

California Avocado Association 1932 Yearbook 17: 71-78

Avocado Department of the Farm Bureau

Minutes of Meeting Held August 3, 1932

Meeting called to order by Chairman P. D. Halm at 2:20 P. M., at the Citrus Experiment Station, Riverside, Calif. Those present included: Judge P. D. Halm, La Habra; Carter Barrett, Pasadena; B. King Kauffman, La Mesa; E. E. Preston, La Mesa; T. Christ Dahl, La Mesa; Austin R. Marshburn, Yorba Linda; E. C. Dutton, Yorba Linda; A. J. Thille, Santa Paula; Elwood E. Trask, Carlsbad; J. O. Strasser, Jr., San Diego; Ray P. Frantz, La Habra; Geo. W. Beck, La Habra; E. A. Beck, La Habra; Walter R. Beck, La Habra; James T. Gillies, El Cajon; L. D. Batchelor, Citrus Exp. Sta.; H. S. Pawcett, Citrus Exp. Sta.; E. R. Parker, Citrus Exp. Sta.; R. S. Woods, Azusa; A. W. Christie, Whittier; Ira J. Condit, Univ. of Calif.; H. J. Quayle, Citrus Exp. Sta.; P. A. Graham Gillies, El Cajon; W. R. Charles, Lakeside; Robt. W. Hodgson, College of Agr.; Jas. D. Hoffman, Pasadena; Geo. D. Hoffman, Pasadena; W. J. Tyroff, Vista; T. J. Reace, Vista; W. E. Spencer, Whittier.

Minutes of meeting held in Farm Advisor Wahlberg's office were read.

Judge Halm: In June, Mr. Roy Cole reported he was going to Berkeley and would confer with Dean Hutchison regarding avocado pest and disease control. Dean Hutchison suggested that a committee be appointed and wait upon Dr. Batchelor for securing some sort of action. I concluded that we would call a meeting of the Inter-County Farm Bureau Avocado Departments of the five counties, and that we would have that meeting at this time and place for the purpose of discussing in the presence of the authorities of this Experiment Station and with their help arrive at some definite understanding of what we ought to have and what we might reasonably expect to have given to us with which to prosecute the work that is so ably carried on by the research and scientific men with the limited means they have at hand. I understand that the avocado research work has been carried on in a way that is apparently unsatisfactory to the rank and file of the avocado growers, in that sometimes we feel we have a direct representative on a certain problem and then we do not have. We want to impress Dean Hutchison at this time through the officials of the Experiment Station, and see to it that we are provided with sufficient funds and with sufficient men to carry on this work better than it has been in the past. Perhaps during the talks this afternoon the reasons for this may be brought out.



Vice-President, Judge F. D. Halm, of La Habra, examining a young avocado orchard during one of the avocado growers tours, Spring of 1932. This view shows a permanent Bermuda grass cover-crop, which was planted to reduce the amount of soil erosion on the hillsides.

Dr. Batchelor: You are not coming here at the most favorable time to learn all about our research program. The most favorable time was when the Legislative Committee met here and I do not understand why you did not have a better representation at that time. (Dr. Batchelor read the notification of that meeting together with the list of those who were notified to be present.) For the discussion of the Agricultural Legislative Committee, the mimeographed copy was prepared in order to gain an idea of the importance of the different projects under investigation by the Citrus Experiment Station. Even this does not represent all of our activities, but only the most important ones.

Before discussing the avocado problems I want to draw your attention again to the great diversity of the research problems which we are continually confronted with. This institution was organized 17 or 18 years ago as the Citrus Experiment Station. This name has long been a misnomer so far as describing our activities goes. At the present time a little less than half of our research problems have to do with citrus. Every crop produced in Southern California is expected to be handled by this institution including everything from San Diego to Tulare County, or thereabouts; the division being made as to the effectiveness and economy of carrying out such research problems. So far we are exempt from investigation of any problem in animal industry, which is all centered in Berkeley. I believe the administration of the University is very mindful of our needs in Southern California and that in the division of the budgets of the College of Agriculture they have consistently been generous in the allocation of funds to the Southern Branch of the College of Agriculture, previously known as the Citrus Experiment Station.

Many of you are familiar with the activities of the Entomology Department, Plant Pathology Department and the Division of Subtropical Horticulture. I think I am as well

acquainted with the problems of the avocado industry as of any other industry in the southern part of the state. There is no anticipation on my part that there will be any less work done on these projects in the future than at the present time, unless it may be in connection with any general reduction of our budget which may occur in the future. If our budgets are reduced 10 or 15 per cent, that reduction will be spread over the whole activity as equally as it is possible to do so. We have increased our activity during the last 3 or 4 years.

I wish to correct the statement with regard to Dean Palmer. He has not been employed full time and there was no intention of employing him full time. We arranged with Mr. R. R. McLean, Agricultural Commissioner in San Diego County, to loan him to us to work about half time during the spring and summer months and about one-fourth time during the fall and winter months. The work which he is doing in conjunction with Prof. Horne may properly be discussed by him if you desire. We may be able to use Mr. Palmer again another year on a similar arrangement. We will take account of stock at the end of the year to see if this is the most profitable way to spend our money.

There is a possibility that our budget may be reduced the current year. You have seen in the paper the writings of Mr. Vandergrift, State Commissioner of Finance and in one or two instances he has brought out the necessity of the state institutions returning a portion of the budgets allocated to them the present year. I understand that he has requested the Board of Regents to return a portion of the budget we are now operating on. They have not yet fully considered this matter and I am not informed as to what portion they have been requested to return. If I were asked to make a statement, I would estimate that we might be obliged to return 5 or 10 per cent of our present budget.

Mr. Trask: Some of the data presented by Dr. Batchelor is a revelation to me, and we thank him for his frank discussion.

We do not want to overlook the opportunity of asking for anything which we believe we deserve. Some of us believe that the avocado growers have not been receiving the attention which we believe we might expect. Perhaps after hearing the reports of the men here we will be more appreciative of the attention we do not receive.

Mr. Thille: The problems which this institution is working on exist more in other districts than in Ventura County which is a practically new avocado district. I realize it is inevitable that they will later appear in our county as well as in the rest, but the fact that they are not there now makes me less familiar with the problems than are others who are here at the present time.

Mr. Trask: Being in close touch with the work done in San Diego County, I have taken considerable interest in it. I may explain that the reason for the lack of interest in the meeting in May is that the avocado industry is so young and the avocado growers are just starting on horticultural problems and do not know exactly where to go to get information nor exactly what they want. It is very true in San Diego County that a large majority of the plantings are so young that the grower himself does not recognize those problems because they have not affected his pocketbook yet. Some of the older growers are beginning to appreciate that there are problems which are very important which need to be taken up by an institution and still they are not sufficiently conversant

with the agricultural machinery to know that this is the place to come for that help. With that in mind it is up to the very few in the industry to foster investigation of these problems before they become a disaster. The avocado growers are paying a relatively high share of the taxes, and if these problems can be solved before they become widespread it will effect a great saving.

Mr. Dutton: I was here at the Agricultural Legislative Committee meeting and at the conclusion of the meeting Mr. Hardison called on the representatives of the different industries. The California Fruit Growers Exchange and the Walnut Growers Association reported that they were pretty well taken care of. I told them I was glad to hear that because in the past the citrus and walnut growers' problems had been given preference.

We are so well satisfied with the work being done at the present time that we think there is a catch in it and are afraid it will be discontinued. The men working under Prof. Quayle are getting somewhere with their investigations.

Judge Halm: The avocado grower is inexperienced and if he has problems he does not know just who he should go to with them. Is there not some way in which we can get general information out to the avocado growers regarding their troubles? Until just recently we have had no organization except the California Avocado Growers Association which has been doing the best it could with its limited means, but we have turned to the Farm Advisors and asked them for help and advice. Say your grove had to be fumigated, but what would you fumigate with? The grower does not know and in many cases just turns the job over to someone who may spoil his crop or injure the trees by doing it at the wrong time, etc.

Dr. Batchelor: It seems to me the Farm Advisor represents the sort of an organization which you need. He is an agency which is in touch with both the avocado growers and their problems and also in touch with all the research institutions such as the University of California and the Department of Agriculture, -which can serve the avocado grower. It seems to me you should make greater use of the Farm Advisor. As soon as the research problems have been carried on far enough to put them into practical application the Farm Advisor is acquainted with them. He also has the opportunity of becoming a clearing house for the ideas of the progressive growers. The subject of avocado culture is so important in several of the counties that the Farm Advisors have become a reliable source of information regarding their problems. They have learned this from contact with the growers and also with the research work done on these problems.

Mr. Beck: I have not so far found out where we could get any help so we have to slide along and take it as it comes. Sometimes we get advice which is not worth much more than my own, and that is not much. We have raised a great deal of fruit up to the present time but if the bugs are going to move in on us it will not be so good in the future, and they are there. We are not spraying or fumigating. In many cases it would be impossible to fumigate as the trees are 40 ft. high with a spread of 30 or 40 ft. If we can not spray we are up against it.

Mr. Trask: I would like to ask Dr. Batchelor if the work which is now being started on irrigation and soils will be continued.

Dr. Batchelor: Yes.

Mr. Trask: I think the Station is doing all they can with their facilities. Perhaps we might think they could put more men on by taking them off some other problem, but that is asking too much to ask them to take men from problems which have been under way for some time. We feel we are going along in fine shape and we were only afraid that it would be discontinued. We understand most of the work is being carried on in San Diego County but perhaps that is the logical place to make the findings. As time goes on we hope that the Station will be able to devote more time to the study of avocado problems.

Mr. Hoffman: Under what division are the problems of fertilization undertaken?

Dr. Batchelor: Under the divisions of Orchard Management and Subtropical Horticulture.

Mr. Hoffman: A neighbor of mine came in with some little-leaf the other day and another neighbor dropped in at the same time. One of them said he was just trying out something not knowing whether it was right or not. He thought the trees might be short of nitrogen so he applied quite a lot of nitrogen to the trees and also used some phosphoric acid and potash on the trees having this little-leaf. The other neighbor said he tried the same thing a few years ago and it made the trees worse. I think work should be started if possible on fertilization. I think the trouble in little-leaf is more an alkali condition than anything else. We appreciate what you are doing at the present time.

Dr. Batchelor: The subject of little-leaf brings to my mind the part this institution fills in the whole College of Agriculture. This little-leaf is similar to a trouble which is common to practically all crops grown in California. That problem is being prosecuted by the Division of Pomology in Berkeley and also by the Departments of Chemistry, Plant Physiology, and Orchard Management in this institution. In my opinion, when that problem is solved for peaches it will be solved for citrus; when it is solved for citrus it will be solved for avocados. This shows how the endeavors of this institution dovetail together with those of a larger institution. I believe in another year or so these investigations will have gone far enough so we will be able to take it up with the avocado growers. I would expect that the application of nitrogen or phosphorus or potash would make it worse.

Attendance at the Agricultural Legislative Committee meeting would have given you a better knowledge of the problems of other industries, which you must know in order to pass judgment on the adequacy of the endeavors of this institution. This would broaden your ideas of your own problems, the other man's problems, and the problems undertaken by this institution.

Mr. Preston: I understand all the work done in our county by you people has been splendid and I had the understanding that Mr. Palmer was going to be dismissed. My idea in coming out here was to work out some way by which we can help you and you can in turn help us. We are spending money every year in taxes to support this institution. I think we should get more in touch with you people. I did not know whether you were working on fertilization, pruning, or what, and I think there is only one source to come to and that is to the man who is studying it rather than going to the third or

fourth party for information. We want to know what you have done when you do it, first hand. We want to work out some way to keep Mr. Palmer on the work and give you some money if necessary to continue the work. We are in hard straits for money the same as the business man or any other person. If we let our crops and farms deteriorate it will cost us more to bring them back again than if we spend what little money we have at the present time and keep them up. It is my opinion that pest control is one of the most important problems.

Mr. Ayr: What I would like to know is where to go to get information. I just arrived a week ago Wednesday and invested money in an avocado grove, but I would not go to the salesman who sold me -the trees to get this information as to how to keep the bugs out of my trees and how to fertilize, etc. Naturally I would go to the Experiment Station and not bother my next door neighbor.

Are not the records of the State of California such that I can refer to them and learn what kind of water to use if it has been properly analyzed?

Dr. Batchelor: I believe some of those questions could be answered by the publications of the University of California, some could not be. I think contact with your Farm Advisor and with your Agricultural Commissioner and with the men in this institution would be of marked benefit to you and you would soon find out the limitations of what we know and the plans for the future, and that some things are absolutely not known at the present time.

Mr. Christie: I usually think, on my way to a meeting of this nature, what will be the achievement of the meeting and what will be referred to in the minutes as having been accomplished. I am afraid that we are going to go away feeling that nothing definite was accomplished. I am going to make some suggestions:

We know the Experiment Station has the interest of the avocado grower at heart. We also know they have many problems which they have to spend money on and that their budget may be reduced next year. It seems to me it would be more satisfactory to the avocado growers if we could draw up a definite set of recommendations to the Experiment Station, asking that certain lines of work be carried on by the Experiment Station during the coming biennium. Then the Experiment Station, when the new budget is finally adopted, can say, we will do all these things you have asked us to, or, we will be able to do only certain of them because we have not enough men or money to carry on all these and they must be held over until a later date. In view of the limitations of the budget, I believe it would be well to recommend a few of the important items for work rather than presenting all those which have been mentioned here this afternoon. Undoubtedly the Experiment Station has progress information on some of these problems.

In the citrus and walnut industries the Farm Advisors and their assistants have had more time and experience in being able to give out information. Also, in these two industries we have an extension specialist to assist in inculcating this information. I am inclined to believe that the time is not yet ripe to get full service out of such a man in the avocado industry. Three or four years hence we may be justified in asking for an avocado specialist who can do more than any one other man in bringing this information to the growers. We should make these recommendations and then keep the growers in

touch with the progress of these experiments through meetings which must be largely held by the Farm Advisors in the different counties. We cannot expect the men in the Experiment Station to answer these problems or to go out to the groves to see them, so the best method is to have these meetings held right in the grove and keep the growers posted as to what is being done.

Mr. Marshburn: As a grower I have observed other growers who know nothing about horticulture, trying to grow avocados. They are not farmers. As an avocado grower there are two things confronting me, pest control and disease, which I would like to have solved. Regarding irrigation, cultivation, etc., I know of many places where I can go for information. These practices vary in different districts. I think we should ask the Experiment Station what we can do to eliminate the pests.

At this time I wish to make a motion that we ask the Experiment Station to give us information as soon as possible as to what to fumigate or spray with and how to control diseases.

Judge Halm: What amount of funds have we available to spend on avocado problems?

Dr. Batchelor: It is impossible to say how much we are spending on one particular problem as they are all so interwoven. No one man spends his entire time working on problems of avocados or any other one crop. So many of our projects are interwoven that we cannot say off hand, or even figure out, how much is being spent directly for the solution of problems directly connected with one industry.

Mr. Out ton: Seconded the motion made by Mr. Marshburn.

Mr. Spencer: For 20 years or more we have asked the same thing with regard to citrus, as to how to successfully control the pests of citrus. I think we are confused with regard to the work which the Experiment Station should do. A great many want the Experiment Station to tell them what to do. We have the Farm Advisors and other agencies to do that. We still have these scales. I think what this group wants is investigational and research work on the control of the scale pests, and so far as the answering of our questions is concerned it is going to rest with what the farmers can get from the Farm Advisors and other agencies set up for that purpose.

Dr. Batchelor: The program of the Experiment Station as projected during the next two or three years anticipates the continuation of this work in the future. We have no intention of doing less work. We realize the avocado industry has been somewhat handicapped in obtaining the results of investigations on their problems in contrast with longer established industries, but now that we have the budget to cover the work at the present time we have no intention of discontinuing this in the future. I can assure you that, so far as our plans for the future go, we will continue our investigations as at the present time or we will confer with you as to the necessity of any curtailment. I see no real reason for your resolution if you properly understand the present plans.

Prof. Horne: In studying the Dothiorella rot, which limits the time which the fruit may be held after it is ready to use, we seemed to discover that tip-burn is a very important factor in connection with the Dothiorella rot, because the dead ends of the leaves presented a field in which this fungus may grow. So you see when we are trying to do something for Dothiorella rot we come up against the problem of tip-burn. It would be

desirable if we could see what we could do to prevent tip-burn. Dr. Haas has already done considerable work on tip-burn of avocados and we believe this is related to salt and the water relation in general, so we have gone to some of the sections where tip-burn is worst to see how much salt is present and whether it is a factor and I understand the public agencies are proceeding to look into the matter of a drainage system for those areas where tip-burn is worst so they can handle the water and salt situation, and the problem passes right out of the hands of the plant pathologist, and chemists are at work on these problems at the present time. The pathologist has been able to get help on work which he was not able to do. So when you ask for the study of a certain thing you are asking for the help of the whole Station.

Dr. Fawcett: I believe, Dr. Batchelor, that one thing should be pointed out and that is that the index to the data presented to the Agr. Legislative Committee does not properly represent the work which is being done on avocado diseases. This is on page 32 of the report.

Prof. Quayle: It has been suggested that we do not know very much about the avocado pests and also that we haven't told very much about them. Up to a year ago there was no special request made of this institution for the study of avocado pests. The avocado was supposed to not have any pests until very recently. A short time ago you brought the problems forcibly enough to our attention to convince us that we should start work on avocado problems. The middle of last May we got a man to work for you full time on the avocado insects and he is working on the Rancho Leucadia. We must first know something of the life history, etc., of these insects before we can make recommendations as to their control. The *Latania* scale is successfully controlled by fumigation where this method can be used, but we would like to have a little more commercial experience before putting this into print. In the meantime if you can get your questions to us some way we will be able to answer them tentatively. We have tried most of the sprays we have used on citrus and they are not successful in controlling the scale on avocados and sometimes do considerable damage to the trees. It may be some time before we get this satisfactorily worked out. So far as getting information out, we want to as soon as possible. After we have completed a full year's study I think we could get out a circular which would be satisfactory.

Mr. Marshman: I should have included that we appreciate what is being done, but I made the motion in order to center the work on the control of insect pests and diseases. Since they are already doing this work I think it will be well to withdraw the motion.

Mr. Dutton: Seconded the withdrawal of the motion.

Mr. Christie: I think there is one point which we may have overlooked, and if this matter would not have to go farther than this room there would not be any need of passing a resolution. There are about 4,000 growers who are wondering what the Experiment Station is, and what they may gain from the Experiment Station. If we could get a recommendation in the minutes which might be mentioned later in the *Calavo* news and other publications it might reach those other growers not present. In connection with a report on the work we could explain that it takes time to investigate these problems and we should not expect the Experiment Station to come out with a bulletin day after tomorrow telling us just what to do.

Mr. Trask: I would like to see included in that resolution a motion for further work on avocado problems. As the budget is made up for two years in advance we may get our request in for continuance of this work and we may be out of this depression by that time. I would suggest that soil and orchard management problems be included in the resolution.

Dr. Batchelor: I think Mr. Christie's suggestions are well taken and if a resolution were to be passed it would be a means of giving information to those who are not present today.

(Mr. Christie, Mr. Dutton, Mr. Spencer, and Mr. Trask were asked to retire and prepare a resolution and return with it as soon as possible.)

A resolution was presented and adopted as follows:

WHEREAS, we commend the Citrus Experiment Station of the University of California for the institution, during the past year, of investigations covering several cultural problems which have recently become of economic importance in the growing of avocados, already one of the major horticultural industries of the state, and WHEREAS the progress already made in these problems gives promise of their ultimate solution.

Now, therefore, BE IT RESOLVED, that we request the Citrus Experiment Station of the University of California to continue and, insofar as funds may be made available, amplify their investigations with particular reference to the following major problems:

1. The control of insect pests which are already recognized as of economic importance, particularly scale insects, brown mite, and leaf-eating insects.
2. Avocado diseases which affect the productivity of the tree or the quality of the fruit.
3. Orchard management problems with particular reference to the water and fertilizer requirements of avocado trees.

Meeting adjourned at 4:50 P. M.

Respectfully submitted,

MARY LEE LOWNES, Secretary.