

WESTERN DIRECTORS' MEETING
 Washington, D. C.
 November 11 and 12, 1956

Rec'd 12/7/56
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 WD-11/56

Meeting called to order by Chairman Curry at 9:15 a.m.,
 November 11, 1956, in the Adams Room of the Willard
 Hotel.

Roll Call

| | | |
|----------------------|----------------------------------|------------|
| R. S. Hawkins | Director | Arizona |
| Harold E. Myers | Dean | Arizona |
| Paul Sharp | Director | California |
| Robert W. Hodgson | Assistant Director | California |
| D. E. Jasper | Assistant Director | California |
| *H. R. Wellman | Vice President, Agr. Sciences | California |
| S. S. Wheeler | Dean and Director | Colorado |
| Morton M. Rosenberg | Director | Hawaii |
| H. A. Wadsworth | Dean | Hawaii |
| J. E. Kraus | Dean and Director | Idaho |
| Ronald D. Ensign | Associate Director | Idaho |
| M. M. Kelso | Dean and Director | Montana |
| J. E. Adams | Dean and Director | Nevada |
| C. E. Fleming | Associate Director | Nevada |
| Robert H. Black | Dean and Director | New Mexico |
| Albert S. Curry | Associate Director | New Mexico |
| *F. E. Price | Dean and Director | Oregon |
| R. W. Henderson | Assistant Director | Oregon |
| R. M. Alexander | Assistant Director | Oregon |
| *Wynne Thorne | Director | Utah |
| *R. H. Walker | Dean | Utah |
| J. S. Carver | Associate Director | Washington |
| H. M. Briggs | Director | Wyoming |
| *H. C. Knoblauch | SESD - USDA | |
| *James O. Grandstaff | SESD - USDA | |

*Individuals whose names are preceded by an asterisk
 were not in attendance at all sessions.

Nominating Committee

Sharp, Kraus, and Curry were named to serve as nominat-
 ing committee.

Committee of Nine report
 by Briggs

\$24,300 of regional research funds have not yet been
 certified in the western region. Directors were re-
 quested to submit contributing projects to SESD so
 funds can be certified.

Unexpended balances
 June 30, 1956

Improvement over last year. Only \$1553.80 reverted in
 western region as follows:

| | |
|------------|------------------|
| Hawaii | \$427.28 |
| Montana | 203.39 |
| Oregon | 1.20 |
| Washington | 921.93 |
| | <u>\$1553.80</u> |

This was the smallest amount for any region.

| | |
|---|--|
| USDA participation in regional projects | ARS will review their projects with technical committees, according to Shaw. |
| ESCOP report by Kraus | Wheeler commented that ARS now sends a statement of ARS allotments in each state to Director of Station. |
| Acreage allotment problem | Elting will meet with each advisory committee and explain work of states through Federal grant program. In the past these committees have, in general, only been appraised of Department program. He discussed President Eisenhower's Commission on Use of Surplus Agricultural Products. (See Thackerey's letter #29 of October 31, 1956, to presidents of land grant colleges. It gives a resume.) |
| Soil conservation research expenditures | Any experimental plots will not be included in acreage allotment. ESCOP will report on this. |
| Soil survey reports by SCS | Discussion of figures used by SCS on total expenditures for soil conservation research. Each region will need to name a representative to a national committee to work with SESD in developing more reliable figures. (Myers was appointed at July meetings.) |
| Exchange of German scientists | (See Thorne's letter to Western Directors dated October 29, 1956.) Congressmen from area covered by report can get 1000 copies and each senator gets 250 copies. Station may be able to get some copies from these congressmen. |
| Use of Federally controlled employees in teaching at states | Each region is to nominate some person to serve on a national committee. (Ryerson is to represent Western region.) |
| Consulting service by SESD | Shaw has ruled that employee cannot carry teaching duties as part of his regular load. An effort will be made at next Congress to get modification. |
| Cooperative Agent problem | SESD is prepared to assist states in review and evaluation of state programs in addition to Federal grant programs. |
| Penalty mail | Cooperative agreement arrangement should be studied by Directors as one of best ways to work under rules of Shaw's memo of September 26, 1956. |
| Publications committee report | We will have to report on use of penalty mail but will not be billed. |
| Research responsibilities of the State Stations and USDA | Committee will not meet until Thursday so cannot report. |
| | Federal-States relation committee and legislative committee or its subcommittee will prepare joint report for consideration at April 1957 ESCOP meeting. |

Forty-one Directors replied to Hawkins' (Oklahoma) letter. Committee will study these replies and report to Directors, probably next summer.

Status of writing workshops

Kellog funds are tapering off. Individual states have been stimulated by national project and are initiating programs of their own. Price reported that several states report that their local workshops have been extremely worthwhile.

Agricultural Research Institute Report

Kelso reported that Assistant Director Joe Asleson represented Montana Station. He was favorably impressed by meetings and thought it had quite a potential. Next meeting will be held in October.

It was moved, seconded, and passed that Kelso is to serve as official representative of Western Directors at next meeting.

Legislative Committee report - Sharp

Committee is thinking about getting better line of demarkation between State and Federal programs.

Thinking about getting a fund from Congress available on a matching basis for capital outlay expenditures.

Problem of shortage of men with Ph.D. training. This shortage is affected by limited amount of funds available to finance graduate students through graduate training period. Suggestion that ARS make fund available for basic studies that could be used for thesis research. Contract arrangements could be utilized.

Many thought that ARS was trying to shift some of the less glamorous research problems to the states; e.g., IR-1 and W-6.

Controlled micro-climate facility suggested as appropriate for ARS work.

American Fertilizer Control Report - Thorne

Target date on shift from reporting on oxide basis to elemental basis is 1960. Suggestion made that reports be made on both bases in reports from stations as a means of educating public regarding forthcoming change.

River Basin Study Funds - Thorne

Reference made to Assistant Secretary Peterson's letter. Thorne believed that little headway had been made to date. Curry believes that some constructive thinking has been stimulated.

Payment for scientific journal articles - Thorne

Publication cost of technical papers. Discussion led by Thorne regarding his letter to members of Soil Science Society regarding \$15 per page charge for publication.

If Director finds that cheapest means of publication is through paying Society on page basis, there is no objection to using Federal-grant funds according to Knoblauch.

Western Soil & Water
Research Committee
Special Meetings.
WAERC Committee to
develop new projects

Considerable discussion regarding whether or not we should permit our staff members to attend meetings called for the purpose of developing regional research proposals that have not been cleared by Directors.

Thorne moved that preliminary discussion of proposed regional projects be handled through correspondence or informal meetings involving no extra travel cost until the proposal has official sanction of Western Directors. Seconded by Myers and carried.

Informal meetings could be held in connection with scientific or professional meetings and technical committee meetings.

If Western Directors group believes there is need for more marketing proposals, group can authorize special meetings for further planning of proposals.

Wellman commented that if we charge WAERC with responsibility of recommending project for 20% marketing allotment we must provide Council with a vehicle for getting recommendations.

(Adjourned for lunch at 12:30 p.m. and reconvened at 2:10 p.m.)

Introduction of
ARS personnel

Dr. Quisenberry introduced Dr. Marion Parker, former head of the weed section, who replaced Dr. Quisenberry as Assistant Director of Crops Research for ARS when Dr. Quisenberry moved up to Director when Dr. Moseman resigned.

Sheep Laboratory
Collaborators' Research
Program Report

Director Patterson of the Texas Station was introduced. Chairman Curry read the October 12-13, 1956, report of the Collaborators of the Western Sheep Breeding Laboratory at DuBois.

Pilot plant would involve small scale wool manufacturing equipment. Chemical treatment of wool would be included. Pilot plant was suggested in connection with Western Utilization Laboratory. Kelso raised question whether it could best be located as a state facility at one of the state stations that already has considerable facilities for wool processing.

Kelso reported that the project review committee recommends that a sheep breeding regional project technical committee be organized to develop an appropriate regional project.

Directors were in agreement that the program at DuBois needs to be strengthened.

Wheeler moved and Alexander seconded that Western Directors go on record as endorsing Point 2 in the Collaborator's report and that we convey this endorsement to ARS. Motion lost.

Need for ARS to supply more information to states regarding projects under way was emphasized by several states.

ESMRAC Report - Kelso

Project requests received by SESD far in excess of available funds. \$3,257,000 in requests now on docket. Probably \$100,000 at the most will be available July 1, 1957.

SESD has raised question whether additional funds should be requested.

Need to define more explicitly the place of 204(b) funds in marketing research was brought out. Preference will be given to proposals that are a research phase of a cooperative program with Extension or State Department of Agriculture programs. Some states can use effectively considerably more than the 20% allotment. The 204(b) funds permit these states to enhance marketing research programs. Some states aren't using their 20% allocation but still are requesting 204(b).

204(b) type projects are well adapted to use of graduate students because of their short term nature.

SESD is able to effectively use these funds for strengthening neglected areas of marketing research. Details of Kelso's report will be presented at Division meeting.

Committee recognized growing importance of this type of research and emphasized the importance of cooperation with State Departments of Agriculture and Extension.

General type of workshops was not recommended for continuation. Workshops on specific problems by individual groups recommended.

Sharp pointed out that if 204(b) funds were increased, the increase would come out of total payments to the states and be competing with Hatch and regional research funds. (SESD please advise if this is incorrect.)

Report of nominating committee and election of officers

Following report of the nominating committee, the following officers were duly elected:

| | | |
|-----------------------------------|--------------------------------|------------|
| Chairman | C. E. Fleming | 1 yr. |
| Secretary | H. E. Myers | 1 yr. |
| Committee of Nine | M. M. Kelso | 3 yrs. |
| Alternate | D. W. Thorne | 1 yr. |
| Legislative Committee of ESCOP | M. M. Kelso | 2 yrs. |
| ESCOP | F. E. Price | 4 yrs. |
| Project Review Committee of Three | R. D. Ensign (replacing Kelso) | 3 yrs. |
| ESMRAC | H. M. Briggs | |
| Alternate | S. S. Wheeler | |
| Scientific Personnel | K. A. Ryerson | California |

SESD report -
Dr. Grandstaff

\$19,812 unexpended funds. Section 204(b) funds are available through one year after allocation and then expire. \$9,481 expired.

Section 204(b) carryover for 1957 was \$39,744.

\$85,250,000 in non-Federal funds available in 1956 fiscal year. This was \$5,757,581 increase over fiscal year 1955. Record shows that June expenditures were too heavy and that expenditures should be spread more evenly over the year.

This is roughly a ratio of 3 to 1 between State and Federal funds.

Several states have not yet turned in contributing projects needed to get certification of funds.

Only one station under 20% quota on marketing research:

| | | | |
|------------|------|----------|------|
| Montana | 28.6 | Oregon | 21.4 |
| Washington | 26.6 | Nevada | 20.9 |
| Idaho | 24.9 | Colorado | 20.8 |
| New Mexico | 24.7 | Wyoming | 20.8 |
| Arizona | 23.2 | Utah | 19.6 |
| California | 22.3 | | |

Collaborators meeting
of the Western Utiliza-
tion Research Branch
Laboratory

Henderson reported that meeting of Collaborators would be held March 11, 12, and 13, 1957, at Western Utilization Laboratory.

Examination of Agri-
cultural Economics
Research by Agricultural
Economists and SESD

If examination takes place in last two quarters of fiscal year it will replace regular annual review of the projects involved by SESD. (Re letter October 10, 1956, from Bennett S. White, Assistant Director of Economics and Utilization of AMS, to Dr. H. R. Stucky, Head of Agricultural Economics at New Mexico Station.) A team of consultants composed of one or two from AMS and one or two recognized economists from other states would review the program and make recommendations. SESD would bear cost of the program.

Project Review
Committee

Review of the present program. Kelso reported the following recommendations by the committee.

W-1

Projects should be examined by technical committee to see all state projects conform closely to master project which is being rewritten.

W-4

Should be reduced in scope as W-44 is expanded and closed out as work is completed. Probably desirable to replace W-4 with another nutritional study. This does not imply that W-4 should not be followed to a logical point of conclusion.

- W-5 We suggest they start a revision to bring project up to date and be as specific as applicable to the nature of the work.
- W-6 This is the type of work that might more appropriately be conducted by the USDA. It is recommended that the Directors request that the USDA take over this work.
- W-7 We suggest they think of revision to sharpen up what is now being done.
- W-8 We believe this project should be concluded. Perhaps a specific study - less of an overall nature - can be replaced with another project if we want a study in this general area.
- W-11 Since the Directors approved W-52 project on "Biochemistry of Herbicidal Action," there is need for a careful review of this project together with W-52 to eliminate duplication of effort. Perhaps in the resulting revision of this project the field of work can be narrowed or even take a new direction. Some coordination is also apparently needed with W-25. In view of areas of mutual concern W-25 committee could be invited to meet at the same time and place as W-11 and W-52. (To be superseded by Wheeler motion.)
- W-12 The central core of the research seems to be centered around breeding for resistance to root rots and virus diseases. Supplementary studies involving classification characteristics and mode of transmission of fungi and viruses are also pertinent. There is some tendency, however, for general control practices such as rotations and soil management to be studied. These appear outside the intent of the project. It is recommended that the committee critically review contributing projects to see that they are within the regional project objectives. It is suggested that the phrase "and other methods" be deleted from the title.
- W-16 An "umbrella" type project now in its 4th year. Recommend review of the regional project to see if it can be more closely integrated into a single or into a number of single projects based on experience to date, and examine the results of Phase I to see if a report or publication giving some generalizations concerning the economics of revegetation can be reported. (In the nature of a progress report on Phase I as a whole)
- W-22 The project has only one objective. This seems only indirectly related to some of the procedures. The objectives should be rewritten to indicate clearly the scope of the project. Considerable effort has apparently gone into field surveys of virus problems. This seems more a state than a regional responsibility. It is recommended that the studies be directed more toward technical studies of individual virus diseases and less toward field surveys.

W-23 The Committee of Nine has recommended that this project be revised with attention directed toward narrowing the objectives and field of work. We concur in this recommendation, and suggest that toward this end, objective 2 be deleted with the thought that variety testing is more of a state responsibility than it is of regional interest. In the revision we further suggest that seed production studies be fully separated from forage production investigations. The methodologies and interests of the two fields are distinct and should probably not be covered in the same project.

Any strain or variety testing found necessary in the revised project should be coordinated with tests under W-40 project to eliminate duplication.

W-24 We suggest continuation as it is with revision in next year or two to point up uncompleted research and drop the completed work.

W-25 The project is well organized and the technical committee is commended for the excellent manner in which the studies are being conducted. A review of the state projects and of the annual reports has raised a question in the minds of the reviewers as to whether the procedures and units of measurement used in ecological studies in the several states are sufficiently standardized and coordinated to permit pooling of information for broad regional interpretations.

W-27 The project is being revised by the committee.

W-29 This project has been very productive, resulting in a large number of publications. It is essentially a continuation of the W-9 project. As such some of the contributing projects have been continued for 7 years. It is therefore recommended that the technical committee critically review the regional project and the state contributing projects with the object of terminating or drastically revising many of them.

In the regional project, objectives 1 and 2 and 5 seem to represent one area of investigation while objectives 3 and 4 are in a more technical and theoretical area. These groups of objectives seem too widely separated to be in the same project.

The procedures of the regional project give no helpful information about work to be done under each of the objectives.

W-30 The project seems to be making satisfactory progress. A need for caution is emphasized, however, in keeping the investigations well within the intent of the project, which is to evaluate soil structure. Some of the objectives would permit general tillage, irrigation and crop production studies.

As soon as feasible the project should be revised to more clearly define the field of work and to develop procedures and state responsibilities in keeping with the objectives.

W-31 The project seems to be confined to an area of work consistent with regional research project objectives. The procedures in the regional project do not show how the objectives are to be accomplished. We recommend an editorial amendment to develop procedures and express state responsibilities to fulfill the objectives.

W-32 This regional project is one of the best prepared outlines in our files. The procedures and state responsibilities are clearly shown.

W-33 Well planned for regional attack. Progress to date is in line with expectations. *Water Application*

W-34 The project should be continued.

W-35 We suggest that in another year the project be re-examined by the technical committee with the view of restricting the project to the most pressing problems.

W-36 Objectives very broad and all-inclusive. Includes a wide range of specialists whose relationships are not clear because of the wide diversity of objectives. First annual report describes work at some stations not in line with contributing projects. *Force*

Recommend letting the project continue into its third year. Careful attention should then be given to its revision into a more narrowly defined and closer knit regional project.

W-37 The project seems to be well organized and functioning satisfactorily. California and Colorado contributing projects have apparently not been distributed.

W-38 Since the project permits studies with any crops, soil, or type of crop residue, uniform types of data will need to be taken so that regional interpretations can be made.

The project should be critically reviewed after it has been under way two or three years. At that time several of the projects may need revision to indicate more clearly the nature of the work being carried out.

- W-39 The project needs more time.
- W-40 It is the opinion of the committee that regional research funds should not be used for general field variety testing. The contributing projects seem diverse and in need of revision and closer coordination with the regional project.
- W-41 The project needs more time.
- W-42 In its first year. As this project proceeds, the technical committee must guard against setting up contributing projects that are purely local in importance, thus not contributing to the regional project objectives of determining "principles" relative to desirable ground water laws. *ground water*
- W-43 The technical committee has apparently not complied with the recommendations of the review committee as reported by Kelso in a letter dated January 24, 1956. If this has been done, revised copies of the regional project should be sent to the Directors.
- W-44 The project needs more time.
- W-45 The project needs more time.
- W-46 The project should be kept closely to outlined objectives. May need revision when the "tools" are tested enough for more effective application.
- W-47 The project needs more time. The regional project has been approved by the State Experiment Stations Division October 16, 1956. Copies of revised and approved projects should be sent to Directors.
- W-48 Since no action has been taken toward preparing a regional project it is recommended that funds reserved for this project be allocated to other projects.
- WM-13 Possible that the objectives are too complex to cover adequately. Is the Washington project more closely related to W-54 than to WM-13? Recommend that it continue into its 5th year and then have a careful re-examination and reworking of the project to sharpen up for more definitive progress. Re-examine the project in the light of relations to and overlap with IRM-1 and W-54.
- WM-14 Well planned and making good progress.
- WM-15 Revision now in process.
- WM-16 The project needs more time to complete. Perhaps it should be revised in one more year to delete completed work and more vigorously attack uncompleted aspects. *Blaf*

- WM-17 Well planned and proceeding in line with objectives. Hawaii contributing project proposes study of marketing mainland frozen food in Hawaii. Annual report reports study of marketing Hawaiian frozen passion fruit juice in Hawaii. Recommend technical committee appraise state contributing projects and progress to insure that project work is in line with approved outlines.
- WM-18 Recently revised.
- WM-19 Something of an "umbrella" type project but does not appear to be objectionable in this regard. Nothing in progress report (1955) to indicate progress in Washington on contributing project dealing with Washington apples. Approaching end of 3rd year - time for re-examination and re-appraisal.
- WM-20 To be re-examined before July 1, 1957. Recommend re-examination for possible revision in light of experience so far and attempt to introduce activities more analytical in nature.
- WM-21 Progressing satisfactorily. Recommend carrying out provision to re-examine and revise in light of experience before November 1957.
- WM-22 Title and objectives are not very specific. Project is descriptive and designed to delineate "problems" for later study. Procedures not clearly worked out. Recommend that this project be re-examined for possible revision before July 1957 instead of before July 1958 as stated in project outline.
- WM-24 In second year. Title defines an area of work and not the content of this particular study. Something of an "umbrella" type project - some contributing projects seem to cover problems specific to a local area (carnations in Colorado, e.g.). Recommend critical review and revision to make more specific and more clearly regional by July 1957.
- WM-25 In second year. This project needs real thought on what are the important emerging or potential technological developments that will have a strong impact on regional commodities. Needs the guidance of a broad committee of technologists and economists to delineate such innovations and arrange for them to be studied at appropriate stations. Should not be restricted to what the representatives of two states decide to study. Tendency is for each of two states to study what is of interest to each state. Project outline is good - criticism is directed at implementation of that outline. Recommend serious reconsideration of project organization and implementation in keeping with above criticism. Will not continue unless change along these lines can be effected. Project should be "forward looking" and not studying what has been or is.

- WM-26 Commend the committee for careful planning of a regional approach to the problem.
- WM-27 The project is to get more emphasis on economic phases. We understand it is to have a revision or supplement to accomplish this goal. This project is just under way and needs more time.
- WM-31 In first year.
- WM-32 In first year.

Kelso read the following resolution and moved its adoption and forwarding to other regions. Seconded by Briggs. Carried.

"The Directors of the Agricultural Experiment Stations of the Eleven Western States and Hawaii recognize the need for differentiating areas of research responsibility between State and Federal agencies. It is our opinion that plant introduction, maintenance, and preliminary testing of new plants can be more effectively coordinated with the Federal Plant Introduction Station and the Federal Germ Plasm facilities at Fort Collins, Colorado, by having the U.S.D.A. take the responsibility for supporting and supervising the total program. We recommend that the ARS take financial and supervisory responsibility for the Western Regional Research Project W-6 and also recommend that the Experiment Station Directors of the South, North Eastern and North Central Regions similarly request that the ARS take responsibility for the new plant introduction and maintenance work of their regions.

"Therefore, be it resolved that the chairman of the Western Directors refer this resolution to ESCOP urging that the U.S.D.A. assume the responsibility for operating regional new plant introduction and maintenance projects in cooperation with other similar facilities, and that copy of this resolution be referred to the other associations of Directors."

Curry named to replace Rasmussen as W-52 administrative advisor

Wheeler moved, seconded by Myers, that to coordinate W-52 with W-11, that the administrative advisor of W-11 be the administrative advisor of W-52. Carried. This supersedes W-11 report by Project Review Committee.

Importance of circulating outlines of approved regional project and reports to each Director was emphasized.

Sharp moved and Briggs seconded that report of Project Review Committee be received and recorded in the minutes and be referred to administrative advisors and discussed with technical committees for appropriate action. Carried.

Proposals for new or strengthened research

He reported that the six-man review committee consisting of Kelso, Briggs, Alexander, Ensign, Thorne, and Sharp had grouped proposals received from Directors into two priorities.

Project Titles or Subject Matter Areas Considered by the Review Committee of Primary or Secondary Importance for Development as New Projects. November 10, 1956.

I. Of Primary Importance:

A. Agricultural Engineering

1. Request agricultural engineers as a group to develop a regional research project in the area of principles of mechanical equipment to enhance the efficiency of selected agricultural operations.

B. Animal Research

1. Factors controlling the physiological activity of the gastro-intestinal tract and feed utilization in domestical animals (ruminants only?).

a. To study the physical, humoral, and nervous factors involved in secretion and motility of the gastro-intestinal tract.

b. To determine the relationship of rumen microflora to production performance.

c. To study the absorption, conversion, and excretion of chemical substances in the gastro-intestinal tract.

2. Criteria for evaluation of and factors affecting meat quality.

a. To determine the chemical, physical, and histological properties of meat in relation to meat quality factors, nutritive value, and cost of production.

b. To determine the effect of the level of food intake, type of ration, and inheritance factors on the chemical, physical, and histological properties of meat.

3. Request sheep breeding technicians to get together to develop a regional project on improvement of sheep through breeding methods.

4. An additional project in animal diseases, probably in the pulmonary complex of diseases (shipping fever, pulmonary emphysema).

C. Crops Research

1. Isolation requirements for field and/or crop seed production with special reference to the problem of pollen dispersal.

2. A project in the area of poisonous plants in western range lands.

3. Biology and control of snow mold in wheat.

a. To obtain much needed information concerning the general biology of the organisms causing snow mold of wheat.

b. To relate this information to the development of feasible control of the disease by possible modification of cultural practices.

c. To make extensive and exhaustive tests of numerous chemicals to find one, if possible, more economically feasible than those currently in use.

4. Etiology and physiology of the host-parasite relation to Verticillium wilt.

a. To determine the pathogenic and pathological strains of Verticillium.

b. Effects of nutrition on wilt disease.

c. Physio-chemical aspects of the soil in relation to the incidence of the disease.

5. Use of antibiotics as a means of control of plant diseases.

6. Development of experimental methods and techniques for evaluation of malting quality in western barleys.

a. Develop methods of analysis for malting quality.

b. Determine factors affecting malting quality. (Or should this project be one to set up a malting quality testing laboratory in the west to test the malting quality of barley crosses and strains as a service to malting barley breeders?)

D. Economic Research

1. Factors affecting the need for cooperative marketing associations and their growth and development.

- a. To ascertain the principles underlying the strengths and weaknesses of cooperatives as elements in a marketing system.
- b. To determine the factors to be considered in deciding whether or not to contract or expand the services offered by cooperatives in a marketing system.

2. Effects of advertising and promotion on the demand for western agricultural products.

- a. To determine the factors that make for success or failure in commodity advertising and promotion.
- b. To design, test, and evaluate advertising and promotional programs for selected western agricultural products.
- c. To evaluate the effectiveness of advertising and sales promotional activities of organizations promoting and/or marketing selected western products (except milk - see WM-15 revised).

3. Cost of operating and maintaining farm power and machinery in the western region.

- a. To develop standards of performance for selected machines of different sizes, ages, and in varying uses.
- b. To determine the unit power and machine cost of selected machines and selected farm operations.
- c. To publish a regional handbook of this information.

E. Entomology and Parasitology

1. Nature of the differential resistance of plants to insect damage.

F. Home Economics

1. Amino acids in human nutrition.

2. The deterioration of certain cotton fabrics when exposed to sun, moisture, and heat as an aid in their selection for household and agricultural uses.

a. To investigate the effects of light, moisture, temperature, and air pollution upon characteristics such as strength, chemical composition, and color fastness for selected cotton fabrics.

b. To study the influence of the above conditions upon the response of these fabrics to certain aspects of customary use, such as duration of service and laundering.

c. To determine the influence of special finishes such as waterproofing, fireproofing, and mildew-proofing, upon changes due to such exposure.

d. To demonstrate aspects of fabric performance resulting from the above investigation which indicate need for improvement of the fabric.

G. Horticultural and Forestry

1. Clonal root stocks for deciduous fruit tree propagation.

H. Sociology

1. Factors influencing the motility of farm and ranch people between agricultural and non-agricultural pursuits.

I. General

1. Improving the economy and effectiveness of agricultural communications.

a. To determine the type of information wanted and needed by rural people.

b. To determine the use made of released agricultural information.

c. To ascertain the mediums most economical and effective in getting information to rural families.

II. Of Secondary Importance

1. Characterization of the biochemical and microbiological processes of grass silage fermentation.

2. Determination of effects of watershed vegetation and soil conditions on yield and quality of water.

3. The role of minor elements in animal nutrition.

4. Genotype-environment interaction and performance of domestic fowl.

5. Autecological studies with emphasis upon grazing tolerance and seasonal responses of important western range species.

6. Production response of range plants to foliage removal.

7. Nature and control of Phreatophyte plants (aquatic weeds).

8. Determination of the physiological and chemical nature of cool weather, frost, and cold tolerance of agriculturally important crops on a genetic basis.

9. Adequacy and improvement of standards for agricultural products.

10. Economics of the land market.

11. Ecology and control of cutworms and army worms.

12. Identification and epidemiology of fungi affecting forest trees.

13. Fundamental soil-vegetation relationships within the pine and mixed conifer forest types.

14. Mineralogy of the clay fraction of soils.

15. A social and economic analysis of low income farms and farmers in the western region.

Kelso moved, seconded by Hawkins, that A and B priority projects be listed in minutes and that complete list be filed with the chairman of the committee. Carried.

These proposed projects will be further screened at the February meeting, and at the July meeting action will be taken regarding recommendations for 1958-59 fiscal year. Other proposals may be considered in addition to the above list.

Adjustment of farming systems in the Great Plains

Kelso discussed a letter dated October 25, 1956, from Weber to Curry. This letter indicated that thought was being given to seeking Federal funds for research in this area. Henderson suggested that instead of trying to get regional research funds for problems of interest to Great Plains states from two or more regions that these interested states pool Hatch funds for this purpose. Kelso and others said this was the only logical way to do it.

Kelso reported on recommendations made by the W-54 technical committee.

Fromme's letter of
October 10 about IR
and 9b3 funds

This letter deals with stimulation of interregional cooperation and gives estimated breakdown of 3 and 6 million increases by regions for regional and inter-regional research.

Price named administrative
advisor for WM-35, Seed
Technology

Briggs moved and Ensign seconded that Price be named as administrative advisor and be authorized to organize a technical committee to develop regional project outline. (Contributing projects for a seed technology project to be designated as WM-35.) Carried.

Henderson expressed concern because the Western Experiment Station Directors and the national group of Experiment Station Directors were not utilizing the team approach in facing the problems of recruiting and retaining high quality research personnel. Attention was called to the fact that this is the first time in recent years that this problem has even been given an official spot on the agenda of the Western Directors. He expressed the opinion that the present programs under way in the individual states are not adequate to solve the problem and that a more effective approach to the solution of the problem could be developed if the Directors, as a team, utilized the imaginations which they surely possess.

Reports on projects
by administrative advisors

Meeting resumed at 1:45 p.m. on November 12, 1956.

W-1

Revision of contributing projects is progressing.

W-4

Myers discussed following amendment to W-4:

"Amendment, Western Regional Project W-4,
'Nutritional Status and Dietary Needs of
Population Groups in Selected Areas of the
West'

"Subproject 2, 'Biological Availability and
Interrelationship of Nutrients as Found in
Natural Foods,' of W-4, 'Nutritional Status
and Dietary Needs of Population Groups in
Selected Areas of the West,' has been re-
written and submitted as a separate regional
project entitled 'Amino Acid Utilization as
Affected by Dietary Factors.'

Coincident with the acceptance of the project
on amino acid utilization we amend W-4 by
the deletion of subproject 2, 'Biological
Availability and Interrelationships of
Nutrients as Found in Natural Foods'."

W-57, "Amino Acids"
authorized

Sharp moved, seconded by Curry, adoption of amendment, which would authorize appointment of administrative advisor and establishment of a new project July 1, 1957, as W-57 with short title of "Amino Acids." Carried.

W-57 will replace subproject 2 of W-4.

Myers appointed
administrative advisor
for W-57

Kelso moved and Fleming seconded that Myers be administrative advisor for W-57.

Outline of W-57 will be sent to each Director and will be acted upon by project review committee.

Recommendations on transfer of part of W-4 funds to W-57 effective July 1, 1957, should be made at February meeting.

Transmittal of regional
project outlines

When copies of a project are sent to chairman for signature, four copies should be sent instead of three so the chairman can keep one copy.

W-7

Carver conveyed desire of committee to have larger budget.

W-8

Carver stated that committee desired to have \$2000 restored to budget for use in preparing a regional publication. A second regional publication is planned.

Sharp reported that California is holding a special trust fund of about \$1300 left over from publication of first regional publication of this project.

In order to issue a report as a regional publication, Carver requested approval by the Directors.

Briggs moved and Kelso seconded that publication of a second regional publication be authorized and that committee be authorized to utilize the special trust fund California is holding to defray publication costs. Carried.

W-11

OK

W-12

Committee will meet in Las Cruces in February or March with W-38 committee.

W-16

Two publications in the mill.

W-22

Committee has requested more funds, but Henderson is not ready to recommend increase until he is sure that committee is making most effective use of present allocation.

W-23

OK

W-24

OK

W-25 OK

W-27 OK

W-30 & 31 OK

W-34 OK

W-35 OK Will meet in January.

W-36 OK Reported almost complete turnover in personnel.

W-37 OK

W-38 OK Needs only \$4300 more to be fairly well financed.

W-40 OK

W-41 OK Expects good progress.

W-42 OK Meets in December.

W-43 Sharp moved and Kelso seconded that for a person to have expenses from a trust fund paid, the state must have a contributing project, even though not financed with regional research funds, effective July 1, 1957. This would not apply in case of special consultants. Motion lost.

W-44 OK

W-45 OK

W-46 OK Meet January 3 and 4 in Davis.

W-47 Ensign reported change in title. Oregon and Arizona were asked to send in contributing project. (Oregon submitted project last spring.) Will meet December 11 and 12 with W-40 and W-43.

W-48 Kelso moved, seconded by Wheeler, we reallocate \$5000 allotted to W-48. Carried. This does not close out the project.

W-49 OK

W-50 Committee met and revised outline. Twelve states participated. Committee objected to small allocation.

W-53 OK

W-54 Organized October 9-10 in Reno. Will be ready for review.

W-55 OK Project will be sent to Directors soon.

| | |
|---|---|
| WM-13 & WM-14 | OK |
| WM-15 | OK Being revised. |
| WM-16 | OK Revision being considered. |
| WM-17 & WM-18 | OK |
| WM-19 | OK Revision being considered. |
| WM-20 | Publication in the mill. |
| WM-21 | OK |
| WM-22 | OK Revision forthcoming. |
| WM-23 | No report. |
| WM-24 & WM-25 | OK |
| WM-26 | Committee just met. Alexander questioned procedure whereby money allocated to California was shifted in small amounts to other states to do supplemental work. This requires that other states each prepare a contributing project and submit to SESD for approval instead of preparing a work plan to supplement the California project and invoice California for agreed cost of supplemental work. |
| WM-27, 31, 32 | OK |
| WM-33 | Many subjects suggested. Ones on wool and tenderization of beef have received most support. |
| WM-34 | Will meet December 10, 11, 12. Lots of suggestions but not too many good ones. |
| Rosenberg named administrative advisor to W-56, WM-17, WM-24 | Sharp moved, Briggs seconded, that Rosenberg replace Wadsworth as administrative advisor on Wadsworth's projects. Carried. |
| Disposition of \$5000 formerly allocated to W-48 | Myers moved, seconded by Rosenberg, that following funds be transferred from former \$5000 W-48 fund to take care of travel needs of WM-26 (\$100), W-43 (\$300), and W-49 (\$200). Carried. |
| | Moved by Fleming and seconded by Wheeler that \$4400 be divided equally to W-46 and WM-26 to be distributed upon recommendation of the respective technical committees. Carried. |
| Discussion of proposal for National Home Economics Foundation | Kelso moved, seconded by Briggs, that Western Directors take proposal for National Home Economics Foundation under advisement. Carried. This proposal was received too late to be given adequate consideration. |

New Business

Alexander suggested we study possibility of revising system for handling allocation of marketing funds.

Wheeler moved, seconded by Fleming, we consider this at next meeting. Carried.

Kelso is to discuss it with WAERC.

Meeting Place & Date

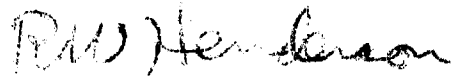
The group agreed to meet March 4, 5, and 6 at Berkeley, California.

Vote of thanks to retiring officers

Secretary was instructed to include in the minutes an appropriate vote of thanks to the retiring officers. (So be it!)

Adjourned 5:30 p.m.

Respectfully submitted,



R. W. Henderson
Secretary