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Eleventh Annual Proceedings of the

**Wisconsin State
Cranberry Growers'
Association.**

1897-8.

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**ANNUAL CONVENTION: Grand Rapids, Wisconsin,
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A. C. BENNETT, President,
Grand Rapids, Wisconsin.

E. P. ARPIN, Secretary,
Grand Rapids, Wisconsin.

—○—

REPORTER PRESS,
GRAND RAPIDS, WISCONSIN.
1898.



PROCEEDINGS

OF THE AUGUST CONVENTION, HELD AT EXPERIMENTAL STATIONS NOS. 1 AND 2, GAYNOR'S MARSH, AUG. 17, 1897.

Meeting held pursuant to notice given and called to order by President A. C. Bennett at 1 p. m.

Minutes of last meeting approved as printed.

President's address read by A. C. Bennett.

Letter from H. O. Kruschke of Auroraville, Wisconsin, read, estimating the Berlin crop at 8,000 barrels. Also letter from A. J. Rider of Trenton, N. J.

TRENTON, N. J., August 4, 1897.

E. P. Arpin, Esq., Grand Rapids, Wis.—*Dear Sir:* Your favor of the 31st ult. is received. In reply will say the prospects are for better crop of cranberries in New Jersey, than last year. A number of plantations in Burlington county were injured by May frosts, but not so seriously as at first supposed. The cold and wet weather has favored the later bloom, so if the season continues favorable there will be a fair crop even on these plantations. The various kinds of insects have not been so destructive as for several years previous.

Recent heavy rains have flooded the wild marshes in many localities and even some cultivated plantations have been under water for three or four days in succession, which must seriously injure the crops in these places. But, notwithstanding these casualties, the New Jersey crop will be larger than last year.

Reports from Cape Cod indicate a smaller crop than last year, this may or may not be true.

You ask my ideas concerning price, I would hardly dare venture an opinion, I will say, however, that there is a prevailing opinion that prices will be better than last year, and unless this opinion proves to be well founded later on, some crops will remain ungathered.

Many growers last year did not get back the price paid for picking to say nothing of other expenses.

With shorter probable crop of apples, our equalizing tariff on Canadian berries and the prospects for better

times generally, I am hopeful of fair returns this year on our investments. Respectfully yours,

A. J. RIDER.

MADISON, Wis., Aug. 14, 1897.

Mr. E. P. Arpin, Grand Rapids, Wis.—Dear Sir: I am in receipt of notice of meeting of Wisconsin State Cranberry Growers' association to be held at Mr. Gaynor's marsh and regret very much that it is impracticable for me to accept your invitation to be present at the meeting. It may be a matter of interest to your gathering to know some of the results which we have obtained during the year measuring the work which a 16-foot geared windmill was able to do pumping water. This windmill is placed on the tower of the physical laboratory, and has an exposure which is rather better than would usually be given a windmill. We have worked it nearly continuously, at all times when the wind was strong enough, since the 7th day of March last, and it has been so placed that it could work either a plunger pump with 12-inch piston and 9-inch stroke, or a bucket pump manufactured by Seaman & Schuske, St. Joseph, Mo., and when the wind was strong enough it has been given both pumps at the same time. During March and April the water was lifted between ten and eleven feet, and after that date 12.8 feet. The water was lifted from in the basement of the laboratory and discharged into a measuring tank holding 141.2 cubic feet, which was arranged to empty itself automatically and to record the number of times emptied.

During 25 days of March, with 7,328 miles of wind, the tank was filled 1,446.6 times; in April, with 10,417 miles of wind, it was emptied 2808.4 times; in May, with 9,472 miles of wind, it was filled 1,995 times; during the month of June, with 7,149 miles of wind, it was filled 1,269.5 times; and during the month of July, with 6,412 miles of wind, it was filled 993.5 times. This makes during the 147 days 8,513 tanks filled, or 1,201,000 cubic feet of water lifted to a height of not far from 12 feet. This is equivalent to 330.9 acre-inches; that is, water enough to cover 330.9 acres one inch deep, and 33 acres 10 inches deep. The average daily rate of pumping for the mill has been 2.25 acre-inches of water.

It should be said in regard to the windmill, which is one of the aermoter type, that these pumps were driven by it from a counter shaft, and that it was also necessary to use an off set in the power in order to carry the vertical driving shaft down in the corner of the tower, where it would not be in the way of the elevator. These, of course, have consumed some power, and could the mill have been directly connected to these pumps it is probable that it would have done considerable more work. On the other hand, for practical purposes, it must be said that the mill has had a better exposure to the wind than it is likely to get under most conditions.

We have had in our laboratory, placed so that they could work the same pumps through the same counter shaft, two gasoline engines, which we have run, however, with ordinary illuminating gas. With the five horse gasoline engine working a small size of Menge pump, we have been able to lift with it in 10 hours 12.18 acre inches to a

height of 12.8 feet, at a cost of \$1.55 for gas at \$1.25 per thousand feet. This is at the rate of 12.7 cents per acre inch. With the same pump and engine we have lifted water through a height of about 10½ feet at the rate of 10½ cents per acre inch. This means that to cover an acre 10 inches deep the cost of fuel would be \$1.05, when illuminating gas is used at \$1.25 per thousand. The cost of running the engine with gasoline at 10 cents per gallon is considerable less than the cost of running it with gas at \$1.25 per thousand, and at the present time gasoline, which costs 10 cents a gallon here in 5 gallon lots, can be purchased in 50 gallon casks at 8 cents per gallon.

Yours truly,

F. H. KING.

The future prospects of the cranberry industry around Berlin, Wisconsin.

Within the last few years the cranberry industry around Berlin, which had become to be looked upon as a thing of the past, has taken a new lease of life and bids fair to be as great in the near future as in its palmy days. Those marshes where a sufficient supply of water can be obtained are being improved in a practical substantial manner. Dams are constructed with eight to ten feet long matched sheet piling. Nearly two miles of this kind of work is being put on the old Carey system of marshes by Messrs. Stanley, Elmer & Hamilton.

On the Stanley marsh 150 acres sage covered ground have been plowed and planted to vines; some of it was planted in 1895. The last two open winters have made it up-hill work for the planting. Dams were of such a poor nature that at every thaw the flood would pass off. This is now remedied with a good sheet piling dam, and expect no such drawbacks in the future. The ground has all been re-planted this summer, and is looking fine at this date. The vines of the original stock still remaining are doing better than could have been expected under prevailing conditions.

In 1892, the year I took hold of the marsh, 60 barrels were gathered on Mr. Stanley's marsh, from that on increasing to 1895, when 1,450 barrels were gathered. In 1896, 1,245 barrels. The present outlook is fair, and will equal or surpass the best figures, showing that the vines will bear as well as ever, if treated right.

The other adjoining marshes have done equally well, if not better. On the A. Mosher marsh of 23 acres, about 500 bushels were gathered in 1892; in 1895 over 3,000 were picked, last year nearly 2,000, and this year it looks very fine. The same increase is to be found on the Elmer & Hamilton marshes. This prosperity has put confidence in these men, and they are now making first-class improvements.

Water for these marshes is supplied by the pumping plant on the Sacket, now owned by Mr. Stanley. Water is taken from the Fox river. The normal capacity of the pumps is 30,000 gallons per minute each. There are two such pumps; power is furnished by two boilers of a joint capacity of 300 horse power. The water is lifted about 8 feet.

It makes a cranberry man shout for joy to see these pumps throw water.—A veritable river. Water is fur-

nished to the neighbors at \$3.00 per acre per annum. Several hundred acres have to be supplied for which nothing can be collected, being lands of no use or value. This will be remedied with sheet piling dams in the near future.

The canal carrying the water from the pumps to the Carey marsh was put in last summer; it is nearly four miles long, 16 feet wide and 3 feet deep. Total cost was about \$6,000.00.

Land when wanted for canal right-of-way at once becomes very precious; some of it cost \$500.00 per acre.

On the old Sacket marsh nearly 100 acres have been scalped and set to vines; 30 acres are just coming into bearing. A reservoir of 100 acres in extent is located on the north side of the marsh; this will give ample protection at all times.

The old Palmetter & Co. marsh is in an unsettled condition, being in the hands of a receiver; it is to be hoped that the litigants will come to a speedy settlement, and that whoever has the marsh will put it in good shape. There is an immense area of good vines, and under good management will produce good crops.

Other smaller marshes wherever there is a show for water are being improved. Altogether the cranberry industry is awakening from its Rip Van Winkle sleep, and in a few years hence will be flourishing as of old.

H. O. KRUSCHKE, Auroraville, Wis.

Report of Mr. A. Searls, manager Experimental Station No. 2, read, showing work done on well drilling.

Communication from Dr. Stansbury of Appleton, Wisconsin, also read.

Secretary E. P. Arpin made a report on the subject of placing a tariff upon foreign cranberries, which was recommended at the last meeting.

Correspondence from A. J. Rider, Hon. John C. Spooner and Hon. Vilas were read.

The result of this work has been, that through the co-operation of the eastern growers and the members from congress, at the last session of congress a duty of 25 per cent. ad valorem was imposed on all foreign cranberries.

Following is the estimate of crop in Wisconsin, as read:

Elm Lake.....	800 barrels.
Bearss Station.....	1,500 "
City Point.....	850 "
Valley Junction.....	1,000 "
Mather.....	2,800 "
Nekoosa.....	100 "
Berlin.....	8,000 "
	<hr/>
	15,050 "

It was moved and adopted that the annual dues be reduced from \$1.00 to 50 cents per year, and that one or

more persons associating in business together would be considered as one member.

Upon notice duly made and adopted, the annual dues in arrears were cancelled.

Messrs. J. A. Gaynor and W. H. Fitch gave their ideas as to the price of cranberries for this season. Upon motion made and adopted, it was regarded the sense of this meeting that cranberries ought to bring \$6.00 per barrel.

It was deemed by the association that the price of picking berries ought to be the same as last season.

Mr. Gaynor made verbal report of work on Experimental Stations Nos. 1 and 2. A general discussion ensued between Messrs. Gaynor, Lynn and others as to the best method of keeping vines over winter. Good success was reported in keeping vines under water, and also out of water covered with hay.

Mr. Skeels stated that the best growth of vines he had this year was on sandy knolls, whereas the muck land showed poorly. This was accounted for by the fact of the recent dry seasons which left the muck ground without moisture, whereas the sandy ground retains moisture the better in dry seasons.

On motion duly made and adopted, it was resolved that the next lot of vines to be planted upon Experimental Station No. 2 be divided equally, and part planted on sandy land and balance on muck soil to ascertain the relative value of both methods.

Mr. L. S. Cohn and Mr. A. C. Bennett each promised to furnish about 350 lbs. of good vines for Experimental Station No. 2 to be planted next fall and spring. Mr. Cohn's vines are from Berlin and Mr. Bennett's are from Wolf river.

Mr. J. A. Gaynor spoke about the importance of each member taking an interest and sending samples of their best vines to be placed upon the Experimental Station.

C. J. Kruger stated that he found a new variety of cranberries in northern Wisconsin, the berries being of a light pinkish color and very early.

A general discussion ensued as to the valuability of changing the standard size of barrels; it was deemed best to leave the present size of the barrel until the laws could be changed and have the best sized barrel made the legal standard for the state.

The subject of co-operation was generally discussed, and upon motion made and adopted, the following committee was recommended to act with the president: J. A. Gaynor, E. P. Arpin, S. A. Spafford and Chas. Briere.

A rising vote of thanks was heartily extended to the ladies who so kindly aided in entertaining the members of the association.

The thanks of the association were also voted to Messrs. Gaynor Brothers for the courtesies extended.

Meeting thereupon adjourned.

E. P. ARPIN, Secretary.

PROCEEDINGS

OF THE ELEVENTH ANNUAL MEETING OF THE WISCONSIN STATE CRANBERRY GROWERS' ASSOCIATION

HELD AT GRAND RAPIDS, JAN. 11, 1898.

Meeting of the Wisconsin State Cranberry Growers' association called to order at 10 o'clock a. m., at city hall.

Upon motion made and seconded meeting adjourned until 1:30 p. m.

AFTERNOON SESSION.

Meeting called to order by President Bennett.

Minutes of previous meeting read and approved.

President's address read by A. C. Bennett.

PRESIDENT'S ADDRESS.

The second article in our order of business calls for an address by the president.

I have no flowery speech to make; I prefer, instead, to give a more general outline of the work before us as an association, with a view of making this association more and more useful.

At the August meeting I requested each member to report at this meeting three of the biggest mistakes they had ever made in the cranberry business. If all will do so, I am sure we will get some new ideas of great practical value.

My own greatest mistakes are:

First. In supposing and believing that I knew more about the business than I really did.

Second. Locating in a dry climate where there was an inadequate supply of water.

Third. In not planting the first few acres of vines of the very best variety obtainable and using them as a nursery from which to plant the rest.

I sum these all up in one, and call it *Ignorance*.

If I had known what I know now, I would have located on the leeward side of some large lake where I could have the air tempered by its presence and made moist summer and winter, but even there I might find an excess of rain during the time of bloom, or too sudden changes of temperature brought on by its sweeping winds, and many other unexpected things.

In contemplating the many things I don't know, I

become overwhelmed with their magnitude, yet there are a few things that I believe I do know yet, viz:

1. If we are to grow food for the public at a profit to us, we must raise something they want, and such as they are willing to pay us more for than it costs us to produce. The one who raises the best potatoes, apples, butter, etc., never lacks for a market; the best of everything is none too good. We readily get \$1.00 per barrel extra for our jumbo cranberries and find it impossible to supply the demand, while one variety in Chicago is selling at \$10.00 per barrel now, others are selling at \$7.00. The merchant that has them setting side by side, will tell you he can sell two barrels of the larger ones to one of the smaller.

Wholesale fruit dealers who have tried the experiment of grading the Wisconsin cranberry, tell me that it pays to grade them, and that they can get a better average price for them, and can also give better satisfaction. The majority want a fancy article, and are willing to pay for it, while others want something to sell cheap.

The imperfection of all graders so far put on the market is the main reason why growers and wholesale fruit dealers have not used them. Ten years ago only a few jobbing houses used the Busby mill; now they are as essential to the jobbing houses as a farming mill to the farmer, and almost as universally used. This re-milling of cranberries by jobbers on day of sale is a big advance over the old method of compelling the public to take them in a mixed condition.

The general introduction of a practical grader will mark another big advance. This, I am glad to say, will not be long delayed, and the honor of its invention belongs to a member of this association; it is perfection itself. The principle is original and, as the inventor says, can never be improved. It does not bruise the berry as the jumper does. The inventor claims to be able to separate the bad berries without the jumper, by a very little addition to this grader; I sincerely hope he may. If rubber was used on the Busby mill, instead of the glass, the bruising of berries would be lessened, but this would require the re-arranging of the steps also; it should be done.

The practice of the hand sorters who allow berries to drop from the top of the barrel upon the hard bottom over two feet below, is a bad practice for which there is no excuse, and the falling of berries against each other as they are sorted into the barrel is equally bad, and I ask you to suggest some better plan.

The picking of berries when wet with dew or rain should be avoided, or the berries should be stored away separately in shallow slatted boxes where they will dry quickly without steaming up through other berries.

The storage room for berries that are *dry* should be built with double sidewalls, double roof with sawdust or the chaff from the berries filled in between to form a protection against sudden changes of weather, heat or cold. After the berries are thoroughly dry, they should only receive ventilation at the top; this carries off the heat which rises to the top, same as a cork in water, leaving the cold below. If other air is admitted below so as to

cause a draft, this causes a current that carries the cold along with the heat to the top. It should be so constructed as to admit the outside air in the fall, whenever the air outside is cooler than the inside air; then closed up tight, except the small ventilation at the top. I called your attention to this method of keeping the storeroom cool in my first paper ever read before this association as being the method used in the city of Chicago, which, for cheapness, has never been improved upon. If there is no ventilation from below, every particle of moisture escaping from the storeroom will help to cool it.

When I was a farmer I used to wrap my water jug with batting and wet the batting, then set the jug in the sunshine; the hotter the day the cooler the water in the jug. It is on this principle that artificial ice is made.

I now wish to state some well known facts which form the foundation for the care and preservation of all fruit having pulp and seeds: First. It is a well known fact that whatever grows quick goes to decay quick. The early apple, peach, plum and cherry all go to decay early, and when we find a cranberry like the early blacks that ripens early, we ought to know from that fact alone that it is not a late keeper.

Second. It should be a well known fact that there is a principle of life in fruit which continues the circulation of the juices in the pulp under favorable circumstances, and prevents this pulp from going to decay until the inner seeds are fully matured. If the fruit is picked too green, before the life forces have become strong, the fruit dies and quickly goes to decay; this is seen in the imperfect apples that fall from the tree early in the season. A little later we may pick three apples from the same tree all as nearly alike as possible. We will cut one of them open and find the seeds white and not fully grown, remove the seeds and plant them and they will not grow. One of the other apples we will place on the ground under the tree where it is subject to the changes of heat, cold, light and moisture; in a short time we find this apple becoming soft, and in a little longer it begins to go to decay; we cut it open and find the seeds perfect, full grown and dark colored. The principle of life that was in the pulp has passed to the seeds which now show no signs of decay, though surrounded on all sides by the decayed apple, and these seeds will grow. The other apple we will put in our storage room and keep it dry, cool and dark, with an even temperature. We now find that the cool temperature has reduced the rate of circulation in the apple, and a much longer time is required to perfect these inner seeds, and until these seeds are perfected, the pulp retains its life and flavor, and will not go to decay. Light is an active principle, and I exclude it at least in part on general principles: changes of temperature hasten circulation. We see this illustrated in the sugar bush; so long as it freezes at night and thaws in the daytime, we get a free flow of sap, while an even temperature cold or hot, soon checks the flow. Our aim should be not to stop the flow of juices in the pulp. (As is done in cold storage, which is death to all fruit if long continued.) We should aim to check it: First, by picking it before it is fully ripe;

second, by placing it under conditions that tend to preserve its life principle as long as possible.

Here is a wide field for the managers of our Experimental station. In addition to their object lesson in showing us the best method of growing berries and the best kinds to grow, they should be able to tell us their relative keeping qualities, and the temperature at which they should be kept to secure the best results, and many other things.

If the Early Black cranberry had been first grown in an Experiment station and its merits and demerits fully known before the public planted them, there would have been saved, to the growers on Cape Cod alone, more money than it would cost to conduct our Experiment station for at least 100 years, and yet it is safe to say that their loss is not one-tenth of the actual loss to the jobbers and retail grocers in every city and village in the land. There is not a grower of cranberries in the United States that does not regret the over-production of this poor keeping berry. It glutts the market even when only half a crop is gathered.

When our Experiment station has vines and berries to experiment with, we may find some of our pet theories will have to give way before stern facts. One party says, to raise berries give them plenty of water; that is no doubt true, but if too much water is used to mature the growing crop this year, the vines are weakened for another year, and it requires close observation, long experience and the very best judgment to decide what plenty means. If it were only for this year's crop we were working, plenty would mean a good deal.

Many growers rejoice over the extra large growth of the vines the past season. We are glad to see you all happy, and the vines healthy; they may be all right for a big crop another season, but how about the future? It is a big mass of vines to find their way down to Mother Earth without help. If they do not get there, will vines growing from these long vines be able to mature a full crop? If we roll them, when? If we should mow them after next year's crop, at what time of year? Experiments in the east have not been uniform.

The past season, with its abundant rains during the early summer, has given the Wisconsin cranberry grower a new lease of life in more ways than one. In addition to the berries it brought us, it also destroyed the eggs and larva of many millions of fruit and vine worms. These pests, after the fires of '93 and '94, have put in an appearance in countless millions, and had it not been for the wet season, they would have taken a large part of what the fires had left. Last fall I could see here and there a small patch of them left; they seemed to be in herds; such patches should be closely watched next spring, as soon as the first green leaf appears and be entirely destroyed, either by flooding for several days, or by the use of some good insecticides. If you have nothing better, use Paris Green freely, it will not hurt the vines. Common salt, ground fine, and sown on while the vines are wet with dew, and repeated after rains, may prove even better, but I would cut these patches to the ground while the eggs are on the vines and burn them, rather than let one

escape. The experiment of Mr. Rider last year in flooding his marshes for two days the 1st of June and then re-flooding it again on the 20th of June, had a remarkable benefit, gathering 4,000 bushels where the crops had been nearly ruined for ten years before, and ought to lead our Experiment station to make some experiments along this line on a small scale, noting carefully the temperature of the air and water, condition of the vines, length of time that water could be held at certain times over them, with benefit, etc.

The entire destruction of the crop by flooding at Elm Lake marsh last year, and injury on many other marshes, shows that it cannot always be done. The American Agriculturist this last year in investigating our exports of cranberries, ascertained that about 4,000 bushels were exported from Boston alone. This is about four times as many as were ever exported from all American ports previous to our special efforts to introduce the cranberry in Europe. One of the wholesale grocery men at Council Bluffs, Io., said to me on Thanksgiving day that "just one year ago today I had American cranberries to eat in Paris which were purchased at the retail store of Phelix Potin on Boulevard Sebastapol;" this man retails \$12,000,000 worth of groceries a year. This is the popular market of Paris; it is evident that the seed sown in that country by Mr. Rider is beginning to bring us customers. If the American cranberry becomes popular in Paris, which it is sure to do if it gets started right through such leading houses, we can never estimate the future results.

In planting vines for the future, we should plant each variety separate; then at picking time each variety can be picked when fit to pick. Cranberries are like apples, each variety has its own time for ripening, and when that time comes they ripen quite uniform, so that the right time to pick them can be determined.

Our wild marshes contain many varieties; some early, others late. It is impossible when these are grown on the same piece of land to have them picked at the proper time so as to secure their best keeping qualities. We complain some years that our berries do not keep well; perhaps the reason is that the early varieties have produced more abundantly, or when they keep well, the late ones have been the only ones produced. Whatever variety is grown, I am satisfied that conditions favorable to its uniform steady growth is essential to its best keeping qualities. An excess of moisture and heat, causing the fruit to grow too rapidly, especially late in the season, causes a tender growth which looks fair, but lacks the hardness essential to long life.

I have just read of the death of an over-grown young man of 18 whom the doctors say died from weakness by too rapid growth. Even our wisdom teeth that come late grow quick and soon go to decay. If we look for the millionaires made such by cranberry growing east or west, we see only a zero. If we look for wrecks along the shores of time, we are reminded of the valley of dry bones. You say this was the result of drouth and fires—things beyond their control; true, and we will not blame them, but the old fire lines hidden down deep in the marshes of Wiscon-

sin, show clearly that this country has been swept many times by fires in the past, coal and ashes being found in layers from one to four feet below the surface.

If I knew that we would have wet seasons for the next ten years, I would advise every cranberry grower to prepare each year for such fires, for they will surely come again, and by that time the habit would be well formed.

Let us see you all next August. Come prepared to tell us what new things you have learned during the next six months.

If you have questions you want discussed, put them on paper and slip them in the question box at the next place of meeting.

The following officers were elected for the ensuing year:

President—A. C. Bennett.

Secretary—E. P. Arpin.

Treasurer—A. E. Bennett.

Member on Executive Committee—Andrew Searls.

Report of committee on Cranberry Buyers' Union received and accepted, same to be published in minutes.

Mr. J. A. Gaynor thought best to ascertain if there was a legal standard Massachusetts barrel.

President A. C. Bennett said that he did not think there was a legal standard barrel in Massachusetts, as there was quite a difference as to the size and shape of the barrels used.

Communications read from the following members:

L. S. Cohn, G. H. Kruschke and H. O. Kruschke, J. I. Stickney, Geo. H. Stansbury, E. Boaler and W. C. Trahern. Also from E. Small of Harwich Port, Mass., A. J. Rider of Trenton, N. J., and C. W. Wilkinson, secretary of the Growers' Cranberry company of Philadelphia, Pa.

Secretary was requested to publish such parts of letters as in his judgment were necessary for the information of the growers.

Mr. E. Small of Harwich Port, Mass., in his letter to President Bennett, says:

I think we have opened quite a market in Europe, but growers have been shipping direct instead of through our company so that we had to buy all the berries we shipped, and the profits were on the wrong side, so the stockholders thought it best to dissolve the company, which has been done.

We have not had a very prosperous season; our crops have been small, and the sales no where near what we hoped for at the commencement of the season, all owing to the larger portion of the growers shipping to commission men all over the west and having their berries slaugh-

tered, which, of course, hurt the market for everybody. If the growers would only ship to reliable parties it would do very well, but we have a large number of small growers that will consign to anyone who sends high quotations, without inquiring whether they are reliable or not. Hope they will learn after awhile that they are hurting their own interest.

We had some excessively hot days in September during picking time, and many berries got touched so they did not keep very well and they were forced on the market, which was a great damage to prices and quick sales.

ST. PAUL, MINN., Jan. 8, 1898.

Mr. A. C. Bennett, Grand Rapids, Wisconsin—Dear Sir:
I am today in receipt of notice of the annual meeting of the association.

As it is impossible for me to attend the meeting, and feeling an interest in the matter and hoping for a closer coming together of the cranberry interest, I drop this line to say, I hope your meeting will result in benefit to the growers of the state.

This year decided me in the opinion that our barrel should be changed to the Cape Cod barrel or so very near it that there would be no objection made between them; the association should settle this and have it made the standard of the state.

In my judgment, the most important act the association could perform is: First. To get *all* cranberry growers to join the association as the best method to keep all in the business and cut off sending berries enough to commission men to hold prices down at the expense of the growers.

One of the best methods to encourage growers to join the association, and in my judgment would be a greater benefit to Wisconsin growers than anything yet done, is for the association to issue a pamphlet setting forth the merits of Wisconsin cranberries, their superiority over all other cranberries, and then give the name and postoffice address of every grower in the state that is a member of the association, those only, and then send it to every large buyer.

I feel that there must be a united action on the part of Wisconsin growers if success is made. Care is needed in grading and barreling berries. We should know the amount of berries grown in the east *before we put our berries in the market.*

Hoping you will have a successful meeting, I am yours truly,

GEO. H. STANSBURY.

PHILADELPHIA, PA., Jan. 11, 1898.

Mr. A. C. Bennett—Dear Sir: Your letter of Dec. 20th was duly received and the same should have been acknowledged at once but we have deferred the matter so we owe you an apology for not answering more promptly. We are glad to learn that you had such a satisfactory result the past season in handling your crops of cranberries. It is very evident if the berries were kept out of the hands of commission merchants and worked through the wholesale

grocery houses and the wholesale fruit houses the result would be much more satisfactory to all concerned. These so-called commission merchants are a detriment to the cranberry interests. They will send out high quotations to the growers and work all kind of schemes to get possession of the products and as soon as they have secured all the consignments they can, then they dispose of the products regardless of their value. There are a great many unscrupulous commission merchants in Chicago and other western cities. It would be much better if all the cranberries grown in the entire country were sold at prices at shipping points. We hope the time is not far distant when the cranberry crop can be handled with better results than it has been handled in the past. We feel satisfied if the Wisconsin berries were centered and controlled through one channel and if the Cape Cod and Jersey crops were handled in a like manner it would be much better for all interested. If three companies were to represent the three interests then, no doubt, we would be able to realize fair valuations for the berries regardless as to what the extent of the crop might be. You say you think we did right this season by not starting Jersey berries at high prices. Our large growers in New Jersey feel satisfied that it is much better to start berries at a fair valuation so as to enable everyone who may be inclined to use them to do so. High prices on cranberries are all right when the berries are very scarce, but with anything like a moderate crop it is very evident that it is much better for the growers to be satisfied with moderate prices. The New Jersey crop is well cleaned up at the present time. There are less berries in the hands of growers than there has been for several seasons at the corresponding date and there is only a moderate quantity of berries held in the eastern markets. We understand there are a few berries held back by growers, principally by Geo. R. Briggs of Plymouth). His Howes and Matthews-berries are coming on the market at the present time and selling at \$7.50 to \$8 per barrel. Jersey berries have a valuation in the east at the present time of \$6 per barrel and \$1.90 to \$2 per box. Trusting that the growers in all sections can be favored with a good average crop of cranberries the coming season which may be handled with satisfactory results and that our various companies may be the means of bringing about many reforms and that we may have the pleasure of hearing from you later on, we remain, yours truly,

C. W. WILKINSON, Sec.

The size of picking boxes was taken up.—Mr. Briere gave size, 13 inches high, 18½ inches long and 11 inches wide; this box would hold a few quarts over a bushel, enough to make up for chaff, etc.

Mr. A. C. Bennett made remarks as to the eastern method of hiring and paying pickers, which amounted to paying a premium to such pickers as stay throughout the picking season.

J. A. Gaynor moved that it be declared the sense of

the meeting that the eastern standard barrel be adopted for the standard Wisconsin barrel and that President A. C. Bennett be a committee of one to ascertain as to the size of the standard eastern barrel and report at the August meeting. Motion duly seconded and carried.

The following is a copy of a letter received by President Bennett from Emulous Small:

HARWICH PORT, MASS., Jan. 17, 1898.

Mr. A. C. Bennett, Grand Rapids, Wis.—Dear Friend: Your favor of 13th at hand and appreciated. Note what you say about the size of the barrels.

The standard size for Massachusetts, according to the law, is 100 quarts level measure. I make the barrels 25 $\frac{3}{4}$ inches between the heads, 18 $\frac{1}{4}$ inside bilge. 16 $\frac{1}{2}$ inch heads. As there is no penalty attached to the Massachusetts law there are some growers who make a smaller size, but I think most growers use the standard size. You know that there are always some people who think it smart to cheat a little in size of barrels but they usually lose by it as their mark of berries do not sell as high as others who give honest measure and packing. With respects to yourself and family I remain, yours truly.

E. SMALL.

P. S. I expect to be in New York next week and shall attend the American Cranberry Growers' association at Trenton, N. J.

Mr. Spafford thought that the Berlin barrel as used by Stanley would be satisfactory, if it could be agreed by Berlin people to maintain it as the Wisconsin standard.

STATISTICS OF CROP RAISED.

Elm Lake and Bears Station.....	2,718 barrels
City Point.....	721 "
Valley Junction.....	1,142 "
Mather.....	1,814 "
Norway Ridge.....	955 "
Nekoosa.....	180 "
Green Bay.....	180 "
Berlin.....	8,000 "
Spooner.....	600 "
Hayward.....	120 "
Total.....	16,430 "

Report of A. Searls for Executive committee on Experimental station read, and same accepted.

GRAND RAPIDS Wis., Jan. 10, 1898.

The keeper of Experimental station No. 1 would respectfully report:

There have been planted at the station 155 sections, of which 146 have living vines.

Of this number 17 sections were added this year. Of these, 13 were planted by cranberry seed selected from berries that were regarded as extra fine on account of form,

size and color. Four sections were planted to vines received from Chas. Briere, A. Bissig and Wm. Trahern, all of which are Wisconsin vines.

There were at the station fifty-one sections that bore fruit this year which was picked on August the 29th last, and the following is a report of the condition of each as it appeared at that time:

Section 1. The berries pretty well ripened, the vines in good condition.

Section 3. The berries appeared quite green, large growth of vines.

Section 5. Quite green, good size vines and uprights well set for fruit. The vines made a fair growth.

Sections 11 and 13 are substantially the same as section five.

Section 14 was fairly well ripened, the vines did well.

Section 15. The berries were quite green, but vines made a good growth during the season.

Section 28. The berries were a fair size, show a bright red. Very smooth and glossy.

Section 31. Substantially the same as twenty-eight.

Section 36. The berries quite green, a little more than half grown.

Section 42. The berries were quite well colored. The vines made a good growth.

Section 43. Fairly ripe, but the berries did not look like the berries on the vines when planted. The name of this variety is the Ear Drop, it was received from N. S. Johnson of Berlin, Wisconsin. It was a long, thin, pointed berry shaped like a red pepper when received, but the berries of this season are not true to the original type.

Section 49. This is a McFarlan variety, known as the "Reed berry"; it is of a light green color when picked.

Section 50. A Cape Cod variety known as the "Black Veil", was highly colored when picked.

Section 51. Well ripened, deep red, medium size. Appears to be a good variety. These were received from A. J. Rider of New Jersey, in 1893, and are known as "Rider's Favorite".

Section 53. Was received from J. T. McFarlan of South Carver, Mass., October, 1894, and is known as the "Hewett berry". It was of a bright red color. Vine made a good growth during the season.

Section 57. One berry on this section, it is a dark red, oblong in form, and is a Cape Cod variety known as the "Ed Smalley".

Section 58. The berry is of a fair size. The vine did well.

Section 60. Just beginning to turn red, and appears to be a good bearer. It was received from C. B. McFarlan of Empire City, Oregon, in 1894, and is known as the "St. Claire." When ripe it has a light currant color.

Section 88. Fairly ripe. Seems to be a good variety. Was received from George Fitch of Berlin, Wisconsin, in October, 1894.

Sections 94 to 102 inclusive were all received from Henry Shaw of Nova Scotia. Are said to be excellent keepers. Are pear-shaped, and are substantially all of the

same variety, and showed this season to be of great uniformity in size and color when picked.

Sections 103 to 114, inclusive. These also were received from Henry Shaw of Nova Scotia, these, like the other Nova Scotia vines, yielded cherry berries, they are claimed to be of good size, and the vines are vigorous growers. All of the vines from 94 to 114, inclusive, are from different parts of Nova Scotia and the Island of Anticosti and might be grouped as one variety. We are inclined to think that they might be used as a basis for the selection of a well assorted variety for a section at Experimental station No. 2.

I herewith submit samples of the berries gathered on August 29th.

On the whole, they were not fully matured when gathered, and appear to have shrunk considerable. No special effort has been made to keep them from spoiling, and on this account the keeping qualities of each has already been fairly well tested.

Most of the new sections added this year are seedlings.

In one instance in which the seed was separated from the fruit in the fall, and kept dry until planting the following spring, none of it germinated. Of the seeds taken from the berries in the spring, those taken from soft berries did better than the seeds taken from the dried berries. From this we might conclude that the seed of the cranberry will not bear drying, and is most likely to grow when taken from the moist pulp. All of which is respectfully submitted.

JAMES GAYNOR,

Keeper of Station No. 1.

Following report of A. E. Bennett, treasurer, read and accepted.

TREASURER'S REPORT.

Jan. 29, 1897.	Paid Order No. 15, A. L. Fontaine, printing	\$ 18 00
Mch. 8. "	Paid Order No. 14. E. P. Arpin, secretary, salary, stationery, postage, etc.....	51 54
" 8, "	Paid Order No. 13. A. Searls, work at Experimental station	60 67
" 8, "	Paid Order No. 11. James Gaynor, work at Experimental station No. 1.....	50 00
" 8, "	Paid Order No. 12. Gaynor Brothers, rent of grounds.....	12 50
Apr. 27, "	Paid Order No. 16. Thos. McGovern, work at Experimental station.....	16 86
Apr. 30, "	Paid Order No. 17. James Gaynor, work at Experimental station.....	24 00
May 31, "	Paid Order No. 18. Andrew Searls, work at Experimental station	50 85
Aug. 10, "	Paid Order No. 19. Wm. Trahern, work at Experimental station.....	3 45
Aug. 10, "	Paid Order No. 20. Clarence Searls, work at Experimental station.....	5 75
Dec. 24, "	Paid Order No. 22. Clarence Searls, work at Experimental station	1 73
Jan. 11, 1898.	Paid Order No. 23, E. P. Arpin.....	18 19
Total		\$813 54
Jan. 12. 1897.	To balance on hand.....	\$ 50 04
Mch. 8, "	Received from State Treasurer.....	250 00
Jan. 8, 1898.	Received from Secretary, membership fees	13 50
		\$813 54

OUTSTANDING ORDERS.

E. P. Arpin.....	\$ 54 88
A. Searls, bill filed	38 00
James Gaynor, bill filed.....	19 37
Total	\$102 25

A. E. BENNETT, Treas.

Following report of E. P. Arpin, secretary, read and accepted:

SECRETARY'S REPORT.

DISBURSEMENTS.

Jan. 14, 1897.	To paid Brundage Brothers Inv.....	\$ 1 75
May 23, "	To paid postage, etc.....	2 15
Aug. 6, "	To paid postage, etc.....	2 00
EXPENSE ON DRILLING MACHINE.		
June 30 "	To paid Nekoosa Paper Co. Inv. iron pipe for well at Experiment station.....	\$ 8 94
May 25, "	To paid for loading machine on car.....	2 50
" 25, "	To paid freight on machine to Auburndale.....	22 23
" 25, "	To paid Kennedy unloading machine.....	4 00
		\$37 67
	Less subscription E. P. Arpin.....	20 00
		17 67
Nov. 30, "	To amount allowed L. S. Cohn for freight on 300 lbs. vines from Berlin.....	1 50
Jan. 5, 1898.	To paid postage, etc., Jan. notices.....	1 50
" 5, "	To secretary's salary, 1897.....	40 00
" 5, "	To paid Oettinger use of machine 6½ days at \$1.00 per day.....	6 50
		\$73 07
	Less Order No. 23.....	18 19
		\$54 88

RECEIPTS.

Jan. 12 1897.	By received dues	H. O. Kruschke.....	\$ 1 00
" 12 "	" " " "	Chas. Briere.....	1 00
June 1, "	" " " "	E. Bennett & Son.....	1 00
" 1, "	" " " "	A. Searls & Bro.....	1 00
" 30, "	" " " "	C. A. Goodyear.....	1 00
" 30, "	" " " "	E. Bowler.....	1 00
August meeting, reduction made to 50 cts. per year			
Aug. 17, 1897.	By received dues	Spafford & Trahern.....	50
" 17, "	" " " "	W. H. Fitch.....	50
" 17, "	" " " "	And. Bessig.....	50
" 17, "	" " " "	M. Lynn.....	50
" 17, "	" " " "	M. Potter.....	50
" 17, "	" " " "	R. Smith.....	50
" 17, "	" " " "	John Graither.....	50
Nov. 20, "	" " " "	E. P. Arpin.....	50
" 20, "	" " " "	L. S. Cohn, 3 years.....	50
Jan. 4, 1898.	" " " "	H. O. Kruschke 2 years.....	1 00
" 4, "	" " " "	E. Bowler.....	50
" 11, "	" " " "	E. S. Strickney.....	50
Jan. 11, 1898.	Paid to A. E. Bennett, treasurer.....		\$13 50

It was moved and adopted that Chas. Briere and S. A. Spafford be appointed a committee of two to examine the reports of the secretary, treasurer, and executive committee.

C. J. Kruger gave his experience in the cranberry industry, and gave his idea that the failure of the business was owing to not having located near a good stream for water supply.

Messrs. Bennett, McFarland and James A. Gaynor gave some of their experience in cranberry culture.

Bill of Gaynor Brothers for rent of ground, \$12.50, and work on wells, was referred to special finance committee.

S. A. Spafford and Chas. Briere, special finance committee, made report on the following accounts:

Executive committee on Experimental Station No. 2 made by Andrew Searls, showing cost to the association, as follows:

GRAND RAPIDS, WIS., Jan. 11, 1898.

To the Wisconsin Cranberry Growers' Association—Gentlemen: Your executive committee who have had charge of the experimental work for the association during the past year would respectfully report:

That under the instructions of the association at its last annual meeting we made arrangements with Mr. Andrew Oettinger of Auburndale, Wis., for the use of his well drilling machine, to be paid for by the day, when in use, at the rate of \$1.00 per day, as this was the most favorable terms of any offered, we to bring the machine here and also to return it to Auburndale in good shape. Accordingly, on Feb. 16, I took teams and went after the machine and brought it down, and March 1st commenced operations at the Experimental station No. 2. On the well, I reported at the January meeting, as having commenced, I used heavy six-inch piping which I drove well down into the clay, which I struck at a depth of 28 feet, the first two feet of which was soft and of a very dark red color, it then became as hard as rock and when broken up by the drill resembled soft red clay.

This dark red rock, or iron ore as we surmised it to be, was 22 feet in thickness and furnished very little water. We then struck a dark red rock much harder and water commenced to flow freely, apparently coming from between the two kinds of rock.

This flow of water did not apparently increase in volume as we continued to drill, but the rock became very hard and seemed to get harder as we proceeded, and the drill points had to be frequently sharpened. When we had got down to a depth of sixty feet we concluded it would be a hopeless task to continue longer on this well, and not feeling satisfied with the results, the committee thought best, if we could induce some of the growers in the vicinity to put down a well the association would bear one-half of the expense, this would enable us to make a much more extensive experiment than we otherwise should. We accordingly offered these terms to different parties, which were accepted by the Gaynor Bros., with the additional agreement that the association should have the first use of the water from such well on the Experimental station if we should wish to use it.

This well was a flat failure on account of the giving out of piping when it was being driven into the clay.

This pipe was made of heavy galvanized iron which we had sunk to a depth of 35 feet; struck clay at 28 feet, color light bluish gray, and which was not sufficiently stiff for the walls of the well to stand, and we had to drive the pipe down farther than we should if the conditions had been the same as those on the first well put down. I think the only safe thing to do in putting down a well of this kind is to use good heavy pipe that may be

driven without danger of giving out, as considerable force is necessary to drive the pipe into the clay or rock.

We had samples of the drilling from the first well sent to Prof. King of Madison, and his opinion was that we should continue longer upon this well, so when the pipe and the second well gave out I moved the machine back to well No. 1 and drilled two days longer upon it, making progress of two feet per day, without striking any more favorable material and as the water was becoming warm and the frost going out of the marsh, we were obliged to abandon any further work on this well.

THE ARPIN WELL.

The committee still felt that we had not arrived at any satisfactory result as to the possibility of getting a supply of water from this source, and as it was probable that we should not have so favorable an opportunity of making or continuing the experiments. Mr. Arpin proposed that if the growers in that vicinity should contribute some help in getting the machine upon the ground he would put down a well and would bear all the expense if the well was a success, and we would ask the association to pay only the man for running the machine, so we moved upon the ground and commenced operations, with the assistance of Mr. A. E. Bennett and Mr. Gaynor in moving the machine and getting it started. This well is of the same size as the one upon Experimental station No. 2, viz., six inches. In this well we used heavy tubing of about one-fourth inch in thickness, wrought iron.

In making this well we passed through two feet of soil, then sixteen feet of quicksand, then five feet of very coarse sand, we then struck clay of a very light reddish color with much broken quartz. At forty feet we struck dark red rock or iron ore, was fifty feet in thickness and seemed to furnish very little water for the first twenty feet, as when the surface water was shut out we had to put water into the well when we wished to use our sand pump. The first day after this water came in freely, but would not rise to a level with the surface water, but continued to rise as we continued with the work. From 90 to 187 feet was many colored rock, we then struck dark red material, much the same as the material between 40 and 90 feet, this second strata was forty feet in thickness, water taken from this strata when set aside would give off many very small air bubbles for some time.

From a depth of 187 feet to the bottom of the well, 225 feet, was of many shades of colored rock which, when broken up by the drill, presented the appearance of clay, but we struck no sand or sand rock after a depth of 27 feet, and the water had risen gradually as we proceeded until at the finish the water was on a level with the water in the reservoir, which was considerably higher than the surface of the surrounding marsh, and will, consequently, furnish a small amount of water when the water in the reservoir is low.

Now as to the amount of water this well will furnish upon trial with an engine I think it will be sufficient to be of practical value on the marsh.

We made a trial with a double acting tank pump and

was only able to lower the water a few feet when pumping at the rate of fifty gallons per minute. The total expense to Messrs. Arpin in drilling this well was \$138.68.

EXPENSE OF WELL ON EXPERIMENTAL STATION NO. 2.

Paid James Gaynor for labor furnished in men and teams, and boarding help.....	\$ 20 00
To Thos. McGovern man and team.....	16 86
Grand Rapids Foundry Co. fixing machine.....	9 25
J. F. Moore sharpening drills and ten pieces iron rod...	2 50
Preston Bros., sharpening drill, fixing tools.....	75
A. Oettinger for use of machine.....	6 50
Expense while after machine.....	5 10
M. O. Potter keeping team over night.....	25
Nekoosa Paper Co., piping 14 feet.....	8 94
Freight on returning machine.....	22 23
One Sand Pump.....	3 50
A. Searls, 15 days.....	22 50

EXPENSE ON GAYNOR WELL.

To A. Searls, time 8 days, \$1.50 per day.....	\$ 12 00
J. Gaynor, board of A. Searls for 8 days.....	4 00
	Total \$194 38
To A. Searls while working on Arpin well, 17 days.....	25 50

As a large part of the means at the disposal of your Executive Committee was used upon the experimental wells, but little means were left for the planting of vines at station No. 2. There was planted at the marsh, as will be shown by the last report, about one acre of vines on sections one, two, three and four.

The vines on sections one and two have made very poor progress the past season. the cause assigned for this lack of favorable growth we think to be the vines were lifted by the ice in the spring.

On sections three and four the vines did not show this damage and we assign one of the reasons as being the different method used in planting the vines on these sections. The vines on these sections were planted whole or uncut and made very satisfactory growth.

The only work done at the station this season was the removal of weeds and grass from the planted vines. the cost of this work was \$10.93.

We have secured from L. S. Cohn 240 lbs. of vines to be planted the coming season, these vines are from his Berlin marsh and are said to be among the best Berlin varieties. We recommend that ground be prepared and that these vines be planted as soon as the season will permit..

Up to this time we have been using for our outlet ditch the supply ditch of the Gaynor reservoir. When the water is in the reservoir this does not permit one inch drainage in the early part of the season. To secure the best growth of vines will require the cutting of a ditch from the southeast corner of station southward across the highway east of the Gaynor house. This we recommend to be done as soon as practicable. The cost of the ditch just described we estimate at about \$15.00. All of which is respectfully submitted.

ANDREW SEARLS,
A. C. BENNETT, Pres.
E. P. ARPIN, Sec'y.

Experimental station well and assistance on other wells.

Treasurer's report correct.

Secretary's report correct.

Motion made and seconded that report of the special committee be adopted, and the secretary be instructed to draw orders to pay amounts on said bills, as follows:

James Gaynor.....	\$ 19.37
Andrew Searls.....	38.00
E. P. Arpin.....	54.88
	\$112.25

Following is the report of special committee on Cranberry Growers' union:

GRAND RAPIDS, WIS., Jan. 8, 1898.

A meeting of the special committee appointed at the August meeting to consider the subject of organizing the Cranberry Growers' union held at Arpin's office.

Present S. A. Spafford, A. C. Bennett, Chas. Briere, J. A. Gaynor and E. P. Arpin; absent Jacob Searls.

A C. Bennett called meeting to order, Mr. Gaynor thought that a good plan in selling Wisconsin cranberries would be to place them in hands of good agents that handle eastern cranberries, provided we could enter into contracts with the eastern people to co-operate with us and maintain prices.

Mr. Bennett says that all the eastern cranberries are handled through one or two parties, the growers paying no attention to the selling. The agent selling the cranberries ships most of the cranberries to brokers who take orders and bill out the berries in the main agent's name. The brokers in this way do not handle any money. The broker must have the confidence of the grocery people.

Mr. Bennett thought that if the cranberries could be kept out of the hands of commission men that sales to good grocers could be cultivated, whereas as long as the cranberries are handled by commission houses the grocers will not buy cranberries

Mr. Spafford was in favor of putting up the cranberries in good shape and make arrangements to have them placed in consumers hands soon as possible.

Mr. Bennett thought if it were possible, the best plan to put up cranberries and care for same would be to have a central warehouse where all cranberries would be sent soon as picked in the chaff. The cranberries would then be carefully and uniformly taken care of, sorted, barrelled and shipped at a minimum cost.

The subject of a uniform barrel was taken up. Mr. Bennett thought that the eastern cranberry trade had of late so predominated in the western markets that it was now necessary for Wisconsin people to use the standard Cape Cod barrel.

Mr. Gaynor moved that the committee recommend the adoption of the Cape Cod barrel by this association and we recommend that a committee be appointed to have

the Cape Cod barrel be made the standard Wisconsin barrel at the next session of the legislature.

Motion unanimously adopted.

Size of Cape Cod standard barrel given by Mr. Briere as follows: diameter of head, $16\frac{1}{4}$ inches; diameter of bilge, $18\frac{3}{4}$ inches; height between heads, $25\frac{1}{4}$ inches.

The subject of organization of the Cranberry Growers' union was taken up. It was agreed that this company should be separate from the Wisconsin State Cranberry Growers' association.

It was resolved that the Cranberry Growers' union perfect their organization at once.

It was moved and seconded that J. A. Gaynor and A. C. Bennett be a committee of two to draw up the incorporation papers and report to this committee soon as possible. Meeting adjourned subject to call of committee on incorporating.

E. P. ARPIN,
Secretary of Meeting.

On motion, meeting adjourned.

E. P. ARPIN, Secretary.

