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1923

New Illustrated and Descriptive Catalog of

Fruit and Ornamental

Trees, Small Fruits, Shrubs, Vines and Roses

The Pawnee Rock Nursery

W. M. ZIEBER, Proprietor

Pawnee Rock, Kansas

Delicious Apple

(For description see page 2)

**Early Richmond
Cherries**

(For description see page 12)

Apples

Taking into consideration its hardiness, productiveness and general commercial value, the apple stands at the head of the list of fruits. In selecting the most important varieties for cultivation, it has been our constant aim to secure only those of standard excellence, and in no instance to recommend a novelty without ascertaining its history from a reliable source.

Summer Apples

DUCHESS OF OLDENBURG—A large beautiful apple, roundish. Streaked red and yellow. Tender, juicy and pleasant. Tree a vigorous, fine grower and abundant bearer. Very hardy. September.

EARLY HARVEST—Tree healthy, vigorous and a good bearer. Fruit medium size, nearly round, somewhat flattened; surface smooth, clear, waxy yellow, rarely blushed; flesh tender, juicy, acid to sub-acid, flavor good. July.

Duchess of Oldenburg

GOLDEN SWEET—Large, pale yellow, very sweet and good; good bearer; free. August.

LIVELAND (Liveland Raspberry) — Color orange yellow, striped, splashed and shaded with red, showing gray dots through the color, flesh light yellow, often stained with red; fine, tender, juicy; core medium open; flavor sub-acid, good.

RED ASTRACHAN—Tree vigorous, upright, hardy and productive. Fruit medium to large; surface smooth, marbled and striped on greenish yellow; flavor acid.

RED JUNE—Medium, red; juicy, good flavor. Abundant bearer. Last of June.

YELLOW TRANSPARENT—A Russian apple. Tree is a hardy, upright grower; regular and early bearer, medium size. Color a rich, transparent yellow with a faint blush on sunny side; flesh melting, juicy, sub-acid.

Early Harvest

Autumn Varieties

Wealthy

CHENANGO (Strawberry)—Rather large, oblong, conical, angular; whitish-yellow, striped and splashed with light crimson; flesh white, very tender, with mild, pleasant sub-acid flavor. A market and eating variety. Tree vigorous and productive.

FAMEUSE (Snow Apple)—Medium size, roundish; crimson, sometimes striped in northern localities. Flesh snowy white; very tender, fine, juicy, mild, sub-acid; one of the finest dessert fruits. Hardy and prolific. Very popular. October and December.

MAIDEN BLUSH—Large, smooth, regular, evenly shaded red cheek or blush on a pale yellow ground; flesh white, tender, sprightly, with a pleasant sub-acid flavor; bears large crops; free. August to October.

RAMBO—Medium; yellow, striped with red. Fruit mild, tender, good. September to November.

WOLF RIVER—Extra large handsome; deep red; excellent for cooking. Extremely hardy in the north. Probably the largest red apple adapted to this region. September to November.

WEALTHY—Origin, Minnesota. Large, round; red; very handsome; fine quality; good grower. Perfectly hardy and most reliable. Very popular throughout the north. Long keeper in cold storage. October to January.

Winter Varieties

ARKANSAS BLACK—Vigorous, upright grower. Fruit medium to large; fine flavor, beautiful dark color, almost black; flesh yellowish, slightly sub-acid, crisp. One of the best for cooking. January to March.

BALDWIN—Large, deep, bright red. Flesh juicy, crisp and of good flavor. Tree vigorous in the East and South, though not sufficiently hardy North. November and December.

Delicious

Grimes Golden

BEN DAVIS—Tree thrifty, upright grower of almost perfect shape. Fruit large, round, sometimes variable in form; surface smooth, often polished yellow, covered and splashed bright red; flesh white, tender, juicy; flavor sub-acid, not rich quality; only good for market and cooking. November to Spring.

DELICIOUS—Flourishes well in every state of the Union. Bears annually; great yielder; hangs well on trees. Trees very thrifty, long lived and extremely hardy. Fruit very large, nearly covered with brilliant, dark red; flesh fine grained, crisp, juicy, melting and delicious; splendid keeper and shipper; should be in every orchard.

GANO—Fruit is bright red on yellow ground, with no stripes; large, oblong, surface smooth, polished; dots minute; basin shallow, sometimes deep; eye large, cavity deep; brown in color; stem medium to long; core medium. Tree healthy, vigorous and prolific bearer. January to April.

GRIMES GOLDEN—This is one of the most popular apples in cultivation. Tree strong, thrifty grower. Fruit medium or above, cylindrical; regular surface, yellow veined, russeted; flesh yellow, firm, very fine grained, juicy; flavor sub-acid; quality rich. For dessert, cooking and market. November and December.

Gano

Jonathan

JONATHAN—Tree of rather slender growth and spreading habit; fruit medium or above in size, round or oblong; surface very smooth, waxy yellow, often wholly covered with brilliant red; flesh whitish yellow, tender, very juicy; for dessert and cooking; quality best. October and November.

Winter Varieties—*Continued*

Northern Spy

MAMMOTH BLACK TWIG—Extra large size, round, skin smooth, yellowish, covered with deep red, the general effect being dark red; flesh tender, tinged with yellow, crisp, sub-acid, aromatic, of excellent quality in every way. Tree vigorous, healthy and bears when quite young; very prolific.

McINTOSH (McIntosh Red)—Medium large, polished, smooth, yellow, nearly covered with brilliant crimson; beautiful; flesh snow white, crisp, very tender, aromatic; sub-acid; very good quality. Resembles Fameuse type, but

is larger and more hardy. Tree vigorous, with spreading head; a good annual bearer; popular in northwest. November to February.

NORTHERN SPY—Large, roundish, slightly conical; striped with sunny side purplish-red; flesh white and tender, with mild, rich, spicy flavor. An old favorite and one of the best all-around apples grown. Tree is a strong, upright grower, head very compact and should be opened up by pruning to admit air and light. December-June.

NORTHWESTERN GREENING—Fruit medium to large, averaging from seven to eight ounces each and very uniform in size. Color greenish yellow, flesh juicy, firm and fine grained. Very fine quality and flavor. Tree is very hardy and a thrifty grower, an early and continuous bearer. One of the longest keepers known. January to spring.

PATTEN'S GREENING—Duchess seedling; very large; flavor pleasant, sprightly, sub-acid. Superior for cooking. December to February.

RAWL JANET—Tree good grower, not so large as some; fruit medium; somewhat conical, regular; surface smooth, mixed and striped on yellow and green; flesh yellowish, crisp, fine grained, juicy; flavor sub-acid; quality good to very good. For dessert, kitchen, market and cider. November to spring.

McIntosh

Winesap, Stayman's

RHODE ISLAND GREENING — Large, greenish yellow, tender, juicy and rich, with rather an acid flavor; growing strong and spreading, and an abundant bearer, but drops prematurely in the West, and should be gathered early if planted at all. November and December.

ROME BEAUTY (Gillett's Seedling)—Large, yellow, striped with red, flesh juicy, crisp, sub-acid, tree moderate grower. October to December.

TALMAN SWEET—Medium size, pale yellow, slightly tinged with red; firm, rich and sweet; excellent for preserving; tree vigorous, very hardy and productive. November to April.

WINESAP (Stayman's) — Large, roundish, deep red; medium quality; keeps well; tree a fair grower and good bearer. December to May.

WINTER BANANA—A highly prized and valuable market sort. Beautiful yellow fruit; flavor exquisite and very tempting; highest quality. Productive. Reliable growers represent it to be hardy North. Very popular for dessert.

YORK IMPERIAL—Tree moderate grower and productive, fruit large, lop-sided; surface smooth; color mixed bright red on yellow ground; flesh yellowish, tender, juicy, flavor mild sub-acid; quality very good; for market, table, kitchen. November till spring.

Winter Banana

Crab Apples

A few years ago the crab apple was thought fit only for cider, preserves and jelly, but there are varieties now that command a good price on the market for dessert purposes. They are ornamental when in bloom and when loaded with their highly colored fruit.

FLORENCE — Large, handsome; crimson, splashed with darker red; prolific, valuable. September.

HYSLOP—Tree a moderate grower, making a beautiful shaped, thrifty tree; bears young; fruit large, nearly round, flattened at the ends; skin smooth, color dark rich red on yellow ground; flavor very good.

Hyslop

MARTHA—This is one of the best. The ground is bright yellow, nearly over-spread with light bright red. Of good size.

Whitney

Transcendent

RED SIBERIAN—Large, round, brilliant red on a pale yellow ground; flesh acid and greatly esteemed for preserves and jellies.

TRANSCENDENT—A very strong grower, making a large, beautiful tree; an early and abundant bearer, fruit large, round, skin smooth, color rich yellow, shaded with red. August and September.

WHITNEY—Tree thrifty, upright grower; fruit large, skin smooth, striped and splashed with carmine; flesh firm, juicy, of pleasant flavor. One of the very best. August.

YELLOW SIBERIAN—Small, round; yellow; flesh yellowish and acid; popular on market for jellies. Tree vigorous and hardy. September.

Pears

The soil should be rich and well cultivated. A pear orchard should not be permitted to "go to grass." They should be pruned every year, dwarfs especially. Dwarfs should have low heads and be trained in a pyramidal form, one-half of the previous season's growth being cut off each spring.

Pears succeed best on rather steep hillsides. Plant pears midway on the slope, putting something else on the upper and lower sections. Cultivate sparingly, so as to induce a very slow growth, and let blue grass take the land before the trees come into fruitage. When blight appears, cut off the affected parts at once and burn them; cut six inches below the lowest blight, to insure taking all infected sap.

Early Varieties

BARTLETT—Large size, with beautiful blush next to the sun; buttery, very juicy and high flavored; bears early. August and September.

CLAPP'S FAVORITE—Large obovate; skin thin, pale yellow marked with pale crimson and lawn colored dots; flesh white, fine grained, juicy, buttery, rich, melting and sweet. Very vigorous, upright grower. August and early September.

WILDER EARLY—One of the very earliest pears. Size medium, greenish yellow, with a brownish red cheek and numerous dots; flesh white, fine grained, melting, excellent. Always find a ready sale in market. Largely grown by commercial orchardists. Tree bears good crops early and annually. December and September.

Bartlett

Autumn Varieties

BEURRE D'ANJOU—Large, obtuse pyramiform; dull, yellowish green, sometimes with a dull, reddish cheek; flesh whitish, juicy, melting, with a brisk perfumed flavor. Vigorous and hardy. October.

DUCHESS D'ANGOULEME—Very large, oblong, obovate, dull greenish yellow, flesh white, very juicy, buttery, with a rich, excellent flavor. Tree a strong grower. October.

Beurre D'Anjou

Autumn Varieties—Continued

FLEMISH BEAUTY—Large, beautiful, juicy, melting, rich and fine; good bearer; one of the hardiest and does well nearly everywhere. September and October.

Kieffer

KIEFFER—Large; golden yellow, often blushed in the sun; juicy and melting. One of the best for canning and preserving; the most profitable to grow. Tree healthy, hardy and vigorous. Does not succeed on quince, therefore no dwarfs should be planted. Kieffer receives more praise and condemnation than any other. It is liable to overbear, therefore special pains should be taken to thin the fruit.

SECKEL—Small, skin rich, yellowish brown; flesh very fine grained; sweet, juicy and pleasant. Best for its size. September and October.

Duchess

GARBER—Very large, oval, narrowing at both ends; yellow as an orange; flesh whitish, juicy, sweet and very pleasant. Tree an upright grower with heavy, dark green foliage. September.

Seckel

Plums

The plum delights in a cool, not too dry situation, and good rich soil. Plant trees 10 to 15 feet apart, in rows. The varieties we offer have been thoroughly tested, and are standbys. These may be relied upon to furnish crops of this profitable and delicious fruit.

European Varieties

BRADSHAW—Fruit large; dark violet red, flesh yellowish green; juicy and pleasant; productive. Vigorous. Middle of August.

DAMSON (Europe)—Small; black, with thick blue bloom; free; flesh juicy, but rather tart; best for kitchen and market. Tree enormously productive and hardy. September.

GERMAN PRUNE—Very large, long, oval; purple, with a thick blue bloom; flesh green, firm, sweet, pleasant and separates freely from the stone. Tree bears enormous crops, hanging late; vigorous. September.

German Prune

GREEN GAGE (France)—Medium; greenish-yellow; semi-cling; flesh juicy, rich and delicious; one of the best for dessert. Tree slow grower. September.

LOMBARD—Tree vigorous, hardy and productive; fruit of medium size, roundish oval, slightly flattened at the ends; skin of a delicate violet-red, paler in shade; flesh deep yellow, juicy and pleasant. August.

Forest Garden

Lombard

SHIPPER'S PRIDE—Size large; color dark purple; flesh firm and excellent. September.

SHROPSHIRE DAMSON—A plum of fine quality. The flesh is amber colored, juicy and sprightly. Very productive and a valuable market variety. Freestone. September.

YELLOW EGG—Very large; egg-shaped; excellent for cooking; good and productive; vigorous. Last of August. Splendid variety for nearby market.

Native Varieties

COMPASS CHERRY—Small, purplish red, with large pit, flesh yellow and very good for cooking. The original cross of Miner Plum and Sand Cherry.

DE SOTO—Resembles Miner in form and color, but two weeks earlier. Fine for eating or canning. Tree a moderate grower; bears young and profusely; hardy north. Is best planted on moist rich ground and the fruit thinned. Use this variety for fertilizing.

FOREST GARDEN—A strong growing tree; needs a little attention to keep tree in shape to avoid splitting and breaking of limbs. A profuse bearer and perfectly hardy; nearly round, mottled red and yellow, rich and sweet. August.

Hawkeye

Native Varieties—Continued

HAMMER—Large, oblong, light red, of fine quality; profusely fruitful; season late; fine for canning or market.

HAWKEYE—One of the best. Large, color light mottled red, superior quality, firm; carries well to market. Tree hardy, thrifty; annual bearer. A splendid fertilizer. September.

POTTAWATTAMIE—Tree a good grower, hardy; color a yellowish red turning to bright red when fully ripe; skin thin, clear and tough. First fruit begins to ripen late in July; quality fairly good.

STODDARD—One of the largest of the native plums originated in Iowa. It is a light pinkish red color, very handsome, with a tough, sweet skin. Quality fair.

SURPRISE—Prune-shaped, dark red. Long keeper, therefore valuable for market. Ripe from September 1 to 10. Tree a thrifty, upright grower; hardy in the northwest and productive. A fine tree in orchard.

WEAVER—Large, purple with a blue bloom, very prolific; a constant and regular bearer and of good quality. Tree very hardy. August.

WILD GOOSE—The most popular fruit with some fruit growers. Tree a vigorous, upright grower; fruit medium to large, rich golden yellow, shaded with red; flesh yellow and juicy; flavor rich and good.

WOLF—Fruit large, a perfect freestone. As to quality we find them superb for cooking and for serving with sugar as we use peaches. Tree a good grower; hardy. August.

WYANT—Large, round, oblong, dark red; flesh firm; freestone, and of excellent quality. Native of Iowa and hardy.

Wild Goose

Japan Varieties

Burbank

ABUNDANCE—Large, roundish; freestone; amber, turning to a rich cherry color with a whitish bloom; flesh light yellow, juicy, tender, sweet and excellent, vigorous and very productive. August.

BURBANK—Large, nearly globular; clear cherry red with thin lilac bloom; flesh deep yellow; rich, very sweet, with a peculiar and agreeable flavor. Vigorous and a very early bearer. Last of August.

RED JUNE—The best Japan plum, ripening before Abundance. Medium to large; deep vermillion-red, with handsome bloom; flesh light lemon-yellow, firm; moderately juicy; fine quality. Tree upright, spreading, vigorous and hardy; productive.

WICKSON—A remarkably handsome, very large, deep maroon red plum.

Hybrid Varieties

HANSKA—Beautiful color, bright red, with heavy bloom; flesh firm, yellow and of good quality; fragrant; apricot flavor; tree tall, rapid grower; pit small.

OPATA—Flesh firm, greenish with pleasant flavor. Pit small; season early; is strong grower and heavy bearer.

SAPA—Much like Oxheart cherry, dark flesh and juice. Fine quality. Five-foot trees at three years bear 1 to 1½ bushels and keep it up. Every home in the country should possess from one to a dozen of these wonderful trees.

TOKA—Similar to the Hanska of same parentage; tree remarkably strong and vigorous grower, making a model tree; early and heavy bearer of handsome fruit.

Sapa

Cherries

Cherry culture has been a success when proper attention has been given to the selection of varieties and their culture. The hardy, thrifty varieties of the Morello type may be freely planted with confidence of profitable results. The cherry tree should be planted in a naturally dry soil or the soil should be well drained, so that water may not remain near the roots for any considerable time.

Large Montmorency

Duke and Morello (*Sour*)

DYEHOUSE—This variety partakes both of the Morello and Duke wood and fruit. A very early and sure bearer; ripens a week before Early Richmond, is of better quality and productive. Free. May and June.

EARLY RICHMOND—Everywhere the most popular. Tree strong, thrifty grower, making a large, symmetrical head; fruit medium size, dark red, melting, juicy; sprightly acid flavor and especially valuable for cooking purposes; tree an early and abundant bearer. Season last of May and first of June.

ENGLISH MORELLO—Tree moderate grower, hardy; an early and great bearer; the most valuable of the late varieties. Fruit large, round; skin dark red, becoming nearly black when fully ripe; flesh dark red, tender, juicy and of a pleasant sub-acid flavor when fully ripe. July.

LARGE MONTMORENCY—A fine, large, light red cherry of the Richmond class, but larger and more solid; a more upright grower, equally hardy and productive. Second only to Early Richmond in value. Ripens ten days later.

WRAGG—Originated in Iowa. Medium to large in size, long stem, dark purple when fully ripe. A variety well adapted for the prairie regions of the Northwest. Appears identical in tree and fruit with English Morello, but is claimed to be a new variety. Valuable late cherry. July.

Heart and Bigarreau (*Sweet*)

BLACK TARTARIAN—Very large, bright, glossy black; half tender, juicy, rich and fine. Tree a rapid grower and good bearer. Last of June and first of July.

Early Richmond

GOVERNOR WOOD—Large; light yellow and bright red; nearly tender, juicy, sweet, rich and delicious. Tree vigorous and productive. Middle to last of June.

WINDSOR—The fruit is large, flesh remarkably firm, sweet and of fine quality. Tree hardy and prolific. Middle of June.

Peaches

Peach trees should be planted 16 to 18 feet apart. Cut weak shoots back about one-half and strong ones about one-third, but see that there is left a sufficient supply of fruit buds. Sickly and superfluous shoots should be cut out clean. The fruit is borne on wood of last season's growth, hence the necessity of keeping up a good supply of vigorous annual shoots all over the tree. Young trees should be well mulched every spring.

ADMIRAL DEWEY (F.)—A perfect freestone, of fine size, form and color, with delicious yellow flesh that is yet firm enough to ship well. The tree is a strong, hardy, symmetrical grower and produces well. The best early yellow freestone. July.

ALEXANDER (S. C.)—Large size, handsome and regular in form, with deep maroon shade, covered with the richest tint of crimson, rich and good in quality, with a vinous flavor; adheres to the stone. Last of June.

BOKHARA (F.)—Raised from seed procured in Bokhara, Asia. It has been fruited in the Northwest for years and found to be one of the hardiest peaches known there. Tree has stood 28 degrees below zero with but little injury to the tips, and produced fair crops. Fruit, large, yellow, with red cheek, of good quality, perfect freestone; skin tough, a fine shipper. August.

CHAMPION (F.)—The earliest freestone and a first-class shipper. Bears full crops when others fail. In comparison with the bountiful yield of all of the best kinds, it is of all of them the champion. Size large, flavor delicious, juicy, sweet, rich, excelling all other varieties; very handsome in appearance, creamy white with red cheek; very hardy; season earliest.

CRAWFORD'S EARLY (F.)—Fruit very large, oblong; skin yellow, with a fine red cheek; flesh yellow, juicy, sweet and excellent. Wonderfully productive and hardy. Freestone. Last of August.

Crawford's Early

CRAWFORD'S LATE (F.)—Fruit of the largest size; skin yellow or greenish yellow, with dull red cheek; flesh yellow; productive. One of the finest late sorts. Freestone. Last of September.

CROSBY (F.)—Rich orange yellow with blush, freestone, pit small. Flesh yellow, juicy and sweet. Tree low, spreading; willowy habit of growth. Ripens before Crawford's Late.

Champion

Peaches—Continued

ELBERTA (F.)—Large, yellow with red cheek. Of excellent quality; flesh yellow and melting; freestone. The market peach of America.

Oldmixon

FITZGERALD (F.)—An improved Early Crawford, being fully equal to it in size, quality and color. The tree commences bearing young, is productive and one of the hardiest. Fruit large, brilliant color, bright yellow, suffused with red; flesh deep yellow, best quality. Early September.

HEATH CLING—Large, oblong, white, slightly tinged with red in the sun. Fruit tender, rich, melting, luscious. September 15.

Elberta

J. H. Hale

J. H. HALE—Probably no new peach has ever been introduced claiming to be so much superior in all ways. It averages one-third to one-half larger than Elberta, ripens about five days earlier and is much superior in flavor. Color a beautiful golden yellow, with deep carmine blush.

OLDMIXON (C.) — One of the old standard sort. Strong, upright grower, needing heavy annual shortening. Fruit large, round, somewhat elongated. Flesh firm and of good quality. August.

SNEED (S. C.)—Fruit medium to large, greenish white blush on sunny side; juicy and good, July. Not reliable North, though desirable as a very early bearer.

TRIUMPH (F.) — Earliest yellow fleshed, with good eating and shipping qualities. Sure and abundant bearer; strong, vigorous grower. Fruit good size, yellow, with red and crimson cheek.

WONDERFUL (F.)—Originated in New Jersey. Very large, yellow with red cheek; flesh yellow, highly flavored and firm; bright red at the pit, which is small and parts freely from the flesh. Good keeper. October.

Superb Apricot

Apricots

ALEXANDER—Russian, an immense bearer. Fruit large, oblong, yellow, flecked with red; sweet and delicious.

BUDD—Russian. Large, white with red cheek; sweet and juicy; strong grower, good bearer. Late.

GIBB—Russian. Medium, yellow, sub-acid, rich and juicy, the best early sort.

MOORPARK—One of the largest and finest apricots. Yellow with red cheek. Flesh orange sweet. Juicy and rich; parts from the stone. Very productive.

ROYAL—Large, roundish-oval; pale orange with faintly tinged red cheek; flesh yellow, firm, sweet, high flavored, slightly sub-acid and good quality, ripens a week earlier than Moorpark; a good market variety.

SUPERB—(Russian) — Medium, roundish-oval, smooth, light salmon with numerous red or russet dots, flesh yellow, firm, sub-acid and good; tree hardy and productive; middle of July.

Quinces

ORANGE—Large, roundish; yellow; cooks tender and is of excellent flavor. Valuable for preserves and flavoring. Productive. September and October.

CHAMPION—Fruit large, fair and handsome. Tree bears abundantly while young. Flesh cooks as tender as an apple and without hard spots or cores; flavor delicate. The most valuable of all.

MEECH PROLIFIC—The most profitable of all known varieties. Ripens between the Orange and the Champion. Bears early, quality good, and size large.

REA'S MAMMOTH—A very large, fine variety of the orange quince. Strong grower and productive.

Mulberries

The mulberry is not only valuable as an ornamental shade tree, but the fruit is well worthy of a place in every collection. Plant in deep, rich sandy loam. The tree requires little or no pruning and is of easy culture.

DOWNING'S EVERBEARING—This delicious variety produces a large fruit of a dark, purplish black color; flesh juicy, rich, sprightly, delicious. Very productive and ripening its fruit in succession for a long time. Not hardy North.

Downing's Everbearing Mulberries

NEW AMERICAN—Largest fruit, black; delicious flavor; a very attractive lawn tree, with very large leaves. Of rapid growth. Hardy.

RUSSIAN—Good shade and ornamental tree, rapid grower, excellent wind and snow break; most valuable to supply the native birds, thus keeping them from the most precious fruits. Fruit of little value.

Champion Quince

Grapes

Annual and careful pruning is essential to the production of good grapes. The roots cannot bring to maturity a fine crop of fruit if they are called upon to carry too much wood. Late in the fall is the best time to prune, when the vines are dormant.

Red Varieties

AGAWAM—Bunch large, shouldered; berry large, reddish brown, tender vinous and of excellent flavor. Very vigorous and productive. Vine hardy and one of the best of its class.

BRIGHTON—Bunch large, shouldered; berries medium to large, round, dark red, tender, very little pulp, sweet, juicy, slightly aromatic and very good. Ripens early.

DELAWARE—The bunches are small, compact, and sometimes shouldered; berries are small with thin but firm skin; flesh juicy, very sweet and refreshing and of the best quality for both table use and for wine. Ripens with Concord or a little before; vine is hardy, productive and a moderate grower.

Campbell's Early

Salem

SALEM—Bunch large and compact; berry large, of a light chestnut or Catawba color, thick skin, perfectly free from hard pulp; very sweet and sprightly with a most exquisite aromatic flavor; as early as Worden; keeps well.

Black Varieties

CAMPBELL'S EARLY—A new, very large and fine early grape, black; strong, vigorous, hardy vine with thick, healthy leaves; clusters very large, usually shouldered, compact and handsome; berries large, nearly round, black, rich, sweet, very good; skin thin; seeds few and small, parting easily from the pulp; a good shipper. Ripens very early, but remains sound on the vines for many weeks. This makes it one of the most satisfactory and profitable market sorts to grow.

Duchess Pears

American Arbor Vitae Hedge

BEAUTIFY YOUR HOME— With Trees and Shrubs

PRICE LIST — 1923

	Each	10	100
Apples, 5 to 7 feet.	.60	5.50	50.00
Apples, Crab, 5 to 7 feet	.70	6.50	
Pears, 5 to 7 feet.	.75	7.00	65.00
Pears, Dwarf, 3 feet.	.75	7.00	65.00
Peaches, 5 to 6 feet.	.60	5.50	
Plums, 5 to 6 feet.	.75	7.00	

Hansen Varieties, all introduced by Prof. Hansen of South Dakota Experiment Station. All are hybrids of the native plums of South Dakota and all are perfectly hardy. All come into bearing the next year after planting, and bear profusely.

Cherries, 5 to 6 feet:			
First Class	1.00	9.00	85.00
Second Class	.75	7.00	65.00
Third Class	.50	4.50	40.00
Grapes	.25	2.00	18.00
Gooseberries	.25	2.00	18.00
Raspberries	.10	1.00	7.00
Blackberries	.10	1.00	7.00
Strawberries (by p. post):	25	100	1000
Fall or Everbearing..	.75	2.00	16.00
Rhubarb	.25	2.00	10.00

Red Cedar, balled and
burlapped with 25 lbs.
own soil, 2 to 3 foot
trees 1.50 12.50

Red Cedars, 5 to 6 foot,
with 100 lbs. soil ... 5.00 40.00

Red Cedars, transplanted,
pruned and puddled,
12 to 15 in.35 3.00 20.00

Chinese Arbor Vita. Price of selected,
pruned, transplanted trees. Balled and
burlapped, with 25 lbs. own soil:
18 to 24 in. 1.50 12.50 100.00
24 to 30 in. 2.00 17.50
3 to 4 ft. 3.00 25.00
4 to 5 ft. 4.00 30.00

Red Cedar Seedlings, when order comes
in before February 25:
8 to 10 in. ...\$5.00 per C; \$30.00 per M.

Pines, B. and B., 75 lbs. soil:
2 to 3 feet. Each \$4.00; 10 for \$35.00

White Elm:
3 to 4 ft.15 1.20 10.00
4 to 5 ft.25 2.00 18.00
6 to 8 ft.75 6.00 50.00
8 to 10 ft. 1.00 7.50 60.00
10 to 12 ft. 1.50 12.00 100.00

Carolina Poplar and Maple: Same as Elm.

Rus. Olive:
3 ft.25 2.00 18.00
4 to 5 ft.50 4.00 35.00
8 to 10 ft. 1.50 10.00 85.00

Catalpa Bungui or Umbrella Tree:

5 to 6 ft. 2.00
6 to 8 ft. 2.50

Forest Tree Seedlings: Per 100 Per 1M
White Elm, 12 to 18 in. 1.50 12.00
Catalpa Speciosa 1.50 12.00

Osage Orange:
12 to 18 in. 1.00 8.00
18 to 24 in. 1.25 12.00

Yucca (Adam's Needle) .25 2.00
By Parcel Post.

Iris Germania.....2 for 25; 10 for \$1.00
By Parcel Post

Cannas, Red or Yellow, same as Iris.

Mexican Tube Roses: 10c ea.; 10 for 75c
By Parcel Post.

Mallow Marvels:
Strong field grown roots.50c each

Roses, parcel post:
Hybrid Perpetual Tea and Everbloom-
ing Roses, Each \$1.00; 10 for \$8.00

Climbing Roses. Each .75; 10 for \$6.00

Shrubs:	Ea.	Ten
Snow Balls	.75	6.00
Flowering Almond	.75	6.00
Althea	.75	6.00
Siberian Pea	.75	6.00
Bush Honeysuckle	.75	6.00
Barberry	.25	2.00
Evergreen Frivet (Box Bush)	.25	2.00
Hydrangeas	1.00	8.00
Spirea	.75	6.00
Lilac Persian	.75	6.00

"I have no trees or shrubs on my place but what were bought from the Pawnee Rock Nursery, W. M. Zieber, Proprietor, and I drew first prize for display of apples at the Pawnee County Fair and four firsts at the Barton County Fair—Gano, Ben Davis, Black Twig and Stamey Winesap. These apples were grown in Pawnee County, River Township."—C. W. Converse, Owner.

Anything not mentioned on this list, please write as we have lots of goods not mentioned here.

WRITE FOR DISPLAY CATALOG

THE PAWNEE ROCK NURSERY

W. M. ZIEBER, Proprietor

PAWNEE ROCK, KANSAS

62,67

1923

FALL 1914

SPRING 1915

PRICE LIST

OF THE

PAWNEE
NURSERY

GENERAL LINE OF
NURSERY STOCK

APPLE, PEAR, PLUM, PEACH.
CHERRY AND SHADE TREES.
BLACKBERRY AND STRAW-
BERRY PLANTS, ORNAMENTAL
SHRUBS, VINES, ETC.

J. N. DOUGAN & SON
PAWNEE, OKLA.

NURSERY 8 MILES SOUTHWEST
OF PAWNEE, 6 MILES NORTH-
EAST OF GLENCOE

PHONE No. 555 ON LINE D FROM
GLENCOE

Shipping: We bale and deliver to depot at the list price. If stock is wanted boxed an additional charge will be made. Small trees and plants can be sent by parcel post: Postage should be included when item is wanted by mail. The cost cannot be given here on all items, a small peach tree can be packed and mailed at the same price as a large one will be delivered F. O. B. at our shipping point.

After delivery to depot all goods travel at purchasers risk. Terms are cash, unless other arrangements are made before shipping. All stock offered in this list is ~~for~~ of our growing. We have a good assortment of peach and apple trees grown from buds and cions carefully selected. ~~Strawberries, pie plant~~ and some other items offered will come from outside sources. Any one not wanting stock we purchase, can make reserve when ordering.

J. N. Dougan & Son.

Fruits are named in general order of ripening all through list.

Apple Trees.

1	2 years	2 to 3 feet	06c	10
	2 years	3 to 4 feet	08c	15
2	2 years	4 to 6 feet	10c	20
	Transparent	G. G. Pippin		
	Early Harvest	Missouri Pippin		
	Red June	Ben Davis		
	Dutchess	Gano		
	Golden Sweet	Winesap		
	Maiden Blush	Stayman		
	Penn Ren Streak	Delicious		
	Johnathan	Ark. (M.B.T.)		

York Imperial

Crabs 15 Cents Each.

Florence Whitney

Pear Trees.

	2 year trees	3 to 4 feet	20c	35
	1 year trees	2 to 3 feet	15c	25
	Duchess	Kieffer		

Koonce

Plum Trees.

2 to 3 feet	10c	20
3 to 4 feet	15c	25
4 to 5 feet	20c	35

~~Milton~~ Burbank
 Abundance Domestic
 Pottawatomie Gold

Six weeks

Peach Trees.

1 and 2 years 2 to 3 feet	06c	10
3 to 4 feet	08c	15
4 to 5 feet	10c	20

~~Sneed~~ Chinese Cling
~~Alexander~~ Elberta
~~Triumph~~ ~~Mixon Cling~~
 Mamie Ross ~~Heath Cling~~
~~Mt. Rose~~ ~~Indian Cling~~
 Champion Salway
~~Foster~~ Stinson Cling

Wheeler

Apricot Trees.

Moorpark
 Russian

20c to 35
 10c

Cherry Trees.

2 feet	15c	20
3 feet	20c	25
4 feet	25c	35

Early Richmond Montmorency

Grape Vines.

Moore's Early 10
 Ives 05c
 Concord 03c to 5
 Delaware 03c 10
 Niagara 05c 10
 Goethe 05c

Blackberry Plants.

Per 12 25c
 Per 100 1.75 \$1.50
 Early Harvest Kittatinny

Gooseberries. 100

Houghton 12 75c

Progressive 100
 Strawberries.

Leading Varieties per 100 50c

Klondyke Aroma
Ridgeway
 Rhubarb. 75

Linnaeus, large size 12 50c

Shade and Ornamental Trees.

3 yr Soft Maple 6 to 8 feet	15c
2 yr Soft Maple 4 to 6 feet	10c
2 yr Russian Mulberry 5 to 7 ft	10c
2 yr Hicks Mulberry 5 to 7 ft	20c
Russian Weeping Mulb'ry	50c \$1.
2 yr American Elm	10c
Coffee Tree	10c
Sycamore	10c

Forest Trees Seedlings.

1 year Black Locust 100	50c
1 yr Russian Mulberry 100	50c
1 yr Catalpa Speciosa 100	50c

Evergreens.

Irish Juniper	20c
Juniper Red Cedar, per ft	10c
Austin Pine, per foot	10c
Rosedale Arborvitae, each	25c
Rosedale Arborvitae large size	50c
American Arborvitae, each	25c
Trailing Juniper, each	20c
Evergreen Tree Box, each	15c

Roses.

Everblooming, each	20c
Baby Rambler	Cl Meteor
Paul Neyron	Gen Jack
Mermet	M. C. Wood
Mary Washington	Marie Pavie

Hardy Climbers.

Prairie Queen Crimson Rambler

Ornamental Shrubs.

Althea	20c
Lilac purple	20c
Deutzia	10c
Citrus Trifoliate	10c
Crape Myrtle	10c
Spiraea	20c

Perennials—For Bedding.

Tube Roses	10c
Yuca	10c
Pampas	10c
Iris	10c

Climbing Vines.

Wisteria.....	20c
Honeysuckle, Hall Japan....	20c
Honeysuckle, Coral.	20c
Amepolopsis Quinquefolia....	20c
Trumpet Creeper.....	20c

Instruction Book
for

Transplanting
and
Managing

FRUITS AND
ORNAMENTAL
TREES, SHRUBS,
VINES
and
FLOWERS

**The Pawnee Rock
Nursery**

W. M. ZIEBER, Proprietor

Pawnee Rock, Kansas

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NURSERY CATALOGS AND PRINTED SUPPLIES

DES MOINES, IOWA

Our Trees are Well Rooted

PREPARING THE GROUND.

Before planting fruit trees the soil should be made mellow by repeated plowing; and where the soil is densely packed, a subsoil plow should be used and the ground stirred up from eight to ten inches deep. If this is neglected the roots are soon surrounded by a strong wall and you cannot expect them to live many years. Wherever this system has been practiced, healthy vigorous trees and fine fruit has been the result.

RECEIVING AND CARE OF TREES.

Trees are frequently ruined by lack of care, of bad managing after they fall into the hands of the purchaser. We have known them to lay for days tied up in a bundle just as received from the nursery, exposed to sun and wind and then set out, and with such treatment they cannot be expected to live when one hour's time would have buried them in the ground and placed them beyond danger.

When trees are received, the roots should be covered with a wet blanket or straw until they reach their destination. If the roots become dried from too long exposure, straw should be spread on the ground and the trees laid upon it, then cover the roots and tops with straw, and the whole well watered. In this condition they should remain for forty-eight hours, when they will be found as fresh as when first found in the nursery. If trees are received in a frozen state, they must be buried entirely, roots, top and all, from thirty-six to forty-eight hours, the earth will draw out the frost without injuring the trees. If the trees are in good condition when received or after remaining in the straw forty-eight hours and the holes are not yet dug, or the ground too wet to plant, then dig a trench and lay the trees in a slanting position so that you can cover up the roots and two-thirds of the body. In this position let them remain until the holes are dug or the ground is in a condition to receive them.

DIGGING THE HOLES.

If the soil for an orchard has been properly prepared by subsoiling and deep plowing, then the opening of holes becomes a very simple matter; and really this is by far the easiest and best plan, for if the soil is thoroughly pulverized to a depth of from eighteen to twenty inches all that is necessary is to measure off the distance at which the trees shall stand from one another, and the order of planting: flag poles are to be set in the line to be occupied by the first row of trees, and a deep furrow is then opened with a large plow, drawn by a steady pair of horses. The poles are then moved and set for the next row of trees, and so on, until the whole is laid off, making the furrows as straight as possible. This done, a lighter plow, drawn by a single horse, is driven across these deep furrows, at the proper distances, so that the intersection shall indicate where the trees are to stand. A few shovelfuls of earth removed, and the hole is ready for the tree. If the furrows have not been recently made, it will be well always to remove a portion of the surface, so to have fresh soil next to the roots.

Where only a few trees are to be planted, and the soil has not been subsoiled, or where trees are to be planted in sod, then the holes ought to be at least four feet wide and twenty-four to thirty inches deep, the subsoil thrown back, and the holes filled up to a proper depth to receive the trees with a fine top soil.

PRUNE BEFORE PLANTING.

Both root and top should be pruned at the time of planting and before the tree is set in the ground; the neglect of this causes the loss of an immense number of trees. When taken from the nursery the roots are more or less mutilated, therefore the balance of the trees must be restored by cutting off a portion of the side and top branches. First cut off the ends of all broken and bruised roots with a sharp knife, in a slanting direction, on the under side; this will cause the wound to heal over readily, by throwing out plenty of fibrous roots at the end; then cut back each branch or side limb to a bud not more than four or five inches above the highest side limb. Where there are no side limbs the tree should be headed back to a height proper to form a top. None of the lower limbs should be cut off entirely, as it is best to form the head as low down as possible, so that the limbs and leaves will protect the trunk of the trees from the direct rays of the sun.

Fig. 1.

Fig. 2.

Improperly Planted
SURE TO DIE

Properly Planted
WILL LIVE

DEPTH TO PLANT.

All kinds of fruit trees should be planted from two to three inches deeper than they grew in the nursery.

PLANTING

When ready to plant and before removing the trees from the trench, dig a hole about the size required for a tree; fill in to about six inches of the top with water; then fill it with fine soil and stir it into a pretty thick puddle. Take from the trench a few trees at a time, prune the roots and top as directed and place them in the puddle so that the roots are well covered; let them remain until the hole is ready and remove one by one as they are needed. Use good mellow top soil in the bottom of the hole and around the roots, slanting it a little to the southwest, leaving a little mound in the center of the hole; place the tree in position and arrange it to the proper depth by filling in or raking back the soil to or from where the tree will stand, then fill in fine, mellow soil between and around the roots with the hand, arranging all the roots in their natural position, and packing in the soil carefully around them. When the roots are barely covered, sprinkle on not less than a half bucket of water to moisten the soil and settle it among the roots; then fill to the top and press down the earth around the tree with the foot; throw a bucket of water around each tree to settle the ground, and scatter a little soil on top to prevent baking. Trees set out in this manner and well mulched will withstand almost any amount of drought.

FIG. 1.

FIG. 2.

FIG. 3.

Figure 1 shows a standard apple or pear tree in the spring after it has grown one season. In pruning cut above a bud that is on the outside of a limb, as that bud will develop into a branch, growing outward, and it is desirable to have the growth of the tree spreading, in order to let in sunlight and air. If the limb is cut just above a bud on the inside, the future branch will grow toward the main stock.

Figure 2 is the two or three years' dwarf pear at the time of setting out. The dotted lines show where the branches should be cut off at the time of planting. This should be done without fail.

Figure 3 represents the tree after it has made its first summer's growth since planting. The dotted lines show where it should then be cut back. The same general course must be pursued for every pruning afterwards, retaining the pyramidal form. Prune any time from November to April, but prune every year.

FIG. 4.

FIG. 5.

Figure 4 represents one of our peach trees as it is sent from the nursery.

Figure 5 shows how it should look when it is planted by the customer.

MULCHING.

Mulching is of vital importance and should never be neglected; the material used every third year should be coarse stable manure, for intervening

years such material as straw, grass, hay, sawdust or tanbark; any of above to be spread around the tree for a space of from four to five feet and three to six inches deep. This mulch should be placed around the trees about December 1st each year, and left until about May 10th, when manure should be removed and if other materials are used it should be removed also, if the land is to be cultivated. Thorough cultivation is always best, but if the orchard cannot be cultivated the mulch material named above except manure should be left around the trees all summer, to hold moisture and keep down grass and weeds. The object of mulching in early winter is to keep the ground from thawing around the roots until late in spring. More trees die from alternate freezing and thawing of roots than from all other causes, and the mulch will carry the roots through in perfect condition, if enough is kept on.

AFTER CULTURE.

The trees should be kept free from grass and orchard except potatoes, beans, peas, carrots or corn. Cultivate well in the early part of the summer and in the month of October. The principal of cultivation is that the loose and pulverized soil on the surface prevents the evaporation of moisture and keeps weeds in check. Give under drainage when it is needed, and attend annually and carefully to surface drainage. Bone dust, salt and plaster, are excellent manure for trees when used on the surface. No manure of any kind should be put in the hole with the tree; it is very injurious, causing a rank growth, making the tree tender and consequently short lived.

AFTER PRUNING.

The great majority of people do not take proper care of their trees after planting. This is a great mistake. If a tree or vine does not receive the right kind of care, and enough of it when young, it will never attain to a healthy old age. Very much has been said about pruning by various authors. Judging from these and our own experience and observations, we would say: Looking at the health and vigor of a tree, the best time to prune is just before sap begins to run, early in the spring.

Summer pruning is done to check rank growth and promote fruitfulness. This should be done very cautiously, if at all, as too much pruning will harm the tree. When we are in a hurry to have a tree bear, we pinch off the bud on the end of the limbs a little in summer. Do not fear to prune the tree when it is young—that is, when it is not growing—and keep pruning as long as it lives.

WATERING.

Trees seldom require watering, except in very dry weather. Probably more trees are killed than saved by injudicious watering. One good watering once a

week at night and repeated the next morning, is far better than ten times as often if improperly done. The right way is to draw away a little of the soil from the side of the tree, and allow all the water that the soil will absorb to soak in, then replace the dry soil. Repeat this the following morning.

STANDARD APPLE TREES

should be planted twenty-five to thirty feet apart according to the nature of the soil and climate. In the South it has been found of advantage to plant about twenty-five feet apart, and keep the heads low so as to protect the trunk from the direct rays of the sun. Plant out and cultivate as directed and do not neglect to mulch them, especially young trees.

The apple will grow on a great variety of soils, but it seldom thrives on very dry sand or soil saturated with moisture. Its favorite soil is a strong loam of limestone nature. A deep, strong, gravelly, marly or clayey loam, or a strong, sandy loam on a gravelly sub-soil, produces the greatest crops and the highest flavored fruit, as well as the utmost longevity of the trees. Such a soil is moist rather than dry, the most favorable conditions for this fruit. Too damp soil may be rendered fit for the apple by thorough drainage, and that which is too dry by deep sub-soil plowing or trenching, where the soil is of a heavy texture; and many New England orchards are very flourishing and productive on soils so stony and rock-covered as to be unfit for any other crop.

As regards site, apple orchards as a rule do best on northern or northwestern slopes.

CRAB APPLES

should be planted eighteen to twenty feet apart. They are very hardy and bear abundantly. The fruit is highly valuable for preserving and jelly and makes the finest cider known. Plant and cultivate as the apple.

STANDARD PEARS

should be planted twenty to twenty-five feet apart. They are grown on stock imported from France, and will grow on almost any soil, provided the sub-soil is not too wet; whenever this is the case the ground should be thoroughly under drained. In very poor soil a moderate top dressing of manure, in the fall will be of advantage. When a tree is assailed by the blight, cut off the part affected several inches below all appearances of the disease. Prune as directed and mulch well.

The pear will do its best on a strong loam of moderate depth, on a dry sub-soil; yet it will adapt itself to as great a variety of soils as any fruit tree. But the pear should never be set in soil that is wet the greater portion of the year, and too rich soil will produce so rapid a growth that the tree will be more liable to blight, as the wood will be soft. Soil that is too light may be improved by trenching, if the sub-

soil is heavier, or by top-dressing with heavy muck and river mud if it is not heavy.

In a climate cold for the pear, or on a cold soil, it is advantageous to plant on a southern slope; but in the middle states, in warm soils, we do not consider decidedly southern exposures as good as rather cooler ones.

STANDARD CHERRIES

should be planted sixteen to twenty feet apart. The soil best adapted to the cherry is a light loam on a gravelly or sandy sub soil, though it will do well in almost any situation not too wet. To insure a good growth, cherries should be well cut back for several successive seasons. In some portions of the West and South the cherry has not been uniformly successful, principally owing to an improper selection of sorts and the kind of trees. The great cause is owing to the body of the tree cracking, and becoming diseased, either dying outright or maintaining a sickly existence; particularly the Heart and Biggarreau classes. This is caused most by the direct action of the hot sun upon the unprotected trunk and large branches of the trees during rapid growth, and may be almost entirely remedied by planting dwarf cherries, cultivated on the Mahaleb stock, as the plants are rendered more hardy, and the lower branches start from the body of the tree within ten to fifteen inches of the ground.

PLUMS

should be planted twelve to fourteen feet apart. A clay loam or heavy loam is best adapted to the plum. In such soil the tree is found to be more vigorous, healthy and productive than in light soils. Where trees are planted in very light soil, clay may be supplied to advantage. To prevent the destruction of the fruit by the curculio, the plan of jarring out the insects on sheets and destroying them, is the most sure and effective. This should be repeated twice a day during the early stages of the fruit. The best time is in the morning and evening when the dew is on.

Swamp muck is also excellent, especially that from salt water marshes. Common salt sprinkled about the trees will do them good. Plums do well when planted in a hen yard, or where the fowls have free access to the trees, as they will destroy the insects that trouble many varieties.

The Japanese varieties of plums should receive different treatment from the old varieties. When planted in the fall, they should stand unpruned until spring, then in early spring, just as the sap begins to move, head back three to five of the strongest branches, leaving about one-third of the previous season's growth and removing the balance of the limbs entirely. Then each ensuing spring head back at least one-half of the previous season's growth. The short spurs that may form on the bodies of the

limbs should not be removed, as they will develop fruit buds. When the trees are planted in the spring, they should be headed back at the time of planting.

PRUNE TREES

should be planted ten to twelve feet apart. Soil and treatment same as plum.

STANDARD PEACHES

should be planted sixteen to eighteen feet apart. To secure healthy, vigorous, and fruitful trees, and fine fruit, the following points must be well attended to: First, keep the ground clean and mellow; second, keep the heads low—the trunk should not exceed three feet in height; third, give them an occasional dressing of wood ashes; fourth, prune every spring, shortening the shoots of the previous year's growth. This keeps the head round, full and well furnished with bearing wood. Cut weak shoots back about one-half, and strong ones about one-third; but see that there is left a sufficient supply of fruit buds. Sickly and superfluous shoots should be cut out clean. The fruit is borne on branches of last season's growth, and hence the necessity of keeping up a good supply of vigorous annual shoots all over the tree. Salt is an excellent fertilizer for peach trees; soap suds also are good. Young trees should be well mulched every spring.

As regards the best soil for peaches, there is such a diversity of opinion among experienced growers that we shall necessarily conflict with some pet theories in advising our patrons, yet we think no one will regret following our advice. The very best soil for the peach is a rich, deep sandy loam; next to this is a strong, mellow loam; then a light, thin, sandy soil; and the poorest is a heavy, compact, clay soil. We are aware that the peach does well on the lightest sandy soil in New Jersey, Delaware and Maryland, but it will reach the greatest perfection and live the longest, in soil such as we have described.

In sections where the blossom is liable to be cut off by late spring frosts, we advise planting on the north side of hills, northern slopes or elevated grounds, in preference to warm valleys and southern aspects. The buds will not start so early, and will be less liable to injury by the frost.

If a heavy mulch is placed about the trees after the ground is frozen it will retard the growth in the early spring, and often insure a crop of peaches.

APRICOTS AND NECTARINES

should be planted twelve to fifteen feet apart. They will grow on any friable soil under good culture. The apricots ripen about a month before our early peaches. The fruit is very fine, but like the plum is liable to attacks of the curculio, for which the same precaution and remedies should be applied. The nectarine is similar to the peach, both in fruit and

character of the tree, but its skin being smooth makes it subject to attacks of the curculio. The apricot and nectarine need the same management, culture and training as the peach. Not recommended for the north or middle west.

QUINCES

should be planted ten to twelve feet apart.

The quince grows naturally in rather moist soil, by the side of streams of water; hence it is a common idea that it should always be planted in some damp, neglected part of the garden or farm, where it usually receives no care, and the fruit is often knotty and inferior.

While it will thrive in damp soil, no tree is more benefited by manuring and cultivation than the quince. In a rich, mellow, deep soil, even if quite dry, it grows with thrice its usual vigor, and bears abundant crops of large and handsome fruit. The quince should, therefore, be planted in deep and good soil, kept in constant cultivation, and it should have a top dressing of manure every season if the finest fruit is desired. Common salt, sown broadcast about the trees, is very beneficial.

CURRENTS

should be planted in the garden four feet apart. Sawdust or tanbark should be used as mulch. The currant flourishes in almost every kind of soil, but to have the fruit in perfection, plant in rich, deep soil, and give good annual pruning and cultivation. When plants are grown as stools or bunches the older and feebler suckers should be cut out, such as crowd and over bear the plant. Of late years the currant worm has been very troublesome but if the bushes are sprayed with powdered white Hellebore, say a teaspoonful diluted in a pail of water, when the leaves are formed, also when the fruit is beginning to form, the currant worm will be disposed of.

GOOSEBERRIES

should be planted the same distance apart as currants. The plants should be annually and rather severely pruned by thinning out all feeble and crowded branches. Mulch the same as currants.

The gooseberry loves a deep, rich, rather cool soil and situation, and a partial shade often proves favorable to it. In transplanting, follow directions given for currants. Gooseberries need no pruning at the time of transplanting. Liberal manuring, cultivating, and a mulch of coal ashes is useful and tends to prevent mildew, which is liable to injure some varieties. If mildew does appear, the crop can usually be saved by sprinkling sulphur or slacked lime upon the bushes and salt upon the ground.

RASPBERRIES

should be planted four feet apart each way. In training, allow only a few canes to grow from each

plant, cutting away all suckers to throw the strength into the stalks for bearing; all old canes should be removed when the bearing season is over. Tender varieties should be protected during the winter in the northern states.

A good gravelly soil, or a deep, moist loam is generally considered best for the raspberry, yet the plants do well on light or even sandy loam, and on such soil the fruit will ripen some days earlier. The red varieties should not be placed on hard, clayey land, nor on low, wet soil. The black varieties do very well on claying soil.

In field culture the plants are usually placed two and one-half or three feet apart. Then, if necessary the bushes of two adjoining hills can be tied together at the top, forming an arch which will render them self-supporting. When planting on a large scale, the plow can be used instead of the spade, for getting the ground in condition, and also for transplanting, as bushes can be planted in the furrows instead of making holes with the spade. Run the plow six or eight inches deep, then partially fill the furrow with well-rotted manure.

Newly set plants should be hoed or cultivated quite frequently, especially early in the season, as it is important that a good start should be obtained the first year; in fact, if the land is in good condition, frequent cultivation without manuring is better than manuring without cultivation. It is important that all weeds should be kept down the first as well as the following seasons. When the plow is used, it should be run quite shallow, so as not to injure the roots. Old stable manure is the best fertilizer for general use. On light soils it is well to apply it as a mulch. Well-rotted stable manure, or a mixture of spent tanbark and wood ashes, make a most excellent mulch. A little salt may be added to the mulch or fertilizer.

The first season only two or three shoots or canes should be allowed to grow from each root or hill. In midsummer, when the canes have reached a height of about two feet, the top should be pinched off with the thumb and finger. This will cause the canes to throw out laterals. These branches should likewise be cut back when they have made a growth of about one foot from the canes. If this summer pruning is neglected until the bushes get to be three or four feet high, shears should be used to cut them back to within two and one-half feet of the ground. It is not necessary to head in all varieties during the summer, and in garden culture some prefer driving a stake in each hill to which the bushes can be tied to keep them from dropping to the ground when fruiting. The bushes can be allowed to grow, and in the late fall the surplus suckers and the old fruit canes can be cut out, and the suckers that are left for the next year's crop cut back to within two and one-half feet of the ground.

BLACKBERRIES

require the same kind of soil and treatment as raspberries, except that they should be planted in rows eight feet wide and four feet apart in the row. A neat and improved method of pruning will make the plants self-sustaining bushes, viz.: As soon as the plants are about four feet high, clip off the points of the growing canes and repeat the operation several times until they assume the form of a bush. If not pruned in this manner they require to be tied to a stake or wire trellis. Mulching is of great advantage to both raspberries and blackberries.

GRAPES

if planted for fastening to a trellis or arbor, should be planted twelve feet apart; but if tied to stake, six feet apart. The holes should be dug not less than four feet wide and two feet deep. Burying bones under the roots makes the vines much more prolific, and the fruit of better quality. The bones should be put in the bottom of the hole and covered with fine soil, then pour in a little water to settle the dirt among the bones; then fill up with mellow soil to within five or six inches of the top; cut off the bruised and broken roots; straighten the roots to their natural position and cover with fine mellow soil about two inches, packing it carefully with the hand, then sprinkle on sufficient water to moisten the roots, fill up the hole and press down the dirt. A stake should be placed with each vine at the time of setting six or seven feet high. The first year train one shoot only up to the stake, pinching off all others, and also the latter or side shoots that appear during the first season; the following spring cut the vine down to within three or four buds of the ground.

Fig. 6.

The next season allow but two of the strongest buds to throw out shoots. These, in the fall, will be from five to seven feet long and should be fastened to the lower part of the trellis. When growth com-

mences, pinch the buds so that the shoots will be from ten to twelve inches apart. As they grow train them perpendicularly to the second, third and fourth bars of the trellis, and in the fall the vine, with its fruit, will present the appearance shown in Figure 6, as no fruit should be allowed to set above the second bar of the trellis. During the season when the shoots shall have reached the upper bar of the trellis, they may be pinched to prevent further growth.

Fig. 7.

Late in the fall, cut back to two buds, as shown in Figure 7. The following spring allow but one bud to throw out a shoot, and treat as in the previous year. This system of pruning should be followed each year.

STRAWBERRIES.

The ground should be prepared the same as for other crops; if not already rich, make it so by well rotted manure. Mark out the rows the desired width, and set plants ten to seventeen inches distant in the rows; if set twelve inches, in rows four feet apart, an acre will require 10,890 plants; same as if set sixteen inches in rows three feet apart. In early winter when the ground is frozen, cover the whole with long straw, which should be removed from the plant in the spring but allowed to remain between the rows as a mulch to keep the berries clean next summer.

If all staminate varieties are planted each plant will fertilize itself and bear fruit, but when pistillate varieties are planted alone, they will never bear fruit. Therefore they must be planted not farther than four feet from a few of the staminate varieties to insure pollenization to get the best results, plant all staminate varieties such as Bederwood, Senator Dunlap, Splendid, Lovett, Enhance, Capt. Jack Brandywine and Parker Early or alternate rows of staminate and pistillate varieties. By planting alternate rows of Bederwood, Senator Dunlap and Warfield the best results are produced in Minnesota generally.

DEWBERRIES.

The dewberry, or trailing blackberry, should be trained to a stake, or it can be worked regularly on a small trellis. It should be planted in rows about six feet apart and four feet apart in the row. When the cane or vine has made a growth of five or six feet, it should be cut back. Otherwise treat the same as raspberries.

ASPARAGUS.

To make an asparagus bed, prepare a place of fine, loamy soil, to which has been added a liberal dressing of rich manure. For a garden, set in rows, eighteen to twenty inches apart, with the plants ten to twelve inches apart in the rows. Make a small mound of the soil, over which the roots should be spread, then cover the plants with about three inches of soil. If planted in the fall the whole bed should be covered before winter sets in with two or three inches of coarse stable manure, which may be lightly forked in between the rows as soon as the ground softens in the spring.

RHUBARB.

Deep, rich soil is the best for rhubarb, but it is such a strong vigorous-growing plant it will thrive almost anywhere. Set the roots so that the crowns are about an inch below the surface. It is a gross feeder; the more manure, the larger and finer the yield.

EVERGREENS.

The holes ought to be dug four feet wide and two feet deep. Fill completely; let it remain until about the first of April. If set in up to the proper height with well-pulverized earth, mixed with about one-sixteenth of sand, cut off all the bruised and broken roots; place them in their natural position in the hole; cover them with rich, mellow soil, then pour on water until the roots are thoroughly wet; then fill to the top and pack with the foot.

After the tree is planted in the fall take long straw and set it entirely around the tree, and bind it at the top so as to cover the tree completely; let it remain until about the first of April. If set in the spring the straw covering should be put on just the same and remain about two weeks. During the first summer evergreens should be well mulched with coarse manure or litter, spread out a little beyond where the roots extend, and four to six inches in depth.

ROSES.

Plant and treat in the same manner as evergreens. Shorten all the branches to about one-half their original length. Grass or weeds should never be allowed to grow within two feet of the stock and all old stocks should be trimmed out every fall. Cover with dirt about November 1st of each year to keep from freezing down.

BULBS—OUT-DOOR CULTURE.

October and November is the proper time for planting Hyacinths, Crocuses, Tulips, Snowdrops and other bulbs, and not in the spring. Let the soil be dug to the depth of eighteen inches, thoroughly pulverized, and if the soil is poor, enrich with thor-

oughly decomposed manure; if the soil is too close or heavy, mix some sand with it and thoroughly incorporate the whole. When covered with half rotted manure this will sufficiently enrich the soil. The best covering is leaves or half decayed manure—never—rotten manure, as it excludes light and air. By excessive covering, many bulbs are annually lost. Cover then from two to four inches, after the ground is frozen two or three inches deep. This will help to secure the bulbs from the depredations of mice and other vermin. It is not the freezing that kills, but the continued thawing and freezing, thus lifting the bulbs to the surface of the ground. As soon as the coldest weather is over the covering may be removed. When the blooming season is past, pinch off all the flower stems allowing the bulbs to remain until the leaves are yellow. If the beds are wanted for bedding plants, take up the bulbs and re-plant them very thickly in any vacant spot, allowing them to remain until the foliage is decayed; then if named varieties, place each one in sand, putting them away until fall planting.

HYACINTHS IN GLASSES.

Nothing more easy, more fragrant, or will more richly reward the grower than the Hyacinth. For pots and glasses the named varieties are the most desirable. To grow them in glasses the single ones are preferred, although some of the double are equally as good. First let your glasses be thoroughly cleaned, then fill them with water; the base of the bulb just and barely touching the water; place them carefully away for three or four weeks in a dark closet. Then you will find that the roots have nearly filled the glass; bring them to the light gradually. Avoid placing them on the window ledge, as the cold draughts chill the roots; neither expose to the full sun, but keep them in a room of moderate temperature, with plenty of light and air. As the water evaporates, fill up with water at the same temperature as the room. Never change the water unless it becomes tainted, neither use cotton or other rags. The simpler the treatment, the more certain of success.

HYACINTHS IN POTS.

If the leaf mold, and special compost considered necessary for the amateur to grow these favorites to perfection is not available, take any ordinary garden soil; if poor, mix it with some thoroughly decomposed manure and fine sand; make a heap of it, turning it over once or twice. Select the deepest pots, plant one or more hyacinth in each, according to the size of the pot, place the bulb not deeper than the shoulder; thoroughly saturate them with water for two or three days, then place them in a box, covering the whole with six inches of damp sand and put them in a cold cellar placing them on the floor, leaving them there for at least four to six weeks, re-

moving them a few at a time to keep up a succession of bloom, bringing them gradually to the light. With the above simple treatment a lady last fall ventured upon what she termed "The deep waters" with hyacinths in glasses and hyacinths, crocuses and Duc Van Thol tulips grown in sand and moss—keeping them in darkness for the time specified. A most magnificent bloom of flowers was the result. The great secret is to obtain the bulbs well rooted, and this can only be accomplished by burying them in darkness. If exposed to the light at the first planting, the struggle between the top and the bottom growth, both particularly weak, commences, and the result is a weakly flower, if any.

HERBACEOUS PAEONIES.

The best time to plant them is in the autumn. This is one of the finest herbaceous perennials, perfectly hardy, wonderfully showy and of the easiest culture. They will thrive in any ordinary garden soil needing no extra care or cultivation. The varieties from the earliest to the latest, afford a succession of bloom for over a month.

LILIES

should be planted in November, five or six inches deep, and may be allowed to remain in the ground for years. These unlike the hyacinth, crocus, etc., if neglected in the fall, may be planted in the spring as soon as the garden is in condition to plant garden seeds.

DAHLIAS

should be planted in the spring in mellow soil, as soon as all danger from frost has disappeared, and the ground is not too wet. In the fall or early winter, before frost, the roots should be taken up, packed in sand, and put away in a dry cellar or dark room, secure from frost.

CLEMATIS VINES.

may be planted in the spring or fall. When planted in the fall they should be thoroughly mulched with half-rotten manure, allowing it to remain until after freezing weather is over in the spring. They can be planted two feet apart, allowing four or five different colors to run on the same frame or trellis. The ground should be made rich by using liquid manure, and pouring it around the vines as often as once a month during the growing season. After the blooming season is over in the fall the vines may be cut off near the ground, thus enabling them to throw out more and better shoots the following spring.

PRIVET.

There are over forty varieties of the Privet family grown and disseminated in this country which leads to much confusion to the planter.

It will grow well in most all soils and locations even in the heart of large cities where other shrubs would perish on account of the smoke and gases. To get best results when planting in poor clay or hardpan soils, the trench should be dug out and ordinary good surface loam used in planting. A mulch of well-decomposed barn-yard litter is very beneficial to all hedges if applied annually in fall before severe freezing weather sets in.

The hedge can be planted in either single or double row.

If planting single row, dig trench 12 to 14 inches wide and of same depth, set plants from 8 to 12 inches apart according to size of plants.

If planting double row, dig trench 24 inches from each wall of trench, leaving 12 inches between rows and plant same distance apart as for single, only alternate. Thus:

Pack earth firmly around roots when planting and soak with water on completing.

If planted in spring, clip as soon as hedge is planted; do not let your courage fail you here. A safe rule is to cut off two-thirds of the tops; the more severe, the better for the hedge.

Do not clip your hedge in the fall.

Summer clipping should be done during the last half of June, to allow young wood to harden before winter sets in.

Ligustrum Amuentsis.—This is the Amoor or Russian Privet and is the only variety that should be planted for hedging in the cold northern states. Of course, it will thrive and do well all over the country, but it must be remembered that for northern latitude this is the only variety that can be safely planted.

Ligustrum Ovalifolium.—This is California Privet. Planters must be careful not to get this variety confused with the hardy. The California Privet is one of the most beautiful varieties grown, but must be planted in the southern states.

SPRAYING FRUIT TREES.

Experience has demonstrated the fact that spraying at the proper time and properly done for protection against destructive insects, rot, fungus and blight is the best if not the only sure remedy against these enemies of the horticulturist and that it has succeeded and will succeed is evidenced by the rapid increasing interest manifested in the manufacture, sale and use of spraying machines, and the good results obtained by those who have practiced this method of protection.

Apple Trees.—For prevention of leaf blight, spray as soon as the leaves open in the spring, with Bordeaux Mixture, or ammoniacal carbonate of copper. To destroy the aphid or plant lice, spray with kerosene emulsion as soon as the pest appears. To destroy the codling moth, canker worm and curculio, spray with Paris green or London purple, $\frac{1}{4}$ pound in 40 or 50 gallons of water, soon after the blossoms fall, and again two weeks later. To destroy the web worm, spray with London purple or kerosene emulsion about August 1st to 10th, or as soon as they appear. This application should be made during the middle of the day, when the worms are out of the webs and feeding on the leaves.

Cherries.—Treatment same as recommended for the apples.

Pears.—The pear slug can easily be destroyed by spraying with Paris green, four ounces to 50 gallons of water, or kerosene emulsion as soon as it begins operations. Pear and quince blight can be destroyed by spraying with Bordeaux Mixture. The codling moth and curculio should be treated the same as recommended for apple trees.

Plums.—Destroy the aphid with kerosene emulsion through a fine spray nozzle. The curculio can be destroyed by spraying with 3 ounces Paris green to 40 gallons of water. First application should be made as soon as blossoms have fallen, and repeated at intervals of a week or ten days. Four applications should be sufficient. Other enemies of the plum will be destroyed by this method, but in all cases be particular to keep the poison and water constantly stirred.

Grape Rot and Mildew.—Use the Bordeaux Mixture.

FORMULAS.

Ammoniacal Copper Carbonate

Copper Carbonate	1 ounce
Ammonia enough to dissolve the copper	
Water	9 gallons

The copper carbonate is best dissolved in large bottles, when it will keep indefinitely, and it should be diluted with water as required. For the same purpose as Bordeaux mixture.

Bordeaux Mixture

Copper sulphate	6 pounds
Quicklime	6 pounds
Water	50 gallons

Dissolve the copper sulphate by putting it in a bag of coarse cloth and hanging this in a vessel holding at least 4 gallons, so that it is just covered

by the water. Use an earthen or wooden vessel. Slack the lime in an equal amount of water. Then mix the two and add enough water to make 50 gallons. It is then ready for immediate use. Do not use Bordeaux mixture which has been made over 48 hours.

For the third spraying an increase of lime insures the safety of the mixture, that the foliage and the fruit may not be injured by the presence of dissolved copper. For rots, molds, mildew and all fungus diseases.

Copper Sulphate Solution

Copper sulphate 1 pound
Water 15 gallons

Dissolve the copper sulphate in the water, when it is ready for use. This should never be applied to the foliage, but must be used before the buds break. For peaches and nectarines, use 25 gallons of water. For fungus diseases.

Hellebore

Fresh White Hellebore 1 ounce
Water 3 gallons

Apply when thoroughly mixed. This poison is not so energetic as the arsenites and may be used a short time before the sprayed portions mature. For insects which chew.

Kerosene Emulsion

Hard soap $\frac{1}{2}$ pound
Boiling Water 1 gallon
Kerosene 2 gallons

Dissolve the soap in the water, add the kerosene and churn with a pump for 5 to 10 minutes, then add 30 gallons of water. Use strong emulsions for all scale insects. For insects which suck, as plant lice, mealy bugs, red spider, thrips, cabbage worms, currant worms and all which have soft bodies; dilute the above formula before applying by adding 50 to 60 gallons of water.

Paris Green

Paris Green 1 pound
Water 250—300 gallons

If this mixture is to be used on peach trees, 1 pound of quicklime should be added. Repeated applications will injure most foliage, unless lime is added. Paris Green and Bordeaux mixture can be applied together with perfect safety. Use at the rate of 4 ounces of arsenites to 50 gallons of the mixture. For insects which chew.

RECIPES, ETC.

Dissolve two pounds of potash in two gallons of water, or with soft soap—apply to young trees with a soft brush. This is a good wash.

Leached wood ashes placed with soil around the body of peach trees is sure protection against the invasion of the peach borer.

To kill the rose bug and slug, sprinkle the bush with a mixture of whale oil soap and tobacco juice.

PRUNING.

We will suppose that after the first year's growth, the branches were well cut back, as per our directions. Then, as soon as growth commences, numerous sprouts or shoots will start on each limb. All of these sprouts should be rubbed off, except the one nearest the end of the limb. When pruning, do not forget that the way a bud points is the direction the future limb will grow; so if you want the limb to grow outward prune so as to leave the last bud on the lower side; if desire an upward growth leave the last bud on top.

Many varieties of standard pears and plums require an annual headings-in as well as the removal of surplus limbs. Cherries and quinces require but little pruning, except to keep the tree in good shape. Dwarf pear and apricots require annual pruning. Peaches require severe annual pruning.

It is well to remember that pruning fruit trees is largely a matter of common sense, and that the object is to form a well shaped tree, to allow the sun and air to get at the fruit, and to check a too rapid wood growth, thereby throwing the sap into fruit buds. If the tree is growing tall and rampant, cut it back; if all the limbs grow inward, thin them out in such a manner that the remaining branches will make an outward growth, that the sun and air may be let in; if the branches droop too much, and give evidence of eventually preventing moving about under the trees, trim so the future growth will be upward; when a tree of bearing age is making a very rapid growth and does not fruit, cut it back severely.

THE APPLE BORER

Bores into the trees at the surface of the ground. When this white grub is in the tree it may be picked out with a knife or punched to death in its hole by using a flexible wire. If the borers are not numerous and time is precious, then this may be omitted. but late in June the trunk of the tree should be washed down to the ground with a mixture of half a gallon of soft soap and a quarter of a pint of crude carbolic acid stirred into two gallons of warm water and afterwards two gallons of cold water added. Another easy plan is to mix an ounce of crude carbolic acid with a gallon of hot and strong soap suds and apply when cold in June and again the last of July. Other preventives are to wash the lower trunks of trees with a solution of half a pound of common potash to half a gallon of water in May or June, and the coal ashes mixed with wood ashes and heaped around the trees in May. Wood ashes, if applied alone very thick, might injure young trees. Air-slacked lime and soil are also good to heap up around the trees.

WASHES.

All young trees are greatly benefited by an annual wash of strong soap suds or lye made from wood ashes, which should be applied early in the spring. The addition of a gill of carbolic acid to each gallon of wash is recommended. As the trees get larger, instead of the wash, wood ashes can be thrown through the trees, while the limbs are damp, with very good results. During the summer, if any disease develops itself on the tree, wash them with soap suds and carbolic acid, after carefully removing the effected portions.

FERTILIZERS.

Wood ashes are unquestionably the best fertilizer for all kinds of fruit trees, but they will be benefited by the liberal use of most any well-rotted manure, and planters should bear in mind that it pays (both in the quality and quantity of the fruit) to fertilize fruit trees.

THINNING OUT THE FRUIT.

Many varieties of apples, pears and peaches are naturally so productive that they set more fruit than the tree can properly mature. When this occurs it is highly important to pick off from one-fourth to one-half of the crop as soon as it fairly sets. Very young trees should not be allowed to bear too heavily.

DISTANCES FOR PLANTING.

	Distance	No. per Acre.
Standard Apples	30 feet	49
Standard Pears and rapid growing Cherries	20 feet	109
Duke and Morello Cherries	18 feet	135
Standard Plums, Peaches, Apri- cots, Nectarines	18 feet	135
Quinces	10 feet	436
Pyramidal Apples, Pears, Cher- ries and Plums	12 feet	302
Dwarf Apples	8 feet	681
Dwarf Cherries, Duke and Mor- ellos	10 feet	436
Grapes on trellises	8 feet	681
Grapes trained to stake	6 feet	1,210
Currants, Gooseberries and Rasp- berries	4 feet	2,722
Blackberries	6 feet	1,210
Strawberries, in beds for family use	15 in. apart each way	
Strawberries, in large quantities for market the rows 3½ to 4 feet apart and 1 foot apart in the row.		

ARTICLE 1

Section 1. The purpose of this act is to provide for the better government of the State of New York, and to that end the following provisions shall be observed.

ARTICLE 2

Section 1. The Governor of the State of New York shall have the honor and pleasure of the office of Governor of the State of New York, and shall hold office for a term of four years, beginning on the first day of January next following his election, and shall be eligible for re-election.

ARTICLE 3

Section 1. The Senate of the State of New York shall be composed of twenty-four members, who shall be elected by the qualified electors of the State of New York, and shall hold office for a term of four years, beginning on the first day of January next following their election, and shall be eligible for re-election.

Juniperus Virginiana or Improved Red Cedar

Catalpa Bungei

Downing Gooseberries

Concord

CONCORD—One of the most popular and reliable varieties we possess; bunch large, compact and shouldered; berry large, round, almost black with blue bloom, juicy, buttery and very sweet.

MOORE'S EARLY—A large grape, ripening a week earlier than Concord; good grower; berries large, good quality, and makes a moderate yield; very valuable as an early grape.

WORDEN—Seedling of the Concord, which it greatly resembles in appearance and flavor, but the berries are larger. The fruit is said to be better flavored and to ripen several days earlier. These qualities will give it the foremost rank among native grapes.

Niagara

Moore's Early

White Varieties

NIAGARA—Occupies the same position among the white varieties as Concord among the black. Bunch and berries large, greenish white, changing to pale yellow when fully ripe. Skin thin but tough, quality much like the Concord.

POCKLINGTON—Seedling from the Concord. The vine is thoroughly hardy both in wood and foliage; it is a strong grower, never mildews in vine or foliage. The fruit is a light golden yellow, clear, juicy and sweet to the center, with little or no pulp; bunches very large, sometimes shouldered; berries round, very large and thickly set. Ripens with the Concord.

Raspberries

Plant three and a half feet apart in rows four feet apart. Thin to four or five good canes in a hill; cut out old canes as soon as through fruiting.

Red and Purple Cap Varieties

COLUMBIAN—The Columbian is a new variety of the Shaffer type, of remarkable vigor and productiveness. Not very hardy and propagates from tips. Fruit very large, often an inch in diameter, shape somewhat conical, color dark red bordered on purple; adheres firmly to the stem and will dry on the bush if not picked; seeds small and deeply imbedded in a rich juicy pulp with a distinct flavor of its own. Succeeds wherever red sorts do well and promises to become the leading variety. A most delicious table berry.

CUTHBERT—Cane tall and vigorous, berries large, conical, rich crimson and very handsome; best quality and carries well; very productive.

HAYMAKER—Purple cap. A splendid shipper and canning berry; does not crumble; excellent quality; very productive; plants vigorous and hardy.

ST. REGIS EVERBEARING — The new everbearing variety. It gives a crop of fruit all summer and autumn fruiting on the old canes in generous quantities until late in August. By this date berries begin to ripen on the young canes and continue until late in autumn. Berries are a bright crimson of large size and of surprising quality, sugary with full raspberry flavor. It succeeds upon all soils, whether light and sandy or cold heavy clay and the canes are absolutely hardy.

Black Varieties

CUMBERLAND—Largest black raspberry known; unusually strong grower, perfectly hardy. The most profitable raspberry grown.

GREGG—Extra big, enormously productive. Hardy; firm black meaty berries. Late ripening and firm for shipping.

St. Regis Everbearing

Kansas Raspberries

KANSAS—Originated at Lawrence, Kansas. Healthy, vigorous grower; early; berry is as large as Gregg and as good a shipper. Very productive, and valuable for early market.

Loganberries

Hybrid between a blackberry and a red raspberry, originated in California. Fruit as large as a blackberry, but of deep red color. Excellent as a novelty.

Cumberland Raspberries

Loganberries

Blackberries

Plant four feet apart in rows six feet apart. Pinch the canes back when four feet high. Light, moderately rich land is preferable.

Snyder

EARLY HARVEST—One of the earliest, but needs winter protection north. Medium size, quality good; prolific.

ELDORADO—A valuable blackberry for our northern climate. The berries are large, jet black, ripen well together and are borne in large clusters; they are sweet and delicious, have no hard core, and keep well after picking.

MERSEREAU—Renowned for hardiness of cane, great productiveness and large size berry. Is not "seedy" like many other sorts. Fruit jet black, and does not change color.

Berries rich, melting and luscious, with little or no core.

RATHBUN—This new blackberry has been tested over a wide area and is said to surpass any blackberry on the market. Berries large, jet black and of very fine quality. Ripens early.

SNYDER—The old standard. Very hardy, consequently much raised in cold climates. Berries medium size, juicy, rich; strong, stout cane, thrifty growth and a very broad leaf.

Dewberries

Dewberry

LUCRETIA—Fruit very large, luscious and sweet; perfectly hardy, healthy, enormously productive; a very profitable market fruit; the vines should be allowed to remain on the ground during the winter and staked up early in the spring. Fruit ripens early, is often one and one-half inches long.

Currants

The currant is one of the most valued of the small fruits. They mature just before Raspberries and can be used either raw or cooked. Being very hardy, they do not winter-kill and are easy of cultivation, requiring little care. They can be grown in any good garden soil.

Cherry

CHERRY—The largest of all red currants; berries sometimes more than one-half inch in diameter; bunches short; plant very vigorous and productive when grown on good soil and well cultivated.

FAY'S PROLIFIC—For size, beauty and productiveness it is a remarkable red currant. The berry is equal to cherry currant, while the flavor is superior. The stem is long, which permits rapid picking, valuable for both market and home. Fruit hangs on well, never dropping, as in other currants.

PERFECTION—Bright red, and of a size larger than the Fay; size of berries is maintained to end of bunch. It is one of the most productive Currants. Rich, mild, sub-acid flavor and having plenty of pulp with few seeds. You can pick Perfections fast as cherries.

POMONA—This is one of the most profitable currants for the market; while not the largest in size, it outyields all other varieties. Color is a beautiful bright red, berry sweet and less acid than most of the general varieties; good size, and larger than Victoria; a vigorous grower with healthy, hardy foliage.

RED DUTCH—Old, well-known sort of good quality; great bearer. Fine market variety. Vigorous and upright grower.

WHITE GRAPE—Very large, yellowish white; sweet, or very mild acid; excellent for the table. The finest of the white sorts, very productive.

WILDER—Very large; bright red and attractive; a splendid sort; not so acid as most. Bush very productive; large bunches; ripens rather early, fruit keeps well.

Perfection

Gooseberries

Downing Gooseberries

DOWNING—Fruit very large, flesh whitish green, soft, juicy and good; plant vigorous and prolific; one of the best.

HOUGHTON—The old, well-known sort; pale red, sweet and good. It is rather small, but a productive, healthy and very reliable gooseberry.

JOSSELYN (Red Jacket) — Large size, smooth, prolific and hardy. Has been tested

by the side of all leading varieties, is freest from mildew of all. A wonderful cropper, with large, smooth, pale red fruit of first class flavor.

PEARL—A cross between Houghton and one of the large English varieties. It is very hardy and entirely free from mildew; superior in size and quality; as productive as Downing.

Strawberries

Progressive Everbearing Strawberries

Everbearing Varieties

AMERICUS EVERBEARING (P)—Large; firm; uniform shape; bright red through and through; has native wild strawberry flavor; very productive from May until hard freezing weather. Claimed by some to be the best of everbearing strawberries.

PROGRESSIVE EVERBEARING (P)—The berries are not as large as Superb and not so good quality, but they yield well and, we think, will be one of the best known varieties

of fall bearers in a few years. Fruit of Progressive is of good size, smooth, of good color and appearance.

SUPERB EVERBEARING (P)—Very large, dark red and glossy; fine quality. It begins to bear in June with immense crops and continues until late in fall. It is one of the heaviest bearers of berries in June as well as a remarkable fall bearer. Will produce a fair crop of fruit the first summer.

Spring-bearing Varieties

AROMA (P.)—Large; dark red; uniformly roundish, heart shaped; flesh firm and of very good quality. Stands shipping well; plants vigorous and very productive; blossoms rich in pollen and is good fertilizer for imperfect varieties. Late.

BUBACH (P)—Very prolific, excellent flavor and large size. A number of new varieties have been pitted against it, claiming superiority in one way or another, but Bubach is among the best, and continues to grow in favor.

CHARLES I—Probably the largest and most productive strawberry grown. Quite dark red color. A very firm fruit and for delicacy of flavor it has no equal.

DR. BURRILL (P)—Fruit is large, beautiful, dark red in color, and of excellent flavor. Shape similar to the Senator Dunlap and ripens at the same time as the Dunlap; great canning berry. It is an excellent berry for the home garden or for the market. No better.

POCOMOKE — Good variety. Hardy and productive. Berries beautiful bright red, very large and firm. Flavor good. Stands shipping well. A fine market berry.

SENATOR DUNLAP (S)—This berry is of the Warfield type, has a perfect blossom, is hardy, productive, a splendid keeper and able to hold its own under any "rough and tumble" methods of culture to which it is likely to be subjected. It is a very heavy bearer of good size, even fruit, of a very beautiful dark red color. It is a berry to grow for either home use or market.

WARFIELD (P)—There is probably no better or more profitable berry grown for market. It is in greater demand than any other berry for canning purposes, which also creates a good market for it. Care should be taken to use the right berries as fertilizers. It needs a strong pollinizer.

Gibson

Klondike

GANDY (S)—Large, light crimson; flesh of firm, good quality. Plants vigorous but should be planted in swamp or moist, clay soils. Perfect. Late.

GIBSON—This is the most popular strawberry extant today. Best for market and best for the home garden. Berry large; dark glossy, red, nearly round, very productive. Plant Gibson and success will be yours.

HAVERLAND (P)—Profitable by reason of its productiveness and earliness; requires deep, heavy soil; plant exceedingly vigorous and healthy; fruit large, handsome and good, rather long in shape and of a bright, glossy crimson; early.

KLONDIKE (S)—Large; red; flesh firm, red to the core, with a mild and delicious flavor, unlike any other variety. Is very popular with southern growers who ship. Plant tall, compact, vigorous grower; resists frosts well and yields good crops. Perfect. Midseason.

Rhubarb

This deserves to be ranked among the best early fruits in the garden. It affords the earliest material for pies and tarts, continues long in use, is valuable for canning. Use well grown roots, not divided old clumps.

WYATTS LINNEAUS—Large, early, tender and fine.

Asparagus

The first garden vegetable of spring; it is a great delicacy and comes in just when it is most needed. One hundred roots will supply a small family and will last for years. Set the plants about eighteen inches apart in the row. Spread the roots out in the bottom of the hole or furrow and gradually fill in as the plant grows, so that the roots will be about four inches deep.

CONOVER'S COLLOSAL—Best for general planting.

PALMETTO—Newer variety, earlier; probably as good.

Roses

Hybrid Perpetuals

ALFRED COLOMB—Bright carmine red; clear color, large, deeply built form; exceedingly fine.

AMERICAN BEAUTY—The world-famous rose. Rich, rosy-crimson, exquisitely shaded. Magnificent buds. Flowers extra large and deep petaled; of beautiful form and very double. This hardy rose has the ever-blooming qualities of the Tea Rose with the delicious odor of the La France. The great American forcer and bedder, each shoot producing a bud. A universal favorite. Not hardy.

ANNE DE DIESBACH—Brilliant crimson, sometimes shaded with bright maroon. A superb garden sort; fragrant, one of the hardest and best.

CLIO—A rose of perfect form and finish, with broad, thick petals, high full center, beautiful from pointed bud to fully opened flower. The color is a delicate satiny blush with slightly deeper center. The plant is vigorous and blooms freely, displaying its great flowers on good stems against large rich leaves.

COQUETTE DES ALPS—White tinged with pale rose, size medium, fine form, a free bloomer, dainty and attractive.

DUFFERIN—Rich, dark crimson, shading to maroon; large, full, fragrant; a good grower; one of the best dark roses.

FRAU KARL DRUSCHKI—Snow white, very large, perfect form. A vigorous grower and free bloomer. Bright, heavy foliage.

GENERAL JACQUEMINOT—This might be called the rose for the million, for it is still a universal favorite. Bright crimson-scarlet, exceedingly rich and velvety.

JOHN HOPPER—Color, a brilliant pink shaded with scarlet. Very sweet, perfect, profuse bloomer.

MAGNA CHARTA—Bright, clear pink, flushed with violet crimson; flowers large, fine form, sweet, very double and free bloomer.

MARGARET DICKSON—A very free grower, foliage large and dark. Flower white, with pale flesh center; petals are thick and bell-shaped; quite fragrant.

MARSHALL P. WILDER—New; color cherry carmine; continues in bloom long after others are out of flower.

MRS. JOHN LAING—Deep rose; large, fine form, fragrant, vigorous grower and hardy. One of the most profuse bloomers.

PAUL NEYRON—Deep rose color, good foliage; by far the largest variety in cultivation; one of the best.

PRINCE CAMILLE DE ROHAN—Very dark, rich velvety crimson, passing to intense maroon, shaded black; large full flowers. One of the darkest roses and very handsome.

SOLEIL D'OR—Large, full and globular, fragrant; buds conical shaped; color varying from gold and orange yellow to reddish gold, shaded with nasturtium red.

ULRICH BRUNNER—An upright grower with bright, healthy foliage. Flowers are a bright cherry red, good size and of fine form.

Hybrid Tea

GRUSS AN TEPLITZ—Unquestionably the finest brilliant red, hardy, ever-blooming garden rose. The flowers are very showy and handsome. Blooms constantly and continues covered with flowers the whole season.

American Beauty

Frau Karl Druschki

KAISERIN AUGUSTA VICTORIA—White. One of the most beautiful of all Roses for open-ground culture. Blooms steadily from early spring until severe frost; in fact, it is as free-blooming as any Tea Rose. Elegant, large, pointed buds and large, full-double flowers; color, delicate creamy white; deliciously fragrant.

KILLARNEY (Pink)—A phenomenal Hybrid Tea Rose, especially as to the coloring, which is an exquisite shade of deep shell-pink. The flowers are enormous, the petals frequently measuring $2\frac{1}{2}$ inches deep. Wonderfully strong, throwing up heavy roots crowned with long, heavy buds. Free-flowering and perfectly hardy.

Climbing Roses

CLIMBING AMERICAN BEAUTY—A strong, vigorous climber but may be kept pruned back to a large size bush rose. The blooms are the same size, color and fragrance as the old variety and when in bloom it is a perfect mass of color.

CRIMSON RAMBLER—Nothing equals this as an all round hardy garden rose, on account of its brilliant color, profusion of bloom and length of time the flowers last. It may be used as a climber, or can be grown in large bush form. It blooms in large clusters of 50 to 100 flowers in a cluster, covering the foliage its entire length with a solid mass of the most beautiful, perfectly shaped miniature crimson blossoms. Blooms last of June and remains in flower longer than any other hardy out-door rose.

DOROTHY PERKINS—This is a splendid new shell-pink climbing rose. This new rose

is of the same strong habit of growth as the Crimson Rambler, and the flowers are borne in clusters of thirty and forty and sometimes fifty to sixty. The flowers are large for a rose of this class. Very double and sweetly scented.

EXCELSA (Red Dorothy Perkins)—This is identical with Pink and White Dorothy Perkins in growth and blooming qualities. The color is a brilliant crimson, making it one of the most showy roses grown.

FLOWER OF FAIRFIELD—A sort of the well-known and famous Crimson Rambler climbing rose. This new rose produces its lovely flowers until killing frosts stop further growth of the plant. The flowers are produced in great trusses, each carrying from thirty to forty blossoms of the brightest crimson, which remains undimmed to the end.

QUEEN OF THE PRAIRIE—Bright rose in clusters, vigorous, very free bloomer.

SEVEN SISTERS—Fine, free bloomer, bright scarlet; claimed by some to be harder than Prairie Queen.

TAUSENSCHON—Truly called "Thousand beauties." One of the really reliable novelties. It bears its flowers in immense clusters; in color a soft pink when first opening, changing to a carmine-rose on the reverse as they expand.

WHITE RAMBLER (Thalia)—Flowers are the size of a silver quarter, perfectly filled, very fragrant; color pure white, sometimes tinged with blush. Blooms in clusters.

YELLOW RAMBLER (Aglala)—Flowers medium size, cup-shaped, nearly full, sweet-scented; blooms in large clusters; color very light yellow. Of the class and habit of the famous Crimson Rambler.

Miscellaneous Hardy Roses

MADAM PLANTIER—Flowers pure white of medium size; full; somewhat rosy in the bud form; produced in greatest abundance quite early in the season. The leaves are small; the bush hardy and spreading. Fine for masses, hedges, borders, cemeteries, etc.

PERSIAN YELLOW—Similar to above, but with flowers fuller and of better form. Bright yellow; the most double of this class. The finest hardy yellow rose.

Baby Rambler Roses

PINK BABY RAMBLER—A brilliant rose color.

RED BABY RAMBLER—Crimson flowers. Very attractive and popular.

WHITE BABY RAMBLER—Pure white flowers, produced in large candelabra-shaped trusses.

Moss Roses

BLANCHE MOREAU—Pure white, large and full, perfect form and well furnished with deep green moss. Very strong grower.

CRESTED MOSS—The deep pink buds are surrounded with a mossy fringe and crest; fragrant. One of the best.

PERPETUAL WHITE—Pure white, blooms in clusters, double, beautiful, vigorous.

SALET—Clear rose color, very double, of vigorous growth and abundant bloom. Perpetual.

Dorothy Perkins

Ornamental Shrubs

The planting of ornamental shrubs is very largely on the increase, and this is as it should be, for with a good selection the lawn can always be beautiful. They are mostly of medium size, enabling one to plant a great variety on a small plat, and the wonderful assortment of foliage from the darkest green and purple to light orange and silver tints. This addition to the great variety in the blossoms, all unite to keep up a never failing interest. We have selected the very best for our climate.

FLOWERING SHRUBS — Variegated Colored Foliage—Barberry, Golden Elder, Syringa, Variegated Weigela.

Shrubs that Flower in May—Flowering Almonds, Honeysuckle, Japan Quince, Lilac, Snowballs, Spireas, Wistaria.

In June—Clematis, Deutzia, Elder, Honeysuckle, Paeonies, Lilacs, Snowball, Spireas, Syringa, Weigela, Wistaria.

In July—Clematis, Spirea, Honeysuckle.

In August and September—Bignonia, Clematis, Honeysuckle, Hydrangea.

ALTHEA, or ROSE OF SHARON—Valuable because they bloom so profusely in late summer when other flowers are scarce. They form beautiful groups of hedges, their variety of colors making it possible to use quantities of them even in small grounds.

ALMOND, FLOWERING—Pink and white varieties. These beautiful shrubs are desirable and scarce. Hardy.

CALYCANTHUS (Carolina Allspice)—A well known native bush very double, purple fragrant flowers.

CORNUS SIBERICA (Dogwood)—Grows 5 to 10 feet high, with clusters of fine, white flowers, succeeded by a fall crop of ornamental berries. Branches turn to blood-red during winter.

CORNUS STOLONIFERA (Red Osier Dogwood)—A rather dwarf form of the Dogwood. Bark red, flowers white, followed by pure white berries.

DEUTZIA (Pride of Rochester)—A very desirable shrub, of strong, hardy growth, bearing an abundance of beautiful racemes of purplish-white flowers.

Spirea Van Houttei

ELDER GOLDEN—The leaves are a bright and constant golden color; the flower cluster pure white. Valuable for contrasts and for massing.

FORSYTHIA - GOLDEN BELL — Pretty shrubs of medium size, blooming in spring before the leaves appear. Flowers are yellow, drooping, and are borne along the stem. They are exceptionally hardy and thrive in any locality. The green branches also add to their attractiveness and the graceful bush or pendulous habit.

HONEYSUCKLE, UPRIGHT (White or Pink)—White or pink flowers which contrast beautifully with the foliage. Blossoms in June.

HYDRANGEA, ARBORESCENS STERELIS (also Hills of Snow, Summer Hydrangea, or Snowball Hydrangea.) The blooms are of the very largest size, of pure snow-white color, and the foliage is finely finished. One of its most valuable characteristics is its coming into bloom just after the passing of all the early spring shrubs.

HYDRANGEA, PANICULATA GRANDIFLORA—These plants are absolutely hardy, grow in any soil and bloom the same year they are set out. They flower abundantly, bearing hundreds of immense panicles of bloom. White turning to rose in autumn. An annual shortening of branches tends to increase the size of the flowers. Very fine and valuable for cemetery planting.

LILAC (Common Purple)—Bluish purple flowers, well known.

LILAC (Common White)—Cream white flowers.

LILAC (Persian Purple)—Of more slender growth and finer foliage than the common lilac. Flowers purple in large, loose panicles.

Hydrangea, P. G.

PYRUS JAPONICA (Japan Quince)—The most beautiful of early blooming shrubs, and as a mass of scarlet or crimson, tinged in the exquisite green of its glossy foliage, it has no rival.

SNOWBALL (Common)—A popular shrub. Makes a large bush. Bears balls of pure white flowers in June.

SPIREAS—Decidedly the best and hardiest family of shrubs for the Northwest. Many beautiful varieties of different colors and times of flowering, from May to September. Of easiest culture; should be planted everywhere.

SPIREA, ANTHONY WATERER—A small dwarf variety $1\frac{1}{2}$ ft., covered with flat heads of pink flowers. Used for edging and in front of shrubbery.

SPIREA, VAN HOUTTEI—Graceful, with long, drooping sprays, thickly studded with handsome, pure white flowers; hence its popular name, "Bridal Wreath." The finest Spirea of them all.

SYRINGA (Mock Orange)—Beautiful, tall, vigorous, hardy, with profuse, white, orange-like flowers in May. Very popular.

WEIGELA ROSEA—Hardy, with profuse, rosy, trumpet shaped flowers in May. The most superb shrub of the season.

WEIGELA, CANDIDA—Flowers pure white, produced in June and continue to bloom nearly all summer.

WEIGELA, EVA RATHKE—Flowers a brilliant crimson; a beautiful, clear, distinct shade.

WEIGELA, VARIEGATED LEAF—Of dwarf habit and clearly defined silvery variegated leaves; flowers rose colored.

Hardy Climbing Vines

Ornamentals of this class are so hardy and so beautiful that they deserve greater attention than they receive. No artist can produce pictures equal to the wealth of beauty displayed by the elegant Wistaria, the graceful Honeysuckle, or the charming and magnificent Clematis when in the glory of full bloom.

AMPELOPSIS (American Ivy or Virginia Creeper, also called Woodbine)—A very rapid grower, having beautiful dark green foliage, assumes rich crimson hues in autumn.

AMPELOPSIS (Veitchii or Boston Ivy)—Leaves a little smaller and more ivy like in form than the foregoing. Overlapping each

other they form a dense sheet of green. The plant requires a little protection the first winter until it is established.

ARISTOLOCHIA (Dutchman's Pipe)—A native species of climbing habit and rapid growth, light green foliage, and pipe-shaped yellowish brown flowers.

BIGNONIA (Scarlet Trumpet Flower)—A splendid climber, vigorous and hardy, with clusters of large trumpet-shaped scarlet flowers in August.

CLEMATIS—The different varieties and species of Clematis now in cultivation are of the highest beauty and utility. They vary greatly in their foliage and flowers and are adapted to various uses.

CLEMATIS, JACKMANII—A very profuse blooming variety with flowers from four to six inches in diameter, of an intense violet-purple color borne successional in continuous masses on the summer shoots. The very best sort for general planting.

CLEMATIS, HENRYII—Fine bloomer; flowers large, of a beautiful creamy white, consisting generally of from six to eight sepals. June to October.

CLEMATIS MADAME EDOUARD ANDRE—Flowers large, of a beautiful bright velvety red, very free flowering and continuous bloomer.

CLEMATIS PANICULATA—A great novelty. One of the most desirable, useful and beautiful of hardy garden vines, a luxuriant grower, profuse bloomer with fine foliage. Flowers of medium size, very pretty and fragrant, produced in the greatest profusion in late summer.

HONEYSUCKLE (Monthly Fragrant)—Blooms all summer; very sweet.

Clematis, Jackmanii

Hardy Climbing Vines—Continued

HONEYSUCKLE (Hall's Japan)—A strong, vigorous, evergreen variety with pure white flowers changing to yellow. Very fragrant; covered with flowers from June to November. Better have some winter protection.

HONEYSUCKLE SCARLET TRUMPET—One of the handsomest in cultivation; a

strong, rapid grower; flowers a bright scarlet, not much odor.

WISTARIA (Purple) — A most beautiful climber of rapid growth, producing long, pendulous clusters of pale blue flowers. When well established makes an enormous growth. It is very hardy and one of the most superb vines ever introduced.

Hardy Herbaceous Perennials

DAHLIAS—Well known autumn flowering plants, growing from two to five feet high, and producing a profusion of flowers of the most perfect and beautiful form, varying in color from the purest white to the darkest maroon.

GLADIOLI—Of all our summer flowering bulbs gladioli stand at the head of the most varied and beautiful class. The flowers are produced in spikes two feet in height and upwards; the brilliant scarlet and crimson of some form a striking contrast with the delicate shades and penciling of the lighter colored varieties. By planting at intervals from May 1st to middle of June a succession of flowers can be had from July to October.

GOLDEN GLOW—We call attention to this notable novelty, and offer it as the finest herbaceous border plant introduced for many years. It is of easy growth and is giving complete satisfaction. But few plants can vie with it in attractiveness. There is no floral novelty before the public to be compared to it for effectiveness and worth.

PEONIES—No flowers exceed the Peonies in popularity, and none are more easily grown. They are seldom attacked by insects or disease, and are perfectly hardy, requiring no covering in the severest weather. They thrive in all kind of soil and flourish in a rich deep loam.

No hardy perennial is of more permanent value than the Peony. The first cost is the only cost, and they continue to increase in size and value for many years. The foliage is rich and beautiful deep green color, which renders the plant very ornamental even when out of flower, and no other flowers are so well adapted for interior decoration and none make more massive color effect when planted in a border or in a bed on the lawn. Their popularity has increased during the past few years since the new improved varieties have been disseminated. Peonies range in color from cream and pure white through the various shades of pink and red to the deepest purple and maroon, in all possible combinations of tint and form.

A List of Good Named Varieties

Festiva Maxima—Very large, pure white flowers, with some blood-red stains in center; tall stalks; beautiful foliage and very free-flowering. In every respect one of the most desirable white Peonies in cultivation.

Edulis Superba—Beautiful, brilliant rose-pink, large well formed, full flower on strong stem. Blooms very early, just

Peonies

before Festiva Maxima. Lasts well. Fragrant and good in every way.

Felix Crousse—Large, compact. Deep rose-red. Fragrant. Strong, robust grower. Free bloomer.

PERENNIAL PHLOX (Strong Field Grown Stock)—

A choice list of varieties—

Bridesmaid, white with large crimson center.

Fantome, deep lavender, edged and shaded with white, dwarf.

Fraulein G. Von Lassburg, pure white, immense panicles.

Isabey, Salmon-pink.

Lothair, bright crimson.

Pecheur d' Island, lavender-cerise.

Rynstrom, a lively shade of rose-pink, very large.

Sunset, dark, rosy-pink.

YUCCA FILAMENTOSA (Adam's Needle)—Thread-leaved, creamy white; stem three to four feet high, covered with bell-shaped flower, on laterals forming a pyramid; very striking.

Flowering Bulbs

to be Planted in the Fall

CROCUS—In various colors, single and double.

HYACINTHS—Among the bulbs used for winter flowers, Hyacinth stands foremost on the list. Two methods are employed in flowering the hyacinth in winter, one in glass, filled with water, the other in pots or boxes of soil.

JONQUILS—Pretty varieties of the Narcissus, have a very agreeable fragrance; adapted to either pots or out-door culture. The bulbs being small six or eight may be put in a six-inch pot.

LILIES—The lilies are entirely hardy with few exceptions. Quite fragrant and most of the varieties are very beautiful.

LILIUM AURATUM—Gold banded lily of Japan.

L. CANDIDUM—Common white.

L. HARRISH (Bermuda Easter Lily)—Pure white, trumpet shaped flowers, very fragrant. The finest lily grown.

L. LANCIFOLUM ROSEUM (Rose Spotted).

L. LANCIFOLUM RUBRUM (Red Spotted).

L. TIGRINUM (Double Tiger Lily)—Bright orange scarlet with dark spots.

Hyacinths

Dahlias

LILY OF THE VALLEY—This lily is as hardy as any plant can possibly be, and when planted in open ground will increase pretty rapidly.

TULIPS—Owing to the late spring frosts bedding plants cannot safely be planted before the early spring flowering bulbs are thorough blooming. They thrive well in almost any soil. Should be planted during October and November.

Hedge Plants

BARBERRY (B. Thunbergii) — A low, spreading bush, with small branches covered with small sharp thorns and in spring with small yellow flowers, succeeded by bright scarlet berries; foliage changes in the autumn to shades of scarlet and gold; makes a dense, thick hedge.

PRIVET (Amoor River North) — This is the most beautiful hedge plant grown. It has a luxuriant, glossy leafage and thick clusters of fragrant white flowers. Hardy,

free-growing, of dense, neat habit, attractive all the year, in berry leaf, or flower. Makes a beautiful specimen plant, a fine screen, group or hedge.

PRIVET (California)—One of the finest for hedges where it does not winter-kill. The foliage is large and glossy, and is almost evergreen. While we can furnish the California Privet for hedging purposes, we do not recommend it as being absolutely hardy north of the 41st parallel of latitude.

Hardy Ornamental Trees

The stock of ornamental trees that we offer will be found to comprise a sufficient number of kinds that are really valuable, so that our customers may, from the list offered, secure such a variety as will give full satisfaction.

For Streets, Roads and Wide Avenues—American Elm, Sugar and Silver Maple, Carolina Poplar.

For Driveways through Lawns and Parks—Norway Maple, Tulip Tree, Catalpa, American Linden.

Single Specimens of Large Growth to be Branched from the Ground—Birches, particularly Cut-Leaf Weeping; Austrian and Scotch Pines, Norway and Colorado Spruces, Balsam Fir.

Single Specimens of Medium Growth to be Branched from the Ground—Prunus Pisardii, Hemlocks, White Pine, Arbor Vitae.

Strong Growing Trees of Pyramidal Habit—Carolina Poplar, Balsam Fire, Pyramidalis Arbor Vitae.

Trees that Thrive in Moist Locations—American Elm, American Linden, Ash, Catalpas, Poplars and Willows.

Trees that Thrive on Dry Knolls or Poor Soils—Silver Leaf Maples and Poplars.

Best Trees for Windbreaks—Norway and White Spruces, Scotch and White Pine, Carolina Poplars and Silver Maples.

Flowering Trees—Judas Tree, Fringe Tree, White and Purple Lindens, Horse Chestnut, Catalpas.

Cut-Leaf Trees—Cut-Leaf Weeping Birch, Weirs Cut-Leaf Maple.

Purple and Scarlet-Leaved Trees—Purple-Leaf Beech, Plum, Purple Norway Maple.

ASH WHITE—Rapid growing tree, of fine, symmetrical outline. A valuable street or park tree and should be extensively planted.

BIRCH, WHITE—A beautiful native tree particularly in the northern part of the country. Its shining white bark and slender, dark brown branches make it a conspicuous and very attractive object. Foliage large and handsome.

BLACK OR YELLOW LOCUST—A native tree of large size, rapid growth and valuable for timber as well as ornamental; flowers are white or yellowish, very fragrant and appear in June.

BOX ELDER (Maple Ash Leaf)—A fine, rapid growing tree, with handsome, light green, pinated foliage and spreading head; very hardy.

CAROLINA POPLAR—Takes front rank among best of poplars; it is one of the most rapid growers among shade trees. Its branches spread just enough to give it a symmetrical appearance. It has advantages over other shade trees because it will grow on any kind of soil, swampy or muck, light or heavy. Its roots penetrate the hardest soil. It withstands all hardships and thrives in places where others fail to live. It is easily started and gives shade in a short time. Its leaves are large and stay green till quite late in the fall.

CATALPA BUNGEI—A remarkable species forming a dense, round umbrella-like head; makes a beautiful lawn tree when grafted or budded on a high stem.

CATALPA SPECIOSA—A variety which is said to have originated in the West; it is very hardy and a rapid grower and is being extensively planted for commercial purposes; has broad deep green leaves and beautiful large blossoms, making it a highly ornamental tree for lawn or street. Valuable for planting in groves for growing poles, posts and railroad ties.

CHESTNUT, AMERICAN SWEET—Well known beautiful tree, valuable for fruit and timber. Should be planted only on thin, dry soils.

CRAB (Bechtel's Double Flowering)—This blooms in early spring exhaling a most delightful fragrance from its masses of double, delicate pink flowers.

Catalpa Bungei

ELM, AMERICAN WHITE—The noble, spreading, drooping tree of our woods. One of the grandest of park or shade trees.

EUROPEAN LINDEN—A medium size tree with rather small dark green leaves, compact and conical. It blooms profusely, and the sweet odor is carried over a whole lawn. Unsurpassed for formal or avenue planting.

FRINGE, PURPLE—Very conspicuous in mid-summer when veiled with a thick mist of dusky purple flowers, so light as to simulate wreaths of smoke. This is sometimes called "Smoke Tree."

HACKBERRY or NETTLE TREE—A highly ornamental tree, somewhat similar to the elm but more formal. The ripe fruit is a joy to boys and birds in the fall and early winter. Used somewhat as a street tree, but not half appreciated.

HONEY LOCUST—A rapid-growing native tree with powerful spines and delicate foliage; the greenish flowers appearing in early summer are followed by flat pods 8 to 10 inches long; used extensively for hedges.

HORSE CHESTNUT—Common or white, flowering. A very beautiful, well known tree, with round, dense head, dark green foliage, and an abundance of showy flowers in early spring.

LINDEN (American or Lime)—A rapid growing, large, beautiful native tree. Flowers very fragrant.

MAPLE (Silver Leaved)—Leaves white underneath; of rapid growth; very ornamental and one of the best street trees we have.

MOUNTAIN ASH EUROPEAN—A fine tree with dense and regular head; covered from mid-summer to winter with great clusters of bright scarlet berries.

Norway Maple

NORWAY MAPLE—Of spreading, rounded form; foliage large, dark green; a rich and majestic shade tree.

SUGAR MAPLE—A beautiful, stately tree of fine form; a desirable shade tree. Slow grower.

SYCAMORE AMERICAN or PLANE TREE—A well-known tree, very common throughout the United States; leaves heart-shaped at base, the short lobes sharp pointed; branches are wide spreading.

SYCAMORE ORIENTAL PLANE or EUROPEAN (P. Orientalis)—A rapid growing, erect tree with bright green foliage; much more esteemed than the American variety as a shade tree; very desirable for parks, streets and lawns.

WALNUT, BLACK—Valuable for nuts and timber. It is hardy and succeeds best on a rich, deep, moist soil. Too well known for long description.

Weeping Varieties

BIRCH (Cut-Leaf Weeping)—Erect, stately, rapid growing tree, with long, slender, pendant branches, delicately cut leaves and silvery white trunk; especially fine when near evergreens; hardy; the most elegant weeping tree on the list.

ELM CAMPERDOWN, WEeping—A vigorous grower; leaves large, dark green and glossy, covering the tree with a luxuriant mass of verdure; very desirable as an ornamental.

MOUNTAIN ASH (European Weeping)—A strong grower; remarkably pendant; perfectly hardy; succeeds admirably on prairie soil.

TEAS' WEeping MULBERRY—Forms a perfect umbrella shaped head, with long slender branches drooping to the ground, parallel to the stem; very hardy; one of the prettiest small weeping trees.

Carolina Poplar

Hardy Evergreens

Evergreen Planting

fresh loose earth about the tree with a hoe. No wind can now bend the tree about so as to break the tender rootlets as fast as formed.

Use Scotch Pine, White Spruce, Norway Spruce, and White Pine for high screens, and Arbor Vitae or Red Cedar for low ones.

ARBOR VITAE (American)—This plant is, all things considered, the finest evergreen for hedges. It is very hardy and easily transplanted, few plants failing if properly handled. It grows rapidly and with little care, or rather by easy management, it soon forms a most beautiful hedge, very dense and perfectly impervious to the sight. It is never planted to turn stock, but it forms a most desirable and ornamental screen to divide the lawn from other grounds.

ARBOR VITAE (Pyramidalis)—superb, new and hardy sort, of very compact habit; much better than the Irish Juniper, and grown in a perfect column. Largely planted in cemeteries, owing to the small amount of space it occupies. This is perhaps the most valuable Arbor Vitae in cultivation.

BALSAM FIR—A handsome, compact erect, pointed tree, with short, soft leaves, which are dark green above, silvery beneath, a good grower.

HEMLOCK—An elegant, pyramidal tree, with drooping branches and delicate dark foliage, like that of the Yew; distinct from all other trees. It is a beautiful lawn tree and makes a highly ornamental hedge.

IRISH JUNIPER—Very erect and tapering in its growth, forming a column of deep green foliage; a pretty little tree or shrub, and a general favorite for its beauty and hardihood.

NORWAY SPRUCE—A lofty, elegant tree of perfect pyramidal habit, exceedingly picturesque and beautiful. One of the best evergreens for windbreaks.

In handling and planting evergreens never allow the roots to become dry for an instant. Their juices are resinous, and when once dry, water has no power to restore them; dip the roots in "grout" or very thin mud, and plant quickly; cover the roots with fresh soil and with a heavy piece of wood beat the earth solid over them. Fill up and pound again, and finish by bringing

Spruce

PINE AUSTRIAN or BLACK—A remarkably robust, hardy, spreading tree; leaves long, stiff, dark green; growth rapid; valuable for this country.

PINE, SCOTCH—Is one of the most rapid growers while young, one of the best for shelter planting in the West. It will make the best windbreak in the least time of any; it is a very valuable species.

PINE, WHITE—One of the best evergreens. The foliage is a warm, light green, often with a bluish tinge. The leaves, in fives, are three or four inches long, soft and delicately fragrant. It does not grow as rapidly the first few years as some, but after being planted eight or ten years it is the most rapid grower of all our evergreens.

RED CEDAR—A well known tree with fine deep green foliage; variable in its growth; suitable for ornamental hedges.

SPRUCE, COLORADO BLUE—This species has been tested at various points on the prairies of the West and Northwest with perfect success, and during a temperature of 30° below zero, in exposed situations, entirely uninjured. One of the hardiest evergreens and the most beautiful in color and outline. "This is the king of spruces, clothed in royal robes of silver and sapphire, a very Kohinoor among the gems of the Rockies."

SPRUCE, WHITE—A tall tree with compact branches and light green foliage. Very handsome.

Spruce, Colorado Blue

Our evergreens are given special care, handled carefully and transplanted frequently, so there is no danger in moving them from our nurseries. Each tree is planted so that it grows symmetrically and develops into a shapely specimen.

St. Regis Everbearing Raspberries

(For description see page 18)

Ripe Fruit of the Superb Everbearing Strawberries

(For description see page 22)