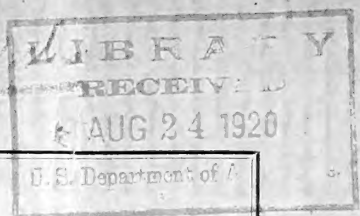


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1890?

❖ CATALOGUE ❖

— OF THE —

JEFF NURSERY

JEFF, MADISON COUNTY, ALA.

J. O. KELLY & SONS,
PROPRIETORS.

1890.
R. F. DICKSON, JOB PRINTER,
HUNTSVILLE, ALA.

CATALOGUE

—OF THE—

JEFF NURSERY,

JEFF, Madison County, ALA.

J. O. KELLY & SONS, PROPRIETORS.

TERMS.

We will receive and book orders at any time. Trees to be paid for when they are delivered in good condition at Express or Post Office of parties ordering. Express charges and cost of collection always to be paid by parties ordering.

Large orders can be sent by freight on the same terms.

ADVICE.

We advise those who are unacquainted with fruit growing always to leave the selection of trees and vines to some one who has had the opportunity of learning the most suitable varieties for general cultivation. If you do not care to leave the selection to us, inquire of some successful fruit grower in your section of country for advice, for we believe that the improper selection of varieties, together with a want of the proper knowledge of fruit growing, is the greatest cause of the limited interest taken in this important branch of industry that should contribute so much to the health and pleasure of our country. When varieties, not adapted to the soils and climates into which they are transplanted, fail to give satisfaction, the planter becomes discouraged and looks upon fruit growing as unprofitable, and therefore neglects the cultivation of kinds that would have returned him ample reward for his labor. We, therefore, conclude

that the selection of proper varieties is the first and most important step in fruit growing.

When the selection is left to our judgment, we shall endeavor to place in your hands such as will be well worthy of most careful cultivation, and such as we believe will return the purchaser full value for his money, as well as his time and attention.

GUARANTEE AND SUBSTITUTION.

We invite comparison of our prices with those of any first class Nursery, and guarantee stock to be young, thrifty, fresh and well rooted, true to name and grade—all that we claim.

It is impossible, however, for any nursery offering long lists of varieties, to be able to fill at all times every order with the exact varieties and grades called for; and especially is this true in the latter part of the season. We therefore beg patrons when orders cannot be filled exactly to allow us the privilege of substituting either in size or variety, as they may like. When small plants are substituted for large ones, they go at their regular price. But when large plants are put in for small ones they go at the small plant price. When substitution in varieties are made, additional stock in proportion to the amount substituted will be put in free.

LARGE ORDERS.

Any one wishing to buy trees or vines in lots of more than one hundred, write for special prices.

SHIPPING POINT.

Huntsville is our point of shipping, from which place we can ship promptly to any point desired, at low rates.

REMITTANCE.

All remittances by P. O. Order or Express should be addressed to J. O. KELLY & SONS, HUNTSVILLE, ALA. By registered letter to J. O. KELLY & SONS, JEFF, MADISON COUNTY, ALA.

MAIL.

We are especially prepared for forwarding stock by mail, and can send with perfect safety to any part of the United States. Those wishing to buy Strawberry or Raspberry plants or Grape vines, there is no need to pay unnecessary charges for express or freight, when you can have them sent by mail, post paid, just as well. Apples, pears, peaches, &c., not over two feet can be sent in the same way. This is much the cheapest way to order stock, and trees of this size will come into bearing good crops nearly or quite as soon as large ones; besides, are more apt to live, cost less and ultimately make just as good—if any difference, better—trees, as their roots are formed where they are to remain.

HINTS ON TRANSPLANTING.

The best time for transplanting fruit trees is in the autumn, very soon after the leaves fall. The tree is then in a dormant state, the wounded roots have time to heal and the tree settles firmly into its place before spring growth commences. For this reason early autumn is considered best for planting time in southern climates. But in northern climates where the winters are too early and severe to allow this gradual healing and establishing of the roots to take place, spring planting is best. In the south it may be done from November to April.

PREPARATION OF THE SOIL.

The site for an orchard should be a rich, deep, mellow soil, naturally dry, or made so by drainage. Ground should be plowed deep and enriched with manure thoroughly mixed with the soil. No after culture can equal this treatment in its effects upon the growth of the tree. It is always best to prepare the soil before receiving the trees, but if it is not done, unpack trees as soon as they arrive and set in well drained ground. Never allow roots to freeze while exposed to the open air.

PRUNING.

Before planting do what pruning is necessary. Cut off all bruised and broken roots with a smooth upward slope. If trees are branched, cut off branches within a few buds of stem. The stems should then be cut back in proportion. A little good judgment only is necessary to see how much pruning is required.

PLANTING.

Dig holes from two and a half to three and a half feet wide, from eighteen inches to two feet deep, then fill it up to the proper depth with good rich soil. A little ashes or well rotted stable manure will be of great advantage. Too much strong manure, however, should not be placed in contact with the roots of young trees. Care should be taken that the hole is large enough to admit the roots in their natural position, without cramping or bending, and just deep enough for the tree to stand the same depth that it stood in the nursery.

Never plant trees too deep, as probably more young trees die from this cause than all others. When this is the case, they may thrive for a year or two and then die apparently without cause.

Work the dirt in well among the roots with the hands, giving them a downward tendency. When the hole is nearly full a pail of water poured in and allowed to settle will be helpful, especially if the weather is dry. Then fill the hole, leaving it so that no water can stand around the roots of the tree. Mulching with rotted straw, leaves or bard-yard litter, is very beneficial to transplanted trees, keeping the ground loose and moist, even during a severe drouth, strengthening its chances for life and greatly promoting its growth.

DISTANCES FOR PLANTING.

Apples	20 to 30 feet	apart each way.
Pears, standard	15 to 20	" " " "
Pears, dwarf	10 to 15	" " " "
Peach	15 to 20	" " " "
Plums	15 to 20	" " " "
Quinces	15 to 20	" " " "
Figs	20 to 25	" " " "
Grapes	8 to 10	" " " "
Scuppernongs	20 to 30	" " " "
Mulberries	25 to 30	" " " "
Strawberry Plants for garden culture	1½ x 2½ feet.	
Strawberry Plants for field culture	1½ x 3 "	

NUMBER OF TREES AND PLANTS ON AN ACRE AT VARIOUS DISTANCES.

<i>Feet.</i>	<i>No. Trees</i>	<i>Feet</i>	<i>No. Trees</i>	<i>Feet.</i>	<i>No. Trees</i>
1 x 1	43,560	9 x 9	537	16 x 16	170
2 x 2	10,890	10 x 10	435	17 x 17	150
3 x 3	4,840	11 x 11	360	18 x 18	134
4 x 4	2,722	12 x 12	302	19 x 19	120
5 x 5	1,742	13 x 13	257	20 x 20	108
6 x 6	1,210	14 x 14	222	25 x 25	70
7 x 7	888	15 x 15	193	30 x 30	48
8 x 8	680				

THE APPLE.

From the remotest period the apple tree has been the subject of attention among writers and naturalists. It is a native of the eastern hemisphere. Apples are mentioned by Theophrastus, Herodatus and Columella. They are described by Pliny as "A fruit with a tender skin that can easily be pared off". He also mentions crabs and wildings as being much smaller, harsher and sourer. All of our cultivated varieties of apples originated from a species of crab, which is found in a wild state in many parts of Europe.

Our common apple tree was introduced into America by the early settlers. It is generally believed that the apple tree is more perfectly naturalized in America than any other part of the world. When we consider the great value and usefulness of apples to farmers, we can readily judge that no farm can be complete without an apple orchard. No fruit is more universally liked, and none so exceedingly wholesome.

SOIL AND SITUATION.

The apple will grow upon almost any soil, but when we consider the long life and productiveness of an orchard properly located and cared for, the selection of soil and situation is worthy of the most careful attention. The favorite soil of the apple in all countries, is a strong loam of a limestone nature. A deep, strong, gravelly, marley or clayey loam; or a strong, sandy loam, on a gravelly subsoil produces the finest crops and highest flavored fruit, as well as the utmost longevity of the trees. A properly planted and cultivated apple tree will bear from twenty-five to seventy-five years. Land too damp may often be rendered fit, by thorough draining, and too dry land, by deep subsoil plowing, or trenching, where the subsoil is of a heavy texture.

Apple orchards flourish better on northern slopes, or hill sides in southern climates. The bottom of the valley is the worst place for any fruit in any section. The distance at which the trees are to be planted in an orchard, depends upon the mode in which they are to be treated. From twenty to thirty feet apart is the usual distance. But where the farmer wishes to keep the ground between the trees in grass and grain, thirty-five feet is not too great a distance in strong soils. We believe the better way would be to plant them about twenty-five feet apart and cultivate nothing but hoed crops between. Grain, such as rye, wheat and oats are very injurious, but whatever crop may be grown, it should be constantly borne in mind, that the roots of the tree require the sole occupancy of the ground, so far as they extend. And therefore an area of more than the diameter of the head of the trees should be kept clean of crops, weeds and grass. It is indispensable in all young orchards that the ground be kept mellow and loose, and for this reason we recommend high manuring and the cultivation of cotton, potatoes and

such crops as require continual cultivation. The cultivation of such crops keeps the ground mellow, and the manure that escapes the crop, will be caught by the roots of the trees and saved. When the least symptoms of failure or decay in a bearing orchard is seen, the ground should have a good top dressing of manure and marl or mild lime.

If we desire our trees to continue in a healthy bearing state, we must manure and cultivate them like any other crop, and they will amply repay the expenses.

PRUNING.

While the trees are young they should be inspected every year, early in March, and all crossing branches taken out. When the heads are once properly adjusted and well balanced, the less the pruning saw and knife are used the better, and the cutting out of dead branches and removal of such as may interfere with others, is all that an orchard will usually require.

INSECTS.

A knowledge of the habits of insects that are destructive to fruit trees is of great importance to the orchardist, as many of their diseases are caused by them. The most destructive of these are the borer, the caterpillar and the canker worm.

The apple borer is a small grub that is hatched from the eggs laid by a brown and white striped beetle in the tender bark of the tree just above the ground. After the eggs hatch, the worm remains for some time under the surface of the bark, and then eats its way through every part of the stem, finally causing its death. Every remedy should be used for the extermination of this enemy. It is of the utmost importance to destroy as many of the original insect that lays the egg as possible. This may be done by building fires in various parts of the orchards in the early evenings in June. These insects, as also the caterpillar moth and many others injurious to vegetation, fly abroad at this time, are attracted by the blaze and destroyed by thousands. The most effectual mode of destroying the borer is by picking it out with the point of a knife, or when it cannot be reached thus, by thrusting a wire into the hole as far as possible. It is always better to prevent the deposit of the egg by placing about the trunk, early in the spring, a small mound of ashes or lime, and let it remain until October, or by drawing away the soil an inch or two at the base and wrapping with coarse hardware paper, tying it and replacing the earth.

The caterpillar is a great pestilence in the apple orchard. They are hatched from the eggs laid by a reddish brown moth that appears in great abundance in mid-summer, buzzing about the candles in our houses. They lay their eggs mostly in July around small branches. The next season about the middle of May the eggs begin to hatch, and the young caterpillars come forth in myriads and begin to weave their tents and forage on the young leaves. They live six or seven weeks in the cater-

pillar state, feeding ferociously upon the leaves with most deplorable effects. One of the most effectual modes of destroying the caterpillar is to touch the nest with a sponge attached to a long pole and dipped in strong spirits of ammonia or very strong soap suds. The sponge should be turned slowly around in the nest, and every insect that touches it will be killed. On small trees they may be stripped off with the hand and crushed under foot. By this plan, with the aid of a ladder, they may be kept under by a few moments daily labor of a single man if begun in time. As they never leave their nests before nine in the morning, the exterminator should be busy before that time. And let him bear in mind that he may do more in an hour when he commences early in the season, than he will in a whole day at a later period when they are so scattered through the trees. Lastly, thousands of moths, and thus hundreds of thousands of eggs, can be destroyed by building fires in the orchards as before recommended.

THE CANKER WORM.

The canker worm is not common here, but in some parts of the country is one of the worst enemies of the apple, destroying its foliage with great rapidity. One of the most effectual modes of destroying the canker worm is to prevent the depositing of the eggs, and as the female moth of this species is wingless, this may be done by placing a band of cloth four or five inches wide, thickly covered with tar, around the body of the tree. This will arrest and destroy the moth in her course up the tree to deposit her eggs. In order to prevent the tar from becoming hard and worthless, a little train oil should be mixed with it.

VARIETIES.

By a judicious selection of summer, autumn and winter sorts, a constant supply of apples in their fresh state may be had throughout most, if not the whole, of the year.

EARLY SUMMER VARIETIES.

MAY—Tree an upright moderate grower, fruit below medium; fine for early market and for cooking. Ripens first of the season.

RED ASTRACHAN—Large yellow, nearly covered with crimson bloom. Juicy, crisp and acid; beautiful fruit. Ripens 10th of June and continues until 5th of July. Tree a thrifty and fine grower, bears young and profusely; excellent and profitable; Early apple.

STRIPED JUNE—Medium size, skin yellow with red stripes. Quality not the best, but an abundant bearer yearly. June 10th to July 20th.

EARLY HARVEST—Size above medium; greenish, changing to yellow when fully ripe; ripens in June; one of the best early apples, of fine quality; valuable for the table and for cooking; tree rather a poor grower but an abundant bearer.

✓ **YELLOW JUNE**—Large, golden yellow; ripens middle to last of June—a southern seedling of great merit, especially valuable for market. Tree a vigorous grower and abundant bearer.

✓ **RED JUNE**—Size medium, bright red; commences to ripens middle of June and continues for more than a month. Tree a regular bearer.

✓ **POUND ROYAL**—Size large, greenish yellow when ripe; ripens middle of July to August. Tree a good bearer, but poor grower.

✓ **HOMONY** (*Sops of Wine*)—Large, rather conical, dark crimson on yellow ground; flesh tender, vinous, with a spicy aroma. A good and handsome fruit, ripening the end of June.

SUMMER VARIETIES.

✓ **YELLOW HORSE**—Size large, color yellow when ripe; ripens last of July to middle of August; very productive. Well known and very popular.

✓ **RED HORSE**—About the size of and ripens with Yellow Horse; deep red and very attractive in appearance; good quality.

✓ **SUMMER QUEEN**—Medium to large, roundish; surface yellow, blotched and streaked with red; flesh yellow and tender, with an acid, aromatic flavor.

✓ **CHEESE**—Very large, nearly round, dull green, with dark spots; acid and well flavored. Excellent for cooking or drying. August.

✓ **KENTUCKY WONDER**—Medium to large, a little flattened at ends; striped with pale red. Quality good; a yearly bearer. A very desirable apple. Ripens first to middle of August.

✓ **AUTUMN STRAWBERRY**—Medium size, striped with red; quality very fine, and very productive.

✓ **MAIDEN'S BLUSH**—Tree upright, spreading and very vigorous. Fruit clear, lemon yellow, with brilliant crimson cheek next to the sun. Flesh white, very rich, sub acid. Commences ripening August 20th, and continues for two months.

✓ **FALL PIPPIN**—Tree vigorous, irregular, spreading and very long lived; fruit very large, beautiful yellow when fully ripe; of the finest flavor; unsurpassed for cooking. September.

✓ **FALL QUEEN**, Buckingham—Tree upright, spreading, very healthy, long lived and productive. Fruit large, yellow, with bright red cheek and crimson stripes; sub-acid, very rich, juicy and fine flavored. September and October.

✓ **BUNCOMBE**—Synonyms, *Meigs, Red Fall Pippin, Jackson Red, Robertson's Pearmain, Red Lady Finger, Red Winter Pearmain*. A famous North Carolina apple. Large, oblong, greenish yellow, nearly covered with deep carmine, tender, juicy, well flavored. Ripe end of September, and can be kept until New Year; tree upright grower and prolific; an excellent fruit.

✓ **CARTER'S BLUE**—Synonym, *Lady Fitzpatrick*. Very large, green, washed dull brown red and a thick blue bloom, crisp, sugary, with a very

rich aroma. Ripe in September; tree vigorous grower and fine shape; an excellent and desirable fruit.

GOLDEN Russet—Size medium, dull yellow, sprinkled with a thin russet; flesh yellowish, tender, juicy, with a mild, rich, spicy flavor. Ripe in September.

+ Late

EARLY WINTER VARIETIES.

KENTUCKY STREAK—Size large, striped with red, quality good. Has much the appearance of the Ben Davis, and is fully equal if not superior to it in size and flavor; very productive. Early winter.

HATCHER'S SEEDLING—Size large, color dark dull red, quality fine. Tree vigorous. Early winter.

ROME BEAUTY—Tree upright, spreading; fruit roundish, skin yellow shaded and striped with red; a rich, high flavored apple; best on high land. October to January.

WEALTHY—Medium, roundish; brilliant light red, tender, juicy, sub-acid, extra. A free grower, very productive and of iron-clad hardness.

LAWVER, a new variety from Missouri—Very handsome, rich red; tree and fruit resembles Striped Pearmain. Said to be a fine keeper.

KINNAIRD'S CHOICE—Habit of the tree like Red Limbetwig; fruit medium to large, somewhat flattened, and mostly covered with a dark, rich red; flesh yellow, fine, crisp, tender, moderately juicy, and very aromatic. Very hardy and productive. Much the finest early winter apple in Middle Tennessee. With care it is often kept through the entire winter.

SMITH'S CIDER (*Popular Bluff*)—Large, handsome red and yellow, juicy, crisp, mild sub-acid. Tree a very vigorous grower and immensely productive. November.

GRIMES' GOLDEN—Medium, round oblate, skin yellow with small dots. Flesh yellow, crisp, rich, sub-acid, very good. October to December.

MAVERICK'S SWEET—Large, green, with a dark red cheek and much bloom, flesh crisp, sugary and high aroma. Ripe late in Fall and keeps well. Tree vigorous.

~~Howards' Honey~~ (*Large Striped Pearmain*) (Local name)—Size large to very large, yellow, striped and splashed with dull crimson, ripe in November, keeps until March, flesh firm, sub-acid, good flavor. A good market variety, very showy, tree vigorous and a regular bearer. Best for the mountain region.

BEN DAVIS (*New York Pippin*)—Large size, round to oblong; skin yellow, splashed with bright red; flesh whitish, tender and juicy, with sub-acid flavor; tree remarkably healthy and vigorous, and an early and abundant bearer; a most profitable winter apple.

HALL SEEDLING—Size small, quality good; tree small but unusually

healthy, and an abundant bearer. A well known and deservedly popular apple. Keeps all winter. One of the best for the south.

✓ YATES—Small, bright red covered with white specks; quality fine; very productive; will keep all winter. This is one of the best apples known in this country.

✓ SHOCKLEY—In appearance and size much like the Yates, some larger; very productive; one of the best keepers.

✓ WINE SAP—Size medium and above, color dark red, quality best; productive and a good keeper. Probably the most extensively planted of all apples in the south.

✓ HUGHS CIDER—Size very small, quality poor, but splendid for cider; bears abundant yearly crops and keeps well

✓ BLACK TWIG—A new apple of acknowledged merit, much resembling the Wine Sap, only much larger. Will keep until March. Brought into notice by market men of Lincoln county, Tenn.

✓ LIMBER TWIG—Size medium, greenish yellow, shaded and striped with dull crimson, juicy, with a brisk sub acid flavor, rather inferior in quality but a very fine keeper, tree a fair grower and a profuse bearer, ripe in November, keeps until April. Succeeds best on mountain land.

✓ RAULES' JANET, Never Fail—Tree irregular spreading; blooms later than other varieties; an excellent bearer; very juicy, striped, tender meat. November to May. Only valuable on high, dry, sunny locations.

✓ SWEET LIMBER TWIG—From Tennessee. Tree and fruit resembles Kinnard's Choice. No doubt the finest winter sweet apple for Tennessee. November to March.

✓ GREENING (Rhode Island)—A well known and popular apple; a great and constant bearer in nearly all soils. Does not succeed well here.

✓ KING OF TOMPKINS Co. —Large and handsome, striped red and yellow; tree vigorous and productive; good keeper.

RUSSIAN APPLES.

✓ TETOFKY—A Russian apple which has proved profitable for market growing. The tree is an upright, spreading grower, forming an open head; comes into bearing extremely early, usually the second year after transplanting, and bears every year. Hardy as a crab. Fruit good size, nearly round; yellow, beautifully striped with red; flesh white, juicy, pleasant, acid, aromatic. July and August.

✓ YELLOW TRANSPARENT—A new Russian variety imported in 1870, through the Agricultural Department. Pronounced by some who have seen it as "the most valuable early apple ever introduced." Tree an upright grower and a very early and abundant bearer. Fruit of good size; skin clear white, turning to a pale yellow; flavor acid, and very good. Said to ripen before Early Harvest.

✓ GRAND SULTAN—About the same season as Yellow Transparent; in size and quality superior; color pale yellow.

✓ POPOFF'S STREAKED—Large, yellow beautifully streaked with red. Thought by some to be the best flavored of all Russians. June.

SPECIAL APPLES.

✓ **STUART'S GOLDEN**—This is a beautiful apple of medium size, clear yellow with a blush. Its keeping qualities make it especially valuable; keeps well till May; loss during winter is surprisingly small. Fruit adheres firmly to the tree; very prolific; regular; fine quality.

✓ **THORNTON'S WINTER**—The following description was taken from a letter written by Mr. Thornton, of Greenville, Ala., with whom this apple originated: "Color red, with greenish streaks; globular in form; very large, sweet and juicy. Prof. J. P. Steele, of Mobile Register, kept them until May, and said they were as sound when cut as when received." If this apple succeeds as well as represented so far south as Greenville, it will, beyond doubt, be a most valuable winter apple for the south.

✓ **JONES' SEEDLING**—Origin, Williamson county, Tenn. Tree resembles Red Limbertwig; a very abundant bearer, blooming late. Fruit medium to large, roundish, conical, sometimes angular. Color light stripe on yellow ground, resembling a pale striped Pearmain; believed to be a cross between the Limbertwig and Pearmain. Flavor rich, mild, pleasant, sub-acid, almost sweet. Keeps well till April.

The following proceedings of Davidson County Fruit and Vegetable Growers' Association, are copied from the Nashville *American*, of April 19, 1883:

Mr. Smith presented to the Association, a Northern grown Ben Davis, which was a fine specimen of that valuable variety; also a sample of Jones' Seedling.

The specimen of Jones' Seedling was an excellent condition, and upon comparison of its merits with that of Ben Davis, the members were unanimous in giving the preference to the former, not only on account of its keeping qualities, but for superior flavor and large, attractive appearance. It closely resembles the Striped Pearmain.

CRAB APPLES.

✓ **TRANSCENDENT**—The finest preserving crab; tree very vigorous and bears abundantly; fruit a beautiful, bright red. Season, August and September.

✓ **RED SIBERIAN CRAB**—Small, about an inch in diameter; yellow, with scarlet cheek; beautiful; tree vigorous, erect; bears when young.

✓ **NORTH CAROLINA CRAB**—Tree a strong grower, and immensely productive; an extra keeper; good for cider.

THE PEAR.

The pear is a native of Europe and Asia. It is found growing wild in England, on the continent of Europe from the Baltic to the Mediterranean Sea, and in Asia as far east as China and Japan. The earliest writers mention the pear as being abundant in Egypt, Syria and Greece, and from the latter country was transplanted into Italy. Pliny describes the varieties in cultivation during his time as being very numerous, and says "A fermented liquor was made of the expressed juice." The delicious qualities of the pear were not fully developed until the seventeenth century, and within the last sixty years it seems to have reached the highest perfection.

SOIL AND CULTIVATION.

The best soil for the pear is a strong loam of a moderate depth on a dry subsoil. It will adapt itself to a great variety of soils, but in those unfavorable it is liable to disease. It requires about the same pruning as that given for the apple. The pear tree is unfortunately liable to a serious disease called pear-blight or fire-blight. What is called pear-blight is two distinct diseases, one caused by an insect, and the other supposed to be caused by the sudden freezing and thawing of the sap in unfavorable autumns. We give below a description of the disease and its remedies as given by Downing.

INSECT BLIGHT.

This is caused by a very small beetle, that deposits its eggs either behind or below a bud. The following spring the grub hatched from the egg bores it way through the sap wood and toward the centre of the stem. This causes the leaves of the tree to turn suddenly brown, sometimes at the ends of the branches, and sometimes extending down two seasons' growth. The remedy consists in cutting off all diseased branches a foot below the lowest signs of the disease and immediately burning, to prevent the escape of the insect.

FROZEN BLIGHT.

This kind is far more fatal in its effects than the insect-blight. Its symptoms are as follows:

1st. The appearance at the season of pruning of a thick clammy sap, of a sticky nature, that exudes from the wounds made by the knife.

2nd. The appearance in the spring of black, shriveled patches of dead bark on the trunk of limbs.

3rd. In the early summer months the disease manifests itself by the extremities of the branches shriveling, turning black and decaying.

When the blight actually exists in a tree, we know of no other remedy but that of freely cutting out the diseased branches as soon as they

appear. If the tree is but slightly affected, it may pass off with only the loss of a few limbs, but if it has been seriously tainted the disease may sooner or later be carried through the whole system if not arrested. The most successful remedies for this blight are chiefly preventive ones. During a very dry summer the trees complete their growth early, but when succeeded by a warm, damp autumn they are forced into a vigorous second growth which continues late, and while the sap vessels are filled with their fluid, a sharp sudden freeze occurs, which is perhaps repeated several times, followed in day time by bright sun. This causes the currents to become thick and clammy; sap vessels choke up, sap freezes and thaws again, loses its vitality and becomes dark and tainted. Here along the inner bark it lodges, and remains in this thick poisonous state during the winter, and the ensuing spring is distributed throughout the whole system of the tree with fatal results. This is the very worst form of the disease. Trees in a damp rich soil are much more apt to make late second growths and its wood be caught unripened by early winter than those upon a drier soil. The principle means of escaping the danger lies in avoiding a too damp or too rich soil. A rich, dry soil is on the whole the best. There the tree will make its growth in time to ripen its wood, and will not be likely to make a second growth. It is of the greatest importance then that the pear tree is put in a rich dry soil. When during winter we are led to suspect that blight will break out next season, the trees should be carefully inspected and all branches cut out that show any symptoms of disease. When it is evident from the nature of the season and soil that a late autumnal growth will take place, we recommend laying bare the roots of the trees for two or three weeks. Root pruning will always check any tendency to over luxuriance in particular sorts, and is therefore of valuable assistance when the disease is feared.

There are no other diseases that affect the pear tree seriously. Those to which the apple is liable, sometimes affect it slightly and require the same treatment. There is, however, a slug worm that is often destructive to the leaves of the pear tree. The best remedy for this insect is ashes, plaster, dry dust or quick lime sprinkled on the leaves early in the morning.

VARIETIES.

Within the last thirty years the varieties of pears have so multiplied that they may almost be considered endless. But a very large number of them are of little or no value. We offer a good list of the most popular kinds, and with a proper selection from this list a constant supply of this delicious fruit, in its fresh state, can be had for six or seven months through the year.

SUMMER VARIETIES.

BARTLETT—Large, long, pyriform, sometimes irregular; yellow, slightly blushed toward the sun; fine grained, juicy and delicious. Tree

vigorous grower, on both pear and quince stocks; bears early and abundantly. Decidedly the most popular pear grown. August.

✓ BLOODGOOD—Size medium; skin yellow, sprinkled with russet dots; flesh yellowish white, buttery and melting, aromatic flavor, very good. Ripe 10th July.

✓ CLAPP'S FAVORITE—A large fine pear, resembling the Bartlett, but without its musky flavor; pale lemon yellow, with brown dots; fine texture, melting, buttery, juicy, with a rich, delicate, vinous flavor; tree hardy and very productive. A fruit of great excellence. July and August.

✓ DOYENNE D'ETE—Small; melting, sweet; yellowish. Tree vigorous and productive. June.

✓ LAWSON (Synonym: *Comet*)—A new pear introduced by William Parry, of New Jersey, who says of it: that in an existence of one hundred years it has never been affected by blight, or other disease. Tree a very vigorous grower, bears young and is very productive. Fruit above medium size, crisp, juicy and pleasant in flavor. Ripens with Madelaine and Doyenne D'Ete, but is more than twice their size, and more showy in color. Its size and extreme earliness, together with its good shipping qualities, will no doubt make it valuable as a market fruit for the South.

✓ LECONTE—Fruit large, skin greenish yellow, flesh white and melting, quality medium, excellent for evaporating and canning. It is noted for its productiveness, rapid growth, and almost freedom from blight. This fruit is being planted largely in the Southern States for market. Ripens July and August.

✓ OSBURN'S SUMMER—Medium, yellow, with red cheek, half melting, mild and pleasant, fine flavor and excellent; productive. August.

✓ TYSON—Medium size, bright yellow cheek shaded with reddish brown, buttery, very melting, flavor nearly sweet, aromatic, excellent. August.

FALL PEARS.

✓ BUFFUM—Medium size, yellow shaded with reddish brown and russet; sweet and fine. August and September.

✓ BEURRE CLAIRGEAU—Large, skin yellow, inclined to fawn and shaded with orange and crimson; juicy, rather granular; quality good. September and October.

✓ BEURRE BOSC—Large, handsome, color yellow, flesh white; very fine, regular bearer. August and September.

✓ BEURRE DE ANJOU—Tree a good grower, fruit large and fine; flesh white with a good flavor. September.

✓ DUCHESS D'ANGOULEME—Very large, melting, juicy and well flavored, tree good grower and most reliable bearer. Best on quince. Last of August and September.

✓ FLEMISH BEAUTY—Large, beautiful, juicy, rich, sweet and melting, strong grower and good bearer; very hardy. August.

✓ HOWELL—Large, waxen, yellow with red cheeks, rich buttery, sweet and perfumed. Tree a strong free grower; very productive and valuable. August.

✓ **KIEFFER**—Large; deep yellow, with orange yellow in the sun, thickly set with russet dots; flesh white, coarse, juicy and sweet. While there is so much diversity as regards quality, all acknowledge it excellent for canning and a most profitable market variety, ripening, as it does, after most reliable pears are gone; immensely productive and of vigorous growth, and comes into bearing very young.

WINTER PEARS.

✓ **VICAR OF WINKFIELD**—Tree a vigorous grower, fruit large, pale yellow, red cheek, good flavor. Not best quality, but liked on account of productiveness. October to January.

✓ **WINTER NELIS**—Size varying from medium to large, buttery, good flavor; slender straggling grower. October to December.

✓ **BEURRE EASTER**—Large, melting, very good. Ripens in November and can be kept till spring.

PEARS, DWARF.

Osbands Summer, L. B. de Jersey, B. de Armemberg, Vicar of Winkfield, and Duchess d'Ang.

THE PEACH.

It is not certain in what part of the globe the peach originated, though we have early accounts of its being brought from Persia to Europe by the Romans, and it is highly probable that it is a native of that country. China and the United States are the only countries where the peach and apple both attain their highest perfection in the open orchard. The peaches of Pekin are celebrated as being nearly double the usual size, and the finest in the world. There is probably no country where the peach is grown in such quantities as in the United States. The great facility with which the peach grows in this country, almost without cultivation, has led to a carelessness which has greatly enfeebled it, and in many places produced a disease peculiar to this country.

SOIL AND CULTIVATION.

The very best soil for the peach is a rich, deep, sandy loam. Next to this, a strong, mellow loam; then a light, thin, sandy loam, and the poorest is a heavy, compact clay. It is a good plan never to plant orchards successively upon the same site, but always choose a new one. From 15 to 20 feet apart each way is the proper distance for peach trees. In sections where it is liable to be killed by late frost, the best site for a peach orchard is the north slope of a hill or elevated ground. It is a false idea that the peach requires no pruning. It is of utmost importance

to the health and productiveness of the tree. About the end of February the pruning should begin. This consists in shortening-in, that is, cutting off half the last year's growth all over the tree. As the usual average growth is from one to two feet, we necessarily take off from six to twelve inches. The strongest, however, should be cut back most, in order to bring up the others to a uniform length. Thus by reducing the young wood one-half, the coming crop is reduced one-half in number. The remaining half receives all the sustenance of the tree and are of double the usual size. The young shoots that start out from every part of the tree keep it well supplied with bearing wood for the next year, while the greater luxuriance of the foliage produces finer flavored fruit. The appearance of a tree pruned in this way, after many years of bearing, is a striking contrast to that of the poor skeletons usually seen.

The Peach Borer and the Yellows are two maladies common to the peach tree. The peach borer is a small white grub very similar to the apple borer, hatched from the eggs of a dark blue moth deposited during spring at the base of the trunk. We refer our readers to the same modes of preventing and destroying the borer given in section on apples.

The Yellows seems to be a constitutional disease. No external cause has ever been assigned for it. Still it is believed that proper cultivation will entirely exterminate it. It seems to be an enfeebled state, produced by bad cultivation and exhaustion arising from successive over-crops. Poor soil and over-bearing will produce debility in any fruit tree. To prevent this, pursue steadily the shortening-in system of pruning from the first bearing year. This will secure trees against over-bearing and keep them in vigor and productiveness a long time.

FIRST RIPENING.

✓ **JESSIE KERR**—First ripening. Originated from seed of Hale's Early; larger than Alexander, and ripens a few days earlier.

SECOND RIPENING.

✓ **ALEXANDER**—Above medium size, greenish white, nearly covered with deep, rich red, very juicy, sweet and of good quality, adheres to the stone. Two weeks earlier than Hale's Early. June 5th to 10th.

✓ **AMSDEN**—There is no perceptible difference between the Amsden and Alexander in appearance or in the quality of the fruit or in the time of ripening.

✓ **ARKANSAS TRAVELLER**—This variety has ripened ten to twelve days earlier than Alexander, but has not been sufficiently tested to determine whether it will retain this precedence or not. It is equally as large and handsome.

✓ **BEATRICE**—Small to medium, deep red and mottled deeper red, flesh juicy, vinous, and of good quality; matures immediately after Alexander; trees are exceedingly prolific; fruit needs thinning so soon as set, otherwise it is too small; fills the gap between Alexander and Hale's Early.

THIRD RIPENING.

✓ **BRIGG'S MAY**—Above medium, very highly colored, flesh greenish white, very juicy, vinous and of very good quality, adheres somewhat to the stone. Of very fine texture and promises well as a shipping peach; tree very prolific.

✓ **WILDER**—Fully equal to Alexander and the best variety to succeed it, entirely superseding the Early Beatrice.

✓ **EARLY RIVERS**—Large, light straw color, with a delicate pink cheek, flesh juicy and melting, with a very rich flavor. Peels readily at maturity. The most beautiful of early peaches. June 15th,

FOURTH RIPENING.

✓ **HALE'S EARLY**—Medium, pale white, nearly covered with red, flesh white, melting and rich. Tree is hardy and productive, and in sections where it does not rot on the tree is very profitable as a market sort.

FIFTH RIPENING.

✓ **YELLOW ST. JOHN**—Nearly the size of Crawford's Early and equal to it in beauty. More productive, of better quality, and comes in just as Hale's Early is going out. Orange yellow with a deep red cheek.

✓ **EARLY TILLOTSON**—This old standard variety—until within a few years since, the earliest good peach—has been superseded for earliness by the above described varieties, but still its reliability and fine market qualities entitle it to a place in every orchard. Fruit medium, red on white ground, flesh white, with a rich and excellent flavor.

✓ **HARRIS' EARLY**—A very large white peach with red cheek, very productive. Supersedes Troth's Early.

✓ **AMELIA**—Very large and beautiful, juicy and high flavored, skin white, most covered with bright red. A southern seedling of the greatest excellence.

✓ **FOSTER**—Large, deep orange red, becoming very dark red on the sunny side, flesh yellow, very rich and juicy, with sub-acid flavor. Earlier than Early Crawford. Very handsome.

SIXTH RIPENING.

✓ **CRAWFORD'S EARLY**—Large, oblong, skin yellow, with red cheeks; flesh yellow, melting, sweet and rich; ripe July 5th to 15th. This is one of the very best summer varieties for shipping to the Northern markets.

✓ **ELBERTA**—Very large, skin golden yellow where exposed to the sun, faintly striped with red; flesh yellow, very fine grain, juicy, rich, sweet and splendidly flavored; tree very prolific and presents a handsome appearance, and a more luxuriant growth than the "Chinese Cling," from which it is a seedling. It is a perfect freestone, and one of the most successful market varieties.

✓ **GENERAL LEE**—A variety of the Chinese type; large, yellowish white, mottled and washed with carmine; flesh creamy white, red at the stone, very melting, juicy and excellent. Ripe July.

SEVENTH RIPENING.

OLD MIXON FREE—Fruit large, skin pale yellowish white, marbled with red, the cheek a deep red; flesh white but quite red at the stone; tender, with an excellent, rich sugary and vinous flavor. One of the leading orchard varieties. Last of July.

CHINESE CLING—Fruit very large, oblong; skin clear straw color, almost transparent, with a delicately mottled light red cheek; flesh exceedingly juicy, sweet and refreshing. Well known and very popular.

LADY INGOLD—Resembles Early Crawford, and claimed by some growers to be superior to it.

SNOW CLING—Medium; flesh clear, creamy white throughout; juicy, melting, sweet and sprightly flavor; ripens in August.

EIGHTH RIPENING.

THURBER—Large to very large, skin white, with light crimson mottlings, flesh very juicy, vinous and delicate aroma, of exceedingly fine texture. A seedling of Chinese Cling, which it resembles in size and beauty, but perfectly free. Has not failed to yield a crop of fruit during a period of fifteen years, and is highly prized as a market sort by Western growers.

OLD MIXON CLINGSTONE—Large; skin yellowish white, with a red cheek; flesh white, melting and juicy; truly delicious.

WAGER—A new yellow freestone; large, juicy and highly flavored. Ripe last of August.

NINTH RIPENING.

CRAWFORD'S LATE—Fruit of the largest size, skin yellow, or greenish yellow, with dull red cheek, flesh yellow. Tree vigorous, moderately productive; one of the finest late sorts.

COLUMBIA—Fruit large, skin rough, rather thick, dull, dingy red, sprinkled with spots and streaks of darker red, flesh bright yellow, rich, juicy, and of very excellent flavor. Freestone.

BLOOD CLING—Large, dark claret, with deep red veins, downy, flesh deep red, very juicy, vinous and refreshing. Ripens middle of August.

LEMON CLING—Large, skin fine yellow, with dark brownish red cheek, flesh yellow, with a rich, sprightly, sub-acid flavor. One of the largest and most beautiful of yellow fleshed clings.

STUMP THE WORLD—Very large, roundish, skin white, with bright red cheek; flesh white, juicy and good.

SUSQUEHANNA—One of the handomest peaches; large, yellow and red, melting, rich and good; origin, Pennsylvania. Last of September.

TENTH RIPENING.

HEATH CLING—Fruit very large; skin downy, cream colored white, with faint blush or tinge of red in the sun; flesh greenish white, very tender and melting, exceedingly juicy, with the richest, highest, and most

luscious flavor, surpassed by no other variety. It frequently keeps for a month after gathering. A standard market sort.

✓ RINGOLD'S MAMMOTH CLING—Similar to Heath Cling, but larger.

LATE VARIETIES.

✓ PICQUET'S LATE—A new Georgia seedling of the highest excellence; large, yellow, showy; flesh rich and perfumed; the best freestone of its season. September.

✓ SALWAY—This handsome late variety originated in England. Fruit large, oval and highly colored; yellow flesh, but little inferior to Picquet's Late. From four to six days later.

✓ BEERS' SMOCK (*Smock Free*)—Medium to large; yellow with dull red cheek; flesh yellow, poor quality. Regular, productive bearer.

✓ NIX WHITE LATE—Large, oblong, pure white, quite downy; very juicy, sweet and high flavored. Middle to last of October.

✓ GARY'S HOLD-ON—Fruit very large, color yellow; remarkable for the length of time it remains in good condition.

NECTARINES.

A most delicious, smooth-skinned fruit, which thrives wherever peaches will grow, but is liable to be stung by the curculio, and requires same treatment as plums. They ripen through July and part of August.

✓ BOSTON—Large, deep yellow, with a bright blush and mottlings of red; sweet and a peculiar, pleasant flavor; freestone; the largest and most beautiful variety known; hardy and productive. Free.

✓ PITMASTON—Large, rich orange yellow, dark, brownish red cheek; flesh yellow, excellent flavor.

THE PLUM.

As the plum is one of the hardiest of fruit trees, open standard culture is the universal method in America. It requires little or no pruning beyond that of thinning out a crowded head and taking out dead and broken limbs. This should be done before mid-summer to avoid the flow of gum. The best soil for the plum is a heavy loam, or one in which there is a considerable mixture of clay. In sandy soils the tree blossoms and bears a plentiful crop, but they are rarely perfected, falling a prey to the curculio, an insect that harbors in soil that is light and warm; while one of a heavy texture they seem to find it difficult to penetrate or live in. The curculio, which is a small, dark brown beetle,

is the great enemy to the plum, as well as to other smooth skin fruits. The egg deposited by this insect in the newly formed fruit hatches a small grub which causes it to fall. As soon as the fruit begins to show signs of bursting their caps, loosen the ground about the trees and make it clean and perfectly smooth, then provide a sheet large enough to cover the ground beneath the tree, making a slit in it on one side to the centre, so it can be readily placed in position. When the sheet is spread give the tree a succession of sudden jars, sufficient to make the curculios drop, when they should be gathered up with any imperfect fruit that may fall, and destroyed. The trees should be jarred daily for about two weeks, or until no curculios are to be found.

A simple and easy way of destroying the grub while in the plum, is that of turning the swine and poultry into the orchard where the fruit is dropping all the time. When the trees are affected with the disease known as the Knots or black gum, the knots should be cut out as soon as they appear, and the disease will soon be conquered.

IMPROVED CHICKASAW TYPE

Varieties of this type are less liable to attacks of curculio than those of European origin, and combine vigor of growth with great productiveness.

WILD GOOSE—Very large, bright red; flesh firm, rich and juicy; good bearer; ripens middle of June.

NEWMAN—Medium size, oblong, color vermillion, cling to stone; tree vigorous and productive; fruit ripens about July 10th, lasting until middle of August.

MINOR—Medium size, dark skin, purplish red, flesh soft and very juicy; clings to stone; good for canning; tree hardy and productive.

MOREMAN—Fruit size of the Minor, flavor better and more productive. Its flavor similar to Damson; a month earlier than Wild Goose.

GOLDEN BEAUTY—Valued next to the Wild Goose, same size, golden yellow, flesh firm, seed small; very productive. Fine for canning.

MARIANNA—Large, round, skin crimson, flesh firm and well flavored; tree a very vigorous grower and prolific bearer. A desirable market variety.

ROBINSON—Medium to small, skin bright red; flesh yellow, juicy and sweet; tree a very early and prolific bearer. It resembles the "Wild Goose" very much in color and shape, but is much smaller, and ripens about ten days later.

POTAWATTAMIE—Of the Chickasaw family but quite distinct from any other variety. Perfectly hardy and an immense, early, annual bearer. Fruit is yellow, overspread with bright pink and prominent white dots; flesh beautiful golden yellow, luscious, good. Ripens in July.

ORIENTAL VARIETIES.

PRUNUS SIMONI—A new variety from the north of China. Growth very vigorous, fruit large, with flavor similar to pineapple.

OGON—Very large, nearly round, bright golden yellow fruit, firm flesh, very sweet; ripens last of July.

BOTAN—Very large, heart shaped, two inches in diameter, bright cherry color; flesh orange yellow, sweet, rich and highly perfumed; ripens early in August.

KELSEY—Magnificent in size, measuring from 2 to 2½ inches in diameter. Adapted to Southern climate, will not endure further north than Arkansas and Tennessee. Ripens late in August or first of September,

FOREIGN VARIETIES.

GREEN GAGE—Small, green and excellent quality; slow grower, ripens first of July.

DE CARADEUC—Size medium, color yellow, flesh sweet, juicy and good quality.

BLUE DAMSON—A valuable market fruit. Enormous bearer from August to September.

THE CHERRY.

Although the cherry is a hardy tree, and will thrive in a great variety of soils, a good dry sandy or gravelly loam is its favorite kind. When put in wet places it soon decays. In the Southern States it is best to plant it on hill land. It needs very little pruning, and as it is likely to produce gum, this should always be done in mid-summer, when the gum is less apt to exude. Twenty feet apart for strong, and eighteen for slow growing kinds, is the proper distance to plant.

The cherry does not succeed well much further South than this, except upon the mountain lands. The Mahaleb stock is the only one suitable for the South, and the trees should be trained as dwarfs, with branches within a foot of the ground.

HEARTS AND BIGARREAUS.

The trees of this class of cherries are much more rapid in growth, with a more luxuriant foliage, and of finer flavor than the Dukes and Morellos; but are less reliable.

BLACK TARTARIAN—Very large, purplish black, half tender, flavor mild and pleasant. Tree remarkably vigorous, erect and beautiful grower and an immense bearer. Ripe last of May and beginning of June. One of the most popular varieties in all parts of the country.

EARLY LAMAURIE—Similar to Early Purple Guigne, but a week earlier and a much better tree. The earliest cherry. First to middle of May.

GOVERNOR WOOD—Large, heart shaped, light yellow shaded with red, juicy and sweet. May.

ROYAL ANN, OR NAPOLEON BIGARREAU—Very large, yellow with red side; fine juicy and sweet; good grower and productive. Very late.

DUKES AND MORELLOS.

These are for the most part round headed; fruit generally acid, though some varieties have a very rich, pleasant flavor. The trees are naturally of a smaller growth than the preceding class, and well adapted for Dwarfs. The Morellos are more slender and spreading in habit than the Dukes, which are of stocky growth.

ESEL KIRSCH—A German variety. Size medium, color bright red, flavor mild acid; good grower.

LARGE MONTMORENCY—Fruit very large, color red, flavor acid.

BELLE MAGNIFIQUE—Large and round, bright red, tender, juicy and sweet. Hardy and productive. Last of June.

EARLY RICHMOND (Kentish, Virginian May)—Medium size; dark red, melting, juicy, sprightly, acid flavor. This is one of the most valuable and popular of acid cherries, and is unsurpassed for cooking purposes. Tree a splendid grower, with a roundish spreading head, and is exceedingly productive. The most hardy of all varieties, uninjured by the coldest winters, when almost every other variety has been killed. Ripens through May.

ENGLISH MORELLO—Fine, blackish red; very rich, juicy and acid; ripens at close of cherry season. One of the most reliable.

MAY DUKE—Very fine, roundish heart shape, nearly black when mature; tender, rich and juicy. Ripens from middle to last of May.

OLIVET—A new Duke variety of French origin. Unlike most others of this class, it is said to be early and ripens over a long period. Fruit large, deep red; tender, rich and sweet.

THE QUINCE.

Scarcely any fruit will pay better in the orchard. The tree is hardy and compact in growth, requiring but little space, productive, gives regular crops, and comes early into bearing. The fruit is much sought after for canning for winter use. When put up in the proportion of about one quart of quinces to four of other fruit, it imparts a most delicious flavor. It flourishes in any good garden soil, which should be kept mellow and well enriched. Prune off all the dead and surplus branches, and thin out the fruit if bearing too freely.

APPLE OR ORANGE—Large, roundish, bright golden yellow, cooks tender, and is of very excellent flavor. Valuable for preserves or flavoring, very productive; the most popular and extensively cultivated of the old varieties. October.

✓ **CHAMPION**—New fruit, very large, fair and handsome. Tree very productive, surpassing any other variety in this respect, bears abundantly when young, flesh cooks as tender as the apple, and without hard spots or cores, flavor delicate, imparting an exquisite quince taste and odor to any fruit with which it is cooked. A great acquisition.

✓ **CHINESE** (*Hong Kong*)—A most extraordinary fruit, oblong, of immense size, often weighing from two to two and a half pounds. Growth rapid and distinct.

APRICOTS.

A delicious fruit of the plum species, valuable for its earliness. It is liable to be attacked by curculio, and requires the same treatment as the plum; it bears immense crops in some parts of the country, but is of no value here.

✓ **MOORPARK**—Large, orange, with red cheek; fine quality and very productive. July.

PEACH—Similar to the Moorpark. Excellent quality.

ROYAL—Large, dull yellow; orange cheek shaded with red. About one week earlier than Moorpark and near the same size.

HEMSKIRKE—Large and fine, resembles the Moorpark, but earlier.

✓ ST. AMBROISE—Deep yellow with red cheek; large, earlier than Moorpark.

* LARGE EARLY—Large, pale yellow, with bright ruddy spots in the sun. Separates readily from the stone. One of the best of early sorts.

MULBERRIES.

This fruit is becoming very popular as swine and poultry feed, and large orchards of it are being planted for that purpose.

✓ **HICK'S EVERBEARING**—Fine variety, very sweet. Remarkable for the large quantity of fruit it bears during four months in the year.

✓ **DOWNING'S EVERBEARING**—Fruit very long and fine, color dark maroon, flesh sweet; very productive. Ripens from May to July.

FIGS.

The best soil for the fig is one moderately deep, and neither too moist nor too dry. A mellow loam of a limestone nature is best in this climate, and marl or mild lime in compost the best manure.

BROWN TURKEY—Large, color brown, fruit sweet and excellent quality. One of the best.

✓ **CELESTIAL**—Medium to small, very sweet; vigorous grower.

FILBERTS.

Of easy culture, they are of bushy habit of growth and require little or no pruning; dry ordinary soil is suitable. They are very productive, and requiring but little space to grow, they may be planted in clumps. Suckers should be removed annually.

KENTISH COB—One of the most popular. Nut large and long, full, rich kernel.

WHITE—A popular and excellent variety.

ALMONDS.

Almonds are unreliable for the middle sections of the South, but more successful in Florida. They require the same treatment as the peach.

PRINCESSE AND SULTANA—Both are prolific, soft-shelled and very good. These are the varieties mostly cultivated in Europe, and produce the bulk of the almonds of commerce.

CHESTNUTS.

SPANISH—A handsome, round headed, stately tree of rapid growth that yields abundantly very large nuts; valuable both for ornament and fruit.

JAPAN—Fruit very large, burrs containing at times as many as five large nuts. Quality similar to native variety. In habit the trees are rather dwarf and come into bearing in three or four years. Introduced from Japan, and unquestionably a great acquisition.

JAPANESE PERSIMMONS.

This fruit has proved to be well adapted to localities south of central Alabama, and has been fruited as far north as Huntsville. The fruit, when half ripe, is of a yellow color and hard; but turns when fully ripe, into a beautiful scarlet, and becomes mellow with a pleasant sub-acid taste.

AMONG—Round, nearly globular, orange red, $2\frac{1}{2}$ inches in diameter, very good; prolific, and a late keeper.

HYAKUME—Very large, nearly globular, deep orange red, 3 inches in diameter, nearly always seedless; keeps late.

THE GRAPE.

The history of the grape may be traced back to the remotest antiquity. Its cultivation was probably among the earliest efforts of human industry, for we read that one of the first acts of Noah after the deluge was to "begin to be a husbandman and planted a vineyard." Though naturalized and cultivated to a great degree of perfection throughout middle and southern Europe, it is not a native of that country but of Persia. From this country it has followed civilization first to Egypt, then to Greece and Sicily, and gradually to Italy, Spain, France, and finally was carried to Britain by the Romans.

SOIL AND SITUATION.

The soil for the grape should be dry; when not naturally so, should be thoroughly drained and should be deeply worked. The vine comes quickly into bearing, yielding fruit usually the third year after planting, and requires but little space. The best grape vine trellis is probably the wire trellis. This is constructed by planting posts as far apart as you choose to have the length of your trellis; stretch the wires, four in number, about eighteen inches apart, letting them pass through stakes at proper distances from each other to support the wire. When, however, it is not convenient to make a wire or other trellis, very good results are had with the old vineyard system of training to stakes. This method is as simple as the cultivation of Indian corn. The east slope of a hill is the best site for a vineyard.

PRUNING--Annual and careful pruning is essential to the production of good grapes. If the roots are called upon to support too much wood, they cannot bring to maturity a fine crop of fruit. The pruning should be done in November and December, February or March, while the vines are entirely dormant.

Grapes for keeping to be used in their fresh state should be allowed to remain upon the vine until perfectly matured, but not much longer. Pick them when perfectly dry. Let them stand in open baskets or boxes for about ten days, in a cool, dry room; and after sorting out all decayed or imperfect berries, pack them in shallow boxes and cover closely. Use no paper, but basswood or elm boxes, if convenient. Pine and other resinous woods should not be used, as they flavor the fruit disagreeably. After packing keep the boxes where it is both cool and dry.

AGAWAM--Bunch and berry large, dark red; flesh tender and juicy. July.

BRIGHTON--Bunches medium, berry large, redish, skin thin, quality excellent; good for table or market.

CATAWBA--Bunch and berry large, deep red with lilac bloom; juicy, vinous and musky.

✓ CHAMPION—Bunches medium to large, compact; berries large, black and firm; vine vigorous, healthy and productive; poor quality; profitable for market; very early.

✓ CLINTON—Bunches and berries small, black, with blue bloom; flesh juicy, with little pulp, somewhat acid.

✓ CONCORD—Bunches and berries very large, black, sweet, pulpy, tender and delicious. One of the most popular. 15th July.

✓ DELAWARE—Bunches small to medium; berries medium, red, skin thin, firm, very sweet; juicy and highly flavored. Ripens with Concord. Moderate grower, but hardy and productive.

✓ DIANA—Bunches and berries large, redish lilac, quality good, very productive.

✓ EMPIRE STATE—Bunches large, from six to ten inches long, white, slightly tinted with yellow; flesh tender, rich and juicy; vine hardy.

✓ ELVIRA—Bunches and berries of medium size, pale green, very sweet and juicy. hardy and productive.

✓ ETTA—Resembles Elvira, but has larger berries and firmer skin, not disposed to crack, is better in quality; ripens late; vine very vigorous, with strong, healthy foliage; hardy and productive.

✓ GÖTTE—Bunches medium to large; berries large, oblong of a yellowish green color, red when fully ripe; has but few seed; vine a vigorous grower. A desirable grape.

✓ HARTFORD PROLIFIC—Vine healthy, hardy, and productive; immense crops, bunches large; color black. Has the fault of dropping its fruit badly.

✓ HERBEMONT—Bunches large, loose; berries small, blue with bloom, sweet well flavored. August.

✓ IVES SEEDLING—Bunches large, compact; berries medium; color black; flesh pulpy and sweet; vine vigorous and productive. First of July.

✓ LADY—A seedling of Concord, which it resembles much in habit, growth and foliage. Succeeds well where the Concord can be grown successfully. Bunches medium; berries light greenish yellow; skin thin, sometimes cracks a little; flavor sweet and juicy.

✓ LUTIE—New, originated near Nashville, Tenn. Ripens just after Moore's Early. Berry large, beautiful lilac color, of very superior flavor. Is unusually free from rot. A very desirable grape.

✓ MARTHA—Bunches medium; berries medium, greenish yellow; skin thin; flesh very tender and remarkably sweet; fruit not liable to rot.

✓ MOORE'S EARLY—Bunches large; berries large and round; quality better than Concord, and ripens 10 to 15 day earlier, strong grower and exceedingly hardy.

✓ NIAGARA—Berries larger than Concord; greenish white, semi-transparent; skin tender, but does not break easily; very little pulp; melting and sweet to center; vine exceedingly hardy, very productive. A very desirable grape.

NOAH—A seedling from the Taylor. Vine healthy, vigorous and productive; highly recommended; ripens about ten days after Concord; drops its berries in some localities.

NORTON'S VIRGINIA—Bunches medium, compact; berries very small, blue black; sweet and very juicy; quite hardy, productive.

PERKINS—Bunches medium; berries large, pink with faint bloom; sweet and foxy; valuable as a market grape; hangs on the vine long after ripening without rotting. July.

POCKLINGTON—Seedling of Concord; good grower, but not as strong as Concord. Bunches large, compact and shouldered; berries large, of light golden yellow; does not succeed in some localities.

SALEM—Bunches medium to large; berries large, round, of a dark chestnut color; quality good; ripens a little later than Concord.

VIRGEINNES—Bunches large; berries large, holding firmly to the stem; color light amber, flavor rich, free from hard pulp; possesses superior keeping qualities.

WORDEN'S SEEDLING—A seedling of Concord. Bunch and berry large and handsome; resembles its parent in growth and habit.

SCUFFENONG—Clusters of two to six; berries large, round, of bronze color; skin thin; free from rot.

THE STRAWBERRY.

This berry, the most delicious and wholesome of all berries, is a native of both hemispheres; though the species found in different parts of the world have each, through cultivation, developed different classes of fruit. The best soil for the strawberry is a deep, rich loam; which should be well manured before putting out the plants. To raise the finest berries, they should be planted in rows at such a distance apart as to allow plenty of space for the roots and plenty light and air for the leaves and berries. For strong growing varieties the rows should be 2 feet apart, with plants 2 feet in the rows. Smaller growing kinds may be set from 12 to 18 inches apart in the rows. The runners should be kept back, and the ground well cultivated. A light top dressing of leaves, or any good compost, applied late in the fall greatly promotes the vigor of the plants and secures them against the effects of a hard winter. A still more easy and economical mode is that of growing them in strips; when grown in this way the rows should be 3 feet apart with plants one foot apart in the row. The plants will soon send out runners, which should occupy a space of about one foot, leaving a small alley to walk in when gathering the fruit. After the occupied strip yields its crop of berries, prepare the alley for the occupancy of new plants for the next season. The runners will soon fill the new space, and perhaps

require thinning out to have them even. Then turn under the old vines with a light coat of manure. In this way the strip may be reversed every year, and continued in cultivation for many years.

✓ **HOFFMAN**—Large to very large, ripens earliest of all, berries color evenly and carry well; quality very good; very vigorous and stands the summers well. Origin Charleston, S. C. It is greatly superior to the Nunan as an early shipping berry and is remarkably successful in the Coast region.

✓ **MONARCH OF THE WEST**—Very large, pale red; not of the first quality, but very prolific, early and of vigorous growth. A profitable market variety, as it is among the earliest to ripen.

✓ **SHARPLESS**—Very large, irregular, deep red, sweet and of very good flavor. Vigorous grower and prolific. A valuable market variety, as the berries are uniformly large.

✓ **JESSIE**—This new berry comes to us with a record unparalleled in point of perfection in growth, vigor and health of plant, enormous size and beautiful color of fruit, excellence in quality, both for table shipping, and great productiveness.

✓ **CHARLES DOWNING**—An old and well known variety; popular on account of its fine flavor, productiveness and adaptability to all soils and localities. Mid season.

✓ **CRESCENT**—Few varieties are so immensely productive as this, and none succeed better under such general neglect. The fruit is most vigorous; for best results should not be allowed to mat closely. Berries of best quality, medium size. Very valuable on account of its great productiveness and easy culture. Early.

✓ **GLENDALE**—Valuable as a late market variety and for canning; does well in good soil. Fruit large, firm, of a dull scarlet color; quality poor; very productive and hardy. Late.

✓ **KENTUCKY**—Very popular as a late variety and for home use; good quality, very productive; large, fine flavor, moderately firm.

THE RASPBERRY.

The best soil for the raspberry is a deep, rich loam, rather moist than dry, but it will thrive in any soil that is rich and deep. In planting, the rows should be from 4 to 5 feet apart, according to the vigor of the kind. The plants should be set from 3 to 4 feet apart in the row. The chief treatment consists in good cultivation, thinning out when necessary, and one pruning a year. This should be done very early in the spring before they commence to grow. In pruning cut out all of the old canes that have borne one crop and about one foot off of the ends of new ones.

✓ **HANSELL**—The earliest red raspberry. Profitable on account of its extreme earliness, bright attractive color and firmness. Canes rather

small, but exceedingly hardy and productive; with tough, healthy foliage, enduring the hottest sums with impunity. Berries of large size, bright crimson, good quality and firm. Upon strong soil the yield is very large and in some locations it is regarded as the best of all.

TURNER (Southern Thornless)—Extremely hardy; very desirable as an early sort for the home garden. The canes make a strong healthy growth; very productive. Berries of good size and very sweet. Early.

CUTHBERT, OR QUEEN OF THE MARKET—Leading late variety; the best red raspberry for general cultivation; succeeds in nearly all parts of United States and Canada. Berries large, dark crimson, firm, good flavor. Late.

BLACK CAPS.

SHAFFER'S COLOSSAL (*Cap*)—An immense raspberry both in cane and fruit, and especially adapted to the South. Canes are of wonderful vigor and size, hardy and enormously productive. Berries are large, of a dull purplish unattractive color, rather soft but luscious and of a rich, sprightly flavor, whilst its color and lack of firmness render it unfit for market purposes. It is unrivalled for family use and is one of the best for canning.

GREGG—Of great size; fine quality; very productive and hardy. It takes the same position among black caps as Cuthbert among the red sorts. No one can afford to be without it.

BLACKBERRIES.

CULTURE—The same as for Raspberries.

KITTATINNY—Growth upright; berry large, sweet, good flavor, prolific; ripens about June 10th.

WILSON'S EARLY—Growth somewhat trailing; berry very large, sweet, very good; very prolific bearer; earliest, begins to ripen end of May.

