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Handwritten notes: "Bancroft" and "May 1936"

THE BLUEBERRY GROWER

The 25th Anniversary of the Beginning of Blueberry Culture at Whitesbog, New Jersey

BY ELIZABETH C. WHITE

It was November 15, 1910, that the Bureau of Plant Industry of the United States Department of Agriculture issued Bulletin No. 193. Its heading announces B. T. Galloway as Chief of the Bureau. The letter of transmittal to the Honorable James Wilson, then Secretary of Agriculture, was written by William A. Taylor, Acting Chief of the Bureau.

This bulletin carried the title "Experiments in Blueberry Culture," and was written by Frederick V. Coville, Botanist in charge of Taxonomic and Range Investigations.

It came to my attention through the list of Government publications which at that date was monthly sent to any citizen who requested it.

Very soon after it was issued a copy of "Experiments in Blueberry Culture" was in my hands. It thrilled me with its explanation of the cause of the brown color of our bog water, and it clicked with the idea father and I had often discussed of cultivating our wild swamp huckleberries as an auxiliary crop for cranberries. The bulletin gave a new slant to our discussions.

I was in a position to give much time to the developing of a new crop for Frank Chambers had recently joined us at Whitesbog and could easily carry some of the work to which I had been giving much time and strength. Association with the author of this bulletin would be of inestimable help in developing blueberry culture and the unknown experimenter in Washington certainly needed land such as

we had in abundance at Whitesbog, and co-operation such as father and I could give if his Chief's prophecy were to come true. This prophecy was expressed in the letter of transmittal in which William A. Taylor wrote of Dr. Coville's experiments, "There is good prospect that the application of the knowledge thus gained will establish the blueberry in field culture and that ultimately improved varieties of these plants will be grown successfully on a commercial scale."

The carbon copy of that first letter written twenty-five years ago and the succeeding correspondence have been carefully preserved in a fire-proof safe. When the first letter was written I was sure that it was of such importance in establishing a new branch of horticulture that the passage of time would give it historical value. This is the letter.

New Lisbon, N. J.
January 11, 1911

"B. T. Galloway, Chief,
Bureau of Plant Industry,
U. S. Dept. of Agriculture,
Washington, D. C.

Dear Sir:

I recently received from Washington the report on "Experiments in Blueberry Culture," which I have read with great interest, and I write to make a suggestion in regard to future experiments.

My father, Joseph J. White, is one of the largest cranberry growers in the country, and on his property are considerable areas of land too high for cranberries but admirably suited to blueberries, judging by the way the wild ones flourish.

My father authorizes me to offer you the use of this land for further experiments in blueberry culture, and is willing to pay \$50.00 a year

for 5 years for such labor as may be needed in the experiments, we to have the proceeds from any crop that might be produced.

I should be pleased to assist in the work by observation, reports, or in any way in my power.

If you should at all consider this proposition, Dr. Shear can perhaps give you some idea of our ability to assist the Dept. of Agriculture in this matter, as I had the pleasure of showing him and two of his assistants over a portion of our bogs last fall.

Trusting that this may receive favorable consideration, I am,

Very respectfully yours,
ELIZABETH C. WHITE"
(signed)

January 28th, ten days later, William A. Taylor, Acting Chief of the Bureau, wrote that the Department would probably accept our offer of co-operation which had been turned over to the author of Bulletin 193. On February 4th, Frederick V. Coville wrote saying that he would like to visit Whitesbog to look into the possibilities. The visit was made on March 1st, 1911.

I am exceedingly sorry that Dr. Coville cannot be with us today. These first letters and his visit to New Lisbon and Whitesbog on March 1st, twenty-five years ago, marked the beginning of a period of co-operative experimentation of intense interest and remarkable results. This co-operation closed when the new responsibilities falling on me after my father's death and the growing claims of blueberries as a commercial crop made it impossible for me to give the close personal attention to co-operative experiments, which characterized the earlier years of the work.

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JOSEPH H. WHITE, Inc.

WHITESBOG

NEW JERSEY

Those first blueberry years are a joyous memory. Encouraging developments came thick and fast. Dr. Coville and I gloated over them together, the enthusiasm of each fanning to brighter flame that of the other.

Without his presence today there can be no fitting celebration of this Twenty-fifth Anniversary of the beginning of team work with blueberries.

The first five years of co-operation covered the period of search for superior wild bushes in New Jersey. At the time Dr. Coville and I joined forces his stock of plants was represented chiefly by seedlings raised from berries resulting from natural pollination on a selected New Hampshire bush. In Bulletin 193 he says that this bush was "selected at Greenfield, New Hampshire, after three summers of cursory observation in the mountains of southern New Hampshire and three weeks of diligent search in the summer of 1908." Then after a detailed description of the bush and its foliage he states, "The berries were of large

size, reaching a diameter of over half an inch. The color was an unusually pale blue. In flavor the berry was exceptionally good."

Twenty-five years ago neither Dr. Coville nor I thought possible such larger blueberries than were represented by the fruit of this Brooks bush, but that very summer of 1911 the Sooy bush was found by Ezekel Sooy just north of the road passing his home between Browns Mills and Whitesbog. Its berries were as blue as those of Brooks, and were larger. Many of them were $\frac{3}{8}$ of an inch in diameter as compared with $\frac{1}{2}$ inch in diameter for the largest of the Brooks berries.

These two bushes were the parents of one of the first extensive crosses made by Dr. Coville. It was fortunate that these early parents possessed the hidden quality, which I have come to believe is rare in even the most carefully selected wild blueberry bushes, of producing a small percentage of offspring of a size and quality decidedly superior to either parent.

(Continued next month.)

*Editor's Note: This is the first installment of a paper read by Miss White before the annual meeting of the Blueberry Co-operative Association at Pemberton, New Jersey, recently. Miss White
(Continued on Page 20)

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Wareham Plymouth
 Buzzards Bay

EDITOR'S NOTE

(Continued from Page 15)

is the daughter of the late Joseph J. White, and both were leaders in

Twenty

establishing cultivated blueberries. The importance of Whitesbog, distinguished by being a government post office to care for mail incident to blueberry development, is well attested to, by the fact that in 1916 21 bushels were raised, bringing in a gross of \$115.00 while in 1935 total gross receipts of the association had reached the sum of -180,623 from 7,040 bushels of cultivated "Tru-Blu-Berries," as the production of the corporation is known.

Miss White is now vice president of Joseph J. White, Inc., her father having been head of these foremost having been head of these foremost cranberry bogs, begun in 1857 by James A. Fenwick, since 1882 until his death in 1924 Franklin S. Chambers, president of the Growers Cranberry Company, Inc., of New Jersey, has been president since that time.

**Verdict Against
 Cranberry Grower**

As an aftermath of the great Cape Cod cranberry strike of 1933, court proceedings were brought in the Massachusetts courts at Plymouth recently against a Carver cranberry grower, which resulted in the awarding of damages against the grower. This was the case of Alfred Gomes of Onset against Herbert Stanley, veteran grower, the former having lost two fingers of his right hand in one of the riots which accompanied the strike.

Gomes, a picker, was awarded the sum of \$1,500 by a jury in Plymouth Superior Court for the injuries which have prevented him from working, although the sum named was in the amount of \$50,000. An appeal against this verdict for a new trial was immediately entered in Mr. Stanley's behalf by his counsel, J. Frank Kiernan of Wareham.

This was the case which aroused great interest and sympathy among growers at the time, as Mr. Stanley, a selectman of Carver and a rather elderly man, was badly "beaten up" by cranberry strikers while defending his property against the trespass of a large group of strikers.

The defense contended that Mr. Stanley was carrying a shotgun for intimidation purposes, and that he was attacked by several when he warned the men off his property and the gun was discharged accidentally. An argument used to prove this was that the wounds on the plaintiff's hand were such as would be caused by a gun being fired at close range. Mr. Gomes contended that he was fired upon as he stood among a group of 50 or 60 men some distance away. If this had been the case, the defense asserted, the shots would have scattered and Mr. Gomes would have been wounded in other places than the hand and others would probably have been hit also.

The plaintiff brought out that if Mr. Stanley had not intended to shoot the gun would not have been loaded and cocked.

THE BLUEBERRY GROWER

The 25th Anniversary of the Beginning of Blueberry Culture at Whitesbog, New Jersey

BY ELIZABETH C. WHITE

SECOND INSTALLMENT OF A RECENT PAPER

Of the seedlings which were tried out at Whitesbog under the contract made between Joseph J. White, Inc., and the U. S. Dept. of Agriculture early in 1914 several of the 3,000 plants of this early cross produced berries $\frac{3}{4}$ of an inch in diameter; a good step up in size from their $\frac{1}{2}$ and $\frac{5}{8}$ inch parents. Two of these Dr. Coville named Pioneer and Katherine, with which varieties you are more or less familiar.

From their Sooy parent they both inherited a weakness of constitution not guessed at the time the cross was made which makes Pioneer's crop uncertain as most of us have unhappily experienced. Yet when it does succeed in getting by winter hazards and dodging cold storms and frosts at blooming time it is a wonder. I still feel for it much of the admiration inspired by that first little seedling bush, plant No. 42 in row D of the old Washington Field, loaded with berries of a size and beauty beyond my dreams. Before it was named we knew it as 620-A; that is, the A bush of the 620th experimental culture of blueberry seeds or cuttings made by Dr. Coville.

Pioneer's sister bush, Katherine, was named by Dr. Coville in honor of his daughter. The berries are as large and more beautiful in appearance than those of Pioneer and in my opinion of better flavor. Many of you know, however, how badly it tares and so is absolutely worthless for commercial fruit production. It is only within a very few years that I have realized how very poor both of those early par-

ent bushes, Brooks and Sooy, are in picking qualities. With Brooks the fibers of the little stem run up into the very heart of the berries, just as with its daughter Katherine. The stems of the Sooy berries seem to be attached by a broad flat disc which leaves a shallow, but broad scar when the berry is picked.

I could talk for hours about the characteristics of the early parents and how they have worked out in the breeding, but if you care to hear it that must wait for another time.

The contract between the U. S. Department of Agriculture and Joseph J. White, Inc., which was executed early in 1914 and under which more than 25,000 blueberry seedlings were tried in the field at Whitesbog, provided that we were to furnish the Department as much land, not to exceed three acres a year, as might be needed to test the hybrid seedlings produced by Dr. Coville.

On the acreage occupied by each planting the Department agreed to pay us a rental of \$50.00 a year for four years. We were also to have the proceeds of any crop produced during this period with the exception of such samples of fruit as the Department might need for its own use. With this compensation we were to meet all expenses of preparation and maintenance of the trial fields.

Each of the contracting parties had the right to half of the propagating material from any bush during its four years test and at the end of that period it became the property of Joseph J. White,

Inc., to do with as we pleased except that we pledged ourselves not to distribute, by sale or gift, propagating material from any bush without the express permission of the U. S. Department of Agriculture.

I have mentioned finding in New Jersey only the Sooy bush during the summer of 1911. In locating these bushes my policy was to interest the people who picked the wild berries for market. I told them of my confidence in the future of blueberry culture and that if they would help me with their special knowledge their names might become important in the history of the industry. Nearly all of the wild bushes accepted were named in honor of the finder. A package was rigged up for them containing gauge, labels, bottle, formal solution and directions with the purpose of making it as easy as possible to mark a fine bush and deliver to me a sample of the berries preserved in formalin. Only with such preservation could I judge the size and color, for those were still horse and buggy days and usually the finders could not get fresh berries to me in condition to be judged in any respect, and the bush was apt to be stripped before I could make arrangements to visit it. Most important of all I paid them two or three times their customary wage for any time they spent in guiding me to the bush while it was in fruit or when it was to be dug. During the summer of 1912 we found, among others, the Chatsworth bush, the Harding, and the Rubel,

The Chatsworth berries brought me were full $\frac{3}{4}$ s of an inch in diameter. This was before the Pioneer seedling had developed and the Chatsworth berries were the first of such size that I had ever heard or dreamed of. The bush seemed a treasure beyond price. It was found by George Bowker. He died not so long after he found it, so I feel free to say that I knew him as one of the meanest men in the Pines. I wouldn't dishonor any bush that produced such mammoth berries by giving it his name and called it "Chatsworth," after the village near which it was found. In the long run, however, the bush proved to be as mean as its discoverer. I have never seen any blueberry bush except some of its own seedlings so susceptible to mummyberry blight as was Chatsworth. The berries were dark, very soft, and oh so sour! The only relic of Chatsworth in the blueberry industry today is the Cabot variety, a cross between Chatsworth and Brooks. Cabot is a marvelous improvement over its Chatsworth parent, but I still find resemblances.

The Harding bush was found near Cranberry Hall in a little meadow on a farm now a part of the Camp Dix Rifle Range, but then belonging to Ralph Harding. The soil in which it was growing was black and about the consistency and texture of axle grease. This is interesting in view of the fact that most of us have found Harding unreliable in perfecting its crop. Only those who have

soils of close texture similar to that of Mr. Spear at Vineland can depend on a Harding crop.

The original Rubel bush was found by Reuben Leek near Chatsworth in Governor's Hole about 100 feet from the top of J. Reed's bog. Only last week I saw in the local paper the death notice of Reuben Leek of Chatsworth and I am glad of this opportunity to give him honorable mention for the lift his discovery gave our industry.

The berries he brought me were but little more than $\frac{5}{8}$ ths of an inch in diameter and compared to the $\frac{3}{4}$ inch berries of Chatsworth seemed insignificant. My original notes do, however, mention their fine appearance. I did not visit this bush before it was dug, and, while I was housed with an attack of grippe, Frank Chambers very kindly supervised its digging on March 15, 1913, and brought it to New Lisbon intact.

It had twenty-five stems five to six feet high. It was divided into fourteen roots which were planted in Row 31 in the Old Field. The top was made into 627 cuttings (we used all of the old wood in those early days) from which in the fall of 1914 we had eighty plants. The fourteen roots into which the original bush was divided in March of 1913 grew into bushes which by December were from 12 to 13 inches high and well set with fruit buds. It was only as I watched those fruit buds develop into berries during the summer of 1914 that I began to realize the value of the Rubel variety. I

BLUEBERRY CULTURE GAINING POPULARITY

There is said to be a growing demand among householders for blueberry shrubs in their gardens, these shrubs being marketed to an increasing extent. Three or four are said to be enough for one family when they come into full bearing.

The first year they are set out more than half the blossoms should be picked off so the shrubs will not bear too heavily, but after that they can be permitted to produce a natural crop.—Recent issue of The Brockton (Massachusetts) Enterprise.

called it "Rube Leek" at first and Dr. Coville called it "Rube," which seemed to me a poor name for so fine a variety. The happy thought later came to Dr. Coville of using the initial of Leek after Rube which gives us the familiar "Rubel."

Among the fourteen divisions into which the original Rubel bush had been carefully dissected two bore small black berries. These were thrown away. A couple of years later I was impatient because the multiplication of the better varieties was so slow. Then I recalled that when the original Rubel bush had been delivered the roots had been cut not more than six inches from the base of the stems. The large roots that had been left in the ground? Could it be possible that they had sprouted?

(To Be Continued)

Blueberry Field and Pickers in North Carolina

Cut Courtesy Railway Express
Agency



THE BLUEBERRY GROWER

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BY ELIZABETH C. WHITE

THIRD INSTALLMENT OF A RECENT PAPER

The Rubel plants obtained from the second digging, like the fourteen divisions of the first, included a small percentage of bushes producing small, black berries. In several other instances I found such inferior plants mixed with the divisions of a fine selected bush. It appears that when two seedlings sprout and grow up together they sometimes fuse as by a natural graft so that it is impossible to separate one from the other except as the branches produce different types of fruit or leaves.

But this is too much time to spend on a few of the bushes found in 1912. The crop of wild huckleberries amounted to nothing in 1913. A heavy frost destroyed it, and no bushes of importance were located.

In 1914 a large wild crop matured. My search work was well organized and a lot of bushes were located, among them Adams, Dunfee and Grover. The last wild bush to be secured in that early search was Sam, found by Sam Lemon in 1916. The berries brought in were 3/4 of an inch in diameter. It was the only wild bush other than Chatsworth from which I have seen berries of such size. When I visited it the bush had been stripped, but the ground under it was thickly sprinkled with huge, but shriveled, light blue berries; and I wrote Dr. Coville that it was surely the best bush yet located. Time has proved my error. I had not in those first five years learned to judge blueberry varieties; perhaps I have not yet learned.

Altogether 100 carefully selected

New Jersey bushes were moved to the trial fields at Whitesbog and of them all Rubel is the only one any of us would plant today. In stability and in all around reliability we have nothing to surpass it. It is one parent of the varieties June, Jersey, Rancocas, Concord and Stanley. Each of these possesses one or more desirable qualities, such as earliness, size or flavor in a degree surpassing its Rubel parent, but not one of them equals Rubel in its degree of reliability and ability to withstand adversity which reduces the gamble of fruit production.

Just a glimpse has been given you of the fascinating pioneering work which exclusively occupied the first five years and still continues, though it is now overshadowed by commercial developments. During the first five-year period a few quarts of berries were gathered which served as indicators and were consumed at home.

In 1916 began what might be called commercial shipments and from there on the chart shows the annual Whitesbog total production and gross receipts after commissions were deducted in New York, until the organization of our Association in 1927. Practically all of the fruit marketed before 1925 came from the miscellaneous wild bushes and seedling under test. In 1925 about 270 bushels of the named varieties were included in the crop of 1,121 bushels.

From 1927 the chart shows the annual shipments of the Association and the gross receipts. This is not a complete report. A number of

crates of blueberries were shipped from elsewhere than Whitesbog prior to '27, and several hundreds perhaps thousands of bushels have undoubtedly been sold by independents since. The figure of the last three years include the North Carolina crops.

Imperfect as it may be this chart does show the trend of the commercial development and \$1,016,000 is a fairly substantial amount for an infant industry to have brought into a neighborhood in twenty years, especially as most of it came during deep depression years.

(To be continued next month)

FROST HITS NEW JERSEY BLUEBERRIES

The general expectation for the New Jersey blueberry crop is now that it will be from 10 to 15 percent less than that of last year, which was approximately 16,500 bushels. In April before the bushes bloomed the prospect was for a 50 to 60 percent increase over the previous year.

Before the disastrous May frosts occurred there was evidence, however, that from some lack of vegetative balance many bushes were not coming out in good condition. Then came the frost, which after the manner of many frosts hit very unevenly. One field of Miss Elizabeth C. White at Whitesbog was scarcely if any damaged, while on other areas the fruit was entirely destroyed and even foliage damaged, so that it appears doubtful if the bushes fully recover so as to produce normally even next year.



THE BLUEBERRY GROWER

Red, White and Blue "Blueberries" One Washington Variety These Colors— Another Picked As Late As Christmas

By W. D. SYDNOR
Bellevue, Washington

Beginning of Blueberry Culture

Being the fourth installment of a paper by Miss Elizabeth C. White.

We have two species of blueberries growing in this section that are very interesting and very very different to those of the east.

The *Vaccinium parvifolium* (Red Huckleberry) bears beautiful red berries, it is an exceedingly variable plant, bearing berries all the way from a clear white or cream color to dark red, and in shape from pear shape to a flat round. This makes it very interesting to hunt for superior specimens and I have spent days doing so, I have found them as large as five-eighths of an inch in diameter, which compares very favorably with the best of the wild berries of the East.

The flavor of this berry is very poor, it is very acid, and the berries are seldom gathered, however I think it has breeding possibilities, the vigor of the plant and the beauty of the fruit are worth preserving in a better variety if that is possible, furthermore they grow very well on dry soil, nearly every stump on cut-over lands will sprout one or more of these red huckleberries, the roots grow down under the bark of the stump and finally reach the ground before the bark rots away and drops from the tree, plants have been found growing on top of 40 foot stumps, with their roots reaching all the way to the ground.

This specie has 12 chromosomes,

the same as cranberries, it will therefore not hybridize with the commercial varieties of the East which have 24 chromosomes, I have succeeded in crossing it with the low bush blueberry of Maine, *Vaccinium canadense*, these species are so very different and I am wondering what the result will be, the hybrids will not fruit until 1937.

Another native is the *Vaccinium ovatum*, an evergreen plant of great beauty, it reaches perfection in the country between Puget Sound and the Pacific Ocean, in the deep shaded woods there, it is at home, great quantities of the branches are sold in the Cities for store greens, it is a common sight to see large truck loads of it being delivered to the stores, its fruit is small and blue or black, and quantities of them are gathered and sold for pie making, they ripen very late, I have picked them around Christmas time, this plant is sometimes called the Box blueberry or Box huckleberry because it so much resembles the Boxwood plant. This specie too has 12 chromosome and I often wonder why we find no hybrids between it and the first mentioned, as they grow in the same places.

The two species just mentioned grow at low altitudes, up in the mountains there are a number of species quite different.

You may be interested in the development of our cellophane cover. The quarts of the first crates of blueberries shipped in 1916 were covered with brown paper squares which I cut from large sheets and fastened over the boxes with gummed paper tape much as our covers are fastened now. In 1917 we had the manilla covers cut for us and printed with a special design advertising Whitesbog blueberries.

A few years later Sidney Hutton saw a candy box wrapped in cellophane. He wrote a letter of inquiry to the candy manufacturer who, as a great favor, furnished us, as non-competitors, information as to where this remarkable, imported, transparent wrapping could be secured. So blueberries were among the pioneers of the products to be marketed under cellophane. The rest of the story is Association history.

Now as to our future.

On April 30, 1920, there was printed in *The Rural New Yorker* an article on "Cultivated Blueberries" which I wrote at the earnest request of Mr. Collingswood, its editor. These are the first paragraphs:

"How big will blueberries grow? I used to call them swamp huckleberries and thought an occasional one-half an inch in diameter, huge. They always grew luxuriantly about the margins of our cranberry bogs, and as a girl I used to hunt the largest and best flavored berries and dream of a field full of bushes as good.

I knew it was a wild dream—

"they" said huckleberries couldn't be started from cuttings, and it was hopeless to find enough of the very best bushes to plant even a small field.

(To be continued next month)

Fresh from the Fields

(Continued from Page 5)

sula section and the crop on the Peninsula may be slightly smaller than last year. The Grayland section, however, escaped most of the frost injury and the yield in that section will be more than that of 1935. Indications are that the harvesting will begin somewhat sooner than last year. The second brood of the cranberry fireworm is starting to hatch and more than the usual amount of spraying will be necessary because the rainy weather caused many growers to neglect the first brood.

No Oregon Frosts Since April

There has been no frost whatever in this section since the first of April. Rains continued on and off until the 20th of June, giving a sufficient moisture, so that no one has begun the overhead sprinkling. Temperatures have been 2-4 degrees higher for the season than for several years. Bloom has come out very evenly and is extra heavy. Berries are setting on nicely.

Bumble bees have been numerous and most growers have two or more hives of honey bees. It is believed that the bees assist in producing a heavier crop through pollination. Southern Oregon growers have adopted the ventilated veneer box for this year. The box will differ from the eastern box in that the ends will be one solid piece so that a label can be pasted on. Labels will be of the printed variety same as last year.

Cranberry separators are being ordered through the Coos Cranberry Co-operative by L. M. Kranick, A. T. Morrison, H. H. Dufort and Sumner Fish. Several others plan to get together and own one other mill for use of several of the smaller marshes.

Estimate 25% Crop Increase

At a meeting of the Coos Co-operative, on June 28th, a rough estimate was made of the production for the 1936 crop and it is about 25% higher than for 1935. It is believed that the total southern Oregon crop will be about 15,000 quarter barrels. At this meeting, a club was made up to subscribe to the Cranberry magazine. Eleven subscriptions were paid for. The

CRANBERRY SALES WILL BE UP IN KANSAS CITY THIS FALL

From Kansas City, a big distributing market for cranberries and other produce, comes word from the brokerage office of Brown & Loe, Merchants Bank building that the Missouri city territory should use more fruits and vegetables during the next six months than in any previous year. Because of the extreme high temperatures which have prevailed in the mid-west this month local vegetables and fruits have been burned up; and the severe cold of last winter killed all possibilities of fruit trees producing in that territory.

Mr. Dudley Brown of that firm writes us that this should mean that cranberries will be sold in the Kansas City territory in much heavier quantity than ever before.

Kansas City is a leading market in the receiving and distributing of fresh fruits and vegetables, drawing supplies from commercial growing and shipping districts throughout the United States. In this central point are many carlot receivers, commission merchants, brokers and distributors including the Browne & Loe company, continually scanning the horizon for fruits and produce to meet the de-

mands of the vast trade which centers there, and thousands of carloads pass through their hands annually.

Kansas City, located as it is in the geographical center of the United States, enjoys unexcelled railroad facilities and can be quickly reached from all commercial producing districts. It enjoys also unusual advantages as a cold storage center because of its location and rail facilities.

Kansas City, according to Mr. Brown, who has personally disposed of more than 300 carloads of cranberries during his more than a decade of experience in the carlot brokerage business says that the district unloads between sixty to eighty cars of cranberries annually. Car lots are also sold by Kansas City brokerage firms to such nearby points as Springfield, Missouri; Joplin, Missouri; St. Joseph, Missouri; Pittsburg, Kansas; Wichita, Kansas; Salina, Kansas and Topeka, Kansas.

The extent of the fruit and vegetable distribution in Kansas City is also attested to by the fact that the single firm of Brown & Loe dispose of more than 2,000 carlots per year.

general opinion of the group was that such a magazine was a necessity and would prove of more benefit as time goes on.

All southern Oregon growers are invited to attend a Cranberry growers' picnic on August 2, the place to be announced later. This picnic will give growers a chance to meet and discuss mutual problems and get better acquainted.

Summary While an increase of 10 percent or so has been estimated by some for the Massachusetts crop, others feel the set has been spotty and that blacks have not set well. Wisconsin, earlier expected to have a very good crop, now seems to have lost that high prospect, and Jersey it appears will not have a too good yield. The small West Coast acreage will have a fine crop as for the last few years. So at this time, taking it all in all, our guess is that the total 1935 cranberry crop will be fairly close to last year's very small yield, and consequently should bring good prices.

REDUCED CRANBERRY FREIGHT RATES

An announcement of good news to the shippers of cranberries was made to us this week by Mr. Young of the Pennsylvania railroad, that is a reduced freight rate for cranberries, applying not only to the Pennsylvania lines but to all lines. This is a reduction from \$1.87 to \$1.52 and applies to all sections of the East, to and including the southern Pacific coast territory, which would take in Los Angeles and San Francisco.

This rate will be effective about Sept. 1, when shipments of cranberries start, and will apply on a 30,000 pound minimum or carload, plus emergency charge. This will make a material saving for the shipper of the fruit and will also be of interest to the buyer.

THE BLUEBERRY GROWER

Blueberry Culture In Michigan

Southwestern Michigan growers of improved cultivated blueberries, who grade their fruit and put up a fancy cellophane-wrapped pack, have been realizing good prices for their 1936 crop.

Stanley Johnston, station superintendent, reported that growers have been realizing 35 to 40c a quart for the fancy pack on shipments to Chicago. The oldest plantations in this section are yielding at the rate of 3,000 to 4,000 quarts per acre, despite the dry season.

The pomologist explained that blueberries, if planted on the right type of land, can withstand a long

drought without injury. He said the crop requires an acid or sour soil having a water table within 14 or 15 inches of the surface. Blueberries will not grow on sweet soil and will not do well on land with a low water table.

Despite the drought this season, many individual berries in this year's crop measure three-fourths of an inch to a full inch in circumference and have formed on the high bushes like clusters or bunches of grapes.

The kind of blueberries grown on plantations around here go right over the heads of most blueberry

lovers because they grow on bushes as high or higher than a man's head, and grow to almost unbelievable sizes.

The pomologist declares that cultivated blueberries are one fruit that is not likely to be overproduced for many years as there are only a few states where they can be grown profitably and successfully. Michigan is one of them. Because of their peculiar soil and climatic requirements, he said, production is limited.

To get the best results with cultivated blueberries, Mr. Johnston said plantations must be given light annual applications of commercial fertilizers and the bushes must be moderately pruned or the fruit will degenerate in size. The crop does not require spraying at present, but Mr. Johnston reported the blueberry maggot is beginning to appear and control measures in the future are very probable.

Most blueberry plantations in this section have been set on low grade land valued at \$10 to \$15 an acre before the plants were set.

Because of the high acidity and relatively high water tables, most other fruit crops would not grow well on the land. The soil is distinctly a one-crop land, and that one crop is improved cultivated blueberries.

The National Bank of Wareham

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DEPARTMENTS

Commercial

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Beginning of Blueberry Culture

The fifth and final installment of a paper by Miss Elizabeth C. White.

Then came the publication of "Experiments in Blueberry Culture" in 1910. The author, Mr. Frederick V. Coville, of the U. S. Dept. of Agriculture had discovered

Thirteen

"Cranberries" Sept. 1936

lots of interesting things about blueberries and had succeeded in rooting a few cuttings. Perhaps my dream of cultivated blueberries wasn't so wild after all. Possibly it seemed hopeless only because all the bits of knowledge that could make it real were scattered and jumbled like the pieces of a great big picture puzzle.

Since 1911 I have been hunting those bits of knowledge and fitting them together. Mr. Coville furnished very important pieces to start with and is always finding more. Experience of three generations in cultivating the cranberry, a near cousin of the blueberry, made a good background. My father's financial support and business experience is an indispensable part, perhaps it is the frame that holds the picture together. The folks that picked wild huckleberries for market and knew where extra fine bushes grew gave valuable bits; some little pieces I discovered myself; others have been contributed by many different people.

Enough of the puzzle has been fitted together to show that my old dream was but a faint shadowing of the possibilities. Now I dream of cultivated blueberries, shipped by the train load,—blueberry specials—to every part of the country. The little berries to today's dreams are half an inch in diameter. And the big ones?— Well, it is hard to measure a dream accurately, but they are at least an inch across. And these big blueberries will be raised on land that is now waste because too acid for present commercial crops, though just what the blueberries need. And raising all these blueberries will give healthful remunerative employment to lots of people. And— but you can dream for yourself. Only if you are to share my confidence that this dream is not wild; that some day it will come true; you must know what has already been accomplished.”

There follows an account of the blueberry development which the passage of sixteen years has made passe. The figures on our chart, however, make the dream of blueberry specials seem less visionary and we must be careful, very careful, to so manage that the increase

of production does not so reduce price as to drown our profits.

As safeguards we have our Association intact and seasoned by having passed through some unpleasant squabbles, any hurt of which I am sure will soon be outgrown.

Among our members new thinking and working ability are all the time coming to view. Just since our last meeting see the keen work John Cutts has done on the supply committee, and there is the letter our President has read from Mr. Folweiler. That appeals to me tremendously as it expresses my ideals for marketing our product so very much better than I could have done.

Our connection with Mr. Hefley and the C. H. Robinson Company with its far-flung net work of organized selling should be of immense value in expanding our market to care for increasing production. In so many cities its local managers can say to the buyers of Tru-Blu-Berries as Mr. Hefley did in New York last summer, “If you find a crate not up to grade just phone our office and we will send our man to remove the labels.” What a safeguard that is.

No safeguard outside of ourselves, however, can care for the quality of our pack. We must ourselves so care for our bushes and our pack that the Tru-Blue-Berry label will reliably indicate a quality well above the most carefully packed wild fruit, or the best selling effort in the world cannot assure us a continuance of good prices. Anyone of us, who, because the immediate dollar looks so large, or because he fails to adequately train his employees and inspire in them high ideals; neglects pruning and care of his plants; ships containers with better berries on the top than the purchaser will find in the bottom; sends to a market where he thinks they may squeeze through berries he is afraid for Federal inspectors to see; any one of us who permits such things to happen is hacking at the limb of quality which supports us all.

Some of these things have happened at Whitesbog, but we do try to correct our mistakes and I am sure very member here will do the

same.

Whatever other inspection services we may establish I think a good field inspector would be most helpful. Everyone is too busy at shipping time to do much visiting and a competent person could distribute among us knowledge of the better methods that one and another discovers from time to time.

The original parents of the seedlings tried under this contract were two New Hampshire bushes, including the Brooks already mentioned, with which Dr. Coville was working before he published Bulletin No. 139; the New Jersey plants located under the stimulus of my search campaign, portions of any of which were gladly contributed to the Department; and three or four others from New Hampshire and North Carolina, none of which proved to have that hidden quality, previously mentioned, of producing offspring of size and quality superior to itself.

The berries from this miscellaneous lot of seedlings were in great demand during the early years and brought a high premium over wild blueberries. This enabled the early experimental work to meet its own costs to a surprising degree.

The superiority of this fruit over wild berries was partly due to the selected parentage of the bushes and partly to the care exercised in picking and packing. Now that the great majority of cultivated blueberries are of the superior, selected strains and that many wild berries are packed in imitation of our “True-Blue-Berries” the old fields of miscellaneous hybrids, where no two bushes produce berries of exactly the same color, size, shape or flavor, have become a liability instead of an asset. Such is progress.

Rube Leek, good woodsman that he was, led me to the little hole a foot across from which he had dug the bush four years before. It was drifted full of leaves and, sure enough, bordered with sprouts. The Rubel bush was dug again, this time with a hole more than three feet across, and from the second digging I secured 40 plants; some tiny things, but many of them strong and a foot or more high. With these and the plants

from my first cuttings I planted six rows of about 20 plants each with 4 rows of Harding. This was accomplished in the fall of 1917 and was the first planting ever made of alternating rows of named varieties of blueberries.

Cranberry "Most Villaneous" of American Sauces

(Continued from Page 7)

sweet things, would help to soften their prejudices.

The difficulty attendant on the achievement of this reformation cannot be concealed, the custom is universal. Dining once with one of the cabinet ministers, at the seat of government, there were four soup plates of this article, at the four corners of the table, which is a strong proof that this practice is carried on by persons even in the most exalted stations, though he was from that portion of the United States, where the habit is most inveterate. It must first be discountenanced in the most fashionable circles, as it is a trait in the character of this nation, servilely to follow fashion, and though some repugnance would be shown at first, in what affected them so intimately, perseverance would ensure success.

It might be suggested further to their political economists, that, by disuse of this fruit, a large quantity of meadows, now useless, might be reclaimed and added to their national resources; that a very considerable addition of wholesome food would be thus procured for their horses and cattle, that is now lost by suffering the growth of this pernicious berry, which, in its preparation, requires such a quantity of sugar, as greatly to increase their humiliating dependency on the colonies of foreign nations.*

These and other arguments might be urged to destroy a practice, which I am intimately persuaded, it is the immediate interest of the French government to have exterminated."

*The acquisition of Louisiana weakens the force of this argument.—Trans.

**This is a ludicrous mistake, but excusable in a foreigner not intimately acquainted with the language.—Trans.

*This furnishes an instance of the rashness with which foreigners, particularly those from despotic countries judge of our institutions. Every person could have told the author, that the Board of Health is confined to the limits of Boston, which do not include Roxbury.—Trans.

R. R. Express Interested in Greater Use

Michigan Paper Tells of Effort to Promote Coop- eration with Blueberry Growers.

That the Railway Express Agency has been interesting itself in the greater use of blueberries is shown by the following, which is part of an editorial appearing in a Hancock, Michigan, newspaper, in relation to blueberry culture in Michigan.

The traffic department of the Railway Express Agency is investigating the possibilities of developing a greater market for Upper Peninsula blueberries.

J. J. Fennessy, traffic agent of the Railway Express Agency, believes that the express company could work out a promotion plan for blueberries. He suggests the adoption of an eight-quart case, which would come more closely in the range of the average family's needs. Under the plan considered the traffic department would drum up business for blueberries throughout the country through advertising and publicity channels, although it would not itself engage in buying or selling of berries itself.

Here is the chance for the Upper Peninsula to secure the cooperation of a national organization in a program to make the nation "blueberry conscious," much the same way as has been done with California oranges and other fruit. It appears to have worthwhile possibilities.

Your Cranberry Package

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it. The native pine box has met this need and since the adoption of the quarter barrel box, the cranberry industry has experienced a better market and has been practically free from the expense and annoyance of claims for damage suffered in transit.

From time to time, substitute container manufacturers have tried to displace the native pine box as is now in use. Why should we change? Has the pine box failed to protect its contents? Is it an unattractive package? Has it outlived its usefulness? Is the price prohibitive? Of course, the answer in all instances, is NO! The pine box, by its rigid construction, guarantees adequate protection in transit, is an attractive package, and the price is in no danger of becoming prohibitive by reason of the highly competitive condition in the box industry.

The cranberry box is at the present time, the backbone of the local box industry and if lost to a substitute container, would greatly affect our community life. At a time when states and cities are offering inducements to attract new industries, should we consider the destruction of one of our own?

It would appear that the local cranberry industry, by its adoption of the native pine box, has secured the ideal package to fit its particular condition and can gain nothing by changing the type of its container. If, in the future, it is necessary to adopt a different container, we should assure ourselves, before taking this step, that it is one of progress and not a step backward.

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