Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

5247

LIBRARY
RECEIVED
FEB 3 1931 ★
Department of Agriculture

1931

Planters Manual

HARDY NURSERY STOCK
FOR THE NORTHWEST

North Star Nursery Company
Pardeeville, Wisconsin

Table of Contents

	Page
Apples	3
Asparagus	15
Blackberries	17
Bulbs and Tubers.....	36
Cherries.....	11
Climbing Vines	35
Currants	14
Evergreens	26
Grapes	12
Gooseberries.....	13
Hedges, Screens, Windbreaks.....	27
Mulberries	10
Ornamental Shrubs.....	19
Peaches	10
Pears.....	7
Perennial Plants.....	32
Planters Manual.....	37
Plums.....	8
Raspberries.....	16
Rhubarb	15
Roses	30
Shade and Ornamental Trees.....	29
Strawberries.....	18
Terms and Conditions of Sale.....	2

PLANTERS MANUAL

A MESSAGE TO OUR FRIENDS

WE present our *Planters Manual* for your consideration and benefit as we have always considered our patron's success ours. It is our purpose to give you, in a condensed form, the necessary information pertaining to the proper planting, care and successful growing of nursery stock. You will find the information contained in this *Manual* well worth your consideration and preservation.

Our Nursery is located at Pardeeville, Wisconsin, "The City of Lakes", on State Trunk Highway 44 and about 35 miles north of Madison, "The Capital City" of our state. We are fortunate in having our nursery located upon a very fertile tract of land; the soil and climatic conditions are ideal for the proper growing of high grade nursery stock with extensive root systems, a characteristic that is

absolutely necessary to the successful future growth of any tree, shrub or plant.

Our Frost-Proof Storage of modern construction is conceded by authorities to be one of the largest and best equipped buildings of its kind in the northwest, a feature which together with our private rail road track leading up to our loading doors, enables us to give our customers the best possible service in the shipment of their orders.

Pay Us A Visit — We extend a hearty invitation to all of our friends and patrons to visit our nursery. Our grounds and buildings are open every day in the week for personal inspection from 7:00 A. M. until 6:00 P. M., except Sundays. A trip through our nursery will be very interesting, instructive and well worth the time and effort spent.

North Star Nursery Company
PARDEEVILLE WISCONSIN

TERMS AND CONDITIONS OF SALE

Prices—We do not print prices in our catalogue but supply a price list separately. In case you do not have a copy of our latest price list at the time your selection of plants is made, copy will be forwarded to you immediately upon request. We will gladly make special quotations on any list of items in large lots.

Grade or Quality—In view of our policy, "North Star Quality First", we are particularly careful about grading our stock to see that our patrons get the highest quality. *Do not confuse the* SPECIAL SELECT GRADES OF STOCK we furnish with those of an inferior grade offered by many nurseries at a lower price. Our prices are based on what it costs us to deliver a first class tree and back it up with a guarantee that means something. Land at this time is too valuable to be wasted with trees of doubtful or inferior quality.

Claims—If any, must be made within five days from receipt of stock. We cannot become responsible for misfortune of stock caused by droughts, flood, frosts, insects, fire, etc., and by stock not being taken from the express office for several days after its arrival.

Guarantee of Genuineness—While we exercise the utmost diligence to have all of our varieties true to name, and hold ourselves in readiness on proper proof to replace all trees, etc., that prove untrue to name, we do not give any warranty, expressed or implied, and in case of any error on our part it is mutually agreed between the purchaser and ourselves that we shall not at any time be held responsible for any sum greater than the amount originally paid for the said trees.

Losses and Replacements—All of our stock is in prime condition when it is packed for shipment, and every precaution is taken to have it go forward promptly and reach its destination in the same good condition as it left us. When stock has been received in bad order, claim should be made immediately, either to us or to the transportation company, according to whether the fault is ours or theirs. Our rule governing replacement is at one-half the current retail price.

Packing—Every care is exercised in the packing of our stock for shipment. "Quality First" is our policy, and as we ship no poor stock, we take every precaution to pack each shipment so that under the usual mail, express and freight conditions the stock will reach its destination in the same excellent condition it was in when packed.

Delicious Apple, the king of all red apples

APPLES

THE apple is first in importance of all fruits grown for the reason that it will thrive and produce well in most any climate in the United States. Its period of ripening, unlike other fruits, extends nearly through the whole year. No fruit is so healthful and wholesome and it should be made a part of our daily diet.

The varieties we are listing are the most desirable and have been carefully selected by us for their qualities of hardiness, productiveness and high quality of fruit. The varieties marked with an (*) are not quite as hardy and should not be planted in localities where severe, cold winters are experienced.

SUMMER VARIETIES

DUCHESS—*Duchess of Oldenburg*—A Russian variety ripening during the months of July and August. Tree is upright and hardy, vigorous grower. An early annual bearer, fruit large, greenish-yellow with red stripes. Flesh light yellow, medium fine grained, firm, flavor a pleasant acid; one of the best varieties for cooking and commercial market and always commands a good price. Should be planted in every orchard and is conceded to be one of the most profitable early apples for the commercial market.

EARLY HARVEST—A pale yellow apple, of medium size with a mild fine flavor. The tree is an upright grower, a good bearer and excellent for the orchard or garden as it is one of the first to ripen. Season, middle to last of August.

GOLDEN SWEET—Another medium size, rich and sweet yellow apple. Good for home or local market. Season August to September.

LIVELAND—*Liveland Raspberry*—A beautiful apple, color orange-yellow, striped,

APPLES—Continued

splashed and shaded with red, and gray dots showing through the color, flesh light yellow and sometimes stained with red; fine, tender, juicy with flavor sub-acid. Season August to September.

LONGFIELD—A Russian variety, free, upright grower, early and prolific bearer, fruit medium to large, yellowish, blushed with red stripes. Sub-acid in flavor and fine quality. Bears very early. Season August.

OKABENA—One of our very hardy Minnesota varieties. The fruit is medium size, striped with red similar to the Duchess. The flavor is a mild sub-acid and it is a very valuable fruit on account of its very hardy and vigorous habits of growth. Season medium late, September.

RED ASTRACHAN—Originated in Russia and was first imported into England with

the White Astrachan from Sweden in 1816. The tree is a very vigorous upright grower and prolific bearer. The fruit, medium in size, greenish-yellow, almost covered with mottled and striped crimson; flesh white, crisp, and strong sub-acid. A variety that we can heartily recommend to our customers.

TETOFISKY—A Russian variety that is especially noted for its hardiness. The fruit, small to medium, light yellow, striped and splashed with red; flesh white, tender and juicy with sub-acid flavor. Season, July and August, very early.

YELLOW TRANSPARENT—A favorite home and commercial variety, especially for the North. The fruit is large, waxen yellow with fine grained white flesh. The tree is very hardy and an annual bearer. The season is very early, July 15th to 20th.

LATE FALL AND EARLY WINTER VARIETIES

ANISIM—A very hardy, thrifty, upright growing tree and a prolific bearer. Fruit small to medium with a skin slightly rough but of the richest red color and excellent quality. It is one of the Russian varieties that is especially noted for its hardiness. It ripens in September and the fruit can be kept until January.

DUDLEY—*North Star*—A seedling of the Duchess and is as hardy and productive as that variety. Season, October. A very desirable variety to plant in the Northwest.

***FALL PIPPIN**—A large greenish-yellow apple and gradually turns into a rich yellow when ripe. The flesh is firm and tender with a rich aromatic flavor. A thrifty grower and moderate bearer.

SNOW—*Fameuse*—This variety originated in Canada. An old and well known variety, tree moderate grower and usually small for its age; but a very heavy producer of a medium sized fruit of a pale greenish-yellow color, mixed with red stripes. Flesh snow white, juicy, tender and slightly perfumed, flavor sub-acid. Very hardy and a valuable variety for the Northern sections. Season, October and November.

***GANO**—The improved Ben Davis, color rich red fruit of a medium size and excellent quality, tree good producer and moderately hardy.

HIBERNAL—Of Russian origin and one of the hardest varieties known to fruit growers. Tree vigorous, sturdy and an early bearer. Fruit large, greenish-yellow with dull bronze red on sunny side; flesh juicy, sub-acid and very good for cooking and jelly. This is one of the best for sections of extreme cold and dry climates. Season, October to December.

MAIDEN BLUSH—The name is very descriptive of this variety. Fruit medium to large; pale, waxen yellow with crimson blush. Flesh tender, juicy and sub-acid. Tree very hardy and upright grower; a beautiful apple. Season, latter part of August and continues until late in October.

PATTON'S GREENING—A seedling of the Duchess; very large; flavor good, lightly sub-acid. A very good cooking apple. Season December to February.

PEERLESS—Tree originated in Minnesota in 1864; a strong and vigorous grower with a very dark bark. The fruit is large, striped with dull red; of an agreeable sub-acid flavor. Season November to February.

UNIVERSITY—A very desirable seedling of the Duchess; tree vigorous and spreading grower; fruit large and regular in shape; surface a clear yellow on the sunny side. Flesh sub-acid, good quality. Tree very hardy and especially adapted to northern climates.

APPLES—Continued

Wealthy

WEALTHY—A Minnesota variety, tree extra hardy, fruit medium size, round and smooth. Color whitish-yellow shaded with rich dark red. Flesh white, tender and sometimes stained with red, sub-acid. Tree is very hardy, strong grower, and an abundant producer. Everybody knows the value of this variety and it is a favorite among planters.

WOLF RIVER—Fruit very large, one apple has been known to weigh 27 ounces. Fruit highly colored with streaks of red. A valuable apple for cooking and apple butter. Season, September to December.

McMAHON'S WHITE—A very large, white winter apple of Wisconsin origin. Tree very hardy and vigorous grower. Good producer. Season, October to February.

WINTER VARIETIES

***ARKANSAS BLACK**—A beautiful crimson-black apple, large, perfectly smooth, lightly dotted with white, flesh yellow and firm as well as juicy and delicious; it is a very late keeper with a season from December to April.

***BALDWIN**—A leading commercial variety, fruit large, bright red, juicy and rich. A very good eating as well as cooking apple. Trees moderately hardy, upright in growth and very productive. One of the best commercial varieties known to the trade and is very desirable for the large orchard as the supply of these apples will never exceed the demand. This variety is not adapted to climates that are too severe.

***BEN DAVIS**—An American variety, fruit medium in size, skin yellow with red stripes; flesh white, tender and juicy, sub-acid in flavor. A good apple for the market.

DELICIOUS—The king of all apples; it is the result of careful plant breeding to produce an apple that contains the best qualities of all varieties. It originated in the State of Iowa and is well known throughout the whole United States. Tree is very hardy, upright grower and prolific bearer. Fruit large and oblong and of the sheep nose type; color light green, shaded, splashed and mottled with light and dark crimson; flavor sweet, slightly acid which makes it all the more pleasing. It is the apple that you will find at the grocery stores, boxed and wrapped and selling as high as ten and fifteen cents each. It is a good keeper and can be held in storage from November to April. No orchard is complete without a generous supply of

these trees. This variety has taken first place for commercial and home use.

MALINDA—A fine Minnesota variety known for its hardiness. Fruit medium, conical, fine grained and nearly sweet. A splendid variety for the Northwest. Season, January to April.

McIntosh

McINTOSH RED—A seedling of the Snow and much improved in many ways. Fruit medium size, nearly a deep red; flesh snow white, very tender and juicy, sub-acid and superior to the famous old Snow apple. It is a very valuable apple for home and commercial use. No orchard is complete without an ample supply of these trees. Season, October to January.

APPLES—Continued

***GRIMES GOLDEN**—A medium hardy, sour, yellow apple, round and medium size. The skin is a clear deep yellow with rusty dots. Tree vigorous and uniform bearer. Season, November to February.

***JONATHAN**—A very desirable variety of medium hardness. Fruit, solid red with a darker shade on the sunny side, firm, with an aromatic flavor; medium size and of the best quality. Tree is long lived and upright grower. Comes into bearing about the fourth year and regular crops each year can be depended upon. A fine apple for the home and market use. Season, November to February.

Northwestern Greening

NORTHWESTERN GREENING—A variety that is known by all for its exceptional hardness and long keeping qualities. We have seen two crops of Greenings with no cold storage facilities other than a common root cellar. The year old apple was in a fine state of preservation. We know of no other variety that will keep as long as this. Tree vigorous, hardy and upright grower; bears annually and a variety that can be depended upon. It is one of the finest cooking apples grown. Fruit large, greenish-yellow with a waxy appearance, sub-acid in flavor and is slightly aromatic. This variety originated in Wisconsin and will do well anywhere in the northwest. Season January to May.

PRICES SWEET—A very valuable sweet apple. Tree vigorous, upright in growth. Fruit medium size, oblong and conical. Color yellowish-green, marbled dull red.

***ROME BEAUTY**—The name expresses the description of this variety. Fruit large,

uniform and round; skin bright red on yellow ground, very beautifully colored. Flesh nearly white and lightly tinged with yellow or green. A very desirable variety but not too hardy in northern latitudes. Season, November to April.

SALOME—A hardy variety and very valuable for the Northwest. Fruit medium size, greenish-yellow, overlaid with pink and red. A young bearer. Season, November to January.

SCOTT'S WINTER—A valuable variety, hardy, thrifty grower and young bearer. Fruit medium size, roundish; surface deep red with light red in blotches and streaks. Flesh yellowish-white and slightly colored with red near the skin; lightly acid but good in quality. Season November to February.

MAY SEEK—Medium to large, round striped with dull red and covered with russet dots; flesh crisp and juicy and excellent in quality. Tree strong grower and hardy. Season, November to February.

***STAYMAN'S WINESAP**—Truly a great apple. Dark rich red, striped with yellowish-green; very juicy and excellent quality. Tree strong grower, medium hardy and a yearly bearer. It has been known to produce a barrel to the tree at the age of five years. A very valuable commercial apple due to its fine qualities. Season, December to April.

TOLMAN SWEET—An old variety that is known to most everybody. Fruit medium size, skin whitish-yellow, flesh firm and very sweet. A long keeper and very valuable for cooking. Season, November to February.

WINTER BANANA—The apple with the banana flavor. Tree very hardy and productive. The fruit has a very rich flavor which cannot be described. Color golden-yellow with pink blush. It makes a very desirable lawn tree as the leaves are nearly double the size of ordinary varieties. Season, November to February.

***WILLOW TWIG**—Tree strong, spreading grower with drooping branches. Fruit medium in size, yellowish-green and striped with dull red, mild sub-acid and well known for its long keeping qualities. Not too hardy, but a real success in localities that have a mild winter climate. A very desirable apple and well worth consideration for the commercial orchard. Season, November to March.

WISCONSIN RUSSET—A well known long-keeping variety. Fruit not large, but uniform; skin bronze colored, dotted with rusty spots. A moderate bearer and the tree is very hardy. Originated in Wisconsin. Season, December to April.

CRAB APPLES

The crab apple is very desirable for an ornamental tree and is very valuable for making cider, jelly, pickles, etc. Good crab apples are always in demand and sell for good prices. They are very hardy and do well in practically every locality. No orchard is complete without its quota of crab apples. The varieties that we sell are the best.

We do not sell the Transcendent as it is subject to fire blight and should never be planted in the orchard. The State Department does not recommend its sale.

EXCELSIOR—A very large crab, nearly as large as a small apple. Fruit very attractive yellow and almost covered with bright red. Flesh white and juicy, sub-acid in flavor and very desirable for dessert and cooking purposes. Tree strong grower and bears young. Season late fall.

FLORENCE—Fruit medium size, yellowish-white and nearly overspread with bright red. Flesh white, juicy, sub-acid and excellent quality. The tree is moderately hardy, upright in growth with a spreading top. Season late summer.

HYSLOP—A crab that is well known; fruit large, round and uniform. Skin pale yellow and almost completely covered with a bright red, overspread with a thick blue bloom. The flesh is yellowish and tinged with red. Tree hardy, good grower and regular bearer. Season late fall.

EARLY STRAWBERRY—Fruit medium size; highly colored, sub-acid, good for eating as well as cooking. It ripens two weeks earlier than the Whitney. Season early summer. A desirable variety to plant.

SWEET RUSSET—A large hybrid, extremely hardy and desirable. Fruit oblong, conical, light russet in color and very rich. An excellent eating crab and one of the best for pickling. Season late summer.

WHITNEY—Everybody knows this variety. Fruit large, uniform, color yellow striped with red, mostly red on the sunny side. Flesh yellow, firm, very juicy and rich, nearly sweet. One of the best cooking crabs known. Tree hardy, upright in growth and a great producer. Season early summer.

PEARS

EVERYBODY knows the melting juicy texture of this fruit. It is one of the best to eat out of the hand and very desirable for preserving. The summer varieties should be picked at least ten days before they are ripe, the autumn varieties at least two weeks but the winter varieties may hang until the leaves begin to fall; then store in a cool, dry cellar. Pears grow well in most any climate where apples thrive; but are not recommended for the northwest.

BARTLETT—Fruit large, distinctly "pear shaped," sweet, very juicy, tender and of excellent flavor. The skin is clear golden-yellow, with red cheek. Tree strong grower, hardy and very productive. Season last of August to first of September.

DUCHESS D'ANGOULEME—A large greenish-yellow pear with patches of russet. Flesh yellowish-white and very juicy. This variety is very popular on account of its very large size. Season October and November.

FLEMISH BEAUTY—Large juicy pear, surface slightly rough with russet spots. Flesh juicy with a rich sweet and excellent flavor. One of the old and highly esteemed varieties. Tree hardy and very productive. Bears well in climates where winters are severe. Season September to October.

KIEFFER—Originated from a seed of the Chinese Sand Pear and crossed with the Bartlett. Fruit large, skin rich, golden-yellow. It is seldom blushed with color, but frequently with tinges of russet. Tree very vigorous and good bearer. Season Nov. and Dec.

SECKEL—Fruit small but of the highest flavor. Slow grower but bears early and abundantly. An excellent pickling pear and one of the most hardy. Season Sept. to Oct.

Bartlett Pear

Waneta Plum, a Favorite

PLUMS

HE value of plums for canning, preserving, plum butter, marmalades and jellies can hardly be estimated. It rivals the grape as a source of fruit juice and the peculiar texture of the fruit makes it one of the best for home and commercial purposes.

Plum trees are very hardy and will grow and produce well on most any well drained soil; in fact, they will succeed where other fruits fail. Fertile soil is no requirement for this kind of fruit as we have seen the plum grow in very poor soil and produce good crops where even the grass cannot survive. If a person has waste land with good drainage that will not produce other crops, plant it to plums and reap a good profit. Plums will not bear alone, it is always necessary to plant two or three different varieties together in order to get fruit.

FAMOUS HANSON HYBRIDS

No varieties of plum have become so popular and well known as the productions of Professor N. E. Hanson of the South Dakota Experimental Station at Brookings, South Dakota. The United States Government sent Professor Hanson to Siberia to find and bring back some varieties of plum that could be hybridized with some of less hardy varieties and thereby produce a fruit that would thrive and produce in the Northwest where severe, cold winters are experienced. The answer to his work is listed in the following varieties which we are pleased to recommend to our patrons knowing from experience that they will more than meet their expectations.

HANSKA—The Sioux Indian name for "tall" alluding to its extremely rapid and

tall growth. We have known three year old trees to attain the height of ten feet if not cut back.

The parents of this variety are the native northwestern plum (*Prunus americana*) and the firm fleshed fragrant Chinese Apricot Plum (*Prunus Simoni*), a variety popular in the orchards of California.

The fruit is about $1\frac{1}{2}$ inch in diameter, a bright red color when ripe and covered with a heavy blue bloom; flesh firm, yellow, good quality and very fragrant. It begins to bear the second year after planting, about the first week in September.

KAHINTA—A close relative of the Waneta, although somewhat different in habits of tree growth. The fruit is a free-stone, dark red in skin color, slightly oval in shape

and very large, some specimens measuring 2 1/16 inches in diameter and weighing a trifle over two ounces. Bears the second year after planting.

OPATA—(Sioux Indian name for "bouquet") An Opata tree in full blossom can well be compared with a large bouquet of pure white flowers of the most exquisite fragrance. It blossoms just a little later than the ordinary plum and thereby escapes the late frosts. This variety is a cross between the Dakota Sand Cherry and the Gold Plum which was originated by Luther Burbank. Tree is vigorous and hardy, branching very low and of quite spreading habits. The fruit is one inch or more in diameter; has a small pit, and of a dark purplish-red color, with blue bloom; flesh is green and firm, flavor pleasant and much like the rich sweetness of the Gold Plum. Bears the second year after planting. Ripens between the season of cherries and common plums.

SAPA—(Souix Indian name for "black"). The female parent of this variety was a selected seedling of the Western Sand Cherry, a favorite of the Sioux Indians; the male parent a very large, purple fleshed Japanese Plum originated by Luther Burbank. Fruit has a glossy dark purple, thin skin, dark purple flesh about the color of a beet. The

Sapa has lead the list of Hanson Hybrids on account of its very fine color, rich sweet flavor. Excellent for eating out of the hand and makes most delicious, rich, sweet, wine-colored sauce. This variety bears in our nursery row and we have known three year old trees to produce as much as a bushel and a half of fruit. Be sure to select this variety for your orchard. Season, about a week later than the Opata.

TOKATA—Another Hanson Hybrid of the highest quality. A cross between the rich flavored apricot plum of China (*Prunus Simoni*) and one of our very best flavored native plums, the De Soto. It combines the best qualities of both varieties. The fruit is large, with rich, orange-red skin and flesh. A perfect free-stone. Bears young and sure to satisfy.

WANETA — Another wonderful plum which gives the northern fruit growers a chance to compete with California in the production of large, finely flavored plums for the market. Fruit as much as two inches in diameter, bright red in color, delicious quality, long keeper and a splendid shipper. It is a cross of the America, a large Japanese plum, with the pollen of the Terry. Absolutely hardy and a plum that we like to recommend to our customers.

NEW MINNESOTA PLUMS

LORING PRIZE—To encourage and stimulate the creation of a finer quality of plums than existed some years ago, Honorable Charles M. Loring, of Minneapolis, Minnesota, offered a prize of One Thousand Dollars, for a plum and tree that would meet certain qualities of excellence and hardness that would include size, shape, color, flavor, smallness of pit, firmness of flesh, together with general good characteristics of the tree.

Many attempts to originate a fruit tree that would meet the requirements were made, but none were successful until Mr. J. P. Vikla produced the plum, now known as the Loring Prize Plum, which, in spite of all competition, received the unanimous award of the committee. Several of the varieties submitted were excellent, but failed in some important part, especially where hardness was required. This was the only plum where all conditions were met, establishing a wonderful record. The fruit is very large, 1 3/4 to 2 1/2 inches in diameter. Slightly oblong, of bright red color, delicious to eat out of the hand, being superior to the California plums

found on the market. The tree begins to bear at three or four years and has proven its hardness all through the Northwest.

RED WING—Fruit large, firm, yellow, overlaid with red. Flesh moderately juicy, sweet. Very attractive in appearance and while this is a new variety it promises to make a name for itself.

UNDERWOOD (No. 91)—A very attractive large red plum with fairly juicy flesh, small pit. A continuous bearer and a variety that has proven very satisfactory wherever it has been planted. Originated at Minn. State Experimental Station.

WINONA (No. 30)—Tree very hardy and attractive and requires very little pruning. Fruit large with yellow background, turning red when ripe, sweet, juicy and of high quality. Originated at Minnesota State Experimental Station and promises to be a leader.

PLUMS—Continued

NATIVE AND EUROPEAN VARIETIES

Varieties marked (*) are not hardy in cold climates.

FOREST GARDEN—Tree hardy; bears profusely; one of the earliest plums; large, being $1\frac{1}{2}$ inches in diameter, color mottled red and yellow; skin thin, juicy, sweet and rich. Ripens in August.

***GERMAN PRUNE**—This variety is not hardy in cold climates. A large purple plum with a very rich flavor and very valuable for drying. Tree very productive. Season, Sept.

***GREEN GAUGE**—A green plum especially valuable for canning. Very sweet in flavor. Slow grower. Ripens about the middle of August.

SURPRISE—A Minnesota variety. Fruit large red, with many light dots on the skin. Good bearer and keeper.

WYANT—A Wisconsin production. Fruit medium to large, slightly oblong, purplish-red in color; skin thick; flesh rich yellow. Good producer.

APRICOTS

A fruit that can be grown successfully where peaches are grown. The season of ripening is between the cherries and peaches. This class of fruit is always in demand and commands good prices. We do not recommend apricots for Wisconsin or other states that experience cold, severe winters.

EARLY GOLDEN—Fruit, small, about one and one-half inches in diameter. Flesh orange-yellow, moderately juicy, rich and sweet. A free stone. Tree hardy and productive. Season, middle of July.

ROYAL — Large, roundish - oval; pale orange with faintly tinged cheeks. Flesh

yellow and of good quality. Sub-acid. Season, first of August.

SUPERB—A Russian variety, medium size fruit, light salmon with numerous red or russet dots, flesh yellow, firm and sub-acid. Tree productive and hardy. Season middle of July.

PEACHES

A very desirable and useful fruit and one that most everybody is acquainted with. Peach trees are easily cultivated, moderately free from disease and bear abundant crops very soon after planting. They are not hardy in localities having severe cold climates; unless it is tempered by some large body of water. We do not recommend them for Wisconsin, Minnesota or any of the western states.

ELBERTA—The most widely known and extensively cultivated peach. Fruit very large, golden-yellow, nearly covered with crimson on the sunny side; flesh firm, rich yellow. Free stone. Season middle of September.

CHAMPION—Fruit, exceptionally high quality, hardy white peach. Free stone. A

good variety for the home use. Noted for its regularity of bearing heavy crops. Season, August.

CRAWFORD'S LATE—Ripens a few days after the Elberta. Fruit yellow, free-stone, very large and attractive. A real peach for the fancy trade. Season first of September.

MULBERRIES

The Mulberry is highly valued as a shade and ornamental tree and at the same time the planter derives large quantities of fruit that is very valuable for cooking purposes. The mulberry is very valuable to plant in the cherry orchard as both fruits ripen about the same time and the birds prefer the mulberries to cherries. The trees will grow and thrive in most any kind of soil. Some people prefer mulberries to blackberries.

DOWNING—One of the best varieties for fruit. Tree vigorous grower, hardy and heavy producer of large, black, sweet berries.

RUSSIAN—A very hardy variety used

extensively for hedges and windbreaks. A very compact grower and will stand close pruning. Fruit of different colors ranging from black to white.

Compass Cherry Plum

CHERRIES

FRUIT that is highly prized by everybody. It is much like the grape and produces well whenever it is planted. The fruit is prized highly for canning and preserving purposes which makes it a favorite for the market. Cherries are always in strong demand and command very high prices. Cherries thrive well on any well drained soil. The varieties we list are the most desirable.

NEW HARDY HYBRID CHERRIES

COMPASS CHERRY PLUM—A cross between the native Sand Cherry and the Minor Plum. It originated in Minnesota and is particularly noted for its remarkable hardiness combined with productiveness. It will grow and thrive anywhere. This variety is called the "Cherry Plum" by many. The fruit resembles the plum more than the cherry being of a dark red color when ripe. Some people make the mistake in picking this cherry when the fruit is a bright red. It is not thoroughly ripened until it takes on a dark red color. Season, last days of July. This cherry usually bears the next year after planting and we can recommend it to our customers knowing that it is sure to satisfy.

ZUMBRA—This new cherry was produced by the Minnesota State Fruit Breeding Farm at St. Paul and promises to be one of the finest cherries of the Hybrid type known to the Horticultural World. The following description was taken from the State Bulletin of new fruits:

"A low growing tree, vigorous and extremely productive, showing the characteristic profuse bearing habits of most sand cherry crosses. The fruit reaches one inch in diameter and is borne in thick rope-like clusters along the slender branches of last years wood; color, very dark, nearly black when ripe; flesh firm, greenish, sometimes tinged with red when fully mature; stone small, free; quality good, with a flavor and

CHERRIES—Continued

crispness somewhat resembling its sweet cherry parent. Especially recommended for sauce and preserves. When cooked the sweet

cherry flavor is especially noticeable. Season extends from last week in August to middle of September or later.

SOUR CHERRIES

EARLY RICHMOND—A favorite early sour cherry. Fruit, medium size, roundish shape, dark red, juicy and sub-acid. A good canner. Tree, medium size, upright, spreading, productive and long-lived. It is one of the most hardy varieties of the Sour cherry group. Season, June.

LARGE MONTMORENCY—The leading sour cherry and is prized highly by canning companies. Fruit, large red, good flavor and hangs well to the tree. Tree, very hardy and bears young, sometimes the second year after planting, very productive and a variety that every orchard should contain. Last of June.

SWEET CHERRIES

BLACK TARTARIAN—Fruit, very large, purplish black; half tender, juicy, very rich and flavor excellent. Tree vigorous grower and producer, but semi-hardy and not recommended for cold climates. Season, middle of June.

WINDSOR—A late variety and very desirable. Fruit very dark; flesh hard and meaty. Excellent for canning and market purposes. The heavy foliage of this variety protects the fruit from the birds. Tree semi-hardy. Season, late July.

GRAPES

Although the oldest of cultivated fruits, grapes are only just now coming into popular favor which their many fine qualities really deserve. They are adapted to planting in the large vineyard, on the porch for shade and in the garden. The grape is the fruit for all, the poor and the rich. It yields an abundant supply of juice from which many palatable beverages can be made.

AGAWAM (ROGERS No. 15) (RED)—A large, round, dull purple-red grape with a lilac bloom, rich, sweet, aromatic flavor. The vine is vigorous and hardy. Ripens after the Concord and will keep until January. It is self fertile and is the best and most profitable red grape.

ALPHA (BLACK)—For years, Horticulturists have endeavored to produce a grape that was hardy, eatable, prolific and good for wines or preserves. It remained for Rev. John B. Katzner of Minnesota to find, improve and cultivate such a grape.

The Alpha is a very hardy vine; in fact, the hardiest vine that we know of. This grape has survived the winter three hundred fifty miles northwest of St. Paul, Minnesota, without any covering. On account of its vigor and hardiness, the Alpha is just the right kind of a vine for an arbor or porch. Fruit, black skin, very delicious and juicy, but small in size.

BETA—(BLACK)—Another variety particularly adapted to cold and severe climates. It requires no winter covering like most grapes. The Beta is a black, good sized grape, about the size of the Concord. This

Concord Grape

GRAPES—Continued

variety will please the most exacting customer and will grow and produce good crops where other varieties fail. Season, early, ripens before the September frosts.

CAMPBELL'S EARLY—(BLACK)—A strong, hardy, vigorous grower bearing a large bunch and berry of black color, a good keeper and shipper. Vine very hardy and productive. Season, middle to last of August.

CONCORD—(BLACK)—The best known of all varieties of grapes, good for market, table use and juice. It is a very hardy variety and one that is sure to produce satisfaction whenever it is planted. Berries medium to large, juicy, sweet and of high quality. Season September.

DELAWARE—(RED)—One of the highest quality grapes. Vines are small and require close planting. Fruit, bunches small compact; berries rather small and round; skin thin, light red. Season early part of September.

MOORE'S EARLY — (PURPLISH-BLACK)—A very popular early commercial variety. Vine hardy, productive. Fruit, black, with a heavy blue bloom and of the highest quality. Some people call it the "Early Concord." Season last of August.

MOORE'S DIAMOND—(WHITE)—One of the finest white grapes, early, very productive and hardy. Berries, medium in size, round, and greenish-yellow in color. Flesh pale green, juicy, tender and slightly aromatic. Season first of September.

NIAGARA—(GREEN)—A very desirable green grape, bearing large bunches of berries. Very productive but not as hardy as the Concord. Season September.

WORDEN—(BLACK)—An offspring of the Concord and very well known. Berries large, roundish, dark purplish-black and hang in large clusters. Flesh juicy, fine grained, sub-acid. You will like the Worden for eating out of the hand, squeezing juice and cooking purposes. Season first of September.

Carrie Gooseberry

GOOSEBERRIES

A well known fruit that is very useful for cooking, canning and market. They grow and produce well in any garden with the same care as Currants. **On account of blister rust quarantine No. 26, we cannot ship gooseberries west of Minnesota, Iowa, Missouri, Arkansas and Louisiana.**

CARRIE—A marvel of productiveness and strong and hardy grower. The fruit is a maroon color when ripe, and medium size. Originated in Minn.

CHAUTAUQUA—This is one of the largest and best varieties of gooseberries. Fruit large, pale green and of excellent quality. The variety that you will eventually buy.

DOWNING—Fruit is much larger than the Houghton, pale green in color and fine

quality. The most widely known variety and the most popular for canning. A very hardy, vigorous upright grower and very productive.

HOUGHTON—Fruit medium size, pale red, sweet and juicy and of a delicious flavor. Very hardy and productive.

PEARL—A variety similar to the Downing but the fruit is larger. Bush hardy, prolific bearer of yellowish-green berries. Free from mildew.

Fay's Prolific Currant

CURRENTS

THE Currant is one of the most valued of the small fruits. They ripen just before the raspberries. No fruit is more popular for the making of jellies and preserves. A planting of currants is sure to produce with care and prove to be a real benefit to the planter. There is always a strong demand on the market for this fruit and a neat little profit can be derived from planting a good sized bed of currants. **On account of blister rust quarantine No. 26, no currants can be shipped west of Minnesota, Iowa, Missouri, Arkansas and Louisiana.** *The United States Government does not permit the sale or distribution of the black fruited varieties, claiming they cause a rust that is injurious to other plant life; hence our reason for not listing these varieties.*

CHERRY—Produces clusters of beautiful large red berries in early July. Fruit strong acid and very valuable for jelly making. It is a very good market variety and always commands a high price.

DIPLOMA—Red currant of a large size, good quality and very productive. A variety that is sure to please.

FAY'S PROLIFIC—The name well describes this variety. It is a strong grower, being a cross between the Cherry and Victoria and one of the most desirable red varieties.

LONDON MARKET—A valuable variety for northern climates. Plant is extremely hardy and prolific bearer. Berries are large and of beautiful red color. A good shipper and keeper.

NORTH STAR—Claimed to be the strongest grower of the red varieties. Both berry and bunch are very large, sweet, rich in quality and desirable for a dessert fruit as well as excellent for jellies.

PERFECTION — Berries, a beautiful bright red, somewhat larger than the Fay's and unexcelled in quality. Bush very hardy and productive.

RED CROSS—Another good variety bearing long clusters of large, light red berries of good quality.

RED DUTCH—An old familiar variety, berries medium to small, good quality, and very productive.

VICTORIA—Berries, medium to large, bright red, sub-acid. A standard and reliable variety that will please everybody.

WHITE GRAPE—A very desirable white currant of a sweet, mild, sub-acid flavor. Bush very hardy and productive and one that will satisfy the most exacting planter.

WILDER—Strong, upright grower bearing clusters of fruit of medium size and excellent quality. The berry is bright red and sub-acid in flavor.

ASPARAGUS

No garden is complete without an Asparagus bed. After it is planted there is practically no care required. Everybody enjoys the fresh, green, tender sprouts when served up with milk or cream. It is the first green plant to be taken from the garden in the spring. We would recommend 100 plants for a family of three or four; 200 would be ample for 4 or 5 people. Sprinkle the bed with 3 lbs. of salt per square yard each spring and no trouble with weeds will be experienced.

CONOVER'S COLOSSAL—This variety is known for its very large, tender stalks; a very profitable market sort and one that we are pleased to recommend to our customers.

WASHINGTON RUST-PROOF—A new variety introduced by Professor Norton of the U. S. Department of Agriculture.

The outstanding characteristics of this variety are its rust resisting qualities which are the result of ten years of careful breeding; and its extraordinary productive qualities of large size individual stalks of high quality and tenderness. This variety is taking the lead over all others for commercial plantings.

PALMETTO—Superior in quality to the Conover's Colossal, it being earlier and a better yielder.

Washington Rust Proof Asparagus

Myatt's Linnaeus

RHUBARB

Rhubarb, or Pie Plant as it is sometimes called, is a very desirable vegetable which comes on early in the spring. Everybody knows what good pies can be made from it and from the fact it takes the place of early fruit, no garden is complete without a good number of these roots.

It requires a rich loamy soil and should be top-dressed every fall with barnyard fertilizer.

MYATT'S LINNAEUS—A new early variety of superior quality. It is noted for its extreme tenderness. We propagate this variety from root divisions and for that reason are sure that every plant will be true to type which is not the case when it is grown from seed. We especially recommend this variety to our customers and are sure that it will give satisfaction.

VICTORIA—Very large stalks and a valuable variety for the market or home use.

Latham Raspberry--Our Leader

RASPBERRIES

FRUIT that is very easily grown and always in demand. They ripen after strawberries and are always in demand for both table use and canning. No fruit is more easily grown than the raspberry and should have its place in every garden.

A good sized raspberry patch is a good investment for any planter as they are always in demand and command the highest prices on the market.

RED RASPBERRIES

CUTHBERT—An old and tested variety noted for its hardiness and productiveness. The berries are very large, conical, bright red and of an excellent quality.

KING—A well known prolific bearer of large, bright red berries. Canes free from rust, very hardy and vigorous grower. A good berry for the home garden and also a good commercial berry.

LATHAM OR MINN. No. 4—A new red raspberry that originated at the Minnesota Fruit Breeding Farm at St. Paul and combines all the high qualities of the best varieties and approaches nearest to perfection of any red raspberry. Bush is hardy and ironclad, requires no winter covering. The berries are the largest of any variety grown, very firm

and beautiful dark red in color. The Latham can well be called the "King of all Red Raspberries." Do not fail to plant a good number of this variety as they are sure to please.

MARLBORO—One of the earliest red raspberries, large size, excellent quality and beautiful in color. A good bearer and very hardy.

ST. REGIS EVERBEARING—A large sweet, red raspberry that will continue to fruit until the first snow of winter. A new production and the only good everbearing raspberry known. The fruit is of high quality and the everbearing habit makes it a profitable berry for the planter as raspberries in the fall are very valuable fruit for market. A very hardy variety and one that will please.

YELLOW RASPBERRY

GOLDEN QUEEN—An old well known variety having been originated in 1885 and by far the best yellow variety known. The berries are orange-yellow in color, of high quality and very productive. For those who want yellow raspberries they can make no mistake in selecting the Golden Queen.

BLACK RASPBERRIES

CUMBERLAND—The most widely planted black raspberry. The berries are mammoth black caps, very firm, glossy black and fine flavor. Canes, strong growers, hardy and well adapted for home and commercial planting. It is called one of the best black raspberries grown.

BLACK RASPBERRIES—Continued

GREGG—An excellent late black cap. Canes, strong, vigorous growers, very hardy, bears abundantly.

HONEY SWEET—The name describes this variety. Berries large, a superb sweet flavor, jet black in color and very attractive. A mid-season berry maturing its crop quick-

ly. A leader of the black raspberry group. Very hardy.

KANSAS—A drought resistant variety; berries very large, jet black and a heavy cropper.

PLUM FARMER—Bears a crop of fine, jet black berries. Excellent for eating, canning and marketing.

PURPLE RASPBERRY

COLUMBIAN—A new variety of the Shaffer type of remarkable vigor and productiveness. Fruit very large, often an inch in diameter, dark purple in color bordered with red. Seeds small and imbedded in a rich juicy pulp. An excellent table berry.

BLACKBERRIES

B LACKBERRIES should be planted in a rich soil and on the north side of trees or a fence if possible so as to give them a little shade. The varieties we list are the most hardy and desirable.

ANCIENT BRITON—One of the best old varieties, very vigorous, healthy and hardy, heavy producer of large berries of fine quality.

EARLY HARVEST—A compact, dwarf grower, very productive in south but not very hardy and should be covered for winter in the north. Berries, medium size, glossy black and high quality. Early.

ELDORADO—Berries medium size, jet black, sweet and juicy. Canes hardy, very productive. Mid season.

STONE'S HARDY—A variety adapted to severe climates and one of the most hardy of this class of fruit. Fruit medium size, juicy, fine flavor and good quality.

Stone's Hardy Blackberry

Member of

American Association of Nurserymen
BRINGERS of BOUNTY

WHEN YOU BUY OF THE NORTH STAR
YOU BUY THE BEST

Senator Dunlap Strawberry

STRAWBERRIES

THE Strawberry is a family favorite as a dessert fruit. The gardner always finds a demand for choice berries and a good financial income is the reward for planting them. It is the first fruit to ripen and the quickest to come into bearing after planting.

We list only the perfect flowering varieties; that is, those that will grow and bear berries without any other varieties near. We do not sell the Warfield as it is an imperfect flowering variety and will not bear fruit without some other variety near it. A great many people write us about the necessity of planting two kinds together, but will say it is not necessary with varieties we list.

JUNE OR SUMMER BEARING VARIETIES

BEDERWOOD—A well tested variety, early to ripen, good producer, fruit good size and quality.

BRANDYWINE—Plants strong and vigorous, runners very abundant and productive. Fruit late, very large, firm; color deep crimson with dark flesh; excellent quality.

DR. BURRILL—Fruit shaped much like the Dunlap and ripens about the same time. Berry large, dark red in color and fine flavor. An excellent berry for canning and commercial purposes.

GIBSON—A relatively new variety. Berries beautiful dark red, fine shape and quality. Plants very productive and bear through a long season.

SENATOR DUNLAP or sometimes called the "Dunlap"—Originated in Illinois and one of the best general use berries ever produced. We know of no berry so commonly known and universally popular for both a garden and commercial variety. Fruit very large, colored light and dark scarlet, very sweet and delicious. Mid-season.

EVERBEARING VARIETIES

PROGRESSIVE—A strawberry that will yield a heavy crop of fruit from May until the frosts in fall has long been the desire of

plant breeders. This result was obtained when a hand pollinated cross between an everbearer and the Dunlap produced a new

STRAWBERRIES—Continued

variety known as the Progressive. Some nurserymen sell other everbearing varieties; but we list only the progressive as past experience has proven the other varieties to be of little value and not worth planting. If

you want a good supply of fresh strawberries all through the summer, plant the Progressive and your desire will be fulfilled. Fruit large, moderately firm; far sweeter than the ordinary sorts and of good quality.

It's Not a Home Until It's Planted

ORNAMENTAL SHRUBS

PEOPLE are realizing more and more the benefits derived from the planting of ornamental shrubs, trees, roses and plants around the home grounds. The charm and grace they lend to the landscape is invaluable and if a careful selection is made it is possible to have a continuous succession of flowers from early April until the snow flies in the fall. Shrubs marked (*) are not very hardy in cold climates without covering for winter.

BERBERIS—BARBERRY

BOX BARBERRY—A new dwarf variety that promises to be a valuable acquisition for hedges and group plantings where something very small is needed. Blossoms yellow, in June. Mature height 2 ft. Grows well in shade or sun. *This variety does not harbor wheat rust.*

THUNBERGII — *Japanese Barberry* — A shrub of marked excellence on account of its bright green foliage which changes to a brilliant copper color in the fall, and its bright scarlet berries, which are very conspicuous throughout the winter. Its habit

of growth is dwarfed and spreading. Grows well in the shade or sun and is used extensively for hedges and group plantings. Mature height 3-4 ft. Blossoms yellow, in June. *This variety does not harbor wheat rust.*

***BUDDLEIA**—*Butterfly Bush*—Sometimes called the Summer Lilac. It dies back to the ground after the frosts in the fall but comes up the following spring from the roots. It can be cut back nearly to the ground each spring. Blossoms continuously from July until the fall frosts. Blossom is a lilac colored tapering panicle six to ten inches long. Mature height 4-5 ft.

SHRUBS—Continued

CARAGANA ARBORESCENS—*Siberian*

Pea Tree—A large shrub having green bark and large compound leaves, consisting of 8 to 12 bright green leaflets. Very valuable for hedges, shrub borders and groupings. It blossoms in June a yellow flower followed by

a green berry very much resembling a pea. Very hardy and desirable for arid regions. Mature height 8-10 ft. Stands pruning well and can be grown for a very compact hedge. This shrub has been called the Canadian Privet.

CORNUS—DOGWOODS

AUREA—*Yellow Barked Dogwood*—A variety particularly known for its bright yellow bark and used very much for color in group plantings. Mature height 5-6 ft. Blossom white in June.

ELEGANTISSIMA—*Variegated Leaf Dogwood*—This variety carries with it all of the beauty of the Dogwoods in having a beautiful red bark and beautifully variegated leaves which add a charm to plantings that no other shrub possesses. Grows well in sun. Blossoms white, in June. Mature height 5-6 ft.

SIBERICA—*Red Twigged Dogwood*—Good for border groupings, where the smooth, slender, bright red branches in winter make a pleasing contrast with evergreens and snow. It bears small white blossoms in June. Hardy, thrives well in shade. Mature height 6-8 ft.

STOLONIFERA—*Red Osier Dogwood*—Similar to the Cornus Siberica although the twigs do not color as well, but the foliage has better autumn color. Mature height 6-8 ft. Flowers white, in June.

COTONEASTER

ACUTIFOLIA — *Peking Cotoneaster* — A very hardy shrub well adapted for hedge plantings. Flower pinkish, white, during the

month of June. A favorite for the west and Northwest. Grows well in shade or sun.

DEUTZIA

***PRIDE OF ROCHESTER**—A beautiful shrub that bears white flowers, tinged with

pink during May and June. Grows best in sunlight. Mature height 5-6 ft.

DIERVILLA—WEIGELIA

AMABILIS—*Rose Weigelia*—This shrub is an old garden favorite with good foliage of broad, dark-green leaves. Blossoms abundantly in June with flowers of rose-pink and trumpet shape. Mature height 4-5 ft.

***EVA RATHKE**—*Crimson Weigelia*—very beautiful dwarf type; blossoms deep crimson, in June. Mature height 3-4 ft.

ROSEA—*Pink Weigelia*—Not only one of

the best species, but one of the choicest shrubs. It blossoms in June and July and at intervals all summer. Flowers rose-pink. Grows well in smoke and dust.

VARIEGATA — *Variegated Weigelia* — Dense grower, leaves variegated with white and yellow. Flowers pink, a beautiful shrub in leaf and bloom. Blossoms in June. Mature height 5-6 ft.

ELAEAGNUS

ANGUSTIFOLIA—*Russian Olive*—A large shrub, with silvery, often spiny branches. Leaves light green above, silver beneath.

Flowers yellow, in June. Mature height 6-8 ft. Grows well in sun.

EUONYMOUS

ALATUS—*Winged Burning Bush* — Of dwarf, compact habit; wood very corky in appearance; leaves small; fruit red. Blossom yellowish-red, in June. Mature height 5-6 ft.

AMERICANUS—*Brook Euonymous*—This

variety is sometimes called the American Burning Bush or Strawberry Bush. Grows tall, hardy and beautiful. Flowers yellowish-red, in June. Fruit resembles a strawberry in fall, a beautiful red and very decorative in appearance. Mature height 7-8 ft.

SHRUBS—Continued

FORSYTHIA

***INTERMEDIA**—*Upright Golden Bell*—One of the first shrubs to blossom in spring; sometimes covered with beautiful golden bell-shaped blossoms in April before the snow has left the ground. An upright grower. Mature height 6-8 ft.

SUSPENS A FORTUNEI—*Fortune's Golden Bell*—Resembles the *Intermedia* only that it is of a drooping spreading habit and needs plenty of room in order to develop. Very valuable for group borders and dense screens. Flowers beautiful yellow in April. Mature height 4-5 ft.

HYDRANGEA

ARBORESCENS—*Hills of Snow*—An upright shrub with bright green leaves. Flowers creamy-white, during June and July. It makes a fine border or floral hedge when planted alternately with *Hydrangea Paniculata*, forms a most conspicuous hedge with continuous flowering period from June until fall. Mature height 3-5 ft. Should be severely pruned in March.

PANICULATA—*Hydrangea P. G.*—Undoubtedly the most popular variety of *Hydrangea* and one of the showiest shrubs in cultivation. It has immense cone-shaped blossoms on drooping branches. The flower is white at first, and later turns to a shade of pink and then to a shade of brown and remains on the bushes all winter. This shrub should be cut back severely in March of each year to insure flowers. Mature height 5-6 ft.

PANICULATA—*Tree Hydrangea*—This is the same variety as the *Hydrangea P. G.* only it has been trimmed and cultivated to a tree form. A fine shrub for specimen plantings in lawns, parks and cemeteries.

Hydrangea P. G.

LIGUSTRUM—PRIVET

AMURENSE—*Amoor River North Privet*—The Chinese variety, much hardier than the other varieties. Leaves dark green and cling to the shrub until late into the winter and in the South it is nearly evergreen. Flowers white, in June followed by black berries. One of the best plants for hedges. Mature height 6-8 ft. when allowed to grow without pruning.

REGELIANUM—*Regel's Privet*—This variety is somewhat spreading in its habits of growth and the leaves are longer and narrower than other privets. Used for foundation and lawn borders. Berries remain on all winter and are very attractive.

Flowers white, in June. Mature height 4-5 ft.

LONICERA—HONEYSUCKLE

BELLA ALBIDA—*White Bell Honeysuckle*—A wide spreading shrub with large leaves, and producing a great array of white, fragrant flowers in April and May. Very attractive in late summer by its wealth of red berries formed in rope-like masses on the branches. Mature height 6-8 ft.

MORROWII—*Morrow's Prostrate Honeysuckle*—The bush honeysuckles are hardy, fast growing, have fine foliage and are very

useful in any shrub grouping. Flowers white, in May and June, followed by attractive red berries that hang on bushes until early winter. Mature height 5-6 ft. Very spreading in its habits of growth.

TARTARICA ALBA—*White Tartarian Honeysuckle*—More upright in growth than the *Morrow's* and very desirable for shrub groupings. Blossoms white in May and June. Mature height 6-8 ft. Very hardy. The

SHRUBS—Continued

bright red berries are very attractive in Autumn.

TARTARICA ROSEA—*Pink Tartarian Honeysuckle*—Resembles the White Tartarian except it bears an abundance of fragrant pink flowers during May and June. Very hardy, upright grower. Mature height

6-8 ft. Bears bright red berries that are very attractive.

TARTARICA RUBRA—*Red Tartarian Honeysuckle*—Same as the pink and white varieties except it bears a beautiful red flower in May and June, followed by attractive red berries through late Summer and Fall. Mature height 6-8 ft.

MALUS—APPLE

BECHTELI—*Bechtel's Flowering Crab*—A beautiful flowering crab apple used for deco-

orative purposes. Flowers pink, in May. Mature height 10-12 ft.

Philadelphus Coronarius or Mock Orange

PHILADELPHUS—MOCK ORANGE OR SYRINGA

CORONARIUS—*Sweet Scented Mock Orange*—A hardy shrub, with upright, often arching branches, attaining a height of 8-10 ft. A Native of Europe. Flowers creamy white, very fragrant and borne in great profusion. Blossoms in May and June.

CORONARIUS AUREA—*Golden Syringa*—This shrub is very compact in its habits of growth and is valuable for color contrast in plantings as the leaves are a brilliant yellow in spring. Flowers white, in May and June. Mature height 4-5 ft.

GRANDIFLORUS—*Large Scentless Mock Orange*—The flowers of this variety are white and very large with very little fragrance. Vigorous and spreading in growth and valuable for shrub borders. Mature height 8-10 ft.

LEMOINEI—*Lemoine's Syringa*—The branches are slender and arching. Flowers white and double borne in large racemes, very fragrant. This is a dwarf variety and seldom ever grows higher than four feet. Blossoms in May.

PHYSOCARPUS—NINEBARK

OPULIFOLIA—*Common Ninebark*—A strong growing shrub with dull green foliage; flowers in clusters about three inches across. Blossoms white, in June. Mature height 6-8 ft.

OPULIFOLIA AUREA — **GOLDEN**

NINEBARK—*Golden Spirea*—An exceptionally fine variety, not only for its flowers but for its golden foliage. This variety is often wrongly called Golden Spirea. Good for color work in plantings. Blossoms white in June. Mature height 6-8 ft.

PRUNUS—PLUM

GLANDULOSA ROSEA—*Double Flowering Almond*—Very attractive in spring when it is covered with showy, double pink, rose-like flowers. It blossoms before the leaves come out in May. Mature height 4-5 ft.

RED LEAF PLUM—One of Mr. Haral-

son's crosses during his work with plums. The leaves of this tree are a bright red throughout the season. Blossoms are reddish-white in May followed by a small fruit that has no commercial value, merely ornamental. This shrub offers great possibilities for color in the landscape work.

SHRUBS—Continued

TRILOBA—*Flowering Plum*—Upright in growth, with slender branches, completely covered with double flowers. Good among tall shrubs. This variety as well as the preceding are generally grafted on *Prunus ameri-*

cana stock and should be planted so that the grafted part is at least six inches below the surface of the ground. Flowers rose color, in May. Mature height 5-6 ft.

RHAMNUS—BUCKTHORN

CATHARTICA—*Common Buckthorn*—A native of Europe noted for its hardiness, dark green foliage, white flowers followed by a very

attractive black fruit. Used extensively for hedges and very decorative. Mature height when not clipped for hedges, 6-8 ft.

RHODOTYPUS—WHITE KERRIA

KERRIOIDES—*White Kerria or Jethead*—Of Japanese origin. A very ornamental shrub with bright foliage and single white flowers, about one and one-half inches across,

which are followed by conspicuous, shining black berries in autumn and winter. Blossoms in May and June. Mature height 4-5 ft.

RHUS—SUMAC

COTINUS—*Purple Fringe or Smoke Tree*—A shrub that is much admired for its curious fringe, or hair-like flowers, that cover the whole plant in mid-summer. Due to its smoky appearance it has been called the Smoke Tree by many. Blossoms yellowish-green in June. Mature height 10-12 ft. Requires lots of space.

crimson cluster in fall. Mature height 12-14 ft.

TYPHINA—*Staghorn Sumac*—Similar to the Common Sumac only that the bark is covered with fine velvety hairs resembling a Stag's Horn.

TYPHINA LACINIATA—*Cut-leaf Staghorn Sumac*—A variety of the Staghorn Sumac with deeply cut fern-like leaflets. It colors a rich crimson in autumn and is excellent for massing or when grown as single specimens. Mature height 8-10 ft.

GLABRA—*Common Smooth Sumac*—The common native variety used where natural groupings are desired. Fruits in large, showy

RIBES—CURRANT

On account of blister rust quarantine No. 26, no currants can be shipped west of Minnesota, Iowa, Missouri, Arkansas and Louisiana.

The United States Government does not permit the sale or distribution of the black fruited varieties such as the Ribes Nigrum or Aureum, claiming they cause a rust that is injurious to

other plant life; hence, our reason for not listing these varieties.

ALPINUM—*Alpine or Mountain Currant*—A dense, upright growing shrub with a deep green foliage and numerous fragrant, yellow flowers. It is considered to be the best of flowering Currants. Most useful in dry soils where other shrubs will not grow. Used extensively for hedges. Blossoms in May. Mature height 3 ft.

RUBUS—RASPBERRY

ODORATUS—*Purple Flowering Raspberry*—A strong growing shrub with very large, attractive leaves and large rose-purple flowers one-half inch in diameter. Prefers rich,

shady locations. Very valuable for landscape work. Blossoms all summer. Mature height 4-5 ft.

SAMBUCUS—ELDER

CANADENSIS—*Common American Elder*—Valuable for group plantings where large shrubs are desired. Hardy, vigorous and will thrive in most any location. Berries are valuable for pies. Flowers white, in June. Mature height 6-8 ft.

CANADENSIS AUREA—*Golden Elder*—Similar to the Common Elder except the foliage is a beautiful yellow and used for color contrast in shrub groupings. Very hardy. Blossoms white, June and July. Mature height 6-8 ft.

SHRUBS—Continued

CANADENSIS LACINIATA—*Cut-leaf Elder*—This variety is much like the Common Elder, the foliage is cut-leaved. Used in groupings for contrast of foliage. Blossoms white, in June. Mature height 5-6 ft.

RACEMOSA—*Red-berried Elder*—A pyramidal shrub, with large deep green foliage and showy red fruit in autumn. Good among coarse shrubs, particularly in moist soil. Blossoms white, in May. Mature height 5-6 ft.

SPIRAE—SPIREA

Spiraea Anthony Waterer

ANTHONY WATERER—*Spiraea A. W.*—Resembles the Bumalda only that it is more dwarf in its habits and the flowers are a bright crimson in color. It may be kept flowering continually throughout the summer by cutting away the old blossoms. Used for low hedges along sidewalks and drives and also for borders to shrub groupings. Mature height 2 ft.

ARGUTA—*Snow Garland*—Very useful and beautiful shrub with dense light green foliage. Flowers in many clusters along the drooping slender branches, giving the shrub the appearance of a bank of snow. Blossoms white, in May. Mature height 4-5 ft.

BILLARDI—*Steeple Bush*—Upright in growth, with red-brown branches, dull green foliage and dense spikes of flowers about 6 inches long. Good for side hills and dry places. Mature height 5-6 ft. Blossoms in July and August, bright pink.

BUMALDA—Compact, low-growing shrub with dense foliage which is sometimes variegated with pink and white when young. Flowers, light pink, showy flat clusters borne on erect stems. Excellent for masses in front of taller growing shrubs. Resembles the Anthony Waterer but grows stronger. Blossoms July and August and will continue thru the fall if the old flowers are kept pruned off. Mature height 2-3 ft.

CALLOSA ALBA—A dwarf Japanese variety used for group facings. Blossoms, white, nearly all summer. Mature height 2-3 ft. Blossoms June to September.

CALLOSA ROSEA—Same as preceding variety only the flower is pink. Mature height 2-3 ft. Blossoms June to September.

CALLOSA RUBRA—Same as above except flower is red. Mature height 2-3 ft. Blossoms June to September.

FROEBELLA—*Froebel's Spirea*—Similar to the Anthony Waterer but grows higher. Flowers bright crimson, in July and August. Mature height 3-4 ft.

***PRUNIFOLIA**—*Bridal Wreath*—One of the earliest of the double spires to bloom. Flowers about one-quarter of an inch across in dense clusters along the slender upright branches. A very pretty shrub but not too hardy. Blossoms white, in May. Mature height 4-5 ft.

SORBIFOLIA—*Sorb's Spirea*—The leaves of this variety resemble those of the Mountain Ash tree. Flowers grow in large showy white panicles during July. Mature height 4-5 ft.

VAN HOUTTEI—*Van Houtte's Spirea*—One of the most handsome and useful of the hardy shrubs, having pure white flowers in cluster or panicles about an inch in diameter. Blossoms in May and is usually at its height of beauty about Memorial Day. Valuable as a hedge or specimen planting either singly or in grouping where early floral color is desired. Every home grounds should have its quota of this shrub. This variety is wrongly called Bridal Wreath by many. Mature height 5-6 ft.

SHRUBS—Continued

SYMPHORICARPOS—SNOW-BERRY

RACEMOSUS—*Snowberry White*—A well known shrub having small pink flowers in July and followed by large white berries that remain through the early part of the winter. The white berries are the most attractive characteristic of the shrub. Mature height 4-5 ft.

VULGARIS—*Snowberry Red, Coral Berry or Indian Currant*—Useful for covering banks and dry spots. It is spreading in habit of growth and its long slender branches bend gracefully towards the ground. Blossom pink in July, followed by clusters of red berries about the size of a currant. Grows well in shady places. Mature height 3-4 ft.

Spirea Van Houttei

SYRINGA—LILAC

ALBA—*Common White Lilac*—One of the most widely known shrubs and valuable for group plantings where large shrubs are desired. Blossoms white, in May and June. Mature height 8-10 ft.

CHARLES X—A strong growing variety with large shining leaves. Blossoms in May, reddish-purple. Mature height 6-8 ft. Single flower.

JAPONICA—*Japanese Tree Lilac*—A pyramidal tree with upright branches and pale green leaves. The panicles of flowers are often more than a foot long. Blossoms white, June and July. Mature height 20-25 ft.

JOSIKAEA — *Hungarian Lilac* — Grows tree-like with dark, shining leaves and purple flowers in June. Mature height 10-12 ft.

MADAM LEMOINE—Double, pure white

blossoms in May. A superb variety, very showy. Mature height 6-8 ft.

PERSICA—*Persian Lilac*—Grows from 4-5 ft. high. Blossoms during May and June, pale lilac flowers. Very pretty among other shrubs.

VILLOSA—Late blooming lilac. Flowers large, light purple in bud, white when open and very fragrant. Blossoms in May and June. Mature height 8-10 ft.

VULGARIS — *Common Purple Lilac* — Probably the most well known variety of all, very hardy and attractive. It is useful in masses of shrubbery and often used in making coarse hedges and screens. To keep the shrub low and bushy it should be pruned severely each year, but pruning must be done immediately after the blossoming season. Flowers bluish-purple, in May. Mature height 8-10 ft.

TAMARIX

AFRICANA—A pretty shrub with fine, feathery, light green foliage; flowers small and pink in close clusters. Upright in growth and beautiful in masses with tall shrubs. Blossoms in April and May. Mature height 8-10 ft.

ODESSANA—Blossoms pink, somewhat later than the *Africana*. Excellent for groupings and evergreen effect.

Flowers in August. Mature height 8-10 ft.

VIRBURNUM

ACERIFOLIUM — *Maple-Leaved Viburnum*—Foliage resembles the red maple. Good for low places or under heavy shade. Flowers yellowish white, in May. Mature height 4-5 ft. Fruit almost black.

AMERICANUM—*American High Bush Cranberry*—A native variety and much more desirable than the European or *opulus* as it does not attract aphae which has always been a serious menace to the *opulus*. It is very

SHRUBS—Continued

hardy. Blossoms in May and June white flowers followed by beautiful red berries that resemble the cranberry. The berries cling until late into the winter and lend color to the winter landscape. Mature height 6-8 ft.

CASSINOIDES—*Withe-Rod*—An upright shrub with dark, glossy-green foliage; flowers in flat heads about three inches across. Fruit light blue and very ornamental. Blossoms white, in June. Fine for shrubby borders.

DENTATUM—*Arrow Wood*—Flowers greenish-white, in May and June. A fine shrub for massing for foliage effect. Mature height 6-8 feet. Fruit blue-black.

LANTANA—*Wayfaring Tree*—Upright in its habits of growth, rough foliage, light green above and silvery beneath. Stout upright branches and large heads of white flowers in May and June followed by showy clusters of bright red fruit. Mature height 8-10 ft.

LENTAGO—*Nanny or Sheep Berry*—Grows upright with slender branches and

deep green leaves which resemble the Cassinoides. Blossoms white in May and June. Fruit blue-black and very ornamental. Mature height 8-10 ft.

OPULUS—*European High Bush Cranberry*—Both ornamental and useful. It bears a white flower in May and June which is followed by beautiful red berries that resemble the cranberry. They cling to the bushes until late into the winter and are very beautiful. This variety attracts the aphae and must be sprayed with "Black Leaf 40" several times during the summer. Mature height 6-8 ft.

OPULUS STERILIS—*Common Snowball*—Dense and spreading in growth, very distinctive while in bloom and has the appearance of a snowball. Very beautiful. The aphae also infest this variety and it is necessary to spray it several times during the growing season with "Black Leaf 40" to destroy the pest. Blossoms snow white, in May and June. Mature height 6-8 ft.

EVERGREENS

HE value of evergreens for some features of ornamental gardening cannot be estimated. They lend an elegance, richness and beauty when planted in the intimacy of the home grounds or formal garden. They lend a coolness and spicy fragrance about them in the heat of summer; and a warmth and beauty in their branches when they are clad with ice and snow of winter. They are a representation of perpetual life throughout the whole year and should always be given a place in the landscape.

Evergreens are also valuable for windbreaks around bleak and unsheltered situations. One or two rows about the building site will cut off the winds almost completely and move your home a considerable distance south by making it warmer.

PICEA—SPRUCE

ALBA—*White Spruce*—One of the most beautiful of the Spruce family. It resembles the Balsam Fir in shape when young, but is broader at the base when large. The foliage is finer than that of the Norway Spruce and of a silvery green color. Tree very hardy. Mature height 50-75 feet.

EXCELSA—*Norway Spruce*—A lofty elegant tree, of perfect pyramidal habit; remarkably elegant and rich; and as it becomes aged, has fine, graceful pendulous branches. It is exceedingly picturesque and beautiful. Fine for windbreak planting. Fast grower and hardy. Mature height 50-75 feet.

CANADENSIS—*Black Hills Spruce*—A native of the Black Hills, very compact, shapely and of deep green. This evergreen is well adapted to arid regions as well as

Norway Spruce in Winter

EVERGREENS—Continued

high altitudes. Very hardy. Used extensively for foundation plantings.

PUNGENS—*Colorado Blue Spruce*—A slow growing tree with branches broad and fan-shaped. This species has been tested at various points on the prairies of the West

and Northwest with perfect success. It is one of the most beautiful in color and outline; foliage of a rich blue or sage color. It has been called the King of the Spruces clothed in royal robes of silver and sapphire. A beautiful tree for lawn planting.

ABIES—THE FIRS

BALSAMEA—*Balsam Fir*—Tree conical in form; foliage deep green on upper surface and silvery on lower. A very symmetrical tree and very beautiful. Mature height 50-60 ft.

CONCOLOR—*Silver Fir*—A very beautiful species with silver gray bark on young branches; leaves long and beautifully silvered; equal in color and beauty to the Colorado Blue Spruce. Mature height 40-50 ft.

JUNIPERUS—CEDAR

CHINENSIS PFITZERIANA — *Pfitzer's Juniper*—One of the handsomest of the semi-dwarf junipers. It is of a billowy form and beautiful in appearance. Mature height 5-6 ft.

SABINA—*Savin's Juniper*—Spreading fan shape habit, of pleasing color of dark green. Stands in city dust well. Mature height 3-4 ft.

PINUS—PINES

AUSTRIACA—*Austrian or Black Pine*—A native of the mountains of Syria. Its growth even when young, is characteristically stout and sturdy. A remarkably robust, hardy, spreading tree of grand size. A valuable variety for the dry sections. Mature height 40-50 ft.

and windbreaks. Will grow most anywhere. Mature height 30-40 ft.

SYLVESTRIS—*Scotch Pine*—A native of the British Isles. One of the most rugged of all evergreens; a fast grower which will stand most any climate. An ideal evergreen for the windbreak. Mature height 40-50 ft.

BANKSIANA — *Jack Pine* — The most northern and easiest transplanted of all American pines; withstands drouths and hardships better than any other; rather irregular in growth; foliage bright green with needles short and stiff. Valuable for groves

MUGHUS—*Mugho Pine*—A very beautiful dwarf mountain pine. It forms a low top with ascending branches and the breadth of the tree is often double its height. Foliage bright green. A valuable tree for ornamental planting. Mature height 3 ft.

THUYA—ARBOR VITAE

GLOBOSA—*Globe Arbor Vitae*—A dense light green evergreen of dwarf habits and shaped round like a ball. Fine for specimen plantings. Mature height 2-3 ft.

OCCIDENTALIS—*American Arbor Vitae*—Used largely for hedges, screens, singly on lawns and in tubs and boxes for porches. It is a handsome little tree and if allowed to grow naturally will be quite tall and pyramidal in shape. Stands severe pruning and can be trimmed to any desired shape. In

summer the foliage is bright green above, yellowish beneath and in winter changes to the richest tones of brown and bronze. Mature height 15-20 ft., when not trimmed.

ORIENTALIS—*Pyramidal Arbor Vitae*—A new and hardy sort, of very compact habit of growth; much better than the Irish Juniper and grows to a perfect column. Largely used for specimen plantings around porches and cemeteries. Mature height 6-8 ft.

ORNAMENTAL HEDGES, SCREENS AND WINDBREAKS

An ornamental hedge or screen is the frame to the landscape picture as well as lending dignity and privacy to the home grounds. The varieties we list are the most desirable on account of their extreme hardiness.

HEDGES, SCREENS, WINDBREAKS, Continued

EVERGREENS

THUYA OCCIDENTALIS — *American Arbor Vitae* or *White Cedar*—Makes a fine evergreen hedge, free from insect pests and can be clipped to any desired shape or size. This variety can also be used as a screen which will attain a height of 12-15 feet if not pruned back. Plant 1 ft. apart for hedges.

PICEA EXCELSA—*Norway Spruce*—This evergreen is used more for a windbreak and

screen which will grow to a height of 20-25 feet. Very hardy and just the thing to shelter a bleak location.

PINUS SYLVESTRIS—*Scotch Pine*—A well known hardy variety of pine which grows very thick and bushy. It will grow well on very poor soil which makes it a popular evergreen for a screen or windbreak. Mature height 25-30 ft.

DECIDUOUS

(Those shrubs and trees that drop their leaves in winter.)

BERBERIS THUNBERGII — *Japanese Barberry*—The ideal hedge to keep intruders from crossing the lawn or any other private situation. It makes a beautiful hedge either clipped or unclipped. Mature height without pruning 2-3 ft.

CARAGANA ARBORESCENS—*Siberian Pea Tree*—Makes an excellent clipped hedge and also a high screen if not pruned. Bark is green and very beautiful. Very hardy and will thrive in dry situations. Plant 1 ft. apart for hedges.

COTONEASTER ACUTIFOLIA—*Peking Cotoneaster*—A new and desirable hedge plant of a semi-evergreen nature. Very desirable for a clipped hedge. Hardy and will grow in either sun or shade. The leaves are a deep shiny green, very dense and attractive.

LONICERA TARTARICA ROSEA — *Pink Tartarian Honeysuckle*—This variety makes a beautiful screen as it will attain the height of 6-8 ft. if not clipped. The beautiful pink, fragrant flowers in June together with the beautiful green foliage makes it a very popular shrub for hedges and screens. It stands clipping well and can be made to grow any desired shape.

LIGUSTRUM AMURENSE — *Amoor River North Privet*—One of the most popular varieties for clipped hedges known to the trade. It is very hardy and an upright grower. It is semi-evergreen in its habits of growth. Should be planted 1 ft. apart for a dense hedge.

RHAMNUS CATHARTICA—*Buckthorn*—A very hardy hedge, generally trimmed 4-5 ft. high. Coarser than the Privet.

SYRINGA VULGARIS—*Common Purple Lilac*—Makes a very practical hedge 4-5 ft. high and is also used as a screen. Stands pruning well and is very hardy.

Spirea Van Houttei Hedge

SPIREA VAN HOUTTEI—Makes a beautiful floral hedge which forms a bank of white during May which together with its attractive foliage makes it a very desirable hedge throughout the season. Generally used for untrimmed hedge.

ROSA RUGOSA—Everyone knows the beauty of a rose hedge. Very hardy and vigorous grower. Flowers red from May to September, followed by large red seed pods which cling to the bushes all winter.

ROSA SETIGERA—*Prairie Rose*—One of the finest varieties for hedge planting. Blossoms pink from May until September.

MORUS TARTARICA—*Russian Mulberry*—Used extensively for windbreaks. Stands trimming well and grows rapidly. Makes a fine hedge 4-5 ft. high.

SALIX PENTANDRA—*Laurel Leaf Willow*—Upright and spreading in growth, with chestnut colored bark and large, shining, dark green foliage. Good for screens and windbreaks and quick effects.

SALIX VITELLINA AUREA — *Golden Willow*—An upright spreading tree with golden-yellow bark and narrow, silky, hairy leaves. Good for windbreak planting or in wet places.

POPULUS EUGENEI—*Carolina Poplar*—Spreading and rapid in growth. Leaves large, dark and glossy. Good for windbreaks.

SHADE, ORNAMENTAL TREES

TOO MUCH cannot be said for the beauty and value of trees for the home grounds and street plantings. We can all recall the delightful and refreshing shade they offer during the hot days of summer. Every tree that we plant will be monuments of beauty for future generations to enjoy. Varieties marked (*) not hardy in cold climates.

ACER—MAPLE

DASYCARPUM—*Silver Maple*—A well known rapid growing tree of large size, irregular rounded form; foliage bright green above and silvery beneath; a favorite street and park tree. Very hardy and vigorous. Mature height 80-100 ft.

NEGUNDO—*Ash Leaf Maple* or *Box Elder*—Spreading in its habits of growth, hardy, vigorous and excellent for shelter belts. Mature height 40-50 ft. Grows well on poor dry soil.

Silver Maple

AESCULUS—HORSE CHESTNUT

HIPPOCASTANUM — *White Flowering Horse Chestnut*—A large tree growing to a

height of 40 to 60 feet. Bears beautiful white flowers in May. Requires rich soil.

BETULA—BIRCH

ALBA—*European White Birch*—A beautiful tree with snow-white bark and spray-like branches. Can be used very effectively in landscape work especially when grown in

front of a background of evergreens. Lends a delicate and refined effect to any planting. Mature height 40-50 ft.

CATALPA

SPECIOSA — *Western Catalpa* — Very hardy and vigorous grower. Bears large fragrant white flowers with brown spots in center during July. An ornamental tree, fine for lawns, or to border driveways through parks. This tree is prized highly for timber

such as poles, posts and railroad ties. Just the tree to plant on waste land and grow a supply of valuable timber which is so much in demand at this time. Mature height 40-50 ft.

FRAXINUS—ASH

AMERICANA—*American White Ash*—A good tree for large lawns or for street-planting. Spreading in its growth and of rather open

foliage. Free from most insect pests and a very desirable tree to plant. Mature height 50-60 ft.

JUGLANS—WALNUT

NIGRA—*Black Walnut*—This tree attains great size and bears large quantities of edible

nuts. The wood is prized highly for furniture making. Mature height 60-70 ft.

SHADE AND ORNAMENTAL TREES—Continued

POPULUS—POPLAR

EUGENEI—*Carolina Poplar*—Very rapid grower. Leaves large, dark and glossy. Good for screens and places where quick shade is desired. Mature height 40-50 ft.

SALIX—WILLOW

VITELLINA PENDULA NOVA—*Niobe Weeping Willow*—One of Professor Hanson's introductions from Russia. A very hardy tree with graceful, drooping, golden twigs and is very desirable for park, lawn and cemetery plantings. The finest Weeping Willow on the market today. Mature height 40 ft.

PENTANDRA—*Laurel Leaved Willow*—Upright and spreading in growth, with chestnut-colored bark and large, shining dark-green leaves. Good for screens and quick effects. Mature height 25-30 ft.

VITELLINA AUREA—*Golden-barked Willow*—The bright yellow bark of this tree makes it very attractive during the winter months. The foliage is also very attractive. Mature height 30-40 ft.

SORBUS—MOUNTAIN ASH

AMERICANA—*American Mountain Ash*—Open in growth with spreading branches. Foliage light green and rough. Fruit bright red in showy clusters. A very attractive small tree and particularly so if planted among tall evergreens. Mature height 20-30 ft.

AUCUPARIA—*European Mountain Ash*—Resembles the American Mountain Ash very closely. The red berries hanging in clusters in the late summer and fall make it a very attractive tree. Mature height 20-30 ft.

ULMUS—ELM

AMERICANA—*American White Elm*—A tall, graceful, wide-spreading tree with

outward curving and drooping branches. The Elm is one of the grandest and most picturesque of the American trees. Very hardy and will thrive in most any situation. One of the best street trees on the market. Mature height 80-100 ft.

GLABRA CAMPERDOWNI—*Camperdown Weeping Elm*—One of the finest drooping lawn trees, the long branches spread horizontally in an attractive way and then gracefully turn down, forming a beautiful natural arbor. Mature height 10-15 ft.

American Elm

ROSES

If you are interested in other varieties of roses, write us as space does not permit our listing same in this Manual.

HE rose has justly been termed the "Queen of the Garden" for the reason of its refined texture, fragrance and variety of colors.

Roses are great lovers of sunshine and should be planted in sheltered positions with full exposure to the sunlight. They are also great soil feeders and should have their bed well fertilized each year.

The varieties we list are the most hardy and desirable for general planting.

HYBRID PERPETUALS

AMERICAN BEAUTY—A well known very fragrant. Blooms from June to November. Blossoms a deep pink,

Gruss An Teplitz Rose

ROSES—Continued

ALFRED COLOMB—Brilliant carmine-red, very large and fragrant. Blossoms from June to November.

ANNA DE DIESBACH — Brilliant carmine, fragrant and a long period bloomer, beginning in June and ending in November.

FISHER HOLMES—One of the choicest, sweet scented, velvety crimson and of more than unusual beauty in both bud and flower. June to September.

FRAU KARL DRUSCHKI—An immense, pure white, perfectly double rose, sometimes almost 6 inches in diameter, abundantly produced in June and if kept growing, continues blooming all summer. This rose won second place in the American Rose Society's "Favorite Dozen."

GENERAL JACQUEMINOT — The

"Jack" Rose, a long time favorite, brilliant crimson, from June to November.

J. B. CLARK—Intense, deep scarlet blooms shaded blackish-maroon, of immense size and moderate fragrance. A vigorous grower with strong upright canes. June to November.

MAGNA CHARTA—Very large, rosy pink, often tinted carmine, remaining on the plant for a long time in good condition. June to November.

MARSHALL P. WILDER—One of the most desirable in its class. Bright crimson-scarlet and very fragrant. June to November.

PAUL NEYRON—Deep pink and one of the best roses for out door culture. June to November.

HYBRID TEA

GRUSS AN TEPLITZ—An extremely useful and dependable variety, succeeding well all over the United States. A constant bloomer of clear crimson-scarlet, fragrant flowers from

June until the frost. An excellent bedding rose and one that should have a place in every garden.

RUGOSAS

CONRAD F. MEYER—Very large, double, showy, clear silvery-rose flowers, strongly fragrant, on large, long stems. Blooms freely all summer.

HANSA—Large, full, double, reddish-

violet blooms. The bush is a vigorous grower and profuse bloomer. Blossoms all summer. Good for bedding and shrub grouping. Very hardy and needs no covering during the winter.

ROSES—Continued

ROSA RUGOSA—The flowers of this rose are three inches across and borne singly on terminal clusters. Leaves are a dark, lustrous green and valuable for landscape work. We can furnish this variety in white, pink and

red if desired. Blooms continuously from June to September, followed by attractive red fruits in autumn. Valuable for hedges and shrub groupings.

ROSE SPECIES

ROSA HUGONIS—Takes first place among the single flowered roses, and probably among the best shrubs for general garden use. Flower pale clear yellow, delicately fragrant, flowers $2\frac{1}{2}$ inches across. Valuable for shrub borders. Very hardy. Blossoms nearly all summer.

ROSA RUBRIFOLIA—A very unusual rose because of its peculiar reddish foliage.

Flowers are pink $1\frac{1}{2}$ inches across, and borne in clusters. Prefers partial shade. Valuable in landscape work especially for its peculiar color.

ROSA SETIGERA—*Prairie Rose*—Deep rose, fading to white, almost scentless flowers about two inches in diameter. Valuable for hedge and landscape work. Blossoms June and July.

MOSS ROSES

CRESTED MOSS—Rose-colored, sweetly perfumed flowers with beautiful crested buds. Blossoms in June.

HENRI MARTIN — Unusually well

mossed buds. Flowers deep carmine shaded with bright crimson. June.

MOUSSELINE—A fine white moss rose. Bush hardy and vigorous. Blossoms in June.

CLIMBING ROSES

BALTIMORE BELLE — Bears small, white, double flowers in clusters during June and July. Vigorous grower and one of the best white climbers.

BABY RAMBLER—Flowers crimson-red and slightly fragrant. Dwarfed in its habits of growth.

CRIMSON RAMBLER—This variety is too well known to need much description as everyone is familiar with its large clusters of crimson flowers. Blossoms June and July.

DOROTHY PERKINS—One of our notable climbers. Flowers clear cherry-pink, slightly fragrant, borne in great profusion and lasting for a long time. Blossoms in June or July.

EXCELSA—Similar to the Crimson Rambler, but superior in color of flower and in its glossy disease resistant foliage. Blossoms in June.

PRAIRIE QUEEN—A beautiful red climber, very hardy and vigorous grower. Blossoms in June. An old time favorite.

SEVEN SISTERS—Flowers white to crimson, grouped in clusters and very attractive.

TAUSENDSCHOEN—Distinctly different from any other rose. The buds are cherry-pink, opening to very double flowers of softer shades that eventually fade to white, all shades being found in a single cluster and can well be called the rose of a "Thousand Beauties." Blossoms in June.

AUSTRIAN BRIERS

HARRISON YELLOW—Flowers about two inches across, semi-double. A very free

bloomer. Blossoms deep yellow, in June.

PERENNIAL PLANTS

HIS class of plants is becoming more and more popular each year as they are so beautiful and require very little care. Each year they come up in the spring and die back to the ground in the fall. A light covering of straw, old hay or leaves is practically all the attention needed during the winter. These plants are very valuable for borders around shrub groupings. We mention height to assist in the proper arrangement of these plants. The varieties we list are the most hardy and desirable for general planting.

PERENNIAL PLANTS—Continued

If you are interested in other varieties of Perennials, write us as space does not permit our listing same in this Manual.

ACHILLEA—YARROW

PTARMICA—*The Pearl*—One of the finest all summer. Mature height 3 ft. of white flowering border plants. Blossoms

ALTHEA—HOLLYHOCK

ROSEA—*Hollyhock*—An old garden favorite, especially good for border plantings. double or single. White, red or maroon. Mature height 5-7 ft. Blossom in July. We can furnish the following colors in either

AQUILEGIA—COLUMBINE

CAERULEA HYBRIDA—*Long Spurred Columbine*—A free flowering species. Flowers in shades of white, blue and rose-purple, from May to July. Mature height 3 ft.

BOCCONIA

CORDATA—*Plume Poppy*—Tropical in color. Mature height 4 ft. Good among effect with broad glaucous foliage. Flowers shrubs. on terminal spikes in August. White in

BOLTONIA

LATISQUAMA—Flowers daisy-like, white tinged with lavender during September and October. Mature height 5 ft.

CAMPANULA—CANTERBURY BELL

MEDIUM — *Canterbury Bell* — Beautiful rose and white. Blossoms from June to garden plants of easy culture. Flowers bell-shaped, in spreading clusters. Colors blue, July. Mature height 3 ft.

CHRYSANTHEMUM—PYRETHRUM

COCCINEUM—*Pyrethrum Roseum*—One and carmine. Foliage deep green and of the prettiest, hardy, perennials with daisy- feathery. Blossoms in June and July. Mature height 2 ft. like flowers in colors of white, purple, pink

CONVALLARIA

MAJALIS — *Lily-of-the-Valley* — A well known shade loving plant. Prefers deep, rich soil and can be grown on the north side of buildings or under trees. Flowers white in May. Mature height 6 inches.

COREOPSIS

GRANDIFLORA—*Tick Seed*—One of the most constant flowering of all perennials. Rich green foliage and good for groupings. Flowers yellow, all summer. Mature height 2 ft.

DELPHINIUM—LARKSPUR

BELLADONNA—The freest bloomer of all varieties. Color, a clear turquoise blue. Blossoms from June to September. Mature height 3-4 ft.

Coreopsis

PERENNIAL PLANTS—Continued

DIANTHUS

BARBATUS—*Sweet William*—Flowers in large, flat clusters, in all shades of pink, red and white. Common in old gardens.

Blossoms in June and July. Mature height 1½ ft.

GAILLARDIA—BLANKET FLOWER

GRANDIFLORA—Daisy-like flowers in various shades of yellow with dark brown centers. Excellent for border plantings and

one of the best perennials for cutting. Blossoms all summer.

HEMEROCALLIS—LILY

FLAVA—*Lemon Lily*—Good on banks of streams or in clumps in front of shrubs. Fragrant lily-like flowers. Flowers deep

yellow, in June and July. Mature height 3 ft.

IRIS

GERMANICA—*German Iris*—General favorites and plants of the easiest culture. Showy flowers from May to July in shades of blue and white. Mature height 1½ ft.

Named Varieties—

Queen of May, Rose-lilac.
Purple King, Purple.
Princess Beatrice, Lavender-violet.
Rhein Nixe, White.

KAEMPFERI — *Japanese Iris* — Flowers large and ranging in colors, white and shades of blue. Beautiful everywhere, particularly so near the water. Blossoms in June and July. Mature height 2-3 ft.

Named Varieties—

Gold Bound, white.
Mahogany, dark red.
Purple and gold, a beauty.

DICENTRA

SPECTABILIS—*Bleeding Heart*—Heart-shaped flowers in loose clusters on drooping stems rose-color in May to July. Mature height 2 ft.

PAEONIA—PEONY

FELIX CROUSSE—Very brilliant red. Fragrant, strong vigorous grower, medium height and a free bloomer. Midseason.

FESTIVA MAXIMA—Pure white, usually flecked with crimson. Very tall, strong and vigorous grower. Very popular for cut flowers. Early.

German Iris

COURONNE D'OR—White with ring of yellow stamens and crimson flecks in the white. Very fragrant and free bloomer. Late.

RUBICUNDA—Dark pink and very beautiful. Mid-season.

PERENNIAL PLANTS—Continued

RUBRA SUPERBA—Large, deep crimson and very fragrant. Very late and good keeper. Considered one of the finest late crimson varieties.

PHLOX

We can furnish this beautiful perennial in mixed colors or named varieties as follows:

Bridesmaid—White with pink eye, very beautiful.

Mrs. Chas. Dorr—Lavender.

Mrs. Jenkins—Pure white.

R. P. Struthers—Carmine.

F. G. Von Lassburg—White.

B. Comte—Purple.

Isabey—Salmon-pink.

Lothair—Crimson.

Miss Lingard—White with pink eye.

PLATYCODON—BALLOON FLOWER

GRANDIFLORUM—Resembles the Canterbury Bells. Flowers deep blue, July to October. Mature height 2 ft.

Festiva Maxima Peony

RUDBECKIA

LACINIATA—*Golden Glow*—Effective as a background for other perennials. Flowers resemble large Chrysanthemums, and are

produced in a great abundance. Flowers yellow from July to September. Mature height 5-6 ft.

YUCCA

FILAMENTOSA—*Adams' Needle*—Foliage sword-like, flowers bell-shaped and about 2 inches across; tropical in appearance and

effective in masses with shrubbery or perennials. Blossoms cream-white in June and July. Mature height 4 ft.

CLIMBING VINES

No class of plants are of wider use nor add so much to the beauty of the home planting than the climbers and trailers. Doing well in most any good soil, and of easy culture, makes them favorites in any landscape planting.

AMPELOPSIS ENGELMANI—*Engelman's Ivy*—A type of Virginia Creeper, but different in growth as well as foliage. This is the only Ampelopsis that is hardy and that will cling to brick, stone or plaster. A rapid grower, and very desirable.

ARISTOLOCHIA SIPHO—*Dutchman's Pipe*—This tall, twining vine is much ad-

mired for its large, broad leaves and greenish-yellow flowers which resemble a Dutch Pipe.

CELASTRUS SCANDENS—*American Bittersweet*—A native twining vine, with broad, pointed leaves of attractive color. Its large clusters of berries in the fall make it very attractive and ornamental. Good for covering trelliswork, trees, rocks and walls.

CLEMATIS

Of the hardy twining vines, there are none that excel in beauty of bloom, this charming group of vines. They are all fairly hardy, and bloom profusely. They should be planted in rich soil and in a sunny exposure.

HENRYII—Blossoms profusely. Undoubtedly the best of the large-flowering white varieties. Flowers cream-white in August.

JACKMANI—*Jackman Clematis*—Graceful, free-flowering vine. Flowers very large

CLIMBING VINES—Continued

and a velvety purple. Blossoms from July to September.

MADAM EDWARD ANDRE—Flowers large, crimson color from July to September. A most persistent bloomer.

PANICULATA—*Japanese Clematis* — A Japanese vine and unusually attractive. The flowers are of medium size, pure white and very fragrant, in September. Excellent for trellises, arbors and porches.

LONICERA—HONEYSUCKLE

SEMPERVIRENS—*Trumpet Honeysuckle* — A well-known useful vine, with clusters of trumpet-shaped flowers. Free flowering and showy. Fruit forms in bright yellow clusters. Flowers scarlet during June to September.

HALLIANA—*Honeysuckle*—Strong grower with deep green foliage which is almost evergreen. Free flowering and fragrant. Good for arbors and trellises. Blossoms white to yellow in August and September.

BULBS AND TUBERS

This class of stock must be taken up each fall before the ground freezes and store it in some root cellar that is protected from the frost.

DAHLIAS

Our collection is from the best varieties and should have place in every garden.

ADELAIDE—*Bright yellow.*

BLACK BEAUTY—*Maroon.*

BLUE OBAN—*Lilac shade.*

EBNER—*Bright red.*

DOAZON—*Large brick red.*

ELSIE BURGESS—*White mixed with lavender.*

FAIRY QUEEN—*Yellow, tipped with red.*

HENRYETTA—*Bright red.*

UECKE—*Dark red.*

SYLVIA—*Pink and white.*

GLORIA—*Yellow.*

GLADIOLI

These are not the common varieties that most people are acquainted with, but are the latest creations of delicate colors.

EVELYN KIRTLAND—*Pink, scarlet blotch.*

EMPRESS OF INDIA—*Dark maroon.*

CRACKERJACK—*Dark red.*

HALLEY—*Salmon pink, early.*

HOHENSTAUFEN—*White flushed pink with crimson blotch on lower petals.*

MRS. KING—*Scarlet.*

PRIMULINUS—*Yellow.*

PRESIDENT TAFT—*Pink with red markings.*

ROUGE TORCH—*White, tinted salmon with carmine throat.*

SCHWABEN—*Canary yellow.*

MRS. WHITNEY—*Yellowish pink.*

WILBRINCK—*Lavender pink.*

PEACE—*White with carmine on lower petals.*

CANNAS—BRONZE LEAVED VARIETIES

BRONZE BEDDER—*Red blossoms and beautiful bronze foliage. Mature height 7 ft.*

KING HUMBERT — *Orange blossoms flecked with yellow. Mature height 4 ft.*

GREEN LEAVED VARIETIES

FLORENCE VAUGHAN — *Bright yellow blossom. Mature height 6 ft.*

METEOR—*Bright red blossom, very showy. Mature height 3 ft.*

Gladioli

Planters Manual

KEEP THIS BOOK FOR FUTURE USE

Follow These Directions and Save Dollars

Briefly, do this:

1. Plant all trees and bushes 3 to 6 inches *deeper* than they were in the nursery.
2. *Tramp* the earth over the roots *hard* with your heels, leaving 3 inches loose soil on top.
3. *Cut off* broken limbs and branches that cross, then *cut back* two thirds of the length of the remaining branches, leaving the central limb or trunk longer than the rest. Read directions in this booklet for more complete instructions.

CARE BEFORE PLANTING

Avoid needless exposure to sun or wind. When you get home throw water on the roots and "heel in" the ground, cutting the bundles open and spreading them out, being careful to get all air spaces filled with earth. Small stock in paper packages should be opened up, the roots spread out and heeled in.

WHERE TO PLANT

A Northeastern, Northern or Eastern slope is better suited for apples and plums. Cherries do better on a soil that is drier than is best for most fruits—they like an elevated, sandy or gravelly loam, and a rather porous subsoil. Do not plant fruit trees in a wet place or on water-soaked soils. A Southern or warm exposure with good air drainage is best for grapes. Any good, rich garden soil (cool and moist preferred) is suitable for small fruits.

PLANTING

Each variety is tied in a bundle by itself, one tree in which bears the label. In planting leave this labeled tree or shrub until the last, so you will be sure not to get the varieties confused in setting them out.

Land should be plowed deep, harrowed well and large holes dug. Trees ought not to be set in sod. If necessary to do so, as in a lawn, spade up the sod 2 or 3 feet each way from the tree; keep this space hoed or mulched.

Dynamite may be used in setting trees in heavy clay, or hardpan soils, provided the soil is dry enough when holes are shot so it will crumble and not pack. Hence it is best to shoot holes in late summer or fall when ground is dry; mark the places and set trees the next spring.

APPLES

The distance apart at which apple trees should be set varies according to severity of climate, also whether only a small plot is set out or a large number of trees is planted. South of the latitude of Wisconsin they should be 20 to 25 feet apart each way. In the more northern sections and on the western prairies where the trees do not grow so large, it is beneficial to set them closer together especially in the north and south direction, so they will somewhat protect each other from the hot sun. A good distance is 15 feet apart in the row north and south, while the rows may be spaced 20 feet apart east and west.

PLUMS

In the southern half of Wisconsin and in similar climate, set plums 12 or 15 feet apart each way. In severe sections where trees grow less rapidly they may be set closer, perhaps 12 feet apart in the rows north and south. Compass, Opatá, Sapa, and Hanska may be set 9 to 12 feet apart in the row, and let them branch from the ground up, like a big bush.

All plums and cherry hybrids are more certain to set fruit every year if several varieties that blossom at the same time are planted near each other.

The plums blossoming at about the same time are grouped together.

1st: Waneta, Tokata and Loring.

2d: The old native varieties: Forest Garden, Surprise and Wyant.

3d: The Sand Cherry Hybrid Group: Opatá, Sapa, Compass and Hanska.

The varieties mentioned in the three groups will overlap in time of blossoming enough to secure good pollination; but the varieties in the first group and those in the last would hardly pollenize because the first lot would be through blossoming by the time the last lot began.

When Ready to Plant, put a tub of water on a stone-boat or a wheelbarrow and carry the trees in this to the place where they are to be planted. Take the trees out one at a time, avoiding all exposure of roots. Set 3 to 6 inches deeper than they stood in the nursery, depending on your soil. On an elevated position, or in a light soil plant deeper than on a low, wet or a heavy soil. On a hillside set trees deep to prevent soil washing off the roots.

Just Before Planting, cut ragged ends of roots back to fresh wood. Keep tap-roots full length, but trim main side roots to a length of 6 or 8 inches. This proportion is about right for a tree 5 to 6 feet high. Have a small mound of dirt in bottom of hole to set roots over, as this will prevent splitting roots when tamping earth over them and leave no cavity when planting is finished. Cut off all small fibrous roots (except on evergreens) to allow soil to be tamped tight against the main, larger roots. *Straighten out* the roots in their *natural position*. Cover with fine soil deep enough to prevent bruising, then *stamp as solid* as you can, using your heels and throwing your whole weight on them, or better, use a 2-by-4 to tamp the soil hard over the roots same as you would set a fence post. Continue the stamping and filling to within 3 inches of the top; put on loose soil, leaving ground dishing slightly toward the tree; never mound it up.

PRUNING

Prune newly set trees at once; 1st, to reduce evaporating surface until root growth is established; 2d, to start a proper frame work, or branching system. Remove limbs that will later cross and rub each other. Prevent dangerous forks by cutting away the smaller branch.

Plums should have main trunk shortened considerably. If there are side branches, remove all but 4 to 6 well distributed main limbs, leaving these 4 to 6 inches long. Avoid having several limbs start from the trunk at about the same height from the ground. If they branch away from the trunk 4 to 6 inches apart they are less likely to split down when the limbs get longer.

Allow Opatá, Sapa, Compass and Hanska to branch from the ground up like a big bush. After they have fruited a few years cut out the older limbs, allowing newer wood to take their places, about the same as you would trim a currant bush. Handled in this way they are more productive and are longer lived.

In apples shorten the main leader some. Let 4 to 6 side limbs be distributed about the trunk. Have a short trunk; keep head low. Cut off half or three quarters of the length of side limbs. Cut to an outside bud; that is, have the top bud on a limb toward the outside of the tree which will tend to spread the top and let in light to develop the fruit.

Undesirable limbs on Sour Cherry, Mountain Ash and Birch may be entirely removed, but leave the end or terminal buds on remaining limbs.

Trim often—once a year or so—in March or in June—and only enough to keep the top symmetrical and to remove the limbs that cross and rub. When necessary to take off large limbs, do it while the tree is dormant, early in spring before sap starts, covering wounds with paraffine wax or pure white lead. Don't use paint or axle grease.

MULCHING

Unless trees will be cultivated, *mulch* them as soon as planted, 6 to 10 inches deep, 3 feet away from the trees, using strawy manure, cornstalks, or any coarse litter. Mulching means mice, so it is in order to furnish protection.

CULTIVATION OF ORCHARD

It is best to cultivate all trees the same as you would corn for several seasons, until they are large enough to shade the ground between them. In an orchard, small fruits, asparagus and rhubarb may be grown in the rows of trees, and corn, potatoes and garden crops may be planted between the rows. When you cultivate these crops you are giving your orchard the best kind of care without extra work.

MANURING

Apply a moderate dressing of stable manure to your fruit trees every winter. The exception to this is when the land is very rich, or in the case of Compass cherry, or the Hansen Hybrid plums, which do best on a rather poor soil, or in case of varieties of trees which are somewhat subject to blight, under which conditions the fertilizer should be used only as the growth of the trees indicates the need of it. Don't let the manure come up to the trees or mice may work in it and girdle them.

Small fruits of all kinds should be liberally manured every year. Manure strawberry patch when plowing but not after plants are set.

GRAPES

Plant in a sunny, airy, well drained location, 5 feet apart, in rows 8 feet apart.

PRUNING HARDY GRAPES

Hardy grapes like Beta, Alpha, Concord and others may be pruned in various styles, but the four arm "kniffin" system herein described is a simple and satisfactory one to follow. This is put on a two-wire trellis, the first wire two and one-half to three feet above the ground and the second from 16 to 18 inches above the first. This trellis is usually built at the beginning of the second year. If the vine made a good growth the first season all canes are removed except one and this is tied to the wires in an upright position. It should be cut off just above the top wire if its length exceeds this distance.

Kniffin system used for hardy grapes, like Beta, etc.

PRUNING TENDER GRAPES

Varieties like Campbell's Early, Worden, Delaware and many others require winter protection in most parts of Wisconsin. This compels the formation of a vine that can be easily removed from the trellis and

Buried for winter protection.

covered with soil without much danger of breaking the canes. The method illustrated in the figures fulfills these conditions the best of any yet devised.

Summer Pruning—During the middle of the summer vigorous vines will often put out such a heavy growth of shoots and foliage that the clusters of grapes are shaded too much to ripen well. To correct this it is customary to cut away enough of the vine upon each side of the trellis to admit plenty of light to the fruit. Sometimes with strong growing vines it is necessary to repeat this process. A sharp sickle or corn knife makes a good tool for this work.

CURRENTS AND GOOSEBERRIES

Set 3 or 4 inches deeper than in nursery, and cut back one-half.

Plant 4 or 5 feet apart and cultivate; for a commercial planting they should be given more room, 5 by 6 feet. Every year as soon as fruit is gathered, cut out and burn all wood 4 years old. Let 5 or 6 new shoots come each year. To prevent worms eating the leaves every year as soon as the fruit is set, spray thoroughly with arsenate of lead, especially the lower branches where the worms always start.

RASPBERRIES AND BLACKBERRIES

Set in good garden soil 3 or 4 feet apart in rows six feet apart. In planting *Black Raspberries*, set them so bud in center of mass of roots is covered only 1 inch deep, using care not to break this bud. Tramp soil firmly over the roots. If center bud is buried too deep the plant will be smothered. *Red Raspberries*, such varieties as King, Latham, Loudon and St. Regis, should be set 2 or 3 inches deeper than they were in the nursery. Cultivate clean first year; then mulch 1 foot each way from rows and keep open spaces between rows cultivated. After fruiting cut out old canes and let 6 or 8 vigorous new ones grow, pinching off when 24 inches high, to induce the growth of side branches.

STRAWBERRIES

Caution—Never set strawberry plants on new land or sod land until at least one crop has been grown. Set your plants where you grew a cultivated crop the year before. In order to succeed with *Everbearing Strawberries* it is absolutely necessary to plant them in rich, mellow soil that is free from coarse straw manure. Plant same as directed for ordinary strawberries, then keep them well cultivated and hoed. Pick off the blossoms until July 10th, and if fruit only is wanted the first year, keep most of the runners off also, and they will bear from the last of July until ground freezes up. The plants need plenty of moisture to mature a crop, and in time of drouth will repay trouble of watering. About July 1st the patch may be mulched to keep down the weeds and retain the moisture. The second year, if you want all fruit to come after June-bearing varieties are done, disbud twice in May and in June, when they will bear as during the first year. If not disbudded, they will ripen a week before the June varieties, and bear heavily during the regular strawberry season. Then after a rest of 6 or 8 weeks, usually bear a few weeks in the fall.

Strawberries, when received, should be opened at once. Don't leave the package of plants down cellar for a few days. Set them out right away. If left too long out of the ground, the plants lose vitality. Trim off large leaves, letting only two or three small ones remain; shorten roots to about 3 inches, and dip in thin mud. If weather is favorable, plant at once, 18 to 24 inches apart, in rows 3 feet apart, in clean, well drained rich ground that was into a hoed crop the previous season. Best results are obtained by setting perfect flowering varieties like Dunlap and Dr. Burrill. Keep all the blossom buds picked off first year from common or June-bearing varieties.

In planting, spread the roots out well in the hole and pack earth firmly over them. Don't set too deep or too shallow. The "crown" or buds must not be covered, nor the roots left exposed. Cultivate immediately, and at intervals of a week throughout the season until September 1. Let plants form a matted row 12 or 18 inches wide, depending on the variety, then cut off ends of all surplus runners, to allow stronger crowns to develop.

In case the weather is very dry and hot when you receive your plants, it is best, after they have been trimmed and mudded as above to heel them in—that is, temporarily plant them out, half an inch or so apart, getting a little soil between the plants. Here they may be shaded and watered. Watch for a favorable time and set them in the garden just before or after a rain. A large number of plants may be taken care of in this way with but little work, and it will make certain your success.

After the ground freezes 2 or 3 inches in the fall, cover all plants, everbearing and common, 2 or 3 inches deep with marsh hay, corn stalks or clean straw. In spring, rake surplus covering off and leave it between the rows for a mulch. Let some remain on row to keep fruit out of dirt.

The most satisfactory way to grow June-bearing strawberries is to set a new patch *every spring* in ground that was into a cultivated crop the previous season so there are no grass roots established, nor cutworms present. Pick one crop of berries, then plow up the patch. In this way, clover and grass will not bother.

ASPARAGUS AND RHUBARB

Plant Rhubarb 3 feet apart in light, rich soil, with the buds 1 inch below level of the ground.

Set *Asparagus* in rich soil a foot apart in a furrow 6 inches deep. Cover 3 inches and tramp. In hoeing, work soil gradually toward plants so that by July the ground is level. Do not cover 6 inches deep at first or plants will be smothered. Cut *asparagus* the second year; after that cut all shoots 6 or 8 inches high until June 15th, then let the tops grow.

Fertilize Rhubarb liberally with stable manure every year; also *Asparagus* when through cutting in June.

PERENNIALS

Choose a sunny location; the soil should be spaded deep, 12 to 16 inches, pulverized and enriched with *well rotted* manure before the plants are set out.

In planting, do not allow any fertilizer to come in contact with the roots, using only good soil next to them.

Plant most perennials a trifle deeper than they were before, an inch or so, so that they may be at the same depth as in the nursery after the earth settles.

Plant Peonies and Bleeding Heart so that buds are about 3 inches below top of soil. Phlox about 2 inches below.

In the growing and blooming season stir the surface soil occasionally to keep it loose, especially after every rain, so a crust will not form. To prolong the blooming season, pick off the flowers as soon as they wither. After the fall frosts kill the tops, put manure among the plants, *taking care not to cover the crowns*, as there is danger of their rotting. After the ground freezes 2 inches, cover the plants completely with about 6 inches of *leaves or straw*, except Hollyhocks or other heavy-leaved plants, which should be covered with light boughs and then straw, so the covering will not smother them out. About the middle or last of April rake off the straw and work the manure into the soil around the plants.

Plant *Gladioli* May 15th to June 15th, 4 to 6 inches deep and 5 to 6 inches apart, in rich soil, in a sunny place. In fall after first hard frost dig bulbs up, dry them and store in cool cellar where it will not freeze.

Plant *Dahlias* 3 or 4 inches deep in *well drained*, rich soil which has been deeply spaded. After the first hard frost in fall dig and dry one day and store in cool cellar where it cannot freeze. If the cellar is dry and very warm, cover tubers with dry earth or sand to prevent shriveling.

ROSES

Roses want a rich clay loam. Set budded roses 4 to 5 inches deeper than in nursery, so the branches are at least 2 or 3 inches below top soil. The best fertilizer is that from cow stables. In fall level the beds so water will not stand and scatter several inches of *dry leaves or straw* on ground, bend bushes over and cover 6 to 12 inches deep with the same material, using boards or building paper to hold it in place and keep the water off. It is necessary to keep tops of roses *dry* during winter, or they will mold. It is not necessary to cover *Moss* Roses nor the Hybrid Rugosas such as Conrad Meyer, Hansa, and others. These as well as the single flowered Rugosa should be severely pruned back each spring to secure the best foliage effects and the strongest blossoms. Hybrid Perpetuals and Tea roses should be covered for winter as they are not as hardy as the Rugosa varieties.

EVERGREENS

In handling Evergreens, *always keep the roots moist; don't expose the roots to sun or wind*. Five minutes exposure will kill them.

If you cannot plant them as soon as received, open the bundle, mud the roots well and heel in, in some shady spot.

Dig large holes, *spread roots* out well, set 2 to 4 inches deeper than they stood before, and *make earth firm around the roots by stamping with your heels*, or better, pack the soil over roots with a *post tamper*, making the tree so solid that it cannot be pulled up without breaking the roots.

In *setting Evergreens* having a ball of earth burlapped on the roots, be sure the hole is sufficiently large and deep to set the trees, in the case of one 5 to 6 feet high, 6 or 8 inches deeper than it stood in the nursery. Put the tree into the hole and cut the burlap around the sides and top—the bottom need not be disturbed if the earth shows a tendency to crumble. Remove any packing material outside the ball of earth, straighten out such roots as project and get earth around them, tamping it firm as directed above. Avoid breaking the ball of earth.

Keep the surface soil well loosened up as directed in a former paragraph.

Cultivate *Hedges* and *Windbreaks* same as corn for 4 or 5 years or more, then mulch heavily. Thus cared

for they will grow 2 or 3 feet in a season after getting well established. If they cannot be cultivated, mulch heavily soon as planted, 3 or 4 feet each way from the tree.

Shrub before and after being pruned.

SHRUBS

Plant 2 to 4 inches deeper than they were in the nursery, following directions under head of *Planting*.

Cut off $\frac{1}{3}$ to $\frac{1}{2}$ of the tops and mulch well. Very little pruning is needed after the first year. If the bushes get too tall, cut out the stalks near the base, early in spring. If only shortening of the branches is wanted, they should be cut at irregular heights so as not to spoil the natural shape of the bush. Hydrangeas should be severely pruned every spring before the leaf buds start. Shrubs that bloom in May and June should not be trimmed until following flowering for the season.

HEDGES

If soil is poor, well-rotted manure may be spaded into it where the hedge is to go. Similar fertilizer may also be mixed with the soil to get more rapid growth than otherwise. Set the plants 2 to 4 inches deeper than they stood in the nursery, putting only good loam (no manure) in immediate contact with the roots. Stamp or ram the soil firmly over the roots.

Pruning Hedges—After planting as per general directions, the bushes should be cut off to within 6 or 8 inches of the ground, depending on their size. This is important, as the sap goes to the highest point and if all the top is left on, the base of your hedge will be stalky and spindly. This first heavy pruning tends to spread the new growth out and gives a good foundation. When about 3 inches new growth has formed, clip the tops to induce further branching and thickening, continuing this treatment until the hedge attains the desired height. *Frequent shearing* is what makes a good hedge.

CARE AFTER PLANTING

The best results will be secured by keeping the grass away from shrubs and newly planted trees. In shrub groups do not allow the grass to grow among the bushes, but keep the surface loosened with hoe or hook, working the soil as soon as dry enough to crumble, after each rain, or each watering in case that is done.

If the soil cannot be kept loosened as recommended, the next best thing is to mulch. Unless trees will be cultivated, mulch them as soon as planted, 4 to 6 inches deep, 3 feet each way from the trees, using straw manure, cornstalks or any coarse litter. Protect bodies of trees having long exposed trunks from the ground, to above the large limbs by wrapping with any cheap material, such as burlap.

WATERING

If the soil is fairly moist when trees are planted (so that it will nearly hold its shape when a handful is pressed together), it is best to plant without use of water, as water makes the ground so soft the trees are easily loosened and the air gets at the roots.

When ground is very dry it is all right to fill the holes with water before the trees are set and allow this to soak away.

If necessary to water anything, whether trees, bushes, plants or lawn, use plenty of water and be sure it goes down several feet until it meets the permanent moisture below.

Probably the best way to get water to the roots of trees and shrubs, especially when they are located on a slope or under larger trees is to dig holes on two or three sides of them, 30 inches deep; put in 18 inches coarse gravel, then insert vertically a 12-inch length of 3-inch agricultural drain tile. At each watering fill the tiles several times until the soil is thoroughly saturated. This method is particularly adapted to watering groups near the edge of a terrace. Burlap may be stuffed into the top of the tile to keep trash out and to retain moisture.

After thoroughly saturating the soil do not water again for 5 or 6 days. But be sure after each watering or rain to loosen the soil on top as soon as dry enough, so as to prevent formation of a crust and the consequent drying out of the soil below.

The amateur's method of watering—sprinkling a little on top of the soil every day in a dry spell—is worse than nothing, as it fails to reach the roots, but merely keeps a crust on top resulting in the evaporation of whatever moisture the soil may contain.

SPRAYING MATERIALS

The most common and best form of arsenic used is "arsenate of lead." This may be secured from drug stores and seed and garden supply houses. Thoroughly dissolve three pounds of paste arsenate of lead or $1\frac{1}{2}$ pounds of dry arsenate of lead in a small amount of water in a pail and add to fifty gallons of water or other spraying solution.

Bordeaux mixture is prepared by dissolving four pounds of copper-sulphate (bluestone), in a small amount of water and diluting to twenty-five gallons; slacking five to six pounds of good lime and adding water to make twenty-five gallons. These solutions should then be combined by pouring or dipping simultaneously from each into a third vessel or spray tank.

The commercial lime-sulphur is used almost exclusively by many fruit growers. This may be obtained from same sources as arsenate of lead or direct from manufacturers. To combine the fungus spray and the insect spray simply add the dissolved poisons to the fungus solutions.

Kerosene in its natural, undiluted state, is fatal to all insect and vegetable life, but properly prepared may be used safely and with much benefit. Dissolve a bar of Ivory soap in one gallon of hot water, then add two gallons of kerosene and churn it vigorously until cool. If made right it is then like cream, and will keep indefinitely. For general use take one part of the mixture to ten parts of water and use as a spray. Will be found very valuable in getting rid of aphids, mealy bugs, red spider, etc. May be used against any soft-shelled insect.

SPRAY PROGRAM

The spray mixture for apples and plums best suited for Wisconsin conditions is made by adding 5 quarts of liquid commercial lime sulphur and 1½ lbs. of powdered arsenate of lead to 50 gallons of water. Spraying should always be done under high pressure. 200 lbs. or more is better than a lower pressure. Cover every tree thoroughly, and above all be sure to do the spraying at the proper time, as a delay of a few days will greatly reduce the effectiveness of the work.

APPLES

First Spray—When first flower buds show pink.

Pests controlled—Early stages of leaf-eating caterpillars, curculio and scab.

Second Spray—As soon as petals drop from flowers and before calyx cup closes.

Pests controlled—Coddling moth and those listed under first spray.

Third Spray—Last week of June or first week of July.

Pests controlled—Scab, apple maggot (rail road worm) and leaf-eating insects.

Fourth Spray—About July 20th.

Pests controlled—Scab, apple maggot (rail road worm) plum curculio and leaf-eating insects.

Note—In orchards where apple maggot is very bad another spray should be applied about August 10th.

PLUMS

First Spray—Just before blossoms open.

Pests controlled—Curculio, plum pocket blossom blight, twig blight.

Second Spray—When plums are the size of small peas.

Pests controlled—Curculio and brown rot.

Third Spray—About July 1st.

Pests controlled—Curculio and brown rot.

Fourth Spray—When the fruit first starts to color.

Pests controlled—Curculio and brown rot.

Special for Plant Lice—If plant lice are noticed on apples, plums or other plants in early spring, spray with nicotine sulphate, ¼ pint of 40 per cent. nicotine sulphate and 2 or 3 lbs. of soap in 50 gallons of water, as soon as discovered. The first lice usually appear just as the buds are bursting. If very numerous when applying regular sprays, nicotine sulphate may be added to regular mixtures. It is more effective when used alone.

CURRENTS AND GOOSEBERRIES

Spray—Just before buds open. Lime sulphur one part to nine parts of water. This is a strong solution which is used to destroy the eggs of plant lice and must not be used after the leaves are out.

Pests controlled—Plant lice.

There are four distinct types of troubles to combat; ie: chewing insects, sucking insects, scale insects and fungus diseases. Chewing insects are controlled with a stomach poison, some form of arsenic (lead arsenate), sucking insects (lice or aphids); by body contact poison, (nicotine) or miscible oil (kerosene emulsion); and fungus diseases by lime-sulphur solution or Bordeaux mixture. Be sure you know what you are spraying for; since arsenate of lead will not control lice or aphids, nor will nicotine or kerosene emulsion control apple worms and neither of these will have any effect on apple scab or other fungus diseases. Lime-sulphur is used as a dormant spray for scale insects, and also for fungus. In spraying the apple, keep in mind the two main apple troubles in the Central West, coddling moth and apple scab, and in controlling these most other troubles are incidentally controlled. Lead-arsenate and lime-sulphur or Bordeaux mixture are the sprays to use.

*The Craftsman Press
Pardeeville, Wisconsin*

We grow
the kinds we
sell

The
kinds we sell
grow