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Thirty-eighth annual proceedings of the Wisconsin State Cranberry Growers' Association. Thirty-eighth convention, Pavilion, near Nekoosa, Wisconsin, August 12, 1924. Thirty-eighth annual meeting, Wisc...

Wisconsin State Cranberry Growers Association
[s.l.]: [s.n.], 1924/1925

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Thirty-Eighth Annual Proceedings

OF THE

**Wisconsin State Cranberry Growers'
Association**

THIRTY-EIGHTH CONVENTION

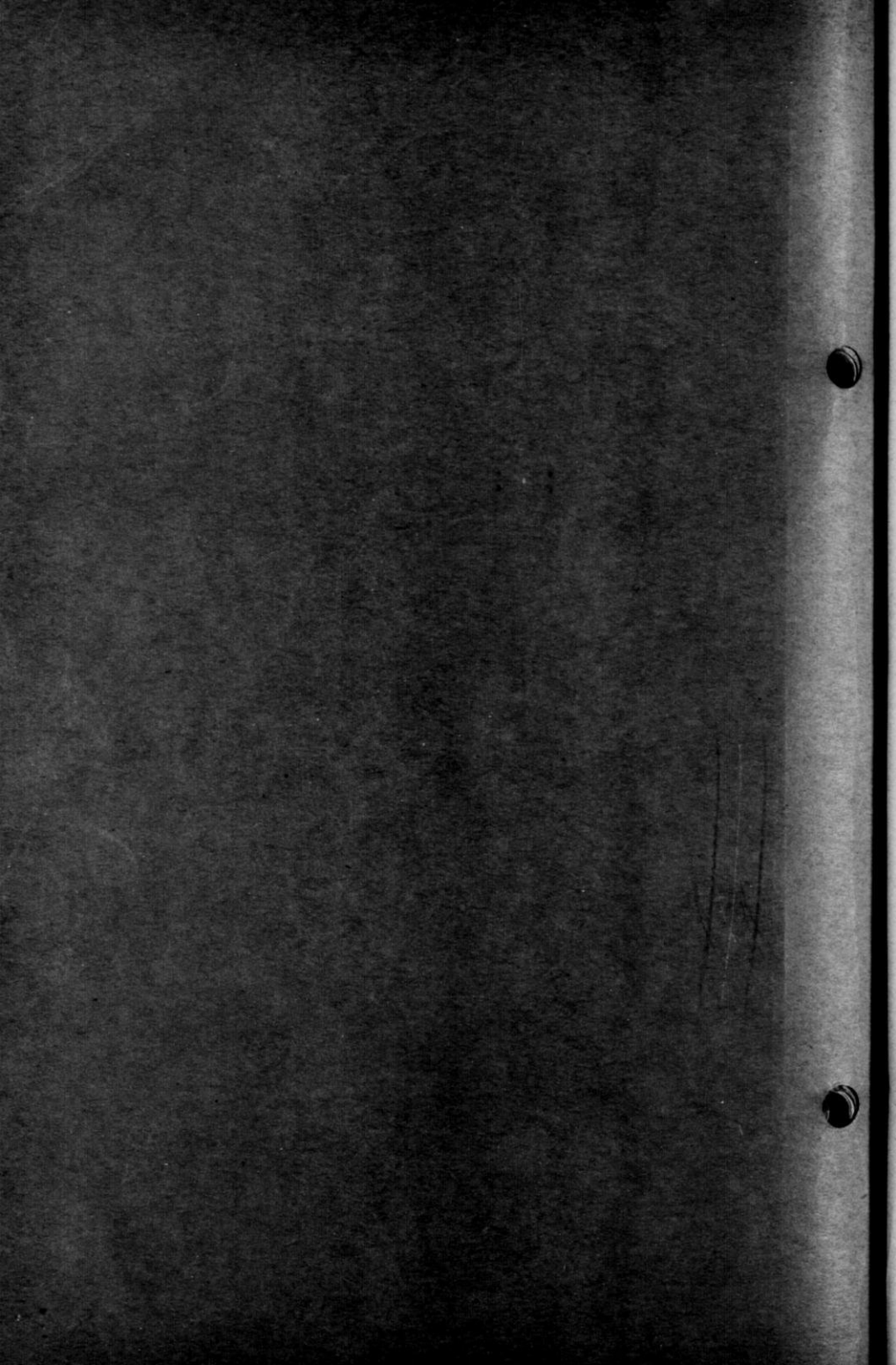
Pavilion, Near Nekoosa, Wisconsin

August 12, 1924

THIRTY-EIGHTH ANNUAL MEETING

Wisconsin Rapids, Wisconsin

January 13, 1925



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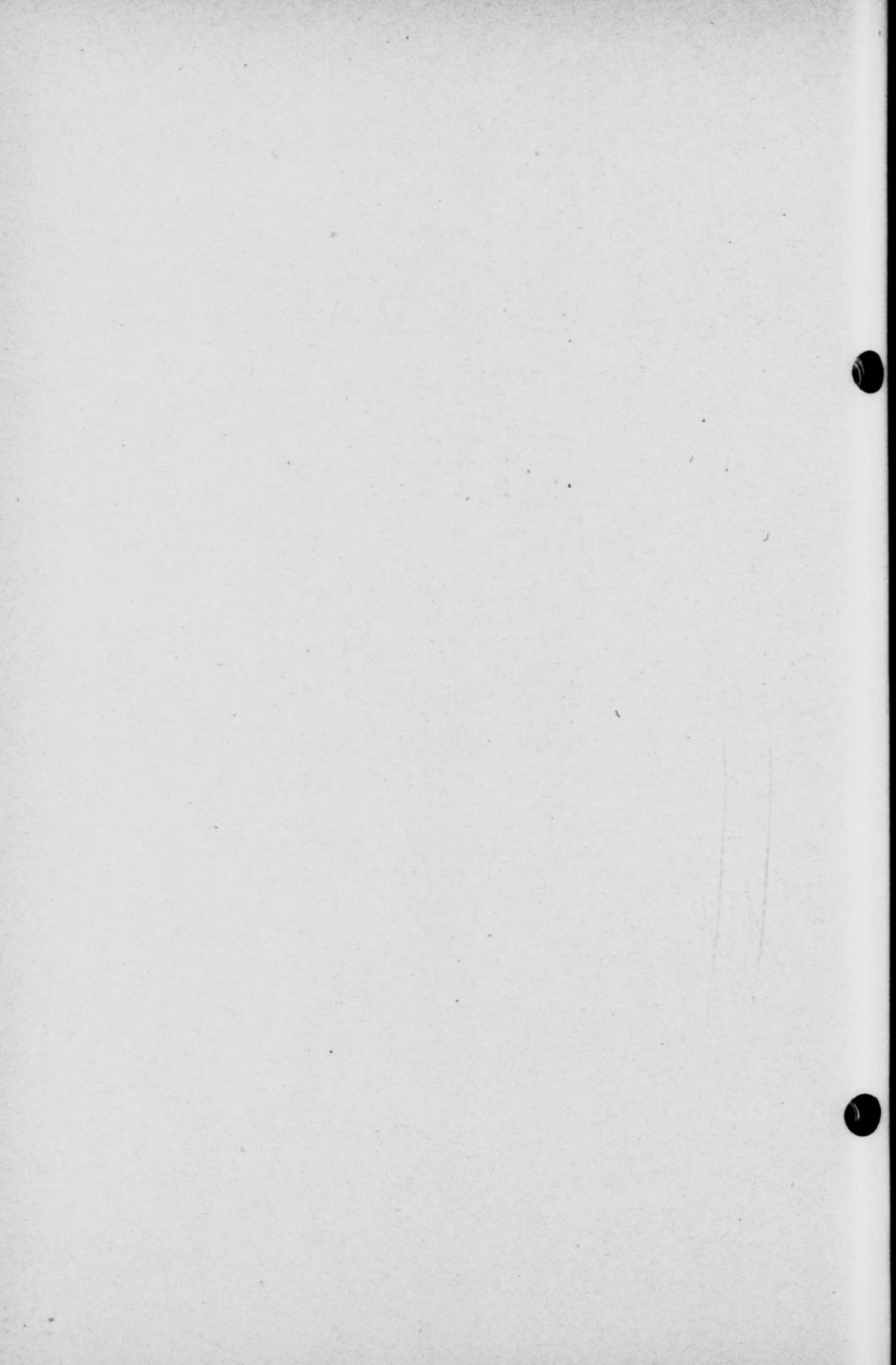
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LETTER OF TRANSMITTAL

TO THE HONORABLE JOHN J. BLAINE,

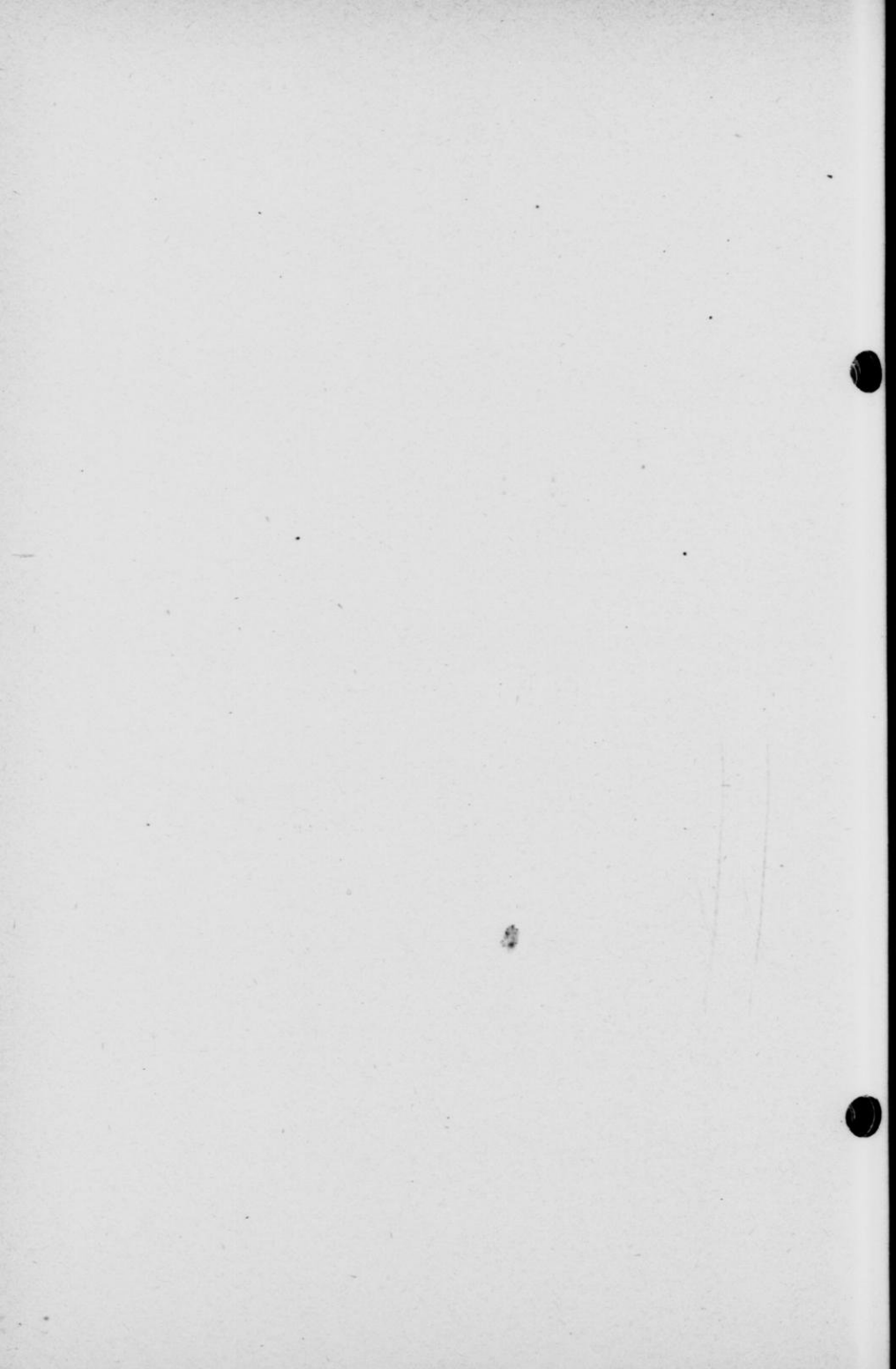
Governor of the State of Wisconsin.

Dear Sir: I have the honor to submit herewith the Thirty-eighth Annual Report of the Wisconsin State Cranberry Growers Association, with addresses, discussions and reports, and financial statement covering the year 1924.

Very respectfully yours,

CLARE S. SMITH, *Secretary.*

Wisconsin Rapids, Wisconsin, January 13, 1925.



**MINUTES OF THE THIRTY-EIGHTH SUMMER
CONVENTION**

Moccasin Creek Pavilion, Nekoosa, Wis.

August 12, 1924.

Meeting called to order by Pres. C. L. Lewis, Jr. Minutes of the thirty-seventh annual meeting, at Wisconsin Rapids, January 15, 1924, read and approved.

President Lewis, in his opening address, gave a report of crop and bog conditions for Wisconsin, also stressing the need of a fieldman.

Prof. Macklin, of Department of Agricultural Economics of the University of Wisconsin, gave an interesting and instructive talk on co-operative marketing.

After partaking of luncheon graciously tendered to us by the Wood County Bank officials the afternoon session was opened by Mr. F. Patterson, depicting trials of cranberry men in verse.

Mr. A. U. Chaney, of the Sales Company, gave a report on crop prospects and market conditions.

Dr. S. B. Fracker, State Entomologist, spoke of the value to the cranberry industry of a fieldman who would devote his entire time to find ways and means to control insect and plant diseases which menace the industry.

Other timely subjects were presented by County Agent R. A. Peterson, S. N. Whittlesey, A. E. Bennett, A. Searles and A. Bissig.

Motion made and seconded to take rising vote in regard to this state aid proposition. Everyone present responded in favor.

Motion made and seconded that chair appoint a committee of five to properly formulate methods of procedure and presentation of a request to the State Legislature for a \$5000 yearly appropriation with which to secure the services of a fieldman, and that the President be chairman of said committee.

President appointed A. E. Bennett, A. B. Scott, A. Hedlar, F. Barber, and Oscar Potter on aforesaid committee.

President presented a resolution asking for support of the growers to cover expenses of those who are to present our request, which same was signed by every grower present, each responding with a generous donation.

Mrs. Whittlesey read a letter from the State Fair manager in regard to exhibiting at the coming fair, and was instructed to answer that we do not exhibit this year due to immature condition of fruit.

Moved and seconded that resolution of thanks be written by the secretary and sent to Mr. Cox in appreciation of weather reports and stations, to Wood County Bank for the luncheon, and Mr. Daniels for the candy; also resolution of condolence to be sent to the family of the late Mrs. DeLong of Tomah.

Time and place of next meeting left to the officers of the association.

On motion duly carried the meeting adjourned.

CLAIRE S. SMITH, *Secretary.*

ADDRESS

PRES. C. L. LEWIS, JR.

The outstanding feature of the present growing season is the unfavorable weather which has visited us.

Most of the bogs in Wisconsin are now about through blossoming, the bloom being from two to three weeks late. On one about twelve miles west of Spooner, about 5% are still in bloom. Our own vines at Beaver Brook have been out of blossom about a week.

Mr. Colton's bog, up at Spring Brook, had the misfortune to be wiped out by hail about the first of June, when his buds were about one-half inch long. You all know that about that time, when the buds just start to grow, if you just touch them with your fingers they will fall off. There was a hail storm that lasted twenty minutes on the 9th of June, and there were two inches of hail on the ground at the end of the storm, so you can imagine that there wasn't much left of his crop. There wasn't enough hail to do much damage at Beaver Brook. We have had two hail storms, which have perhaps taken five per cent of our crop.

At Cranberry Lake, which I had the pleasure of visiting some time ago, they have a wonderful bloom. I think it is just as good as two years ago, when they had the record-breaking crop. Their bloom is also very late, but if they have a favorable fall, with the absence of cold nights, they will have a very bountiful crop.

A few growers report normal sized berries at this time, and we want to know how to account for this fact. We hope at this time to try and discover some reasons for these different conditions. We know that weather has something to do with it.

Every year brings something new in the cranberry business and as our oldest growers have only been in business fifty years we may anticipate a good many different seasons in the future. The chief topic we wish to discuss to-day is the problem of state aid. You know the progress of our attempts to date; the questionnaires we sent out, the replies we got, and the report we made to the legislature a year ago. The committee went down there, and you know the results: that nothing was appropriated at that time. Senator Smith was here and talked to us last summer, and gave valuable advice, and we must decide at this meeting what policy we are going to adopt; and we must take active measures to put this policy into execution.

Dr. Fracker of Madison is here. He has been our main source of information. He helped us two years ago with the insect survey, and again last year with a shorter one, and has shown himself to be very willing to help us. We are going to hear from him, and from all the members of the association that we can get any expression from. Aside from that question, our problems of marketing are most important.

We have with us Prof. Macklin of the Department of Agricultural Economics of the University of Wisconsin. We have been trying to get Prof. Macklin for the last three years. He is the outstanding leader of knowledge and information on cooperative movements in this state, and is well known all over the country. He is going to talk to us on cooperative marketing from various standpoints. We are going to hear from him this morning, and from Dr. Fracker after dinner, and we are ready to hear from Prof. Macklin at this time.

CO-OPERATIVE MARKETING

PROF. THEODORE MACKLIN.

I want to talk on the subject of co-operative marketing, because it is a very important topic to all of us. I am at a loss, because instead of talking to a new club I am trying to say a few words to one of the most experienced clubs. We have been studying this club diligently to see what co-operation can do. Nevertheless, I want to touch on that subject.

The cranberry organization is one of the most outstanding cases of cooperative systems in this country. Ten years ago they were talking and saying "Look at the cranberry monopoly." At the present time they say there is no such thing as an agricultural monopoly.

One year they can hardly meet the demand; and if the demand is not good, by advertising work the market can be improved; also by salesmanship. God gives us the crop, with our own endeavors. If it is large, we can improve the demand. If it is a poor crop, there is no use wasting effort on improving the demand; it is already adequate.

I want to try and prove to the negative and positive sides that a co-operative marketing organization has a real and vital place for marketing particularly an agricultural specialty. No one can get up and preach that you can do for wheat and live stock what you can do for cheese, walnuts, cranberries, or Eastern Shore potatoes, because of the unusual character of some of these specialties. We can't do for the common product what we can do for the special and high-class product. Let's break this subject into parts, and come logically at it. In Wisconsin, you people are the greatest single case of co-operative marketing. Wisconsin originated the cranberry exchange. You have been blessed with small numbers of intelligent people who have gotten together with real sportsmanship, and have picked brainpower in your officers and management, which has enabled you to put across one of the country's most noted examples of co-operative marketing.

I want to give you a glance at some other organizations to make national advertising, as well as co-operation famous. Here are a few of the companies that have built up this movement. The California Fruit Growers started in 1893. Your organization, in its present

form, started in 1907. If we jump back to 1893, only fourteen years in advance of this company, was the first large scale selling organization started anywhere in the world that is still on an important basis.

Two years later the Danes started what has become a world famous movement, and has changed Denmark on the productive and marketing side into a scientific country. Their agriculture is on a sound productive and marketing basis. You can't say this for many products of Wisconsin or United States. The Danes borrowed from the Californians. To follow the kind of companies the sales organization is running with, there are eleven butter sales organizations in Denmark. They do \$20,000,000 worth of selling business in a year. There is a bacon sales, and an egg sales corporation. The bacon corporation started in 1906, and the creamery in 1895, and the egg business in 1895. These people are facsimiles in principle and policy with the functioning plan of the American Cranberry Exchange. There are variations, but the fundamentals are that if the people (I don't mean the few individuals, but the great mass of individuals) in the industries will use their heads and work together, they will get the best possible results.

Along with these running mates of the cranberry exchange, there is the California Fruit Growers Exchange. The Kilima Creamery Association in 1909. The Eastern Shore Company of Virginia. They sell \$10,000,000 worth of potatoes in a year. There is no other potato organization that has the preference. If people want potatoes, they know that if those are in the market they don't want to look at anything else until that supply is run out.

I want to compliment your directors on the wonderful pamphlets, showing almost everything the growers can ask about, and forces bearing for favorable and unfavorable crops.

Mr. Chaney has helped to make for confidence in the movement. He has shown what you can do when you do a well nigh perfect job. Therefore, I always think of him in connection with this movement.

The most impressive example was shown me by Mr. Burton last winter. He is the general manager and sales manager of the Eastern Shore Virginia Products Exchange. "We had a break in the potato market, and prices fell from over \$6.00 a barrel to where they don't buy," he said.

Mr. Burton said, "We stored up, on the side tracks in two counties, 1500 carloads of potatoes. If the farmers hadn't had confidence in us, they would have had to have been dumped on the market, and would have ruined it for two years to come."

Why is it that you have confidence in your family? Because you appreciate them and understand them. You have responsibilities to them. A co-operative organization is just like that. It establishes trade confidence so the public will have a preference for you. Suppose you would like to go fishing. If your partner knows where to find the trout streams, you like to go with him. He is good company.

The same thing holds good in the marketing business. If you have always gotten a square deal from people, you have confidence in them.

Of the raisin people, Mr. E. Y. Foley is the biggest private dealer. Ninety-five per cent of the raisins of the country are on the inside of an organization. A friend of mine is connected with them, and some time ago this man saw me and hunted me out at my hotel. He spent till midnight explaining to me why he was working for Foley, and laid all his cards on the table.

He has only five per cent of the business yet, but he is hanging on just like a bull dog. But the bull dog will get them sooner or later, because he is getting people to take other people's reserve. They don't put in anything that makes the trout pond cost something. Foley goes out and picks a very classy market in the trout country. A friend of mine comes from California, or Florida, or anywhere where they don't have trout. Now we want to do a very fine stunt. Foley finds a market for highest grade of raisins. He comes to certain growers and says "I don't have to develop the market for these 95% of the raisins. I can come in and take your crop, and you have to find those raisins and sell them. I have no advertising expense, and I can take those and land them in this particular market." I have a guest from California, and he wants the finest raisins. Now Foley will get you better prices than the Sun Maid people do. Now, having done a wonderful thing for you—and why shouldn't he?—he goes and brags about what a wonderful price he got. He just says that he got a bigger price than any of the neighbors. He doesn't say that it is for fancy raisins. The raisin people's prices don't look half as good, because they haven't quoted all their prices. The consequence is that Foley's propaganda keeps 7% of the raisin growers from joining the organization. Not one of the seven percent, if they had the facts, if he would be square with his neighbors and himself, but would join the organization, because they are joining every day. At first they had 60 or 70%. The walnut people started with 40%; now they have over 82%.

You can find the nook in everybody, if you will study not to offend; if you will find how to have the light strike them in the eye right. I have talked with cranberry people who have joined the organization, who were following the argument that they were enabling somebody to do a good job and not pay any expense.

In British Columbia there are 662 producers. Of these, 630 are in the organization. If only 630 pay instead of 662, each man must pay \$22.00 more. It may be \$38.00 more. But at most, that is only 5% more. They shouldn't be discouraged because they have to pay 5% more. The extra burden isn't so much. It isn't the money side, it's the spiritual side. Would you like to live in a community which is holding up the umbrella to keep the other people dry? I have yet to

see the man who, when he understood it right, won't pay his part of the cost.

I want to take an illustration from the orange people, to show what people who have the best kind of a market there do. Mr. Powell, of the California Fruit Growers Exchange sells the lemons. Mr. King sells the oranges. The same organization sells both, but have 95% of the lemons in the organization, and only 65% of the oranges. Here is the trouble. Suppose that you are making plans for all the business. Is there anybody else making plans if you make them all? Is there anybody else trying to apply those plans? You apply them all, then nobody can upset your plans; nor can there be anybody trying to upset them. Will they do it anyway? They won't. Simply this: that if one organization with a small industry like lemons, or oranges, or cranberries makes one set of plans, and makes those plans as perfect as possible, and one organization executes those plans, there is nobody to upset your organization.

Now let us jump to Kilima. They have 98.7% of the cheese of that country. Kilima cheese has been advertised, and there is a preference for it, and it runs from 1 to 4½¢ to Wisconsin cheese. This is about 20% more money for the same kind of cheese because you have an organization that the public has confidence in. When they say they will supply your market, the public has confidence, because you have 98.7% of the cheese. You don't turn around for the little you lose every day. They have no means for accidentally breaking down your program. These people who haven't caught the light want to catch that light.

Not long ago, I was studying an organization with a serious problem. There was one fellow working for that policy, and when he saw the crowd coming his way, his narrow personality got the better of him. He said, "Won't I have a chance to crow over my neighbors when this thing goes through?" The crowing hurts the fellow who joins with us. It is very often these little personalities that we don't rise above that keep these extra people from joining.

Another organization went out to say a certain way of doing a certain thing is all wrong. When this organization got to going strong on their study of the case, they found that the thing the private organization was doing was what they had ought to do. You can't do a wrong better until you change the idea that was wrong. They often get poorer results from the farmers because they followed the wrong policy. When a man says this organization is right, or makes any remark that puts him on record, it is hard to go back on it, because he has to have a disposition harder than the average disposition. If you commit yourself to somebody and feel that you are right, and "lose face" and go back on what you said, remember that "It is only a wise man who changes his mind." That has come down through the ages. It takes a bigger man who reserves the right to change his mind when he gets a new light.

Why many don't come across is because members make it hard for them to do that. We all have a responsibility both ways; the non-members to be as big men as they are; to see how long they want to push a situation that they don't make; to see how long they want to continue to reap results that come from the market because they do not pay any costs and help execute the plan in full instead of in part; not because the organization hasn't the right plan, but because unthinking people accidentally interfere with the execution of the program.

That is the big problem the country over. A new era is coming in many states. But in the older corporations like the cranberry and cheese federations, the thing to do is to get in and convince these people that they want to join the organization because they have say and conviction in the plans they can make when all of you are back of them, which will be a better plan than any individual purchaser can make.

I have demonstrated the great thing about the California Fruit Growers Exchange. They have two products and sell one so much more. That is an object lesson.

You ought to develop the power to convince the neighbor against his will. All of the easy things were done long ago. I have been impressed by reading La Follette's life. He says: "If I have had any success, it is because I have insisted on having more facts than the opposition." Have you more facts than the opposition? Have the non-members got more facts than the opposition? Generally, the man that has the most facts believes he has decided right. To help outsiders to come in make it easier to let him decide, and make him feel that he has decided right. Sometimes the people with the strongest personality stay out because they have so far to move. If you are way up in a tree and the branch breaks, you come down with a bump. These people feel this. That bump is partly because it is hard to change your mind physically. You hate to "lose face." It shouldn't be a process of going back. He has been right all the time, but he will be righter if he changes his mind.

You need facts, and the development of that co-operative spirit of loving people in if you can't pull them in; the wonder to me is that so much of the cranberry business is on the inside. It shows that this process has been working. That is the principle, and the intensive neighbor-to-neighbor studying of the philosophy back of the organization is bringing results. It isn't the fact that to-day or tomorrow the cranberry organization will get better prices. It is the fact that when hard times come it is the only organization that gets prices at all.

I have charts made up on forty-six noted co-operatives of the world. They do about one-half billion dollars worth of business in a year, which is more business than the whole state of Wisconsin does. When hard times come, and they have hard, efficient work, there is

nothing to derail their train off the track. You are going to propel it, and it is going to stop in those stations even though there is no one to step on. But some day there will be people who will want to get on. They will want service. Is the private man going to render it in times of hard luck? No. Is the freight charge in accordance with the price? High freight rates are paid by the farmers because these dealers have received stuff selected at low prices. The freight is often so high that they have to bill it back. These people go back on the farmer in hard times, and only co-operative organizations can function reasonably well in hard times. These facts make it worth all the time and trouble it takes to build it up.

I can give you illustrations in the Cranberry Exchange. The organization sometimes gets \$16.00 a barrel when the outsider gets only \$14.00 a barrel. The underlying reason is that it averages the best results over the long run.

Some people have been interpreting a business point of view in too short a time. As G. Harold Powell says, "There is no private concern whatsoever that can make a machine to adequately market California fruit." He knows. What these benefits of cooperative marketing are, I have tried to present very briefly.

I have here a brief statement made from studies that have been conducted over quite a period of time. You perhaps got some of these last year, but as a result of the study since that time, we have tried to study concisely and briefly the fundamental benefits of co-operative marketing. Three are tangible; the other five are spiritual. A man who makes up his mind that a certain line of conduct is the best when times look dull will reap his reward. Those are what I have called intangible benefits. One hundred thirty co-operative organizations all over the United States at first had seven benefits, and one organization said, "Why don't you add that co-operative organization will develop leadership for the farmers?" You can't have leadership without responsibility. We don't get Washingtons and Lincolns every day, because we have no need of them every day. It takes a need to bring out people who can fulfill and deliver the goods. If the farmer wants to better his lot, and the cranberry grower in particular, he should develop his leadership; and that is one of the things you have been doing, and you have now some of the finest leadership in the country.

This co-operative organization says that one of the greatest benefits is that it develops real leadership among people. I want to compliment this corporation that I have never met a group of people who have worked together and have such kindly relations, partly because you are a small group, and you are acquainted. The thing needed is that you get the other 20% to join with you, because you will have a larger and better machine if you do. Your plans are not going to be derailed, because there is no opposition to derail your

plans. I would be delighted if any of those who wish to would take these benefits down.

Many other co-operative managers went over this little manuscript of yours, who don't know the problems you have to deal with. Take this circular and see if you can't think out your own arguments as to how to convince 1% of those other 20% that they had ought to help develop the cranberry business and make it more successful in the future than it has been in the past. You may be able to convince some of this other 20% on the outside not only that they don't have to lose face when they join, but that it isn't a sign of a man going back on his purpose, but the sign of a big man because he can take advantage of criticism. This tries to show what a co-operative organization tries to do in order to give you the best results.

We need Wisconsin to have a better conception of what co-operative marketing is, and what it can do to help the farmers of this state.

ADDRESS

MR. R. A. PETERSON, *County Agent.*

I appreciate the applause given me, and think it a good thing to get it before you start to speak, since you may not get it afterwards.

I know a lot I would like to say, but I can't think of very much. Maybe I have a lot of ideas but I don't know if I will be so fortunate as to have them all with me. Like the little boy who had been fighting. When he came in, his mother said, "Johnny, you have been fighting and lost all your teeth!" "Oh no," he answered, "I've got them all in my pocket." Maybe I have a few ideas, but I don't know whether I will bring them all out or not.

One thing I want to mention which Mr. Macklin brought out this morning. He commended the cranberry growers for the organization they have developed. I think the Cranberry Sales Organization has been an inspiration to a lot of other co-operative organizations. It has been held up as a model for co-operative sales organizations all over the world.

I believe the time is coming when more of the agricultural products will be marketed through large co-operative organizations. It is important to have efficient management to head those organizations.

Another thing that I think the growers should be commended upon is for taking over this marshland and developing it. There is a lot of room for this work. The cranberry industry requires a great deal of capital, and there isn't everyone that can drop into the industry and make it a success. We cannot help but appreciate the importance of the cranberry industry, and feel that it should be still further developed in the state.

The cranberry industry is certainly a big asset to the country. Possibly most of the cranberry marshes are concentrated in one township here, and while we consider the dairy industry the most important industry in the state, I think the returns which come from the cranberry industry will rank pretty well with the returns of the dairy townships in this country.

As mentioned, the desire on the part of the growers to develop a larger acreage should be carried along. So far as the county agent work is concerned, I believe I have been criticized by some people for not taking a more active interest in the cranberry industry than I have. We have so many jobs, however, that we don't have time to grant anyone as much attention as we should. We try to accomplish as much as possible. Perhaps the cranberry industry hasn't received the attention that it should have, but I know so little about it that the advice I could give to the growers would be laughable. I haven't much business offering advice to old timers in the business, but I am thoroughly interested, and would like to help out in any way possible.

I imagine the cranberry growers are hit by economic conditions the same as other farmers. The marketing organization has helped them to go over the marketing more than any other farmer. All through the deflation in prices, speculation enters in; and that is a factor your marketing organization helps to overcome. We are working to build up the dairy industry, and that is important. Another thing that seems to effect the general industry now, whether it is one man or another, and that is the low value the dollar has. Different statistics show that the average purchasing power of the farmer's dollar is the highest now since 1919. Conditions which have developed in the last few months have increased the purchasing power of his dollar quite a little, but it is still only 79c. It is hard to build up the increase in price, but I believe the biggest benefit would be to bring conditions back to the time when the dollar would really buy a dollar's worth. This would help everyone generally.

We have heard a lot about the farmer benefiting a great deal from the increase of price of wheat, corn, etc., but speculation enters in to head that off. The increase will help the holder more than the grower. Recently we read of some man in Chicago who made a \$3,000,000 profit just through speculating in wheat. That isn't benefiting the grower particularly. The condition should come about to eliminate that speculation as much as possible through co-operative marketing.

I want to mention another word in regard to marshy soils. I believe there is a large acreage in Wisconsin that should be given over to the growing of cranberries. Every effort should be made by growers to build up an increase in acreage. The marsh land is marginal land. It has to have careful management, and the use of fertilizer is necessary to make it successful. Under the complex economical conditions that exist, the farmer has to be a good farmer to make good on marginal land. A lot of drained marsh land is being held for

farm purposes. A lot of it would benefit the country if it could be replaced again for cranberry development.

There has been some talk of replacement of an experiment station, and the getting of a fieldman. This would help in developing these lands into cranberry farms or ranches.

I notice that your committee met with the legislative body last year and didn't make the legislative body pass the appropriation, but I don't think that should discourage the organization at all. They should go after it again.

I think Mr. Macklin mentioned the fact that there aren't so many cranberry growers, and I believe that is the reason why more isn't known of the cranberry industry than is known. You advertise the quality of cranberries, and people get to know them and like them in pies, but they don't know how cranberries are grown. They don't know of our many varieties of cranberries. They just know they are cranberries, and that's all. You know the different kinds, and the immense amount of work necessary to produce them. If more of those facts were brought out to the people it would help to educate them, and the lawmakers would appreciate the job that people have in developing the cranberry industry. I don't know as we could invite these lawmakers for the tour of our marshes, but some attempt should be made in giving as big an educational program as possible, and convincing them of the fact that more land should be developed to be an asset to the state, whereas now they are somewhat indifferent. So far as I am concerned, I will be glad to help out as much as possible.

I think that a tour, either a local or a state proposition, would be a mighty fine thing for growers of any kind to have.

We are developing alfalfa acreage on the light soil in Wood County, and we think it will be a life-saver to the light soil, and also on the heavy soil. We have planted something like 500 acres in Wood County this year, and they have just started. We like to get the farmers together and show them these fields, and show them how they can profit by it.

It is equally good for the different growers to visit the cranberry marshes. That old story you have heard about the old rooster applies pretty well. He was a kingly old fellow, master of his flock, and strutted around in great shape. One day he strolled over to an ostrich farm, and finally came to an ostrich egg. It was quite a remarkable egg, and he finally got the idea of rolling the egg home. Then he called all the chickens to come, and said "I don't want you to feel bad, but I just want to show you what is being done in other communities."

Even though the marsh you may be developing is a good one, you can always learn from the other fellow. It is an inspiration to see what the other fellow is doing. If you are doing better, you are bet-

ter satisfied. If not, you can follow his example. The idea of local tours isn't a bad one at all.

I will be glad, at any time, to help out the cranberry growers to their interests in any way that I can. If we can get the appropriation to get an experiment station or fieldman, I think it would be a mighty fine thing to do.

CROP PROSPECTS

By A. U. CHANEY

We have made a pretty careful survey of the Cape Cod crop, without any detailed estimate. There is no estimate other than guesses regarding the crops. Mr. Porter, whom most of you know, and who is very competent to judge, spent two weeks in July on Cape Cod, and made a very complete survey of the acreage and damage to that acreage. That is, the winter damage. We have a great many small bogs in the state; in fact, an unknown quantity. Dry bogs bear, on an average, every seven years. Last year they all bore a crop. These are the bogs that they can't flood in the winter. Last year they had no snow, and we know that they were pretty badly hurt. Mr. Porter estimated that 40% of the berries show winterkill in Barnes County. About 15 to 20% of Plymouth County had been either winterkilled or frosted, the result being that about 20% of the acreage of last year could not bear this year. The balance of the acreage had good bloom, but bloomed very late. In July it was showing signs of not setting well. Mr. Benson, our manager, made a week's tour and reported many of the bogs were poor. Professor Franklin, of the experiment stations, estimates that his Cape Cod crop will be 240,000 barrels against 400,000 last year.

Now, in New Jersey they have had a little frost; nothing very serious. They have had some fire worm there. Very little winterkill; but they have hot, dry weather, and the bloom was late. They had a late spring, and the bloom was coming right in the hot and dry spell. There was no rain in July, and I received a letter saying it is still hot and no rain. The crop will be from 10 to 25% less in New Jersey than last year.

Combined Long Island and New Jersey, 250,000; New Jersey has 150,000 barrels; that makes 400,000, and 50,000 barrels in this state. That makes 450,000 against 625,000 the last year.

Of course, the fruit is so little that it may not come in, and then the quantity would be reduced. The weather throughout the rest of August and the first part of September may change that estimate by the 15th of September. The crop is shorter than last year; we don't know how much shorter. We hope to get a pretty good estimate this week. The Association is now in session in St. Louis.

The apple crop is 29,000,000 barrels against 34,000,000 barrels last year. That is the commercial crop. The early apples are considerably less. The early apples are turning out a good deal shorter. Consequently the early apples are quite high. When I came up here at this time last year, they were selling in Chicago for 50 and 75c; now they sell at \$1.75 to \$2.50. There is also the difference in the supply of apples.

Another thing that will be favorable from a selling standpoint is that last year they had a large crop of plums that sold at extraordinary prices, selling at less than freight charges at this time. This ruined many growers. The crop this year is estimated to be less than 25% of last year, and while selling last year at 25 and 30c delivered, they are now getting cash 60c out there for the same crop.

The peach crop has enlarged from last year. Peaches have been very low this year. Strawberries also sold very low. Peaches are liable to continue very low for a long time. There was a large crop in Arkansas, Texas, Pennsylvania, New York, and Delaware.

I anticipate that the sales opportunities for cranberries will be much more favorable than last year, and at the same time we have many less cranberries to sell. I know that the troubles of the salesmen will be much less serious than last year. It is unfortunate that we cannot have more uniformity of conditions and supply. Last year there were unfavorable selling conditions, and a surplus.

There will be some cars of barrels shipped, and I should say the time will come when they won't want any barrels, but it won't be this year. There will be a supply of barrels for your department, and those in the Mather district were told to be sure to have some barrels on hand.

We should never get the idea that we can sell the berries and say when people shall buy them and what they shall pay for them. The economical law is that the seller should cater to the buyer. If they try to give you what you want in a store, you are very much happier. You will feel sore if they try to sell you something by force. We don't want them to feel sore. We ought to cater to our customers, and give them as near to what they want as we can.

If he wants the barrels or boxes, we should make it our business to give them to him. Sometimes it is inconvenient to help haul from one station to another. I know it is inconvenient, but it is important that it be done. You can't ask them to buy a straight car of fancy goods if one case is all they want. You should try to suit the buyer, and not to suit your convenience. That way we build up our reputation, and you have Wisconsin berries.

Wisconsin berries have a wonderful reputation to-day. It follows the good quality you have had in the last two years. We got a premium for Wisconsin berries last year. They stood up and gave satisfaction, and they got what they wanted. That is co-operation. That is their job. If we send out an order and the inspector comes and

asks us to do something that is inconvenient, just do it. You can't have your cake and eat it too. You have to have inconvenience sometimes. We try to make it as convenient as possible. Sometimes things are too easy, and we get lazy on the job. One inspector didn't want his job because some criticised him because he gave them orders they didn't like. We said "Don't blame the inspector, blame us." We have to use our customers to the best of our ability. It pays to please the customer, and it pays you to help us do it. This may be the only time I will get a chance to talk to you as a whole group.

COMMENTS ON THE APPEARANCE OF THIS YEAR'S CROP

MR. WHITTLESEY: About three-fourths of what we had last year. We had 1600 barrels last year. They are very late; about two weeks. We will probably begin to pick about the middle of September.

MR. HEDLAR: Lots of little berries. There are a great many more than last year, but very small.

PRES. LEWIS: We have quite a lot of berries, but don't know how many it is going to take to fill the barrel. Next week will tell the story. It seems to be universal that everybody's berries are late. Has anyone berries that are about normal size?

MISS CASE: It seems to me that they are very nearly the same size as they were last year at this time. Now they would count about 130 to the cup.

QUESTION: Did you use fertilizer?

MISS CASE: Yes, we used 3-10-4 fertilizer.

TO NEW YORK

MR. S. N. WHITTLESEY

I had long wondered whether lightning or luck would ever strike me and land me in the New York Exchange meeting. I suppose my demented state may have been apparent, and that Charlie Lewis noticed it and kindly brought about the realization of a fond dream.

I was present at the directors' meeting, but I read the secretary's report afterwards to find out what was done. Anybody can do that who is entitled to. The meeting place was in the Pennsylvania Hotel, one of the largest and finest in the world.

The railway terminal station is in the basement of the hotel. There Mr. Chaney met our party, (Mr. and Mrs. Bennett, Mrs. Whittlesey, and I) and escorted us through vast passages, lobbies and lifts to sumptuous rooms reserved for us up sixteen stories, a little more than half way to the top of that immense building.

The business of this directors' meeting of the American Cranberry Exchange consumed one whole day, with a banquet in the middle of it, and complimentary tickets to the theater in the evening, where, by some preconceived plot, we met the ladies, especially Mrs. A. U. Chaney and Mrs. C. M. Chaney, who had early taken Mrs. Bennett

and Mrs. Whittlesey and shown them the wonders of New York City; and this sweet courtesy was continued all next day. I hesitate to tell, for we can never return, repay, or reciprocate the hospitality and happiness given us. Mrs. A. U. Chaney, with a car and a most skillful driver, took us over 100 miles through the heart of New York City—a large heart, including Coney Island, the Woolworth Building, Central Park, Grants Tomb, and beautiful drives.

Now I may jolt some cranberry growers. I earnestly suggest that we appreciate the value of Mr. A. U. Chaney to our business. Not one of us, probably, could begin to fill his place. It is easy to criticize; Mr. Chaney's job is hard. The independent growers nearly wrecked the business last fall. Mr. Chaney's action alone saved the market from utter demoralization.

The Bennett's went to Boston, and the Cape, and the Whittlesey's to Connecticut, the birthplace of Whittlesey's and reunion of their relatives. I visited two bogs in New Jersey; Mr. Harry Knight's residence, screen house, and shipping point is at Medford, New Jersey. His bog is seven or eight miles away. The berries are hauled to Medford in Reo trucks, as picked. The road between Medford and the Knight bog is poor, over a worthless sand and scrub pine land, apparently. We have better roads here, and at first sight I thought we had better cranberry marshes, but over beyond another sand ridge was a larger and cleaner patch of vines, and as we went on the vines improved; and I inwardly confessed that the Knight bog was much bigger, and on the whole much better than my own and as completely "benighted."

When Mr. Knight got me back to Medford, Mrs. Knight had a chicken dinner ready, and Mr. Budd waiting to take me to his bog, ten or twelve miles away. I was surprised to see the oasis in that sandy waste, and as I recall New Jersey now, the oasis predominated—fertile farms, and peach trees blossoming.

Mr. Budd's bog seemed to be made out of a wilderness originally. Mr. Budd told me that much of it was cornfields once. The surface is somewhat uneven, not perfectly level. The fields, or sections, were large and irregular in shape, containing from ten to 100 acres, with dams built around the border of suitable patches. Some sections had the winter flood still on about May 1, and the water was from two to five feet deep. Some sections with water drained off showed clean, healthy looking vines, mostly Howes. Mr. Budd drove that Ford roadster at twenty-five miles an hour for about one hour on these dams of his, and while I could see the shore or land a mile or so away, I could never have gotten off that bog without a guide. Here were about 600 acres of vines that yield thirty to forty thousand barrels a year. Mr. Theodore Budd is a young man, very capable and courteous; a millionaire, with a manison and interesting wife and little family in Pemberton.

Mr. Harry Knight, mentioned above, has sent several carloads of

splendid Howe vines to Wisconsin. I got one car, and Guy Potter got several. The Howe appears to be a most aggressive vine.

Those Eastern men that we met at the Exchange meeting are cordial, courteous Cranberry Kings, worthy of our admiration.

Mrs. Whittlesey and I did Washington D. C. on our way home, and here we are.

THE VALUE OF SAND

By ANDREW SEARLES

The first step taken in sanding cranberry bogs was by Mr. Ralph Smith, father of our present secretary, about thirty-five years ago. He had a small field, only about six acres under cultivation at that time. That was the first field that had ever been surfaced and planted on the clean bog. Mr. Smith also showed me a small field of only a few square rods of the most beautiful cranberries I had ever seen, beyond any conception of what a cranberry bog should look like.

I resolved that if the time ever came when I could, I should possess a similar cranberry bog. It was perfectly evident that that was the only rational, sensible method to pursue in the growing of cranberries in Wisconsin. When I got home, I broke that same subject to my brother. What a wonderful piece of cranberry bog that was! But we were under the pursuit, at that time, of a thousand acres of cranberries, and, as my brother said, we couldn't possibly sand one thousand acres, or any part of one thousand acres. None of it was suitable. It was the natural bog, ditched and fitted up as we at that time supposed was the thing to do, without any surfacing, trusting to luck, and believing that we could do what the people had done at Berlin.

The next step I saw taken in the cranberry sanding process was attempted by Mr. A. E. Bennett. He had several acres surfaced, and he decided to try the experiment. During the wintertime Mr. Bennett drew sand upon this ground, and put on this sand in strips across his field about a rod in width, and, as I remember now, about six inches in depth. He sanded a strip, skipped a strip, and sanded again. At that time it was usually the habit of cranberry men to hold the water well up to the surface. You can imagine what this did to the sand experiment strip. Vines refused to flourish, and we all stood back and looked on and shook our heads. We didn't know just what was the matter. Maybe Mr. Smith's experiment was wrong. Still we were undecided.

Later, John A. Gaynor obtained a small appropriation from the state for experimental purposes. Three experimental stations were started, which later were consolidated into one. They didn't appear to be getting anywhere with three stations scattered out, each man

using his own ideas of what should be done, so we consolidated into one, and acquired a lease of five acres at the Gaynor Brothers' for two years. My remembrance of the Smith bog returned to me with force. I decided to plant some cranberries on sandy ground. I surfaced one acre of ground, and sanded it with about two inches of sand, and planted it. I adopted at that time the same method of planting I have followed since, of planting in rows about seven or eight inches apart, and keeping it clean. It required about \$6.00 to keep this acre of ground perfectly clean. But the next winter they were flooded with water, and the spring following water backed in on the field and didn't have sufficient outlet to carry out accumulated water, and pulled out our vines.

During this time we made some experiments at the experiment station to get a supply of water for the ground. We made an effort to get Artesian water. I got a drill machine, installed it in the town of Cranmoor, and undertook to investigate for water. I struck granite at the depth of thirty-two feet. The first effort was made almost directly east of the Bennett home. The machinery was then removed to the experimental station, and again tried. Again we struck granite. There wasn't much difference in the depth from the experiment on the first. We decided that there was no possibility of our getting relief from that source. But in these investigations I discovered that there was a big bed of good sand lying all over these marshes; and I say here that that is one of the crying needs of the Wisconsin Valley District: sand. A supply of sand is available to the cranberry grower.

The grower has begun to learn the uses of sand, but when he looks around there is no sand within possible reach, or within reasonable reach of very few of the marshes. The higher portions of the land, a great portion of it anyway, is shell rock, unavailable for cranberry purposes, of course, but this supply of something like thirty feet of good sand is in easy reach of most of you.

The only change necessary in the dredging machines, is a clam shell dipper. You can go out near the fields under cultivation during the winter when the ground is frozen. Blow a hole with dynamite through the frozen ground, drop down your clam shell dipper, and take your sand. You have abundant sand of the best quality for building up bogs. The coarsest sand is at the bottom. The surface is covered with fine grained sand. This sand you may think is full of water, and when emptied into the sleigh would freeze and clog up your sleigh with ice. This is not true. Some years ago I had charge of Cranberry Lakes development Company near Phillips, and we used a similar dredge to load our sleigh. We took sand out of the water. Sand drains quickly, and we loaded that sand directly on the sleigh. There was no ill effect. That sand is warm when it comes out of the water. It was drawn directly to the bog, and spread for resanding cranberry bogs.

In the town of Cranmoor, or in a like situation, I would empty my dipper of sand upon the ground while in the absence of teams, and when the team came I would pick it up and deposit it on the sleigh. This may be done very quickly and easily.

I think this is all that needs to be said here to-day on the subject. I hope that the people will take advantage of this source of sand.

COMMENT BY MR. ANDREW BISSIG

I am like the rest of the growers. - We have berries from a pinhead to half grown. With the exception of about ten acres, I wouldn't give much for the crop. Those ten acres are pretty well advanced. The acres that we have sanded a few years ago are the best berries, and the largest.

We came to realize that sand is what the berries want. It is our first experience in sanding, and is a decided success. Last winter we sanded ten more acres, and the vines are beauties there. Mr. Wood was astonished how sanded vines developed, and they are all budding heavily. We have a pretty fair crop, and half grown. On the old bog, not sanded, we have a heavy bloom for at least 1500 barrels of berries, but maybe about 25% will go through, and that's all. We cut the crop down to half of what we expected, and are satisfied if we get that.

Sanding is the only thing to do in this state, and we find that what Mr. Searles said is true. We should have done it years ago. We lost thousands of dollars by not doing it, but everybody told us that our sand was too fine.

We don't sand any planting until it gets about three years old. We have our new crop well along, all about a uniform size. Nearly every vine is budding for next year, and we expect a big crop next year, which will be the third year. After that, we will sprinkle a little sand, about one-half inch; on old vines, about twenty-five years old, about three inches. The roots need something to weigh them down. Our vines are too long, and up too high.

In order to get rid of fire worm, we make it a point to flood every year. This year we are practically clean of fire worms. My brother is an expert at this, and usually does it while I am away. This year he flooded our marsh the last of May or the first of June, and kept the vines under water for about forty-eight hours. We couldn't find any fire worms except on one little corner where it is high. I showed that piece, about half the size of this hall, to Mr. Wood, and it is the only place we have them. Next year we are going to tramp them down and mow them off. We have a few fruit worms, but not many. This goes to show that if you don't flood for fire worm you will have them every year, and they will destroy your berries. I don't know when they flood here. Some flood late. It is too late when they are nearly full grown. You have to take them when they are small, and

when the first worm is about one-fourth inch long. Then you can kill them easily. I haven't seen one vine hurt by fire worm except that one spot.

I hope the Wisconsin growers will have a good crop, so as to keep up our reputation among our good customers. In Chicago we have a lot of customers of Wisconsin berries. They like our berries. Sometimes we get a premium of \$1.00 a box over other berries, because they are so uniform in size and color. We haven't many, and can't establish a market for them until we get enough. A few boxes don't count. A high-class customer with a high-class trade will get them, and he pays the premium.

PLANNING FOR STATE-WIDE CRANBERRY INSECT CONTROL

By S. B. FRACKER, *State Entomologist*

An entomologist is sometimes known as an alarmist because it is his business to discover dangers before they arrive and point out measures which should be taken in advance. He is not always able to do this and sometimes insect pests and plant diseases prove to be less injurious than was anticipated. In many cases, however, the alarm proves to be more than justified and new introductions often result in far greater injury than was expected.

In talking to the Wisconsin Cranberry Growers' Association, however, it is not necessary to take the attitude of an alarmist. From sad experience you are familiar with the damage which can result from insects feeding on the vines or on the fruit, or from diseases causing failure to set fruit, or cranberries rotting in storage. No two years have shown just the same record but in some seasons the damage from this source has been the most important factor in determining the total crop.

The ideal conditions for insect and plant disease control, in the case of any farm or garden product is to have the same insects and diseases to cope with each season and to discover some method by which they can always be prevented from developing. When such a condition exists it is not necessary for the grower to determine each season just what is most likely to give him trouble or anticipate just when it is going to occur. In the case of apples, for example, a spraying program has been developed which, if carefully applied, will result in freedom from fruit worms and apple scab, and this spraying program is used by commercial orchardists year after year regardless of the varying outlook as one season follows another.

Unfortunately, the measures which have been developed to protect cranberries against losses from pests are not of this nature. The sources of trouble vary from season to season and protective meas-

ures appear to be, to a large measure, impracticable. Control measures for the principal sources of loss have been worked out by the Wisconsin Experiment Station and those of other states but for their value depend on an accurate observation and appraisal of conditions in the bogs from month to month and from year to year. No one thinks of flooding for the blackheaded fireworm, for example, unless that worm is present and, in the same way, there is no reason for rushing cranberries to the market at the beginning of the season to avoid storage rots, if the outlook is that the berries may be kept in a healthy condition until or into the winter.

For this reason the plan of state aid which has been worked out by the growers is particularly adaptable to your conditions. It contemplates placing a full time man in the field, trained in entomology, plant pathology and cranberry growing, to keep in continuous touch with the insect and fungus conditions on the bogs, see that the growers are informed, and suggest control measures. The cranberry plant is one of the smallest with which horticultural and agricultural industries have to deal, and a determination of the true conditions at any time requires a series of detailed observations and a concentration which the grower himself during the busy season is not in a position to give.

As you know, the preliminary test of this plan, made two or three years ago, proved its practicability in every respect. Incipient fireworm outbreaks were detected and, in every case but one, satisfactorily eradicated through the cooperation of the growers. The small amount of work which was done that season appears to have increased the cranberry crop here in the amount of several thousand barrels, paying large dividends on the small state investment in the project.

If the growers are thoroughly back of a plan of this kind I have every confidence that the legislature will provide the necessary funds. The fact that there were difficulties in the way two years ago is no reason for discouragement as conditions were peculiar and unfortunately the sponsor of the measure was in the hospital at a very critical stage in the proceedings. The Finance Committee will wish to be convinced of the thorough sincerity and the overwhelming support of the growers and of the practicability and definiteness of the plan. If a delegation from the association is unanimous in supporting it and brings out the importance of the measure to state prosperity, you can be assured of every courtesy.

The proposal at this time is particularly fortunate as it works in with a broader land utilization policy rapidly increasing in favor. Fifteen years ago the pendulum was swinging toward extensive reforestation projects, and the public favored replanting the land from which the fine timber was vanishing into the sawmills. The movement, however, seems to have been overdone and as a reaction efforts have been made for the last decade or more to settle the broad spaces

of the northern counties with farmers. Profits in raising potatoes have hastened the movement until it, in turn, has gone beyond the legitimate demand and for several years the markets of the country have been flooded with the particular kinds of products much of the newly-settled areas are in the best position to produce. It is clear that this is no time for further increasing the potato growing land by several million acres and those who are interested in land policies are considering the best utilization which can be made of the cut-over areas.

In view of the adaptability of cranberry growing to country which cannot be used for any other purpose, all proposals for the development of this industry will be given an unusual degree of attention. In securing hearings for your proposal it is therefore only necessary for you to point out its relation to the prosperity of the cranberry industry and the effect that your prosperity will have on the development of further extensive tracts adaptable to the growing of this delicious fruit.

The State Department of Agriculture is thoroughly convinced that the control of the insect pests and plant diseases of the cranberry is important for the prosperity of the state, that it is a thoroughly practicable suggestion, and that the method of securing a specialist to discover incipient insect and disease outbreaks and propose control measures for them is the best method of handling the problem. I have the assurance of the Commissioner of Agriculture that we shall do everything in our power to be of assistance in securing the adoption of the plan and working it out in a successful and profitable manner.

GENERAL DISCUSSION

PRES. LEWIS: It is necessary that we decide today what form of assistance we want from the state, and how to go about it. I would like to have every grower here make known his opinion on this subject. If they want a fieldman, as Dr. Fracker says, we should state in our request that we want a fieldman and for what purpose we want him. We should go down to the legislature with a very definite program. We would like to hear different opinions on this subject.

MR. HEDLER: I thought about this matter quite seriously since this effort was made to get someone to help us as a state aid man. I have an idea that you have to show these people down there that you've got the goods, and that it is worth their while and the while of the state. Perhaps that was done in that way, but we should put it up to them in a concrete form.

We have taken land that wasn't worth much, and would never have been worth much in anything except the cranberry business. It meant that this would never have paid the state very much in the way of taxes if it hadn't been developed. We know that lands suitable for general farming have to-day a certain value. I have some of it in the state of Wisconsin, and I know I am paying a big tax on it; but I also know that the same sort of land we made our marsh out of we are paying a much smaller tax on than on land suitable for general

farming. I wish we could figure up what the lands of the cranberry growers of Wisconsin are worth, not in a sentimental way, not in a way of what they will return in a certain big year, but what we are making on the average, and what we are paying, not only in state property tax but in income tax, and have something concrete to present to the legislature.

There is another thing that occurred to me. It is better to have one good strong supporter in court—somebody who understands your situation, and who is in sympathy with you—than to go down there in a general way and present this to that financial committee. I think we should study that situation before we go down there as a committee. If possible, get one of them to come up and see what you've got, and what you need. It is important that we should have this state aid.

PRES. LEWIS: I am going to state an idea that I have. I want somebody else to express their opinions on this, but I think that at least twenty people should go down to Madison next winter. This coming winter we must take this up with the legislature. Do you feel, every grower, that a fieldman, one who would go around and visit among you, can save you a few barrels of cranberries in a season? I certainly do. If he could save you ten barrels on your crop, you would be repaid your share necessary to contribute to get such a man. That is, if twenty people went down to Madison they would have to pay their own expenses. That may frighten some of you, but if it is going to save you ten barrels of cranberries you will get it back.

We may need a fund of some kind. The association can't support it. Our only source of income is our \$1.00 a year dues, and \$250.00 annual appropriation, and our reports and other expenses eat that up.

If it does any good, I will start the ball rolling by a contribution of \$25.00, or \$50.00 if it's necessary. That's only a few barrels of cranberries, and I am sure I will get it back. I would like to have a few opinions on this subject of state aid.

MR. M. O. POTTER: I would be very well satisfied with a fieldman, if we could have him long enough, and a good one.

MR. A. E. BENNETT: I think a fieldman is the only thing left for us. Our experimental station is gone. In Cape Cod they have built up another one, and they have a man there that I think is doing wonderful work, and the Cape Cod growers seem to appreciate it. The state has taken hold and helped them, and they are getting results.

MR. PETERSON: Wisconsin is a comparatively new state, and I believe the cranberry industry is developing along with other industries. As I mentioned a while ago, we have thousands of acres of land suitable for the industry, and I think that proposition would appeal to the legislative body. I think it is an advisable thing to increase the cranberry acreage. The land we are now using for cranberries was of little value when started, and has been built up into valuable lands. I think that would appeal to those who were making the appropriation. I think a survey should be taken of the state to show the possible increase that could be made in acreage and money value.

MR. F. J. WOOD: The cranberry industry should be recognized by the state, and should be helped. I approve of appropriations to be made for carrying out this purpose. I will join with our president, Mr. Lewis, with what he has promised to do in bringing this about.

MR. F. R. BARBER: People who eat cranberries often do not know

what work it takes to raise them. The point is, we need a field man; a man who could be occupied the year around. When he can't go around visiting the bogs he might be preparing reports, the results of his investigations, and suggestions of help to the cranberry growers. I read the name of Mr. Malde on one of these bulletins. We would be glad to have the help that might be given by such a report.

I think it would be within reason to ask for an appropriation of at least \$5000. I can't think of a better statement than that made by the committee last year: the fact that it makes use of entirely valueless land, and puts it on the tax roll at a good high valuation, and might even get an income tax. I think we can go down there with considerable confidence that we are not begging for something, but with our heads up.

PRES. LEWIS: A fieldman seems to be what is wanted. Now who and where would we get a fieldman? Is there anybody working for the state now that could be diverted to such a purpose? Is there anybody in the employ of the federal government that could be diverted?

MR. A. HEDLAR: It seems to me that it should be left to the agricultural department or Dr. Fracker. I think they could get somebody to take up this work.

MR. ANDREW SEARLES: I quite agree that the association should have some money to help develop this industry. I think if the committee goes down there and tells those fellows about the nice amount of suitable land in this state for growing cranberries, that is being drained out and tried for farms that don't raise any crops, you wouldn't have any difficulty at all in getting \$5000 or more. If you could get a fieldman that could spend his whole time on his work, it would be a mighty fine thing. I think that the president should appoint a committee to work out a system of just what we want to arrive at, to put it up to the legislative body.

MINUTES OF THE THIRTY-EIGHTH ANNUAL MEETING

Wisconsin Rapids, Wis., January 13, 1925.

The winter session opened with a banquet at the Hotel Witter at seven o'clock, on January 12, with nearly ninety growers and friends of the industry present. Mr. Albert Hedler of Minneapolis, Minnesota, acted as toastmaster. Mayor Roenius opened the program with an address of welcome. Toasts were responded to by John Roberts, Capt. Nash, E. P. Arpin, T. W. Brazeau, Mrs. A. C. Otto, and Rev. Leonard.

Special features included several solos by our popular County Agent, Mr. R. A. Peterson, and also a charming dance solo by little Miss Peggy Dolan.

Music was furnished through the courtesy of Mr. L. P. Daniels.

The thirty-eighth annual meeting was called to order by Pres. C. L. Lewis in the Wood County Realty Hall at 10:30 A. M., January 13.

Minutes of the thirty-eighth summer convention of 1924 read and approved.

Address by Pres. Lewis.

A letter from Mr. Malde was read in regard to the publication of records from the Experiment Station. It was decided to let the matter rest until next winter.

Moved and seconded that Mr. Malde be instructed to turn all the original records over to the Agricultural Department of the University of Wisconsin, so they may be available at any time, and protected.

Motion made and seconded that, without change in the by-laws, our next winter meeting be held on the second Wednesday in December.

Mr. J. L. Wilcox, Manager of the Linderman Box & Veneer Company of Eau Claire, spoke on the subject of packages, recommending a shallower and wider box.

After luncheon, the financial report was read and referred to A. B. Scott and O. O. Potter as auditing committee, who later reported the same as correct.

Mr. Scott gave a report of the material used in the pumping experiment.

Valuable papers were given by O. O. Potter, Miss L. Case, Herman Gebhardt, M. O. Potter, A. Searles, Pres. C. L. Lewis, Jr. County Agent R. A. Peterson gave a very interesting talk, urging the older growers to inoculate cranberry enthusiasm in the younger generation.

Moved and seconded that President be authorized to appoint a committee to go to Madison to appear before the Joint Finance Committee.

In the election of officers, motion made and seconded that President appoint a nominating committee. A. E. Bennett, L. Case, O. Potter, Verne Johnson, and H. Gebhardt appointed on said committee.

Motion made and seconded that Secretary cast the ballot for C. L. Lewis, Jr. C. L. Lewis re-elected.

Moved and seconded that unanimous ballot be cast for same vice president, secretary and executive committee.

On motion, the association adjourned.

Clare S. Smith, Secretary.

OFFICERS OF THE WISCONSIN STATE CRANBERRY GROWERS ASSOCIATION—1925

President.....C. L. Lewis, Jr., Beaver Brook, Wis.
 Vice President.....Guy Nash, Wisconsin Rapids, Wis.
 Secretary.....Clare Smith, Route 3, Wisconsin Rapids, Wis.
 Member Executive Committee.....S. N. Whittlesey, Cranmoor, Wis.
 Member Executive Committee.....Mrs. A. C. Otto, Wisconsin Rapids, Wis.

REPORT ON PUMPING MATERIAL BY MR. SCOTT.

Part of the material has been disposed of. There were two tubes for \$35.00 cash received, and I will remit at this time to the treasurer for that amount. There is still quite a bit of material left to be disposed of.

Is there any of this material that any grower would be interested in? There are two pumps, one three-inch and one four-inch; some amount of four-inch piping, and four-inch pipe settings; and five or six three and one-half inch gate valves. They are still in the system at the Mitchell Marsh. There is a Myer's eight-inch piston pump and the small number of fittings that go with that. Unless someone expects to do some pumping, I do not think there would be any of this material that would interest any growers, outside of the centrifugal pump.

COMMENTS BY MR. NASH

The state made a definite appropriation for that pumping. If there is anything left, I suppose it should be returned to the state. Wouldn't it be better to use these pumps for construction work? Let the association keep them and loan them out. They will go as a credit to the pumping fund.

ADDRESS OF PRESIDENT LEWIS

I will take this opportunity to explain to the members of this Association what has been done in reference to our attempt to secure State Aid for the cranberry industry in Wisconsin.

But before going into this subject I want to express the thanks of the members to those who had charge of the banquet last evening. We all attend these delightful affairs without realizing the amount of work that is necessary to make them successful. Miss Smith had charge of the arrangements and I think Miss Bamberg, Mrs. Whittlesey and Mr. Babcock of the Wood County Bank assisted her and we want it known that their work is appreciated.

We have been working on our legislative program for several years. I will review this matter for the benefit of those who are not familiar with the steps taken two years ago. At that time a bill was introduced in the legislature asking for an appropriation of \$2000 annually, to defray the expenses of the fieldman working among the growers

during the summer months. The bill was referred to the Joint Finance committee for consideration. This committee allowed the cranberry growers a hearing in February 1923. Mr. Whittlesey, Mr. Nash and I appeared for the Association at this hearing and the sentiment of the committee seemed favorable to our request. But we soon learned that we were doomed to failure at that session. The trouble was we had not started early enough, we had not specified where the funds for carrying out the provisions of the bill were to come from. In fact, although we knew what we wanted, we did not know just how to go about it and consequently our pains were not properly made and our bill was lost in the shuffle.

This experience, although ending unfavorably, was not without its benefits. We met the officials at Madison with whom we must deal, we were given valuable advice and we have since that time planned a campaign that we believe will bring satisfactory results. At our meeting last summer, we passed a resolution to the effect that we ask for an annual appropriation of \$5000 which would give us a fieldman throughout the year. We realized that it would be impossible to obtain a man for part-time and we felt that the fieldman must have the winter months to study the storage diseases of the cranberry, carry on his laboratory work and prepare his reports. At this same summer meeting we discussed the need of funds for defraying the expenses of sending a committee to Madison this winter to explain our request to the present legislature. We passed a subscription list at that time and about \$450 was pledged for this purpose.

Shortly after our summer meeting we were requested by Mr. J. B. Borden, who is Secretary of the State Board of Public Affairs, to prepare a budget of our anticipated expenses for the next two years. This is required of every association or department that received an appropriation from the state. In answering we mentioned our intention of asking the state for funds for a fieldman. This led to further correspondence on the matter, which opened the way to the very definite campaign which we have worked out. The main points of this plan are as follows: We appealed to the Commissioner of Agriculture to place our request in his budget for the next two years. The Commissioner seemed willing to cooperate with us in a proper presentation of our case and he accordingly placed our request in his budget for presentation to the legislature.

We learned through our newly formed friends at Madison that our matter would have a better chance of success if brought up as a budget item than if brought before the legislature as a separate bill. It would be given consideration by the budget committees and if it received their support it would undoubtedly go through the legislature without opposition. All budgets are first submitted to the State Board of Public Affairs. This board is composed of the Governor, Secretary of State, Lieut. Governor, Speaker of the Assembly and three citizen members. The Governor is chairman and they consider

all budget matters before they are presented to the legislature. They then pass these matters on to the Joint Finance committee with recommendations pro and con and it is inevitable that their recommendations must frequently be con, as a great many excessive requests for funds are made through the various budgets. Naturally a recommendation by the State Board of Public Affairs would have great weight with the Finance committee and quite as naturally an adverse recommendation is as good as a death warrant, especially in a matter such as ours. Therefore it was of prime importance that we secure a favorable recommendation by the State Board.

When the Commissioner of Agriculture appeared before the State Board to present his budget we were given the opportunity to be present and explain our request. We were given very short notice of this hearing and I did not have time to take it up with the officers or members of the Association. I did however manage to reach Mr. Scott, a member of our committee, and we met at Madison and did our best in behalf of the Association. We were given about three quarters of an hour during which time the Governor talked freely with us. When we emerged from the hearing we felt that we could look for favorable action, although of course we were not to learn their action until after the legislature was in session two months later. As you know, that time is just at hand and we expect almost daily to learn what action was taken by the State Board.

The next step before us is a hearing on our measure before the Joint Finance Committee. We do not know when this will be held but they have promised to give us as much notice as is possible. At this meeting which will probably be held in February, it is very necessary that as many growers as possible go to Madison and appear. We must have three or four spokesmen who will divide the material for presentation. We should have a delegation of at least twenty members at this hearing. We are looking for a favorable report by the State Board and we honestly believe that if we make an intelligent presentation backed by sufficient numbers, we will win the support of the Finance committee. With their support we believe our battle is won.

We have spent a great deal of time and effort to date in connection with our appeal for State Aid. I have here a bunch of correspondence that is open to your inspection but it is not necessary to read it all at this time. I have given you the substance of the matter and I thank you for the fine spirit of cooperation that has been in evidence.

We also wish to acknowledge the splendid assistance that has been given us by Dr. S. B. Fracker, State Entomologist, who has been our faithful friend during the past few years.

In addition to our legislative matter, we are going to discuss the poor keeping quality of our 1924 crop, the reasons for it, Etc. We shall discuss the packing and grading of berries. We will talk about

packages and in this connection we will hear from Mr. J. L. Wilcox, Manager of the Linderman Box and Veneer Co., of Eau Claire, Wis. We will hear from Mr. Searles on the Cost of Bog Development and we will have other general discussions.

TO THE MEMBERS OF THE JOINT FINANCE COMMITTEE

- 1 The Cranberry Industry in Wisconsin dates back over 50 years, and for many years prior to the war the State maintained an Experiment Station where the problems of the industry were studied. This Station was discontinued during war times in the interest of economy as a war measure and since that time no State assistance of any kind has been given this industry.
- 2 The industry, being a highly specialized one, is not reached by any other State Agency such as the county agent or the University Extension service and due to lack of State Aid, insects and diseases have caused great losses to the growers of the State and there is little incentive for the further development of the industry.
- 3 The nations crop of cranberries is produced in three states, namely, Massachusetts, New Jersey and Wisconsin. While Wisconsin is most favorably located as to market and has the largest acreage of land suitable for cranberry production Wisconsin produces only 10% of the nations crop. Massachusetts and New Jersey encourage this industry by operating State Cranberry Experiment Stations and employing a corps of trained men to work on the problems of the industry.
- 4 The present production of cranberries in Wisconsin averages about 50,000 barrels. These are raised on lands which are not suitable for any other purpose. It is perfectly possible to raise this production to 200,000 barrels, and in doing so make valuable much more land which now lies idle and contributes nothing to the coffers of the state.
- 5 At present cranberry growers in Wisconsin are paying taxes on 50,000 acres of this kind of land. This represents an investment of \$5,000,000 and gives work to several thousand people.
- 6 The Industry is asking through its Cooperative Association that the request for an annual appropriation of \$5,000 in the Department of Agriculture budget be allowed. This money if allowed will be spent under the direction of the State Department of Agriculture and is to be used for the employment of a trained specialist in cranberry insects and diseases, who will devote his entire time to advisory work among the growers.
- 7 The growers of Wisconsin are paying state income taxes of many times the amount asked for. We feel that we deserve this modest assistance from our state and in view of the possibilities for extension of the industry it will be a splendid investment for the State of Wisconsin.

The above report is a brief resume of the material to be presented to the Joint Finance Committee on January 28th.

CHAS. L. LEWIS, JR., *Chairman.*

ADDRESS

By R. A. PETERSON

I am always glad to meet with the cranberry growers. I have been criticized for not taking a more active part in the program than I have. I accepted the criticism, and will hope to work into the cranberry program. My idea was that all the cranberry people were pioneer growers, and knew all about the growing of cranberries, and anything that an amateur might contribute might be just as well left out; but I am convinced, after attending several meetings, that there is still a whole lot to be learned, and I might be able to enter into the program and learn along with the rest and contribute something eventually.

Possibly the most service that I have given the cranberry growers in a definite way has been in their sanding program. I have been able to help some of them in supplying some of this cheap government explosive to them so they can blast out their sand and get it in that way. I might say that if there are any of you that want Pyrotol (which I believe Mr. Potter and others have found to work out very well) I still have some on hand at Pittsville, Marshfield and Vesper. It is a saving over the regular purchase of dynamite, and does good work.

In the cranberry program, as I look at it, the experience that you have had is the best foundation that you can work on. There seem to be new ideas coming up in the cranberry program just as in any other line of agriculture. Someone has said that the cranberry business is an extremely hazardous proposition, and that is why more people do not go into it. Most any agriculture is subject to drought, too much rainfall, and such things, but I believe that we could measure up the success that any grower gets in the cranberry business with the pluck that he has, and the intensiveness with which he goes after the work. The cranberry business is something that cannot be managed by radio or long distance telephone. The successful manager must be on the job before daylight, until long after dark, sometimes of the year at least, to make the program a success, and I believe that is possibly one reason why more people do not go into the business. They don't want to tie themselves to the job, as the cranberry grower has to do.

I am pleased to see so many young fellows here to-day. I think it is the duty of the older cranberry men to see that they not only get the growers themselves to attend, but get a lot of these young fellows to come and get inoculated with the cranberry enthusiasm. It seems that there are a number of cranberry marshes that are going to carry on, the younger fellows to take up the work when the older ones leave; but there are others again where no prospect of that kind is at hand. There are some very capable understudies that will

be able to take the knowledge the old pioneers have gotten and carry that on, and adopt modern methods and ways also.

I have heard it said that Wisconsin produces about 50,000 barrels of cranberries, and should be producing 250,000 barrels annually. Massachusetts produces 350,000 barrels; New Jersey is somewhat behind. Wisconsin holds its own so far as quality is concerned. The total acreage is 2000 acres in Wisconsin. It seems that 2000 acres is only a small part of the acreage that would be suitable and available to the growing of cranberries, and it seems that a thorough study should be made of the program, and if it is a good thing to increase the cranberry industry of the state, it should be developed. The information that has been brought out to-day by different people is very fine. The talk by Mr. Searles on the cost of establishing a marsh, and the talk by Miss Case on the use of fertilizers, gave information that is needed.

I hope that a fieldman can be obtained. The work your committee has done has been very fine. I believe the program needs the co-operation of every one of the growers. I wonder if Senator Smith of Neillsville, and Assemblyman Royce appreciate the importance of the cranberry industry. I am wondering if it would not be a good idea to have someone go to Assemblyman Royce and put before him the importance of the cranberry industry. It seems to me that while you have placed emphasis on the need of getting the fieldman with the idea of studying the disease and insect part of the cranberry program, you should also keep in mind the development idea as well. We have an Agricultural Committee in the county that meets and talks over a sort of program of work for the year. We lay plans, and go ahead to accomplish these plans. I believe it would be a good idea to follow the same plan among the cranberry growers. You are trying to secure a fieldman; you are trying to increase and develop the Wisconsin industry; it might be the developing of new marshes or the building up of old bog. We have to name something definite and put a committee at work on it to get results.

I shall be glad to co-operate with you at any time, and the more meetings I attend the more confident I become that there is still a lot to be learned in the cranberry program, and there are hopes of my being of service in the proposition also.

CRANBERRY BOXES

By J. L. WILCOX

In some business contact in previous years with different members of the Cranberry Growers' Association, (I didn't know them as members at that time, simply as individuals), I got rather interested in the boxing proposition. Then it died out, and for two or three years

I did not do anything about it. My attention was called to the boxing proposition by one of your members a month ago, and some suggestion was made as to a change in the shape of the boxes. I looked at the box that you growers used extensively last year, and it appeared to me that from a lumberman's point of view something might be saved in conserving lumber and reducing the price of the box to the growers. Your box used last year was twenty inches long inside, and standard lumber is cut in every two feet; six feet, ten feet, twelve feet, etc. To cut a box twenty inches long, you have to use twenty-four feet of lumber, and throw several inches away. Possibly by lengthening that box slightly you could use twenty-three and one half inches in length, and conserve that in depth, making the box slightly shallower. It would relieve the crushing weight of the berries by making a shallower box, and in changing the shape you will have to widen it a little. That would give you a wider expanse of berries for inspection and sales showing. You would have about eighty square inches more berries on display than the box of dimensions that was used before. The box of the dimensions that I am suggesting is easily handled, nicely packed, and a little cheaper. It weighs about two pounds less. In the carload shipment of 500 boxes, say 1000 pounds, if you are shipping to San Francisco it would mean some dollars on every carload. My idea is to give the members of the association the benefit of saving in box and freight, and making their product a little better on display, and perhaps get a better price.

The organization that I am representing is very willing and very glad indeed to give you the benefit of anything they know about boxes. We don't know much about the cranberry business, and I thought perhaps by coming and meeting some of you and let you know that we are ready to serve you in any way, we could work out something together that would be of benefit to both of us. I understand that the Sales Company resolved not to change the style of package. We manufacture all kinds of boxes, and will make exactly the box that you want, but from time to time we may have some suggestions to make as to the style and size of box. You may adopt them or not, that is up to you; but I want you to know that the Lindeman Box & Veneer Company of Eau Claire, and myself personally, want to help you if we can. We will deal any way you want us to, individually or through another concern such as the Cooperage Company here, or any way you want it done. Call on us, please, if you want any suggestions or assistance or anything in the way of packages. Please let us have the opportunity of presenting our proposition and try to help you.

I have here a box that I thought would answer your needs very well. This is a box that can be easily handled, and is sufficiently strong to carry the contents to destination without damage. It permits ventilation on all sides of the box. The box was made with a

9/16 inch end, slightly heavier than you have been used to. That is where the strain comes. There is a cleat on the outside for a handle grip if you care to carry it that way. It is cleated on the inside of the box, giving it stability, and ventilating it by making it of three separate pieces with a slight opening between each. There is more or less shrinkage, so the cracks shouldn't be too large in the beginning. The bottom is held by cleats, so it slides into position, and by tacking on each side it is held securely in place. There is no nailing required on the end of the box. After the box is packed, the top is inserted. You can round up the berries, put on the top, and nail it in place. It makes a very secure package, and the berries will not shake in it after it is packed. I gave you a little heavier lumber on the end, and in the body of the box I used lighter lumber. Previously $\frac{1}{2}$ inch material was used; this is $\frac{7}{16}$ inch. This is another point in the conservation of material. One-half inch lumber is secured by re-sawing $\frac{5}{4}$ inch lumber. Seven-sixteenths lumber is secured by re-sawing $\frac{4}{4}$ or 1 inch lumber, so you are saving $\frac{1}{4}$ inch on two pieces of $\frac{1}{8}$ on each box. This is conservative, and you are entitled to a saving in the price of the box.

Another suggestion: I notice that on all of your boxes you use paper labels on the side and end of the box. I would suggest that if you buy a box from us or any other concern who is equipped to do it, get a little brass die and make an impression in the wood. That remains there until the box is consumed. Your paper labels get all scratched off, and are not of much account when you get them to the car, but with this printing it stays put and the expense is nothing. A little die would cost only two or three dollars, and every member could use it. That comes in the cost of the box.

I suggest that the bottom be made similar to the side. That would conserve lumber. Every other box can be turned over, with only one ventilating cleat. The next one could be turned the other way, so it would be every other one. My idea was that you wanted ventilation on top and bottom. That bottom is securely held in place by the cleat, but you can put a tack in if you want to. It is easy to open; just pull out the tack and slide the bottom out. By using a 9/16 end and a 7/16 body, even in the box you are now using, you can save some money in the original cost of the package and in transportation charges. You will save two pounds in the weight of the box, even making it the same style that you have been using. Primarily, I want you to know that we want to serve you, and hope that you will call on us at any time.

DISCUSSION

MR. BARBER: I think quite a few of the growers have had one year at least when they got more berries than crates. I found a box like this very good for storing the berries. I am mighty interested in getting this box shaped over so it is good to store in as well as to ship in. For my part, I think we would do well in considering that

point in considering what box to use. The box used in the east is a different shape, and some people thought we were shipping less berries in the box than the eastern fellows. They didn't give us credit for a half inch. Where we had it full of berries, the other fellow had it full of cover. A customer is skeptical, and if one box looks larger than the other he calls attention to the fact. We should get a box that we can use for packing and can clean them up and ship them out again.

PRES. LEWIS: It is an important fact that the Wisconsin berries be shipped in uniform boxes. Our boxes don't go in a very large territory, and we ought to have the same kind of package. People are always looking for defects. We are going into boxes very strong. Probably three-fourths of the berries were ordered in boxes. A good many orders were filled with barrels that were ordered in boxes, because we didn't have boxes to fill them. I have heard a good many merchants say they would never take barrels again. The box question is a very important one just now. It is a mighty opportune time for Mr. Wilcox to get interested. The next season they can be made more uniform, and all these features taken into consideration. We are grateful to Mr. Wilcox for showing enough interest to present his views, and to my knowledge he is the first box man that ever did that. If he shows enough interest to do that, he is on the right track.

MR. WILCOX: I neglected to say that I have had some correspondence with Mr. Chaney, and he seemed quite interested. I have sent him samples of these boxes, but I haven't had time to get a response. The New England Growers are interested, but it isn't our idea to ship boxes from Eau Claire to New England, and we could probably have them made there cheaper than to pay the freight. I inspected several of the New England boxes, and they are about the shape I just showed you. A little shallower than the Wisconsin box, a little wider, and hasn't so many cleats on it. They don't seem to insist upon entire ventilation around the whole box. The bottom was not cleated. That was the ventilated box with the saw groove not extending the entire way through. It was the same thickness of material that I have shown to you, and seemed to be very satisfactory.

The Lindeman Box & Veneer Company will be delighted in furnishing the Cooperage Company with boxes. A lot of growers use a few hundred boxes, and it would be difficult to nail them up themselves. The Cooperage Company fills the position here. I do not see how they could go out of business. As I understand they have brought them from some box factory and assembled them and delivered them. The source of their supply has gone out of business. I could furnish the Cooperage Company with as many boxes as they would want. I understand that some of the growers are stockholders in that company.

COST OF BUILDING A CRANBERRY BOG

ANDREW SEARLES

I have put in about fifty years at this work. I still find it difficult to say what it will cost per acre to build a cranberry bog. Changes have gone on from year to year, in our opinions of what consists of a well built cranberry bog. Fifty years ago a few ditches to carry off the surplus water; a few dams built from the sods taken from

said ditches; a few cheap flumes constructed from cheap lumber; a few cranberry vines gathered from the wilds to be struck into the sod among the grass and moss, was considered a good practice, and should satisfy the most fastidious cranberry grower.

A few years later, doubts began to assail our minds, and some adventurous souls scalped off the grass and moss and other obstructions, and planted their cranberry vines upon this clean peat bed, still gathering their vines from the wilderness.

It is very difficult to forecast just what it would cost to put a given location into cranberries in the most advanced method. A swamp can contain many obstacles hidden under its surface; its levels difficult to fix; sand easy or difficult to get at or far from where it is needed; roads may be difficult to maintain. You may be able to use machinery such as plows, disks, tractors, or you may be compelled to do all hand work in reducing these problems.

During the past few years I have had a hand in directing the building of a cranberry bog where we were able to use machinery in reducing the natural problems to a minimum. We used a small dredge to dig most of our ditches. We used this dredge to pull and pile our stumps, of which we had a large amount, as we were reducing a tamarack swamp. We used a plow drawn by a tractor. We were then able to mellow the soil by using a disk and drags and timbers, bringing the fields very nearly to a perfect condition, having only a small amount of finishing work to be done by hand to prepare the ground for the sand; for to-day we do not plant our cranberry vines upon the peat but first put on two and one-half or three inches of sand before planting. We use the best cranberry vines we can get, cutting them into about eight inch lengths, and pressing several of these slips in each hill into the ground with a small steel dibble.

I have tried to use machinery for this planting, but it hasn't proven entirely satisfactory.

One of the crying needs of our Wisconsin cranberry bogs is that they should be rebuilt and planted to better varieties of vines, the old vines being burned off, and the ground plowed or rescalped and leveled. I get better results by flowing. If the field was not properly laid out when first built, I would plow down the dams and fill up any ditches not in the proper places, level up as needed, put on sand and plant again.

It would not be wise to undertake the rebuilding of the whole bog in one season. Have the plans of the entire bog mapped out for the new undertaking. The expense per acre to make this transformation will vary greatly. Besides the loss of two seasons' crops, my estimates were about as follows:

- Plowing and leveling, from \$50 to \$200 per acre.
- Putting on three inches of sand, \$100 to \$150.
- Putting in new ditches, \$25.00
- New flumes, \$25.00 to \$50.00.

Searls Jumbo vines for planting, \$250.00.

Planting, \$100.00.

Two seasons weeding, \$200.00 to \$225.00.

To bring an acre of cranberries of the Searls Jumbo variety, up to the first paying crop, which should be two years and three months from proper planting time, which is May or June, will cost from \$700 to \$1500, and I presume even more, not taking into consideration the first outlay for the location. The cost per acre of building a new cranberry bog will vary greatly.

FERTILIZERS

MISS LUCETTA CASE

The change from extensive to intensive agriculture has been very rapid in the past few years, and we must expect that the future will hold an even more radical change. It is certainly far less expensive to raise and harvest a given amount of fruit on one acre than it is to spread it over two. And, anyway, it's rather fun making two large berries grow where one pie grew before; and surely it's a way to put smiles into the hearts of the growers.

Cranberry growers have heretofore felt that the annual washing down of green algae and other low forms of plant and animal life was sufficient fertilization for their bogs. Almost that they were rejuvenated by inundations from the river Nile.

The recent dry years, however, have deprived us of such a sediment, and we are looking elsewhere for a more certain source of vine substance. Peat soils, like any other, will not endure cropping continually without renewal. Some have successfully tried water cure, and some have burned vines, but either of these methods entail the loss of one or more crops. Henry Ford states in a recent article: "The one crop farmer never has made any money out of farming. They started with virgin land and in their crops sold the fertility of the soil—that is, they sold off their capital investment."

Perhaps the best way to get at the needs of a given soil is to have an analysis made. Peat soils vary greatly even in a given region. They are, however, all high in nitrogen content, but vary greatly in the amount of such nitrogen available for plant food. It is usually low in phosphates and potash. They also lack lime; but that sour soil seems to be the habitat of the cranberry. All plants seem to require some available nitrogen, phosphate, and potash, and if we would have healthy, hearty plants we must see that these ingredients are in the soil or supplied to it. In choosing a fertilizer for our individual bogs, perhaps a soil analyst could be of great assistance. The process of trying out various forms of fertilizer and their combinations would be interesting, but from a financial standpoint very expensive.

C. J. Chapman of the College of Agriculture makes the statement that ammonium sulphate is the only form of nitrogen to be used on bogs in Wisconsin. He advocates the use of a 4-8-4, or if a home mixture is desired:

12 pounds Ammonium Sulphate
 50 pounds 16% Acid Phosphate
 10 pounds Murate of Potash
 10 pounds Dried Blood.

In deep peat bogs where vines grow rank, phosphoric acid and potash are more important and a very low per cent of ammonia will answer.

In articles that I have been able to find on this subject, not over 500 pounds to the acre is recommended. It is interesting to note that celery growers in Florida have found that a dose of five tons of \$40 fertilizer pays. They have heretofore thought that two tons was too much, but with five tons the amount of celery raised not only increased in paying quantities, but the percentage of high grade product was proportionately increased.

For three years we have been using a mixed fertilizer on our bog. The first year we tried two mixtures recommended for cranberry culture, i. e. 9-7-0 and 3-10-4, using such amounts on check plots that the nitrogen content on each plot was the same while the phosphate greatly varied, and the one lacked entirely in potash. The kind with the potash and greater phosphate content, 3-10-4, reacted better on our soil, and since that time we have used the one kind. The use of fertilizer has increased the amount and size of the fruit, has given better tone and health to the vines, and brought them into a healthier bearing condition. We have felt, however, that we have not been using a sufficiently heavy application, and expect in the spring to remedy that fault. We had planned to divide our marsh and fertilize one third each year, but Mr. Chaney, during his October call, advised an application not less than every other year and perhaps every year, using all the fruit would stand; that is, as much as we could without injuring the keeping quality of the fruit. After his visit we decided to cover all ground in the spring that was not treated last spring.

Two years ago we spread a ton of rock phosphate. Those vines look better, but it took over a year before we could see any change. The very slowness of that process renders it expensive.

We felt especially indebted to fertilizer this year, when berries generally were very small, while ours were normal size except in untreated plots, where they were very small. We have all native berries, and while we use a Hayden Grader, which admittedly does not remove all pies, our proportion of pies was 1-24. Last year it was 1-18, and in 1922 it was 1-24.

For the benefit of those who may care to use fertilizer, I will say that it should be spread just as soon as possible after danger of flood-

ing is over, or very early in June; and it must be applied when the vines are perfectly dry.

COMMENT

HERMAN GEBHARDT: I have experimented with fertilizers for about fifteen years in various ways. In those years of experience, I sometimes think that the best results that I have ever obtained were through the use of air slaked lime applied in the month of June. I tried that years ago. Since then I have used various fertilizers, and this last year I used 4-8-6, supposed to be a complete fertilizer. I applied that about the 21st of June, believing the frost damage about over. It usually is about that time. I had a wonderful bloom not only on the young vines but particularly on the heavy vines. Along in July, about the 2nd and third, we had some very cold nights, and it was a debatable question whether or not to flood. There was the \$200 worth of fertilizer, and the cold nights. I think I should have flooded. I have never been able to tell why they blighted. My crop was unfortunately a little later this year.

I am rather at sea as to just what were the real good or evil results of the application of fertilizer this year. In fact, I am quite a believer in the use of air slaked lime. The application of lime will make the fertility that is in the ground in a fit condition for the plant to take it up. It seems that would be the procedure to follow. My program this year is to again go back to the air slaked lime, although it is disagreeable stuff to handle.

ARTIFICIAL DRYING OF WATER RAKED BERRIES

C. L. LEWIS JR.

I have been asked to tell about the new machine which we built at Beaver Brook last fall for the forced drying of water raked cranberries. I am sorry that Mr. Colton is not here to tell you about it as he really built the machine, using the ideas that I had in mind and adding many of his own.

Three years ago while on a trip through New Jersey visiting some of the very fine bogs there, I was very much interested in a machine used by the J. J. White Co. at Whitesbog for the drying of berries that were damp at sorting time. Only a small proportion of their berries were damp but to prevent them from going into the barrel in this condition they contrived a machine for removing this moisture. They connected up a hot air furnace, a fan, distributing pipes for the heated air and directed the air onto and through the moist berries as they passed on a slatted belt. I had for a number of years entertained the idea that water raked berries could be artificially dried by some such arrangement and thus avoid much of the risk that is involved in the present method and cheapen the cost of drying very materially. I was therefore impressed with this machine of Mr. White's and I studied it and discussed it with Mr. Beckwith who happened to

be guiding us through this wonderful packing plant. But not feeling that we had the funds necessary for this experiment until this last summer I have delayed any execution of the idea.

However Mr. Colton not having a very busy season in prospect due to losses by hail, I induced him to come to Beaver Brook so that we might work my plan out together. You all perhaps know that when berries are raked on the water there is a large amount of chaff and grass or weeds removed with the berries, much more in fact than where the berries are dry raked. On a clean bog the amount is not so large as on a grassy bog, but on the latter kind great quantities of grass are removed with the rakes. We have always had to remove this by hand before the berries are put up in the drying crates to dry and at Beaver Brook we have used 8 or 10 men or women in this work during the harvesting season.

We realized that our first problem was to remove this grass and chaff by machinery immediately after the berries were raked from the water. If we could separate this successfully we felt that we could adapt Mr. White's principle of drying the clean berries. To sort out the grass and chaff we built an endless canvas belt 12 ft. by 8 ft. which operated on an incline of about 45 degrees. We placed a large hopper above this and over the lower part of the belt. The berries just as they were brought from the bog were dumped into this hopper which fed them to the canvas belt below. The belt picked up the grass, chaff or rubbish or fully 90 per cent of it and carried it away, the berries falling down onto a conveyor which led to our drying machine.

It was difficult to anticipate how large to make our drying machine. While at Whitesbog they used their machine for only a small proportion of their crop and for berries which were only damp; our problem was to dry the berries as fast as they were harvested and we must dry rapidly berries that are thoroughly wet.

We bought a large hot air furnace, we secured the loan of a large 6 foot fan through the courtesy of the Lewis Cranberry Co. of Minong, and we used our tractor for power. We enclosed the furnace in a boxlike arrangement and drove the air over the heated furnace. We led it through box pipes to the slatted belt and arranged the distribution of the air in such a way that it struck the berries on the belt from above and from below a number of times. The belt itself was made up of about 400 slats 3 ft. wide. They made a belt 38 feet long and this belt moved at a slow speed and was operated by a 3 H. P. gasoline engine. The berries were about two and one half minutes passing the length of this belt and the dry end of this belt projected in to the warehouse.

We dried berries at the rate of a bushel in three minutes or about 60 bbls. per day and dried them very well. The success of the dryer was dependent on the weather and upon the time of day. We noted that during clear weather we could dry the berries in greater amounts

and with less heat from the furnace than during damp weather. We dried about 1200 bbls. with this machine last fall, enough to test out the principle thoroughly. We dried 1,000 bbls. in the field in the old way so as to be able to check the effects of the machine in comparison with field drying.

Our conclusions are that we can successfully dry water raked berries in this way. We believe that it will tend to improve the keeping quality of water raked berries. It will do away with much of the risk that was present with the old method. It is a much cheaper method of drying and puts the berries in the house very soon after they are raked. Although our machine is of too small capacity to handle our whole crop we can easily increase the output. We have learned much about the process and I believe that we can build a much better machine for use next fall and I believe that we will shortly dry all our water raked berries in this manner.

An experiment of this kind is necessarily quite expensive. We may decide to use steam heat next season as we believe that we can regulate the temperature of the air very closely by a system of valves. If our machine proves out as we have reason to believe it will, I think the other growers who harvest in this manner will want this type of dryer. One such machine is costly to build and by building a number of them we may be able to supply those who are interested at a very reasonable cost.

We were very much pleased to find that the berries that we put through this dryer this last season stood up very well, which was our chief worry at the start.

PACKING CRANBERRIES

M. O. POTTER

I am not an authority on packing cranberries, but I will tell you how we pack our berries.

You can not pack unmaturred berries so they will keep, so the first thing we should learn is how to raise good berries.

When the cranberry grew as nature grew them, they grew on a floating bog; the snow waters and the spring rains covered the bog. As the bog floated say about two inches over the surface and stayed in that condition until way into June, the water warmed and grew the algae or scum that fertilized the berries.

Now as the marshes are drained they can not take care of themselves. We as a rule let the water go very early, soon after the ice; consequently the marshes get no fertilizer from the water. Now we must substitute some kind of a fertilizer to raise a berry that is maturred so it will keep. There is a commercial fertilizer, and the so-called water cure fertilizer; either will do the work, as has been very

thoroughly demonstrated this season on the Case marsh with commercial fertilizer, and on the O. O. Potter marsh with water cure.

Now I will return to my subject of packing. In the first place, the berries should be put in shallow crates in the warehouse, perfectly dry and a little hay does no harm.

The buildings should be so constructed that in dry days it could be opened up so the air could circulate through it, and closed when the weather commenced to get cool. The building should stand north and south, with openings on the east and west sides. Also a ventilator from the lower floor to the roof, and keep the berries as near one temperature as possible.

The sorting room should be so arranged that the sorting tables are in one room, kept warm enough so the girls won't suffer; and the milling and barreling to be done in the warehouse proper, so the berries do not have time to change temperature while sorting. Berries should not drop from the table to the bottom of the barrel. Use a sack that will hang part way down the barrel to ease them down.

The package should be kept absolutely clean.

OBSERVATIONS OF AN INSPECTOR

OSCAR O. POTTER

As inceptor of the Mather district, there are a few things that have come to my observation which we all should work for in the future.

If we are members of the Sales Company or Independents it would be fine to see a nice attractive label on each package we send out calling particular attention to Wisconsin grown cranberries, and have the name "Wisconsin" there so everybody could not help but see it.

The number or name that goes on these labels should mean more to the grower than anyone else. We should make a standard reputation for Wisconsin cranberries that would be second to none.

This last year has been a bad one for the reputation of Wisconsin cranberries. In the Mather district we have growers that have not had a rejection or kick on a berry that they have packed since the organization of the Sales Company sixteen years ago, until this year, which was no fault of theirs. And I want to tell you that it hit these growers hard, not in a financial way, but to think of having the first kick on their fruit.

This is the way we should all feel about our pack. Let us all work for the reputation of Wisconsin cranberries.

Along with this reputation we should make for Wisconsin, it would be fine if in our future plantings we could all decide on two good standard varieties, one early and one late. I think Searls Jumbo is the early variety to plant, but we should talk over this variety sub-

ject, for I believe it means much to Wisconsin in the future. Just another point we have lost by not having an experimental station or fieldman.

Two good standard varieties would mean less labels, work, and trouble for the grower, and the buyers would know just what they were getting. By having an early and late variety growers would have a longer period in which to gather their crop while the berries would be at their best.

I believe growers who are planning on putting in new mills and graders should get equipment sufficient to get out a car in the best condition possible in at least two days. The quicker berries get to their destination after being packed, the fresher and better they will be.

If our equipment was all the same, sorters could be taken from one bog to another so as to fill orders quickly. Here we come to the central cleaning house proposition, which must interest the small growers.

Some growers neglect to make out and give to the inspectors the grower's reports. These should be filled out for two reasons, first it gives the grower a correct record of his shipments as to amount, condition of fruit, car number and destination; second, it gives the inspector a correct record from which to make the daily shipping report.

Of course, we can not all see things in the same light, but whether Independents or members of the Sales Company, there is one thing we all share in common, and that is making a desirable living growing good Wisconsin cranberries.

So let us all pull together and make a reputation second to none for the best berries grown right here in the good old state of Wisconsin.

DISCUSSION

PRES. LEWIS: I would like to ask Mr. Potter, in view of the poorer condition of berries this year, as to what is his opinion as the cause of the greater amount of decay and rot.

MR. O. POTTER: That is hard to say. Several growers have different reasons. I believe the main thing is abnormal season. I don't believe the majority of the berries were fully matured. It seems that some of the growers that harvested late had less objections than those who harvested earlier.

PRES. LEWIS: There seems to have been some that didn't have any trouble with them. We would like to hear from some of those. I didn't have very much trouble myself, and I think maybe I was kind of lucky, because I saw some berries around the country thirty days after they were shipped, and they didn't look any too good.

CAPT. NASH: We started gathering very late, along toward the 12th of September, and only a few pickers. Then we didn't gather the main bulk of the crop until the last part of September, and in October. I wasn't paying any attention to quality then, but I did take some of the first picking to my home, and also some of the last,

and there is a material difference in the way those two small batches of berries kept that makes me think that the greater maturity of the late gathered berries may have been the cause of the keeping. The berries were shipped about the 14th of October, to Chicago, Mr. Chaney thinking they would be sold promptly. In fact, they did not sell until toward Thanksgiving time, and they were still in good condition but were beginning to get rubbery. Those that were picked late kept the best.

MR. E. P. ARPIN: I had very little trouble. They didn't look quite mature to me; there were too many small berries. It was unusual that these held as well as they did. They were sent out in a very short time. There was one car of berries that had been shipped a long distance (in the northwest territory) that were paid for and a complaint came afterwards. According to rules, they were settled for, compromised, and the Sales Company took some of the expense. That is the only complaint we had. It might be on account of the small and immature berries not holding up. It wasn't a good year for cranberries in the state. Only a few districts were exceptions. I asked Mr. Potter why he had such large cranberries. He said he gave them all the air possible. We can't raise cranberries under water. In the bulletin we got from the government it stated very definitely that berries kept under water on a dark day kept better than berries kept under water on a bright day. The berries need oxygen, and they get more on a bright day than they do on a dark day. The sunlight brings that oxygen into the water. It is very necessary to give them all the air we can without freezing. On my trip with Mr. Chaney through the cranberry region, he stated that this problem was most often overlooked. Give them a lot of air and they can be shipped in good shape. People in Mather delayed their harvesting season at least two or three weeks. Mr. Potter stated that he kept his a little later, and got the growth.

FINANCIAL STATEMENT

OF

WISCONSIN STATE CRANBERRY GROWERS ASSOCIATION
FOR THE CALENDAR YEAR 1924

1924		Receipts	Regular	Pump Exp.
Jan. 1	Balance on Hand		\$454.22	\$85.77
July 1	Membership Dues since Jan. 1		35.00	
July 1	Annual Appropriation		250.00	
Aug. 18	Membership Dues		13.00	
Total Receipts to Jan. 1, 1925			\$752.22	\$85.77
1924		Expenditures		
Jan. 28	Henry Heng, Labor, etc.			\$8.00
Jan. 28	F. B. Hoffman, Drayage			4.50
Jan. 28	F. E. Meyers & Bro., Cylinder			40.00
Feb. 1	Prof. G. R. B. Elliot, Honorarium	\$ 9.62		
Feb. 1	Guy Nash, Expenses	13.90		
Feb. 6	Guy Nash, Salary and Expenses	97.48		
Feb. 6	H. B. Scammell, Honorarium	117.24		
Feb. 6	Tribune Printing Works, Cards	7.56		
Feb. 6	Tribune Printing Works, McFarland Tribune	2.00		
Mar. 7	Nellie A. Dolan, Steno. Services	28.00		
Apr. 24	Guy Nash, Expenses	22.22		
Apr. 24	Henry Heng, Labor			4.90
Apr. 24	B. R. Mitchell, Supplies			13.62
Apr. 24	G. W. Richards, Engine, etc.			4.50
Apr. 24	C. A. Zastrow, Use of Engine			3.00
Apr. 24	Jack Daley, Draying			1.50
Aug. 6	Hein & Sutor, Prt. Invitations	3.10		
Aug. 6	Clare S. Smith, Sal. & Exp. mailing reports, 23 & 24	51.49		
Aug. 6	B. R. Mitchell, Equipment			3.00
Sept. 11	Erma Gaulke, Steno. Services	15.00		
Sept. 11	C. S. Smith, Exp. (Macklin Hotel Bill)	10.00		
June 1	State Printing Board, 36th Report	81.34		
Sept. 11	State Printing Board, 37th Report	103.04		
Total Expenditures to Jan. 1, 1925			\$561.99	\$83.62
Dec. 31, 1924	Total Receipts		\$752.22	\$85.77
Dec. 31, 1924	Total Expenditures		561.99	83.62
Jan. 1, 1925	Balance on Hand		\$190.23	\$ 2.15

In Memoriam

Whereas Divine Providence has seen fit to remove from our membership Mrs. H. S. DeLong, be it therefore

Resolved: That we, as an Association, tender to the surviving members of her family and relatives, our deepest sympathy in their bereavement, and hereby express our deep sense of loss to us as well; be it further

Resolved: That this resolution be inscribed in the minutes of the meeting, and that a copy thereof be sent to the surviving family.

By its secretary,

CLARE S. SMITH.

As our annual report goes to press we wish to inform our members that the report of the State Board of Public Affairs regarding our request for a \$5000 appropriation for each of the next two years, was favorable. Fifteen members of the Association appeared at the hearing held before the Joint Finance Committee on January 28th and made a very favorable impression on the committee. They will not act on this matter until later in the session but we will be very much surprised if our request does not meet with favorable action.

