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INDEXED

Sixteenth
Annual
Catalogue
1898

SMITH'S MANUAL

INDEXED

OF SMALL FRUITS,

BEST OF THE
OLD
STANDARD
VARIETIES.

WITH ALL the
FOREMOST
NOVELTIES
FOR 1898.

AND PRICE LIST OF

B. F. SMITH,

PLANTS.

BOX 6, LAWRENCE, KANSAS.

J. S. BOUGHTON, PRINTER, LAWRENCE, KANS

Price 10 Cents.

ADVERTISEMENTS.

The J. D. Miller Mercantile Co.,

Our facilities for handling Fruits and Vegetables are first class; our acquaintance extensive, and our reputation for fair dealing second to none. If 25 years experience in business in this city is of any benefit to us, it is also a benefit to our customers and all who deal with us. Our motto: "Quick Sales. Prompt Returns."

WHOLESALE

Established 1872.

Fruit and Produce Dealers and Commission Merchants . . .

Nos. 122-124-126 Santa Fe Avenue,

PUEBLO, COLO.

REFERENCES { Stockholders Nat'l Bank, Pueblo.
R. G. Dunn & Co., Com'l Agency.

BERG JOHNSON & CO..

Wholesale

FRUITS and EARLY
VEGETABLES

Strawberries and Raspberries a specialty in their season.

Nos. 21 and 22 Market Square, Kansas City, Mo.

B. F. BOWEN & CO.

GENERAL

COMMISSION

MERCHANTS.

1517-19 Market Street, DENVER, COLO.

Palmer & Co.,

ESTABLISHED 1878.

WHOLESALE FRUIT DEALERS.

We make a specialty of Berries in car lots. Our market is the best for its size in the U. S. Correspondence solicited.

Sioux City, Iowa.

IRA J. MORSE,

Oldest established
Commission House
in the City.

COMMISSION MERCHANT,

No. 17 E. Huerfano St., COLORADO SPRINGS, COLO.

References: Banks, Express Companies and Business Men of City.

Correspondence Solicited.

Preliminary ♦ ♦ ♦ Parley

AT the beginning of a new year, we usually have a sort of an informal introductory parley with our patrons, about the outlook for the incoming year. We will not worry your patience by rehearsing anything that occurred last year. You all know it too well. Old '97 is out, and the new '98 is in; so the blush of spring blossoms and leaves will soon be upon us. For sixteen years I have silently called upon you through the medium of my catalogues to know your wants, and to tell you what we had to sell. It would be a greater pleasure for me to meet you in person and grasp your hand and see your faces. But it is impossible, you are too widely scattered for me to ever see all of you. So the best thing we can do is to visit your firesides, and talk to you, on this sheet of paper.

Owing to the severe drouth of last year, our stock of plants is not as large as it was in '96 and '97, yet by long practice and experience in managing soil to make it hold moisture, we have a limited stock of well rooted plants to sell our patrons. On account of the scarcity, we are obliged to advance the prices above those of last year. As in past years, we will endeavor to render satisfaction to old and new patrons.

We are all the while testing new fruits; in fact, we are really carrying on an experimental berry farm. While our tests may not be according to scientific methods of the government appointed stations, still our experiments give us a great deal of satisfaction; for it is really a source of pleasure to have a few novelties to nurse, looking all the while for the ideal strawberry, raspberry or blackberry.

This year we shall fruit the Clyde, Ridgeway, Ruby, Margaret, Giant, Enormores, Nick Ohmer, Fountain, and some seedling strawberries and raspberries, of our own production. Perhaps we will find more room further on in our catalogue to speak of these newer fruits.

We have been asked about pedigree plants, to which let us say that there is no such a thing as pedigree in strawberry plant growth. Will have more to say about it later. We especially call your attention to the paragraph on the over-production of strawberries. It is not the product that is grown on small acreages, but it is the 40, 50 and 100 acre fields that we refer to, and in localities far away from markets.

B. F. SMITH,

Lawrence, Kans., Jan. 21, 1898.

General Instructions

About Ordering Plants and
Sending Money

THIS IS OUR REVISED SIXTEENTH ANNUAL CATALOGUE FOR 1898.

Previous Prices.—This list abrogates all previous quotations.

Our Location is in the most fertile fruit-growing region in the State of Kansas. There are more berries, more plants, more apples and pears shipped from Lawrence than from any other three towns in the State. Our own shipments of fruits and plants in 1897 were over 4,000 packages.

Our Stock is of our own growing—pure, strong, healthy plants. They are tied 25 in a bunch, and packed in light boxes. We sell only young, well rooted plants, from which all dead leaves have been removed. They are packed in shallow boxes, the roots are in moss and the leaves exposed to the air.

Terms of Sale.—No order will be booked this year unless it is accompanied with all cash, or at least half the payment. We have too many thirty and sixty day promises standing over in the past two years, not yet paid.

Remittance may be made in cash by Express, by registered letter, or by post-office order or draft on Kansas City.

Duration of Plant Season.—Shipping in spring begins about the 15th of March and continues until about the middle of May; and in the fall from October 1st till freezing sets in.

Prices of Plants.—Five hundred of one kind will be furnished at one thousand rates, but the prices in the table must be the guide for mixed orders of several kinds.

Shipping Facilities.—No nursery in the country has better means of transportation.

Former Lists.—This is my latest price list. Its publication cancels all previous quotations. For prices of plants of all kinds, see tables inside catalogue.

Packing House.—The cars on Massachusetts street run direct to our sales yard and packing house, where we keep a stock of all kinds of fruit trees, shrubs and small fruit plants.

Orders Must Amount to One Dollar, as the necessary correspondence and postage on orders for a less amount are sent at a loss.

Mistakes.—Yes! we make mistakes. So do other nurserymen. We use our utmost endeavors to avoid errors.

Observations

And

Comparative Notes . . .

About

VARIETIES IN 1897.

THE season of 1897 gave us a great crop of all kinds of small fruits all over the Western country. In our locality there was no frost after berries began to bloom worthy of note. At the time of ripening berries it was a little dry on the surface, but plants had rooted deeply enough to mature the latest blossoms. During the season of blooming there were no severe winds or rain storms to hinder polenizing. Hence there were but few imperfect berries.

AROMA.—This is one of the most attractive strawberries in our collection. It is large, firm, and a light scarlet in color. While it is lacking in productiveness, as compared with Earl, Crescent and Warfield, it will become a favorite when better known. Perfect blossom.

BISEL.—This sort has fruited two seasons on my soil. Berries are large, firm and productive. Prof. Green, of the Ohio experiment station, says: "This variety is worthy of commendation because of its prolificacy. Berries are uniform in size. A neighbor grew the Bisel nearly as large as the Bubach. It is imperfect. Capt. Jack Downing or Robinson are good polenizers. (See Cut next page.)

Aroma.

BARTON.—This is a very productive, handsome strawberry, that needs to be well polenized or its fruit will be knotty and imperfect. The plant is

one of the most hardy. Miner, Robinson or Brandywine are good pollenizers for Barton.

Bisel. (See description on page 3.)

BEDERWOOD.—It is about as early as the Michel and four times more prolific. Berries are tender, and will not bear shipping long distances.

BUBACH.—This old favorite was at its best last season. I picked six quarts of it in 13 minutes that run about 23 berries to the quart. It

taxed my ability somewhat, but it was my desire to have a good record as a berry picker; so my rating would be about 300 boxes per day. Owing to drouth, our stock plants of this variety is small.

BRANDYWINE.—This sort was a disappointment. It may be that too much was expected of it. There is no question but it has done well in some localities. Try it, your soil may suit it. Prof. Green says: "It exceeds Gandy in product." Capt. Jack: "I have told our patrons so many times about this old variety that there is no use to tell the story

Brandywine.

over." The Jack is my best Albuquerque 900 mile shipper, as well as polenizer.

CHAS. DOWNING.—This old variety was awake last year. Like the Capt. Jack, it is too well known to repeat the story, but remember it is a good polenizer for all pistillates.

**CRES-
CENT.**

This
old,
well
known

sort was introduced about 22 years ago. The friends of strawberry pedigrees might write up a good long yarn. I introduced it here about eighteen years ago.

Bubach.

Crescent.

Brandywine.

CYCLONE.—This berry pleased me much better

the past year than it did the first year of its fruiting; but it is not quite up to date in all the needs of the hour.

CLYDE.—Plants are vigorous and healthy. It will fruit this year on my ground. It stands high among many who have fruited it.

EDGAR QUEEN.—Well known; but somewhat out of date. Though some seasons its fruit is very large. It did well last year.

FOUNTAIN.—This sort is yet in the experimental stages, and has not been fruited by many of the commercial berry growers. Its plant growth does not indicate a drouth king.

GANDY.—Well known to be large and late. It has a big reputation in Southwest Missouri.

GLENDAL.—I have had this old variety in my collection 16 years. While it is out of date as a berry for commerce, yet for canning it is without a rival, as it retains the strawberry flavor better than any other. It is also one among the polenizers. The Gandy is a seedling of the Glendale.

Haverland.

HAVERLAND.—Is one of the leaders for Chicago market at Centralia, Illinois. Its berries are not very firm. Plant is hardy and does not set many runners.

IOWA.—Sometimes called Beauty, is really a beautiful strawberry. Prof. Green recommends it among a selection of 17 of the best kinds tested at the Ohio experiment station.

ISABEL.—Or No Name. A moderately productive plant, hardy, berries too dark in color and sour.

JESSIE.—This variety has about run its race. Fruit fine to taste, but very soft. Its blossom is a good polenizer.

LOVETT.—This sort is a good staminate, and some seasons very productive. Last year it was up towards the top.

MUSKINGUM.—If this variety had a strong plant to take care of its fruit it would do to tie too for all purposes. Its flavor and size is away up.

MINER.—This is one of our old favorites. It is a good polenizer, and when seasons are favorable, like last year, it is mighty hard to beat.

MICHEL.—An early, variety, that is out of date in size and productiveness.

PARIS KING.—This variety has passed the ordeal of the experimental garden. It will become a standard; in fact, I rate it among my commercial berries. The plant is a strong, hardy grower, having a good staminate blossom, making it one of the best polenizers. We feel assured that no one will make a mistake in planting a few Paris Kings. Berries are larger than Capt. Jack or Crescent, and a bright scarlet.

Miner.

Berries are larger than Capt. Jack

Paris King.

PARKER EARL.—There is no use parleying about its great productiveness, for it is so. It has a firm hold in many localities, while in others it is very

Parker Earl.

RIO.—When all the conditions are favorable, this variety is fairly productive. There are at least a dozen better kinds.

SPLENDID.—This is a strawberry that is making a good record all over the country. I could give several pages of testimonials to its good standing among a large class of commercial berry growers. Berries are not the largest, but they are large and uniform in size, and look well in crates and on the market stand. We planted more of it last

Rio.

Splendid.

unsatisfactory. An old berry grower in Centralia, Ills., says: "That Parker Earl is no good." One of its weak points is in its turning to a dingy light red soon after being picked, when exposed to the air on the market stand.

ROBINSON.—The latest strawberry in my collection. It lengthens the season so that we now have, with the earliest and latest, about five weeks strawberry season. Robinson is large when plants are not permitted to set nearer each other than three or four inches apart. It is one of the best staminate for late blooming varieties.

year than any other one variety. Mr. George Kellogg, of Wisconsin, (good authority on berries) says: "In yield, firmness, flavor, size, color and vigor, the Splendid stands second to no staminate variety, and is scarcely equaled by any pistillate varieties." We bought our plants direct from the originator, four years ago; hence have fruited it three years. Prof. Green, of Ohio experiment station, says: "The berries make a fine appearance in the crate and market baskets. If you want a good market strawberry, try it.

SAUNDERS.—This is a late, hardy variety, introduced to the berry growers of this country by the late John Little, of Ontario. Plant is healthy and hardy. The berries are firm and above the average in size.

Warfield.

WINDSOR CHIEF.—This is one of my old favorites. I introduced this grand old variety to the berry growers of Kansas and Missouri, and have never heard of, or had a kick, about its size or lack of prolificness. When plants have had a half a chance and plenty of moisture they turn out abundantly.

NICK OHMER.—Named after Mr. N. Ohmer, ex-president of the Ohio State Horticultural Society. M. Crawford, the introducer, describes it as follows: "After watching the Nick Ohmer three years, and hearing how it has behaved wherever I sent it for trial, never having received one unfavorable report on it, I am confident that it is one of the most desirable, if not the very best ever sent out. There is no other in the market, or in sight, that I would plant with as much confidence. If restricted to a single variety, it would be my first choice without a moment's hesitation.

TENNESSEE.—This variety did not prove to be as good with me as in some other localities. Shall give it further trial.

WARFIELD.—This variety is conceded to be one of the best variety ever introduced. It needs no commendation further than it has already had. It should be grown in thinly matted rows—plants not nearer than three inches.

WOLVERTON.—In this strawberry we have one of Canadian origin of remarkable size, but lacking somewhat in prolificness.

Windsor Chief.

"The plant is very large and stocky, sending out plenty of very strong runners. It is probably not surpassed in healthy, vigorous growth and great productiveness by any variety. It has a perfect blossom. The fruit is of the very largest size, a giant among strawberries. It is never misshapen. Its only departure from the regular, roundish conical form is when, under high culture, it is somewhat triangular. It is dark glossy red, firm and of excellent flavor."

Nick Ohmer.

PRICE: \$2 per dozen; \$10 per hundred by mail.

WM. BELT.—I paid one dollar each for plants of this over-estimated variety. Fifty cents each was the highest price I ever paid before. It was for the Bubach in the fall of 1885. Have fruited Belt two seasons, and must say that I was more disappointed with it than any strawberry I ever bought. The price probably caused me to expect too much of it. The first ripe berries are a misshapen, three-cornered, double cexcomed, unattractive and repulsive berry, when compared with many of the older and newer sorts. After the first two pickings, berries drop to a very ordinary size, poorly colored stuff. Now a neighbor of mine says they did very well for him. I have some plants of the Belt to sell for 10 cents each, or 3 for 25 cents. Try it; your soil may bring out its better nature, if it has anything good in it.

NOVELTIES.—The novelties on our trial grounds are fairly promising.

MARGARET.—Is a strong plant, and a variety on which are many good reports.

Giant, Nick Ohmer, Plow City, Enormous, Glen Mary, Fountain, Ruby, and Ridgeway, are all promising, if plants and foliage are any guide to fruitage. I am well acquainted with Mr. Rhiel, the introducer of the Ruby, and I hardly think that he would offer anything that would not have some points in its favor. Prof. Green, of Ohio, says: "Ruby berries are medium to large, conical, color dark scarlet, glossy, flesh firm and good quality." Berries retain their size to the end of the season, and hold up in quantity. It is particularly to be commended because of its good color and firmness.

Ruby.

RIDGEWAY.—The originator, Mr. Ridgeway, of Indiana, says: “The past season it gave the largest and finest crop of fancy berries ever produced on Rocky Glen fruit farm. We permitted a few plants out of 100 set last spring to bear fruit, and can truthfully say we never raised as fine berries on spring set plants.

GLEN MARY.—Plants are inclined to grow in hills. Prof. Green says berries are large, often flattened and ribed, but seldom coxcombed; dark scarlet, glossy, beautiful. It excels Marshall and Sharpless in productiveness.

GIANT.—Plant and foliage appears perfectly healthy. Mr. McNallie, of Southwest Missouri, says this berry was a surprise to him after seeing it fruit. He considers it one of the good things to have.

STRAWBERRY LANDS

MAY be found all over our country, on the hill-sides, on the mountains and in the valleys. A recent writer from the gold fields of Alaska saw wild strawberry vines and raspberry bushes along the Yukon river. So we need not be surprised if some enterprising small fruit man should be advertising Yukon berry plants as being the ideal for hardiness, if not for productiveness. Although strawberries grow on almost every kind of soil, there are soils that are better suited to their wants, and where they will reward the producer with better returns. When early berries are desired, select a Southern slope, but for later berries a Northern slope is preferable. If you have neither, plant a patch somewhere about the farm where you can raise enough for your family, some for the birds and for the sweet honey bees. They will polenize the blossoms, and if any berries are left till they are very ripe they will take the honey out of them. Really the best soil for berries are timbered lands bordering on streams or the slopes near the foot of hills. Land where sweet potatoes, mellon vines or cabbages grew the year previous to planting is good for all kinds of small fruits.

"BERRY PLANTS
RECEIVED IN
FINE CONDI-
TION."—A. C. ROB-
INSON.
Wichita, Kansas.

THE STRAWBERRY FIELD

May be of any size that will afford the greatest convenience. It may be one, two, five or ten acres. There should be wagon ways around and across it, to be used for hauling manure, or mulching for winter protection.

Preparing the Soil.—We do not approve of spring plowing in Kansas as we sometimes have drouthy spring seasons. Hence in these later years we have plowed our berry-patch lands late in November, and when ground was not frozen in December or January. It should not be harrowed until spring, and then it should be done a few days before planting. Again just before beginning to plant we have the smothering board or leveler go over it.

Planting the Strawberry Patch.

Right way of planting.

For horse culture plant in rows $3\frac{1}{2}$ to 4 feet apart, and in the rows plants may be set from 12 to 15 inches apart. When plants are high in price the distance between them may be lengthened to 18 or 20 inches.

With good cultivation and a moderate season for plant growth, the spaces will be filled up, making it a well matted row of plants.

Wrong way of planting.

Do not set plants on a Dry Windy day. For setting plants, hardly any two men adopt the same methods or use the same kind of tools. While some planters use a spade, and a boy to carry the plants, others mark off the rows with a horse and narrow shovel plow, opening a furrow three or four inches deep; boys follow dropping the plants while men follow them packing the soil firmly around the plants. We use a line. To each line, two men with bright garden trowels and a small box or basket of plants, trimmed and roots moistened in water.

Remember, plants received from abroad **must** be unpacked on arrival, the bunches loosened and healed in the ground.

THE STRAWBERRY PLANT.

At the start a strawberry plant is weak and puny, caused by having been dug out of the soil where it first had life. It has stood the racket of being packed and shipped probably from 500 to 1,000 miles. Then it falls into the hands of a new planter, who may be a novice, unacquainted with its wants. So is it any wonder that plants look sick and faint for a while after being set out in a strange land, and in a different soil from that of its origin? So, Mr. planter, whoever you are, you must nurse this tender king of small fruits, carefully for a while, until it becomes used to its new home. Its roots are its mouth, and if your soil is dry it must have a drink; if you do not attend to its wants it will die.

"DEAR SIR:—Plants received in good order. Respectfully,

R. B. BAY, Central City, Kansas."

What Shall We Plant?—This is a question that is a puzzle to many new beginners. They read over the catalogues carefully, and in most of them they find all kinds so highly recommended that they do not know what to plant. We have tried in all our catalogues to tell the facts about the different kinds, and how they have served our purposes. Whether productive or not, on our soil, we give the facts as they occur. A new beginner should have his first experience with some of the lower-priced varieties, unless he has plenty of money to use in experimenting with high-priced novelties.

Cultivation . . .

ABOUT ten days after planting, a small iron tooth rake will do effective work in loosening the soil around the plants. To follow it, a small steel tooth horse cultivator should be worked between the rows every ten days during the summer.

When weeds begin to grow the hoe must be used tenderly around and near the plants. When the runners start they must be trained, when it is desired to grow matted rows, to fill the space between the plants. At no time during the summer allow the berry beds to lay long after hard beating rains before you stir the soil between the rows. Keep down all weeds from their appearance after planting to the close of the weed growing season. Much more might be said about cultivation; in fact, a dozen pages might be used in all the minor details of cultivating the berry field the first and second seasons after planting. When one desires to grow berries in hills, plants should be set $2\frac{1}{2}$ to $3\frac{1}{2}$ feet, keeping all runners cut from start to finish.

COMMERCIAL BERRY GROWING AND OVER PRODUCTION.

COMMERCIAL apple growers have reduced their planting to about six or eight varieties, varying according to taste. So the grower of strawberries for commerce needs but few varieties, and they should be selected so that they will be as even in size as possible. The commercial berry grower should also consider the matter of acreage; and limit it in accordance with the demands of the markets. We must look this matter square

in the face, and talk it over in our horticultural meetings, if we expect to make a living in growing small fruits. Think for a moment about the labor thrown away on that 20-acre field, or 40-acre field, when half the amount in either case would have netted a handsome profit. But see, we have made nothing, because the 40-acre man had 20 acres and the 20-acre grower 10 acres more than the markets demanded to make the business profitable. A whole army of berry growers **doubling the acreage is what is going to ruin** the business, or has done it already. I like to sell plants, but would rather sell them to set small patches that will make you some money, and then you will be able to buy more plants some other time. Shall we do some thinking along this line of over production, or will we go on doubling our acreage regardless of consequences?

Now, when a little shortage does occur on account of one unfavorable season, and big prices are obtained, we should not be tempted to set out a large patch with the expectation of big prices; for bear in mind that in your locality, as well as others, berry men may do likewise. Then a greatly glutted market follows, with much loss to growers. Let us bear in mind that the tendency of the times is to overdo the ability in every avenue of business, so we must watch the current of events or we commercial berry growers will all be in the soup.

PEDIGREE

I have been asked about pedigree strawberry plants. Now I have read at least a half-dozen works on strawberry culture. The works read were "Ten Acres Enough," A. S. Fuller's "Small Fruit Culturist," Roe's "Success with Small Fruits," John J. Thomas' "Fruit Culture," Myrick's "Berry Culture," and "Bigler's Berry Book." Not one of these well known authors speak of pedigree. If there had been any pedigree records along the line of berry culture these men would have given their thousands of readers the benefit of it. Pedigree applies to highly bred animals in one continuous line for many years. The Warfield strawberry was a wayside seedling discovered by B. C. Warfield, of Illinois. The old Capt. Jack is a foundling or chance seedling by S. Miller, of Missouri. The old Wilson Albany, 35 years ago the great commercial berry, was a chance seedling. A few of our leading large kinds like the Marshall, Jessie, Jersey Queen, Sharpless, Bubach, and others, were produced by sowing the seed of berries that had been polenized with a different variety for large size, productiveness or firmness. Hence we conclude that pedigree, when applied to strawberry plants, is a bate to catch succors.

Pointers About Berries . . .

EARLIEST: Michel, Bederwood, Crescent, Downing.

MEDIUM EARLY: Warfield, Capt. Jack, Parker Earl, Splendid, Barton, Haverland, Bisel, Bubach, Jessie, Miner, Paris King.

LATEST: Aroma, Gandy, Windsor Chief, Saunders, Glendale, Brandywine. Robinson being the last of all the older kinds.

Best Polenizers—Capt. Jack, Robinson, Miner, Chas. Downing, Parker Earl, Paris King, Splendid. Capt. Jack and Robinson probably the best; but all good polenizers.

Price List of Plants.

Prices of Plants.—Five hundred of one kind will be furnished at one thousand rates, but the prices in the tables must be the guide for mixed orders of several kinds.

Strawberries.		Doz. Free by Mail.	100 Express not Paid	1,000 Express not Paid
Name.	Flower.			
AROMA	perfect	\$ 50	\$ 2 00	.....
BARTON	imperfect	35	75	5 00
BEDERWOOD	perfect	35	50	4 00
BISEL	imperfect	35	1 00	4 00
BUBACH	imperfect	35	50	4 00
BRANDYWINE	perfect	50	75	.....
CAPT. JACK	perfect	35	50	3 00
CHAS. DOWNING	perfect	35	50	3 00
CRESCENT	imperfect	35	50	3 00
CYCLONE	perfect	50	1 00	.....
CLYDE	perfect	50	3 00	.....
EDGAR QUEEN	imperfect	50	1 00	.....
ENORMOUS	imperfect	1 00	.....	.....
FOUNTAIN	perfect	75	.....	.....
GANDY	perfect	35	50	4 00
GLENDALE	perfect	35	50	3 00
GLEN MARY	perfect	2 00	10 00	.....
GIANT	perfect	2 00	8 00	.....
HAVERLAND	imperfect	35	50	4 00
IOWA	imperfect	50	3 00	.....
ISABEL	perfect	50	.....	.....
JESSIE	perfect	35	50	4 00
LOVET	perfect	35	.....	.....
MARGARET	perfect	2 00	10 00	.....
MINER	perfect	35	50	4 00
MUSKINGUM	perfect	50	1 00	.....
MICHEL	perfect	35	50	3 50
NICK OHMER	perfect	2 00	10 00	.....
PARKER EARL	perfect	50	75	5 00
PLOW CITY	perfect	1 00	10 00	.....

PARIS KING.....	perfect	\$ 50	\$ 1 00	\$
RIDGEWAY	perfect	2 00	10 00	.....
ROBINSON	perfect	35	50	3 50
RIO	perfect	50	1 00	.....
RUBY	perfect	2 00	10 00	.....
SPLENDID	perfect	35	1 00	5 00
SAUNDERS.....	perfect	50	1 00	.....
TENNESSEE	perfect	50	1 00	.....
WARFIELD	imperfect	35	50	3 00
WM. BELT	perfect	75	2 00	.....
WINDSOR CHIEF.....	imperfect	35	50	3 50
WOLVERTON	perfect	50	.....	.....

Raspberries.

Name.		Doz. Express not Paid	100 Express not Paid	1,000 Express not Paid
BRANDYWINE, red.....		\$ 40	\$ 1 25	\$ 8 00
PALMER, black		40	1 50	.....
GREGG		40	1 50	9 00
KANSAS, black.....		40	1 50	9 00
OLDER, black.....		40	1 00	9 00
MILLER, red.....		1 00	3 00	.....
MUNGER, black, new.....		1 00	4 00	.....
THWACK, red.....		40	1 25	9 00
TURNER, red.....		40	1 25	8 00
PROGRESS, black.....		40	1 00	8 00
QUEEN, black.....		40	1 00	8 00
EGYPTIAN, new, black.....		50	1 50	12 00

Blackberries.

EARLY HARVEST.....		40	1 00	8 00
SNYDER		40	1 00	8 00
TAYLOR		40	1 00	8 00
STONE		40	1 00	.....

Currants.

FAY	each 10c	75	3 50	.....
CHERRY	" 10c	75	3 00	.....
RED DUTCH	" 10c	75	3 00	.....

Gooseberries.

INDUSTRY		2 00	14 00	.....
SMITH	each 15c	1 50	.....	.....
HOUGHTON	" 10c	1 00	3 00	.....

Grapes.

MOORE'S EARLY	each 10c	1 00	.....	.....
CONCORD	" 5c	50	3 50	.....
NIAGARA	" 10c	75	4 00	.....
WORDEN	" 10c	75	4 00	.....
WYOMING, red.....	" 10c	1 00	.....	.....
CAMPBELL'S EARLY	" \$1	.....	.....	.....

Pollenizing . .

THE honey bee is a helper in the distribution of pollen. Some years ago the winter was so severe that nearly all the bees around Lawrence were frozen. The following

summer berries were poor, misshapen, and imperfectly pollenized. I have the kindest regards for the busy bee, and always walk with care among

the strawberry blossoms, fearing that my foot will kill the little workers.

In former catalogues I have used the terms staminate and pistillate, to designate the difference between those that carry their own pollen in the flower and those that contain no pollen. But in this catalogue the word *perfect* follows the name of all staminate strawberries, and the word *im-*

BISEXUAL,
or perfect flower.

perfect after the name of all pistillate varieties. It is thought that the imperfect varieties are the most productive, but not so firm, yet less liable to be killed by frost. In my planting for market, I use an equal number of perfect and imperfect varieties. That is,

PISTILLATE,
or imperfect.

four rows of perfect and four rows of imperfect sorts.

The best pollenizers are Captain Jack, Robinson, Bederwood, Downing, Miner, Jessie, Gandy, Splendid, and Parker Earl.

There is a difference in the amount of pollen produced, and it is a matter of study to rightly adjust the perfect flowering sorts to the imperfect varieties to get the best results.

The larger the consumption of strawberries is, the better will be the health and the greater will be the energy developed. But it is not so with large consumers of distilled drinks. For by their use mental activity is clouded with shadows of darkness in this life, and dreams of outer darkness at death. * * * *

Small fruits are the tonics and health invigorators, sought after by the rich and poor people, who appreciate their value. * * * *

We believe our catalogue will interest all our friends who desire to plant small fruits. We trust that our commercial berry growing friends will read the paragraph on over-production, and strawberry pedigree. As you turn over the leaves look over the advertisers' department. They are all in line of the needs of the berry grower.

THE best soil for raspberries is a deep, sandy loam; but they will grow and yield paying crops on any soil that will grow corn or potatoes.

The culture of a raspberry plantation is as simple as growing a field of corn. Prepare the ground as for an Irish or sweet potato crop, and plant in rows four by six feet. Planted thus, they may be cross cultivated. Mark off the ground as if intended for corn, and set plants about three inches deep, pressing the soil firmly around the roots. Red raspberries should be set an inch or more deeper than the black, but the same distance apart. The ground on which they are planted need not be entirely lost the first season of their growth, as a row of corn, or potatoes, which is better, may be planted between the rows of raspberries.

SMITH'S SELECT LIST OF

Commercial Raspberries

EGYPTIAN.—(Black) One of the best early sorts now in cultivation. Have fruited it three years. Its fruit is not so large as Gregg, but it is more productive. While the Kansas, a variety of great worth, ripens its fruit all in a week, the Egyptian, coupled with Progress, the next best sort, gives us a three weeks' raspberry season.

PROGRESS.— We place this along with the Egyptian for a profitable and good commercial raspberry. Ow-

Progress.

ing to its early ripening there is an advantage of getting better prices than there is when the medium sorts come in. The canes of the Progress, Egyptian and Queen of the West are free of the raspberry disease, Anthracnose. If growers will plant them instead of Souhegan, Gregg and Nemaha, they will not be discouraged in raspberry growing. I had lost all faith until I had gotten the above three sorts, including Kansas.

KANSAS.—This famous berry is a Douglas county production. This is the largest variety ripening in mid season. Very large and productive.

QUEEN OF THE WEST.—This sort is nearly as large as Kansas or Gregg, ripening its crop slowly, like Egyptian and Progress. Canes are large and hardy.

The above four varieties are my selection for commercial growing.

PALMER.—This sort is not more than half as productive as Egyptian or Progress, and it is no earlier than Progress.

OLDER.—This sort is late, but no comparison in productiveness to the four kinds we name for commercial growing.

GREGG.—Well known, canes not always hardy, fruit large.

BISHOP.—It is a raspberry of Kansas origin. The party of whom we obtained it wrote me that we would grow no other when we became acquainted with it. But we do not find any points of value above the Queen of Egyptian.

RED RASPBERRIES

TURNER.—This is an old, well known variety that was originated by Prof J. B. Turner, of Jacksonville, Illinois. It was introduced about thirty years ago. Its fruit is the best flavored of any red sort we know. Its only hindrance is the tenderness of the berries. When it is shipped far away to market it requires pint boxes. The cane is strong and hardy and should be grown in hills of from six to eight canes to the hill and planted four by six feet. The old canes should be cut out every year as soon as fruiting is over.

THWACK.—This is the firmest red sort, and should be planted the same as the Turner. The fruit is firm, and it will stand transportation to Denver (600 miles.)

MILLER.—This is a new variety of Delaware origin. Its fruit is a bright scarlet, bushes hardy, strong and productive. Prof. Van Deman says it is the best red sort they have in Delaware.

BRANDYWINE.—This sort is so much like Thwack that it is hard to tell them apart. But on our soil either Thwack or Turner is more profitable.

"MUNGER" FOR FANCY MARKET.

MUNGER.—Originator's description: "The fruit of Munger is black, and resembles Gregg. But it is a better flavored berry than Gregg, tougher in texture, and therefore a better shipper. In size it excels Gregg 25 per cent. Its season of ripening is five days later than Gregg. The past season when most other kinds were dry and seedy, Munger ripened up sweet and juicy, and sold for 50 cents per crate over other sorts. Canes have never yet been effected by cold weather."

About all the raspberries that have been introduced the past ten or more years have been early or mid season varieties. So the markets have been glutted with that class of berries. With the introduction of Munger the place of the old Gregg can be filled by this later and larger variety. Weigh these points carefully in your minds, and do not wait for all your neighbors to take hold of it; but be first in the field with a stock of plants. The Munger originated in Western Ohio, in the year 1890, by Timothy Munger, now of California. It was one of a large number of seed emptied from a jelly press into an old hot bed. Price \$1 per dozen; \$4 per 100.

A NEW RED RASPBERRY.—It is a chance seedling of Mo. origin. Have fruited it two years. The bush is of larger growth than the Loudon, berries are larger than the Turner or Thwack, of a bright scarlet color with flavor equal to the best. We believe it will be a valuable addition to the list of red raspberries. Having had many years of experience with about all the red sorts that have been introduced, have had none that is equal in every respect to this one. Shall give it two years longer probation in our experimental department. So if it continues its fruitage the next two seasons as in the past two, it is our intention to introduce it the first spring season of the next century, two years hence. If any of our patrons think the time is too long to wait for a chance to try this valuable red raspberry, we will sell one single plant to one person for \$1. We know that \$1 for a plant of any sort is high, yet I paid \$1 for a single plant of the Columbian—that has been invariably killed in the winter season. So if the Columbian was worth \$1, this one is of more worth to the commercial berry grower at \$10 each. Have not yet named our novelty, but a name will be given it in due time. Price of one well rooted plant, \$1.

We have some very promising new seedling strawberries, in which, if we discover enough points of excellence, above or in part equal to older standards, we will give other berry growers a chance to test their value on their soils.

IDEAL STRAWBERRIES.

The ideal of the strawberry grower is as eagerly looked for now as it was fifteen or twenty years ago. There are trained introducers of novelties in some parts of the country who have an ideal to send out every year. There are some experts in this line of industry. The newest seedling that may be, or not be, worthy is their favorite. Those that have been introduced the year preceding are out of date, no matter how valuable they are. These experts have their place. They are necessary workers in strawberry evolution. While they may sometimes overestimate their novelties so that their patrons feel sore over the disappointment in the expected ideal, yet with all the evil or unprofitable fruit introduced, there is some *pure gold* discovered. In fact when I look back over a decade of twenty years, I find that the money spent on the highest priced novelties I ever bought, is as nothing compared to the value we have received in the growth of the business of berry culture. These are some of the pure gold found among the many that have been tested: Bubach, Warfield, Haverland, Parker Earl, Wolverton, Gandy, Lovett, Saunders, Splendid, Aroma, Bisel, and other sorts not named. So let us have no more complaint about the ideal berry disseminator, notwithstanding the zeal and enthusiasm they may cause to shine on their novelties. They are doing a good work in their efforts to raise the standard in small fruit production.

BLACKBERRIES

THE same preparation of soil for strawberries and raspberries is equally as good for blackberries. Plant them in rows 4x7 feet and cultivate with same tools as those used for raspberries. The second season's growth canes should be pinched off with the thumb and finger when they are about two feet high.

Early Harvest.

EARLY HARVEST.—This is the earliest of all blackberries. It begins to ripen two weeks in advance of any other sort; in fact, it comes in with black raspberries. It is the firmest blackberry grown.

SNYDER.—This is a well known blackberry, and when the cane is properly trimmed, berries are of good size; but when the lateral branches are not cut back to the proper limit its fruit is small and seedy. Its season rarely lasts over

Taylor.

two weeks, while the season of the Taylor and Stone's Hardy is about four weeks.

STONE'S HARDY.—This sort is claimed to be the latest and hardiest of all blackberries, but I have failed to find any advantage in it over the Taylor, in lateness or hardness.

TAYLOR.—Bush perfectly hardy. Berries nearly as large as Kittatinny when lateral branches are well cut away in the spring. It is my favorite blackberry for distant market purposes.

"Dear Sir:—Plants received in good condition. Strawberries very nice."

A. S. PERRY, Frisco, Okl.

"Berries received in fine order. Every plant growing."

W. A. WADDELL,
Cotton Wood Falls, Kans.

"DEAR SIR:—Plants came through in good order. They are well rooted plants, and I am well pleased with the extra large count, for which accept my thanks.

G. A. BEECHER,
Cowley County, Kans."

GRAPES

We have a selection of grapes that we think is what the people generally want. They have been quite low the past few years, yet every farmer and gardener should grow a few grapes for family supply.

MOORE'S EARLY.—Large, black, ripening about ten days before Concord. Best of the earlies. Each 10c; \$1 per dozen.

CONCORD.—Old and well known. Succeeds well over a wide range of country. Each 5c; 50c per dozen.

NIAGARA.—(white) One of the best white grapes, prolific as Concord, and ripens about the same time. Each 10c; 75c per dozen.

WORDEN.—A seedling of the Concord, with larger berry, very productive, valuable for family or commerce. Each 10c; 75c per dozen.

WYOMING.—(red) Quality first class, berry medium, valuable for the home use or for market. Each 10c; \$1 per dozen.

CAMPBELL'S EARLY.—Is not a chance seedling, but the result of carefully conducted experiments by the originator through successive crossing of the most promising varieties which he had produced or tested the past 30 years. Some points of special merit in Campbells are a very strong, vigorous, hardy vine, with thick, healthy, mildew-resisting foliage, and bearing abundant clusters, very large, compact and handsome. Berries are large, often an inch or more in diameter; skin thin but very tenacious, flesh firm but tender, parting easily from its few small seeds. Its season is very early, from the 15th to the last of August in central Ohio, and its keeping qualities remarkable, having hung on the vines sound and perfect six weeks after ripening.

Another season's experience confirms and strengthens the favorable opinion heretofore expressed about this grape. The introducer of this superior grape sent a small basket for us to exhibit at the Douglas county fair last fall. The bunches and berries being so much larger than any other sort on exhibition that there was a continual crowd of people examining and tasteing this fine grape. While we have not fruited this new grape, it is our opinion that it will make a great record, and that its advent will raise the standard of grape culture. Now it seems high to pay \$1 for a new grape vine, but when we consider the long years that the originator spent in bringing this out through successive crossing and re-crossing the price is low in comparison to the labor done.

Note.—All Campbell's Early vines are sold under positive guarantee of genuineness. Each vine has a metal seal attached by the introducer as positive proof.

CAMPBELL'S EARLY.

PEARS.....

EVERY farmer and gardener should have a small pear orchard, or at least a dozen trees around the yard or garden. A pear tree is an ornament on the lawn, along the roadway, or anywhere on the farm. If a time comes that the old farm is offered for sale, every good bearing pear tree will add from \$12 to \$15 to the sale of the farm.

BARTLETT.—Well known to be one of the best ever produced. Each 25c; \$2.50 per dozen. Ripe August 15th.

DUCHESS.—Largest pear grown, ripens about the 1st of September. Each 25c; \$2.50 per dozen; \$15 per 100.

BURRE d' ANJOU.—Buttery, juicy, and the best fall pear. Anjou and Duchess are leading pears for preserving, ripe September 15th. Each 25c; \$2.50 per dozen; \$15 per 100.

SECKEL.—To our taste, this is the best pear of all. It is the favorite for sweet pickeling. Ripe Sept. 8th. Each 25c; \$2.50 per dozen; \$15 per 100.

KIEFER.—The latest pear of all. It should be picked the last of September or first of October, and placed in a cool cellar where it will ripen and become palatable. It is fine for caning. Each 25c; \$2.50 per dozen.

While there are a great many pears of other sorts, this is our selection for commercial trade and home use. Correspondence invited about prices of any other kind than those mentioned.

FRUITS OF THE GARDEN.

Asparagus.—While we do not grow Asparagus roots or Pie plant, we have made arrangements with a gardener by which we can supply our patrons with anything in the way of garden plants, in connection with your orders for berry plants. Asparagus roots 25c per dozen; \$1 per 100.

VICTORIA RHUBARB.—Per dozen, 50c; \$2.50 per one hundred.

WINTER PROTECTION.

The cultivated strawberry field that has been kept clean all season needs a light covering of old hay or wheat straw, scattered thinly over and between the rows. Old berry patches that have not been kept very neat will not need so much covering as a new field. Forest leaves make a good covering were it not for the high winds which frequently blow them away. Even straw and hay are badly scattered about the field when not held down by snow. Whenever the straw is blown off it should be replaced as soon as possible. For small patches, a few loads of strawy manure makes a good mulch when thrown between the rows.

FIRESIDE REFLECTIONS.

When your strawberries are blooming, and bees are pollenizing them, walk about the vines carefully, for every bee you may step upon pollenizes more than ten thousand blossoms every sunshiney day.

* * * *

In the cultivation of a small fruit garden, the farmer will have a season of recreation that will be rest for the body and growth to the soul.

* * * *

With an orchard and small fruit department on every farm, the children will be more contented, and there will be more love at home.

* * * *

I have been several days writing this catalogue; in fact, did not expect to write so much about the berry business; but from the fullness of the heart the mouth speaketh, and it is the desire of the writer that our catalogue will be helpful to those just entering the field of berry growing, and that none will be misled in the statements herein made about the different varieties of berries. Should any receive two catalogues, they will please hand one to a neighbor who may want plants. Before ordering plants glance at the page about terms of sale, also the paragraph about pedigree, ideal berry growing, advertising department, etc. B. F. SMITH, Lawrence, Kans.

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Carry better, and larger berries and larger crops are raised when liberally treated with

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Heavy applications of the complete fertilizers, containing not less than 10 per cent. actual Potash, should be used.

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ADVERTISEMENTS.

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Telephone 338

WHOLESALE FRUIT DEALERS.

811 Kansas Avenue, GOPEKA, KANSAS.

*There is a commission house in this town
That is far ahead of any others;
And this firm consists of two,
That is known as Whiteker Brothers.*

*This firm was
And to
They go.
That they*

*They have of wagons just enough
To rustle around and sell the sluff;
And if you think you this firm can beat,
You'll find after trying, you'll take a back seat.*

*811 is the number.
And they are always
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A Quarter of a Century

In the Fruit Trade.

HARGREAVES BROS.,

Solicit your consignments, single case to
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Fruits and Produce. Berries and Small Fruits a Specialty. Will be
glad to answer inquiries regarding market.

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health, sparkli'g
springs and clear
streams; where
you can work
out of doors 12
months, instead
of 6.

Map showing the 26 Northern Feeders of K. C. P. & G. R. R.

PORT ARTHUR

The Southern and Seaport terminus, is the best place in the United States to-day to invest or to go in business. This rail'd now running through trains between Kansas City and P't Arthur, will be running over its own tracks the entire distance by Sept. 1st.

Study the map and you will agree a large city must be built at P't Arthur; nearest seaport to K. C. by 100 miles.

F. A. HORNBECK,

LAND COMMISSIONER K. C. P. & G. R. R. and GENERAL MANAGER PORT ARTHUR
TOWNSITE COMPANY,

KANSAS CITY, MO.