



# WESTERN AGRICULTURAL EXPERIMENT STATION DIRECTORS

OFFICE OF THE DIRECTOR-AT-LARGE

MARK T. BUCHANAN  
Director-at-Large

December 14, 1972

TO : Western Directors

FROM : Nancy Raphael  
Recording Secretary

SUBJECT: Minutes of Fall 1972 Meeting

The minutes of the Western Directors meeting held in Washington, D.C., November 14-15, 1972 are attached.

Season's Greetings!

Attachment

WESTERN ASSOCIATION  
OF AGRICULTURAL EXPERIMENT STATION DIRECTORS

MINUTES OF FALL 1972 MEETING

Statler-Hilton Hotel  
Washington, D.C.

November 14-15, 1972

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WESTERN ASSOCIATION  
OF AGRICULTURAL EXPERIMENT STATION DIRECTORS

MINUTES OF FALL 1972 MEETING

Statler-Hilton Hotel  
Washington, D.C.

November 14-15, 1972

Present:	Arizona	- R. K. Frevert
		- D. F. McAlister (on leave)
	California	- J. B. Kendrick, Jr.
		- B. E. Day, Secretary
		- E. G. Linsley
		- A. F. McCalla
		- D. R. Nielsen
		- W. M. Dugger, Jr.
	Colorado	- D. D. Johnson
		- J. P. Jordan
	Hawaii	- C. P. Wilson, Chairman
		- L. D. Swindale
	Idaho	- S. E. Zobriski
	Montana	- M. J. Burris
	Nevada	- D. W. Bohmont
		- R. E. Ely
	New Mexico	- P. J. Leyendecker, Vice Chairman
		- M. L. Wilson
	Oregon	- G. B. Wood
	Utah	- C. E. Clark
	Washington	- J. M. Nielson
	Wyoming	- L. C. Ayres
	WDAL	- M. T. Buchanan
		- Nancy Raphael, Recording Secretary
	CSRS	- T. S. Ronningen
		- R. L. Lovvorn
	ARS	- H. R. Thomas

1.0 Call to Order

Chairman C. P. Wilson called the meeting to order at 8:00 a.m., November 14, 1972.

2.0 Adoption of Agenda

The agenda was adopted with a number of additions.

### 3.0 Introductions

Director D. D. Johnson introduced John Patrick Jordan as Acting Director of the Colorado Agricultural Experiment Station.

Due to the shortage of time, Chairman Wilson stated that the initiation ceremony would be postponed until the Spring 1973 meeting.

### 4.0 Announcements

No announcements were made.

### 5.0 Approval of Summer 1972 Minutes

The Minutes of the Western Directors' Summer 1972 Meeting were approved as distributed.

### 6.0 Report of Chairman/Report of Executive Committee - C. P. Wilson

At the Western Regional Planning Committee meeting held in Berkeley, California on June 7-8, 1972, it was agreed that the Research Program Groups (RPG's) should be initiated and that the Chairman of Western Directors and the Director of Science and Education should select the members of RPG's in consultation with each other. In a memo to Western Directors dated August 9, 1972, Chairman Wilson solicited nominations to RPG's; a second memo was sent on October 6, 1972. Chairman Wilson reported that he has received responses from the group and has pared the list. With the concurrence of Western Directors, the nominees for co-chairmen are as follows:

RPG 1.00	Natural Resources	- L. D. Swindale
RPG 2.00	Forest Resources	- J. A. Zivnuska
RPG 3.00	Crops	- D. W. Bohmont
RPG 4.00	Animals	- M. J. Burris
RPG 5.00	People, Communities and Institutions	- G. B. Wood
RPG 6.00	Competition, Trade, Adjustment and Price and Income Policy	- A. F. McCalla

Chairman Wilson charged incoming Chairman Wood to follow up from this point to negotiate with the co-chairmen and with the Director of Science and Education to select the members to the RPG's.



## 7.0 CSRS Report - Ronningen

Dr. Ronningen reported on the new organization of CSRS. (Chart attached as Appendix 7.0.) He stated that CSRS would like to do as much as possible to help the States.

CSRS is required to review all projects every four years. If, after a period of time, the surveillance requirement has not been met, CSRS will discuss with the individual Director the best means by which to fulfill the requirement.

Dr. Ronningen handed out CSRS-OD-1088 and CSRS-OD-1088(A) (attached as Appendix 7.0(a) and 7.0(b) respectively). He pointed out that Guam and the Virgin Islands have been added. The amount for these islands is \$300,000 each regardless of whether or not Congress passes a supplemental bill. Funds will be taken off-the-top from Hatch RRF (25%) and Regular Formula Funds (75%). If a supplemental bill passes, the amount would be increased from \$300,000 each to \$400,000 each.

## 8.0 DAL Report - Buchanan

I am impressed, as usual, with the tremendous scope of subject matter with which you, the Western Directors, become involved and with which I as your representative seek to be informed and useful. I appreciate this opportunity to highlight a few items to which I have given attention since our last meeting. I shall be glad to respond to questions pertaining to these and to other matters as the meeting proceeds.

### 8.1 Regional and National Planning and Implementation

This item has continued to be of major interest and significance. There was held in Minneapolis on July 26-27, 1972 a meeting of the Co-Chairmen of the Regional Planning Committees with representatives of the Agricultural Research Planning and Facilities Subcommittee of ARPAC. I have sent you a one page summary of the action taken at this meeting toward an agreed procedure for the establishment by administrators of five-year forward projections of scientist-man-years. These were in the context (a) of the same totals as in Fiscal Year 1971 and (b) a total 10 per cent larger than that for Fiscal Year 1971. Directors of the State Agricultural Experiment Stations and Administrators of Federal agencies have responded to these requests on a one page

form that provides a quick perspective of each research agency's total program. Summaries are being prepared and the next meetings of Regional Planning Committees will address themselves to a review of the data supplied. This will be the basis for further interaction among all concerned. Within the west, a meeting with Boysie Day and Harry Camp, Co-Chairmen of the Western Regional Planning Committee, held on August 29, 1972 was helpful toward obtaining Federal agency participation in the same process you folks have been engaged in. The next meeting of the Western Regional Planning Committee is scheduled for February 21-22, 1973 by which time the projections should be summarized.

Another item discussed at the Co-Chairmen meeting, July 26-27, and in ARPF on September 21, had to do with correlation among the regional and national approaches and to the selection of RP's and RPG's to give priority attention. Several national committees have been established for one reason or another. These include a Cotton Coordinating Committee that is Beltwide under the chairmanship of Roy Lovvorn; a Soybean Task Force; a Transportation Subcommittee; and a Rural Development Task Force. A subcommittee of ARPF of which I am co-chairman with Paul DeLay of the Agricultural Research Service has been established to make recommendations on these matters. Though the subcommittee has had only one meeting, it seems clear that one recommendation of the group will be to retain primacy to the regional aspects of the program. Furthermore, whichever group "leads", the regional or the national, there will be need for interaction between the national and regional.

I was invited by Rex Thomas to attend the first meeting of his Western Administrative Group held at the Western Regional Research Laboratory in Albany on September 25, 1972. Dr. Thomas and his associates assured us of their full cooperation in our planning efforts, both within and without the planning system as it is presently envisaged. I have had several consultations since with Bob Olsen, Rex and others. The regional structure of ARS permits a very desirable interface with the State Stations in our joint planning efforts. The newness of the organization, however, makes it difficult for Rex and his group immediately to develop region-wide projections of the type we are

starting with. As you know, the previous organization necessitated that all such decisions be made at a high level.

There have been a number of frustrations with respect to the CRIS print-outs for Fiscal Year 1971 that contained duplication of the order of 12 per cent of the total. With the good help of Nancy Raphael in my office, the non-duplicated listing has been refined, and the data for the western states and federal agencies revised to check with the "black book". These data have been distributed for your use. More importantly, we are hopeful that a program can be evolved prior to the 1972 print-out that will be based on pairings of commodity and RPA designations that will provide directly from the computer a non-duplicated list on the one hand, and on the other a listing that will provide information by RP's and RPG's wherever needed. There could be asterisks or other markings to identify the duplication involved. Such a program and such a listing will permit checking and thus assure credibility and also provide the data needed by the various RP's and RPG's that will become involved in the process. Once the program is established it may be possible to apply it to the years preceding 1971 so that we will have access to the trend information supplied now in the "black book" under the goals and RPA classification of the Long Range Study.

Work in the other regions is proceeding in much the same manner as in the west. Favorable reports from all regions and from the Federal agencies were received by ARPAC at its meeting on October 12-13, 1972.

## 8.2 National-Industry-State Agricultural Research Council (NISARC)

You will recall our extended discussion of this item and of the Executive Director proposed for this organization at the Reno meeting. The action of our western group at Reno was made available to Jim Beattie, Chairman of ESCOP. On the basis of this and similar reactions within the North Central and Northeastern regions and from other



favor the appointment of a Washington based Executive Director with duties and responsibilities as stipulated by the Western Directors.

### 8.3 Executive Vice Chairman of ESCOP

As I mentioned earlier, the ESCOP Interim Committee took action to favor the establishment of an Executive Director and office in Washington, D.C. with duties as outlined by the Western Directors at their Reno meeting. A subcommittee of the Interim Committee comprised of George Browning and Rupert Seals was asked to develop a Memorandum of Agreement among the State Agricultural Experiment Stations, the Colleges of 1890 and Tuskegee and ASCUFRO under which the Executive Director and office might be financed. Browning, in turn, asked Burt Wood and me to pursue this particular assignment. Burt came down and spent a couple of days with me; the outcome of this was the memorandum with attachments that you received from Jim Beattie under date of October 10, 1972. You will recall that Jim's memorandum mentioned four alternatives that were considered. It then proceeded to recommend that the matter be handled by a step 3 in our research representative and coordination process that might be identified in the following manner: Step 1 was the establishment by the four regions of the positions of Regional Director in the North Central region, Directors-at-Large in the Southern and Western regions, and the Regional Coordinator in the Northeast region. Step 2 involved the passage in each region of a resolution to the effect that one of these "Regional Directors" would serve as Executive Vice Chairman of ESCOP with the other three filling in as needed. Step 3 would be a further agreement among the regions that no one of these four can effectively be Executive Vice Chairman of ESCOP and also serve his region, and therefore it is necessary to establish a fifth position and budget to support it, so that these duties so ably handled last year by George Browning can be handled effectively in the future. An examination of the duties and responsibilities of the Executive Vice Chairman of ESCOP as delineated in the resolutions pertaining to Step 2 in this process revealed that they were almost identical with those now proposed for the Executive Director. It was Burt Wood's idea, and a good one I believe, that it would be much simpler,

easier and more likely of success to go the route of adding to the "Regional Directors" budgets to accommodate the fifth position rather than to go one of the other routes that were considered. Accordingly, we drafted the Beattie memorandum and attachments; Beattie, Browning and other members of the Interim Committee approved, in principle. You have received the materials and responded to Beattie. ESCOP has taken action and the matter will be before you shortly for your action.

#### 8.4 Agricultural Research Institute

I attended what I thought to be an excellent meeting of the Agricultural Research Institute held in Washington, October 10-11, 1972. A number of you also were present. The theme of the meeting was Economic and Social Impacts of Improving Agricultural Production Efficiency. The proceedings should be interesting and helpful.

This particular meeting was an important one in another respect, too, however, in that at the business session there was unanimous approval of a major reorganization of ARI. I will defer to Boysie Day and others for a description of the import of the reorganization except for one aspect of it with which I am immediately concerned. The question is, shall I utilize \$300 from the DAL budget to become a member of the reorganized ARI?

Director Wood moved, seconded by Director Day that Western Directors approve the membership of the Director-at-Large in the Agricultural Research Institute. MOTION CARRIED with one dissenting vote.

#### 8.5 Correspondence with Farm and Industrial Equipment Institute

At the NISARC luncheon in Washington I sat next to James H. Ebbinghaus of the Farm and Industrial Equipment Institute (FIEI). Mr Ebbinghaus conveyed at the luncheon and later in a letter an interest in improved communications with state agricultural colleges, particularly the State Agricultural Experiment Stations on an industry-wide basis. He told me of ARS and FIEI joint conferences held every five years, the last of which occurred May 8-9, 1972. He sent me a number of speeches made by FIEI representatives at the

foregoing joint conference. He asked me for some thoughts concerning a means of improved communications and, specifically, whether or not I thought a program of the type similar to that with ARS would be of value for the state experiment stations. I had an opportunity to discuss these matters with Dr. C. F. Kelly who, as you know, is President of the American Society of Agricultural Engineers this year and with Dick Frevert. Following this, I framed a letter to Mr. Ebbinghaus saying that there are numerous opportunities within the planning process for FIEI representatives to become a part of it, that we would welcome their cooperation toward the objective of obtaining more information than we have now concerning the amount and kinds of research being undertaken by the industry and suggesting that FIEI continue its excellent program of communication with chairmen of Departments of Agricultural Engineering. I suggested further that the next time they have a joint conference with the ARS they consider inviting the Experiment Stations also to attend.

#### 8.6 Reno Seminar on Research Planning and Administration

We had 100 copies of the Proceedings of this Seminar prepared. There have been a substantial number of additional requests for the Proceedings from quite legitimate sources. We have attempted to meet these requests and our original 100 plus 20 copies subsequently published may do so.

Under cover date of October 12, 1972, I received a completed copy of Joe Roop's doctoral dissertation entitled, "The Economic Organization of State Agricultural Experiment Stations." Dr. Roop's work as a post-doctoral research associate at Pullman was financed under a grant from CSRS. In my judgment, Roop's work provides a substantial increment in our knowledge and understanding of Experiment Station organization and behavior. Arrangements are being made to provide one copy per state of this thesis.

Have you seen the HEW booklet, "A Program for Improving the Quality of Grantee Management"? Some of the elements of the management system outlined therein may be helpful to you. No doubt your institution has been or will be asked to comply with this system.

## 8.7 Hawkins-Halpin

Director-at-Large Louis E. Hawkins retires effective January 31, 1973. His replacement is Dr. J. E. Halpin, Associate Director of the Agricultural Experiment Station, Clemson University, South Carolina. Jim will operate from headquarters at Clemson University. Lou has been a pillar of strength and we will certainly miss him. At the same time, we look forward to pleasant and profitable association with Jim Halpin.

## 8.8 Transportation Research Proposals Invited

I call your especial attention to Item 2 in Experiment Station Letter Number 1175 dated November 3, 1972. Here is another new source of research funds outside USDA.

## 9.0 FPC Report - Leyendecker

Dr. Leyendecker reported that there has been no meeting of FPC since the summer meeting of Western Directors.

## 10.0 RRC Report - M. L. Wilson

(See Appendix 10.0)

## 11.0 ESCOP Report - Wood

Director Wood stated that the Chairman of ESCOP reported yesterday at the Section Meeting and that he had nothing further to report.

Chairman Wilson reported on the Food and Drug Administration's Regulation concerning Plant Breeding. According to the statement, if it is followed, any new variety must be tested and cleared for chemical content by FDA. Director Frevert stated that this statement is presently being revised. He will try to get copies distributed to the entire group. It was suggested that ESCOP seriously consider this item and make recommendations.

### 11.1 ESCOP Marketing Subcommittee Report - Nielson

At the July meeting of Western Directors, action was taken to propose a change in the Marketing Guidelines to include research on residues on food products. CSRS has deliberated on this.

They say that a change is not necessary since this is already permissible under Section I-B (1) of the Guidelines. However, they did include wording in a paragraph that would make it more explicit in the Guidelines:

"Methods and systems for maintaining or improving product quality in market channels including reduction, removal or elimination of pesticide residues or other contaminants or development of residue information for such materials as basis for establishing market standards as tolerances and the control of environmental conditions in storage or in transit."

CSRS is in the process of revising the Guidelines and is open to further suggestions. The Marketing Subcommittee suggested to CSRS that they make explicit in the Guidelines the minimum portion of a project necessary for it to be included as a marketing project, e.g., 25 per cent or .1 SMY.

The Subcommittee concluded and CSRS agreed that those states not meeting the 20 per cent marketing requirement fail to do so for some reason other than the marketing definition. In a larger sense, the Subcommittee concluded that we have too many small projects on marketing. We need to recognize that most important marketing problems are at least national in scope and some are international. The Subcommittee also requested CSRS to publish the Metzger Report.

There was discussion of W-117 and a similar project in the North Central region with "off-the-top funding". It was suggested that CSRS reinstitute the procedure of sending copies of projects to all states.

#### 11.2 Replacement for R. D. Ensign on ESCOP Seed Policy Subcommittee

A motion was made and seconded that Director W. H. Foote of Oregon be appointed to serve on the ESCOP Seed Policy Subcommittee. MOTION PASSED.

#### 12.0 ESCOP Legislative Subcommittee Report - Ely

Director Ely reported that the Legislative Subcommittee met on Sunday, November 12, 1972. The complete report for the year was given by Chairman Kottman at the Section Meeting. The most recent Legislative Subcommittee action was the firming up of the Fiscal Year 1975 budget.

Chairman Wilson raised some questions concerning the Fiscal Year 1975 budget. The budget included \$12 million for facilities. Last year there were \$24 million for facilities. Hawaii's portion is so small and the problems of feeding this into the state's capital improvement program cause so much difficulty that some other way is desirable. What became of the three alternatives that Lou Hawkins spelled out? (See item 12.0 of WD Summer Minutes.) DAL Buchanan responded that there has been a great deal of discussion on this item. First, with respect to the \$12 million, the justification materials will emphasize renovation, updating and modernization of research facilities for presently "on-board" staff. The answer to the other question (the three alternatives) is that ESCOP asked the Legislative Subcommittee to study the alternatives (and others) and to come back to ESCOP with proposed legislation. This has not been done as yet.

### 13.0 ARPAC Report - Frevert

The ARPAC minutes of the October 12-13 meeting hopefully will be sent to Directors fairly soon. The minutes will be in considerable detail. Director Frevert mentioned some of the legislation reported therein.

The Blue Ribbon Committee is studying the total facilities needs, both ARS and SAES. The tendency is to look at the surplus space in ARS and the need for space in state stations and seek to match them by moving state personnel into the federal facilities. We know that this may work occasionally, but in many cases, it does not. A part of the ARPF Subcommittee is studying a few states in each region to document specific situations to give the Blue Ribbon Committee further information that will be helpful on this point.

There were several special reports to ARPAC:

- 1) The question regarding a special RPG on Rural Development is still in the mill. This item is to be referred to the RPC's.

- 2) The question of how to finance CRIS came up again. Dr. Lloyd Davis pointed out the high percentage of its use by the states. However, nothing specific was proposed.
- 3) Ed Kirby, Administrator of ES, made quite a presentation on Research Needs in Relation to Extension's Affirmative Action Program. You will find attached to the ARPAC minutes a list of suggested research topics which Ed handed out. He made a plea that Extension needs research on these.
- 4) Consideration was given to the membership on ARPAC. Director Frevert's interpretation is that Ned Bayley would like to have the Committee include Extension and perhaps Instruction, as well as Experiment Station representation. Also the question of minority representation on ARPAC is being considered. A subcommittee will make specific recommendations following which action, if any, will be taken.
- 5) One report that is of special interest is the Pound Committee Report. This is a report of a committee of scientists named by the National Academy of Sciences. A subcommittee was appointed to review this report and their review was quite critical. ARPAC deliberated as to whether or not to accept it as ARPAC action.

Finally, ARPAC passed a motion to the effect that ARPF be asked to select the positive things in the Pound Report and recommend that they be implemented.

#### 15.0 WAERC Report - C. P. Wilson

WAERC has not met since our last meeting. Director Wilson reported that he had talked with the Chairman of WAERC and told him that Western Directors are considering additional support for the DAL for regional and national planning. Although this is only being considered, Western Directors might give higher priority to this function than to the continued support of a secretary for WAERC, particularly since WAERC no longer plays the role of developing regional projects and coming up with research ideas. This has been transferred to the regional and national planning process. Director Wilson received a carbon copy of a letter from the Chairman of WAERC to ERS, which supplies the other part of the support for the WAERC secretary, suggesting

that he hoped ERS would continue their support of their portion of O. Wendell Holmes' salary for the secretarial duties of WAERC.

Director Wilson stated that the preceding is for information and perhaps prior thinking for discussions at the forthcoming Spring Meeting of Western Directors.

#### 16.0 WSWRC Report - Frevert

The Executive Committee of WSWRC met in San Francisco, October 9, 1972. The minutes have been distributed. At the summer meeting, Director Frevert reported that WSWRC recommended that the biennial salinity conference be reinstated. The Executive Committee reaffirmed this action. Director Frevert has followed up on this item and has visited with and written to Dr. Rex Thomas. He reported that they have asked Parker Pratt who is right on the scene and Jan Schilfgaarde, Director of the Salinity Laboratory, to come up with specific recommendations as to how this can be done.

On behalf of the Executive Committee of WSWRC, Director Frevert submitted to RRC a proposed regional research project, "Salinity Management in the Colorado River Basin."

#### 17.0 WHERAC Report - Leyendecker

There was no report of WHERAC.

#### 19.0 Joint Meeting with Extension Directors - C. P. Wilson

Director Wilson solicited suggestions from Western Directors of items for the agenda. He noted that the joint meeting will be held in California, March 6, 1973.

Discussion suggested the following items to be considered for the agenda:

- 1) Western Region Rural Development Center and Rural Development Act of 1972.
- 2) "Who Controls U.S. Agriculture?"  
(With the Western Directors' concurrence, Directors Day and Alcorn will firm up arrangements to invite Don Paarlberg and Eric Thor to discuss this item.)



- 3) Improved coordination at the CSRS-ES, federal level of reporting, programming and planning of research and extension matters and especially as they pertain to cooperation with the states.

- 4) Environment

20.0 Advisory Committee for Procedures and Policies for the Allocation of Funds Under P.L. 89-106 - Buchanan

Director Buchanan reported that at the request of Chairman Wilson he attended a meeting on September 19, 1972 of this committee as a substitute for Dr. Rue Jensen. CSRS has since sent CSRS-SL-2492(5) dated October 5 on the subject, 1973 Grants Under P.L. 89-106. CSRS' communication took cognizance of the recommendations of the advisory committee. A copy of the minutes of the meeting of the advisory group is available for anyone interested.

Dr. Ronningen said that if two or more states wish to get together on proposals this is quite appropriate.

Director J. P. Jordan inquired about the availability of extramural funds. Director Buchanan cited the solid waste disposal regional project of the West and North Central regions and possible EPA support. Dr. Ronningen spoke to Hatch and other CSRS controlled funding; and Dr. Thomas spoke to ARS extramural support. For both CSRS and ARS the extramural support is open and competitive. For ARS, which has an "in-house" research program, much of the extramural support is dependent on short-run comparisons of "in-house" versus "out-house" activities. The tendency in ARS is to make extramural support temporary and to move toward support of "in-house" activities.

21.0 W-106 Funds - C. P. Wilson

This item was deferred to the Spring 1973 meeting. Director Wood, incoming Chairman of Western Directors, will convene the Executive Committee to discuss this item prior to the Spring Meeting.

22.0 Evaluation of Public Support for Agricultural Research in the Western Region - Wood

About every two years the Oregon Station sponsors a series of personal interviews to evaluate the attitude

of people in Oregon toward agricultural research and other activities of the University. The surveys are made by a firm in Portland. This is done for internal planning and management.

Director Wood stated that this program has been extremely helpful to them. It has shown shifts in attitudes including changes, as Congressional Districts has been changed, in peoples' estimates of the importance of teaching, research and extension. The last survey included questions on peoples' concern regarding environmental matters, protection of natural resources, improved consumer welfare and other issues. From this information, improved assessment of priorities may be possible. If the group desires, Oregon would help one or more other states in similar studies.

Discussion suggested that this might be a good area for regional research project development.

Chairman Wilson requested that this item be placed on the Spring 1973 agenda, either for the joint meeting with Extension Directors or for the Station Directors' meeting.

#### 23.0 Tropical Agriculture Research and Training Centers - C. P. Wilson

As was reported at the Summer 1972 meeting, there was a proposal to fund Section 406 of the Food for Peace Act Authorization of 1966 to conduct research on tropical food production. The funding was approved at the level of \$500,000. It began with a request at the level of \$3.1 million and ended with \$500,000 actually appropriated with the charge to ARS to develop a plan to present to the next session of Congress for the full development of research and training centers in tropical agriculture. The general idea was to have a center in Puerto Rico, a center in Hawaii, and a grant fund for other universities who would be interested in pursuing studies on tropical food production. Congress has appropriated the \$500,000 but it has not been released by OMB.

#### 24.0 The Rural Development Act of 1972 - C. P. Wilson

The purpose of the Act (Title V) as stated is:

- (a) to provide the best available scientific, technical, economic, organizational, environmental and management information

that is useful;

- (b) to provide research and investigations in all fields that have as their purpose the development of useful knowledge and information to assist those planning, carrying out, managing or investing in facilities, services, businesses, or other enterprises, public and private, that may contribute to rural development;
- (c) to enhance the capabilities of universities and colleges to perform the vital public service roles of research, transfer and practical application of knowledge in support of rural development;
- (d) to expand research in innovative approaches to small farm management and technology and extend training and technical assistance to small farmers so that they may fully utilize the best available knowledge on sound economic approaches to small farm operations.

There are three programs involved: (1) Rural Development Extension Program; (2) Rural Development Research Program; and (3) Small Farm Extension, Research and Development Program.

Payment of funds to any state for programs authorized under this section shall be contingent upon the Secretary's approval of an annual plan and budget. Funds provided to each state under the title may be used to finance programs through or at private and publicly supported colleges and universities other than the university responsible for administering the programs authorized by this title. To assure national coordination with programs under the Smith-Lever Act and the Hatch Act, administration of each state program shall be a responsibility of the institution accepting the benefits of the Morrill Act of 1862. Such administration shall be in association with the programs conducted under the Smith-Lever Act and the Hatch Act. The Secretary shall pay funds available to each state to said institution or university.

Officials at universities or colleges other than those responsible for administering programs authorized by this title shall submit program proposals to the university officials responsible for administering these programs and they shall be responsible for approval of

said proposals. The university that is responsible shall designate an official who shall be responsible for programs authorized by each part of section 502 and an official who shall be responsible for the overall coordination of said programs. The chief administrative officer of the university in each state administering the program shall appoint a State Rural Development Advisory Council. The administrative head of agriculture at that university shall serve as chairman. The Advisory Council shall consist of not more than 15 and not less than 12 members. It shall include, in addition to the administrative head of agriculture, the dean of engineering, representatives of farmers, business, labor, banking, local government, multicounty planning and development districts, public and private colleges and Federal and state agencies.

Each state program must include research and extension activities directed towards identification of programs which are likely to have the greatest impact upon accomplishing the objectives of rural development in both the short and longer term and the use of these studies to support the state's comprehensive program to be supported under this title.

The Act has been approved by Congress and it will be implemented when funds are available. Funds may be available as of July 1, 1973, or before, if supplemental or carry-over funds are available.

Director Wood emphasized that this is a very important piece of legislation. It was agreed that a special meeting should be called to consider the legislation not only with respect to Title V but as it relates to the entire Act. This Act is of such urgency that the need to develop guidelines to implement this Act, not to mention the need to resolve many of the questions and issues concerning the Act, is imperative in the immediate future.

At the Division meeting, November 14, 1972, the Division took action to make the Ad Hoc Committee on Rural Development a Standing Committee.

Dr. Kendrick reported that he is the Chairman of the Division of Agriculture for 1973, and therefore charged with the responsibility of getting the Rural Development Act into permanent status. He suggested that perhaps the Advisory Committee of the Western Region Area Development Research Center with some augmentation

of the representatives, ought to be the focal point for beginning discussions. Dr. Kendrick urged that a meeting be called to consider this Act, and that we invite the Administrative Head, who will be heading this program and will be in charge of Title V funds, to give us some guidelines on Title V of this Act. We need to realize that this program must include both experiment station and extension to be effective. This is only a three-year program with not too much capital, so we need to get started in order to make some major contributions. This program was given to the Land Grant Institutions with some degree of reluctance by the Congress for the reason that they were not totally convinced that the Land Grant Institutions could deliver on this particular issue. Suffice it to say that it is of absolute necessity that we begin planning immediately.

Director Nielson stated that we need to identify urgent problems and do something rather significant. If we could do something significant, there are people at the national level who feel that it could well be followed by a more permanent appropriation of several hundred million dollars per year. So the stakes are rather high.

Director Nielson was appointed to a Subcommittee of ESCOP on Rural Development Research and stated that he would like to have as much input from the Western Directors as possible prior to the meeting of the Subcommittee.

Director Wood reported that at the ESCOP Legislative Subcommittee meeting, concern was expressed that the newly constituted Subcommittee on Rural Development Research would not have membership in the Standing Committee on Rural Development of the Division. He suggested that if Directors are to be represented in the Standing Committee, the representative from the West should be the individual who serves on the ESCOP Subcommittee, which is Jim Nielson. Director Wood expressed the opinion that there could be real advantage to locking the ESCOP Rural Development Subcommittee with the Standing Committee of the Division.

Considerable discussion was devoted to the role of the Secretary and USDA in general regarding the Act. It was apparent that definite procedures are as yet to be defined. Dr. Ronningen cautioned that we must keep in mind that Title V is only a minor portion of the Act.

We need to be prepared to answer what we can contribute to the total Act, not just Title V.

Following further discussion, Director Wood moved, seconded by Director Frevert, that the Western Directors authorize their Executive Committee to convene a meeting within the near future with the Executive Committee of the Western Extension Directors, appropriate Administrative Heads and such others as may be desirable to consider the recommendations of the Western Region to the Standing Committee of the Division with regards to the implementation of the Rural Development Act and especially with reference to Title V. MOTION CARRIED.

25.0 Executive Vice-Chairman of ESCOP - Wood

(See item 9.4 of WD Summer 1972 Minutes regarding previous recommendations and actions.)

Director Wood reported that this item was considered at length during the meeting of ESCOP. The consensus, also expressed by incoming Chairman Whatley, was that it would be impossible for the Chairman to function effectively without continuing staff assistance of the kind furnished by Browning during the past year. It was also the consensus that no Regional Director can continue to function in this capacity and still do justice to his region.

ESCOP has approved in principle the concept of a full-time, paid, Executive Vice-Chairman of ESCOP and recommended that the regional associations approve the Resolution submitted by Chairman Beattie October 10, 1972. If the Resolution is approved, the Executive Committee of ESCOP is to implement the program on a full-time basis.

Director Wood moved, seconded by Director Nielson, that Western Directors approve the draft resolution submitted by Chairman Beattie with the understanding that the position is to be activated only if the conditions in the resolution are fulfilled. MOTION CARRIED.

(A copy of the draft resolution follows.)

DRAFT OF PROPOSAL TO ESTABLISH A FULL-TIME  
POSITION AND OFFICE OF EXECUTIVE VICE-CHAIRMAN OF ESCOP

In 1971 the four regional associations of Experiment Station Directors authorized by appropriate resolutions the establishment of and support for a new position of Executive Vice-Chairman of ESCOP, who in turn is responsible to ESCOP through its Chairman. This assignment has since been filled, on essentially a full-time basis, by the Regional Director from the North Central region who has made an outstanding contribution to the state agricultural experiment station organizations.

The requirements and potential accomplishments of this office of Executive Vice-Chairman of ESCOP have been so great that it is no longer manageable for one person to serve effectively both as Executive Vice-Chairman of ESCOP and as a Regional Director for a region. It is the judgment of a special ESCOP subcommittee appointed in September 1972 by the Chairman of ESCOP that a fifth director position needs to be established to serve full-time as Executive Vice-Chairman of ESCOP. This Position and Office will be an extension of the offices and services of the Regional Director, Regional Coordinator and Directors-at-Large. As such it will also meet the needs recently envisaged for an Executive Director, Washington, D.C.

Therefore, be it resolved that

1. The (Northeast, North Central, Southern, Western) Association of Agricultural Experiment Station Directors recognize and endorse the concept of a full-time Executive Vice-Chairman of ESCOP and Office to be located in the Washington, D.C. area;
2. Financial support for the Executive Vice-Chairman and Office shall be provided by increasing the contributions of each SAES to the Offices of the Regional Director, Regional Coordinator and Directors-at-Large in proportion to the distribution of Hatch formula funds;
3. The selection of the person to fill the full-time position of Executive Vice-Chairman of ESCOP shall be made by ESCOP. The person and Office shall be responsible to ESCOP through its Chairman;
4. Arrangements shall be made by ESCOP through its Chairman for the selection and establishment of an appropriate office location in the Washington, D.C. area and with an appropriate host institution to handle salary payments, retirement benefits and the like for the Executive Vice-Chairman and staff and to supply other support services to the Office; and

5. The Colleges of 1890 and Tuskegee and ASCUFRO shall be encouraged to participate in and to support the Executive Vice-Chairman and Office through an appropriate arrangement to be negotiated by ESCOP through its Chairman.
6. This plan is to be activated, provided that
  - a. States representing 75 percent or more of the Hatch formula funds vote favorably, and
  - b. The plan is ratified by ESCOP and by the four regional associations of SAES.



# APPENDIX 7.0

Administrator  
Associate Administrator

Deputy Administrator  
-Program Operations  
and Evaluation

Deputy Administrator  
-Program Planning and  
Development Assistance  
Natural Resources and  
Special Programs

Deputy Administrator  
-Program Planning and  
Development Assistance  
Agriculture, Rural  
Development, Family  
and Consumer Services  
Programs

Assistant Administrator  
-Scientific Staff  
Services

Operations and  
Management  
Evaluation and  
Analysis

Departmental Services  
Administrative  
Services

Natural Resources  
Program  
Special Programs

Agricultural Program  
Family and Consumer  
Services Program  
Rural Development  
Program  
Regional Research  
Program

Regional-National  
Planning Staff  
Scientific Services  
Staff

CSRS-OD-1088  
NOVEMBER 1972

## APPENDIX 7.0(a)

UNITED STATES DEPARTMENT OF AGRICULTURE  
Cooperative State Research Service

FISCAL YEAR 1973 - Distribution of Funds to State Agricultural  
Experiment Stations Authorized Under the Hatch Act,  
as Amended, August 11, 1955

State	Hatch Act, as Amended		Marketing Research Requirement
	Regular Formula Funds	Regional Research Funds	
	(1)	(2)	(3)
ALABAMA .....	\$ 1,399,506	\$ 297,114	\$ 305,422
ALASKA .....	369,354	47,135	64,949
ARIZONA .....	494,777	289,506	137,995
ARKANSAS .....	1,160,076	251,630	252,594
CALIFORNIA .....	1,421,635	524,741	349,166
COLORADO .....	630,734	394,533	185,891
CONNECTICUT:			
State .....	268,985	42,118	51,235
Storrs .....	268,986	151,515	73,581
DELAWARE .....	396,096	152,074	91,403
FLORIDA .....	850,409	170,978	177,680
GEORGIA .....	1,486,733	380,280	324,581
HAWAII .....	419,860	154,259	94,328
IDAHO .....	577,617	235,788	144,307
ILLINOIS .....	1,582,807	354,488	354,058
INDIANA .....	1,410,731	329,117	311,744
IOWA .....	1,446,544	489,427	335,693
KANSAS .....	969,446	283,287	225,528
KENTUCKY .....	1,564,058	313,482	340,688
LOUISIANA .....	1,050,602	223,187	225,917
MAINE .....	551,933	207,515	130,749
MARYLAND .....	721,853	245,029	169,631
MASSACHUSETTS .....	646,777	246,902	154,960
MICHIGAN .....	1,496,516	281,554	322,430
MINNESOTA .....	1,379,036	306,902	309,454
MISSISSIPPI .....	1,474,536	304,241	323,553
MISSOURI .....	1,433,463	296,335	315,948
MONTANA .....	550,515	276,097	144,761
NEBRASKA .....	876,120	307,862	208,051
NEVADA .....	363,774	149,555	84,792
NEW HAMPSHIRE .....	437,962	153,540	99,000
NEW JERSEY .....	627,182	357,437	159,048
NEW MEXICO .....	515,577	157,928	115,304

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State	Hatch Act, as Amended		Marketing Research Requirement
	Regular Formula Funds	Regional Research Funds	
	(1)	(2)	(3)
NEW YORK			
Cornell .....	\$ 1,347,333	\$ 376,859	\$ 311,460
State .....	149,704	175,750	51,865
NORTH CAROLINA .....	2,161,117	416,683	472,989
NORTH DAKOTA .....	682,729	237,358	163,695
OHIO .....	1,764,059	308,363	376,624
OKLAHOMA .....	995,291	214,229	212,403
OREGON .....	718,335	390,107	199,878
PENNSYLVANIA .....	1,845,468	424,988	407,719
PUERTO RICO .....	1,558,843	291,249	340,535
RHODE ISLAND .....	374,028	162,952	89,176
SOUTH CAROLINA .....	1,211,040	247,121	261,474
SOUTH DAKOTA .....	683,436	241,368	164,720
TENNESSEE .....	1,593,330	313,427	346,748
TEXAS .....	2,042,007	417,318	446,243
UTAH .....	459,406	286,523	131,242
VERMONT .....	466,068	126,398	98,717
VIRGINIA .....	1,387,439	277,891	298,988
WASHINGTON .....	819,084	479,071	209,222
WEST VIRGINIA .....	938,374	193,166	196,373
WISCONSIN .....	1,394,598	343,153	308,511
WYOMING .....	420,363	224,233	112,239
Subtotal	\$ 51,856,252	\$ 14,523,763	\$ 11,785,262
GUAM	303,009	-----	40,602
VIRGIN ISLANDS	299,087	-----	39,817
Subtotal	\$ 52,458,348	\$ 14,523,763	\$ 11,865,681
Committee of Nine	-----	22,300	-----
GRAND TOTAL	\$67,004,411		\$ 11,865,681*

\*The total marketing research requirement to be met on a National basis.

52% of the 1973 increase of \$3,710,000 distributed on the basis of the 1970 Census.

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October 1972

UNITED STATES DEPARTMENT OF AGRICULTURE  
Cooperative State Research Service

FISCAL YEAR 1973 - Distribution of Funds to Eligible State  
Institutions or Institutional Units Authorized Under the  
Cooperative Forestry Research (McIntire-Stennis) Act,  
October 10, 1962 - \$4,944,000

Location and Recipient	
ALABAMA, Auburn - Auburn University .....	\$ 156,937
ALASKA, Fairbanks - University of Alaska .....	84,719
ARIZONA, Flagstaff - Northern Arizona University .....	33,332
ARIZONA, Tucson - University of Arizona .....	33,332
ARKANSAS, Fayetteville - Agricultural Experiment Station of University of Arkansas .....	144,901
CALIFORNIA, Arcata - California State University, Humboldt .....	16,296
CALIFORNIA, Berkeley - University of California .....	146,660
COLORADO, Fort Collins - Colorado State University ....	96,755
CONNECTICUT, New Haven - The Connecticut Agricultural Experiment Station .....	43,227
CONNECTICUT, Storrs - Storrs Agricultural Experiment Station .....	14,409
DELAWARE, Newark - University of Delaware, College of Agricultural Sciences and Agricultural Experiment Station .....	30,555
FLORIDA, Gainesville - Agricultural Experiment Station, University of Florida .....	141,892
GEORGIA, Athens - School of Forest Resources, University of Georgia .....	165,964
GUAM, Agana - The University of Guam .....	18,518
HAWAII, Honolulu - University of Hawaii .....	42,591
IDAHO, Moscow - University of Idaho .....	105,782
ILLINOIS, Carbondale - Southern Illinois University ...	43,864
ILLINOIS, Urbana - University of Illinois .....	43,864
INDIANA, Lafayette - Purdue University .....	90,737
IOWA, Ames - Agriculture and Home Economics Experiment Station of Iowa State University .....	69,673
KANSAS, Manhattan - Kansas State University .....	45,600
KENTUCKY, Lexington - Agricultural Experiment Station of University of Kentucky .....	99,764
LOUISIANA, Baton Rouge - Louisiana State University School of Forestry and Wildlife Management .....	103,537
LOUISIANA, Ruston - School of Forestry, Louisiana Tech University .....	44,373
MAINE, Orono - University of Maine .....	138,883
MARYLAND, College Park - University of Maryland .....	72,682
MASSACHUSETTS, Amherst - University of Massachusetts ..	63,655

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Location and Recipient	
MICHIGAN, Ann Arbor - University of Michigan .....	\$ 53,146
MICHIGAN, East Lansing - Michigan State University ....	53,146
MICHIGAN, Houghton - Michigan Technological University .....	26,573
MINNESOTA, St. Paul - University of Minnesota .....	123,837
MISSISSIPPI, Mississippi State - Mississippi State University .....	150,919
MISSOURI, Columbia - School of Forestry, University of Missouri .....	114,810
MONTANA, Missoula - Forest and Conservation Experiment Station, School of Forestry, University of Montana .....	108,792
NEBRASKA, Lincoln - University of Nebraska .....	39,582
NEVADA, Reno - University of Nevada, Max C. Fleischmann College of Agriculture .....	33,564
NEW HAMPSHIRE, Durham - University of New Hampshire ...	78,700
NEW JERSEY, New Brunswick - Agricultural Experiment Station of Rutgers, The State University of New Jersey .....	51,618
NEW MEXICO, University Park - New Mexico State University .....	54,628
NEW YORK, Ithaca - New York State College of Agriculture and Life Sciences at Cornell University .....	38,482
NEW YORK, Syracuse - State University of New York, College of Environmental Science and Forestry ...	115,446
NORTH CAROLINA, Raleigh - North Carolina State University .....	159,945
NORTH DAKOTA, Fargo - North Dakota State University of Agriculture and Applied Science .....	21,527
OHIO, Wooster - Ohio Agricultural Research and Development Center .....	93,746
OKLAHOMA, Stillwater - Oklahoma State University .....	81,710
OREGON, Corvallis - Oregon State University .....	171,982
PENNSYLVANIA, University Park - Agricultural Experiment Station of Pennsylvania State University .....	126,846
RHODE ISLAND, Kingston - University of Rhode Island ...	27,546
SOUTH CAROLINA, Clemson - College of Forest and Recreation Resources of Clemson University .....	129,855
SOUTH DAKOTA, Brookings - South Dakota State University .....	36,573
TENNESSEE, Knoxville - University of Tennessee .....	111,801
TEXAS, College Station - Texas Agricultural Experiment Station of Texas A&M University and Texas A&M University .....	60,414
TEXAS, Nacogdoches - Stephen F. Austin State University .....	60,414

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Location and Recipient	Amount
UTAH, Logan - Utah State Agricultural Experiment Station .....	\$ 60,646
VERMONT, Burlington - Vermont Agricultural Experiment Station .....	75,691
VIRGINIA, Blacksburg - Virginia Polytechnic Institute and State University .....	135,874
VIRGIN ISLANDS, St. Johns - The College of the Virgin Islands .....	15,510
WASHINGTON, Pullman - Washington State University .....	76,038
WASHINGTON, Seattle - University of Washington .....	92,936
WEST VIRGINIA, Morgantown - West Virginia University ..	102,773
WISCONSIN, Madison - Agricultural Experiment Station of University of Wisconsin .....	117,819
WYOMING, Laramie - University of Wyoming .....	48,609
GRAND TOTAL	\$4,944,000

Puerto Rico is not participating in the McIntire-Stennis Program in 1973.

## APPENDIX 10.0

## REGIONAL RESEARCH COMMITTEE REPORT

Western Association  
of Agricultural Experiment Station Directors

Statler-Hilton Hotel  
Washington, D.C.

November 13, 1972

## Present:

Members:	New Mexico	- M. L. Wilson, Chairman
	California	- B. E. Day
	Utah	- C. E. Clark, Alternate
	Colorado	- D. D. Johnson, Incoming Alternate
Others:	WDAL	- M. T. Buchanan
		- Nancy Raphael
	CSRS	- T. S. Ronningen
	WD Chairman	- C. P. Wilson

Chairman M. L. Wilson called the meeting to order at 11:00 a.m. November 13, 1972. The following items were considered by RRC:

## 10.1 Salinity Management in the Colorado River Basin

A proposed regional research project bearing the above title was received from Director R. K. Frevert of Arizona on behalf of the Executive Committee of the Western Soil and Water Research Committee.

Director Frevert appeared before the committee to discuss the proposed project.

RRC recognizes that this is an urgent and pressing problem in the Colorado River Basin states. RRC recommends approval of this project with Director R. K. Frevert of Arizona as Administrative Advisor. The project is to be effective July 1, 1973.

(Action of Western Directors: PASSED.)

## 10.2 Revision of W-102

A request for the revision of W-102, Biological Method of Control for Internal Parasites of Livestock, was received from Administrative Advisor Rue Jensen of Colorado. This project is due to terminate on June 30, 1973.

RRC recommends the extension of W-102 for two years with the option to revise within the same time period.

(Action of Western Directors: PASSED.)

## 10.3 Poultry Production and Environmental Quality

A resolution adopted by WRCC-3, Research on Influence of Environment on Poultry, was received from Administrative Advisor C. E. Clark of Utah.

The Western Regional Task Force on Poultry recommended as first priority the area of Interrelationships of nutrition, environment and disease in the prevention of losses in poultry.

RRC recommends the establishment of an ad hoc technical committee to develop a regional research project proposal in the area of Poultry Production and Environmental Quality with Director R. E. Moreng of Colorado as Administrative Advisor. The project is to be effective July 1, 1973. (WRCC-3 will be terminated June 30, 1973.)

(Action of Western Directors: PASSED.)

## 10.4 Extension of WRCC-1

A request for the extension of WRCC-1, Beef Cattle Breeding, was received from Administrative Advisor M. J. Burris of Montana. Director Burris appeared before RRC to discuss this item.

RRC recommends the extension of WRCC-1 for an additional three year period, July 1, 1973 to June 30, 1976.

(Action of Western Directors: PASSED.)



#### 10.5 Statistical Analysis System: Development and Maintenance

A proposed Interregional Project bearing the above title was received from Director C. T. Wilson of Virginia who has served as Directors' Representative to a work group composed of Agricultural Experiment Station Statisticians in the Southern Region. This group, at its last meeting, decided to propose an interregional project on the development and maintenance of a statistical analysis system which would be oriented toward the needs of SAES scientists. Off-the-top, national Regional Research Funds in the amount of \$75,000 is suggested.

RRC recommends (1) that this program be commended to the separate states of the Western Region, and (2) that off-the-top funding be deferred for future consideration.

(Action of Western Directors: PASSED.)

#### 10.6 Reports of Status of Western Regional Research Projects

During the past two years Nancy Raphael has prepared and distributed a summary of W-; WM-; IR- and WRCC- projects within the Western Region. This report has been helpful to RRC in its deliberations to date; it has been useful also in answering numerous questions pertaining to the RRF program. With the new policy and procedures adopted at the July 1972 meeting of Western Directors which entail an annual review of all projects such a compendium becomes a necessity. RRC commends the Recording Secretary for developing the original format and publication and requests that the procedure be continued. A suggested format for your response will be forthcoming from the Recording Secretary. You will be asked to list the projects in which your station will be active during the coming fiscal year, the state number and the project leader(s) for each. RRC urges your full cooperation in this essential effort.

#### 10.7 Following the formal report of RRC, questions arose pertaining to the changed functions of RRC. In answer to the question, how do the present procedures differ from former procedures, Director M. L. Wilson stated that RRC no longer reviews project outlines following the establishment of ad hoc technical committees. It is the responsibility of the Administrative Advisor

to see that the outline is in good shape and ready to go. The outline is to be submitted to the Administrator of CSRS for Committee of Nine attention with copies to all Directors. RRC will recommend areas of high priority research and appoint the Administrative Advisors. RRC also shall review annually all existing projects.

In response to a question concerning RRC'S role in regional and national planning, it was pointed out that members of RRC including its alternate are members of the Western Regional Planning Committee. Through this channel and with RRC'S reviews and priority listings, information will be obtained that will be helpful in making recommendations to the Western Directors for high priority areas for regional research.

There was also discussion of the alternate procedure to initiate regional research projects. Dr. Ronningen explained that this procedure was adopted in the spirit of exceptional need, say between two states, rather than as a general rule. Under this procedure, it is no longer absolutely necessary that Directors forward project proposals to RRC for review. However, it is by gentlemen's agreement that Western Directors do so if the projects are in areas other than those recommended by RRC as high priority areas for regional research.

#### 10.8 Proposed Role and Scope of IR-4

Chairman C. P. Wilson reported that he had received a communication from Director Rasmussen regarding an addendum to IR-4, Chemical for Minor Uses on Agricultural Products. (See item 14.1, page 20-22 of the WD Summer 1972 Minutes for details of the proposal.) At the summer meeting Western Directors approved tentatively the addition of another professional staff member along with a budget increase of \$30,000 per year to be taken off-the-top nationally. Director Rasmussen is requesting final approval.

Chairman Wilson quoted the following from the proposed addendum:

- "1. Expand IR-4 to include one additional full-time coordinator whose responsibility it would be to assist with the backlog of clearance needs. He would give leadership to clearance of additional pesticides not now handled as described in item 2 below. He would obtain detailed information

of available state and federal residue laboratories and coordinate needed research through them. He could initiate a program to aid in securing additional private support for performance in residue research, and assist in development of a computerized system of handling IR-4 information responsibilities.

All of the above, most of which is new and adds to effort not now handled by IR-4 due to lack of personnel, will be done in cooperation with the present two IR-4 coordinators.

2. Broaden the responsibility of the project from 'minor crops and minor uses of pesticides,' to include responsibility for any agricultural clearances required by law. Thus the project will include work on any and all combinations of chemicals and agricultural commodities requiring official clearance. The chemicals will include all the various pesticides (fungicides, insecticides, herbicides, miticides, and nematocides, etc.) and also growth regulators, repellents, biologicals, etc. The main emphasis of the project will continue to be on specialty crops, but will permit better coordination with the industry efforts on major crops. The project will continue to deal with clearances in which industry had no interest and with those primarily of public interest and need. However, this redefinition of responsibilities will permit a much more orderly and effective execution of the project and provide more workable guidelines for the coordinators."

Director D. D. Johnson moved that the Western Directors approve the addendum to IR-4. The motion was seconded.

Director Day reported that Dr. Riley of CSRS is in the process of assembling a nationwide meeting of the various regional residue study committees of which ours is the contributing project W-45. Mr. Alfred of EPA, in charge of registration, has stated in response to inquiries that they commit themselves and propose to rely more heavily on the opinions of SAES Directors as to what they register and what they do not register. Our primary vehicle should be IR-4. Our secondary vehicle should be the regional residue projects, to feed information into IR-4. The end product then would

be a kind of nationwide system of SAES' gathering of residue information and performance information funneling it through IR-4 and getting registrations through this route. Director Day urged the Western Directors to follow this route.

MOTION CARRIED.

## FDA Regulations In Plant Breeding<sup>1/</sup>

### Summary

The Federal Food and Drug Administration entered into regulating chemical changes resulting from breeding of food and feed crops on publication of the basic regulations in the FEDERAL REGISTER June 25, 1971. Although the procedural details for implementing the regulations apparently have not been published, the basic regulations apply to both toxicants and nutritive value of food and feed crops. Additional information that apparently has not been published in the FEDERAL REGISTER indicates that the analyses for both toxicants and nutritive value must be based on the "raw food" of the crop in question.

This report outlines the background of the regulations to the extent I know it, and discusses some reasons why I believe that regulations pertaining to nutritive value are not justified and why they will be ineffective.

I believe that progress from plant breeding is far too important to the future food supply of the human population to have it restricted by ineffective regulations. Everyone familiar with the past contributions of plant breeding, and its potential for contributions in the future, should be concerned about the regulations; and as citizens, we should oppose regulations that are not in the public interest.

### Background

The first indication I am aware of that the U.S. Food and Drug Administration was considering imposing regulations on chemical changes in plants resulting from breeding appeared in the Federal Register, December 8, 1970. This was an announcement of a study of the available safety information regarding each item on a list of items "generally recognized as safe", frequently referred to in abbreviated form as "GRAS". The stated purpose of the study was to "repromulgate each item in a new GRAS list or in a food additive regulation or in an interim food additive regulation pending completion of additional toxicity experiments." The announcement outlined a proposed revision of section 121.3 of the food additive regulations.

The proposed regulations deal with three classes of foods: (1) Substances considered as GRAS on the basis of existing information, (2) Substances considered as GRAS only after reviewing pertinent data on each one, and (3) Substances not eligible for GRAS status and requiring food additive regulations. The only reference to plant breeding appears in a listing of items under (2) and is as follows: "Foods that have had a significant alteration of composition by breeding or selection."

It should be noted that the definition of food in the Federal Food, Drug and Cosmetic Act includes "Articles used for food or drink for man or other animals". Thus the regulations apply to most of the commercial crops of the U.S.

The December, 1970, announcement allowed the usual 30 days for interested persons to file written comments on the proposed changes and this was subsequently extended an additional two weeks to January 22, 1971. A modified version of the proposed regulations became effective on publication in the Federal Register on June 25, 1971. Since the regulations are important to the rest of this report and to actions plant breeders might take in the future, the portion dealing specifically with breeding will be quoted in full. The class of substances under which the reference to breeding comes is as follows:

<sup>1/</sup> Prepared by H.W. Johnson, University of Minnesota, September 1972.

"Substances that will be affirmed as GRAS by the Commissioner after he has given notice in the FEDERAL REGISTER that the status of such substance (and limitations, if any) is under consideration, invited experts qualified by scientific training and experience to evaluate the safety of foods and food ingredients to submit comments, reviewed all available evidence and the comments received, and found convincing evidence of its general recognition of safety."

The specific reference to breeding is the second of four classes of substances listed under this general heading and is as follows:

"Substances that have had significant alteration of composition by breeding or selection and the change may reasonably be expected to alter to a significant degree the nutritive value or the concentration of toxic constituents therein."

The report of an ad hoc committee of individuals concerned about the regulations who met with FDA officials on May 20, 1971, was published in the July, 1971 issue of Agronomy News. The report indicates that FDA prefers that the interpretation of "significant alteration" and the decision on whether to report data to FDA remain with the breeder, and that the protocol for complying with the regulations is not clearly defined. However, the committee apparently believes that FDA will implement regulation of changes from breeding in some fashion and that the most effective way breeders can influence them is in the development of information needed to make the definition of "significant alteration" and the regulations as realistic as possible.

#### Comment

The information reviewed above may on the surface appear to be little cause for concern to plant breeders, but I believe that it is cause for great concern.

The history of most regulations is that they increase in complexity with time, and this appears to be happening to the regulations quoted above. The information that appeared in the Federal Register of both December 8, 1970, and June 25, 1971, presents the problem as one of deciding whether to continue a substance on the GRAS list, add it to the list, or classify it as one requiring food additive regulations, with the decision being based on an analysis of available information by FDA. "Any substance of natural biological origin that has been widely consumed for its nutrient properties in the United States prior to January 1, 1958, without detrimental effect when used under reasonably anticipated patterns of consumption" is considered as GRAS in the regulations without requiring additional supporting evidence. (The original announcement specified "---for at least 20 years prior to January 1, 1958---".) Thus, I believe that even a reasonable interpretation of the regulations suggests that most of our crop varieties should be added to the GRAS list. That they have been relegated to "substances requiring food additive regulations" is in itself cause for concern. The fact that an individual variety of wheat, for example, rather than wheat itself, is considered a "substance" also is cause for concern. Such a classification is of course necessary to prevent wheat from being added to the GRAS list under the condition quoted above. There is at best very limited evidence that a given variety of crop appearing since January, 1958, is more "detrimental" than varieties of that crop which existed prior to January 1, 1958. What then is the evidence that caused FDA to decide on the regulation route rather than the GRAS route which is clearly indicated for most crops by the

regulations themselves and by most of the data that could have been brought to bear on the decision? Only a biased interpretation of existing data could have prevented the classification of all varieties of most crop plants as GRAS, and I believe that this biased interpretation should be challenged.

A letter from an FDA official, dated November 10, 1971, to the organizer of the meeting reported in the July, 1971, Agronomy News contained an enclosure which appeared to be an FDA press release and referred to in the letter as "a suggested insertion for use in your bulletin." I assume therefore that there is no restriction on using the information from the "suggested insertion", and it is quoted below.

"FDA Requirements for Food Substances  
Altered by Breeding or Selection

The Food and Drug Administration has recently published the criteria by which they will judge the eligibility of any substance for classification as generally recognized as safe (GRAS). FDA says in this document that they will have to see evidence before they can affirm a substance as GRAS, where such substance has been altered in composition by breeding or selection. This means that before any new variety of food producing plant may be introduced into commerce with impunity, the food from the new variety should be tested for significant (20% or more) alterations in the values of nutrients for which the parent is a recognized good source, and for significant (10% or more) increases in concentrations of any toxicants known to be present in the parents.

The thrust of this requirement is that those new varieties showing the probability of commercial introduction will need to have the raw food produced therefrom analyzed for nutrient and toxicant changes and the results submitted to FDA prior to introducing the variety commercially.

FDA is in the process of preparing procedural regulations designed to explain in some detail the information to be submitted to FDA for affirmation of GRAS status."

I have not seen the procedural regulations referred to in the last paragraph and would appreciate receiving a copy from anyone who has.

Whereas the report in the July, 1971, Agronomy News suggested that FDA wished to follow a rather relaxed approach, leaving both interpretation and decision to the breeder, in November FDA was in the process of preparing procedural regulations in some detail. This rapid change in approach supports my earlier contention that the evolution of regulations is from the simple to the complex.

There are several aspects of the information quoted above which I believe supports the contention that the regulations should be revised.

The GRAS classification (generally recognized as safe) by definition relates to safety, and the equating of "nutritional value" to "safety" appears to be an unreasonable concept, and perhaps a new one. If this concept were applied to the regulations of other things, what would replace coca-cola, beer, bourbon, pretzels,

potato chips, and other similar essentials? In addition, the regulations applied to the "raw food" of crop plants are food additive regulations. The complex chemistry and natural biological variability of "raw food" of crop plants cannot be evaluated and monitored in the same fashion as a single chemical added as a preservative, or for whatever reason, to an individual food. Enforcement of the regulations will be very difficult and expensive; and even if the changes could be effectively monitored and regulated, what is the logic of regulating changes in nutritive value of the "raw food" of crops such as wheat when the nutritive value of bread and other things made from it is not regulated? The logic of regulating feed crops used in numerous combinations to balance rations of livestock is even less apparent.

Even if "alterations in the values of nutrients" should be regulated, how can they be defined and is a 20% alteration a reasonable level of permitted change? This aspect of the regulations would create an unlimited number of problems. Differences of 20% or more in the product of a given variety grown in different environments are not uncommon, and this variation alone would make it very difficult for a breeder to prove his variety and for FDA to disprove it. The obvious outcome - long-delayed decisions and many expensive chemical analyses and feeding trials.

The most restrictive aspect of the quoted information is that the analyses must be based on the "raw food". This makes the 10% change in toxicants significant even in crops in which the toxicants are destroyed or removed in processing. For example, soybean processing procedures are designed to deactivate with heat substances which would be defined as toxicants in the raw bean. Soybean breeders have not in the past been concerned with these substances but would be required to consider them in the future if the "raw food" aspect of the regulations is enforced. Similarly, the extensive processing and blending of wheat render the analysis of the "raw food" of one variety essentially meaningless. We obviously should support any reasonable approach that will reduce toxicants in food, but we should insist that the regulations not be applied without consideration of how the crop is processed and used.

#### Questions and Possible Consequences of Regulations

Plant breeders long have worked for improved quality in food and increased supplies of food. We obviously support the idea of increased nutritive value and reduced toxicants in food; however, the basic question is whether the FDA regulations are properly designed to effect these desired changes. I believe that they are not. I do not believe that the "study of the available safety information" nor the "additional toxicity experiments" promised in the initial announcement in the Federal Register have been done. If they have been, the results should be made public as justification for imposing the regulations. The regulations seem to have been imposed in spite of existing evidence, rather than because of it. This results in Federal regulations without demonstrated need.

The regulations would surely reduce breeding progress and would increase the cost of the progress that is made. Analyses for nutrient value and toxicants almost certainly will involve feeding trials, if other regulations can be used as an indicator. Thus "proving" a variety can be expected to require significant amounts of both time and money, and this will result in a reduction in plant breeding effort and progress. Such a reduction is not in the public good. In addition, individual and group food preferences, the multiplicity of foods and



the processing of many of them, the fortification and enrichment of foods, and food additives suggest that regulations of the nutritive value of individual raw food components will be of questionable consequence in "good nutrition" of the human population. The regulations applying to food for domestic animals will be even less effective, unless the grazing and feeding of animals are much more controlled than they normally are. The regulations also would reduce breeding progress by greatly complicating the introduction of crop varieties from other countries. An introduced variety of wheat or soybeans from Canada, for example, would have to be "proved" in the same fashion as others; and for public varieties at least, few if any U.S. experiment stations would be willing to finance the necessary analysis.

If the required analyses do involve significant amounts of time and money as I predict, they will almost force public agencies to generate income from their varieties via the Plant Protection Act. This in turn will result in a decrease in the exchange of germplasm and a further reduction in breeding progress.

As a minimum, we should insist on full public disclosure of the details of the regulations and enough time for the public to react to them. If FDA can prove the need for the regulations, we would have little argument against them. If, however, we accept the initial regulations in the absence of justification and without opposing them, what basis will we have for opposing the inevitable increase in their complexity? I believe that plant breeders should be willing to work closely with FDA in identifying those crops containing substances toxic to humans or other animals, and in developing appropriate regulations of such changes. However, they should insist that the regulations be applied to the products of the crop that are consumed, and not exclusively to the "raw food". I believe that the regulations of changes in nutritive value are rendered useless by food preferences and the variety of foods consumed by humans and by the balancing of rations fed to other animals. I do not believe that the regulations will contribute in any way to improved nutrition of humans or other animals, and I believe that they should be opposed for the good of the public because of the reductions in breeding progress they will cause.

Finally, I do not understand how the regulations are permitted under the Federal Food, Drug, and Cosmetic Act itself. Section 401 (page 14) of the 1971 Act gives the Secretary of the Department of Health, Education, and Welfare authority to establish a reasonable standard of identity and of quality of any food. However, the section contains the following: "Provided, That no definition and standard of identity and no standard of quality shall be established for fresh or dried fruits, fresh or dried vegetables, or butter, except that definitions and standards of identity may be established for avocados, cantaloupes, citrus fruits, and melons." The section also specifies that the standards for the excepted crops "shall relate only to maturity and to the effects of freezing".