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PREFACE

We take pleasure in presenting herewith our general Catalogue.

In the Fruit and Ornamental Department as well as in the Rose and Perennial Department our Nursery is kept fully up to the times.

We grow and offer to the customers only such trees and plants adapted to our soil and temperature and our surrounding territory.

REMARKS:—Get our special prices on large orders.
We sometimes have stock not listed. Write us if there are items wanted that are not listed herein.

TO REACH OUR NURSERIES

To reach our Nurseries from Terre Haute by carline—Board East Wabash Avenue city car either a Stadium or a Highland Lawn car. Stop at 25th street and go south to the first paved street, then turn to the left and the Nursery is located at the fourth (4th) house on the right-hand side of the road.

You may also reach our nurseries by boarding a city bus on Ohio street, getting off at 25th and Crawford, walking two blocks North and turn to the right on Poplar St. and stop at the fourth house.

Visitors are always welcome.

GUARANTEE

Nursery stock is more or less of a perishable nature. Improper care after receiving, undue exposure or undesirable soil, also injurious insects and diseases, which may be contracted, neglect after planting, over which we have no control, may cause a tree to die regardless of how thrifty and healthy it may have been when delivered, and under these circumstances we cannot guarantee it to grow.

Any tree or plant delivered by us and upon delivery of said stock is not in good condition you are requested to notify us at once, and we will make any such stock good that proves otherwise.

Clause No. 1

Any tree or plant Except Evergreens that we plant for customers, we guarantee to replace that fails to develop foliage after transplanting but customers must notify us at once when foliage fails to appear. Notify us in writing, no telephone notices entertained.

Clause No. 2

In growing and furnishing all Nursery stock we use the greatest care to have it true to name and we will replace any that may prove untrue, but no sale by us carries a warranty express or implied as to description, productiveness, quality or any other matter over which we have no control and for any error we shall not be liable for more than the purchase price. Every purchase from us is made on these terms.
BRIEF PLANTING INSTRUCTIONS

Care of Trees Upon Delivery. When trees are delivered to you put them in a protected place immediately upon arrival and keep the roots moist. If held for a few days bury the roots in the ground at once.

Root and Top Pruning is very important if good results are to be obtained. This should be done just before planting. All plants should be root pruned.

The tops of fruit trees (except possibly cherry) and shade trees should be pruned before planting. The rule is to trim off all broken or bruised branches and also to shorten the lateral branches 2-3 of the previous year’s growth. Peach trees should be trimmed to a whip and the top cut back to 2 or 3 feet above the ground.

Root Pruning. All broken or bruised roots should be cut off slanting with a very sharp knife or pruning shears. The balance of the root system should be trimmed (merely the ends cut smooth). This freshens the roots and they will callous, then they will soon put out a new set of fine fibrous roots. Now you are ready to plant.

Planting. The holes must be made large enough that the roots may be spread out naturally and without cramping. Good fertile top soil must be used about the roots. If the trees is to be planted in impoverished ground good soil should be provided. Plant the tree deep enough so that after the ground settles the trees will be the exact depth as it stood in the Nursery; this is easily determined by the dirt ring around the tree. Very important

Spread the roots out in their natural position and pack the pulverized soil (avoid clods) firmly about the roots using the feet. Tramping the soil firmly about the roots causes the roots to germinate and the result is that the tree will recover the shock of transplanting much quicker. If the ground is dry use water freely in transplanting.

THE IMPORTANCE OF WATERING

In addition to thoroughly watering your plants at the time of planting it is important especially during the first season that they should be kept in a moist condition. This does not mean frequently sprinkling, but a thorough soaking once or twice a week.

In addition to the above brief general planting instructions, you will find on some of the following pages, interspersed with plant descriptions other special directions. At the back of the catalog may be found spraying directions, tables, and suggestive plans for planting, etc.
ORNAMENTAL DECIDUOUS SHRUBS

ARALIA Spinosa
A. spinosa, Hercules Club. A native plant, valuable for producing tropical effects.

AMYGDALUS. Flowering Almond. A. rosea flore pleno, Pink Flowering Almond. 3-4 feet. Rose pink. April. Flowers in April, the branches being a perfect mass of blossoms from base to tip. Excellent plant in any border.
White Flowering Almond. Same as pink flowering almond except that it flowers white.

ALTHEA. Rose of Sharon
Tall, slender shrubs, doing well in locations where other plants would fail. Blossoms are single and double, coming in August when there is but little in bloom. Planted for hedges and screening purposes. Offered to color.
Double White, Jeanne d'Arc. This is a pure white, double-flowering variety. Very attractive.

Double Red, Boule de Feu. Most profuse blossoming of all the doubles. Very attractive; bright in color.
Double Purple, Ardens. Double; rich purple; fine.
Double Flesh Paeoniaiflorus. Double flower silvery pink, a very desirable shrub.

BERBERIS
Berberis Thunbergii, Thunberg's Barberry. A beautiful Japanese variety of dwarf habit. The spray-like branches have spines on them, and are covered with small foliage, changing to beautiful red in autumn. It bears a mass of bright scarlet fruit which is very attractive during the winter months.
Berberis Thunbergii atropurpureum. Red Leaf Japanese Barberry. Same as the above Barberry except that it has bright scarlet red leaves all summer if planted in a sunny exposure.
CARAGANA. Pea Tree

CALYCANTHUS or Sweet-Scented Shrub
The Calycanthus is one of the most desirable shrubs. The wood is fragrant, foliage rich, flowers of a chocolate color, having an agreeable odor. They blossom in June and at intervals afterwards.

CEPHALANTHUS. Button Bush
A tall growing native shrub with globular heads of white flowers in July.

BUDDLEIA. Butterfly Bush, or Summer Lilac
The name Butterfly Bush was applied to it because it seems to attract butterflies in large numbers. This shrub from a young plant set out either in the spring or fall, will mature to full size the first summer, producing a handsome bush, which the first year often attains a height of four feet. It produces long, graceful stems, which terminate in tapering panicles of beautiful lilac-colored flowers. A single plant the first season will throw out as many as 15 flower spikes, which increase greatly in number during the succeeding years. Flowers in June and continues each season until the frosts nip it. The foliage and blossoms are exceedingly fine. Is semi-herbaceous. We recommend covering the roots with manure, leaves or other suitable material as winter approaches, as this will produce a heavy growth the following season.

CLETHRA. White Alder, Sweet Pepper Bush
Very hardy, blooms every season without fail; cold never harms it; flowers pure white, in spikes 3 to 6 inches long, in Aug. A bed of Clethras will perfume the air for a long distance around.

QUINCE BERRY
Cotoneaster Acutifolia
Foliage dark green, holding its color until late autumn or early winter. The flowers are white or rose, followed by purplish black fruits.

CORNUS. Dogwood
Siberica, Red-branched Dogwood. Very conspicuous and ornamental in winter, when the bark is blood red.
C. florida, White Flowering Dogwood. An American species of spreading irregular form. The flowers appear before the leaves in Spring are about three inches in diameter, white and very showy. They begin to appear just as the Magnolia flowers are fading. They remain about two weeks. We regard it, all things considered as one of the most valuable trees for ornamental planting, ranking next to the Magnolia as a flowering tree. It has a scarlet foliage in Autumn.
C. florida Rubra, Red Flowering Dogwood. Same as above variety except it has red blossoms.
COMPTONIA ASPLENIIFORMIA, Sweet Fern
A low shrub with fern-like fragrant foliage, well adapted for massing on rock banks and sandy stretches. Very hardy and ornamental.

CYDONIA, Japan Quince
Cydonia japonica. Japan Quince. Very early in spring, this fine old shrub is completely covered with dazzling scarlet flowers, followed by small, quince-shaped fruits which are quite fragrant. Growth bushy and dense, with protecting thorns.

DAPHNE CYNEORUM, Garland Flower
This is an evergreen shrub of trailing habit of growth. Flowers bright pink; fragrant. Suitable for rockery.

DEUTZIA—Deutzia
Crenata. Double-flowered Deutzia. Flowers double white, tinged with rose.
Lemoinei. Flowers pure white, bordering on stout branches which are of upright growth. Habit, dwarf and free-flowering.
Gracilis. Slender-branched. A charming species of dwarf habit. Flowers pure white. Fine for pot culture, as it flowers freely in a low temperature. The first to flower about the middle of June.
Gracilis Rosea. Same as Gracilis (slender branched) with pink flowers.
Pride of Rochester. A variety producing large double white flowers, the back of the petals being slightly tinted with rose. It excels all the older sorts in size of flower, length of panicle, profuseness of bloom and vigorous habit; blooms nearly a week earlier than Deutzia crenata flore pleno.

DIERVILLA. Weigelia
Very desirable hardy, easily grown and great bloomers. As these shrubs grow older they gradually spread and droop; in June and July they are covered with large, trumpet-shaped flowers of varying colors. In borders and groups of trees they are very effective; bloom after lilacs in June. The following are the most desirable varieties:
D. rosea, Rose-colored Weigelia
A hardy and beautiful shrub, bearing in May a profusion of rose-colored flowers. Introduced from China and justly considered one of the finest shrubs we have.
D. Varigata, Variegated Weigelia
A dwarf compact grower with variegated foliage shading from yellow to green. Light pink flowers in May and June.
D. hybrida Eva Rathke, Eva Rathke Weigelia
A charming Weigelia, flowers brilliant crimson of a beautiful and distinct shade. Blooms in May and June and at intervals afterwards.

DESMODIUM
Desmodium pendulusorum, Sweet Clover
A woody perennial with gracefully arching clustered stems. In autumn it is covered with drooping racemes of rosy purple flowers. Well adapted for planting with other shrubs or in masses. 3 to 5 feet. August 10 to Oct. 1.

EUONYMUS

EXOCHORDA. Pearl Bush
E. grandiflora. A most elegant and distinct shrub from North China, with a full branching habit, making finally a plant 10 ft. high and fully as broad, and is perfectly hardy. Its foliage is broad, lanceolate-ovate, sharp pointed. The flowers in May and June are pure white, in racemes of five and six, with spoon-shaped petals, which are very narrow and stand apart at the base. There is a delicate fragrance which adds to its charm. The un-opened buds are pearl like. Worthy a place in every collection.
FORSYTHIA

Golden Bell
These are pretty shrubs of medium size. All natives of China and Japan. The flowers are drooping, yellow and appear very early in spring, before the leaves. The best, very early flowering shrubs.

F. fortunei, Fortune's Forsythia. Growth upright, foliage deep green; flowers bright yellow.
F. intermedia. Bright golden flowers; glossy green foliage.
F. suspensa. Weeping Forsythia. Similar to Fortunei, but with somewhat drooping growth.
F. viridissima. A free, hardy shrub; a native of Japan, with deep yellow flowers early in spring; leaves and bark deep green.

ELEAGNUS

Angustifolia. Russian Olive. A large shrub, sometimes forming a small tree, with long, narrow, silvery-green foliage; flowers yellow, followed by yellow fruit.

HYDRANGEA

The native species are handsome shrubs of medium size, with fine large leaves, and generally of a light green color, and perfectly hardy. The introductions from Japan and China are interesting and valuable. Hydrangea Paniculata Grandiflora is remarkable

in foliage and flower, and being perfectly hardy, is of great value.
H. arborescens sterilis, Hills of Snow. A form of the last with all of the flowers ray-like and sterile, resembling a snowball. A very handsome floriferous hardy shrub, literally loaded with dazzling white flowers and continuing to bloom for a large part of the summer.
H. Paniculata Grandiflora, or Large Panicle Flowered Hydrangea. A fine shrub, growing from 5 to 6 feet high; flowers in great pyramidal panicles a foot long, are at first pure white, then changing to pink. Begins to bloom early in August.
HAMAMELIS. Witch Hazel
H. virginiana. 8 ft. Yellow. November. An attractive shrub for producing naturalistic effects. Grows well in shade. Large in leaf and unusual because of period of blooming.

HYPERICUM. St. John's Wort

KERRIA
japonica flore-pleno. Double-flowered Kerria. Double yellow blossoms, about an inch in diameter, appear early in April. The bush is of vigorous growth and spreading habit. 3 to 5 feet. April 16 to 30.

LONICERA
The fragrant flowers, showy fruits, and fine foliage possessed by this group have pushed them to the forefront of ornamental shrubs. They are hardy, transplant easily, and are adapted to almost any shrubbery groupings. See "Vines" for the trailing varieties of this species.
Lonicera Fragrantissima. Winter Honeysuckle. 8 to 12 feet. March and April. Delightfully fragrant white flowers that come with the first breath of spring. Scarlet fruits. A broad, many-branched shrub with excellent foliage.
Lonicera Morrowi. Morrow's Honeysuckle. 8 to 12 feet. An open bush with crooked branches. Its red berries are especially ornamental in August and last a long time.
Var Alba. White Tartarian Honeysuckle. 6 to 8 feet. May. A white-flowering form having slender upright branches.
L. tatarica rubra. 7-9 ft. Red. April. This is very attractive in blossom, being one of the few early pink flowering shrubs. Has bright red berries that stay on all summer.

MAHONIA

PRUNUS
Prunus pissardi. Purple-leaved Plum. A handsome small tree of purple foliage. Very hardy and retaining its color throughout the summer. In spring the blush-pink flowers are borne in great profusion, harmonizing with the color tone of the unfolding leaves.

PHILODELPHUS, Mock Orange
Mock Or. is an invaluable shrub. Of vigorous habit; very hardy, with large handsome foliage and beautiful white flowers, produced in the greatest profusion at the blossoming season. It merits a prominent place in all collections of shrubbery. Most of the varieties, except those of dwarf habit, form large-sized shrubs 12 to 15 feet high. They can, of course, be kept smaller by pruning. The dwarf sorts do not yield many flowers but are such pretty, compact plants as to be very useful where small shrubs are desired. All of the varieties flower in June, after the Weigelia. The season may be considerably extended planting the late-flowering sorts.
P. coronarius, Common. Pure white highly scented flowers. One of the first to flower.
P. folius aureus. Golden-Leaved This is a very pretty, medium size plant, with golden-yellow foliage. It keeps its color the entire season: valuable for striking contrasts with purple-leaved shrubs.
P. hybridra. Philadelphus Virginianus. One of the most beautiful of the Philadelphus. This variety produces large, double-crested flowers of pure white, which are sweetly scented. A vigorous grower.
Rhus. Sumach

Rhus aromatica (R. Canadensis).

Sweet-scented Sumac A much-branched spreading shrub, usually 2 to 4 feet all, widely distributed in North America. Leaves compound consisting of 3 bright green leaflets. Flowers yellow, disposed in short spikes or clusters along the branches.

R. continus, Purple Fringe, or Smoke Tree. The large masses of misty purplish flowers in June give it the name of Smoke Bush. Leaves change to varying colors in fall.


Rhodotypos kerrioides, White Kerria. Leaves ovate, with a long slender point, bright green and lustrous. Flowers pure white, an inch or more across, appearing in late spring. Blue-black berries retained throughout the winter. 4 to 5 feet. April 5 to June 1

Robinia. Locust or Acacia

R. hispida, Rose or Moss. Of spreading, irregular growth; long elegant clusters of rose-colored flowers in June, and at intervals all the season.

Ribes. Currant

A gay flowering shrub in early spring; very easy to cultivate.


Rosa Rugosa

Rosa Rugosa, Japanese Rose. Beautiful rich green wrinkled foliage. Brilliant single flowers in May and intermittently all summer, changing to small tomato-like seed vessels.

Spirea, or Meadow Sweet

S. Anthony Waterer. A beautiful variety with broad heads of deep pink flowers. Grows two to three feet high, making a shapely bush. Blooms in June, and now and then throughout the season.

S. callosa alba, Fortune's Dwarf White Spirea. A dwarf, bushy, symmetrical shrub; flowers white; keeps in flower all summer.


S. Froebeli, Frobel's Spirea. A choice free blooming sort, with large panicles of rose-colored flowers. An acquisition.

S. Opulifolius aureus, Golden Nine-bark. A striking variety, bright yellow leaves, changing in summer to a beautiful golden, bronzy yellow. Splendid for producing bright effects.

S. Prunifolia, or Bridal Wreath. Very desirable, having double, daisy-like flowers of pure white in the greatest profusion. 2 to 3 ft.
SPIREA

Spirea Reevesiana flore pleno. A tall, slightly drooping shrub bearing clusters of creamy white double flowers in May. Fine leaves remaining dark green into the Winter.

S. Billardi Rosecolored; flowers in spikes; blooms in summer.

Thunbergii, Thunberg's. Extremely neat and graceful in its habits; dwarfish and rounded; drooping branches, narrow, yellowish green foliage; white flowers early in spring. 18 to 24 in.

Van Houtti. The grandest of all the Spireas; it is a beautiful ornament for the lawn at any season, but when in flower it is a complete fountain of white bloom, the foliage hardly showing. Clusters of twenty to thirty flat white florets make up the raceme and these clusters are set close along the drooping stems. Perfectly hardy, and an early bloomer. The best and most popular shrub for foundation planting.

SAMBUCUS. Elder

S. Nigra aurea, Golden Elder. 8-10 ft. White. June. One of the best yellow foliage plants. Retains its color the entire season and is very conspicuous in every planting. Quick to establish itself, robust grower and attractive.

STEPHANANDRA


SYMPHORICARPUS. Snowberry

St. Peter's Wort or Waxberry

These useful shrubs grow in any soil.


S. vulgaris, Indian or Red Coralberry. Low-growing, spreading, graceful habit; foliage attractive; noteworthy from the beauty of its clusters of red berries.

LILAC—Syringa

Well-known, beautiful shrubs, indispensable in every collection. They flower in May.

Charles X. Reddish purple.

Frau Dammann. This is the best white lilac grown. The panicle or truss is immense, flowers of medium size and pure white.

Syringa vulgaris alba, Lilac, Common White. 6-8 ft. April No shrubs are better known than the Lilac. This is the old-fashioned white that everyone knows.

Syringa vulgaris. Common Lilac. 8 to 12 feet. May. The well-known, old-fashioned Lilac. Flowers are remarkably fragrant varying from "Pole Wisteria Blue" to "Lavender."

President Grey. A beautiful blue: individual flowers, very double and very large; the panicle is magnificent; one of the finest lilacs.

Persian Purple. Foliage resembles the Privet more than the lilac. Flowers are most abundant.

Rubra do Marley. A very fine red variety. Scarcely very handsome.

TAMARIX

Tamarix. Strong, slender, tall-growing irregular shrubs, with feathery foliage and small, delicate flowers, borne profusely on gracefully bending branches.

VIBURNUM

V. opulus, High Bush Cranberry. One of the best for planting. Its berries resembling cranberries, hang until destroyed by frost late in the fall; wood and foliage similar to that of the Common Snowball.

V. plicatum. Plaited-Leaved Viburnum or Japan Snowball. Handsome, plicated leaves, globular heads of pure white, neutral flowers early in June. It surpasses the common variety in several respects. Its habit is better, foliage much handsomer, flowers whiter and more delicate. We recommend this most highly.

Var. sterilis. Guelder Rose, or Common Snowball. A large-sized shrub, with globular clusters of pure white sterile flowers the latter part of May.
FOREST TREES (Shade Trees)

ACER Maple
A. dasycarpum or eriocarpum
Silver-leaved or White. A hardy rapid growing, native variety, of irregular rounded form; foliage bright green above and silvery beneath. Valuable for producing quick shade. Smooth, straight trunk. Valuable for street planting.

platanoides, Norway Maple.
Absolutely the best all-around shade tree. Forms a wide, rounded head of vigorous branches. Leaves deep green, usually five-lobed turning yellow in fall. One of the best ornamental trees for lawn, park, and street planting. Does best in a good soil. 30 to 50 feet

Schwedlerii, Schwedler's Norway Maple. Young shoots and leaves of a purplish crimson color, changing to a purplish-green in the older leaves. A very desirable tree.

BETULA. Birch
B. alba, European White Birch. A graceful tree, with silvery bark and slender branches. Erect when young, but after four or five years assumes an elegant drooping habit. Very desirable.

CELTIS. Nettle Tree, Hackberry
C. occidentalis, American Nettle Tree. A rare native tree having numerous slender branches that spread out horizontally.

LIRIODENDRON
Tulip Tree, or White Wood
L. tulipifera, Tulip Tree or White Wood. One of our largest native trees with large, glossy, light green leaves, shaped like a violin and beautiful, tulip-like flowers. Very desirable for planting on lawns, or where trees are desired that will make a rapid growth.

NEGUNDO
N. fraxinifolium, Ash-leaved Maple, Manitoba Maple or Box Elder. A native tree, maple-like in its seeds, and ash-like in foliage; or irregular spreading habit, and rapid growth.

SORBUS. Mountain Ash
S. aucuparia, European. Similar in appearance to American, with finer foliage, and smaller, deeper-colored berries from July to winter, much more desirable than the American, and everywhere very popular. When fully grown, 20 to 35 feet.
PLATANUS. Plane Tree

P. orientallis, Oriental Plane. This tree is fast becoming popular for street planting. It is a rapid upright, clean grower and long lived; beautiful, dense foliage it is not affected by the air of cities nor of insects.

MULBERRY—MORUS

M. tartarica, Russian Mulberry. This makes a round headed tree quick of growth and very profuse foliage. It is wonderfully productive of fruit and for anyone wishing to attract birds this tree cannot be surpassed. If planted in chicken runs it will produce fruit for several months. The fruit is considerably smaller than our native variety but the tree bears so profusely that it is visible for a considerable distance.

Why Nurserygrown Forest Trees Excell Wild Forest Trees

It is the belief of many people that it is foolish to buy trees when one can go to the woods and obtain a tree, apparently of the same quality as the one bought at the nursery. However, let us consider this.

There are two great factors in the solving of this problem as to why nursery-grown forest trees excell wild trees in durability and practical use.

First, the roots of the nursery-grown forest tree have been pruned almost yearly until the tree is mature, thus establishing an extraordinary fibrous root system. This is highly essential since they are as much to the tree as our lungs are to us. That is, they also carry nourishment from the ground into the tree.

On the other hand, the roots of trees grown in a wild state have never been pruned and therefore the root system is not well enough developed to furnish the tree with sufficient nourishment after transplanting to keep the tree alive.

Secondly, cultivated trees have been transplanted often so as to locate the trees in the direct rays of the sun. Therefore when a tree is taken from the nursery and planted alone, it is able to withstand intense heat and grow successfully. However, the tree taken from the woods has always been more or less shaded by other trees and when it is taken from here it is unable to live under the direct rays of the sun.

Thus the excellence of the nursery-grown tree in comparison with the wild tree can easily be seen.
MORUS Mulberry

M. Tartarica pendula, Tea's Weeping Russian Mulberry. One of our prettiest hardy, small, weeping trees. Forms a perfect umbrella-shaped head, with long, slender branches drooping to the ground parallel to the stem.

BETULA Birch

Var. pendula laciniata, Cut-leaved Weeping Birch. Without question one of the most popular and beautiful weeping or pendulous trees, for planting in yards or lawns. Its bark is white or silvery, branches of a drooping habit, with foliage that is deeply cut and fine. Rapid grower and perfectly hardy. The most popular of all birches.

WILLOW—SALIX

S. babylonica, Weeping Willow. A tree of stately appearance with long pendant branches swaying their silvery foliage in every breeze, quick to take hold when transplanted, will give a finish to a lawn not obtained in any other tree. This too makes a good screen and whether planted on moist or dry ground thrives with unusual vigor.

Var. ramulis aureis, Golden-Barked Babylonian. Bright golden bark in winter. Same habit as Babylonian or Common Weeping.

DOES IT PAY TO BUY QUALITY TREES AND PLANTS?

Money invested in trees and plants of poor quality is wasted, for as the old adage says, "Birds of a Feather Flock Together." This may be applied to trees and plants, for the lowest prices and the cheapest quality are liable to travel together.
ORNAMENTAL TREES

CATALPA

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

C. Bungei, Chinese Catalpa. Of dwarf habit but when top-grafted on tall stems 5 to 7 feet from the ground, it produces a very dense effective, umbrella-shaped tree.

DOGWOOD, Cornus

C. florida, White-flowering Dogwood. An American species of spreading irregular form. The flower appears before the leaves in the spring, are about three inches in diameter, white and very showy. They begin to appear just as the Magnolia flowers are fading. They remain about two weeks. We regard it all things considered, as one of the most valuable trees for ornamental planting, ranking next to the Magnolia as a flowering tree. It has scarlet foliage in autumn.

Var. flore rubra, Red-flowering Dogwood. A variety producing flowers suffused with bright red; blooms very young. One of the finest flowering trees.

FLOWERING CRAB, Malus

Malus Bechteli, Bechtel's Double-Flowering Crab. A sturdy grower, hardy and of medium size. Flowers are double and resemble delicate pink roses, and are very fragrant. When in bloom looks like a mammoth rose bush. Blooms while very young. Suitable for almost all soils.

UMBRELLA CATALPA Tree

CERCIS, Judas Tree or Red Bud

C. Canadensis, American Judas Tree. A very ornamental native tree, medium in size with heart-shaped leaves of pure green color and glossy surface. In early spring, before the leaves appear, it is covered with a profusion of delicate pink flowers, from which it derives its name, Red Bud. Flowers at the same time as the Chinese Magnolias and grown as a single tree, deserves to be classed with our finest ornamentals.

CRATEAGUS

Var. coccinea flore pleno Paulii, Paul's Double Scarlet Thorn. Flower bright carmine red. Superior to any of its color. A very popular variety.

GLOBE NORWAY MAPLE

Acer Globosum

A round headed tree with dense dark green foliage. Very distinct and desirable for producing formal effects.
JAPANESE FLOWERING CHERRY
Cerasus Amanogawa
Pyramidal in habit. Beautiful rose colored flowers covering the entire tree. It resembles a Lombardy Poplar tree in growth.

HORSE CHESTNUT
A. Hippocastaneum, European or White Flowering Horse Chestnut.
A very beautiful, well known tree, forming a round compact head, with dark green foliage and an abundance of spikes of white flowers, slightly marked with red. Very hardy and healthy variety.

POPULUS. Poplar
P. fastigiata or dilatata, Lombardy.
Well known for its erect, rapid growth and commanding spiry form. Very desirable in large grounds or along roads, to break the average height and forms of other trees.

SALISBURIA
Maiden-Hair Tree or Gingko
S. adiantifolia. A rare, beautiful tree from Japan, with remarkable fern-like foliage, distinct and fine. Especially desirable for planting on lawns or in dooryards. rapid grower.
ORNAMENTAL DECIDUOUS HEDGE PLANTS

DWARF BOXWOOD

**Buxus Suffruticosa**

A low growing evergreen shrub with glossy leaves adapted for bordering flower beds. Seldom obtain a height over 8 inches. They bear trimming readily.

PRIVET HEDGE

**PRIVET—Ligustrum**

Amurense, *Amoor River*. The hardy Privet, resembles the California type, but absolutely will not winter-kill at 25 degrees below zero.

Ovalifolium, *California*. This is the most glossy-leaved and rapid growing of all the half-evergreen plants used for low hedges around private lawns, and is the universal favorite at Newport and other fashionable seaside resorts.

L. vulgare, **Common or European Privet**. 4 ft. Narrow foliage and showy white flowers, and profusion of black berries.

L. regelianum, **Regel’s Privet**. 5-7 ft. White. June. A low spreading variety being very twiggy, with a dense foliage not so glossy as California. Because of its graceful appearance, hardiness and adaptability to any soil and shady places, it is the most widely used Privet for landscape work.

TRIMMING SHRUBBERY

Newly planted shrubbery should be cut back severely at the time of planting. This treatment reduces the number of buds to be supplied with nourishment and has a tendency to make the growth much more vigorous than if it were not so pruned. Generally from one-third to one-half of the top should be removed. While this may seem to spoil the shrub, it really is the making of it. The plant will be more bushy and can be trained, as it grows, into the shaped plant desired.

When shrubbery is planted in the Spring this trimming is perhaps most easily done before the shrub is set in the ground. When planted in the Autumn it is usually best to defer the trimming until early the following Spring.
CLIMBING VINES

AMPELOPSIS
A. quinquefolia, American Ivy, Virginia Creeper or Common Woodbine. A native climber of vigorous growth with digitate leaves; a fine green in summer, changing to rich crimson in Autumn. It throws out tendrils at the joint, by which it fastens to anything it touches, affords shade quickly and is very desirable for covering walls, verandas, or trunks of trees.
A. veitchii, Boston, or Japan Ivy. A beautiful, hardy, climbing plant of Japanese origin. Especially valuable for covering walls, as it clings firmly to the smoothest surface covering it evenly with overlapping leaves, which form a perfect mass of foliage. The color is a fresh deep green in summer, changing to the brightest shade of crimson and yellow in autumn. It is a very rapid grower. It is quite hardy and becomes more popular every year.

ARISTOLOCHIA. Birthwort or Pipe Vine
A. sipho, Dutchman's Pipe. A very rapid climber with large, dark green foliage, and curious, pipe-shaped, yellowish-brown flowers.

CLEMATIS OR VIRGIN'S BOWER
We give much attention to this magnificent family of climbers and annually propagate all of the leading and hardy sorts. No other hardy climbers exceed in beauty and effectiveness the Clematis. As a screen for fences, for pillars along garden walks, for training on walls or arbors, in masses on rockwork, for the veranda or cultivation in pots, it has no rival among strong-growing blossoming plants. It does best in deep, sandy loam and should be well mulched with rotten manure in winter. The variety Paniculata, which is sweet-scented, is doubtless the most popular of all and the easiest grown. Other leading varieties are Henryi, Mme. Edward Andre, and Jackmanni.
Clematis, cont’d.

C. Henryi. One of the best perpetual Hybrids; of robust habit and a very free bloomer. Flowers white, large and very showy. July to October.

C. Jackmanni. One of the most popular varieties, a free grower and abundant and successful bloomer, producing flowers until frozen up. Color an intense violet-purple, remarkable for its velvety richness. Originally introduced over forty-five years ago, since which time many new varieties have been placed on the market, the Jackmanni has no superior and very few, if any, equals.

C. Mine. Edward Andre. A vivid pink Clematis, large size and borne as freely as the Jackmanni. The habit is vigorous and the plant is popular on account of its exceptional brilliancy and persistency as a bloomer.

C. Paniculata. (A sweet-scented Japan Clematis). It is a vine of very rapid growth, quickly covering trellises and arbors with handsome clean, glassy green foliage. The flowers are of medium size, pure white borne in immense sheets and of a most delicious and penetrating fragrance. They appear in September at a season when most vines are out of bloom. It is the easiest growing and most satisfactory of all the Clematis.

CELASTRUS. Staff Tree or Bitter Sweet

C. scandens, American Bittersweet. A native twining plant having large leaves, yellow flowers, and clusters of orange capsuled fruit.

MATRIMONY VINE—Lycium

Chinese. A superb variety, which has been a favorite for many years. It is a most vigorous, hardy climber in any position. It continues flowering, and new berries remain on the vine until late in the winter.

THE EVERGREEN BITTERSWEET

Climbing Euonymus Radicans Vegetus Beautiful Year Around

Particularly adapted to cover garden walls, old stumps or embankments with any exposure, but the fruiting is best when the plants receive the warm sun; the plants are strong, robust climbers and in fall and winter bear a profusion of bright red berries. The vine is covered the whole year with green foliage, and absolutely holds the color even in the hottest summer or the coldest winter. The vines show many clusters of bright red berries that carry them through the winter months.

LONICERA

L. Halleana, Hall’s Japan Honeysuckle. An almost evergreen variety, with pure white flowers, changing to yellow; very fragrant and a vigorous grower. Covered with flowers from July to December. Best bloomer of all.

Var. Belgica, Monthly fragrant, or Dutch Honeysuckle. Flowers red and pale yellow, sweet scented. Blooms through the summer.

L. sempervirens, Scarlet Trumpet Honeysuckle. Flower deep red; trumpet shaped; flowers all summer; a native climber and appropriate for trellises and rockwork.

TECOMA. Trumpet Flower

T. radicans, American Trumpet Vine. Very hardy; large trumpet-shaped scarlet flowers in August.

WISTARIA

W. Sinensis, Chinese Wistaria. One of the most magnificent hardy climbers, producing racemes of pale, purple flowers early in spring and autumn, and growing at the rate of fifteen or twenty feet in a season attaining an immense size.
Hybrid Tea Roses

**Killarney Brilliant**—This fine Irish rose is an old favorite of the ever-blooming class. The beautiful pointed buds open up into brilliant pink, intensely fragrant flowers of large size. A vigorous grower and free bloomer.

**La France**—Moderately vigorous pink rose. Splendid size and very fragrant. Belongs to the ever-bloomers.

**Sunburst**—Very select, with long spiral buds; a lovely bronyz yelow fading to apricot.

**White Killarney**—A white sport of the well-known "Killarney," with all the prominent and desirable qualities of that variety. Flowers large and pure white. A great acquisition.

**General MacArthur**—Dazzling crimson scarlet, exquisite perfumed. One of the grandest red roses ever offered, either for cutting or bedding.

**Los Angeles**—One of the finest roses grown. Produces long stemmed flowers of luminous flame pink, toned with coral and shaded with translucent gold at base of petals. Buds are very pointed, opening to a large flower.

**White La France**—Beautiful light fawn color, almost white; rightly described as an almost white La France. Extra fine.

**Miss Lolita Armour**—Bud of medium size, globular; flowers very large, cupped, double, borne, several together, on long stems; very lasting; strong fragrance. Color, chrome yellow at base, shading to burnt orange and copper. Growth very vigorous, bushy, upright; abundant bloomer.

**Laurent Carle**—Color brilliant velvety carmine. A very promising variety; another Rose it will certainly pay you to try.

**Gruss An Teplitz**—This is the freest bloomer in our list. This is an ideal bedding rose as it blooms from early summer until late fall, but is poor for cut flowers as it has short stems. The color is brilliant, velvety crimson. It is fragrant, vigorous, hardy and easy to grow.

**Mrs. Aaron Ward**—Coppery-orange in the open bud, golden-orange when partly developed pinkish-fawn of lovely shade when fully open, when it looks like a full fluffy-silk rosette. Color effect of the whole flower is Indian-yellow. No wonder everybody who sees it falls in love with it.
Tea Roses, Cont’d.

Columbia—One of the finest pink roses under cultivation. It pleases wherever seen. Vigorous grower and free bloomer and good for cut flowers, color a glowing pink.

Radiance—A very vigorous grower and free bloomer, long stems and very suitable for cut flowers. Color is a carmine pink.

Red Radiance—Same as Radiance except that it is of a dazzling crimson—scarlet color.

Souvenir de Claudius Perrie—This is one of the newest and most popular yellow roses. It is of a sunflower yellow color that will not fade in the hottest sun.

Miscellaneous Hardy Roses

F. J. Grootendorst, H. Rug. Type, Rugosa foliage, Polyantha flowers. Bud small, ovoid; flower small, open, double, borne in clusters on average length stems; very lasting; slight fragrance. Color bright red, edges of petals serrated like a carnation. Vigorous grower of bushy habit, bearing a profusion of blooms from June to October. Very hardy.

HYBRID PERPETUAL ROSES

Soleil d’Or—Large, full and globular, fragrant; buds conical shaped; color varying from gold and orange yellow to reddish gold, shaded with nasturtium red.

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

Frau Karl Druschki—This grand Rose has become renowned as the very highest type of its class and the best snow-white Rose ever introduced. It is an extraordinarily strong grower, and has the vigor and hardiness of an oak. Its magnificent flowers are nothing less than glorious—immense in size and produced with great freedom. The color is a marvelous white without a tinge of yellow or any other shade. A true paper white, the standard by which all white Roses are judged.

General Jacqueminot—Crimson-scarlet; large, full. Very fragrant. Excellent.

CLIMBING ROSES

Dr. W. Van Fleet—Flowers when open run four inches and over in diameter. The center is built high, petals beautifully undulated and cupped. The color is a remarkable delicate shade of flesh-pink on the outer surface, deepening to rosy-flesh in the center.

Red Dorothy Perkins, or Excelsa—The flowers are very double, produced in large trusses of thirty to forty, and almost every eye on a shoot produces clusters of flowers. The color is intense crimson-maroon, the tips of the petals tinged with scarlet. The finest of all Crimson Ramblers.

Paul’s Scarlet Climber—Vivid scarlet, shaded crimson, makes a brilliant display for a long period of time in the garden. A wonderful new climbing Rose. Received the gold medal and cup for the best new climber at the National Rose Society’s exhibit.

Climbing American Beauty—Large deep pink climbing rose (flowers are large) and a free bloomer. Good for cut flowers, vigorous grower and fragrant.

Crimson Rambler—This rose is too well known to need much description. Color: Crimson flowers borne in heavy clusters.

Gardenia—One of the best yellow hardy climbing roses; flowers borne in clusters.

White Dorothy Perkins—One of the best White Climbing roses; flowers borne in clusters. This is one of the finest white climbing roses of the Rambler class.
POLYANTHA
or Baby Rambler Roses

Lafayette—Brilliant cherry-crimson flowers, as large as Paul's Scarlet Climber, produced in branched trusses continuously from June until frost. The most brilliant and satisfactory Rose in this class for bordering walks or for edging large Rose beds. Makes fine single specimens.

Catherine Zeimet, or White Baby Rambler—Grows to a height of twenty inches and produces double pure white flowers in abundance.

Miss Edith Cavell—Very free; brilliant crimson, white eye.

Miscellaneous Hardy Roses

Persian Yellow—Bright yellow; the most double of this class.
EVERGREENS

A class of trees indispensable in the plantings of parks, private estate and the home grounds, possessing many and varied characteristics in habit of growth, form and coloring. They are always desirable for any landscape planting for both summer and winter effects. They accentuate the charm and beauty of the summer flowering shrubs and plants, and when king winter holds our northern country in his icy grip, they give a happy and pleasing effect with their bright coloring in the mantle of white.

We give especial care to the growing and cultivation of this class of plants, and can truthfully say they are as fine as can be found in this country.

THE JUNIPER FAMILY—Juniperus

A family of evergreens of great beauty and adapted to many uses and purposes. These plants are largely used in evergreen foundation planting, and embrace, for the most part, species of great hardihood. The small growing varieties make good specimen and background plants, while the smaller, procumbent or prostrate forms, make desirable foreground or ground cover plants.

J. Sueccia, Swedish Juniper. A conical or pyramidal evergreen with a bluish-green foliage resembling the Irish Juniper.


J. Scorpulorum, Silver Juniper. An evergreen of pyramidal form with light blue color; very desirable.

J. Communis prostrata, English Trailing Juniper. Low growing evergreen growing close to ground with a bluish green foliage.

Var. glauca, Blue Cedar. The compact, conical habit of this variety, combined with its silvery foliage, renders it very distinct and desirable.


J. Virginiana, Red Cedar. A well-known American tree; varies much in habit and color foliage some being quite stiff, regular and conical, and others loose and irregular. It makes a fine ornamental hedge plant.

J. Prostrata, Prostrate Juniper, or Trailing Juniper. An evergreen different from all the others. It’s habit of growth being to grow close to the ground. Color: Dark green.
Among the spruces are embraced some of the most useful as well as ornamental trees of the conifer family. They are mostly tall, conical or pyramidal trees, but there are some dwarf forms. They do particularly well in this climate and will thrive in any soil except a wet one. It is among the most largely planted of the evergreens.

**PICEA**

*Spruce*—Well-shaped trees of rapid growth and perfect hardiness, able to thrive. Extensively planted for screens, hedges and wind breaks.

**P. pungens, Spruce Colorado Green.** Symmetrical habit, very hardy, with light green foliage.

**P. pungens glauca, Colorado Blue Spruce.** One of the hardiest and most beautiful of all the Spruces; in form and habit similar to the White Spruce; foliage of a rich blue or sage color.

**P. Pungens Kosteriana Grafter.** Foliage a rich silvery blue. The finest variety of blue spruce known.

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

**P. excelsa, Norway Spruce.** An elegant tree; extremely hardy, of lofty rapid growth, and pyramidal form. The branches assume a graceful, drooping habit when the tree attains 15 to 20 feet in height. One of the most popular evergreens for planting, either as single specimen trees or in masses for effect or shelter. One of the best evergreen hedge plants.

**P. Canadensis Alberitna, Black Hills Spruce.** Varies from a delicate bluish tint to deep green. The tree is compact, rather bushy and dentirely hardy.

**P. Canadensis, White Spruce.** A compact and upright grower of pyramidal form. Light green foliage with a bluish tint.

**P. Pseudotsuga Douglasii, Douglas Spruce.** Looks like a Spruce, but botanically different. The habit is regular and symmetrical; very hardy and suited for almost any purpose. The needles are soft and dark green, though sometimes glaucous.
Pine. From the Celtic for rock or mountain, alluding to the habitat of the tree. An indispensable group of trees to the landscape beautifier, in their varied forms and adaptability. They are hardy endowed with a peculiar rugged type of beauty, and carry about them a delightful pungent aroma. Their needles are borne in tufts of two to five, and greatly add to the effective value of the tree.

P. Mugho, Dwarf Mugho Pine. Of low, dense, spreading growth, with very dark foliage; very hardy.

P. strobus, White or Weymouth Pine. A native tree, valuable for timber purposes. Light silvery foliage; used for hedges as can be clipped like a shrub.

P. sylvestris, Scotch Pine or Fir. A native of the British Islands. A fine, robust, rapid growing tree, with stout, erect shoots, and silvery green foliage. Very hardy; valuable for shelter.

THE JAPAN CYPRESS FAMILY—Retinispora

The Retinisporas embrace the most beautiful evergreens in cultivation. They are of such diverse growth and appearance, that it is possible to select a Retinispora for any place or purpose. They are stately and majestic as individuals, and strikingly elective and imposing in groups. They vary much in color of foliage, green, blue golden and the Argentea or silvery hue. Especially suited for foundation plantings.

R. Plumosa, Plume-like Retinispora. Of conical outline with light, leathery, green foliage. It stands shearing well, and if frequently pruned becomes compact and dense. It is useful in groups and beds, or for vases and window-boxes.

R. Plumosa aurea. The most popular and generally useful of all the golden Evergreens. In character it resembles R. plumosa. Is especially ornamental, and the soft plume-like golden foliage is particularly bright in spring. When pruned it becomes symmetrical and regular. It is low-branched, and the golden yellow foliage brushes the green grass in beautiful contrast. A vigorous grower and unsurpassed for color effect in grouping. It is well adapted for small lawns, and appropriate for larger areas.

Taxus Cuspidata. The hardiest of the upright Yews, and of fairly rapid growth. The foliage is a brighter green than that of other varieties

PLANTING SHRUBBERY

The best results with shrubbery are had when the planting is done in beds or groups. Shrubs grow best when in companionship of others. Compare plants placed individually in the sod with those in a group which enjoy the cultivation of a deep hoeing or spading once or more a year.

If shrubs are to be arranged in groups or colonies, the area that they are to occupy should first be thoroughly spaded as if for flowers, after which the planting may be done in the usual manner.
THE ARBORVITAE FAMILY—Thuya

The Arborvitaes is a plant which seems almost indispensable to the evergreen grouping. Useful for tall columnar effects or as a dominating plant for height in any position. They are especially adapted for evergreen hedges and windbreaks. They bear shearing well and will soon form a dense screen. This group of plants thrives in almost any soil and seems indifferent to exposure. The tall varieties are successfully used for pointed architectural effects, while the smaller growing types are desirable subjects for foreground planting.

**THUYA. Western Arbor Vitea**


T. Biota Orientalis nana compacta, *Dwarf Chinese Arbor Vitea*. Same as dwarf golden Chinese Arbor Vitea, except that foliage is dark green all year.

Var. pyramidalis, *Douglas Pyramidal Arbor Vitea*. Pyramidal in form; foliage distinct; somewhat resembling a Retinispora.

Var. Tom Thumb, Very dwarf and of slow growth; of compact symmetrical habit; valuable where low-growing forms are needed; hardy.

T. pyramidalis, *Pyramidal Arbor Vitea*. The features desirable in a pyramidal arbor vitea are, dense compact growth, narrow and pyramidal form and deep rich green color at all seasons, which ours possess.


T. Biota orientalis aurea nana, *Dwarf Golden Chinese Arbor Vitea*. Gem for use in small gardens; very dwarf; foliage a bright golden yellow during the summer, turning to a rich, bronzy, yellow during the winter.

**Names of the Various Plants, Etc., Most Subject to Disease**

<table>
<thead>
<tr>
<th>Plant</th>
<th>Disease(s)</th>
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<tbody>
<tr>
<td>Plum Trees</td>
<td>Scale</td>
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<tr>
<td>Peach</td>
<td>Peach Borers on roots</td>
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<tr>
<td>Maple</td>
<td>Borers on body</td>
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<tr>
<td>Japanese Rugosas</td>
<td>San Jose and Oyster Shell Scale</td>
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<tr>
<td>Lilac</td>
<td>San Jose and Oyster Shell Scale</td>
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<td>Currant</td>
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<td>Japonica</td>
<td>San Jose and Oyster Shell Scale</td>
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<tr>
<td>Dogwood</td>
<td>San Jose and Oyster Shell Scale</td>
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<tr>
<td>White Pine</td>
<td>Aphis</td>
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</tbody>
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Every person having any of the above varieties of plants on their premises should keep on the lookout and spray immediately for these pests, and prevent them from migrating upon other trees and plants.
HAAS HOME NURSERIES

HARDDY HERBACEOUS PERENNIALS
AND BIENNIALS

ACHILLEA, Ball of Snow
A favorite hardy perennial well worth growing, giving throughout the summer an abundance of double pure white flowers in loose bunches; much prized for cutting. Height 2 feet.

LONG SPURRED AQUILEGIA
(Columbine)
Aquilegia, Columbine. Blooming in late spring and through the early summer months, preferring slightly shaded positions, though it does well in the sun. The flowers are borne on slender stems and mostly long spurred—coming in the many shades they do, prove very valuable in any border. 2-3 feet.

CANTERBURY BELLS
Campanula, Canterbury Bell. Another garden favorite. Blossoms borne on long stems in many shades and colors. Partial shade and rich soil produce the better blossoms. Should be in every garden. May and June. 2½-3 feet.

CHRYSANTHEMUMS
Large-Flowering
These choice varieties are now deservedly popular for out-door bedding. In considering their many good qualities, there is no cause for surprise to see them cultivated so extensively. They give color, life and beauty to the garden just at the time when other plants have been destroyed by frosts. An armful of flowers can frequently be cut in late November. With but a slight covering of leaves or litter during the winter, they will take care of themselves after once planted.

Fairy Queen. Large; light pink, with full center. Early.
Frances Huckvale. Flesh with yellowish bronze center; high; bushy Early.
Wolverine. Yellow; medium bushy. Very early.

DELPHINIUM, Larkspur
The hardy Larkspurs are an old-fashioned favorite, very attractive and are of easy culture. They are perfectly hardy. They grow in almost any kind of soil, but respond quickly to a liberal fertilizer. Can be planted in early spring and produce an abundance of flower spikes the first season. The flowers range through various shades of blue.

Delphinium Bellamosa. A dark blue of the type of Belladonna with the color of the old Formosum variety, but not liable to mildew like the latter and of stronger growth.

DIANTHUS
Dianthus. Hardy Pinks. Interesting and useful, blooming in early spring. Many of the varieties we offer are improved forms of these old-time favorites; fine for cut-flowers. Most of them grow 10 to 12 in. high. May, June.

DICENTRA
Bleeding Heart or Dicentra. An old time favorite. Its arching stems bear drooping heart-shaped flowers of white and old rose. Grows in shade. 1-2 feet. May and June.

FOX GLOVE
Digitalis, Foxglove. This is an old garden favorite. The flowers are borne on long stems (3-4 feet), and during their period of blossom are the most attractive thing in a border. These plants are not offered as to color, but are mixed seed from best plants. They are, ordinarily, very easy to grow, thriving in loose, rich soil. May and June. Mixed colors.
GAILLARDIA
Gaillardia, Blanket Flower. Will grow anywhere bearing large quantities of yellow flowers flecked and marked with crimson and brown. Starting in June, there are blossoms all summer. One of the most desirable plants for the home garden and the flowers are valued for cutting. 2-3 feet.

FLAME FLOWER
Tritoma, Flame Flower. A beautiful late flowering plant having handsome reed-like foliage. Flowers are a rich orange scarlet. 2-3 ft. Sept.-Nov.

GYPSOPHILA
Gypsophila paniculata, Baby’s Breath. 2½-3 feet. May-June. Tiny white flowers with slight pin color. Almost a mist of feathery bloom. Attractive and useful to “soften” stiff stem flowers in bouquets and desirable for drying for similar use in winter.

HIBISCUS
Hibiscus Mallow Marvels. Larger and more brilliant than the old forms. Plants frequently grow five feet and during July and August produce flowers 8 and 10 inches across, especially if given water. We can furnish in white, pink and red.

HERBACEOUS PAEONIES
A noble flower, almost rivaling the Rose in brilliancy of color and perfection of bloom and the Rhododendron in stately growth. The first point in its favor is hardiness. It may be truly said to be “hardy as an oak.” In the severest climate the plants require no other protection than that which they afford themselves. Then their vigorous habit and healthy growth, freedom from all diseases and insects are important arguments in favor of their cultivation. Each succeeding year adds to their size and beauty.

The foliage is rich and glossy and of a beautiful deep green color, thus rendering the plants very ornamental even when out of flower.

Felix Crousse—Brilliant red; large ball-shaped flower.

Festiva maxima—Flowers very large in clusters; fragrant. The finest early white Peony.

Couronne d’Or—Very double, yellowish white; superb; very late.

Delachii—Dark purplish crimson; shaded violet.

PHLOX (Hardy)
Beauty and usefulness bring these hardy border plants among those of greatest importance. For massing they are very effective and their great variety of colors add a brilliancy to the landscape. Their flowering season begins in July and when the last loom spikes are removed, the blooming period may be prolonged until fall.

Brilliant Blood-red. Elizabeth Campbell. Soft pink; large flower.

Fraulein G. Von Lassburg. Pure white; immense panicle.

Iris. Light purple.

Sir Edward Landseer. Bright crimson.
IRIS

The Orchid Flower of America

Iris. Familiar and well beloved flowers of spring. The purity of their beauty, and their haunting fragrance, are decidedly refreshing. They are perfectly hardy, thrive anywhere, grow and bloom luxuriantly, particularly if plentifully supplied with water or if planted in most situations as on banks of ponds, etc. Established plants produce from 50 to 100 spikes of bloom.

Description (S) denotes the upper petals or standards; (F) denotes the lower petals or falls.

Dalila. S, pale flesh-white; F, rich purple. One of the most distinct and striking; very rare. 22 inch.

Delicata. Large creamy white flower.

Dr. Bernice. S, coppery bronze; F, velvety crimson. 27 in.

Parisiana. S, white, dotted and shaded lilac-purple; F, white with lilac edging. Fine large flowers. 30 in.

Florentina. White, slightly tinged lavender; very early. 27 in.

Her Majesty. S, rosy pink; F, pink, veined crimson. 25 in.

Honorable. S, golden yellow; F, rich deep brown. For massing. 18 in.

Hector. S, delicate yellow; F, deep purple. 26 in.

Black Prince. S, lilac; F, velvety black.

Madame Chereau. White, elegantly frilled, wide border of pale blue. One of the most popular and admired variety and our price is far below the market.

Navajo. S, light bronzy yellow, shaded lavender; F, deep maroon, heavily veined white and yellow. 20 in.

Queen of May. S and F, rosy lavender. 27 in.

Wyomissing. S, creamy white, suffused soft rose; F, deep rose, shading to a pale rose border. 26 in.

PAPAVER, Poppy

The perennial Poppies should be used more freely in perennial borders, closely surrounded by other perennial plants, or planted in solid beds of mixed annuals, since the foliage of Poppies dies down after the flowering season.

The flowers are brightly colored, cup-shaped, and borne on long graceful swaying stems. Oriental Poppies, of which varieties are offered below, produce the largest flowers in the family.

They are perfectly hardy if protected in severe winters with a light covering of leaves.

Astrosanguinea maxima. Large dark red.

Oriilamme. Orange - scarlet - red flowers of immense size.

Perry's White. Purest white.

Princess Victoria Louise. Soft salmon-rose shade to blush-rose.
Hollyhocks. Everyone knows them—with their long spikes of multi-colored flowers, borne in profusion as they are, there is no wonder they are largely used. Blooming in June and July, so absolutely hardy that they will take care of themselves. Double. Carmine-Rose, Crimson, Rose-Salmon, Sulphur-Yellow, and White.

**PERIWINKLE**

Vinca minor, Periwinkle. Evergreen trailer; fine for covering bare places. Makes a handsome plant that blooms all summer; lilac-blue flowers.

**PYRETHRUM**

Pyrethrum, Painted Daisy. One of the most desirable perennials blooming in May and June. Attractive. 2-3 feet.

**SWEET WILLIAM**

Barbatus, Sweet William, in separate colors: Red, White and Rose. 2 ft.

**YUCCA**

Yucca filamentosa, Adam's Needle or Thread Plant. A stately evergreen thread-leaved plant producing spikes of creamy white flowers.

**SEDUM ERECT GROWING VARIETY**

Brilliant. One of the prettiest erect species, attaining a height of 18 inches, with broad light green foliage and immense heads of handsome showy rose-colored flowers; indispensable as a late fall-blooming plant.

**ORNAMENTAL GRASSES**

Erianthus Ravenna, Plume Grass. Grows from 5 to 7 feet high, and produces from thirty to fifty flower-spikes. Closely resembles the Pampas Grass.

**PLANTING AND CARE OF PERENNIALS**

The planting area where the perennials are to go should be deeply spaded, digging-in a heavy application of well-rotted manure, or compost. It should then be raked smooth and the surface free from lumps.

The proper planting distance for most varieties of perennials is 18 inches. Large, growing types like Peonies, however, should go 2 feet apart and small plants 10 to 12 inches apart.

As a general rule the plants should be set with the crown on a level with the ground. If they are planted deeper they are liable to rot; if they are planted more shallow, they are likely to dry out. An exception to the rule is the Peony, which should be planted with the crown 2 inches below the surface.

After the planting is completed, the area should be thoroughly watered, and thereafter once or twice a week throughout the season.

Each Winter the perennial bed should be mulched with straw or leaves after the first freeze. Avoid manure as it is likely to form a mat and stifle the plants. In the Spring, lightly work in an application of fine manure, or of bone meal at the rate of a single handful per plant.

The perennial bed should be kept cultivated for not only does a cultivated area stimulate their growth but it is easier to keep in order than grass, which succeeds poorly beneath their shade and is in such places difficult to mow.
Taking into consideration its hardiness, productiveness and general commercial values, the apple stands at the head of the list of fruits. In selecting the most important varieties for cultivation, it has been our constant aim to secure only those of standard excellence, and in no instance to recommend a novelty without ascertaining its history from a reliable source.

**SUMMER APPLES**

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

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

**Duchess of Oldenburg** — A large beautiful apple, roundish. Streaked red and yellow. Tender, juicy and pleasant. Tree a vigorous, fine grower and abundant bearer. Very hardy. September.

**Early Harvest** — Tree healthy, vigorous and a good bearer. Fruit medium size, nearly round, somewhat flattened; surface smooth, clear, waxy, juicy, acid to sub-acid; flavor good. July.

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

**AUTUMN VARIETIES**

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

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

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

**WINTER VARIETIES**

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

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

**Golden Russet** — Medium size and clear-gold russet color. A good apple in colder sections and brings good prices. Keeps till May in a cold cellar, and is then rich and sweet. Tree grows rather willowy; moderate producer. Season, Nov. to April. Origin, Western N. Y.

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

**Talman Sweet** — Medium size pale yellow, slightly tinged with red; firm rich and sweet; excellent for preserving; tree vigorous, very hardy and productive. November to April.
DELICIOUS APPLE

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

McIntosh (McIntosh Red)—Medium large, polished smooth, yellow, nearly covered with brilliant crimson; beautiful; flesh snow white, crisp, very tender, aromatic; sub-acid; very good quality. Resembles Fameuse type, but is larger and more hardy. Tree vigorous, with spreading head; a good annual bearer; popular in northwest. November to February.

Milam—A standard for 50 years. Quality excellent, color red, size medium. Well known.

Stark—An apple overlooked by many. Color greenish-red, unattractive for market, but for productiveness, regularity, vigorous growth, etc., should be in every farmer’s orchard.

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

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

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

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

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

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

York Imperial—Tree moderate grower and productive, fruit large, lop-sided; surface smooth; color mixed bright red on yellow ground; flesh yellowish, tender, juicy, flavor mild sub-acid; quality very good; for market, table, kitchen. November till spring.
Wolf River—Extra large handsome, deep red; excellent for cooking. Extremely hardy in the north. Probably the largest red apple adapted to this region. Sept. to Nov.

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

King of Tompkins County—A standard commercial variety. Hard to beat for either table use or cooking. Looks well for market and is just as good as it looks. Fruit bright red, large and uniform. Brings a fancy price over other varieties. Keeps well in cold storage. Flesh is yellow, crisp and juicy; vigorous and a good cropper. Season, Oct. to Feb. Origin, N. J.

Winesap—Medium size, dark red, productive variety, excellent quality, crisp and juicy; sub-acid. The most extensively grown, the most abundant bearer, with more good qualities in its favor than anything we have to offer.

CRAB APPLES

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

PLUMS

Yellow Egg—Very large egg-shaped; excellent for cooking; good and productive; vigorous. Last of August. Splendid variety for nearby market. The Yellow Egg is also called the Gold Drop.

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

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

Haas' Blue Plum—Large blue plum, meat yellow, good bearer, ripens in Aug.-Sept. Absolutely cannot be beat.
The soil should be rich and well cultivated. A pear orchard should not be permitted to "go to grass." They should be pruned every year, dwarfs especially. Dwarfs should have low heads and be trained in a pyramidal form, one-half of the previous season's growth being cut off each spring.

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

**EARLY VARIETIES**

**Tyson**—Sugar Pear, small; deep yellow at full maturity; very early. July.

**Bloodgood**—Sugar Pear, large, sweet pear, ripens in July a little after Tyson. (Standard only.)

**Autumn Pears**

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

Also Dwarf Duchess—Fine eating pear.

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

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

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

**Sheldon**—One of the most delicious eating pears. Should be in every home garden. Tree is vigorous, erect, second rate in productiveness and last to come into bearing. Fruit large, creamy, sweet and aromatic. Thorough fertilizing and cultivation will aid in making this a profitable variety. Season, October and November.
Cherry culture has been a success when proper attention has been given to the selection of varieties and their culture. The hardy, thrifty varieties of the Morello type may be freely planted with confidence of profitable results. The cherry tree should be planted in a naturally dry soil or the soil should be well drained, so that water may not remain near the roots for any considerable time.

The last three varieties of cherries are not so productive in the Terre Haute region as elsewhere.

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

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

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

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

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

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


Early Elberta — Fine yellow freestone with red cheek, fairly good size and wonderful quality. Ripens in July.

Elberta — The most popular standard market peach ever introduced. Large and showy. Vigorous grower and productive. Does well in all peach growing sections. Middle of September.

J. H. Hale — Popular in most sections. Has not proven so good in this locality. Is undoubtedly self-sterile and requires other kinds well mixed to produce well. Also needs good soil. Size small to large on same tree. Quality fine. A showy peach where it gets the size.

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

Crawford's Late (F.) — Fruit of the largest size; skin yellow or greenish yellow, with dull red cheek; flesh yellow; productive. One of the finest late sorts. Freestone. Last of Sept.

Sawley — Fruit large, roundish, deep yellow, with a rich marble, brownish red cheek; flesh yellow, firm, juicy rich and sugary. An English variety; prized highly as a late, showy market sort.

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

J. H. HALE PEACH

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

Stump the World — A showy, white fleshed peach with a bright red cheek. Very large, juicy, sweet and good. Tree is average grade as to vigor and productiveness. Is freestone and ripens near the end of September.


Captain Ede — A superior variety of the Elberta type but ripening about two weeks earlier. It is a yellow free-stone.
PEACHES (Continued)
Champion (F.)—The earliest free¬stone and a first-class shipper. Bears full crops when others fail. In comparison with the bountiful yield of all of the best kinds, it is of all of them the champion. Size large, flavor delicious, juicy, sweet, rich, excelling all other varieties; very handsome in appearance, creamy white with red cheek; very hardy; season earliest.

Red Bird (Cling)—A creamy white peach almost covered with red. Large, hardy and good. An extra early cling that gives promise of being a leading commercial variety. July 1-5.

Lemon Cling—Late yellow canning peach, excellent quality, good size. Ripens September.

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

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

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

Catawba—Bunches large and loose; berries large, of coppery red color, becoming purplish when well ripened; vinous rich; requires the most favored soils and situations, good culture and warm seasons to mature perfectly.

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

Moore’s Early—A large grape, ripening a week earlier than Concord; good grower; berries large, good quality, and makes a moderate yield; very valuable as an early grape.

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

White Varieties
Moore’s Diamond—Bunch large, compact; berry medium size; color greenish white with a yellow tinge; juicy and almost without pulp; vigorous and productive.

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

APRICOTS
Moorpark—The largest of fall apricots; orange in color with a red cheek. More money is made from these than from any other variety. Flesh is firm, juicy and very fine. Moorpark ripens in August.

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

RHUBARB
Myatt’s Linneaus—Leaf stalks large, tender, juicy; early.

ASPARAGUS
Palmetto—Large, thick, dark green shoots.
CURRANTS

The currant is one of the most valued of the small fruits. They mature just before raspberries and can be used either raw or cooked. Being very hardy, they do not winter-kil1 and are easy of cultivation, requiring little care. They can be grown in any good garden soil.

**Red Cross**—Berries sometimes more than one-half inch in diameter; bunches short; plant very vigorous and productive when grown on good soil and well cultivated.

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

**White Grape**—Yellowish white sweet, or very mild acid; excellent for the table. The finest of the white sorts, very productive.

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

STRAWBERRIES

**Champion**—A more recent addition of the everbearer. Likely to prove more profitable than the Progressive. Is certainly worth a trial in all berry localities.

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

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

RASPBERRIES

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

**Red Varieties**

**"The Miller"**—One of the best red raspberry in cultivation.

**Black (Black Caps)**

**Cumberland**—Large, good quality, hardy and productive; mid-season.

BLACKBERRIES

**Early Harvest**—The earliest blackberry and consequently valuable for market.

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

GOOSEBERRIES

**Downing**—Fruit almost round, large, and juicy. Best quality. Whitish green color. Does especially well in the North.

**Houghton**—Round, dark red when ripe; juicy, sweet. Thin, smooth skin. Medium size. The bush is hardy, very productive, free from mildew, and the best for general purpose in this section.
QUICK REFERENCE LIST OF TREES AND PLANTS
FOR SPECIAL PURPOSES

Taller Growing for Heavy Planting or Corners
African Tamarisk
Amoor River Privet
Regal's Privet
High Bush Cranberry
Altheas
Mock Orange
Spirea Van Houtti
Bush Honeysuckle

For Street or Avenue Planting
Norway Maple
Oriental Plane
American Sycamore
Silver Maple
Schwedler Maple
Box Elder (Ash Leaf Maple)
Catalpa Speciosa
Tulip Tree (Yellow Poplar)

Woody Plants for Partial Shade
Boxwood
Hemlock
Junipers
Japanese Yew
Mugho Pine
Euonymus
Barberry
Dogwood
Red Bud
Hypericum
Privets
Snowberry
Witch Hazel
Coralberry
Weigelia
Golden Bell
Snowball
Kerria
Calycanthus (Sweet Scented Shrub)
Mock Orange
Aralia

Trees for Quick Effect
Catalpa Speciosa
Russian Mulberry
Weeping Willow
Silver Maple
Lombardy Poplar
Oriental Plane
Box Elder (Ash Leaf Maple)
Umbrella Tree

Foundation or Base Plantings,
Note descriptions for height. Those suited for “Front Line Planting.”
Japanese Barberry
Spirea Thunbergii
Spirea Anthony Waterer
St. John's Wort
Deutzia Gracilis
Globe Arbor-Vitae
Mugho Pine
Japanese Plume Cypress
Virginia Cedar
Subina Juniper
Pfitzer's Juniper
Japanese Yew

For Intermediate
Spirea Van Houtti
Spirea Reevesiana
Hydrangea
Golden Bell
Weigelias
Calycanthus
Kerria
Snowberry
Arbor-Vitae in variety
Japanese Cypress in variety
Junipers in variety
Holly leaved Mahonia
Japanese Snowball

Plants That Color in the Fall
Red Branched Dogwood
Barberry
Snowball
Bridal Wreath
Tulip Poplar
Sumac
High Bush Cranberry

Attractive of Bark and Berry
Snowberry
Coralberry
High Bush Cranberry
Red Branched Dogwood
Euonymus
Barberry
Privets
Sumac
Kerria
Bush Honeysuckle
Elder
HAAS HOME NURSERIES

For Screen Planting
Lombardy Poplar
Willow
Practically All Shade Trees
Norway Spruce
Hemlock
Pines
Bush Honeysuckle
Altheas
Mock Orange
Snowballs
Privets

For Moist Places
Birches
Maple
Oriental Plane
Japanese Cypress in variety
Willow
Tulip Tree (Yellow Poplar)
Lombardy Poplar
Red Branched Dogwood
Douglas’ Spirea
Elder
Hemlock
Arbor Vitae
Snowball
Tamarisk

Table of Distances at Which Various Trees Should Be Planted

APPLES—Standard, 30 to 40 ft.
APPLES—Dwarf, 15 ft. each way.
PEARS—Standard, 20 to 25 ft. each way.
PEARS—Dwarf, 15 ft. each way.
CHERRIES—18 to 20 ft. each way.
PLUMS—16 to 18 ft. each way.
PEACHES—16 to 18 ft. each way.
APRICOTS—16 to 18 ft. each way.
QUINCES—12 ft. each way.
CURRANTS—3 to 4 ft. each way.
GOOSEBERRIES—3 to 4 ft. each way.
RASPBERRIES—5 to 6 ft. each way.
BLACKBERRIES—6 to 8 ft. each way.
STRAWBERRIES—1 to 3 ft. each way.
GRAPES—8 to 10 ft. each way.

Number of Trees or Plants to Acre

<table>
<thead>
<tr>
<th>Distance</th>
<th>Number of Trees</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 ft. each way</td>
<td>10,890</td>
</tr>
<tr>
<td>3 ft. each way</td>
<td>4,840</td>
</tr>
<tr>
<td>4 ft. each way</td>
<td>2,723</td>
</tr>
<tr>
<td>5 ft. each way</td>
<td>1,742</td>
</tr>
<tr>
<td>6 ft. each way</td>
<td>1,210</td>
</tr>
<tr>
<td>8 ft. each way</td>
<td>681</td>
</tr>
<tr>
<td>10 ft. each way</td>
<td>430</td>
</tr>
<tr>
<td>12 ft. each way</td>
<td>302</td>
</tr>
</tbody>
</table>

Catalpa Speciosa
White Flowering Dogwood
Red Flowering Dogwood
Red Bud (Judas Tree)
Horse Chestnut
Tulip Tree (Yellow Poplar)
Bechtel’s Flowering Crab
Flowering Cherry
Paul’s Scarlet Thorn

For Dry Places
Junipers in variety
Mugho Pine
Barberry
Privets
Bush Honeysuckle
Yucca
Deutzia
Juniper
Coralberry
Paul’s Scarlet Thorn
Tamarisk
Tree of Heaven
Catalpa Speciosa
Umbrella Tree
Lilacs
SPRAYING

Spraying is a vital necessity if money is to be made from fruit. It doesn't pay to miss one season, even if enemies are not visible. Spraying has an invigorating effect on trees, besides controlling enemies.

There are three classes of enemies spraying will control—chewing insects, sucking insects, and fungi. Each class requires a different remedy, but the remedies can be combined most of the time.

Spraying during the dormant period is distinctly different from spraying on foliage. Materials several times as strong can be used and are needed to control the scales.

<table>
<thead>
<tr>
<th>CROP</th>
<th>PESTS</th>
<th>SPRAY OR CONTROL MEASURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple, Peach, Plum, Grape Can Fruits and all Shrubs</td>
<td>San Jose Scale, Aphid Eggs</td>
<td>Concentrated lime-sulphur, 1-7, or Miscible oils, 1-15.</td>
</tr>
<tr>
<td>Peach Leaf Curl</td>
<td>Miscible oils, 1-8.</td>
<td></td>
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<tr>
<td>Mite Eggs</td>
<td>Miscible oils, 1-15.</td>
<td></td>
</tr>
<tr>
<td>Codling Moth, Curculio, Leaf Spot Diseases, Scab, Black Rot</td>
<td>Lime-sulphur, 1-40 or 5 qts. to 50 gals. plus 1½ lbs. arsenate of lead powder.</td>
<td></td>
</tr>
<tr>
<td>If Aphids are present</td>
<td>Add 40% nicotine sulphate at rate of ¾ pt to 50 gals. of spray.</td>
<td></td>
</tr>
<tr>
<td>Bitter Rot</td>
<td>Susceptible varieties should be sprayed.</td>
<td></td>
</tr>
<tr>
<td>Wooly Aphids on roots</td>
<td>8% Pine Tar Creesote Emulsion.</td>
<td></td>
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<tr>
<td>Round Head Borer</td>
<td>Remove with wire and knife.</td>
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</tr>
<tr>
<td>Peach Tree Borer</td>
<td>Remove with wire and knife until 3 yrs. old then use Paradichlorobenzine ½ to 1 ounce per tree.</td>
<td></td>
</tr>
<tr>
<td>Curculio, Brown Rot, Scab</td>
<td>Bordeaux Mixture, 4 lbs and Arsenate of Lead, 2 lbs. to 50 gals.</td>
<td></td>
</tr>
<tr>
<td>Cherry</td>
<td>Leaf Spot, Brown Rot</td>
<td>Concentrated lime-sulphur, 1-40.</td>
</tr>
<tr>
<td>Currant, Gooseberry</td>
<td>Worms</td>
<td>1 lb arsenate of lead powder in 50 gals.</td>
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<tr>
<td></td>
<td>Mildew</td>
<td>Liver of Sulphur 1 oz. to 2 gals.</td>
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<tr>
<td>Grape</td>
<td>Rose Bugs, Flea Beetles, Black Rot, Downy Mildew</td>
<td>1½ lbs. arsenate of lead plus 1 gal. molasses to 50 gals. water.</td>
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<tr>
<td></td>
<td>Bordeaux Mixture.</td>
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<tr>
<td>Strawberries</td>
<td>Weevil or Clipper</td>
<td>85% hydrated lime and 15% arsenate of lead dust mixture.</td>
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<tr>
<td></td>
<td>Arsenate of lead powder 1½ lbs. to 50 gals. water plus 2 lbs. soap.</td>
<td></td>
</tr>
<tr>
<td>Asparagus</td>
<td>Beetles</td>
<td></td>
</tr>
</tbody>
</table>
**SPRAYING**

On account of the life-habits of enemies often only two to seven days are available for any one spraying. Do the work then. Put the material on with force and cover every inch of bark and leaf.

The following program is proportioned for the control of insects and pests for Orchardists. It is also applicable for the small garden by using the proportion and reducing the quantity.

<table>
<thead>
<tr>
<th>FIRST</th>
<th>SECOND</th>
<th>THIRD</th>
<th>FOURTH</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>When Apple and Peach trees are dormant.</td>
<td>Within 1 week after petals have fallen.</td>
<td>10 days later.</td>
<td>July 1-10.</td>
<td>Delay spraying as late as possible on apple to control Aphids.</td>
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<tr>
<td>Before buds begin to swell.</td>
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<tr>
<td>When buds show pink.</td>
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<tr>
<td>Add to above spray.</td>
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<tr>
<td>With Bordeaux 4-5-50, every two weeks, beginning with July 1.</td>
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<tr>
<td>May-June.</td>
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<tr>
<td>Sept 15-Oct. 15.</td>
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<tr>
<td>When buds are pink</td>
<td>When shucks crack.</td>
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</tr>
<tr>
<td>Just after the petals fall.</td>
<td>Just after fruit has set.</td>
<td></td>
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<tr>
<td>Spray when worms appear.</td>
<td>Maintain a coating until buds open.</td>
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<tr>
<td>When leaves first appear.</td>
<td>After cutting is over.</td>
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<tr>
<td>When Beetles first appear on buds.</td>
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<tr>
<td>Just before blossoming.</td>
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<tr>
<td>When buds first burst out.</td>
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<tr>
<td>Allow shoots to grow up every 100 ft. Keep these coated with closely.</td>
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<td>Spray; cut all others.</td>
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<td>Repeat every 4 weeks until 2 weeks before ripening; omit arsenate of lead powder in last spray. Atomic sulphur better for last.</td>
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<td>For blossom blight spray when buds are pink and again as soon as petals fall.</td>
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<td>2 weeks before picking.</td>
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<td>Use Helebore 1 oz to 2 gals. water if necessary.</td>
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<td>When grapes</td>
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<td>When grapes are size of peas.</td>
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<td>Wks. later but in wet seasons every 10 days.</td>
<td>Usually 2 or 3 applications necessary.</td>
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<td>Spray in the bed as often as necessary to control larvae.</td>
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