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INSTRUCTIVE & DESCRIPTIVE
CATALOGUE

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HOWARD LAKE
— AND —
VICTOR
NURSERIES

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U. S. Department of Agriculture

W. H. EDDY, Proprietor
HOWARD LAKE, MINNESOTA

We Grow and have for Sale a Complete Line of
Hardy Trees, Plants and Shrubs for
Northern Planters

Reliable Salesmen Wanted

Present Office with Packing Shed in ..

INSTRUCTIVE AND DESCRIPTIVE
CATALOGUE

HOWARD LAKE &
VICTOR
NURSERIES

W. H. EDDY, Proprietor
Howard Lake, - - Minnesota

TO OUR PATRONS AND FRIENDS.

It is of the greatest importance that you select varieties suited to your wants, adapted to your soil, and that will grow well in this northern climate. We recommend only the varieties that prove productive and profitable with us. We recognize that the average planter is a busy person and has but little time to devote to the study of varieties or the care necessary for the successful growing of them, and in the preparation of this catalog we have endeavored to make it a GUIDE, both as an aid in the selection of stock and its after treatment. Such descriptions are not enticing to buyers, but we so firmly believe that square-toed, homely honesty is a winner in the long run. We are not trying to sell you stock you do not want, and what we do sell we are interested in seeing you succeed with. Our customers' success is the foundation of ours.

Valuable Helps.

Our catalog is written fresh from the orchard and nursery and horticultural meetings. It's our latest and best experience and intended to be something that every planter in the north will think worth reading and keeping.

Fresh Stock.

Who has not been disgusted at receiving dried up, half dead trees, that might have been good enough when first taken up, but for the want of a little moss and attention to packing at the nursery, arrived in a condition fit only for the brush pile? We make a specialty of GOOD PACKING, and think it better to pay freight on a little extra water and packing material than to have our trees arrive dry and dead.

Reasonable Prices.

Not as low as we could make if we were dealing in southern and eastern trees, which in their long moist season make a soft and spongy but "pretty tree" in half the time and at one third the cost they can be grown for in Minnesota, but at a fair price that will enable us to supply you with trees and plants adapted to THE COLD NORTH, and allow us to continue in the business. Minnesota farmers could not be persuaded to plant Missouri corn; why in the name of common sense should they plant Missouri apple trees?

GENERAL INFORMATION.

Our Terms

Our terms are strictly cash.

We Furnish

six of a kind at 12 rates, 50 at 100 rates, and 500 at 1,000 rates.

Note Carefully

the sizes of trees or age of plants offered and order accordingly.

Early Orders.

All orders are filled in rotation, and hence the advantage of placing them as early as possible, while the assortment is unbroken.

Guarantee.

We exercise the greatest care to have all stock true to name. Should any prove otherwise, we will replace the same free of charge or refund the original purchase price. The thoughtful purchaser will recognize the fact that conditions after shipment are entirely beyond our control, and hence it is folly for us to guarantee our stock further. However, should any errors occur, we will cheerfully remedy where possible, if reported at once.

Delays

If stock has been shipped and you do not receive it in due season, advise your agent to trace same and notify us, and we will have it traced also.

Hardest Varieties.

for the far north are marked in this catalog with a star (*). This has been very faithfully done to answer the many questions we receive on this point from Northern Minnesota, North Dakota and Manitoba.

Additional Varieties.

We have in smaller supply other kinds not cataloged. "If you do not see what you want, ask for it," and if it is of any possible value in our climate we can very likely furnish it.

CARE OF STOCK.

Care of Stock When Received.

Avoid any unnecessary exposure to sun or wind. Wet the roots thoroly at once, and either place them in a damp cellar or else heel them in the ground in some cool, moist place, until you are ready to plant. If stock appears rather dry when received, or if weather or ground is unfavorable, it will generally be best not to plant at once, but let it remain heeled in or BURIED in moist ground until prospects improve, or for a few days. By this method of handling a much better stand of all kinds of nursery stock will be obtained.

Fall Shipments.

When received in the fall, choose a high and mild location; dig a trench sloping and deep enough so that all trees will be entirely covered. The bundle should be cut open and all straw or moss removed, then laid close side by side in the trench, the larger trees to be placed some deeper than small trees, which are all to be covered with moist earth, having about one foot of earth over the roots and two or three inches over the tops. Then put about four inches deep of coarse manure, to prevent alternate freezing and thawing. It is a good plan to get stock in the fall, if proper care is given to heeling in, as you will have your trees on hand in the spring to plant at just the right time. Evergreens and strawberries should not be shipped in the fall.

Frozen Stock.

Should any stock be received in a frozen condition, place in a cellar or some rather moist place, where it will thaw out gradually, and do not unpack until frost is out of the trees.

Preparing Land.

In preparing land for planting small fruits, orchard or groves, the land should be put in about the same condition that a crop of corn requires. Indeed, by keeping in mind the kind of land, situation and care that a

corn field should have, there is little danger of going astray in the management of any tree planting.

CORN will not do well in a clover, timothy or blue grass sod, even if a few inches be spaded up about each hill; neither will a young tree thrive with such treatment.

CORN will be stunted and worthless if planted within one or two rods of large willow, cottonwood or like trees. The same is true with all fruit plants and evergreens.

CORN is a failure in low, wet land; so are nearly all fruit trees.

Planting in Sod.

When necessary to plant in sod, as in a lawn, remove all sod within a radius of three feet or so, and after planting keep the ground well mulched or cultivated near the tree.

Pruning and Setting of Trees.

Take your fruit tree, forest or ornamental tree, except evergreens, trim off half of last year's growth from the top, except the center limb and trim all roots from the inside out back to where they are fresh, not leaving the longest root over a foot long. Then place your tree in a barrel half full of water, continue the trimming until the barrel is half full of trees. Then hitch horse on a stone boat and haul your trees to where they are to be planted; then dig the holes six to eight inches larger each way than

the roots are, and about six inches deeper. After the hole is dug, place about two inches top soil in bottom of hole. Then take the tree and place same in hole, which puts it about four inches deeper than it stood in the nursery. Place enough mellow top soil in the hole to cover the roots, then with the heel and all the strength and weight at command, stamp the earth down until it is solid; fill in a little more dirt and repeat the stamping until the hole is nearly full. Then fill the rest of the hole with loose dirt and leave it dishing some towards the tree. Bushes, both fruit and ornamental, are to be root and top pruned the same way. This is very important in order to preserve a balance between the root and top. The foregoing directions for pruning do not, however, apply to evergreens.

Manuring.

In most of our soils in this section we would not advise plowing-under manure in the spring, or placing it in the holes dug, but rather apply it as a top dressing around the trees and bushes, which should be done the following fall, "about Nov. 1st," after planting, for winter protection.

APPLES.

The fact that the southern portion of the state produces a surplus of

apples, and that there are many good orchards as far north as the latitude of Duluth, and that both standard apples and crabs were shown by five different exhibitors at a Manitoba state fair held at Stonewall, nearly a hundred miles north of Minnesota, should encourage every lover of a home orchard to make a trial of the hardier varieties and the improved northern methods that have been developed within the past ten to twenty years. That there may have been many failures in the past must be acknowledged, and it is also true that there will be many made in the future by those who fail to realize that they cannot succeed with the old Eastern and Southern varieties and methods, or with an orchard given up to grass and weeds, rabbits and live stock. But intelligent business sense and good care will now bring success as surely as in any other branch of agriculture. It is true where apple trees were cared for and the right kinds planted, in years past, there have been no acres in our part of the state that have brought in as large a NET profit as the acres planted to apple orchards.

Varieties.

Those herein listed are so faithfully described that the most ignorant purchaser need not go astray. It is substantially the list recommended by our State Horticultural Society and at Farmers' Institutes,

as well as our many years of experience with over three score varieties in our orchard of bearing trees.

Economical Plan of an Orchard.

We wish to call attention to a system of planting that is especially adapted to meet the needs of our northern climate, and is being adopted more and more each year. It is so fully illustrated on another page that we will only call attention to some of its advantages.

1st. Ease of Cultivation.

The wide space between the rows gives a comfortable space to plow, drag and cultivate with a team.

2nd. Protection.

If the rows are run north and south, as they should be, the south end tree of each row will shade its next neighbor to the north, and so on down the row, and thus the trees will in a large measure protect each other from that most common and fatal injury, sunscald.

3rd. Economy of Land and Labor.

By this system, the land between the rows becomes available for profitably raising any hoed crop. The apple is a generous tree and does not kill the ground near it. Our best crops of gooseberries and currants are raised between the trees.

4th. Opportunity of Renewal.

We have to face the fact that fruit trees are not long lived in our climate. We must consider our or-

chards as a crop; plant early bearing kinds, expect quick returns, and, like a cornfield, be satisfied to plant again when the old trees have given a reasonable return and show signs of decay. By this system of setting a new row can be planted in the center between the old rows when the original orchard begins to fail.

Our Own Orchard

is planted by this system. We have currants and gooseberries between the trees, besides corn, potatoes, vegetables. Evergreens and other kinds of nursery stock are grown between the rows. By this system we do not lose the use of the ground or feel that the trees are in the way at all until they are large enough to produce heavily themselves. We like to trim our trees so as to make an open top. This allows circulation of air, and colors up the fruit better. We leave a trunk from two to three feet therefore having a tree more dwarfish and making a good protection to the short trunk from blight or sunscald.

Blight

is a disease that is hard to explain. All apple and crab trees are subject to this disease, but some varieties are seldom or never seriously injured by it, while others are rendered nearly worthless by its ravages. Where we have described a variety as free from blight, we mean that it is seldom or never seriously injured

by it. A high and airy location will do much to prevent the disease. We believe this disease is contagious and limbs which become affected should be cut away at once.

Sunscald

from which more trees are suffering in this state than from any other one disease. It is due to the alternate thawing and freezing of the sap in winter, which kills the bark over the portion affected. Usually the trunk and lower limbs of the tree are injured if not protected from the hot sun in some manner.

Tree Protectors.

The use of something to protect the trunks of trees from the burning rays of the sun as it shines thru the clear dry air of our northern sky, is one of the greatest improvements that have been made in orcharding in the past twenty years. We find that all trees in their natural state are protected by their fellow neighbor or underbrush of some kind. And we never see a sunscalded tree in the forest. The protectors that we offer are 30 inches long, 11½ inches wide and 1-10 inch thick, wired ready to put on trees. They will furnish a complete protection from sunscald, rabbits and borers as high as they reach, as well as preventing the bark being injured by whiffle trees while working with horses among the trees. Price 2 cents each.

Crooked Trees.

Many of our customers are prejudiced against crooked trees and hence we wish to say that if you desire straight, pretty trees, buy only those termed upright growers. As a rule the varieties that grow crooked in a nursery make the best orchard trees, as they are always the spreading growers that shade their own stems, and are not liable to split down when loaded with fruit. It is not at all necessary that a first class tree be straight and prettily branched. Some of the best varieties never grow that way, but are always crooked and gnarly in the nursery. Some nurseries will not grow such varieties at all as it costs more to raise them and the ignorant purchaser is always kicking when they are delivered. The Hibernial, Charlamoff, Patten's Greening, Longfield, Malinda, Early Strawberry, Minnesota and Wolf River, are more or less spreading and seldom make pretty trees, and should never be ordered by those who care more for a straight tree than they do for a hardy and valuable fruit.

Season of Fruit.

In the descriptions which follow we give the time that the fruit may be expected to keep, with careful, intelligent handling. Never put the fall and winter varieties in the cellar immediately after picking. They will keep far better in open boxes or barrels placed in a cool shed until

the approach of freezing weather. Remember this rule.

Varieties best for the far north are marked with a star (*).

Duchess*

Very hardy, free from blight, upright grower, early and prolific bearer. Fruit large, handsome, fine for cooking, even when half grown. Season, September.

Hibernal*

One of the hardiest apple trees known. Very free from blight. A thrifty, spreading grower, very early and abundant bearer. Fruit large, rather irregular in form, handsomely striped, superior for pies and good for sauce; rather sour and somewhat astringent for eating; of great value on account of its rugged, iron-clad nature, which fits it for planting even up into Manitoba. It is one of the best to top work with the more tender sorts, and is being largely used for that purpose. Season, October to January.

Charlamoff*

Hardy; blights a little; thrifty, spreading grower; early and regular bearer; fruit similar to the Duchess but hangs better to the tree; a fine dessert apple. Season, September.

Patten's Greening*

Extremely hardy, free from blight,

even when planted among blighting kinds. A vigorous, spreading grower, early and abundant bearer. Fruit large, greenish yellow; a good eating and cooking apple. Season, October to January.

Wealthy

Moderately hardy, somewhat subject to blight and sunscald; upright grower, early and abundant bearer; fruit large, red. This variety is without a doubt the best in quality and most popular apple grown in the state. Season, October to January.

Wolf River

Strong, spreading grower; hardy; fruit of largest size, yellow splashed with crimson, mild subacid. Season, December to February.

Longfield

Moderately hardy, blights a little, strong spreading grower, very early and prolific bearer, fruit rather small, yellow with blush, choice for eating and cooking. On account of its early and annual bearing, should be planted by those who think they are too old to set out apple trees. Season, September to December.

Northwestern Greening

Moderately hardy; vigorous, spreading grower; fruit large, pale green, subacid, good quality. Season, November to April. Try a few!

Yellow Transparent

Moderately hardy, medium size, pale yellow, quality excellent. Tree blights a little and bears very young and heavily. Season, August.

Tetofsky

Hardy, free from blight; very slow, upright grower; medium early and heavy bearer in alternate years; fruit medium sized, yellow striped with red, fragrant, choice eating but extremely perishable; about the earliest apple. Season, August.

Malinda

Moderately hardy, free from blight, a thrifty, spreading, crab-like grower; very tardy but heavy bearer when it attains age; fruit medium size, when fully ripe of a beautiful yellow, frequently blushed, of a sheep nose shape, mild acid, nearly sweet and very much liked. Worthy of a large place in any orchard of a mild place in this state. As it is a true all-winter keeper, very profitable for home and market growing. Season, February to May.

Peerless

Fairly hardy, free from blight, but subject to sunscald; strong, upright grower, rather tardy and moderate bearer: fruit medium sized, striped, of a mild pleasant flavor, excellent for dessert or cooking. Wood late in ripening but of much vitality and

is becoming very popular with some. Season, September to December.

Anism

Moderately hardy, free from blight. thrifty grower, somewhat tardy but immense bearer; fruit below medium size, skin somewhat rough and of richest red color; quality good, valuable for home garden. Season, December to March.

Okabena*

Hardy, spready grower. Prof. S. B. Green, State Experimental Station, says: In 1898 near Lake Okabena, we saw the original Okabena apple tree, which now measures 35 inches in circumference, with a spread of 24 feet. The fruit of the Okabena keeps into autumn, about 38 days later than the Duchess. We have young trees bearing and look very promising.

Iowa Beauty*

Originated by C. G. Patten of Charles City, Iowa. Fruit is very similar to the Duchess, except that it is a little later. Tree is a better grower in the Nursery than Duchess and is very hardy. Season, Sept.

University*

Originated by C. G. Patten. Tree hardy. Fruit yellow. Heavy bearer. Quality mild. Season December to January.

Jewell's Winter*

Tree, upright grower. Fruit, medium size. Quality, good and heavy bearer. Season, December to February.

Eddy Apple*

This tree we have been unable to find its origination. Tree, upright grower, hardy. Fruit, larger than Duchess. Quality, one of our best. Color, striped red. Season, September and October.

CRABS AND HYBRIDS.

Virginia*

Extra hardy, blights very little; strong, spreading grower; fruit large, bright red, will keep a month. Valuable to top work on. Season, September.

Minnesota*

Hardy, crooked and spreading grower, comes slowly into bearing but with age becomes very prolific; fruit large, approaching the size of an apple, yellow, frequently blushed, fine flavor and keeps until January; a valuable variety for every orchard.

Hyslop*

Very hardy, fruit deep crimson, heavy bearer while young, and

blights bad when quite old, valuable for market. Season, January.

Transcendent*

Very hardy, early bearer thrifty spready grower, blights some. Fruit too well known to need description. Season, September.

Whitney*

Hardy, and doing very well with us, pretty, upright grower; fruit large, handsome and of good quality for eating from the tree. Perishable.

Briar Sweet*

Very hardy, thrifty, upright grower, prolific and early bearer; fruit double the size of Transcendent, splashed with red, much thought of by those liking a sweet apple. Season, September.

Early Strawberry

Hardy, spreading grower, very early and abundant bearer; fruit medium sized, highly colored, very good quality for an early eating apple, perishable and tree blights some.

Yellow Siberian*

Very hardy; the smallest crab grown with us, free from blight and profuse bearer, fruit fine for pickling.

Sweet Russett

Hardy, spreading grower, early and

prolific bearer; fruit medium, conical, yellowish. Season, September and October. Highly prized by all who know it for its eating and cooking value.

Lyman's Prolific

A valuable new crab and highly prized by all that know it, very hardy, free from blight, annual bearer, size of fruit like Whitney, quality good. Season, October.

Florence*

Upright grower, very hardy and productive. Medium size, acid and finely colored.

TAME PLUMS.

There is no fruit likely to give such genuine satisfaction as our improved tame plums. They are literally "as hardy as an oak." when grafted on our native plum roots, and can be planted successfully anywhere in Minnesota, Manitoba, North Dakota or Montana. They are subject to few diseases, require the least care of any fruit and will begin bearing the second or third year after planting, and, finally, the fruit either for dessert or canning will rival in excellence the product of any garden. No farm or village home in the northwest need be without this delicious fruit.

Northern Plan of Setting an Orchard

NORTH

The Plum

seems to like a reasonably moist rich soil. The trees should be planted in a grove or clump in order to allow the free distribution of pollen from one flower to the other, thereby making all the trees to bear more uniformly. To form a group of trees mark out a plat of ground 36 feet square, according to this diagram,

and set a tree at each number, thus bringing the trees in close proximity to each other. By this plan of setting, the pollen will be conveyed from tree to tree and fertilization ensue; as we understood that some trees do not have sufficient pollen to fertilize their fruit, we think this plan very good.

Our trees are all propagated on native stock which is a matter of first importance, in order to be more sure of reliable trees. Most of the

Eastern and Southern nurseries are using peach and marianna roots to propagate their plums on, and thus spoiling the good reputation of this grand Northern fruit.

De Soto*

A standard variety. Prof. S. B. Green, of the State University Experiment Station, says: "The crop of plums borne on our De Soto trees was something astonishing. I wish every farmer in the state could have seen them." Trees of spreading habit. Fruit good size and quality, color mottled red, flesh firm and peach like. A very popular market variety; very liable to overbear, and fruit must be thinned. Season, September.

Forest Garden*

Hardy, bears profusely, ripens from August 1st to 25th, one of the earliest plums. Large, oblong, mottled red and yellow, skin thin, juicy, sweet and rich.

Wolf*

Tree similar to De Soto, fruit ripens about the same time; large red, rather acid, a freestone (also a freestone variety), a very good market variety.

Wyant*

Fine, spready grower; adapted to all soils; fruit large, deep red, rather

acid, a freestone. Handles and sells well on appearance. Ripens the last of August or a few days before the De Soto.

Rollingstone

A heavy and continuous bearer when the tree attains some size and age; fruit round, firm fleshed; valuable for dessert.

Cheney*

Upright grower, self-pollenizer, at its best on rather sandy soils, fruit one of the largest and earliest, red, rather acid, flesh firm, very good for cooking.

Weaver

Fine upright grower, does best in clay soils; fruit large, deep red, rather acid, a freestone, ripens a few days before the De Soto

New Ulm

A light red plum of largest size and excellent quality. Tree very crooked and spready. A new variety.

Surprise

Upright, vigorous grower, early bearer, fruit dark red, very large and attractive, fine quality, ripens about a week before the De Soto. A new variety that promises to be one of the best for general planting. Prof. E. S. Goff, of Wisconsin, says:

"Perhaps the finest in quality of all cultivated plums." Hon. J. S. Harris, Minnesota's veteran horticulturalist, says: "Fruit is large, deep, meaty and of fine flavor; tree thrifty and productive; ripens early in September." O. M. Lord, plum specialist of Minnesota City, says: "One of the very best in all respects."

Opata*

Originated by Prof. N. E. Hanson, of Brookings, S. D. A cross between the Sand Cherry and Burbank. A Golden Plum. Tree, erect, spreading, very hardy in wood and bud, good size, good quality, ripens the last of July. A valuable fruit for every orchard.

Sapa*

Originated by Prof. N. E. Hanson. Tree, smaller and more bushy than the Opata. Hardy and heavy bearer. Fruit, a little larger than Opata, color dark purple, quality very good. Season, last of July. Another good plum for the home or commercial orchard.

CHERRIES

Cherries delight in elevated or well drained soils and gentle southern slopes. If not on their own roots they should be planted deep and allowed to grow in bush form. Plant about the same distance apart as plums. The following are doing the

best with us and deserve more extensive planting.

Wragg

Strong, rather spreading grower, very early and prolific bearer of dark red cherries, larger than the English Morello, hardy and highly spoken of wherever planted.

Homer

A promising variety that has fruited about thirty years near Winona, Minn. The only cherry grown in our state that has been marketed in quantity in the cities. Trees very hardy, fruit ripens at once, color light red.

Black Morilla

Very hardy, upright grower, bears early; fruit large, black, glossy berries, worthy of trial.

Osthium

A hardy Russian cherry, ripening about with the Wragg, which is about July 1, fruit about same size and quality, a trifle sweeter; a good bearer and very desirable.

Compass Cherry*

This is a new fruit that is attracting considerable attention at present, the result of a cross between the sand cherry and the Miner plum. In reality it is more

of a plum than a cherry. Is perfectly hardy, an early and abundant bearer, trees often bearing in nursery rows before sent out. Fruit dark red, good flavor, both for eating and canning. Well worthy of a place as either an ornamental, or in orchard.

Improved Sand Cherry*

Perfectly hardy, grows on any soil, makes excellent sauce, bears next season after planting, remarkably productive.

Early Richmond

Tree rather tender in the bud and blights some. Fruit dark red, melting, juicy, slightly acid flavor.

CURRENTS

No fruit will better repay for generous treatment than currants. They do best in rich, cool soils. Mulching the rows and cultivating between rows is a good plan. They should be set in single rows or planted say, two bushes between each two apple tree of a row.

Current Worm

is one of our greatest enemies to the currant and the gooseberry. They can be easily destroyed by spraying the bushes with a solution of white hellebore, one ounce to three gallons of water, or one tablespoon of Paris Green to three gallons of water.

Spray as soon as they appear. The Paris Green solution must be used at least one week before currants or gooseberries are picked.

Red Dutch*

Standard red.

White Grape*

Best white, should be more extensively planted as no variety is sweeter or better for table use.

North Star*

The introducers say that the North Star currant is one of the hardiest, the best grower, the most prolific bearer, the sweetest and best currant grown.

Long Bunch Holland

Two weeks later than any other currant, very vigorous and productive, fruit clusters long and of large size. Our best late currant.

Stewart Currant*

Some larger than the Red Dutch and more productive.

Black Naples*

Fruit very large, black; much praised for its medicinal qualities; bushes rank growers and the currant worms do not bother them.

Crandall Currant*

Bluish black, heavy bearer, berries ranging in size from Deleware to a Concord grape. It is also absolutely proof against the currant worm and other insect enemies. The finest jelly is obtained from this currant.

Fay's Prolific*

Very large, red, productive; a new variety.

Pomona Currant

A new red currant of good size, very productive, sweet, excellent.

Perfection Currant*

Perfection Currant has taken more prizes than any other currant. Color, red. Large bunches. Great bearer. Quality, rich mild sub-acid. Plenty of pulp with few seeds. One of our best.

GOOSEBERRIES.

These are, perhaps, more highly esteemed for winter canning than any fruit grown. There is a sprightly subacid flavor and fresh aroma in its natural composition that are not lost in preserving as with many other fruits. Plant in rows six feet apart and need the same care as currants.

Houghton*

Very hardy, one of the most reliable varieties, heavy bearer, excellent quality but rather small.

Downing

Fruit larger than Houghton, roundish, light green, smooth, juicy, vigorous and productive, subject to mildew.

Smith's Improved

Large, light green, thin skin, bushes grow quite upright, and productive.

Pearl

A new variety of great merit, twice as large as the Downing and fully equal in quality. At the Michigan state experimental station, on a 10 point scale, it is noted for productiveness 10, and for quality 9, none surpassing it.

Red Jacket

A new red berry as large as the largest, very prolific and hardy, free from mildew either on leaf or fruit.

Columbus

Large, handsome, vigorous and productive; color greenish yellow.

GRAPES

This is a fruit that can be grown on any good corn land; the best location is on a south hillside; set vines eight feet apart each way, having the rows run north and south. Dig holes two feet long, one foot wide and one foot deep. Take plants and set roots to the south and tops to the north. Cultivate well during the summer. The first year, in August, cut all the young vines off except the strongest vine, and pinch the end of it off. Just before the ground freezes cut this vine back to three or four buds and cover same with ground 3 or 4 inches deep. The next spring between the 1st and 10th of May, take vine out of ground and during summer cultivate same as corn. The second fall cut off branches to two or three buds from the main vine; also allow main vine two

or three buds longer than it was the preceding fall. The third fall, continue trimming the same as the second fall. Do not allow the main vine over eight feet long after it is trimmed, and trim the branches back from two to three or four buds every fall. Keep the suckers off while cultivating and you will be sure of a good crop of grapes. It is to be remembered that grapes have their fruit on the same year's growth of wood. Therefore, it is necessary to leave very little old wood but many buds, in order to get young wood for the fruit to set on. After the third year train vine to a trellis.

Out of twenty varieties of grapes growing in our nursery and vineyard we select the following as well worthy of general cultivation.

Concord

The most extensively planted grape in America; black, bunch and berry large, quality fair, vine very handy and productive.

Worden

A large bluish black Concord seedling. Earlier than the Concord and a better quality; should be planted in every vineyard.

Brighton

Dark red, ripens with or before Delaware; bunch large, skin thin, flesh tender; sweet and best quality.

Agawam

A fine flavored red grape; ripens early, good grower and vine healthy. If laid away carefully in the cellar will keep until the holidays.

Janesville

Very early, hardy, prolific, vigorous; standing more neglect than any other variety. Ripens September 1st.

Niagara

A magnificent white grape, a rank grower and very productive of beautiful bunches of the largest size; berries large with a tough skin; quality good. Ripens with the Concord.

Campbell's Early

This fine new black variety seems to mark a great advance in grape culture. As hardy and productive as the Concord. The Rural New Yorker says it has not yet developed a failing. Ripens from the 20th to the last of August. We earnestly advise giving this grape a trial.

Howard Lake Seedling*

The Howard Lake Seedling Grape was originated by Mr. E. J. Cutts, at Howard Lake, Minn., in the year of 1890. This grape vine has been used for arbor purposes and has stood the winters of 40 below zero, without covering and has come thru without injury. In appearance, color, size

of fruit and quality, it is similar to the Beta grape. Fruit ripens about the last of August. Very juicy and will make splendid wine or jelly.

We consider The Howard Lake Seedling Grape one of the hardiest grapes grown.

RASPBERRIES.

A fruit easily within the reach of farmers. Should be planted in rows 6 feet apart and 3 feet apart in the row. It is advisable to have the rows long and use horse cultivation, and after the first year they should be mulched with straw, thereby making fruit much larger.

Red Varieties

The red varieties are those that send up sprouts or suckers and must be kept thinned out to 8 or 10 stalks 3 feet apart in the row. We also find it necessary to tip our Red Raspberries for winter protection.

Turner*

Very hardy; fruit small, but fine quality; standard variety.

Cuthbert

Large, deep red, very desirable for canning.

Loudon*

Very hardy; the finest red raspberry grown. In favorable locations

needs no winter protection, berries the largest, quality good, sticks well to the stock, best for market. Our best. You will make no mistake in planting Loudon Raspberries.

Marlborough

Large and productive; early, firm, bright red, good for market.

King

The earliest red raspberry on record, and it is the early raspberry that makes the money; often selling at \$3.00 per crate of 24 pints. Berry round, large size, light crimson color, firm and of excellent quality, very productive. The shippers' favorite. Plant King liberally. It will please the grower of Raspberries.

Sunbeam

Originated by Prof. N. E. Hanson, of Brookings, S. D. The hardiest red raspberry grown with us; needs no cover in Minnesota. Fruit red, hard, a very good berry to grow with no covering. Quality mild.

Golden Queen

Yellow in color and of the same habit in growth as the red varieties; valuable for home use.

Black and Purple Varieties.

These varieties will not spread or sucker, and are kept in hills about 4

feet apart in rows, and 6 feet apart between the rows. These varieties require complete covering for winter protection. We first pull the tops to the ground and place sufficient ground on tops to hold them to the ground and then we cover the remainder of bush with coarse barn yard manure. The next spring we work this manure in the soil when we cultivate. When the young shoots have made a growth of about 2 feet, pinch off the end, thereby causing the cane to branch out and will produce more fruit the next year.

Nemaha (Black)

For hardiness, strength and growth of cane, productiveness, size and quality of fruit, it is unsurpassed. The berry is large and firm, a fine variety for the home and market garden.

Gregg (Black)

A hardy black cap, very firm, good for market.

Older

Large, roundish, firm, early and a sure cropper of the black cap raspberries. Vigorous grower and very hardy.

Shaffer's Colossal (Purple)

A very large, juicy, purple berry, fine quality for home use; hardy, vig-

orous and very productive. Season, medium to late; too soft for market.

Columbian

A very large, dark purple berry; an improvement on the Shaffer. Berries are firm, vines healthy; hardy and vigorous grower; produces well in dry seasons when other varieties fail. We especially commend it.

BLACKBERRIES.

This is another indispensable fruit, as it fills up the interim between the raspberry and grape, and should be found in every home garden. Set plants three feet apart in row and 8 feet apart between the rows; cultivate, trim and cover same as the Blackcap raspberries. Leave 4 to 6 canes in hill.

-Ancient Briton

The best and most popular variety for the north. Hardy, productive, and of good size and quality.

Snyder

Earlier than the Ancient Briton, and is useful on that account only.

Stone's Hardy

One of the lowest growing Blackberry bushes. Productive and hardy.

Dewberry

(Lucrative.) A low growing fruit of large size; soft, sweet and luscious; early and productive. Its habit of growth adapts it to the north and makes it easy to protect.

STRAWBERRIES.

Our earliest and most delicious fruit grown. This fruit, with its crimson appearance, fragrant smell and delicious flavor should occupy a prominent place on every family table during its season. Always use two varieties in setting out a strawberry bed. They are Pistillate (female) and Staminate (male). We find best results by setting one row pistillate to one row staminate. Choose a low, rich, mellow piece of ground, set plants 15 to 18 inches apart in row, and 4 to 4½ feet apart between the row. Take plant and set on same plan as setting cabbage plants. Cultivate soil good first season and allow plants to grow in matted rows. The last of November put about two inches of clean straw or marsh hay over the whole bed. In spring as soon as the plants are starting to grow, take a four-tine fork and uncover the rows by placing straw between rows and step on straw at the same time, making it more compact. After the berries are picked, mow the bed and shake

up the mulching between the rows. If the foliage and mulching is dry enough, burn over the bed with a quick fire; if not dry enough, rake same off, then cultivate bed with a double shovel plow, tear up part of the old row. One week later cultivate well with a fine tooth cultivator and continue the same until fall, and you will have a fine bed for another year's crop. Continue this process for three crops, then plow the bed up. In setting out a strawberry bed always use young plants from a new bed if you wish good results. Our plants are put up in bunches of 25.

Bederwood (Staminate)

Of good size, bright red, quality good. One of the best to fertilize others with.

Lovett (S)

A good all-round variety in almost any soil; very hardy and productive, medium in size and season; firm, conical, dark red.

Clyde (S)

As large as the Lovett, earlier, and as firm; very vigorous, healthy and very productive. Does well in most soils.

South Dakota No. 1 (S)

A hybrid of the Jessie, fertilized with pollen of a wild strawberry from

Manitoba. The blossoms are perfect, so the plant will bear alone. This plant has endured 40 degrees below zero with ground bare and came out in good condition. The plant was originated by Prof. N. E. Hansen, of Brookings, S. Dak., and is among the hardiest strawberries grown.

Glen Mary (Staminate)

Prolific grower. Large deep red berries. Very prolific, good shipper. A valuable berry for the home and market gardener.

Norwood (Perfect)

A new plant that is giving good satisfaction, considered by those who know the plant and berry to be superior to other varieties. Berry firm, bright red, holds size well thru the picking season and will pick from one month to six weeks. They are sure to please.

Enhance (S)

Large, dark red, very productive, firm, valuable market berry, sure to please.

Splendid (S)

Promises to be one of the best of new varieties. A large berry and above the average in color and appearance. Valuable for home use and market.

Crescent (Pistillate)

The standard of productiveness all over the country, succeeds everywhere, stands neglect best of any, plants small, berries fair size, bright and attractive, not very firm.

Warfield (P)

This is the most valuable of all strawberries. Too much cannot be said in praise of this beautiful berry. It is dark, rich, red color throughout, very firm, medium size. In delivering strawberries to my customers, when selecting would say, we prefer those smooth, dark red berries to any other.

Haverland (P)

Large, long, bright red, early, very vigorous and productive; a good market berry.

Sample (P)

Large size, quality good, quite firm, continues a long time in fruit, a very good market variety, colors all over at once.

Senator Dunlap (S)

This berry promises to be the best "all round" variety yet introduced. Plants are very vigorous and perfect. Berries medium size, firm, dark colored and uniform; continues in bearing a long time and

is very productive. For best results the late runners should not be allowed to set.

Challenge (B)

Medium. It roots deeply and stands drought splendidly, besides its berries are of high quality and beautiful. Only second year of selection and restriction, but stools up readily and shows business.

FRUIT BEARING ORNAMENTALS.

Dwarf Juneberry

Perfectly hardy, very ornamental and fruitful. Fruit resembles the blueberry, borne in attractive clusters, bluish black, fine for canning, blossoms white. Should be in every garden.

High Bush Cranberry

Very similar in habit and appearance to the Snowball. Hardy, does well in reasonably moist soils, and is very beautiful in the fall when covered with its large clusters of red berries. They are acid, valuable for jelly.

Black Haw (Sheepberry)

A good, hardy, ornamental shrub, belonging to the same genus as the Snowball and High Bush Cranberry; fruit dark blue, sweet, borne in large drooping clusters; foliage colors brilliantly in autumn.

Buffalo Berry

A very hardy drouth resisting shrub, attaining a size of 12 to 15 feet. There are two sexes, the pistilate form only bearing when properly polenized from staminate varieties, hence they should be mixed when planted. Fruit red, similar to currant, and valuable for jelly, fruit also sets close to branches and on well into winter. Also valuable for low wind break.

Russian Mulberry

Hardy with us but liable to kill back in some places in severe winters but soon outgrows. Fruit resembles the blackberry, rather insipid, valuable for canning when mixed with other berries. Makes a good low windbreak and is desirable for ornamental planting.

NUT TREES AND SHRUBS.

There are few investments would do more towards increasing the value and add more pleasures to our farm homes than the planting of a few nut trees. Many think it pays better to plant the nuts. This may have been true a few years ago, when most of trees were produced from the forest. But nursery grown trees that have been once transplanted are as easy to make live and fully as desirable as those of any other kind.

Altho we have but few hardy varieties, they should be freely planted.

Black Walnut*

Valuable for nuts, timber and an ornamental. Hardy; does best in rich, moist soil; will stand drouth well.

Butternut*

Hardy; does well as a grove tree; nuts rich and sweet.

Hazel Nuts*

A hardy native shrub that produces an abundance of fine flavored nuts; valuable as an undergrowth in or near groves in sections where not found naturally.

Horse Chestnut (Buckeye)

An interesting tree of medium size and slow growth, that blossoms freely and bears a non-edible nut; does not make large tree and is hence well suited to the small lawn, or to form an interesting variety anywhere, as its fruit and habit of growth is very different from any of the native trees of our state; a great favorite with those who have planted it in Minnesota; valuable for variety.

WEEPING TREES.

Cut Leafed Weeping Birch*

The most graceful and desirable

weeping tree known; perfectly hardy; short lived in dry locations unless watered when necessary.

Wisconsin Weeping Willow*

A very beautiful tree in some situations.

Niobe Weeping Willow

It is the hardiest and most beautiful of all weeping trees. For an ornamental weeping tree, they are simply grand and should have a place in every lawn.

Weeping Mountain Ash*

A hardy rapid grower, very desirable for lawn planting; very attractive when covered with its large clusters of flowers and red berries.

SHADE TREES.

Ash*

The most reliable of all trees for the Northwest; stands well where most other deciduous trees fail from drouth; not subject to the attack of worms or diseases; a first class lawn or street tree; makes a steady good growth, and should be planted far more than it is. Our trees are the hardiest variety of white ash, sometimes called green ash.

American, or White Elm*

Also very reliable, on account of its graceful, drooping habit; a most beautiful and desirable tree for the lawn or park and the standard street tree everywhere.

Linden* (Basswood)

One of the most reliable, hardy and the greatest drouth resisting shade tree on the whole list. Growth quite rapid, shade dense, blossoms exceedingly fragrant; should have its trunk shaded for the first year or two after planting, to prevent sun-scald.

Hackberry*

A native shade tree, somewhat between the Elm and Box Elder in appearance and habit of growth, and belonging in the first rank of hardiness and durability. Its bark is very peculiar and interesting, and its berries a decided novelty in tree seeds.

Box Elder*

A hardy, rapid grower, making a desirable shade tree and also useful in timber planting to mix with more valuable kinds..

Soft Maple*

A rapid grower and in some sections is largely used in street and grove planting.

White Birch* (European)

A desirable lawn tree. Its white bark gives pleasing variety to the scene. Hardy. Should be watered in dry seasons.

Mountain Ash* (European)

A handsome lawn tree; hardy, very attractive when in bloom or when covered with its large clusters of red berries.

Cottonwood*

A very rapid grower, attaining a large size and long lived, except in upland or drouthy soils.

White Willow*

A well-known tree, valuable as a pioneer for wind-breaks.

Laurel Leaf Willow*

Hardy; rapid grower, having thick glossy leaves, which are not subject to attack by the willow worm; valuable for ornamental and wind break.

Russian Golden Willow

Hardy, rapid grower; bark is of a rich golden color in winter and spring; very desirable for lawn or wind break.

Lombardy Poplar

Hardy, rapid grower; rather short lived in some sections. Desirable for a quick windbreak or ornamental.

Silver Leaf Maple

Hardy; pretty on account of their silver leaves.

Norway Poplar

This is just what the people are looking for—a tree that will get a move on itself and turn out lumber in the shortest space of time. Our forests are rapidly disappearing and must be replaced with some rapid growing tree. The Norway Poplar promises to be to the North what the Eucalyptus is to the South. It is by far the most rapid grower we have. A Minnesota farmer says: “This tree grows faster than any other I know of.” The grain of the wood is straight and it splits easily. Trees planted 14 years are 17 inches in diameter and 55 feet tall. In fifteen years you have a fine lot of saw logs. They somewhat resemble the Carolina Poplar. Their origin no man knows. They got their name by being found growing among the Norwegians of Minnesota. They are supposed to be the giant Asiatic Poplar from Siberia. Superficial observers sometimes call them the Carolina Poplar. They look like the Carolina Poplar during the fore part of the season’s growth, but after September 1st, a boy 10 years old could separate them in the same field. The leaves are larger and are shed earlier. In after years the difference is marked. More than any other tree

they retain their size as they mount upward. Cut in **August**, peeled, dried they make good fence posts. Plant trees or cuttings 4 feet apart each way, and in two or three years cut out alternate rows for fence posts, and in two or three years after you can cut out alternate rows the opposite way. The rest of the standing trees will make a splendid forest. They grow readily from cuttings.

FOREST TREE SEEDLINGS.

For groves and windbreaks, should be planted 4 feet apart each way; by this close, even planting they are encouraged to make a straight growth, and they sooner shade the ground, so as to require no cultivation. At about 8 years they can be thinned to eight feet apart; an acre thus planted requires 2,720 trees.

Caution

We wish to introduce here a word of remonstrance against the common practice of allowing timber plantations or old orchards to be pastured. No practice is more certainly destructive to their health and vigor. In our dry climate it is absolutely essential that the soil about our trees should be of a cool, moist spongy character, which can only be maintained after cultivation ceases by al-

lowing the natural leaves and underbrush to cover the soil, and keeping out stock of all kinds.

Ash*

The best of all trees for the dry western prairies. Does not quite keep up with the Box Elder as a young tree, but after ten years will grow much faster. Thinnings make excellent fuel, strong and durable poles, and the older trees most valuable timber for many uses above ground. Our trees are the hardiest varieties of white ash, sometimes called green ash.

Box Elder*

• Very useful to mix with more valuable trees in timber planting, as it grows very fast while young. They shade the ground quickly and force the slower trees to make a clean straight stem.

White Elm*

Almost equal to the ash as a reliable tree for groves planted in a dry soil. The above three kinds in about equal proportions, make a splendid mixture for a permanent timber lot; such mixed plantations doing far better than those composed of one variety.

Soft Maple

Makes a strong growth for many

years, especially suited for moist soils where it will make a large amount of good firewood in about the shortest time of any variety.

Cottonwood

One of the fastest growers in the list and very popular.

Laurel Leaf Willow*

Perfectly hardy, even in Manitoba; rapid grower, free from the willow worm. We have a constantly increasing demand for cuttings of this tree.

Russian Golden Willow*

Hardy, rapid grower; can be propagated from cuttings and makes a desirable tree for windbreak or ornamental planting.

White Willow

Too well known to need description.

Carolina Poplar*

One of our best fast growing trees. Will make a fine windbreak in two years from planting. We are offering cuttings and one and two-year-old trees.

Lombardy Poplar

Valuable while young. Can also be grown from cuttings.

EVERGREENS.

Evergreens are rapidly coming into popularity for both ornament and shelter. They are a little more expensive than the deciduous trees, and require somewhat different treatment, but when the right kinds are planted and they are given intelligent care, they are the most useful of all trees in our northern climate. It is our especial delight to grow and sell evergreens for ornaments and windbreaks. Small transplanted trees set in any good corn land, and cultivated with horse and hoe as a corn field, will grow rapidly. For windbreaks set trees 8 feet apart each way, two rows are sufficient to make a good windbreak. The only secret in handling evergreens is to keep the roots moist every second from the time they are out of the ground until they are planted again. Observe the three following rules and you will succeed in growing evergreens:

First.—Absolutely prevent the drying of the roots.

Second.—Pack the earth firmly about the roots in planting.

Third.—Keep trees well cultivated all summer just the same as a good corn field.

Scotch Pine*

Grows fast and resists drouth; will make the quickest and cheapest wind break of any evergreen, and should be planted largely all over the prairie

regions. Like all pines, when it gets old it is inclined to lose its lower branches and the windbreak would be improved by planting a row of red or white cedar by the side of it, ten years after the pines are set.

Norway Spruce*

Hardy, rapid grower; valuable on moist soils for shelter belts or ornamentals.

White Spruce*

A most beautiful tree for lawn, grows a little slower than the Norway, but every inch of it is a bright, vivid green. It is easy to make live, and resists drouth wonderfully.

Arbor Vitae*

One of our most beautiful evergreens for screens or hedges; adapted to retentive soils and sheltered locations.

Balsam Fir*

A conical, upright and quite rapid grower; retains its silvery green color very well. Inclined to be very short lived in drier soils. A great favorite in many places.

Red Cedar*

The hardiest and easiest to transplant of all evergreens; rapid grower when young. Makes the best of low shelter belts.

Douglas Spruce*

A rapid grower; hardy variety, from the Rocky Mountains; of graceful proportions and fine color. Deserves a trial in all sections.

Austrian Pine*

A very hardy, robust grower; not as rapid as Scotch pine, but holds its lower limbs better.

Ponderosa Pine*

A native of the Rocky Mountains; similar to Austrain but has longer, softer and lighter colored foliage. Very hardy and desirable.

Jack Pine*

One of our fastest growing evergreens, best for quick shelter. Hardy, and will grow well in Minnesota.

Colorado Blue Spruce

We are growing the green form, as well as the select blue form. They are among the handsomest evergreens grown. Hardy, easily grown and make very attractive appearance in lawns and parks.

Dwarf Mountain Pine

For single specimens, these trees are fast becoming popular in lawns and parks. They will attain a height of 20 to 25 feet, with a diameter of from 15 to 20 ft., from the ground up.

ORNAMENTAL SHRUBBERY.

White Pine

Valuable for shelter and beauty. Hardy. Too well known for further description.

Spirea (Van Houtteii)

One of the most attractive and graceful hardy shrubs we have; produces an abundance of drooping sprays of white flowers early in June sometimes called "bridal wreath." Sure to please.

Hydrangea* (Paniculata Grandiflora)

A perfect hardy shrub, producing an abundance of immense clusters of bloom in August. Should have a place in all home grounds. Blossoms the same season they are planted. Watering the bush in time of bloom is essential as they absorb much moisture to support the large flowers, often measuring 8 to 10 inches across.

Syringea* (Mock Orange)

A vigorous, handsome bush, blossoms profusely in June; very fragrant.

Snowball*

Hardy, popular shrub.

Lilac*

(Purple, White and Persian)

Too well known to need any description.

Purple Leaved Barberry*

An interesting, variety of the common Barberry. When planted in the full sunlight, the leaves are a deep purple color; bears an unedible fruit; very desirable and easy to make live.

Wegelia Rosea*

Hardy, most profuse bearer of light, rosy trumpet flowers in May and June.

Upright Honeysuckle*

A large handsome bush often growing 6 or 8 feet high. Small pink flowers all thru the bush.

Yellow Flowering Currant

Very choice, hardy bush, with conical yellow flowers through the bush.

All the shrubs above offered are perfectly hardy and need no winter protection anywhere in the state.

CLIMBING VINES.

American Ivy (Virginia Creeper)

Perfectly hardy, enduring any amount of abuse. It responds bountifully to a little care and will give dense shade wherever planted. It needs no protection whatever and in the fall gorgeous coloring of leaves

will beautify the most unsightly spot. It is one of the finest vines for walls, verandas, or trunks of trees.

Honeysuckle (Scarlet Trumpet)

A well-known native vine, yellow trumpet flowers, suitable for porch.

Ampelopsis Veitchii (Boston Ivy)

Similar to American ivy, only clinging to stone, brick, etc., with great tenacity. Hardy and rapid grower.

Bitter-Sweet

A strong-growing native vine of twining habit, very attractive when covered with its orange colored seed pods, which open late in the fall, exposing dark red berries.

Clematis Jackmannii

A very popular and desirable variety; flowers rich, royal purple and produced in great abundance; needs winter protection; best of the large flowered varieties.

ROSES.

Nearly all roses require winter protection in our climate, which is best given them by a covering of soil. We earnestly advise the planting of roses and flowering shrubs in groups or clusters, rather than as single specimens. When so planted they can be given the cultivation that they so much need in order to be thrifty and free flowering. Our selection of varieties is made with regard to their good behavior in the north, and may probably be described as the "cream of the list."

Madam Plantier

Very double, pure white, fragrant and free bloomer.

Gen. Jacqueminot

Dark red, double, fragrant. With proper care will bloom all summer. The most popular of its color.

Paul Heyron

Deep rose color, very double, fragrant. Blooms all summer. Flowers are the largest of any variety in cultivation.

Persian Yellow

Seldom injured if not covered; flowers double and free bloomer. Finest hardy yellow rose grown.

Queen of the Prairie (Climber)

Bright red, vigorous grower and profuse bloomer.

Baltimore Belle (Climber)

The best white climber.

Seven Sisters

A well known climbing rose of excellent habit; blooms freely and in large clusters; especially adapted for trellises.

Princess Adelaide (Moss)

The Moss roses are highly esteemed as cutflowers, both to wear and for vase, on account of the beautiful mossy effect of the flower, cup and stem; color pale rose, foliage often blotched and variegated.

White Moss (Perpetual)

Double and fragrant.

Rugosa Roses

Hardy; foliage of dark green, glossy and heavily wrinkled; very odd and beautiful; flowers are large, single, fragrant and produced in abundance until frost. They make a fine low border or hedge plant.

Crimson Rambler

Very vigorous grower; produces flowers in pyramidal clusters of large

numbers; retains its color unfaded. The profusion of bloom is marvelous and the variety deserves the popularity and praise it receives.

Veriegated Velvet

Very double and beautifully shaded; very hardy, free bloomer and desirable for hedge planting.

Pink Baby Rambler

One of the prettiest little house roses grown, will bloom continuously, making our homes look like the month of June in the winter time.

Blue Baby Rambler

This is the nearest blue of any rose grown and makes a pretty collection with house roses.

Yellow Baby Rambler

This rose adds also to a variety of house roses. Easily grown and quite continuous bloomer.

HARDY HERBACEOUS PLANTS AND BULBS.

Paeonias (Herbaceous)

Very showy and easy grown; many of the newer varieties are very fragrant; they can truly be called the rose for the north; we have many shades of white, red and pink.

Bleeding Heart (Dialetria)

Popular, hardy, ornamental; blooms June 1st; fine foliage and drooping racemes of heartshapen pink flowers.

Lily of the Valley

A well-known little favorite; does best in partly shaded location.

Gladiolas

A choice little flower which is taken up and put in cellar every fall.

Dahlias

Another well known fall blooming plant; is becoming very popular. They do best in not too rich soil.

Tulips

should be planted in the fall about four inches deep and six inches apart. A covering of leaves or straw will be appreciated for winter protection. They bloom very early and the great variety and brilliancy of colors make them a universal favorite.

GARDEN ROOTS

Asparagus, "Palmetto"

One of the best all around varieties on the market; early, good size and quality.

We also have the Mammoth and Conovers.

Rhubarb, or Pie Plant (Linneaus)

Early, large, productive and tender, We also have the Mammoth, Victoria and Excelsior.

"Amateur Fruit Growing."

By Prof. Samuel B. Green. Full of instructions for the north, from the strawberry to the apple tree. 50 cents, postpaid.

"Vegetable Gardening."

By the same author. Is the only book that treats this subject from a northern standpoint and where short and drouthy seasons must be taken into account. Full of useful hints for the home garden, and indispensable to the market gardener. \$1.00 postpaid.

"The Nursery Book."

By Baily. The standard book on grafting, budding and propagating all over the United States. \$1.00 postpaid.

Before closing our catalogue would earnestly ask all interested in fruit growing in this northern climate to join the MINNESOTA STATE HORTICULTURAL SOCIETY; this entitles you to their monthly magazines, and a bound annual report of some 500 pages of choice reading. Membership fee, \$1.00 per year.

DISTANCE APART TO PLANT.

	Trees or Plants per acre.
Apples and Crabs, 16x24 feet apart.....	114
Cherries and Plums, 12x20 feet apart	182
Currants and Gooseberries, 4x6 feet apart	1815
Raspberries, Red Sucker kinds, 3x6 feet apart	2420
Raspberries, Black and Purple kinds, 4x6 feet apart	1815
Blackberries, 4x6 feet apart..	1815
Strawberries, 2x4 feet apart ..	5445
Asparagus, 2x4 feet apart	5445
Rhubarb, 3x6 feet apart	2420

The number of square feet in an acre is 43,560. Divide this amount by the number of square feet required by each plant. Thus to find how many grapes are required for an acre planted 8 feet apart each way: 8 times 8 equals 64; 43,560 divided by 64 equals 681, the number for one acre.

SPRAYING.

In order to get best results, we will have to spray our Orchard Trees. Following is a formula to be used and best time to use the same for the general diseases in orchards thru Minnesota.

SCAB, This Fungus attacks fruit, leaves and young twigs. Formula to use, twenty gallons of Commercial Lime Sulphur to 180 gallons of water. Apply before the buds open.

CODLING MOTH. The Larvae of this moth are the ones to which we owe the most of our wormy apples. Formula: First spraying use 12 lbs. Arsenate of lead, 5 gallons of Commercial Lime Sulphur to 195 gallons of water. Apply just after the blossoms fall. This spray will also get the plum curculio and scab.

Second spray about 10 days later, with same material. For any further information on spraying, ask for our Spray Circular.

**CERTIFICATE OF INSPECTION AC-
COMPANIES EACH SHIPMENT.**

'T WILL PAY TO SPRAY

Our Eureka No. 2 Style G.

THE
AMERICAN SPRAYER
COMPANY

Minneapolis, - Minnesota

Manufacturers of Power, Automatic and Hand
Spraying Machines of Proven Merit

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TWENTY PAY TO SPRAY

THE
AMERICAN SPRAYER
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Minneapolis, Minnesota

Representatives of the American Sprayer Company in the
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Write for Circulars and Prices

Published by the American Sprayer Company
Minneapolis, Minnesota

Old Packing Shed and Office when the Howard Lake Nursery was Founded

By Hon. E. J. Cutts in 1880

The Eddy Family. WILLIAM H., IDA I. and HOWARD W. — Born September 22, 1907