

ASSOCIATION OF WESTERN AGRICULTURAL EXPERIMENT STATION DIRECTORS
AND
UNITED STATES DEPARTMENT OF AGRICULTURE
211 POST OFFICE BUILDING
BERKELEY 1, CALIFORNIA

OFFICE OF THE
RECORDING SECRETARY

August 11, 1960

TO : Western Directors
FROM : John O. Gerald, Recording Secretary
SUBJECT: July, 1960 Minutes

Bob Olson and I have assembled the minutes of your July, 1960 meetings at Pullman, Washington. Below is a tabulation calling pertinent actions, or calls for action, that were made during the meetings, to the attention of Directors concerned.

<u>For Specific Attention Of</u>	<u>Page No.</u>	<u>Sidehead or Other Identification</u>
All Directors	18	Proposed animal germ plasm laboratory, motion.
	22	National Soil Survey Committee, motion.
	22	1960 fall meeting.
	25 - 26	Administrative Advisors, assignments for 1960-61.
All Administrative Advisors	17	RRC report, Item E.
	17	Frequency of technical committee meetings, motion.
	27 - 29	1961-62 budget recommendations.
Regional Research Committee	12	Recommendation to the Committee of Nine, motion.
	23	1961-62 Budgets, Item 1.
Alexander	16	RRC report, Item C, WM-17 and WM-38.
	17	RRC report, Item D, WM-26.
Asleson	15 - 16	RRC report, Item A, W-48, motion; Item C, WM-20.

<u>For Specific Attention Of</u>	<u>Page No.</u>	<u>Sidehead or Other Identification</u>
Asleson (continued)	23	1961-62 Budgets, Item 4, motion.
	24	Future meeting places, summer 1962, Montana.
Boyer (and Sharp)	17	RRC report, Item D, W-45.
	20	1961 Collaborators' Conference, Western Regional Laboratory, motions on subject of conference and representative for Western Directors.
Briggs (and Sharp)	14	RRC report, Item A, W-6.
	24	Future meeting places, spring 1962, Davis.
Buchanan	23	Problem of housing USDA cooperative employees, request.
Burgoyne (and Thorne)	17	RRC report, Item D, W-49.
Curry	17	RRC report, Item D, W-24.
Ely	21	Ruminant physiology and soil-water-range-forestry, motion.
Ensign	15	RRC report, Item A, W-47.
	17	RRC report, Item D, W-40.
Henderson	23	1961-62 Budgets, Item 4, motion.
Hilston	17	RRC report, Item D, WM-23.
	24	Future meeting places, summer 1961, Colorado-Wyoming.
Huffman	15	RRC report, Item A, WM-44.
	21	Improved cataloguing of agricultural economics publications, request.
	21	WAERC council committees, request.
	23	1961-62 Budgets, Items 2 and 3, motion and discussion.
	24	Future meeting places, summer 1962, Montana.

<u>For Specific Attention Of</u>	<u>Page No.</u>	<u>Sidehead or Other Identification</u>
Jasper (and Sharp)	17	RRC report, Item D, W-41.
Knoblauch	6	Proposed change in project outline procedures, motion.
	8	Evaluation of regional research, motion.
	22	Experiment station workshops, motion.
Linsley (and Sharp)	17	RRC report, Item D, W-43
	24	Future meeting places, spring 1961, Berkeley.
Price	10	Informing Directors on legislation, motion.
	10	ESCOP, motion.
	17	RRC report, Item D, WM-35.
Rasmussen	14	RRC report, Item A, W-25.
Sharp	-	Secretary correspondences called for throughout minutes.
	20	1961 Collaborators' Conference, Western Regional Laboratory, motion on technical staff representatives.
	-	See Boyce, Briggs, Jasper, and Linsley listings also.
Thorne	14	RRC report, Item A, W-32.
	21	W-32 Water conservation, motion.
	22	WSWRC, motion.
	-	See Burgoyne listing also.
Wheeler	14 - 15	RRC report, Item A, W-37 and W-44.
	17	RRC report, Item D, W-42.
	18	Proposed animal germ plasm laboratory, representation.
	24	Future meeting places, summer 1961, Colorado-Wyoming.

MINUTES OF
WESTERN DIRECTORS' MEETING
Pullman, Washington
July 12-14, 1960

The meeting was called to order by Chairman Myers. The following were present during all or part of the meeting:

- | | |
|--------------------|----------------------------|
| R. K. Frevert | Arizona |
| H. E. Myers | Arizona |
| D. E. Jasper | California |
| E. G. Linsley | California |
| P. F. Sharp | California |
| S. S. Wheeler | Colorado |
| R. D. Ensign | Idaho |
| J. E. Kraus | Idaho |
| J. A. Aeleson | Montana |
| R. E. Huffman | Montana |
| J. E. Adams | Nevada |
| A. S. Curry | New Mexico |
| R. M. Alexander | Oregon |
| F. E. Price | Oregon |
| D. A. Burgoyne | Utah |
| D. W. Thorne | Utah |
| D. F. Allmendinger | Washington |
| L. L. Madsen | Washington |
| L. W. Rasmussen | Washington |
| M. T. Buchanan | Washington |
| N. W. Hilston | Wyoming |
| R. E. Hodgson | ARS |
| J. R. Matchett | ARS |
| Fred Stitt | ARS, WURDD |
| R. E. Ely | SESD |
| N. F. Farris | SESD |
| H. C. Knoblauch | SESD |
|
 | |
| R. E. Olson | Recording Secretary (Past) |
| J. O. Gerald | Recording Secretary |

In Memory of
Dean R. H. Black

The Directors rose and observed moments of meditation in memory of the late Dean Robert H. Black of New Mexico State University, before beginning the business meeting. At the request of the Chairman, the Recording Secretary read the following communication received from Mrs. Black:

May 2, 1960

Your kind expression of sympathy is gratefully acknowledged and deeply appreciated. Thank you so much for the beautiful flowers.

Mrs. Robert H. Black and Sons

Corrections and
Additions to the
Minutes of March,
1960

Buchanan moved, Sharp seconded, that the allocation of \$2400 to WM-44, Economics of Promotion and Utilization, shown for Utah in the March minutes, page 25, be corrected by showing the allocation to Washington. Passed.

Thorne moved, Rasmussen seconded, that the revisions in the budget recommended after the March Meeting, recorded on page 27 of the March minutes, be approved as a part of the minutes. Passed.

By consensus, the Recording Secretary was directed to include in the March minutes the recommended allocations to W-71, Tree Seedling Establishment, and on page 27 to show an allocation of \$1300 to the P&C Fund of W-44, Cholesterol Metabolism (33,300 total).

Sharp moved, Buchanan seconded, that the March minutes be approved as corrected. Passed.

1961 Appropriations
for Research

H. C. Knoblauch summarized the 1961 appropriations for Agricultural Research as follows:

It is necessary to review both the regular Appropriation Bill for the Department plus the First Supplemental Appropriation Bill passed on July 2 to obtain the full picture on 1961 research appropriations. This supplemental bill added \$1,500,000 for research in the broad area of avoidance of pesticide residues. It also added \$5,200,000 for construction of research facilities. This, when added to the increases in the regular Appropriation Bill, provided an increase to ARS for program operations of \$5,238,000 over 1960 base and of about \$1,300,000 over the budget. It also increased appropriations for construction of facilities by \$7,750,000 over the budget. Thus the total increase over the 1960 level was about \$10,350,000, allowing for \$3,150,000 allowance for nonrecurring building authorizations in the 1960 appropriation.

The major increase is for research to avoid pesticide residues, totaling \$2,250,000, plus \$2,000,000 for construction of a new laboratory at Fargo, North Dakota.

There are increases of about \$765,000 to permit staffing new facilities, including the Animal Disease Laboratory, the Cotton Boll Weevil Laboratory, and the Two Grain Insects Laboratories.

Utilization research was increased by \$950,000; soil and water research by \$580,000; vegetable crops by \$350,000, plus a number of small earmarked items ranging from \$25,000 to \$75,000.

Of the total increase of \$7,750,000 for construction of new facilities, only one item of \$900,000 (only \$500,000 appropriated) for relocation of an entomology laboratory in Florida was in the budget.

Six new facilities, totaling about \$2,600,000, were provided for soil and water research.

Two poultry research facilities for the Southeast (one in Georgia, one in Mississippi) totaled \$1,350,000.

Tobacco research facilities for Kentucky was for \$250,000, and

\$1,200,000 was for headquarters at the National Arboretum in Washington, D. C.

While all of these facilities were authorized in the regular Appropriation Bill, only \$2,550,000 was appropriated. The remaining \$5,200,000 to cover total costs was contained in the supplemental appropriation.

Supplemental covers four lines:

1. Biological methods of insect control, including induced sterility	\$470,000
2. New attractants, repellents, etc.	550,000
3. Parasiticides and growth promotants for animals	280,000
4. Herbicides, nematocides, and plant growth regulators	<u>200,000</u>
	\$1,500,000

Stated that Department would work in cooperation with State experiment stations.

Distributed by Divisions as follows:

Entomology	\$755,000
Crops	200,000
Animal Husbandry	225,000
Animal Diseases	300,000
Agricultural Engineering	<u>20,000</u>
	\$1,500,000

Proposed Change in
Project Outline
Procedures

Dr. Knoblauch explained a proposed modification in Federal Grant Project Outline Procedures:

June 29, 1960

Proposed Modification in Federal-Grant
Project Outline Procedure

The State Experiment Stations Division has been considering possible ways in which the preparation and handling of project outlines might be made more effective. The primary objectives have been to develop a system which would (1) make available improved service to the stations in the coordination or research, (2) permit the adoption of

efficient machine procedures, (3) reduce costs, and (4) improve the SESD filing system.

The essential modifications involved in the system have been considered by the Federal-States Relations Committee and the Experiment Station Committee on Organization and Policy. During the discussion it was proposed that the plans be presented to all the station directors during the regional meetings of the directors' groups.

Basically, three changes are envisioned in the overall SESD project records system: (1) a change in project outline procedures discussed more fully below, (2) a change in automatic machine handling of financial records, and (3) the development of a more effective information retrieval system adaptable to automatic data processing equipment.

Since changes (2) and (3) above can be fully implemented within SESD there is no need to go into greater detail at this time with respect to them. The first change mentioned above, however, can best be developed and used if a minor modification in the preparation of project outlines is adopted by the State stations.

The modification we are asking the stations to consider is the adoption of a standard cover-abstract-signature sheet to be submitted with each new or revised project outline. Copies of this proposed form, in various stages of preparation, are attached to illustrate the operation of the system.

The preparation of this new cover-abstract-signature sheet by the stations would require only a limited modification of their present procedures. The station would complete the underlined items, (i.e. the blocks marked "State", "Proj. No. & Dept.", and "Project Objectives and Description of Work Proposed"), sign as indicated and submit to SESD with the project outline. SESD would complete the form.

The completed form would then serve several purposes. It would, of course, be the official signature sheet indicating approval by SESD of Federal-grant projects. By suitable reproduction in SESD as many copies of the signature sheet could be made available as the station desires.

Equally as important, however, is the possibility of using the top half of the sheet in a project record filing system both in SESD and at the stations.

This part of the sheet has been specifically designed as a file and information card which can readily be filed either in visible files or in regular 5 x 8 card drawer files. Or, the information can be directly reproduced on a full size 8 x 10½ sheet by SESD for loose-leaf binders. In this case the bottom half of the sheet would be blank to permit notations.

If agreement were reached with the Directors each station could be supplied with a copy of every new or revised project, thereby maintaining at each station a record of all Federal-grant research (and possibly non-Federal research) in the country. With such a record, of course, our present research summaries as well as the bimonthly list of "New" and "Discontinued" projects would be superseded. Every researcher at all of the stations would thus have access to a continuously up-to-date reference to related work. Periodic mailings from this office of new and revised projects as well as of completed project abstracts stamped "Closed" would maintain the timeliness of the files.

Extension of this system to State projects would provide even more effective coordination. Some stations which do not wish to submit State project outlines might be willing to submit this abbreviated information, thereby making the information in our State files more complete and meaningful.

It is anticipated that stations would want to file these project abstracts by means of the primary and cross-reference classifications shown in the upper and lower right-hand corners. SESD would provide, to all stations, copies of the complete system of classification used in this office.

The advantages, then, can be summed up thus:

A. Advantages to Stations

1. Would provide a convenient cover-abstract sheet for signatures.
2. Complete sets could be made available to the Director of any station, permitting the establishment of an up-to-date record at each station of all Federal-grant (possibly non-Federal too) research under way in the entire U. S.
3. State stations proposing new projects could be sent a complete file of all related work if the complete set was not desired.
4. Would eliminate need for present bimonthly summaries of projects initiated and discontinued.
5. If extended to non-Federal projects, would make these records much more complete and meaningful.
6. The duplicate title lines on top and bottom make filing feasible in either visible or regular 5 x 8 card files.
7. This form could be submitted in lieu of State project outlines by those stations which prefer not to furnish outlines.
8. Since this would be a part of the project outline there would be no need to repeat any of the

material shown on the abstract. The printed form, provided by this office, could thereby reduce some typing.

9. "Essentials of a Project Outline" printed on the back would act as a convenient checklist for preparation of the outline.
10. Station files could readily be kept up-to-date by periodic mailings of project abstracts, both new and discontinued. A "Closed" stamp across a project abstract would alert the station to the need for removing the abstract from their files.

B. Advantages to SESD

1. Would eliminate need for this office to prepare project abstracts.
2. The project abstracts would be more accurate than at present if they were prepared by the project leader.
3. Could be used directly to provide National Science Foundation with information on Federal-grant projects as required by law.
4. The present delay in getting project abstracts prepared would be eliminated, so that our files would always be up-to-date.
5. If the "Description of Work" were included the project abstracts would be more meaningful than at present.
6. The new form provides all data presently included except financial data and leadership.
7. Would relieve some of our space problems by possible reduction in filing space and more efficient use and grouping of personnel.
8. If the specialists' comments in approving the project were included directly on the new form, each examiner would have more complete information to take to the field. This material, however, would not appear on station copies.

Chairman Myers appointed a temporary committee, consisting of Huffman (Chairman), Sharp and Frevert, to study the proposed change and to make a recommendation for the consideration of the Directors. At a later session Huffman reported for the committee.

Huffman moved, Alexander seconded, that the Association of Western Experiment Station Directors favor the project record system proposed by SESD and that it be applied to both Federal grant and non-Federal projects to the fullest

extent possible. It is recommended that the 5 x 8 card system be used for the information supplied to the States regarding all research projects and that this card should include the name of the project leader. It is further recommended that each State be supplied with the SESD filing key for these materials. Passed.

Other Comments

Dr. Knoblauch reminded the Directors that the deadline date for submission of data for the salary survey is July 15. He indicated that Dean E. L. Butz will report on the Public Relations Survey at the land grant college meeting in November.

Evaluation of Regional Research

The following statement provided by Dr. Knoblauch explains a proposed study of the regional research program. It is planned that Director M. A. Farrell will have the assignment.

June 8, 1960

EVALUATION OF REGIONAL RESEARCH UNDER THE AMENDED HATCH ACT

From time to time during the past two or three years there have been comments and discussions concerning the desirability of examining the regional research program with the idea of assessing accomplishments in line with objectives, seeking ways to improve the program, reviewing established policies, and recommending more uniform and clear-cut procedures. Regional research, as established under the Research and Marketing Act, has been active for 13 years, and it seems that enough background and experience has been accumulated to warrant an objective review of the program and of the policies and procedures under which it now operates.

Such a review could be best undertaken by a station Director on sabbatical leave with at least 6 months to devote to the task. He should be a Director who has been closely associated with the program since its inception and one who has served on various committees involved in regional research. The review would consist of interviews with administrative and research personnel at a number of State experiment stations to get impressions, suggestions, and recommendations. However, prior to such activity there should be developed a carefully worked out plan or schedule covering all phases of the program. A study of records, policies, and procedures could be best accomplished in the SESD office, and this would include interviews with SESD representatives on technical committees and those persons responsible for administration of the program.

For purposes of discussion and as a basis for further development of a plan of action the following study items are listed for consideration:

- (1) History of regional research program
 - (a) Development of legislation
 - (b) Objectives and intent of the law

- (c) Development of present policies and procedures
- (2) Review of policies
 - (a) Policies established by law
 - (b) Policies of SESD
 - (c) Policies adopted by the Committee of Nine
 - (d) Policies of the various regions
- (3) Relationships between and among
 - (a) SESD
 - (b) Experiment Station Section
 - (c) Committee of Nine
 - (d) Directors' associations
 - (e) Regional research committees
 - (f) Administrative advisers
 - (g) Technical committees
- (4) Project development
 - (a) Research needs
 - (b) Regional approach
 - (c) Participation
- (5) Administrative methods
 - (a) Fund allocations
 - (b) Technical committee functions
 - (c) Reports and publications

Huffman moved, Adams seconded, that the Association of Western Experiment Station Directors support and cooperate in the study of Regional Research Procedures, Administration and Organization to be made by Director Farrell. It is recommended that Director Farrell meet with each regional Directors' group at a meeting other than at the Land Grant Association Meetings and before he makes his first report.

Legislative Sub-committee

Thorne summarized the activities of the Legislative Sub-committee during the past year, referring to the budget legislation, the house version of S-690 and the bill to include potatoes under the patent law. Buchanan discussed conferences of the committee with Department of Agriculture and Budget Bureau officials.

Humane Slaughter of Experimental Animals

There was discussion of the bill introduced in the Congress that proposes to regulate slaughter of experimental animals. The Chairman appointed a committee consisting of Jasper (Chairman) Wheeler and Ensign to make a recommendation to the Directors on this. At a later session, Jasper reported for the committee, as follows:

On May 18, eleven United States Senators introduced a bill (S-3570) to regulate animal experimentation in institutions receiving Federal funds. As proposed, S-3570 provides for a complicated system of licensure and inspection under direction of the Secretary of Health Education and Welfare,

but fails to provide constructive provisions for accelerating progress in improved animal care. Because experiment station research can not be regimented, burdened with "red tape", and restricted to pre-approved plans without loss of effectiveness, the bill is considered undesirable.

Although it is anticipated that S-3570 may not pass Congress this year, other bills for the purpose of assuring humane animal care may be anticipated in the future. Certain organizations, such as the American Veterinary Medical Association, American Medical Association, the National Society for Medical Research, and the Animal Care Panel may be expected to take positions of policy regarding legislation or other methods designed to assure humane treatment of animals used in research.

Since this matter is of great importance to the agricultural experiment stations, it is suggested that ESCOP consider the advisability of establishing policies, constructive in nature, which would:

- a. Give assurance to Congress and other interested organizations and parties that humane treatment of animals is adhered to in experiment station research.
- b. Provide for interested members of Congress suitable information and advice for their guidance if legislation in this field should become necessary.
- c. Assist individual experiment stations in assuring humane treatment of experimental animals.
- d. Assure, insofar as is possible and desirable, uniformity of policy with other major national organizations vitally concerned with improved laboratory animal care.

Jasper moved, Curry seconded, that the Secretary be instructed to communicate the four suggestions to the chairman of ESCOP as resolutions of the Western Directors. Passed.

Recommendation
to the Committee
of Nine on
Preparing Regional
Research Projects

The statement which follows summarizes a suggestion for improving regional research procedure made by Director Ensign to the Committee of Nine:

The Regional Research Program has been into effect for the past 13 years. These research programs have been based upon the development and execution of Regional Master Outlines and supporting State Contributing Projects. The Manual of Procedures for Cooperative Regional Research - ARS 23-3 section 4.10 emphasizes that the "regional project outline should provide information in concise form as to the general approach, working plans, and methods to be used in attaining the objectives of the regional projects". The details of the regional research are outlined more specifically in contributing projects submitted by participating States.

It is recommended the Committee of Nine, through their representation from the Regional Directors Association, consider possible methods to revise and improve the present procedures in preparing and approving regional research programs. It is hereby suggested that we consider the possibility of developing a regional research program into one single, well developed outline and eliminate the contributing project procedure. It would be anticipated that the Technical Committee with the advice of the Administrative Advisor develop a more detailed Master Regional Outline which would give the general regional objectives with detailed methods upon how these objectives would be accomplished in the procedure section. In this section the procedures of each State's contribution would be detailed to show how the total research program would be executed. One outline would be used for all States that participate. The usual State numbers would be assigned upon the approval by the Director of the individual participating State.

This procedure would eliminate the necessity of each State submitting individual contributing outlines.

This procedure would possibly do the following:

1. Provide better co-ordination among Technical Committee members since the total program and methods of attaching the objectives would be within one well developed outline.
2. Eliminate much paper work and the difficult procedure of getting all individual contributing projects approved.

3. Provide a more unified program working toward solutions to a central theme. In the present system, contributing projects tend to broaden the area of research and dilutes the central theme idea. Many of the present contributing projects have some tendency to become somewhat unrelated and do not always follow the central theme, at least in the same direction. Many contributing projects tend to be State research not necessarily directed to solve common problems of the region.
4. Since much of the information in the contributing projects is merely a restatement of items already covered in the Regional Project, it seems this is unnecessary duplication.

This statement is offered as one possible means to simplify and improve the present procedure in conducting regional research. Exact and detailed steps for following this new outline procedure would need to be developed.

R. D. Ensign
June 16, 1960
Sturgeon Bay, Wisconsin

Ensign moved, Wheeler seconded, that these preliminary ideas be reviewed by the Regional Research Committee and that they report and make recommendations to the Directors at the next meeting. Passed.

Proposal for
Redirection
of Research

Buchanan moved, Huffman seconded, that the Western Directors request the Regional Research Committee to make a study and report back recommendations on the most effective manner in which the regional research program of the western states can be re-oriented over time towards the following objectives:

1. The use of regional research funds in support of basic research projects;
2. A substantial reduction in the number of areas of research for each state. In each case these would be areas of regional significance recommended by the Director of each state and approved by the Directors of the other states;
3. A very substantial reduction in the number of research projects;

4. An allocation of funds among the States in total for each that will be known in total or in general percentage terms in advance and which will be utilized for support of relatively long-term research projects subject to revision at not to exceed five-year intervals.

Buchanan offered the following comments in support of the motion:

Despite the recognized need for additional emphasis on fundamental research, it is difficult to utilize available State funds for this purpose. Commodity groups, farm advisors and others continually bring to our attention problems of the moment which require, in their judgment, immediate attention. It is frequently inexpedient not to yield to their demands for attention to these requests. It is suggested that the Federal grant funds, including regional research funds, be reserved primarily for support of fundamental research in order to enhance the proportion of our total funds that can be utilized in this endeavor, as well as to respond to the encouragement we receive from various Federal agencies, including SESD, to utilize a larger percentage of our resources in this area.

The advantages of a drastic reduction in numbers of projects are obvious. Not only will such a reduction enhance the quality of attention that we, as administrative advisors, can give to technical committees, but it should enhance even more the chance for accomplishment in areas of significance falling within the special competence of each state.

Assurance of reasonable continuity in availability of regional research funds would permit the addition of permanent staff in the areas of greatest competence in the individual State stations. Other available resources would continue to support the regional research program as well as other programs in each station.

The work on each project would be done primarily at one location for the region. It would be under the control of the regional technical committee chosen by all Directors for the area of competence chosen by each State with the concurrence of the other Directors.

Sharp moved, Adams seconded, that the motion be amended so as to delete item 4 from the motion.

Buchanan accepted the amendment.

Price moved, Curry seconded, that the original motion be tabled. Passed.

REPORT OF THE COMMITTEE ON REGIONAL RESEARCH (RRC)
TO
THE WESTERN DIRECTORS
Meeting of July 11, 1960 at Pullman, Washington

The following were present:

L. W. Rasmussen
J. A. Asleson
R. K. Frevert
N. F. Farris, SESD
R. E. Olson, Recording Secretary
(past)
J. O. Gerald, Recording Secretary

A. Project Revisions

W-6, New Plants....The RRC noted the recommendation of the Committee of Nine as recorded in the Minutes of April 4-5, 1960 calling for review and possible revision of the four regional plant introduction projects.

The RRC suggests the technical committee for W-6 study the regional needs in the area of plant introduction and prepare a project revision to reflect current needs and encompass the recommendation of the Committee of Nine for an exploration of new materials.

W-25, Ecology and improvement of brush infested rangelands....The RRC calls to the attention of the Directors the action of the Committee of Nine limiting approval of the revised regional project outline to June 30, 1961 pending definition of a regional approach coordinating the contributing projects and revision of procedures to reflect the division of responsibilities and contributing efforts.

W-32, Basic hydrologic factors in precipitation disposal to water conservation....Revision pending. See minutes of March, 1960, page 8.

W-37, Biology, ecology and control of rangeland grasshoppers....Revision pending. See minutes of March, 1960, page 8.

W-44, Biological interrelationships in lipid metabolism of importance to man...The project revision reviewed by the RRC is in general well done and provides continuation of important contributions made by this technical committee. The objectives as listed, however, are too broad to permit critical evaluation. In particular, what is meant by "to investigate basic problems?" The technical committee should reappraise the statement of

objectives and set down more specifically the description of the work proposed. In the revised procedures and contributing projects it is not clear how the C and D portions of the objectives would be accomplished. While there are States listed to work on these the contributing projects do not bear out how this work will be accomplished.

There was no critical review submitted although an appendix contained some of the information appropriate to such a review. A critical review should be prepared and submitted as a part of the revision in accordance with the minutes of the Western Directors' meeting of March 3, 1958, page 12.

The project outline is referred back to the technical committee with the request that it be returned to the Directors by October 15, 1960, if possible and in no case later than February 15, 1961.

W-47, Root Responses....The RRC noted the recommendation of the Committee of Nine relative to W-47 (minutes of April, 1960) and recommends that the technical committee be requested by the Administrative Advisor to prepare a critical review of the project and contributing projects be submitted to the Directors by February 15, 1961, for consideration at the Spring meeting.

W-48, Climate and phenological patterns for agriculture in the Western region...

The RRC reviewed a tentative proposal for the revision and new approach for regional project W-48. The proposal was not submitted as in final form but for review as an indication of desired direction. The RRC agreed with the proposal and recommends the technical committee proceed to develop a project in final form following the meeting of the GP-1 Committee and the W-58 Technical Committee called specifically for the purpose of developing the revision. The Administrative Advisor is requested to outline this new approach at the meeting of the Directors.

WM-44, Economics of expanding markets for agricultural products through promotion and new methods of utilization...The technical committee has complied with the recommendations of the RRC as far as the regional outline is concerned and approval is recommended with the following stipulations. Because of the turnover of technical committee staff the RRC recommends that the members presently constituting the technical committee arrange to meet this summer or early fall to insure concurrence in the project. Particular consideration should be

given the Hawaii contributing project which the RRC believes to be too broad in scope. The RRC believes the procedures should be amended with the aim of clarifying regional coordination for accomplishment of all objectives.

Rasmussen moved, Frevert seconded, that the report of the RRC on Project Revisions, excluding W-48, Weather and Crop Production, be approved. Passed.

Asleson amplified the report of the RRC relative to W-48 and summarized the principal points included in the tentative project revision. The project revision envisions some degree of participation from all States in the Region.

Rasmussen moved, Curry seconded, that the recommendations of the RRC for W-48, Weather and Crop Production, be approved and that the Technical Committee proceed with the revision in the direction of the preliminary outline as discussed by the administrative advisor. Passed.

B. Termination Reports Received and Accepted

WM-21, Livestock Market Information, Content and Procedure....The RRC reviewed the termination report submitted and recommends acceptance and a commendation to the technical committee for a very fine termination report. The RRC acknowledges excellent cooperation among the States and the Agricultural Marketing Service leading to the overall accomplishment of the objectives of the project. The RRC recommends that the Secretary of the Western Directors communicate this information to all the participants.

Rasmussen moved, Curry seconded, that the Western Directors approve the recommendations of the RRC relative to the termination report for WM-21, Livestock Market Information, Content and Procedure. Passed.

C. Other Recommendations....The RRC considered requests of the WAERC for one-year extension of time for certain regional marketing projects. These were:

WM-17, Frozen Fruits and Vegetables, to 6/30/62

WM-20, Hay and Feed, to 6/30/62

WM-38, Cooperatives, to 6/30/62

These requested extensions were adequately documented and the RRC believes they are justifiable. Approval is recommended.

Rasmussen moved, Ensign seconded, that the Directors approve the recommendations of the RRC to extend the duration of the projects above as indicated. Passed.

D. The RRC calls attention of the Administrative Advisors to projects which are nearing time for termination, revision and/or replacement.

W-24, Cotton Mechanization
W-40, Breeding Forage plants
W-41, Urinary Calculi
W-42, Ground Water Laws (Council recommended)
W-43, Legum Insects
W-45, Pesticide Residue
W-49, Breeding Failure
WM-23, Wool Marketing
WM-26, Consumer Purchase of Fruits & Vegetables
WM-35, Seed Marketing

Records of RRC indicate estimated duration of these projects as June 30, 1961.

E. Documents for review by RRC should be submitted by October 15, 1960 for fall meeting and by February 15, 1961 for spring meeting.

Administrative
Advisors
Assignments

Adams moved, Frevert seconded, that the Directors approve the list of Administrative Advisors recommended by the RRC. Motion amended that Director Linsley be appointed co-advisor for W-43, Forage crop insects. Passed.

(List of Administrative Advisors for 1960-61 attached)

Frequency of
Technical Committee
Meetings

Sharp moved, Adams seconded that the Western Directors look with favor on any technical committee considering meeting alternate years when the development of the regional project has been stabilized. There should be continued exchange of annual reports on contributing projects among members of the technical committee during years the technical committee decides a meeting is not necessary. The planning and coordination funds for the years when the technical committee does not meet are to be distributed among the State contributing projects. Passed.

P & C Funds

Rasmussen presented an alternative to the present method of handling planning and coordination trust funds, as follows:

1. Discontinue the allocation of RRF for travel to technical committee meetings.
2. Distribute the funds currently set up for travel among the participating states.

Reasons:

1. The billing procedures for paying travel expenses is cumbersome resulting in many inefficiencies.
2. The amount of money to allocate is difficult to pre-determine, therefore either excesses or shortages result.

3. The utilization of excesses is difficult and some procedures being followed are questionable. The make up or shortages is time consuming and awkward.

Procedure:

Total P&C trust, 1960-61 "no inc" level	\$82,680.
For recording secretary	<u>2,700. *</u>
For P&C travel	<u>\$79,980</u>
Hawaii allowance @ \$300 per proj. (20)	<u>6,000.</u>
Continent - travel	<u>\$73,980.</u>
Amount per project (377)	\$ 196.

1. Allow Hawaii \$300 per contributing project for Hawaii-San Francisco round-trip.
2. Allow \$196 per contributing project to each station, including Hawaii.
3. If recording secretary allotment presents a problem, divide that sum among the stations and have each station contribute from other station funds a proportionate share to one station as is done for WAERC.

Much of the discussion by the Directors was in support of current methods. In the absence of a motion, no action was taken.

Proposed Animal
Germ Plasm
Laboratory

Director Wheeler discussed the status of the proposal to establish a national germ plasm laboratory.

Jasper moved, Price seconded, that the Western Directors secure the reaction of their own Animal Science Departments relative to the feasibility and desirability of a central or national American Germ Plasm Laboratory and forward these opinions to Director Wheeler. Director Wheeler will represent the Western Directors at the forthcoming meeting of W-1 Technical Committee held in collaboration with technical committees of companion projects in other regions without specific instructions from the Western Directors regarding the proposal.

Proposed Advisory
Committee on
Range Research

The following communication was received from the American Society of Range Management. The letter is reproduced below with the text of Director Sharp's reply:

AMERICAN SOCIETY OF RANGE MANAGEMENT

Office of the Executive Secretary
Post Office Box 5041
Portland 13, Oregon

April 18, 1960

* Secretary's note - current amount is \$3000.

Mr. Paul F. Sharp
Division of Agricultural Sciences
Agricultural Experiment Station
University of California
Berkeley 4, California

Dear Mr. Sharp:

The American Society of Range Management, devoted to the advancement in the science and art of grazing land management, has great interest in the progress of Range Management research, especially in the Western States. It is certain that combined efforts of the various State and Federal agencies doing research in this important field are not excessive.

It is understood that there is a proposal to form a Western Range Research Committee composed of members of any members of Regional Range Research Technical Committees now existing, or that may be created by the State Agricultural Experiment Station Directors in the future. The work of this proposed committee would be to advise the Western Directors of needed range research.

This letter is to inform you that the American Society of Range Management gives its full support to this proposal. Will you kindly communicate the position of the Society to the Directors of the Western States Experiment Stations?

Sincerely yours,

/S/ John G. Clouston

Executive Secretary

University of California
Division of Agricultural Sciences
Agricultural Experiment Station

Office of the Director
Berkeley 4, California

April 27, 1960

John G. Clouston, Executive Secretary
American Society of Range Management
Post Office Box 5041
Portland 13, Oregon

Dear Mr. Clouston:

This will acknowledge your letter of April 18 offering the services of the American Society of Range Management, particularly in the western states, in setting up a Research Advisory Committee to the Western Directors relative to range research.

I will transmit copies of your letter to the other Western Directors, and the matter will probably be discussed at our meeting in July. However, since range work in most of the States is very important, I suspect that the Directors have reasonably good knowledge of problems in this general area. The Western Directors are usually in contact with their own staff members, and in this way the ideas of the range specialists are brought to the Directors' attention.

Sincerely yours,

/S/ Paul F. Sharp
Director

It was suggested that it has been contrary to the Directors' policy to deal with professional societies in the way recommended by the American Society on Range Management. The Western Directors always welcome suggestions relative to research but do not believe it necessary to establish an advisory committee in the range area for this purpose at this time. The Secretary was directed to draft a reply incorporating these ideas in answer to the letter received from Mr. Clouston.

1961 - Collaborators'
Conference, Western
Regional Laboratory

Dr. Fred Stitt representing the Western Regional Laboratory discussed the possibilities on each of the five topics suggested for the Collaborators' Conference in Copley's letter of May 5, 1960. Those suggested were:

- 1) Wool Research
- 2) Wheat Utilization Research
- 3) Fruit Processing Research
- 4) Potato Research
- 5) Food Additives

After this discussion and a poll of each of the Directors present,

Frevert moved, Ensign seconded, that the subject of food additives including also residues be approved as the topic for the 1961 Collaborators' Conference. Passed.

Adams moved, Frevert seconded, that the Directors request Director Boyce to be their representative at the 1961 Collaborators' Conference. Passed.

Ensign moved, Buchanan seconded, that Dr. Reese H. Vaughn of California be named as technical staff representative of the Western Experiment Stations for the Collaborators' Conference. Passed.

ESMRAC

Huffman reported the principal points from the April 21-22 meeting of the Committee:

- 1) The Committee recommends that joint meetings of research, extension and State Department of Agriculture workers in marketing be encouraged to meet annually in each State.

- 2) The proposals for new research under Title II total 519,000. Funds available total \$114,000.
- 3) The Committee emphasized the desirability of participation in Title II programs.
- 4) There is a change in the calendar for submission of proposals. No longer is a tentative statement required in the spring. Following announcement of the year's program on or about August 1, a letter to SESD with a project proposal is all that is required. The purpose of the change was to coordinate the planning for the Title II projects with the overall research program.
- 5) Request for an increase in Title II funds was made to ESCOP. Price indicated this subject had been discussed at ESCOP. The reaction of the Western Directors was requested by Price with the idea of referring their recommendation to ESCOP.

After discussion, Price moved and Huffman seconded, that the Western Directors would look with favor on action that ESCOP may take to secure additional Title II funds for research. Motion lost 3 to 5.

Improved Cataloguing of Agricultural Economics Publications

Huffman summarized the proposal of the subcommittee of the American Farm Economics Association that was reviewed and recommended by WAERC and previously circulated to the Directors. Thorne suggested that an abstract journal may be a more appropriate answer to the problem. It was suggested that since this proposal involved library procedures that the Council pursue this matter in consultation with librarians. Huffman was requested to keep in touch with this proposal and report back to the Directors if necessary.

WAERC Council Committees

Question was raised as to the continuing need for annual meetings of all Council committees. It was brought out that some of these were established prior to existence of active projects in the area. Suggestion was made that they coordinate meetings with that of technical committees. Huffman explained that the WAERC did not encourage joint meetings and that there had been objections on the part of some Directors to joint meetings held at times in the past. Following the discussion, Director Huffman was requested to arrange for all Directors to be advised in advance of the times for Council Committee meetings.

W-32 Water Conservation

Thorne moved, Frevert seconded, that the Directors authorize a meeting of the executive committee of W-32, Water Conservation, for the purpose of project coordination if the committee decides such a meeting is necessary. Passed.

Ruminant Physiology and Soil-Water-Range-Forestry

Sharp moved, Ensign seconded, that planning on the Ruminant Physiology and Soil-Water-Range-Forestry areas be deferred until after the November, 1960 meeting of the Directors. Passed.

Buchanan moved for reconsideration of this action and for authorization of the administrative advisors to proceed with organization of the committees. Discussion emphasized that the deferment might be removed at the November, 1960 meeting. The motion was not acted upon.

National Soil Survey
Committee

Thorne reported that Dr. Starr represented the West at the last meeting of the National Soil Survey Committee. He indicated that workers in the field felt that it would be desirable to have three representatives to this conference in the future. Ordinarily, there is one meeting per year.

Thorne moved, Asleson seconded, that the Western Directors authorize three representatives of the Western Region to the National Soil Survey Conference. Whether an individual attends depends on his own State's authorization of his trip and financing of his expenses. Representation is for one meeting annually. Passed.

WSWRC Committee

Price reported on the activities at the last meeting of WSWRC and referred to a letter from Dr. Evans relative to the role of WSWRC, the activities of its work groups and the planning, coordinating and reporting of all of the activities of the WSWRC.

The Western Soil and Water Research Committee requested permission to establish work groups in research areas needing regional planning and coordination. These work groups would be authorized to meet annually to carry out these functions. Statements were presented by Price and Thorne.

Thorne moved and Ensign seconded, that a reply should be sent by Thorne indicating it is the policy of the Directors to authorize such work groups and their meetings where real needs exist. Therefore, the WSWRC should continue as in the past, to submit individual requests with strong justification to the Directors covering each work group proposed for activation with regional meetings. The Directors will take action on these specific requests. Passed.

Experiment Station
Workshops

Dr. Knoblauch requested an expression of the Director regarding the workshops in the coming year.

Huffman moved, Frevert seconded, that the Association of Western Experiment Station Directors recommend continuation of the workshops sponsored by SESD for Directors and business officers for as long and as often as attendance justifies.

1960 Fall Meeting

Scheduled times for the November meetings of the Western Directors are as follows:

Monday	November 14, 1960	8:30 AM to 12:00 Noon
Tuesday	November 15, 1960	2:00 PM to 5:00 PM
Wednesday	November 16, 1960	8:00 or 8:30 AM to 10:45 AM (if needed)

Problem of Housing
USDA Cooperative
Employees

There was a discussion of the matter of providing space for cooperative USDA employees stationed at State experiment stations. Reference was made to ESCOP policy. Several Directors indicated ways in which they had handled the housing at their institutions. Out of this discussion came a consensus that it would be desirable to request Dr. Byron Shaw to address the Land Grant College Association on the subject of physical facilities. Buchanan was requested to communicate this suggestion to Director W. E. Krauss.

1961-62 Budgets

The 1961-62 tentative budget as recommended by RRC was modified in discussions by the Western Directors as follows:

- 1) The RRC should be prepared by March to recommend a budget based on a "small increase".
- 2) Thorne moved, Price seconded, that only one additional project on water economics be activated and that WAERC recommend one of the two areas proposed. Passed.
- 3) The recommendations of WAERC on WM-41, Marketing Cotton, exceed the recommendations of the technical committee. It was brought out that funds for WM-41 should not be increased unless the Directors of the participating States are prepared to put more manpower into the project than heretofore.
- 4) Alexander moved, Rasmussen seconded, that the \$1000 recommended at the no increase level for 1961-62 by RRC for W-55, Fruit virus disease, be allocated to W-56, Nematodes and root diseases. Following discussion, the motion was amended to include a similar re-allocation of the \$1000 set up in the 1960-61 budget from W-55 to W-56. Passed.

Rasmussen moved, Frevert seconded, that the RRC report on budgets, as modified in discussions, be approved. Passed. (Recommendations attached).

Officers and
Committee Members

Alexander presented the recommendations of the Nominating Committee for persons to be elected at the November meeting.

Chairman - Thorne
Secretary - Sharp
ESCOP (4-year-term) - Huffman
ESCOP (3-year-term) - Price
ESCOP (1-year-term) - Sharp
Legislative Subcommittee (2-year-term) - Frevert
Committee on Regional Research (3-year-term) - Asleson
Committee on Regional Research (1-year-term) - Hilston
Committee on Regional Research (alternate) - Ely
Committee of Nine (3-year-term) Jasper
Committee of Nine (alternate) - Rasmussen
ESMRAC - Alexander

Motion was passed that the Secretary be instructed to cast an unanimous ballot for the above slate of nominees. Passed.

The Nominating Committee had been requested by the Chairman to make recommendations relative to future meeting dates and places. It was recommended that the 1961 Winter Meeting be held in Berkeley, the 1961 Summer Meeting be held at Colorado and Wyoming, the 1962 Winter Meeting at Davis, and the 1962 Summer Meeting at Montana. Dates are to be worked out later.

Utilization Research
Process and Product
Evaluation

Dr. John R. Matchett, Director, briefly described the purpose and mode of operation of the new Product and Process Evaluation Staff in Utilization Research. They will examine potential market demand for new products or processes on which substantial financial commitments are contemplated in Utilization Research. Evaluation work will be done in four major fields: (1) chemicals, (2) fibers, fabrics and paper, (3) foods and feeds, and (4) polymers, plastics, adhesives, etc. It is expected that the PPE Staff will be relatively small and that much of the information will be developed through the use of consultants and contracts.

Resolution of
Gratitude

Frevert moved, Wheeler seconded, that:

WHEREAS, the courtesy and hospitality extended to the Association of Western Agricultural Experiment Stations Directors by the host institutions of Washington State University and the University of Idaho were outstanding;

WHEREAS, the comfort, convenience and beauty of the meeting place, the Compton Student Union were excellent;

WHEREAS, the Northern Idaho Forest Genetics Center provided a very interesting lecture and tour;

WHEREAS, the barbecue arranged by Dean Kraus and Director Ensign in the lovely arboretum of the University of Idaho was pleasurable;

WHEREAS, the social hour and other diversions provided by Director and Mrs. Buchanan, Dean Kraus, Director and Mrs. Ensign and Director and Mrs. Rasmussen for the benefit of visiting Directors and their families, were stimulating;

WHEREAS, the smorgasbord dinner given by President and Mrs. French, and President and Mrs. Theophilus was unexcelled in variety and taste; and

WHEREAS, provisions for transportation, personnel to conduct tours, and open facilities by the Idaho and Washington Agricultural Experiment Stations were extensive;

NOW, THEREFOR, BE IT RESOLVED, that the Western Directors express their fullest appreciation and sincerest thanks for all of these many favors and kindnesses.

BE IT FURTHER RESOLVED, that the Secretary of the Association be instructed to inform all those named in this resolution of the gratitude the Directors feel.

Adjournment

The meeting adjourned.

Respectfully submitted,

A handwritten signature in cursive script that reads "John O. Gerald".

John O. Gerald
Recording Secretary

**ADMINISTRATIVE ADVISORS
WESTERN REGIONAL PROJECTS
FOR 1960 - 61**

W- 1	Beef Cattle Breeding	Wheeler
W- 5	Poultry Diseases	Rasmussen
W- 6	New Plants	Sharp & Briggs
W- 7	Turkey Breeding	Rosenberg
W-12	Bean Improvement	Ensign
W-16	Range Economics	Hilston
W-24	Cotton Mechanization	Curry
W-25	Brush Infested Rangelands	Rasmussen
W-27	Vibriosis in Sheep	Sharp & Jasper
W-31	Nitrogen	Myers
W-32	Water Conservation	Thorne
W-34	Range Livestock Nutrition	Hilston
W-35	Internal Parasites of Ruminants	Sharp & Jasper
W-37	Rangeland Grasshoppers	Wheeler
W-38	Fungus Root Diseases	Adams
W-39	Fluorine Effects	Price
W-40	Breeding Forage Plants	Ensign
W-41	Urinary Calculi	Sharp & Jasper
W-42	Ground Water Laws	Wheeler
W-43	Forage Crop Insects	Sharp & Linsley
W-44	Cholesterol Metabolism	Wheeler
W-45	Pesticide Residues	Sharp & Boyce
W-46	Environment & Farm Animals	Ely
W-47	Root Responses	Ensign
W-48	Weather & Crop Production	Asleson
W-49	Breeding Failure in Cattle	Thorne & Burgoyne
W-50	Stresses & Performance, Hens	Rosenberg
W-51	Drainage Design	Frevert
W-52	Biochemistry of Herbicidal Action	Rasmussen
W-54	Farming Adjustment	Asleson
W-55	Small Fruit Viruses	Henderson
W-56	Nematodes in Root Disease	Asleson
W-57	Amino Acid Utilization	Hilston
W-58	Forage Production	Ensign
W-59	Government Price & Income Policies	Buchanan
W-60	Textiles	Wheeler
W-61	Sheep Breeding	Adams
W-62	Farm Power & Machinery Costs	Frevert
W-63	Weed Control	Curry
W-64	Stone Fruit Viruses	Kraus
W-65	Irrigation Hydraulics	Frevert
W-66	Soil Structure	Thorne
W-67	Soil-Plant-Water Relationships	Thorne
W-68	Soil Moisture Movement	Thorne
W-69	Housing	Rasmussen
W-70	Economics of On-Farm Use of Water	Huffman
W-71	Forest Tree Seedling Establishment	Sharp & Vaux
W-72	Insects of Cones & Seeds	Sharp & Vaux

WM-16	Maintaining Grain Marketability in Storage	Sharp & Boyce
WM-17	Frozen Fruits & Vegetables	Alexander
WM-20	Marketing Hay & Feed	Asleson
WM-23	Wool Marketing	Hilston
WM-26	Consumer Purchases Fruit & Vegetable	Alexander
WM-33	Utilization of Red Meats	Alexander
WM-35	Facilitating Seed Marketing through Testing	Price
WM-36	Dairy Marketing	Sharp
WM-37	Transportation of Livestock and Meat	Buchanan
WM-38	Marketing Cooperatives	Alexander
WM-39	Direct Marketing of Livestock	Buchanan
WM-40	Procurement Organization & Practices - Retailers	Buchanan
WM-41	Marketing Cotton	Curry
WM-42	Initial Timber Processors	Sharp & Vaux
WM-43	Bulk Handling	Alexander
WM-44	Promotion & Utilization of Economics	Huffman
WM-45	Utilization	Sharp

INTERREGIONAL

IRM-1	National Policies for Agricultural Prices & Income	Huffman
IR -1	Solanum	Kraus
IR -2	Deciduous Tree Fruit Stocks	Kraus

OTHER

WAERC		Huffman
Ruminant Physiology		Ely
Non-Fat Solids Breeding		Buchanan
Soil-Water-Range-Forestry		Frevert
WRSRC		Thorne

1961 - 62
 ALLOCATIONS TO WESTERN REGIONAL RESEARCH PROJECTS
 Recommended by the Western Directors
 July, 1960

No.	Project Title	1961-62 Recommendations			
		no increase	\$3.5 mil. increase	\$7 mil. increase	\$14 mil. increase
W- 1:	Beef Cattle Breeding	77200	82300	82300	82300
W- 5:	Poultry Disease	20300	20300	20300	25000
W- 6:	New Plants	36000	39000	45000	45000
W- 7:	Turkey Breeding	17000	17000	17000	17000
W-12:	Bean Breeding	20500	20500	20500	20500
W-16:	Range Economics	18500	19000	22500	25600
W-24:	Cotton Mechanization	17000	17000	17000	17000
W-25:	Rangeland Improvement	6000	62362	62500	62500
W-27:	Sheep Vibriosis	34870	35000	38000	43000
W-31:	Soil Nitrogen	33000	40100	40100	40100
W-32:	Water Conservation	24300	30300	36300	40000
W-34:	Range Livestock Nutrition	56000	56000	60000	62000
W-35:	Ruminant Parasites	50900	52000	52000	55000
W-37:	Rangeland Grasshoppers	15000	15000	15000	17200
W-38:	Fungus Root Diseases	30000	30000	30000	30000
W-39:	Fluorine Effects	25000	25000	30000	30000
W-40:	Breeding Forage Plants	25300	25300	25300	25300
W-41:	Urinary Calculi	26300	26300	26300	26300
W-43:	Leguminous Forage Insects	19000	19000	20000	20000
W-44:	Cholesterol Metabolism	33300	33300	33300	33300
W-45:	Pesticide Residues	21615	25900	25900	25900
W-46:	Stresses, Cattle and Sheep	23300	26000	30000	40000

Project		1961 - 62 Recommendations			
No.	Title	no increase	\$3.5 mil. increase	\$7 mil. increase	\$14 mil. increase
W-47:	Root Responses	11800	11800	11800	11800
W-48:	Weather and Crops	5000	15000	25000	35000
W-49:	Cattle Breeding Failure	40000	40000	41600	41600
W-50:	Stresses & Performance, Hens	16555	16555	16555	24680
W-51:	Drainage Design	9000	22000	27000	32000
W-52:	Biochemistry, Herbicidal Action	7000	9000	15500	31000
W-54:	Adjusting Farming	28915	30000	31500	41500
W-55:	Fruit Virus Disease	-	2800	6000	6000
W-56:	Nematodes and Root Diseases	10000	11000	11000	13200
W-57:	Amino Acid Utilization	43000	46000	46500	46500
W-58:	Forage Crop Production	27300	27300	27300	27300
W-59:	Price and Income Policy	11700	11700	11700	11700
W-60:	Textiles	10000	10000	10000	10000
W-61:	Sheep Breeding	16200	16200	20200	29200
W-62:	Farm Power & Machinery Costs	13850	15000	16700	20900
W-63:	Weed Control	40000	43600	48600	53600
W-64:	Fruit Viruses	26000	27600	27600	33600
W-65:	Irrigation Hydraulics	23000	30000	35000	40000
W-66:	Soil Structure	27100	30000	30000	30000
W-67:	Soil-Plant-Water Relation- ships	34500	40000	40000	50000
W-68:	Soil-Moisture Movement	5000	15000	20000	40000
W-69:	Housing	21000	21000	25500	30500
W-70:	On-Farm Use of Irrigation Water	8800	13800	20500	25000

Project		1961 - 62 Recommendations			
No.	Title	no increase	\$3.5 mil. increase	\$7 mil. increase	\$14 mil. increase
W-71:	Tree Seedling Establishment:	11050	25000	35000	50000
W-72:	Forest Insects	-	22500	31500	45000
W-	Soil Minerology	-	-	-	30000
W-	Water Yields	-	-	35000	67075
W-	Soil-Water-Forestry-Range	-	15000	20000	40000
W-	Ruminant Physiology	-	5000	5000	30000
W-	Water Transfer	5500	13500	13500	13500
W-	Forestry	-	-	22737	51087
W-	Water Resource Management	7327	8000	8000	8000
TOTAL OF NON-MARKETING PROJECTS		1,143982	1,311017	1,485592	1,802742
WM-16:	Grain Insect Control	16500	18000	18000	18000
WM-17:	Frozen Fruits & Vegetables	22600	22600	22600	22600
WM-20:	Hay & Feed	17900	18700	19000	20400
WM-23:	Wool	25000	27000	27000	28000
WM-26:	Consumer Purchases, Fruits & Vegetables	16300	16500	16500	20000
WM-33:	Meat	13800	16000	18000	25000
WM-35:	Seed Marketing	10000	10000	10000	10000
WM-36:	Dairy Consumption	17200	18100	19000	19000
WM-37:	Livestock Transportation	30300	32300	32450	34000
WM-38:	Management & Organization, Cooperatives	26200	28200	29400	30000
WM-39:	Direct Buying, Livestock	29900	32200	33000	35400
WM-40:	Retail Procurement	31200	31200	31200	35000
WM-41:	Cotton Marketing	6700	7100	7500	8400
WM-42:	Initial Processors, Timber	24950	34300	34300	34300

Project		1961 - 62 Recommendations			
No.	Title	no increase	\$3.5 mil. increase	\$7 mil. increase	\$14 mil. increase
WM-43	Bulk Handling	16400	17400	17900	20200
WM-44	Promotion & Utilization	12700	16500	17100	17300
WM-45	Utilization	-	10550	25500	60500
WM-	Organization of Milk Markets	13100	18500	20600	32900
WM-	Livestock Shrinkage	-	-	-	7500
WM-	Forestry	-	-	15900	48050
TOTAL OF MARKETING PROJECTS:		330750	375150	414950	526550
TOTALS		1,474,732	1,686,167	1,900,542	2,329,292

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