (*Thuja Occidentalis*).—One of the finest Evergreens for ornamental screens or hedges. It grows rapidly, soon forming the most beautiful hedge. It bears trimming to any extent desired, and plants which have been rendered compact by clipping retain the fresh green of their leaves in winter better than those with more open foliage. For an ornamental hedge, plants may be set 15 to 24 inches apart; for a screen to grow tall, plant about 2 to 3 feet apart. 2 to 3 feet, 40c each, \$3.00 per 10, \$25.00 per 100; 18 to 24 inches, 30c each, \$2.00 per 10, \$17.50 per 100; 12 to 18 inches, 20c each, \$1.75 per 10, \$12.50 per 100.

Siberian Arborvitae.—One of the hardiest and most compact-growing Ever-

greens. It grows conical in shape and is very fine for specimens, groups or shearing. Foliage is a deep, rich green. 18 to 24 inches, 50c each, \$4.00 for 10; 12 to 18 inches, 35c each, \$3.00 for 10.

George Peabody Arborvitae.—One of the most beautiful members of the Arborvitae group. A vigorous, compact grower with beautiful golden green foliage. Hardy, and valuable to contrast with other colors. 18 to 24 inches, 50c each; 12 to 18 inches, 35c each.

Pyramidal Arborvitae.—A very compact, hardy Arborvitae which forms an elegant and very slender shaft of dark green. Superior to, and much hardier than Irish Juniper. Much planted in cemeteries and is one of the most satisfactory of the ornamental Evergreens, with fine, bright green foliage, silvery underneath. Hardy, but requires moisture. 2 to 3 feet, \$1.25 each; 18 to 24 inches, 75c each; 12 to 18 inches, 60c each, \$5.00 for 10.

Shade and Ornamental Trees

Carolina Poplar.—A pyramidal robust grower with glossy, serrated, bright green leaves; the most rapid grower of all trees. Valuable for quick results. Does not produce seeds or sprouts. Smoke and soot do not injure it. Perfectly hardy, and fine for shade. 10 to 12 feet, 50c each; 8 to 10 feet, 35c each, \$3.50 per dozen; 6 to 8 feet, 25c each, \$2.50 per dozen.

Sugar or Hard Maple.—One of the most beautiful shade or ornamental trees; when given plenty of room, it forms a fine, round, dense head. In autumn its foliage presents varying and very beautiful colors as cold weather approaches, often becoming gorgeous. 10 to 12 feet, \$1.00 each; 8 to 10 feet, 75c each; 7 to 8 feet, 50c each; 6 to 7 feet, 40c each; 5 to 6 feet, 35c each.

Norway Maple.—A handsome tree of rapid growth, forming a wide, round head of spreading branches, with broad, dark green leaves. Strong, compact and vigorous. One of the very best for street, park or lawn. 10 to 12 feet, \$1.25 each; 8 to 10 feet, \$1.00 each, \$8 for 10; 5 to 6 feet, 60c each, \$5 for 10.

Reitenbach's Norway Maple.—Beautiful and striking because of its rich changing foliage, which is soft green in the spring, purple in midsummer and purplish scarlet in autumn. Vigorous, pyramidal, and valuable for its coloring. 5 to 7 feet, \$1.00 each.

Purple Norway Maple.—The gleaming red and purple tints of its young leaves and shoots contrast brightly with the delicate green of spring. At maturity they are purplish green, in autumn, tints and shades of gold. 6 to 8 feet, \$1.50; 5 to 6 feet, \$1.25 each; 4 to 5 feet, \$1.00 each.

Catalpa Speciosa—Hardy Catalpa.—A very rapid growing, hardy tree, with large tropical appearing foliage, and large conspicuous bunches of blossoms in spring, followed by long bean-like pods. Desirable for shade and street trees. 8 to 10 feet, 60c each; 7 to 8 feet, 40c each; 6 to 7 feet, 30c each; 5 to 6 feet, 25c each; 4 to 5 feet, 20c each.

Catalpa Bungei (Chinese Catalpa).—A curious dwarf which grows only 8 to 10 feet high and twice as broad. Ours are top-grafted on the Hardy Catalpa. It is almost as effective for lawns and terrace decorations as the more expensive Bay trees. Grafted fine heads, 6 to 8 feet, 1-year-old heads, \$1.00 each; 3-year-heads, \$1.50 each.

Magnolia Acuminata (Cucumber Tree).—A hardy, pyramidal tree which bears large creamy yellow flowers in midsummer. The fruit cones are large and cucumber-shaped, turning red in autumn. 3 to 4 feet, 60c each.

European White Birch.—A rapid-growing shade tree of beautiful form. Very desirable for street or lawn planting. By the time the tree is five or six years old the



Carolina Poplar

bark on the trunk and larger branches becomes a beautiful silvery white color. Entirely hardy in all parts of the Northwest. Makes elegant shade. 12 to 14 feet, \$1.00 each; 10 to 12 feet, 60c each; 8 to 10 feet, 50c each; 7 to 8 feet, 40c each; 5 to 7 feet, 35c each.

Linden (Basswood)—A very graceful and beautiful tree for planting on the lawn. Its leaves are moved with the least breath of air and show the white surface underneath. Its blossoms are delightfully fragrant, and the busy bee delights in their sweetness. 10 to 12 feet, \$1.00 each; 8 to 10 feet, 75c each; 7 to 8 feet, 50c each; 6 to 7 feet, 40c each; 5 to 6 feet, 30c each; 4 to 5 feet, 25c each; 3 to 4 feet, 20c each.

White-Leaved Linden.—The leaves are green above and silvery beneath. The foliage is especially pretty when tossed about by the wind. 6 to 8 feet, 75c each.

Russian Olive.—The only real hardy, deciduous tree with real silvery foliage which thrives here. It is very valuable for landscape work to contrast with the green of other trees. Its blossoms are extremely fragrant; a small sprig will perfume an entire house. It attains only medium size, and bears heavy pruning remarkably well. 6 to 8 feet, 40c each; 5 to 6 feet, 30c each; 4 to 5 feet, 25c each.

Horse Chestnut.—A very popular tree for street or lawn planting. Hardy. Covered in early summer with magnificent spikes of flowers. 5 to 6 feet, 50c each.

Pine Oak.—This is considered the most beautiful of all the oaks, and is certainly the most popular for street or park planting. As the tree grows the branches droop until the lower ones touch the ground, giving it a peculiar ovate outline. The leaves are deep green, glossy and finely divided, changing to orange and scarlet in the fall. The avenues of Pine Oaks in Fairmount Park, Philadelphia, are greatly admired. 8 to 10 feet, \$1.25 each; 7 to 8 feet, \$1.00 each, \$10 per dozen; 6 to 7 feet, 75c each, \$7.50 per dozen; 5 to 6 feet, 50c each, \$5.00 per dozen.



Chestnut Oak.—Native to dry situations; of tall and beautiful growth. The leaves are shaped like chestnut leaves. 4 to 5 feet, 75c each.

Bechtel's Double-Flowering Crab.—A wild crab which produces masses of double rose-like flowers of a delicate pink color, and most delightful fragrance. Blooms while quite young and is as hardy as our common wild crab. 3 to 4 feet, 75c each, 2 to 3 feet, 50c each.

Mountain Ash, Oak-Leaved.—A handsome and hardy variety, with deeply lobed leaves; distinct and fine; covered in autumn with bright scarlet berries. 5 to 6 feet, 35c each.

Sycamore, American (Plantanus occidentalis).—A very rapid growing, spreading, native tree; always clean and healthy. One of the most desirable among our native trees for shade and street planting. 6 to 8 feet, first-class, 50c each; 5 to 6 feet, 40c each; 4 to 5 feet, 30c each.

Ginko or Maidenhair Tree.—An ornamental tree, native of Japan. A very handsome, strange and striking tree, combining some of the characteristics of the Evergreens and deciduous trees. It is of a medium height, fairly rapid in growth, and hardy. Its foliage resembles the Maidenhair fern, hence its name. A rare and interesting tree. 5 to 6 feet, 60c each; 6 to 8 feet, 75c each.

White or American Elm.—One of the best shade or street trees. 3 to 4 feet, \$1.50 per dozen; 4 to 5 feet, 20c each, \$2.00 per dozen; 5 to 6 feet, 25c each, \$2.50 per dozen; 6 to 7 feet, 30c each, \$3.00 per doz.; 7 to 8 feet, 40c each, \$4.00 per doz.; to 10 feet, 50c each.

Soft Maple.—5 to 6 feet, 25c each, \$2.50 per doz.; 6 to 8 feet, 30c each, \$3.00 per doz.; 8 to 10 feet, 35c each.

Laurel Leaved Willow—A hardy, broad-leaved willow, with a symmetrical round top; leaves large, broad, very dark glossy green and of striking appearance. The most ornamental of the willows. Very hardy and thrifty. 5 to 6 feet, 40c each; 4 to 5 feet, 30c each; 3 to 4 feet, 25c each.

American Ash—One of the most reliable of our native trees. It resists drought remarkably well and is not subject to injury by insects. A very thrifty grower, and worthy of more general planting. 4 to 5 feet, 30c each; \$2.50 per 10; 5 to 6 feet, 40c each, \$3.50 per 10; 6 to 8 feet, 50c each, \$4.50 per 10.

Black Walnut—One of the most rapid growing of our native nut trees. A beautiful spreading tree, valuable for shade, nuts and lumber. Our transplanted trees are easy to get to grow. 4 to 5 feet, 40c each, \$3.50 per 10; 5 to 6 feet, 50c each, \$4.50 per 10; 6 to 8 feet, 70c each, \$6.50 per 10.

Purple Leaved Plum—See page 3.

Weeping Trees

Birch, Cut-Leaved Weeping—Unquestionably one of the most popular of all weeping or pendulous trees. Its tall, slender, yet vigorous growth, graceful drooping branches, white bark and delicate cut foliage present a combination of attractive characteristics rarely met with in a single tree. Entirely hardy; perfect, full-grown specimens are seen in Minnesota, where the mercury drops to 30 or 40 degrees below zero. 10 to 12 feet, \$1.50 each; 8 to 10 feet, \$1.25 each; 7 to 8 feet, \$1.00 each; 4 to 5 feet, 60c each; 3 to 4 feet, 50c each.

Camperdown Weeping Elm—This forms one of the most picturesque drooping trees. It is of rank growth, the shoots often making a zigzag growth outward and downward of several feet in a single season. The leaves are large, dark green and glossy, and cover the tree. 2-year heads, \$1.50 each; 1-year heads, \$1.25 each.

Teas' Weeping Mulberry—One of the hardiest and most vigorous of the weeping trees. It forms a perfect umbrella-shaped head, with long weeping branches which reach to the ground. Produces fruit the same as Russian Mulberry. 1-year heads, \$1.50 each; 2-year heads, \$2.00 each.

Ornamental Shrubs

LILACS

Nothing is more beautiful than a clump, hedge or screen of these, and they should go into every border. In many country dooryards the neglected lilacs continue to bloom with a fragrance and beauty that is unsurpassed by any other shrub.

Lilac—Common Purple. 4 to 5 feet, 25c each, \$2.00 per dozen, \$15.00 per 100; 3 to 4 feet, 20c each, \$1.50 per dozen, \$10.00 per 100.

Budded Varieties

Alphonse Lavalle—Large panicles of double violet-blue flowers. 4 to 5 feet, 60 cents each.

Belle De Nancy—Double white flowers that are tinged with purple. 4 to 5 feet, 60 cents each.

Frau Dammann—One of the best; a free bloomer, with medium sized white flowers, borne in large panicles. 4 to 5 feet, 60 cents each.

Mme. Abel Chatenay—Pure white flowers in compact panicles. 4 to 5 feet, 60 cents each.

President Grevy—The individual flowers are very large and double; a beautiful blue in color. The panicles are larger than those of any other variety. 4 to 5 feet, 60 cents each.

Ludwig Spaeth—The single flowers are very dark purple, and distinct from other kinds. 4 to 5 feet, 60 cents each.

Senateur Volland—A good variety, with double rosy-red flowers. 4 to 5 feet, 60 cents each.

SPIREAS

Low growing shrubs well adapted for hedges, shrubberies or single specimens on the lawn. They grow easily in almost any moderately moist soil and with very little care or attention.

Spirea Anthony Waterer—A charming small shrub, seldom growing higher than two or three feet. Its handsome trusses of crimson flowers are produced in

great profusion from spring until fall. Beautiful in clusters or in low hedge. 18 to 24 inches, 35 cents each, \$3.00 per dozen; 12 to 18 inches, 25 cents each, \$2.00 per dozen.

Spirea Van Houttei—The grandest of the spireas. Perfectly hardy; a strong grower and profuse bloomer. It has small delicate white blossoms, borne in clusters which almost cover the bush about June 1st. A handsome bush, even when not in bloom. Often called Bridal Wreath. Suitable for low screens, hedges or borders. 12 to 18 inches, 15c each, \$8.00 per 100; 18 to 24 inches, 20c each, \$12.00 per 100; 2 to 3 feet, 25c each, \$15.00 per 100; 3 to 4 feet, 30c each, \$20.00 per 100. Heavy clump, 75 cents.

Other Shrubs

Tamarix—This hardy and very beautiful shrub, of strong but upright growth, is clothed with foliage as light and feathery as that of the asparagus. Its delicate fringing flowers are borne in spikes; color, a warm shade of pink or red. Very ornamental at the back of shrubbery and desirable for decorations and bouquets. 3 to 4 feet, 30 cents each.

Snowball—A well known shrub, producing its snowy white flowers in large balls or masses in May or June. For the best effect, trim into a round ball-shaped bush. 2 to 3 feet, 30c each, \$3.00 per dozen; 18 to 24 inches, 20c each, \$2.00 per doz.

Hydrangea Paniculata Grandiflora—A fine, hardy shrub which is very popular, easy to grow, and blooms the same year it is planted. The flowers are in immense panicles, creamy white at first, changing to pure white, and turning pink and brownish with age. It blooms in August and continues through September. The flowers will be larger and finer if given good, rich soil, and the plants cut back each spring fully one-half the past year's growth. 18 to 24 inches, 25c each; 2 to 3 feet, 35c each. Tree form, 2 to 3 feet, 75c each; 3 to 4 feet, \$1.00 each.

Hydrangea Aborescens Grandiflora (Hills of Snow)—A new variety with large white flowers resembling Snowball. Flowers are produced continually from June until late August. 2 feet, 60 cents.

Mock Orange (Syringa)—One of the most desirable shrubs. Flowers one inch to two inches in diameter; pure white, delightfully fragrant. It grows to a height of eight or ten feet, and blooms profusely in the spring. 2 to 3 feet, 25c each; 3 to 4 feet, 35c each; clump, \$1.00.

California Privet—These ideal hedge plants have such an array of good points that we can no longer spare them for hedges alone. They are moderately hardy, nearly evergreen, grow freely in all soils, have a dense neat habit, and bloom profusely. The flowers are white, fragrant, and borne in graceful racemes or clusters through June and July. The leaves are small, oval and glossy. 2 to 3 feet, 25c each, \$1.25 per dozen, \$10.00 per 100.

Amor Privet—Hardier than California Privet, and is desirable for all purposes. 18 to 24 inches, 25c each, \$15.00 per 100.

Berberis Thunbergii—A perfectly hardy Japanese form which is unequalled for low hedges. Produces an abundance of low flowers in May and is all aglow with scarlet leaves and berries in the fall. 12 to 18 inches, 20c each, \$12.00 per 100; 18 to 24 inches, 25c each, \$17.50 per 100.

Climbing Vines

Ampelopsis Engelmanni (Englishman's Ivy)—Not poisonous. Similar to our native Virginia Creeper, but is more dense, rapid growing, and clings readily to any smooth surface. A very desirable vine for covering all kinds of walls, tree trunks, etc.; much harder than Boston Ivy. 40 cents each.

Trumpet Flower—A splendid vine, vigorous, hardy, and a very rapid grower; well adapted for covering unsightly objects. The flowers are large, being fully four or five inches long and in clusters. Strong 2-year old vines, 50 cents each.

Wistaria—A beautiful climber of rapid growth, often growing fifteen or twenty feet in a season, and producing long, pendulous clusters of pale blue flowers about the size and shape of a bunch of grapes; sometimes gives second crop of flowers in the fall. 2-year plants, 50 cents each.

CLEMATIS

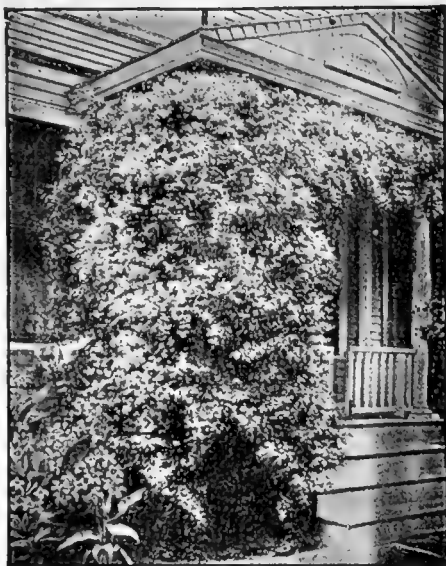
These vines delight in a sunny situation and good, rich soil. They are perfectly hardy but the top kills back in winter. There is nothing better for training on pillars, trellises, porches, or for covering rocks or old stumps. All strong field-grown plants.

Clematis Paniculata—This remarkable flower blooms in September. It is one of the finest of hardy climbers, with handsome foliage, and of very vigorous, rapid growth. In late summer it produces dense sheets of medium sized, pure white flowers of the most pleasing fragrance, making a gorgeous sight. This is a new Japanese plant, perfectly hardy and finely adapted for covering any object. 50 cents each.

Clematis Jackmani—This is perhaps the best known of the Clematis. The plant is a free grower, and an abundant and successful bloomer, producing flowers until frost. Flowers are large and of an intense violet purple, remarkable for their velvety richness. It has no superior. Jul. to October. 75c each.

Clematis Madame Edouard Andre (The Red Clematis)—A hybrid of the popular Jackmani, which it much resembles in freedom of bloom, vigorous growth and shape of flowers, but is a distinct carmine red in color. 75c each.

Clematis Henryi—The best large white variety. Fine, large creamy white flowers; strong grower, hardy, perpetual bloomer. 75 cents each.



Roses

Our bushes are all strong, field-grown, 2-year-old plants on their own roots, and are not to be compared to the cheap bushes often offered which are budded on short lived foreign stocks.



Plant them 3 to 4 inches deeper than they stood in the nursery and in the richest, best soil obtainable. Trim off nearly all the top and they will do much better than if it was left on. Use powdered sulphur for mildew, arsenate of lead for eating insects and tobacco infusion or strong soap solution for lice.

CLIMBING ROSES

Crimson Rambler—A new Japanese rose, bearing numerous trusses of bright crimson flowers; a superb climber, very hardy and free flowering. One of the best for training on walls, pillars and fences. It gives universal satisfaction. 50c each.

Persian Yellow—Perfectly hardy climber. Brightest yellow of all roses; produces an abundance of medium-sized flowers in June. 2-year No. 1, 50 cents each.

Prairie Queen—An old, well known climber. Flowers double, bright pink, fading to nearly white. 35 cents each.

Tausendschon (Thousand Beauties)—A rapid growing, almost thornless climber of

exceptional value and attractiveness. Its many flower clusters show every shade of rose and crimson, with white and yellow variegations. 75 cents each.

HALF-CLIMBING ROSES

Baltimore Belle—Very double, white with pink blush. One of the best climbing roses, but must be protected in winter. 35 cents each.

Greville or Seven Sisters—Large clusters with flowers varying from white to crimson. Luxuriant dark green foliage; perfectly hardy. 35 cents each.

HYBRID TEA ROSES

American Beauty—Rich rosy crimson, delightfully fragrant and a very free continuous bloomer; vigorous, healthy and moderately hardy. One of the most satisfactory varieties to grow. 50 cents each.

Gruss an Teplitz or Virginia R. Coxe—The flowers are a dazzling crimson, large, moderately double, and produced in great profusion throughout the whole season. The bush is hardy, and a strong, vigorous grower. This is much the best rose of the class we have seen. 50 cents each.

La France—A very popular variety. Buds and flowers of lovely form and of great size; exceedingly fragrant. Color fine silvery pink. It begins to bloom early and continues until frost. 50 cents each.

HYBRID PERPETUAL ROSES

Baby Rambler—Really a dwarf Crimson Rambler. A true perpetual bloomer, perfectly hardy, free from insects and diseases, and of easy culture. A mass of bloom every day from May until frost. It is useful for bedding, edging walks, driveways and for house culture, etc. 75 cents each.

Frau Karl Druschki (White American Beauty)—Pure white, large, fragrant, well formed, and very similar to American Beauty, except in color. Very hardy and vigorous; by far the best white rose of all. 50 cents each.

General Jacqueminot—This may truthfully be called the rose for the million. A universal favorite. Bright scarlet, exceedingly rich and velvety. One of the hardiest. 35 cents each.

Harrison Yellow—A very bright yellow double rose, hardy and a profuse bloomer. 50 cents each.

Madame Plantier—Pure white; produced in great abundance early in the season. An excellent hardy white rose. 35 cents each.

Paul Neyron—One of the very largest roses known, often measuring 5 inches in diameter; color bright rose, very fresh and pretty. A strong, healthy grower with clean, glossy foliage and one of the most prolific bloomers in the hybrid class. Young plants in nursery rows bloom almost without intermission from June until October. 35 cents each.

Prince Camille de Rohan (Black Prince)—Very large, deep velvety crimson, almost black. Very fragrant. By all means include this in your collection. 50c each.

Ulrich Brunner—A splendid rose and one of the best of the class. Flowers very large, well formed, brilliant cherry red and highly fragrant; produced in great profusion. Vigorous, hardy and healthy. 50 cents each.

MOSS ROSES

Glory of Mosses—Very heavily mossed; flowers glossy pink; fragrant. One of the best. 35 cents each.

Luxembourg Moss—Large, bright crimson. A very fine, luxuriant grower and a free bloomer. 35 cents each.

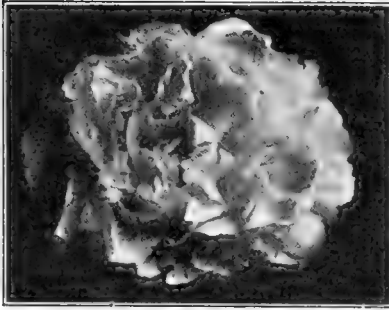
White Moss—Large, full, double, pure white and very fragrant. Perfectly hardy. 35 cents each.

Rosa Rugosa—Foliage shiny bright green; flowers single and very fragrant, bright rose color with yellow center. The leaves and buds are very beautiful. In time of winter it bears bright red berries; requires no protection whatever and is well adapted for hedges. Strong, 2 and 3-year plants, 25 cents each.

Conrad Ferdinand Meyer—This variety has the ornamental foliage of the *Rugosa* and the beautiful fragrant flowers of the Hybrid Perpetual. The flowers are large, double, very fragrant and of a delicate silvery pink. Very vigorous and hardy without protection. 50 cents each.

Hansa—Violet red, large, fragrant, and perfectly double. The flowers are in dense clusters which all bloom at once, thus appearing like one immense rose from a distance. Flowers are produced freely throughout the season. Absolutely hardy. 50 cents each.

Peonies



Festiva Maxima

The Herbaceous Peonies have long been great favorites among hardy plants, but the wonderful improvements wrought by the plant breeder in recent years makes them far more popular than ever. Many of the improved varieties rival the finest roses in fragrance and coloring, besides blooming earlier and being much larger.

Peonies do best in good, rich, deep soil and a sunny situation, although they do well in partial shade. They are hardy in the far North and West, requiring no protection. Once planted and started they need but little care. The blooms are often small or even single the first year after planting but increase in size and beauty each year. They should be planted in September or October if possible, but may be

planted in the spring. Plant about three inches below the surface in deeply worked, rich soil. If planted in the spring they may not bloom until the next spring.

We offer the following list of choice varieties at reasonable prices. If wanted in large quantities, please write for prices.

Agnes Mary Kelway—Sweetly fragrant, light rose guard, yellow petaloids, with rose tuft; a most lovely flower. 50 cents each.

Alba Sulphurea—White with yellow center. A fine flower and a favorite. 25c.

Andre Lauries—Deep bright red, very double, and late. A grand flower which loves deep, rich soil. 25 cents each.

Festiva Maxima—A large ball of white, with center petals dashed with red; an early bloomer and a splendid keeper. In great demand for cut flowers, and is very popular everywhere. One of the very best peonies known. 75c each.

Fragrans—An excellent variety; late; deep rose. 25 cents each.

Francois Ortegat—A very brilliant crimson, producing a blaze of splendor, almost purple. It is a vigorous and striking flower, with a delightful spicy fragrance. No collection is complete without it. 50 cents each.

Golden Harvest—Bluish white and canary yellow; sweetly fragrant; full bloomer, and better than many higher priced varieties. 75 cents each.

Grandiflora Carnea Plena—Variegated, robust, and a very free bloomer. Valuable for cut flowers; a charming flower of medium season. 40 cents each.

Grandiflora Rosea—Pink, and early. The outer and center petals are red, slightly fragrant. A prolific bloomer; robust and vigorous. 35 cents each.

Grandiflora Rubra—This is a very king among peonies, and one of the latest. It seems to hold itself in reserve, getting strength to put forth an exhibition of splendor. Its flowers are of an immense size, intense and glowing; you look at them and think the best has been in reserve until last, and yet it is hard to call any one the best in this procession of peonies which has passed during the season. 30 cents each.

L'Espérance—A beautiful rose-pink, fragrant and early bloomer; very fine for cut flowers: one of the best. 50 cents each.

Madame Chaumy—A light pink, perfect in form, and very fragrant. Does best in partial shade. 30 cents each.

Magnifica—Large, delicate and fragrant; red, turning to pink. 35 cents each.

Marie Lemoine—This flower fills all the requirements we demand of our favorites. It is as sweet as a rose. It opens slightly yellow, then fades to purish white. A wholesale bloomer; very winsome and attractive. Never leave this out of your collection. 50 cents each.

Plutarch—A satiny crimson; exceedingly brilliant and striking, with a pond lily fragrance; a very charming flower. \$1.00 each.

Pottsii—A splendid flower; deep crimson. One of the earliest. 30 cents each.

Reeves—An immense flower and free bloomer; light rosy pink, center petals dashed with red. 30 cents each.

Richardson's Rubra—Late; deep crimson with a purple shade. A grand, fragrant, full orb'd flower; one of the best. 75 cents each.

Rubra Triumphans—Fragrant flowers of brilliant crimson. It does not bloom



as soon as some others, the plant seems to require age, but are worth waiting for.
 30 cents each.
The Bride—A small, delicate, sweet flower; winsome, attractive and well named.
 40 cents each.
The Queen—Single, large, white with cushion of gold. 35 cents each.
Victoria Tricolor—Rose-pink and salmon. One of the most vigorous and prolific bloomers we have; fragrant and desirable. 25 cents each.

Hardy Perennial Phlox

No class of hardy plants is more desirable. They thrive almost anywhere with a little care, and are useful for borders about shrubbery and for groups. The flowers are very showy and brilliant, and last through a long season. In the last few years they have been wonderfully improved.

The following are some of the most choice varieties. Price, unless otherwise noted, 20c each; \$2.00 per dozen.

- B. Conte**—A glowing purple; one of the finest of the dark colored varieties.
 Tall.
Eclairer—Salmon and scarlet with crimson eye; medium.
Henry Murger—Very large, pure white with carmine center; tall. 35c each.
Jeanne d'Arc—Pure white, very large heads, and late blooming. Very tall and vigorous.
Lothair—Carmine pink with crimson eye; medium. A splendid variety.
Louis Blanc—Reddish violet with purple shading. A distinct dark colored variety, and first of all to bloom. Medium.
Pantheon—The peerless pink. Very large; medium height.
Von Hochberg—A brilliant crimson; the richest of its color; tall.
Von Lassberg—Purest white, flowers very large; one of the best white varieties.

Other Herbaceous Plants

Boltonia Asteroides (False Chamomile)—One of the showiest of hardy perennial plants, with large aster-like pure white flowers. It blooms throughout the fall and makes a dense mass of white from July till September. 4 to 6 feet high, 20 cents each, \$2.00 per dozen.

Giant Daisy (*Pyrethrum Uliginosum*)—One of the very finest autumn flowering plants. It grows four feet or more high, and is covered with very large white daisy-like flowers from August until frost. The plant also makes a handsome appearance when not in bloom. Price same as *Boltonia*.

Golden Glow—A hardy perennial plant, growing 6 to 8 feet high; branching freely, and bearing on long graceful stems, hundreds of exquisite double blossoms of the brightest golden color, and as large as the Cactus Dahlia. Strong roots. 25 cents each.

Yucca Filamentosa—An interesting and tropical appearing plant which will endure any of our Northern winters, and is therefore valuable for those localities where flowering plants are scarce. It is an evergreen perennial, throwing up in the middle of the summer, flower stalks 3 feet in height, bearing a profusion of creamy white, bell-shaped blossoms. One of the most beautiful plants for the lawn. 2-year plants, 50 cents each.

Forest Tree Seedlings

These are just the thing for starting hedges, screens, windbreaks and timber plantations. If wanted in large quantities, write for special prices.

No matter how valuable the land every farmer can make a woodlot profitable. It can constitute the windbreak and at the same time furnish posts and repair material and fuel. There is much land along streams which might be planted to trees and would become very valuable, instead of furnishing only poor pasture as it does now. The time is soon coming when good timber will be in great demand in this state.

Where planted for groves, cultivated crops may be planted between the rows for several years. The land may be planted to corn and a seedling planted in the place of every alternate hill. In this way the seedlings will get the necessary cultivation.

	100	1,000		100	1,000
Ash, American, 6 to 12 in.	\$1.00	\$8.00	12 to 15 inches,	\$5.00	\$....
12 to 18 inches.....	1.25	10.00	Honey Locust, 8 to 12 in.	1.25	7.50
Box Elder, 6 to 12 in.....	1.25	6.00	12 to 15 inches,	1.50	10.00
12 to 18 inches.....	1.50	10.00	Mulberry, Russ, 6 to 12 in.	.65	6.00
18 to 24 inches.....	1.75	15.00	12 to 18 inches, .....	.85	8.00
Catalpa, Hardy, 8 to 12 in.	1.00	7.50	18 to 24 inches,	1.00	10.00
12 to 18 inches.....	1.25	10.00	Osage, Orange, 6 to 12 in.	.50	3.00
18 to 24 inches.....	1.50	12.50	12 to 18 inches, .....	.75	5.00
2 to 3 feet.....	1.75	15.00	Soft Maple, 6 to 12 in., ..	.60	4.00
Elm, White, 6 to 12 in....	1.50	6.00	12 to 18 inches, .....	.75	4.00
12 to 18 inches.....	1.75	7.50	18 to 24 inches,	1.00	10.00
18 to 24 inches.....	2.00	10.00	Walnut, Black, 6 to 12 in.	1.50	15.00
European Larch, 6 to 12 in	3.00	—	18 to 24 inches,	2.00	20.00

Soft Maple—A very rapid growing tree, valuable for fuel and windbreaks. Plant 8 by 8 or 6 by 8 feet. Maple groves in this state have yielded over \$10.00 per acre net annual returns at about twenty-five years after planting.

Catalpa Speciosa or Hardy Catalpa—We grow these from seed gathered from native grown trees and know them to be of the hardy sort. Catalpa is one of the most valuable trees for posts and poles, a very rapid grower, reproduces very quickly from the stump and the wood is one of the most durable in the soil. Let grow for two years, then cut back to the ground and train up one sprout for straight, thrifty bodies. They require good cultivation for several years.

European Larch—Has produced higher annual net returns than any other tree in Iowa. It makes durable posts and poles, and good fuel. Plant 6 by 4 feet in any good land not excessively wet. This tree must be ordered early or we cannot fill the order. It starts to grow very early in the spring, consequently we will send these out by express before our regular deliveries.

Honey Locust—The most valuable two-purpose tree. It produces excellent posts and the best of fuel and is one of the most rapid growers. It is unexcelled for windbreaks and makes an excellent hedge which will stand severe pruning.

Fruit Tree Seedlings for Grafting or Budding

Consisting of apple, plum, pear, cherry and peach seedlings. Write for prices.

MISCELLANEOUS.

Raffia—Best Madagascar, for tying buds and plants. 15c per lb., 8 lbs. for \$1.00.
Grafting Thread—Unwaxed, 10c per ball; waxed, 15c per ball. If by mail, add 2c per ball for unwaxed and 7c per ball for waxed.

Grafting Knives—Hand forged, razor steel, 40c each; by mail, 45c.
Budding Knives—Ebony handle, bone tip for raising bark, finest razor steel; 75c each. Add 5c or postage.

Pruning Shears—Best made, \$1.00 each; by mail, \$1.10.
Root Grafts—We have a large stock of most kinds of fruit tree seedlings, and will be prepared to put up first-class root grafts of almost everything mentioned in this catalog. Send list of grafts wanted and we will make the price right. Orders for grafts must be received before March 1st.

Spraying Information

Spraying is now recognized as a necessary operation to keep plants and trees healthy, especially where grown extensively; accordingly we print a few of the standard formulas and a very brief outline of treatment for the common fruits. For more complete information send to the Horticultural Department at Ames, Iowa, for spraying calendar.

FOR BITING INSECTS

Lead Arsenate.

Lead acetate (sugar of lead).....11 oz
 Sodium arsenate 4 oz.
 Water50 gal.
 Pulverize and dissolve the acetate and arsenate separately and pour together. This formula may be used two or three times this strength without injury to plants. It adheres better than any other arsenical spray and is altogether more desirable.

Paris Green.

Paris Green1 lb.
 Lime (fresh)1 lb.
 Water100 to 200 gals

Hellebore—Also for Sucking Insects.

White Hellebore1 oz.
 Water2 gals.
 Or mix with three parts flour and dust on. It does not poison ripening fruit.

FOR SUCKING INSECTS

Kerosene Emulsion.

Kerosene (coal oil)2 gals.
 Rain water1 gal.
 Soap1-2 lb.
 Dissolve soap in water by boiling; take from fire and while hot turn in kerosene and churn briskly for five minutes. To be diluted before using, with nine parts water; for scale, insects and sucking insects on growing plants.

Tobacco Infusion

Tobacco (waste stems)1 lb.
 Boiling water4 gals.
 Add hot water to tobacco and let stand until cold. Strain and add 1 lb. of each 50 gallons of infusion. For aphids.

Pyrethrum or Insect Powder.

Pyrethrum powder1 oz.
 Water3 gals
 For dry application—Mix thoroughly one part by weight of insect powder with four of cheap flour and keep in a closed vessel for twenty-four hours before dusting over plants attacked.

Lime-Sulphur Wash.

Quicklime (fresh)15 lbs.
 Sulphur15 lbs.

Fresh calcium lime must be used to get good results. Place lime in kettle, add sufficient water to shake and stir in sulphur while shaking. Boil until dissolved, which requires an hour or more. Add sufficient water to make 50 gallons and apply while warm. This solution can now be bought ready made very cheap. Apply only to dormant trees.

FUNGICIDES

Bordeaux Mixture.

Copper-sulphate5 lbs.
 Quicklime (not air-slacked)5 lbs.
 Water50 gals.

Dissolve the copper-sulphate (blue stone) by suspending it in a wooden vessel such as a half-barrel containing 25 gallons of water; slake the lime in another vessel. The slaking should be done slowly, otherwise it is apt to be granular. Now dilute the slaked lime in 25 gallons of water, and pour it and the copper-sulphate into the spray barrel at the same time. Do not pour in first one and then the other, as this will not allow the proper combination of chemicals to take place and a sediment will be formed that will clog pump and nozzles.

It is well to strain the solutions as they are poured together, for which purpose a copper strainer having 18 to 24 meshes to the inch is recommended. Do not add the lime until ready to apply the mixture.

Stock solutions of dissolved copper-sulphate and lime may be prepared and kept in separate covered barrels throughout the spraying season. The proportions of blue stone, lime and water should be carefully entered.

Dilute Bordeaux Mixture.

This mixture is made exactly as the above with the exception that it is 1-2 to 2-3 as strong. This mixture should be used for trees having tender foliage, such as the peach and Japanese plum.

Bordeaux Mixture Test.

The quantity of lime required in Bordeaux mixture varies considerably;

for this reason each lot should be tested before using.

To ascertain if sufficient lime has been used, take a small quantity of the mixture and add two or three drops of a solution of yellow prussiate of potash. If this changes the Bordeaux mixture to a reddish brown color, there is not enough lime present; add more and test again. An excess of lime is desirable. The prussiate of potash may be obtained at a drug store in crystalized form and readily dissolved.

COMBINATION OF FUNGICIDE AND INSECTICIDE

When spraying for a fungus disease, except when plants are in the dormant state, an arsenical mixture may be added to the Bordeaux to advantage and the spraying will be effective against the biting insects as well as plant diseases. To the Bordeaux add the usual amount of Paris green or lead of arsenate, letting the Bordeaux answer for the specified amount of water.

Ammoniacal Copper Carbonate.

Copper carbonate 6 ozs.
Strong ammonia 3 qts.
Soap 1 lb.
Water 40 to 50 gals.

Dilute the ammonia somewhat and use enough to dissolve the carbonate, then add water to make 40 gallons. Dissolve the soap in 10 gallons and add it.

This solution must be kept away from the air if not used when made. It is useful for spraying full grown or ripening fruit for it does not stain the fruit like Bordeaux does.

Lime and Sulphur.

In many cases a concentrated lime and sulphur solution can be used with lead arsenate in place of Bordeaux, providing it is diluted to contain about 4 lbs. of sulphur in 50 gallons.

FORMALINE (For Potato Scab.)

Soak tubers for two hours in a solution of commercial formaline, 1 pint (40 percent solution) in 30 gallons of water.

GENERAL TREATMENT FOR FRUITS

Apples—For fungus diseases and eating insects, lead arsenate and Bordeaux, or lime and sulphur solution; 1st, just as buds open; 2nd, just before blossoms open; 3rd, just after petals fall; 4th, ten to twenty days later; 5th, late July or early August, this is important for the second brood of codling moth. For scales on any kind of trees, use lime and sulphur wash early in spring before growth, and late in the fall.

Cherries—For Curculio, fruit rot and leaf diseases, Bordeaux and lead arsenate, or lime and sulphur solution; 1st, before blossoms open; 2nd, just after petals fall; 3rd, just after the petals fall; 4th, ten to twenty days later; 5th, late July or early August.

Plums—For curculio, fruit rot, etc., arsenate of lead and Bordeaux (dilute Bordeaux for Japanese varieties); 1st, before blossoms open; 2nd, just after petals fall; 3rd, ten days later; 4th, ammoniacal copper carbonate for fruit rot, late July. For web worms, arsenate of lead whenever necessary.

Peaches—For leaf curl and fruit rot, lime-sulphur wash before buds open.

Pears—Same as for apples. For blight, cut off affected branches as soon as they appear and burn them. Disinfect the tools each time with kerosene or bichloride of mercury.

Grapes—For mildew and black rot, Bordeaux Mixture. 1st, before new growth is eight inches long, (important); 2nd, just before blooming; 3rd, just after fruit sets, (important); 4th, 10 to 20 days later; 5th, 10 to 20 days later.

Currants and Goseberries—For leaf spot and worms, Bordeaux, or lime and sulphur solution, and lead arsenate. 1st, when worms appear; 2nd, when fruit is one-half grown; 3rd, Bordeaux after picking; 4th, repeat two weeks later if necessary.

Strawberries—For leaf roller, lead arsenate, double strength just after moths are first noticed; 2nd, repeat one week later. Cut leaves and burn as soon as fruit is off. For leaf diseases, Bordeaux when growth begins at intervals of ten days if necessary.

Raspberries—Blackberries—Dewberries—For orange rust, dig and burn at once. For anthracnose when serious, cut and burn the affected patch in the fall or spring.

Potatoes—For beetles, lead arsenate, double strength, when they appear 2nd from eight to ten days afterwards. For blight, Bordeaux 1-2 times standard mixture, with the arsenate. For scab, soak seed potatoes two hours in formaline (40 percent solution) 1 pint to thirty gallons of water.

Cucumbers, Melons, etc.—For striped beetles, tobacco dust as soon as through the ground; for lice, kerosene emulsion applied to under side of leaves.

ORDER SHEET

Order No.....

Do you wish us to substitute to the best of our judgement in case any varieties or size ordered should be exhausted? Write "YES" or "No"..... We will be glad to give you the benefit of our years of experience.

LINN COUNTY NURSERY, Center Point, Ia.

DATE.....191.....

Ship the following trees and plants to

Name of Purchaser

Postoffice.....

County..... State.....

By
(Freight, mail or express)

Via
(Give route preferred)

To
Name freight or express office if different from P. O.)

Date you wish order shipped

Enclosed find cash - \$.....

Check - - - - P. O. Money Order -

Draft - - - - Exp. Money Order -

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FROM

LINN COUNTY NURSERIES

SNYDER BROS., PROPRIETORS

CENTER POINT

LINN COUNTY

IOWA

THE HANDY SPRAY CALENDAR. A Condensed Table of Diseases and Remedies

Prepared by Howard Everts Weed, M. S., formerly Entomologist and Horticulturist, Mississippi Experiment Station. Reproduced by permission of the Deming Co., Spray Pump Mfgs., Salem, Ohio.

Plant	Insects and Diseases	Remedy	First Application	Second Application	Third Application	Remarks
APPLE	San Jose Scale	Lime-sulphur or soluble oils, as recommended.	Early in November.	In February, same as first.	For summer treatment, use 10 per cent kerosene.	San Jose scale cannot be destroyed in a single treatment, but is easily kept in check by a little effort. If only a few trees of an orchard are affected, burn them off.
	Oyster-shell and Scurfy Scale, Woolly Aphis.	Soluble oils as recommended.	Use when young first hatch in early spring.	Repeat in ten days.		If Woolly Aphis is present on roots, dip stock in 1-15 solution of recommended prepared oil compound.
CHERRY	Codling Moth, Bud Moth, Apple Scab.	Bordeaux and arsenate of lead mixed.	Early spring, before the buds swell.	As soon as blossoms fall.	Two weeks later.	A fourth application will pay. If bitter rot is present, a fifth application should be made.
	Black Aphis and Rot.	Kerosene, soluble oils as recommended.	Soluble oils as recommended as soon as plant lice are noticed. Bordeaux when fruit has set.	Repeat if needed.	Repeat if needed.	Cherry Aphis is one of the hardest insects to kill and the kerosene should be used as strong as possible, but not strong enough to kill the foliage.
GRAPE	Rot and Mildew.	Bordeaux.	When buds first swell.	Repeat in ten days.	Repeat in ten days.	Fourth application is needed. (Use arsenate of lead if flea beetle is present.)
PEACH	Rot and Leaf Curl.	Bordeaux.	In March, before buds swell.	After blossoms fall.	Repeat in two weeks.	Best to add arsenate of lead for any biting insects which may be present.
PEAR	Codling Moth and Scab.	Bordeaux, with arsenate of lead added.	Before blossoms open.	After blossoms fall.	Repeat two weeks later.	The fire blight of the pear cannot be controlled by spraying.
PLUM	Curculio Rot and Blight.	Bordeaux, with arsenate of lead added.	After blossoms fall.	Repeat in ten days.	Recommended solution if Aphis is present.	If scale insects are present use lime-sulphur or recommended compound.
CUREANT and Gooseberry	Mildew, Aphis.	Bordeaux.	When leaves appear.	Ten days later, Bordeaux; quassia and tobacco for Aphis.	Repeat second when necessary.	Watch the plants closely in spring and begin spraying as soon as worms are discovered.
Raspberry, Blackberry Dewberry	Fungus diseases.	Bordeaux.	When buds begin to swell.	When leaves are opening. Bordeaux; Cut out all rusted canes.	Two weeks later (When not in flower) repeat second.	Dilute the mixture to half the strength given in formula—100 gallons of water instead of 50.



Grapes from central Iowa