MINUTES OF THE MEETING OF

THE WESTERN ASSOCIATION OF

AGRICULTURAL EXPERIMENT STATION DIRECTORS

Coeur d'Alene, Idaho

July 16-18, 1986

SUMMARY OF ACTIONS

July 16-18. 1986

Table of Contents

INDEX OF APPENDICES

JOINT MEETING OF
WESTERN ASSOCIATION OF AGRICULTURAL EXPERIMENT STATION DIRECTORS
AND WESTERN CAHA AND CARET ADMINISTRATORS

MINUTES

July 16-18. 1986
Coeur d'Alene Resort
Coeur d'Alene. Idaho

ATTENDANCE:

Alaska	S. Restad	Utah	D. J. Matthews
Arizona	L. W. Dewhirst		C. E. Clark
	G. W. Ware	Wyoming	L. A. Bulla
	K. E. Foster		C. C. Kaltenbach
California	C. E. Hess	Washington	J. J. Zuiches
	D. E. Schlegel		D. L. Oldenstadt
	S. D. Van Gundy	WDAL	L. L. Boyd
	W. W. Allen	OWDAL	H. A. Sykes
Colorado	R. D. Heil	ARS	W. H. Tallent
	H. F. McHugh		W. G. Chace, Jr.
	M. H. Niehaus		G. G. Still
Guam	R. Muniappan	CSRS	J. P. Jordan
Hawaii	N. P. Kefford		J. A. Naegele
Idaho	G. A. Lee	ERS	B. H. Robinson
	M. V. Wiese	FS	R. R. Bay
	R. C. Heimsch	CARET	W. Invertz (AZ)
	A. L. Branen		F. McConnell (CO)
Montana	J. R. Welsh		W. Fillmore (MT)
New Mexico	J. C. Owens		L. R. Monroe (UT)
	D. M. Briggs		J. L. McLain (NV)
Nevada	L. J. Koong		C. Tharp (NM)
Oregon	R. E. Witters		R. Joyce (OR)
	M. J. Woodburn		D. Fuller (WY)
	L. W. Martin	UAB	M. Tarkington
	V. Van Volk	IR-6	W. B. Sundquist (MN)
	B. A. Croft	Senate Bud. Com.	H. Braman

1.0 Call to Order

Chairman Clark called the meeting to order at 8:05am on Wednesday, July 16, 1986. He welcomed the attendees, particularly the CARET delegates.

2.0 Introductions and Announcements

Attendees introduced themselves.

M. V. Wiese, as arrangements coordinator, announced information about local arrangements.

3.0 Adoption of Agenda

It was moved and seconded to adopt the agenda as presented. MOTION CARRIED. A copy of the agenda is included as Appendix A, pp. 47-49.

4.0 Approval of Minutes of March 26, 1986 Meeting

A correction to the Minutes of the March 26, 1986 meeting is located on line 2, page 39 - "The **1987** Farm Bill has two new ....." should be corrected to "The **1985** Farm Bill has two new....."

It was moved and seconded to approve the minutes of the March 26, 1986 meeting as corrected. MOTION CARRIED.

5.0 CARET Activities

5.1 Review of CARET/CAHA Tuesday Meeting - L. A. Bulla

Bulla reported that CARET and CAHA had met separately and then jointly on Tuesday, July 15, 1986 with attendance of 75 percent of western CAHA representatives and 85 percent of western CARET delegates. He felt that this was an index of the interest and concern that the various states have for agriculture and how the land-grant system is responding to some of the problems, needs and opportunities of western agriculture.

A CAHA committee was appointed to investigate a joint session in 1987 of all administrators in agriculture of land-grant institutions with the Western Directors Association which would be followed by respective meetings of the Extension Directors, Experiment Station Directors, and Resident Instruction Directors. Western CAHA has sanctioned a meeting and is requesting the three components in the western colleges and universities to participate and support such a meeting.

The organization of CAHA is as follows: officers are elected for a two year period (the current term is from November 1985 to November 1987); consisting of a Chairman (L. A. Bulla), a Chair-elect (D. J. Matthews) who assumes the Chair at the end of the term of the Chairman; and a Secretary (J. R. Welsh) who moves into the Chair-elect position at the end of that term.

CAHA has identified three major areas to pursue: 1) input, and participation in national policy for agriculture, as well as for western regional policy; 2) to evaluate how CAHA and the WDA can provide leadership at regional and national levels; and 3) marketing the land-grant system by improving communications, both regionally and nationally.

One of the questions raised during the joint meeting of CAHA and CARET was how the land-grant system can have more influence, input and impact on national policy. The budget question that comes to fore each year is of importance and tremendous significance to the operation of the land-grant system. Some of the questions that CARET and CAHA discussed included the educational or communications topic on how we can better educate some of our non-elected, as well as elected officials who go to Washington, D.C. The other area, which is closely tied to the educational and communications effort has to do with better marketing of the concept of the land-grant system to the general populace. There are too many people who do not understand the land-grant system and what it has actually done for American society, as well as world society. There must be better communication and educational effort to some of our central university administrators.

Apathetic consumers need to be informed of what the land-grant system has done and what it can do for world society in the future.

Environmentalists are becoming much stronger. They are much more active and more vocal in the area of biotechnology as it relates to the release of genetically engineered organisms into the environment. This is a critical issue which is being debated in other countries such as Great Britain. CARET members, successful in their enterprises, have the touch and contact that is necessary and important in the general populace, as well as with farmers, ranchers and people who are in production agriculture. As a matter of fact, a heavy responsibility is laid upon the CARET membership-at-large by saying that maybe such contact can be part of the salvation of the land-grant system which CAHA believes is under serious attack.

In the plans to have a joint meeting next year, CARET has been asked to become an active participant in designing the program for the meeting. After the meeting, in which it is hoped that the key issues in western agriculture are identified, implementation of activities to develop a strong voice at the national level can be accomplished.

Some of the areas discussed which could be part of the program for a joint meeting are:

1. Federal budget - how can we have more input into the Joint Council?

2. Coordinated activities within the land-grant system to have more input into the COPs budget committees, particularly colleges of agriculture, home economics, and forestry that include and involve research, extension and resident instruction. What can be done to improve and enhance the relationship with the committees at the national level?

3. How can we improve the public image of the land-grant system?

4. How can we influence university administrators who are not trained in or from an agricultural orientation, either from practical agriculture or from an academic agricultural background? How can we improve our undergraduate enrollment?

5. How can we develop ourselves to be better administrators? Most of us were not trained to be administrators - we all came out of some academic orientation and experience. We don't have professional training that is important to being effective administrators. Maybe we, as administrators, need some education from other people, who know how better than we, to administer programs in agriculture.

6. Fund raising and development activities for universities. How do we go about tapping the private funds which are available for agriculture?

7. What function can CARET have, not only in the joint meeting, but in the general activities that it is hoped will be the future agenda for several years to come. CARET has a role now in developing the budget and they will continue to actively pursue this aspect of agriculture administration. They also can have a significant impact on how the land-grant system is viewed by the general public. CARET can also represent remote markets and educate better those people about the land-grant system, for they are important constituents and part of our clientele.

8. CARET could represent Western regional issues if organized as a regional organization, along with other administrators in the land-grant system.

One question that both CAHA and CARET have asked is critical: "What should the land-grant system be now and in the future?" If CAHA and CARET can't answer that question, we have identified one of the major problems for American agriculture.

5.2 CARET Guidelines -- Dick Joyce

Joyce identified CARET as being dedicated to the continuation and enhancement of the agriculture research, extension and teaching programs for the land-grant system, in order to achieve a better standard of living for all people. The CARET delegates are composed of representatives from each state and Puerto Rico. They are chosen by their respective land-grant universities to be representatives of their state's agriculture and land-grant program. They include agriculture producers, farm and commodity organization leaders, agri-business leaders, consumer representatives, homemakers, local officials, and members of land-grant advisory groups. CARET works

at the national level in presenting testimony in support of land-grant programs to congressional committees and executive agencies. CARET works with national agriculture organizations to tell the story and complement the effort through individual contacts with congressional delegations and national agricultural organizations, and at the state level assist wherever possible, particularly as it pertains to the federal budget process.

He presented the "Guidelines for States Recommended by CARET Strategic Planning Committee", included as Appendix B, pp. 50-52.

Kaltenbach indicated that the CARET "Guidelines" had been reviewed by the Division Board of Agriculture and endorsed them very strongly. One area of discussion was the Executive side of the budget. Historically, the response to the budget has been on the Legislative side, with some effect. However, by the time the budget reaches the Legislative side, it has already been chopped and efforts must be made to put it back together. The whole organization needs to see what can be done to keep the budget from being chopped up on the Executive side, which would make the work on the Legislative side much easier.

Joyce stated that many CARET members, who are producers, are concerned with individual commodities. Those CARET members who are involved with commodities that have national programs are really concerned because they are supported and/or worked with by the Federal government. One of the most difficult things for CARET members to do is to keep a focus on what they are doing as CARET representatives versus what is going on in their individual commodity, and in the legislation on what is going on with the budget as opposed to what is going on at the farm level. He advised the WDA to keep the CARET representatives up to speed as to the budget process. Otherwise, their natural focus is going to be where their pocketbook is.

6.0 <u>The Federal Budget Process, Gramm-Rudman-Hollings and Other Budget Issues</u>
-- Hal Braman

Braman, the Senior Advisor to the Chairman of the Domestic Budget in the Senate Budget Committee, reported that, beginning in 1987 and every year thereafter, the President is to send his budget to Congress the first Monday after January 3rd.

He reported on the total budget process. With a $2 trillion deficit, which is about 1/2 of the gross national product, the Federal government spends approximately $1 trillion a year. Of that $1 trillion, about 28.2 percent goes to defense, 46.2 percent goes to entitlement programs, 14.3 percent goes to debt service, leaving 11.3 percent for all other programs (national parks, the SAES system, water projects, FBI, drug enforcement, governmental salaries, etc.).

With the concern about the current deficit of approximately $220 billion for the current fiscal year, options for cutting the deficit must be explored. If the entire 11.3 percent for all other programs were cut, we would still be nearly $100 billion in deficit. The only answer to the problem is that the government will probably have to raise revenues.

Historically, the country pays 18-19 percent of our gross national product in taxes. The difference between the mid-50s and now is that in 1955 about one percent of the gross national product was taxes related to Social Security . In 1965, three percent of the gross national product went to Social Security and Medicare and by 1985, it was up to six percent. The entitlement programs will continue to grow as the Social Security system and the Medicare system take a larger and larger percentage of what we have to spend.

The Social Security system has had a tremendous beneficial effect for this country. In the 1950s, 25 percent of the senior citizens were at or below the poverty level of income. That percentage is now down to about 12.5 percent. The problem is that the portion of taxes for use in other programs is reduced also if the government continues to adhere to a no tax increase policy.

We, as a nation, have a major problem which is going to affect everything we do. It is how we relate the revenue income with what we spend, especially with the declining control that Congress and the President have over what we spend. One of the responses to this problem is the Gramm-Rudman-Hollings Bill. Copies of "Gramm-Rudman-Hollings and the Congressional Budget Process -- An Explanation," a 36 page publication printed for the use of the Committee on the Budget are available from the U.S. Government Printing Office.

The Gramm-Rudman-Hollings Bill was named for three Senators from Texas, New Hampshire and South Carolina. The bill was created as an automatic solution for balancing the budget. The process periodically requires the Congressional Budget Office and the Office of Management and Budget to meet and make a "snapshot" of the economy of the budget and report to the General Accounting Office. The General Accounting Office, if the budget target is not being met, determines how much must be cut to meet the target and reports to the President. The President then automatically cuts the budget.

The Supreme Court found that the interaction is an unconstitutional intrusion on the separation of powers because the Controller General is a product of Congress and cannot serve in an executive function by telling the President how much to cut the budget. Congress has developed a fail-safe system called a Temporary Joint Committee (TJC). The TJC is the entire Senate Budget Committee and the entire House Budget Committee. Theoretically, it has no alternative but to go back and look at the 4.3 percent cut made in domestic programs in March. They will then ratify that budget by sending a resolution to the Senate and House floors that will then be voted on. The resolution is then sent to the President, who will again reactivate the cuts.

The problem is, if Gramm-Rudman-Hollings falls apart, what alternative is there to reduce the deficit? Either we will have to cut programs or increase revenues. The TJC resolution that must be presented to the Senate and House floors is not amendable. However, a simple majority of the Senate and the House can overrule the requirement that the TJC resolution not be amendable which will then allow amendments to be made. One amendment will probably unravel the whole resolution.

The Director of OMB has estimated that the deficit for the current fiscal year was going to be $220 billion. He estimated that the deficit would be at least $154 billion for Fiscal Year 1987. The budget target for that year is $144 billion and, if the "snapshot" which happens in August shows that the deficit will be $10 billion over the target, the automatic procedure will be triggered. This will require significant cuts in the budget to bring it in line.

Somewhat unnoticed in the whole process, the Congress passed a budget which did call for meeting the Gramm-Rudman-Hollings target of $144 billion deficit in FY87. It actually beat that target by $1.5 billion. It set up a contingency fund of $4.8 billion for FY87 that indicated to the President and the Congress that there was authority to spend an additional $4.8 billion on other programs if a slight tax increase was approved.

The resolution that Congress adopted also called for reconciliation which involves another $8.5 billion in new revenues which Congress will have to enact before it is effective. Therefore, Congress will have to enact a reconciliation law that involves a number of changes in existing law to raise the $8.5 billion. They will have to deal with the fact that the Gramm-Rudman-Hollings Bill is no longer automatic. If something is done, Congress will be back to cutting programs and, if something is not done, the deficit will get bigger. Congress also has a debt ceiling and so, unless Congress does something about it, the country will run out of money. The bill that is passed to raise the debt ceiling is the bill to which people attach amendments that they can't put anywhere else. Some of the amendments will be an effort to get around the Gramm-Rudman-Hollings bill.

During the next months Congress has several tough issues to deal with. Some of them are: how to deal with the deficit, Supreme Court Justices to confirm, contra aid issues to deal with, etc. If not dealt with, the deficit situation will get worse. What we are creating is a situation where $200 billion is being added to the debts of our children every year and, in the long run, that is not a very good idea.

7.0 Cost/Benefits of Agricultural Research -- W. B. Sundquist

The report presented by Sundquist is attached as Appendix C, pp. 53-65.

8.0 Expert and Related Systems Research for Production Agriculture -- Brian Croft

Croft indicated that new developments in expert systems are refinements in using computers and systems tools in helping do better jobs of developing management systems.

Research is often oriented along discipline lines and often is not as well integrated as possible. One of the major objectives of systems research is to begin to tie things together so that our overall perspective improves. Farmers must deal with very complex inputs and factors that determine their productivity. Researchers need to broaden their perspectives and ability to integrate information and provide research that will help them.

At a recent crop productivity conference in Michigan, a group of scientists working on production systems research tried to define some of these things. Systems research is based on breaking complex phenomena down into subparts, studying them in isolation, and then putting them back together to see how they interact to affect the whole. Anything with two or more parts becomes a system.

It is very bold to talk about expert systems and artificial intelligence today because that's the current technology. The next new iteration might be wisdom systems. It is a particular point in time where we are applying better tools to how we use and organize information for agricultural management. Some of these terms are artificial intelligence, simulation modeling, expert systems, decision support systems. These are unique terms that computer scientists have developed to describe certain processes. We are now seeing their application in agriculture as they have penetrated business and many other activities of productivity.

It is also important to talk about a level of activity. Biologists organize things hierarchically from organ levels; from very minute levels to very large levels in the ecosphere. The focuses of regional activities are in areas of crop production, farm production, animal production, and natural resource management. The principles and the tools are equally applicable.

The slide presentation focused at the crop production level of the agriecosystem, which is the larger sphere of the natural environment and the production system itself. The crop production system includes: production inputs, e.g. tractors, water, heaters; the food production system itself; the actual inputs of solar energy and the harvesting and fertilization; the actual monitoring to maintain the sustainability of that system; the processing and storing; the marketing and distribution; and the consumption and reinvestment.

Crop productivity research is moving increasingly toward a more integrative science. Production systems must be created wherein the biotechnology of the future will find optimal expression. If biotechnology is not integrated carefully into crop production systems, we face a lot of problems. That is, in the same sense that pesticides might be viewed as magic tools that will help overcome problems, biotechnology must be put in context with production systems research.

In the area of computer decision aids, which is a subset of systems research, an evolution is taking place. About 10 years ago there was a tremendous effort in systems in simulation modeling and the use of quantitative information to help develop a better understanding of complex systems. The information accumulated was integrated with database information and a decision assist or support system was developed. There were still limitations. In many cases, knowledge cannot be distilled into quantitative expressions. New tools of artificial intelligence and expert systems that come from an area, which includes robotics, are seeking to combine the modeling, quantitative and predicting tools that have been developed with the ability to encode the expert's information into that system.

The descriptive model can be combined with economic variables obtained on value of crops and delivered to a producer that is influenced by decision inputs. The agriecosystem can be impacted, and what happens can be monitored biologically and environmentally.

An expert system is a computer program that rivals an expert's ability to solve complex problems. Within a limited domain, it uses artificial intelligence. Some of the most sophisticated expert systems are in medicine, mineral exploration, and computer problem diagnostics. The present expert systems have the ability to deal with data that have variable or unknown certainty. They begin to give ways to deal with things that are not certain. Most decisions made in agriculture or environmental management deal with things that are uncertain or a probability of a certain behavior. These are not decision making tools. They assist in making the decision. There is always the uncertainty factor that must be lived with. They have the ability to reach tentative conclusions when limited hard data are available and they have the ability to explain the reasoning process that leads to a given recommendation.

There are some commercially available expert systems in the same sense that we have database systems and wordprocessing systems. The expert systems are generic and can be applied to any problem. The problem is that they don't apply uniquely to some of the things that have to be dealt with. They contain components of databases, models, and simple rule relationships. The Oregon Agricultural Experiment Station is developing an expert system which allows an expert to modify the system based on how the user uses the system. The user may keep asking questions that the expert didn't anticipate and, due to the feedback between the user and the expert on system design, it allows for multiple expert input. The system

then looks at the information in a way that the decision maker can choose which option he wants to follow or reconcile multiple user input.

The structure of an expert system has a control program, which is determined by the expert. It sets out the logic of how a person would perceive through a decision process. It has options for alternatives. There is a decision rule generator that develops the rules for decision making. There is a knowledge base that the rule generator operates on which includes expert knowledge, modeling information, testing the historical records, data files, etc. The expert determines the chain of reasoning. There is an inference engine and a user interface that tells the inference engine how to do its thing. It acts, then, upon a knowledge base that has rules, facts and relationships between facts and has simulations, database managers and communications features.

Croft predicted that there will be a proliferation of development of expert systems broadly across agriculture during the next few years. Oregon State University is developing an expert system to help predict the risk of side effects of biologically engineered microbial pathogens. They are working with EPA on using the exact kind of technology to help estimate what the risk would be of introducing genetically engineered pathogens. The same kind of techniques and tools; models, database, expert components, and monitoring processes are part of the expert system.

Due to broad interest across the disciplines at Oregon State University, a systems related group has been organized and resources are being allocated for graduate assistantships and the actual employment of a few systems experts. Letters have also been sent to Directors of Agricultural Experiment Stations indicating that Oregon State University is interested in coordinating some activities in expert systems and the response has been favorable. One of the problems encountered is that the interest is so broad that it may be difficult to focus and make progress. There is interest in the technology itself but usually it is tied to an aspect of a specific discipline.

Witters indicated that the committee to draft a petition for a Western Regional Coordinating Committee was appointed at the March 26, 1986 Western Directors Association meeting and, after conferences with Drs. Croft and Woodburn, the committee felt that they should come back to the WDA to indicate the direction that they are headed and what they intend to do as a coordinating committee and begin to find a way to form the linkages. In Oregon, there is no interest in just developing more modelers or people who are working in all of these islands. The intent is integration of all of these factors and, if the Western Directors Association is interested in the integration factor as being the objective of a coordinating committee, the group at Oregon will put together a petition for a coordinating committee and circulate it among all of the Western states in time for submission at the 1987 Spring WDA meeting.

It was pointed out that WRCC petitions can be brought forward at any time and do not have to observe the submission schedule of regional projects.

9.0 Biotechnology

9.1 Regulations, Funding, etc. -- J. P. Jordan

Jordan reported that the problems of biotechnology are rather formidable by any measure. Definition is one of the big areas. There is a document published in the June 26, 1986 Federal Register which has been delivered to all Experiment Stations. It deals with a number of definitions, but not nearly a number of the critical ones. For example, what is release into the environment? It is not addressed here, yet is one of the most serious ones. Biotechnology, in terms of scientific flexibility, should be defined broadly. The regulatory component of the program would like to define it very narrowly. At the moment, that aspect of it is defined as those things related to recombinant DNA and limited to that.

The national picture which is on the plus side, shows six federal agencies publishing on a commonly worked out basis for dealing with both the research component, which has to do with the NIH and NSF and the USDA, and the regulatory component, which has to do with EPA, FDA, USDA and GOSHA and a number of satellite organizations, e.g. the Department of Defense and others that have some relevant amounts of invested money in this important area. They have come together in a common document. There are a number of problems with it. There are a lot of inconsistencies which we have 90 days to correct. In the case of the guidelines for agricultural research, there will be another 60 days after that. It means that we have a very finite time to respond to these things.

It is important for scientists to take an interest in communicating about those inconsistencies and the problems and impediments, etc. Be sure to read the documents released by all agencies. The USDA has developed a structure which has been a very big challenge in matching the concerns of the research scientists within the system, (both university and in-house laboratories in the USDA, and in other agencies in the Federal government and their laboratories that are relevant to agriculture) and the legitimate concerns of the citizen about products yielded from the efforts of biotechnology.

Another issue is what the concerns and guidelines are after doing some limited tests in a laboratory building and moving to the greenhouse? Those guidelines are being developed at this particular moment.

The next level of concern is the move from the greenhouse out to a very limited field-testing. There is alarm that the EPA was going to do away with the 10 acre exemption kind of activity.

It is very critical for the scientists in our system to be able to go out into the test environment. We do have some confusion coming out of the leadership. Part of the background of the National Biological Impact Assessment relates to the fact that there is significant difference between crops grown inside greenhouses and those outside.

The NIH devised a mechanism in support of the entire biological sciences system approximately a decade ago. It has been in operation for well over eight years now. It involves and is predicated upon the initiation of a proposal to deal with recombinant DNA and material by the principal investigator which is forwarded to the Institution of Biosafety Committee. The guidelines published by the NIH give the basic information about what can and cannot be done, and what has to be forwarded to Washington for other kinds of reviews and helps. The very large majority of proposals don't go any farther than to the Institution of Biosafety Committee (IBC). The approval is granted there, is recorded and sent back to the principal investigator. About five percent of the proposals across the country are forwarded to NIH to the Office of Recombinant DNA Activity (ORDA). Even at that level, a review is made of the proposals and, in a large number of cases, the guidelines are clear enough that it does not have to be reviewed at the national level and the proposal is returned to the IBC with information that it is alright to proceed. About one to two percent of the proposals need additional review at the national level and go to the Recombinant DNA Advisory Committee (RAC). The Recombinant DNA Advisory Committee is composed of approximately 25 scientific experts, not all of whom cover all of the areas of expertise involved in the proposals but they have a great deal of background. In many instances, particularly those involved with health related issues, they are able to make sound scientific decisions and send the approval or disapproval, information or guidance as to what sort of constraints, if any, have to be put on the experiment and what kind of a facility needs to be set aside to conduct the research. Their recommendation is sent to the IBC and from there to the principal investigator.

Not all of the proposals coming forth will fall into that category. For many of them, particularly in the plant arena, there is not enough expertise on the Recombinant DNA Advisory Committee to cover those problems, so some ad hoc special review committees have been put together. This has been an area in which the USDA, and through the USDA, the university system has collaborated to help. Those proposals which deal with plant sciences have been handled in this way. It has been a very successful program, up to now. One of the requirements now is that all research that involves a release of an organism modified by biotechnology into the environment has to come to Washington, D.C. for review.

In the USDA, there is a parallel system. A proposal submitted for approval goes through the IBC, and most institutions have agriculturally oriented people already on the IBC. Those that don't would simply have to add this kind of expertise in order to deal with the issues relative to agriculture. Instead of ORDA as NIH has, the USDA corollary will be the Office of Agriculture Biotechnology. This has been established as of Monday, July 14, 1986 with a signed Secretary's Memorandum. The Interim Director of the office will be Dr. Bentley and a search will be initiated for a permanent full-time director. There will be expertise in that office for both science and regulatory operations.

The USDA has initiated their own program because they anticipate a large volume of proposals relevant to agriculture. The Director of NIH feels that their activities should be restricted to biomedical sciences and that the USDA should deal with agricultural activities. Therefore, the USDA has established a system comparable to the Recombinant DNA Advisory Committee. The USDA review committee is named the Agricultural Biotechnology Recombinant DNA Advisory Committee (ABRAC). It will function in the same way as the Recombinant DNA Advisory Committee. It will be a committee under the Federal Advisory Committee; it will publish its agency ahead of time in the Federal Register; it will involve people who have gone through a screening process for formalized appointment to membership, etc.; it will rely on the National Biological Impact Assessment Program (NBIAP) for expertise. This will be the kind of expertise mechanism that the USDA will utilize for the specialized kind of knowledge base that may be needed to get advice on agricultural programs.

The USDA has a requirement to mesh the research side with the regulatory side. The NBIAP will also be available for requests for assistance by the NIH and NSF, as appropriate, so there will be close relationships between, and all will benefit from the kind of expertise available. The research component of the Office of Agricultural Biotechnology involves a single entrance through which proposals for relevant permits and licenses from the products derived through biotechnology should be recorded on a common set of registers so that both the research component and the regulatory component are visible and there is a single place to contact to find out what is going on in biotechnologythat is relevant to agriculture. The ABRAC must be in close contact with the regulatory agencies of the USDA, the most significant ones of which are: The Animal and Plant Health Inspection Service and The Food Safety and Inspection Service. The result is that when a product enters the Department through the traditional mechanism of the regulatory agencies, it must be recorded and reviewed by the staff of OAB to ascertain whether the guidelines for research have been followed in developing the background material that the regulatory agency is going to use in deciding whether this is appropriate for

a permit or a license. It is very important to have the linkage well established.

Within the regulatory agencies there are review mechanisms that are called Parent Committee reviews. These, in most instances, involve a single expert, well qualified, who deals with the review of that particular commodity. This is the particular area that Congress finds most disturbing, in the sense that it is not visible. Some conflict between the confidential business information aspect and the openness for protection of the public interest comes into being. The NIH has established a good mechanism with respect to the RAC. At times, when it is dealing with a confidential business information related item, it simply closes the session. All the people involved have signed statements that they will honor the integrity of the confidential nature of thet business information.

It is important to have a good working relationship with the remaining organizations dealing with the regulation of such products, particularly the EPA for pesticides and the Food and Drug Administration, in terms of many of the biologically active compounds that come under their purview. What this means is that there will not be a super agency dealing with biotechnology by itself. Each of these agencies must have a parallel mechanism and there is a common agreement that there should be a parallel level of rigorousness for the review of such proposals among them.

The final point is that, regardless of which agency these proposals are submitted to, they will be transferred to the appropriate agency for review and the originator will be notified of the process. This requires, within the USDA, a close coordination between the two sides, regulation and science, which will be conducted by a committee called the Committee on Biotechnology in Agriculture (CBA). It will be co-chaired by the Assistant Secretary for Science and Education and the Assistant Secretary for Marketing and Inspection Services. It is through CBA that all the appropriate agencies within the USDA will meet to talk about issues of overlapping responsibility and also to ensure that proposals are moved smoothly and rapidly among agencies.

There will be a Biotechnology Science Coordinating Council, which includes all of the agencies of Federal government involved in biotechnology, so that overlapping responsibilities can be worked out.

Currently, within the university system and concentrating only on the USDA funds that are being used, there are $46 million in biotechnology related research going on. The ARS has an excess of $30 million in the same category. There is before the OMB a proposal for FY88, involving a coordinated thrust by the NSF, The DOA and the Department of Energy (DOE) on plant sciences. The plan is for a $10 million program split evenly among the three agencies. Most of that is estimated to end up in the biotechnology arena,

particularly germplasm interests. There are also biotechnology programs in the NSF for approximately $50 million. The DOE has approximately $5 - $10 million in this category. The US Forest Service is to be a major participant in this area and, along with ARS, they need to mobilize their forces. The university system needs to mobilize also. The interactions that come out of the Biotechnology Committee Division of Agriculture of the Land Grant Association will be focused heavily on Station Directors and ESCOP, on the deans of agriculture, on RICOP and Extension. Industry will be a critical component, so organizations in Washington, D.C. and also leaders within industry will need to mobilize. What is going to be needed is a deluge of letters, to be sure that the safety issue doesn't override the importance of discovery and scientific research.

9.2 Division of Agriculture Biotechnology Committee Activities and Plans -- L. A. Bulla, Jr.

Bulla reported that the current Chairman of the Division of Agriculture Biotechnology Committee is Charles Browning, Dean of College of Agriculture at Oklahoma State University.

Resident Instruction and research will be very important aspects of biotechnology. In the near future Extension will have more input and more to say about what happens in biotechnology as it impacts families who make their living off the land. That is where they are going to be very effective, because it is the linkage between the basic researcher, the administration of the Land Grant institutions, and the constituents. The Committee on Agriculture Biotechnology has a member who is an Extension director.

The NBIAP Subcommittee, chaired by Neville Clarke (Texas A&M), is continuing to work with USDA staff in Washington to continue evaluation of guidelines and related documentation for biotechnology and is in the process of putting together a draft paper that will cover some of the guidelines and policy issues. It will be presented, in part, at the Land-Grant meetings in Phoenix. It is hoped that the paper may be the centerpiece for biotechnology as it relates to policy guideline development at the national level.

Another subcommittee which is functioning under the leadership of R. J. Kalter (Cornell) is the National Program Leadership and Development Subcommittee. In part, some of the new monies that we ask Congress for should be going into this particular program. The Subcommittee drafting a report for distribution at the Land-Grant meetings which will take into consideration what kind of leadership and development program needs to be put together at the national level. Neville Clarke is heading a subcommittee on Funding and University-Industry Relations. Another subcommittee is assessing the capabilities and inventory of the educational program, the manpower that is dedicated to the general area of biotechnology.

Yet another subcommittee is studying the legal and ethical issues relating to biotechnology and will be providing a chronology of the legal problems that have been raging across the country. On the ethical side, there are two primary questions that the subcommittee has raised: 1) Will biotechnology accelerate the demise of the American farm family? 2) Will biotechnology corrupt the traditions for a free and open system of American agricultural research? These two questions are general and primary to some of the ethical and legal considerations that need to be coped with in the future. From that stems a myriad of subquestions, all of them complex, all of them legitimate and, certainly, all of them are pertinent to what is being done in the colleges of agriculture, home economics, forestry and others throughout the country and, of course, the Western region.

Hess reported that there will be public hearings for those concerned about the regulations. In addition, there will be three scoping sessions in Washington, D.C. Priority issues that are being examined are the organization of biotechnology within the universities - whether they are centralized within the institution or decentralized by placing molecular biologists, for example, in mission oriented departments in order to get the interaction between the scientists who know the organism, e.g. the plant and animal breeders, and the people who have the skills to switch genes around. The plan is to explore what different universities have done in regard to organization to date and discuss the advantages and disadvantages of each.

The Experiment Station Directors and Administrators have a real challenge before them, in terms of public education on the topic. Among the uninformed public, there is a latent fear of the science of genetic engineering or biotechnology. There is a need to put it in perspective in the sense that genetic engineering has been done since the time we began to breed plants or animals and select plants and animals. New tools are now available for more precision in the movement of genetic materials and also in the exchange of genetic material between organisms.

Jordan requested that Neville Clarke be kept informed of the contacts and responses that have taken place across the whole system. The Secretary of Agriculture has stated that the Assistant Secretary for Science and Education will be the single voice in the US Department of Agriculture for decisions and statements concerning biotechnology.

10.0 Identification and Orientation of Neophytes -- L. W. Dewhirst

Tailtwister Dewhirst conducted the preliminary orientation of Neophytes to the Association.

11.0 Treasurer's Report -- J. R. Welsh

The Treasurer's Report was presented by J. R. Welsh and is attached as Appendix D, pp. 66-67.

Welsh reported that billings for the Western Directors Accounts based on the formula that was approved at the Western Directors Meeting at Land-Grant in Washington, D.C. in November 1985 will be put out very shortly. A reserve of $3,000 was approved by the Executive Committee. Therefore, the billing will be for the approved budget of $113,034 plus $3,000 for reserve balance is $116,034. less whatever balance is in the account when the billing procedure is started.

12.0 Report of Chairman/Report of Executive Committee -- C. E. Clark

12.1 Regular Items of Business

The interactions of the Chairman consisted of frequent interactions with the DAL and with ESCOP and other activities. A committee was appointed to consider the Experiment Station activities in regional and national planning - Western region. The committee, consisting of Welsh, Kaltenbach, Oldenstadt, and Clark, met at the Denver airport on May 6, 1986. The results will be reported by Kaltenbach in Agenda Item 12.4.

The joint meeting of Experiment Station, Extension and Resident Instruction was discussed during the Executive Committee meeting and will be discussed later on in the meeting when a meeting date will be set. A tentative date is to be in July. There is a program committee working on the joint meeting and the report will be given later during the meeting.

The Executive Committee is clarifying the publication policy as set forth in The Supplementary Manual for Regional Research. The technical committees are encouraged to publish regional bulletins, whenever feasible. When a regional bulletin is published, the committees are also encouraged to use the regional logotype and identify them as regional research publications.

The Executive Committee recommends that when a regional publication is prepared, a standard number for library distribution needs to be established so that each participating state in that regional project can be assessed a surcharge to cover the library distribution and then an additional charge for the number of copies of the regional publication to be used in each individual state or agency. The Supplementary Manual for Regional Research will be amended to clarify the procedures for publications.

CSRS has requested that each Regional Association nominate up to three candidates for the USDA Honor Awards Program. The OWDAL will

be sending information regarding the nominations of the candidates inviting each state to participate. The Executive Committee will serve as the screening group at Land-Grant in November. Specific instructions from CSRS will be forwarded to each state. The nominations are to be submitted by December 1, 1986.

12.2 Nominations

Clark presented the following slate of nominees recommended by the Nominating Committee. The Executive Committee endorsed the slate as follows:

Chairman	1987	D. L. Oldenstadt (WA)
Chairman-Elect	1987	R. D. Heil (CO)
Secretary	1987	D. E. Schlegel (CA-B)
Treasurer	1987	J. R. Welsh (MT)
At-Large Member, Exec. Com.	1987	G. A. Lee (ID)
At-Large Member, Exec. Com.	1987	J. V. Drew (AK)
Research Imp. Com. Chairman	1987	M. H. Niehaus (CO)
Research Imp. Com.	1990	S. D. Van Gundy (CA-R)
Committee of Nine Member to complete L. L. Boyd term	1987	D. E. Schlegel (CA-B)
Committee of Nine Member	1989	M. H. Niehaus (CO)
Committee of Nine Alternate	1987	M. J. Woodburn (OR)
Board of Directors, W. Rural Development Center	1988	J. J. Zuiches (WA)
ESCOP	1989	D. L. Oldenstadt (WA)
ESCOP Alternate	1987	R. D. Heil (CO)
ESCOP Budget Subcommittee	1990	J. J. Zuiches (WA)
ESCOP Communications Sub.	1987	D. M. Briggs (NM)
ESCOP Legislative Sub.	1989	J. R. Welsh (MT)
ESCOP Human Nutrition Sub.	1987	M. E. Mitchell (WA)
ESCOP Special Initiatives Sub.	1987	R. D. Heil (CO)
ESCOP Special Initiatives Alternate	1987	J. J. Zuiches (WA)
ESCOP Research Planning Sub.	1987	C. E. Clark (UT)
ESCOP Research Planning Sub.	1987	D. L. Oldenstadt (WA)
National Agricultural Research Com.	1987	C. E. Clark (UT)

The Directors were to take the proposed slate of nominees under consideration and rule on it during the Election of Officers, Agenda item 32.0.

12.3 DAL Committee

The DAL Committee was appointed during the transition between the outgoing and the incoming DAL. The committee consisted of the Chairman, the Chairman-Elect and the two at-large members, to consider issues specific to the transition between the two DALs and to try to arrive at some guidelines, job descriptions and monitor the transition. The Executive Committee recommends that the DAL Committee be terminated and that the Executive Committee assume

those responsibilities. It was moved and seconded to terminate the DAL Committee. MOTION CARRIED.

12.4 New Regional Planning Approach -- C. C. Kaltenbach

Kaltenbach presented the recommendations of the committee appointed to review the regional planning process, included as Appendix E, pp. 68-70. The changes recommended are for only the research planning process, not the interactions for budget and policy development.

It was pointed out that the Northeast Regional Council still exists and is functioning.

Matthews expressed concern about disassociating from the Western Regional Council because that is the area where Extension and Resident Instruction and Research are brought together for joint planning and priority settings. If future joint meetings of the WDA, RI and Extension are conducted, these meetings could serve as a replacement for Western Regional Council meetings.

The Directors were requested to consider the proposed procedures and structure, consider changes which could be suggested, and be prepared to vote on the issue later in the meeting (Agenda item 31.0).

13.0 Reports from Liaison Representatives

13.1 ARS Administrator's Report -- W. H. Tallent

Tallent reported on the new Research Support Agreement. Several items have been noted to be of concern to ESCOP. A major one of those was the need for a statement in the preamble which would put more emphasis on the fact that this is a partnership affair and not a procurement type arrangement. ARS is not just making a purchase and this document allows ARS to reimburse the Experiment Stations for some of the expenses involved in that partnership.

Another major change which was requested by the Experiment Stations was to incorporate statements which included program officials more. The document, as it stood, looked as if it was going to be handled totally by administrative personnel. A change in the language concerning insurance was requested. The initial draft of the Research Support Agreement stated that when the SAES provided support personnel, the SAES would supply that personnel with liability insurance. Some states have laws which prohibit them from providing insurance under contractual agreements.

Early notification was requested of changes that ARS might be required to make, due to Gramm-Rudman-Hollings or other budget constraints, that might have a severe impact on the Experiment Stations.

ARS made revisions in the Agreement responsive to the ESCOP comments which met the concerns of ESCOP. The final version of the document (a sample agreement) was distributed to the ARS Area Directors who, in turn, were to distribute copies to the Experiment Stations in their areas. Meetings are encouraged between the ARS Area Director and representatives of the Experiment Stations to discuss the structure of the Agreement.

The ARS Area Directors will be the key negotiators and the top contracting officials in their areas. The Area Directors may choose to bring key people with them to provide information for the negotiations. The Area Director will then designate a research program person in each state to represent ARS in continuing the refinements of the agreement. This program representative is charged with meeting periodically with the Experiment Station personnel at the program level (at least once a year) to discuss projected activities under the agreement, to give alert to changes that may be coming about. After the agreement is negotiated, and after the periodic discussions have taken place, the Authorized Designated Officials Designated Representative (ADODR) will negotiate an annual task order, which becomes the agreement for that year (which can be amended or changed throughout the year). Once that is agreed upon at the program level, the ARS administrators will go through the mechanics of making it official.

The main things that need to be negotiated are: (1) program activities to be covered; (2) the kind of things that are going to be built on campuses; (3) overhead costs (ARS cannot pay overhead, any costs must come out of program); (4) insurance (since insurance laws differ from state to state, each will have to be handled on an individual basis).

Some things to keep in mind in the negotiations: the Master Memorandum of Understanding (MOU) that exists with every state is not to be mixed with the Research Support Agreements; The MOU is based on legislation and legal rulings that were made in the 1950s and it is not advantageous to cross reference or change it; the Research Support Agreement is not to be used to avoid complicated Federal procedures; ARS will not pass funds from industry to states through to ARS; agreements can now be made directly with an industrial firm; the Research Support Agreement is not to be used to buy major equipment items and avoid the cumbersome competitive procedures in the Federal government; the Research Support Agreement is not to be used to hire scientists, including post-doctoral personnel as ARS has special hiring authority.

13.2 ARS Western Area Report -- W. G. Chace, Jr.

Chace distributed the Agricultural Research Service Report of Northwest Area, Mountain States Area, and Pacific Basin Area which is included as Appendix F, pp. 71-72.

13.3 Forest Service Report -- R. R. Bay

Bay distributed the Forest Service Report, attached as Appendix G, p. 73.

13.4 W. Home Economics Research Administrators -- R. R. Rice

Woodburn presented the report of the Western Home Economics Research Administrators which is included as Appendix H, pp. 74-75.

13.5 Council of Veterinary Deans/Association American Veterinary Colleges -- B. I. Osburn

The report of the American Association of Veterinary Medical Colleges is included as Appendix I, pp. 76-77.

13.6 National Association of Professional Forestry Schools and Colleges -- R. F. Fisher

No report was presented.

13.7 Western RI Directors -- D. J. Matthews

Matthews reported that every Resident Instruction Director in the West is confronted with one problem - recruiting and enrollment of students. The states in which we operate are probably much more generous with our research programs due to the fact that they are located in institutions where students are participating. We have the most critical enrollment problems that we have ever faced, and we all need to be working together to try to do something about the problem.

13.8 Western Extension Directors -- H. Guenthner

The Western Extension Directors' 1986 Report is included as Appendix J, p. 78.

13.9 ARI Conference on Agricultural Policy -- L. W. Dewhirst

Dewhirst reported on the ARI Workshop on Agricultural Policy which included participants from industry, government and academic institutions. A published report of the conference will be distributed in the near future.

Significant items from the conference are: (1) a strong statement of support for publicly funded agricultural research; and (2) a statement that there not be gaps between where research is and where extension is.

A point was made that there was a feeling among a number of the directors that the Experiment Station research system needs to sponsor more of what might be called "Gordon Conferences", similar to the Plant Water Stress Workshop which was conducted this past spring.

13.10 Users Advisory Board -- Marshall Tarkington

Tarkington explained the function of the Users Advisory Board. The structure of the Board consists of 25 members. These members are appointed by the Secretary of Agriculture and are selected for their expertise in certain users' categories. Those categories are: producers, consumers, food and fiber processors, marketing, environmental, rural development, nutrition, animal health, food transportation, farm labor and international trade. The members serve from two to six years and then are rotated off with new members appointed. The Board was established about 10 years ago in the 1977 Farm Bill and has been reauthorized in every subsequent Farm Bill. Liaison representatives from RICOP, ESCOP, and ECOP sit in on the UAB meetings. CARET and NASULGC representatives interact with the UAB also.

Responsibilities of the Board, which have not changed from the enacting legislation in 1977, are that they are to review Federally funded research and extension programs and advise the Secretary on how these programs should assist the intended beneficiaries. The Board is also mandated to make funding recommendations to the President and to the House and Senate Agricultural Appropriations and Agriculture Committees about what the funding level should be for the agricultural, research and extension programs. The Board communicates the funding recommendations and policy recommendations through two annual reports. The current report "Appraisal of the Proposed 1987 Budget for Food and Agricultural Sciences - Report to the President and Congress" was distributed and extra copies are available through CSRS.

Tarkington stressed that the main thing she would like to discuss is how to help the UAB carry out these responsibilities. Congress can mandate the UAB responsibilities, but, if the Board is not well informed, it is not going to be able to be effective. As members of the UAB, the charge is to make policy and funding recommendations for all of the research and extension programs. At the February meeting this year, which was the budget meeting, the UAB was under a lot of pressure to get out the budget report to make an appraisal of the President's budget. Dr. Bentley expressed his concerns and made some comments about the President's budget. Dr.

Clarke represented ESCOP and Dr. Crum represented ECOP. The input they provided at that meeting helped the UAB to understand the roadblocks that the programs were facing and what the recommendations could or should be.

The UAB establishes priorities which come from making the budget recommendations and discussions at meetings and the narratives that are in the reports. The 1987 recommendations and priorities are: (1) regaining profitability; (2) preserving the environment; (3) biotechnology; (4) higher education; (5) human nutrition.

Highlights of the budget recommendations are: (1) Animal Health and Disease, $5,476,000; (2) Competitive Research Grants, $6,000,000; (3) Pest Science, $2,853,000; (4) Special Research Grants, $8,750,000. The UAB recommends that Special Grants have interagency coordination and monitoring procedures, including peer review.

The Pesticides Research Grants specifically designated for funding were Pesticide Clearance, $3.5 million; Pesticide Impact Assessment, $1.4 million; Germplasm Research, $1.3 million; and Water Quality and Management, $2.5 million. The UAB recommended and requested that Rangeland Research Grants be restored to the FY86 level and emphasized that rangeland, including riparian zones, are important national assets and will come under increasing pressures to sustain and demand multiple products. For Higher Education, $5.0 million was added to the budget request with special emphasis on the Competitive Fellowship Grants.

There is some interest in the UAB on the peer review system. The UAB has requested the CSRS report on peer review, will review it and make a response to it.

Many of the members of the UAB are from the Western region. Communication between the Board members in the region and Directors would be an excellent, instructive, informative process.

Joyce commented that there has been a significant improvement in the UAB reports over the past several years. The only limiting factor is that they are trying to understand it and relate it to the real world, and not what they are providing. Therefore, it is incumbent on those who have resident Board members in their states to contact them and get them up to speed.

14.0 Interregional Project Activities

14.1 IR-6 Status - Activities and Plans -- W. B. Sundquist

Sundquist distributed a report on the Status, Activities and Plans of IR-6 which is included as Appendix K, pp. 79-81.

The location of a workshop on Agricultural Research Evaluation, to be held in late January 1987, will be established soon.

The methodology available in the past to partition the contributions of agricultural research into categories of productivity maintenance and productivity enhancement has not been very good. Some of the current work by Blakeslee at WSU and Norton at VPI is directed toward finding statistical ways to estimate what is called a "decay function" for the result of agricultural research and then being able to separate that out and use it as an indicator of what would happen in the way of diminishing productivity in the absence of maintenance research.

14.2 IR-4 Report - Recent Review and Plans -- G. W. Ware

Ware reported that IR-4 was reviewed in November, December and February. The review team consisted of Schlegel (CA), Freed (OR), Ware (AZ), Benton (DL), Hammond (Ciba-Geigy).

IR-4 was established in 1963 for the sole purpose of registering pesticides for minor crop usage. After the EPA became involved in 1972, the cost of registration increased significantly until today the actual cost of IR-4 is tremendous.

The review began in Washington, D.C., and consisted of a hearing in which 60 people testified as to how important IR-4 was. Among those were commodity groups, the National Agricultural Chemicals Association, the EPA, the USDA, and the Food and Drug Administration. From there the review went to the national headquarters at Rutgers and then to Gainesville, FL for a tour of the Southern leader laboratory. While there, the team had a chance to be interviewed by several of the commodity groups from Florida. The accolades received for IR-4 were phenomenal.

Some of the observations made were: (1) IR-4 is an essential project. It must continue at any cost; (2) In 1985 there were a few more than 100 tolerances established through the work of IR-4. This doesn't mean registration. Sometimes a company doesn't want their product registered for a minor use, simply because the liability for its use is so much greater than any profit they might realize from it; (3) In 1986 there were 200 tolerances to be gained by IR-4; (4) There are still 2800 urgent registrations or tolerances that are needed immediately by industry.

The annual investment by the states and by ARS from PL89-106 funds and from regional funds amounted to approximately $5.8 million for 1985 and will be in excess of $6.0 million for 1986. The beneficiaries of IR-4 are the public as well as the producers of minor crops.

There are four leader laboratories: Cornell in Geneva, NY, Michigan State University, Gainesville, FL, and Davis, CA.

There are two states who have the greatest demand for IR-4. One is Florida and the other is California. The reason is the wide variety and diversity of crops that are grown in those two states. The best performing laboratory is at Davis, CA.

The review team had several recommendations: (1) that funding be increased. By 1990, the need for money by IR-4 would double over what it is now in order to maintain the pace and fulfill the requirements that are being imposed on it; (2) that somehow IR-4 be removed from the Special Grants group. It is so vulnerable that each year that it has been removed with the Special Grants, there is a great clamber to get it back in; (3) obtain closer coordination and greater participation by states; (4) that there be special recognition for those people who do the work for IR-4. Much of the work that is done is not publishable. They need some means of recognition and the work that they do should be significant enough that it can still be used to obtain tenure; and (5) another review be conducted in 1989.

A computer-based communications system has been established between the Rutgers leader headquarters and the four leader laboratories so that data can be exchanged, requirements for registration, and all pertinent information for tolerance and availability of other data can be exchanged rapidly.

Ware noted that several states who have liaison representatives are not contributors to the work that goes on. This is the only means that IR-4 has of getting the information from the user to EPA for registration for minor uses. If each state's liaison representative isn't performing, he should be replaced, as that is the route of taking care of growers and producers when they need special registrations.

14.3 Receipt of Written Reports from IR-1, IR-2, IR-5, and IR-7

Written reports from the respective Administrative Advisors were distributed for IR-1, IR-2, IR-5, and IR-7 and are included as Appendix L, pp. 82-87.

14.4 Electronic Transmission of AD419 Data -- D. M. Briggs

Briggs reported that he was prepared to demonstrate two different softwares. The AD-419 (Annual Funds and Manpower Report) does not transmit well electronically for the large Experiment Stations, because of the transmission time required and because of problems in translating documents transmitted with a .prt extension back into an active worksheet at CRIS. The best procedure is to create an AD-419 worksheet on a floppy disk and send the disk to

Washington, D.C. There, after a brief edit, the floppy disk can be read and entered immediately into the CRIS databank. The advantage of sending the report on a floppy disk, over the sending of the same material in a hard copy form, is that CRIS does not have to rekey the information. It can be read electronically and get it on line much faster.

The AD-416 and AD-417 (Project Outline and Project Classification, respectively) are more adaptable to sending electronically. The advantages of the electronic versions of the AD-416 and AD-417 are: (1) it will speed up the entry into the national database, which is on-line through Dialog; (2) it does not require a US mail delivery, thereby avoiding possible document loss; (3) it does not have to be rekeyed by a contractor in Washington, D.C.; (4) the classification of the AD-417 data is error checked before it is submitted, rather than having to go through all the possible combinations. As soon as the CSRS staff sign the AD-416, it goes immediately into the electronic dataset on Dialog; (5) there is electronic approval in two to four weeks; (6) the software can be used at the departmental level, then edited in the Director's office; (7) when transmitted via Dialcom, use WP mail send to transmit rather than mail send at the > prompt; (8) the software is designed so that an automatic acknowledgment is sent when the staff member at CSRS reads the transmission.

The program disk must be generated by CRIS because there are two files that CRIS creates that identify the department name and number of the Principal Investigator. When the system gives a prompt to enter the department number and the user enters a number, the system responds with the department name and, if the name is incorrect, the user can enter the correct name and CSRS will then correct their records accordingly. CSRS uses the information generated for the Agriculture Handbook Number 305 "Directory of Professional Workers in State Agricultural Experiment Stations and Other Cooperating State Institutions" so it is essential that that information be kept current and that CRIS configure the software for each specific station.

Edit features in the AD-416 and AD-417 software are: (1) the classification codes are checked for compatibility before transmission; (2) the performing organization in Field 3 is defined consistently for the station; (3) the department identification is resident in the software; (4) if the name of principal investigator is entered with initials and last name the program reorders them into lastname, and initials form; (5) source of funds in fields 2 and field 18-1 must be entered in only one of the fields and the software will automatically enter the same information in the other field; (6) field 24 (Objectives) cannot exceed 21 lines of objectives or more than 1600 characters; (7) field 25 (Approach) cannot exceed 21 lines or more than 1600 characters; (8) fields 24

and 25 combined cannot exceed 2400 characters (8) titles cannot exceed 100 characters.

15.0 RIC Report -- M. J. Woodburn

The RIC Report is attached as Appendix M, pp. 88-98.

16.0 ESCOP Committee Reports

16.1 ESCOP Structure and Activities -- C. C. Kaltenbach

Kaltenbach reported that, over a period of time, ESCOP has gotten more complicated. ESCOP is part of the total scene of NASULGC. All of the ESCOP institutions are members of NASULGC, which has its origins back as early as 1881 when the initial discussions were held. The parent organization was formed in 1887 and has evolved through several name changes and represents all the state universities and Land-Grant colleges. NASULGC is controlled by a senate which is composed by a number of representatives from all the various councils, divisions and commissions. Within the senate there is an Executive Council that runs the day to day operations. The representatives to the senate come from 7 - 8 councils, including the Councils of Presidents, Academic Affairs, Business Affairs, Extension and Continuing Education, University Relations, etc., three divisions - Division of Agriculture, Division of Urban Affairs, Division of Marine Affairs, and six commissions - Home Economics, Veterinary Medicine, etc.

The Division of Agriculture is divided into sections - Commissions and other groups - CAHA - CARET. The two commissions are very closely allied with the Division of Agriculture, even though they are not officially part of the Division.

ESCOP is the executive committee of this organization, answers to the Division of Agriculture Board, and reports to the NASULGC Senate. ESCOP has many close working relationships with CSRS. It also interacts with farm organizations, commodity groups, agribusiness groups, and has close associations with the two commissions, the 1890 Research Directors, the Forestry group, the international group, CAHA, ECOP and RICOP. Each region has three representatives to ESCOP. The representatives serve three-year terms in rotation. Representatives from the affiliate organizations also attend the meetings.

The ESCOP mission is to look out for the interests of the Experiment Station Directors and related research activities. It also attempts to coordinate its efforts with the other groups.

ESCOP conducts its business primarily through a series of subcommittees: Interim, Liaison, Legislative, Budget, Special Initiatives, National Research Planning and Evaluation, Home

Economics Research, Communications, Seed Policy, Human Nutrition, Pest Control Strategies, Nominations, Resolutions. ESCOP also has a number of Ad Hoc Subcommittees: Genetic Engineering Policy, Hatch Centennial, Microbial and Subcellular Germplasm, Social Contributions of Agricultural Research, Marketing Economics and Marketing Policy, Sensory Technology for Agriculture, Ground Water Quality and Quantity.

Clark commented that since Kaltenbach is going to be the Chairman of ESCOP for 1987, the standing policy is that the DAL for the chairman's region serves as the Executive ~~Secretary~~ VICE-CHAIRMAN of ESCOP.

16.2 ESCOP Special Initiatives Subcommittee -- C. C. Kaltenbach

The Special Initiatives Subcommittee was initiated and charged to develop new policy issues, identify new technical issues, and bring to the surface the upcoming agenda of ESCOP. It is the committee's function to identify those and turn it over to the parent organization. The process, after approval by ESCOP, usually involves appointing another committee to carry through with the specific activity, once it has been identified by the Special Initiatives Subcommittee as being an issue that needs to be dealt with. The Budget Initiative and the Sensory Technology Initiative came out of the Special Initiatives Subcommittee. There is also a current effort to put together an initiative on profitability in agriculture.

The last meeting was in June, 1986 and a good share of the meeting was taken up with a discussion on trying to develop some new approaches to selling the budget. Basically, what we are talking about is marshalling an initiative to work on the OMB side of the House in terms of the budget process. That has gone beyond Special Initiatives already and ESCOP has appointed a committee to look at it.

Another major issue that is on its slate of activities involves an initiative in rural sociology. The NEC-24 Committee sponsored a symposium on rural sociology. As a result, they have come forward with a preliminary proposal for a national initiative in this area. The Special Initiatives Subcommittee has generally endorsed the concept and has asked the group to go ahead and develop the proposal more fully for further consideration.

16.3 ESCOP National Research Planning and Evaluation Subcommittee -- J. R. Welsh

McHugh distributed the report of the ESCOP National Research Planning and Evaluation Subcommittee, which is included as Appendix N, pp. 99.

16.4 ESCOP Budget Subcommittees

16.41 FY87 -- L. W. Dewhirst

Dewhirst reported that, at any one time, there are three ESCOP Budget Subcommittees acting. The FY88 Subcommittee has been active for over a year. The FY89 Subcommittee has been appointed and R. Gast (MI) will be Chairman.

The budget development is a long involved process. It is developed with a great deal of input from a large number of individuals and a large number of organizations and affiliates (home economics, veterinary science, 1890 schools, etc.) including CSRS faculty, the ESCOP National Research Planning and Evaluation Subcommittee. Over the past three years several versions of the 1987 Budget have been distributed. The most recent one dated February 20, 1986 was sent to the Experiment Station Directors. This was in response to the President's budget recommendations, which was released February 6, 1986, so it was developed rather rapidly after that time.

The cover still shows the five initiatives that were promoted in the FY87 budget: water quality and quantity, scientific equipment, focus on the human element, sustaining soil productivity, and putting profits back into agriculture.

It was distributed to people on the Hill and to the Senate Agriculture Subcommittees. It was subsequently given to them in testimony. The presentations were made by the Division of Agriculture and by CARET.

On July 15, 1986 the House Committee on Appropriations marked up the report on agriculture appropriations for FY87. A copy was sent by Dialcom to all Experiment Station Directors. The FY86 appropriations and President's recommendations, insofar as formula funds are identical before Gramm-Rudman-Hollings. The ESCOP Budget Subcommittee recommended an increase of 5 percent in those formula funds.

There is little resemblance between what Congress has done to the budget and what was asked for. The House has done exactly what they wanted to do and there are some significant areas which should be changed. Whether there is any reasonable chance of those changes is unknown. The Senate markup of this is to be the week of July 21, 1986.

There are three specific areas that should be changed: (1) reinstatement to the NASULGC pre-Gramm-Rudman-Hollings levels; (2) Competitive Research Grants - reinstatement to

budget request for plant sciences research; (3) aquaculture centers funding restored; (4) reinstatement of support to plant germplasm resources.

16.42 FY88 -- D. E. Schlegel

Schlegel reported that the FY88 Subcommittee has had its first two meetings. In view of the fact that Gramm-Rudman-Hollings had not been initiated by that time, the FY88 Budget Subcommittee recommendations are very optimistic. However, they do reflect the issues that the subcommittee felt were the important ones. In the interim, after these meetings, the emphasis was reaffirmed for formula funds that the FY87 Subcommittee had put forward for restoring agricultural profitability, sustaining soil productivity, human resources and strong support to the water quality and quantity issues. Recognition was given to the need for scientific equipment, research facilities, and strengthening of the Hatch, McIntire-Stennis, Evans Allen programs, new special grants, and competitive grants. The concerns are still in effect about the special grants which have to be reauthorized each year.

The ESCOP Budget Recommendations for Proposed Budget Increases for Fiscal Year 1988, dated July 1, 1986 are included as Appendix O, pp. 100-106.

16.5 ESCOP Communications Subcommittee/Workshop -- R. E. Witters

Witters distributed copies of the minutes from the ESCOP Communications/Workshop Subcommittee, included as Appendix P, pp. 107-108.

16.6 ESCOP Pest Control Strategies Subcommittee -- G. W. Ware, Jr.

Ware reported that the ESCOP Pest Control Strategies Subcommittee had not met for two years. The next scheduled meeting will be in October to develop plans to merge with the ESCOP Biological Control Subcommittee.

16.7 Hatch Centennial Subcommittee -- D. Oldenstadt/J. P. Jordan

The Hatch Centennial Committee is chaired by Dr. J. Halpin. The real launching of the Hatch Centennial begins this fall in Phoenix, AZ at the NASULGC meetings with the distribution of the "1986 Yearbook of Agriculture." It will give recognition of the total system, so that the "1986 Yearbook of Agriculture" does not emphasize the state Agricultural Experiment Station system, but all aspects of the system. The authorships have been pulled from all dimensions of the system. It is in that vein that the Department of Agriculture began this year to recognize the significant

contributions of the scientists of the state Agricultural Experiment Stations by making the annual Distinguished and Superior Service Awards to the scientists of our system.

For the first time, the Hatch Memorial Lectureship will be delivered. The committee selected candidates who are productive scientists. The first lecture will be delivered by Dr. William Hansel of Cornell University at the NASULGC meetings in Phoenix, AZ in November. The second lecture will be given by Dr. M. J. Bukovac of Michigan State University at the Centennial Celebration on March 2, 1987, in Washington, D.C.

The concept and idea was born of a leadership award in response to the concern expressed by a number of individuals that there was no real recognition of the system-wide leadership and the impact that has been made on the system by productive scientists. The first one of those will be given at the same time as the Hatch Memorial Lectureship in Phoenix, AZ by James B. Kendrick, Jr. of the University of California. There will also be unfolded at that time a motion picture, also in a videotape format, and a slide-tape show that goes with it.

On March 2-3, 1987, there will be the most heavily focused time in Washington, D.C. for those engaged in agricultural research that has occurred in modern time beginning with the opening of the Smithsonian Exhibit. The $1 million project, which may not be completely constructed by that time, will be housed in the National Museum of American History. The Smithsonian has committed itself to at least 10 years of support for this exhibit. It is what they call a permanent exhibit. Funding for it has come from the Kellogg Foundation under the leadership of a proposal developed on behalf of the system by F. E. Bender and associates at the University of Maryland. The Kellogg Foundation provides money for the initial construction and the first year operation. The second year operation funding is provided by McGraw Hill Publishing and a number of other organizations lined up behind that to provide operating funds. The second phase, which is equally exciting, is a mobile show that has been approved verbally by R. J. Reynolds Tobacco Co. who is providing $2.5 million funding for five years.

The Smithsonian Exhibit depicts the history of US agriculture from early days, through the Dust Bowl era, World War II, and to the present. It tells the impact of science on American agriculture and will serve as a cornerstone that will help a great deal in focusing positive public opinion on agriculture.

A gala event is planned the evening of March 2, 1987. A social will be held in the rotunda area of the National Museum of American History in which some of the displays will be shown. It is scheduled to be a black tie event, headlined by the President of the United States. The invitations to the Congressional delegation

should emanate from you at your institutions. It is an opportunity for you to bring forth some of the fruits of your labor, e.g. fruits, wines, cheeses. The second and third day a Centennial symposium, "Secretary's Challenge Forum", is scheduled to be held in the National Academy of Sciences.

The final event is the delivery of a book on the history of the Agricultural Experiment Station system. There may also be a postage stamp to be released at that time.

A joint resolution of the House and Senate reaffirming their commitment to the principles behind the Hatch Act of 1887 will be presented and signed into law by the President, either during the March festivities or at the 1987 NASULGC Association meeting.

Joyce stated that the Lay Leaders Conference is scheduled to be held in Washington, D.C. the second week of March, 1987. He has requested NASULGC to consider changing the date for the meeting to be concurrent with the Hatch Centennial celebration so that over 450 lay leaders can participate in the activities.

It was moved and seconded to request NASULGC to move the Lay Leaders Conference meeting dates forward to coincide more closely with the Hatch Centennial celebration. MOTION CARRIED.

17.0 CSRS Report -- J. P. Jordan

Jordan distributed a fact sheet (included as Appendix Q, pp. 109-110) which gives the Gramm-Rudman-Hollings schedule for 1987. It also indicates the overall assumptions included in the FY 1987 Budget Resolution. The Budget Resolution is quite different from the Appropriations Act in that it really sets all the upper limits, and for the areas of our interest under the category 350 there are about $18.5 billion worth of activity. The assumptions are used to build the ceilings, but are not obligatory in terms of the Appropriations Act. So there are justifications for building the ceilings, but these are not necessarily instructions from the Budget Committee to the Appropriations Committee. At the top of the FY 1987 Budget Resolution fact sheet are some numbers. Those numbers indicate, among other things, targets for Gramm-Rudman-Hollings and the fact that there are various budgets put together and approaches to meet those targets. One of the possibilities that we have not discussed is that there may not be an Appropriations Act agreed to by the House, sent to the Senate and modified there in a Conference Committee Report. In which case there will be a continuing resolution. There is another interesting twist, however. Remember that Gramm-Rudman-Hollings has a target - $144 billion increase in the national debt. If the "snap-shot" on August 15 looks bad this whole process can be pocket vetoed by not dealing with, reporting out, or finishing the issues of the FY87 budget and wait until October 5, which is a date identified in the schedule. At that time the base figure for expenditures drops back to the spending level for FY1986. The revenue figures, however, remain

those projected for FY87. By combining those, the whole Gramm-Rudman-Hollings issue can actually be avoided with gamesmanship.

The report on the Cooperative State Research Service presented by J. P. Jordan is included as Appendix R, pp. 111-114.

18.0 Joint Council on Food and Agricultural Sciences -- J. P. Jordan

The Joint Council is composed of: the performers of agricultural research, extension and teaching; Users Advisory Board liaison ; CARET liaison. It is to give overall direction and thrust to the concerted program plan and budgeting for the system. Its priorities for the FY88 budget, which will be off the press in August, include: enhancement of profitability; biotechnology; improvement of water quality and management; professional scientific expertise; enhancing productivity and conservation of soil; expanded domestic and foreign markets and use of agricultural products, particularly alternative uses of agricultural products; preserving plant germplasm and improving plants genetically; and improving human nutrition, diet-health relationships.

Topics that have been addressed in recent times are: food science and its relationships; aquaculture; higher education; home economics trends; animal health; rural development centers; cooperative teaching programs; potato improvement; interstate use of Extension staff; the STEEP program.

19.0 ERS Report -- B. H. Robinson

The Economic Research Service report as presented by Robinson is included as Appendix S, pp. 115-120.

20.0 Animal Care -- C. C. Kaltenbach

Kaltenbach reported that the care and use of farm animals in research has been an issue that has been with us for some time, and is going to stay with us for some time. There was an effort last fall to get funding from the National Academy of Sciences to support a writing group to develop guidelines for the care and use of animals in research. Jordan called a meeting involving representatives from ESCOP, USDA and the animal societies in May, 1986 to discuss the need and possible strategies for developing the guidelines. The group developed some broad guidelines and presented them to the ESCOP Spring meeting. They were encouraged to proceed and Omtvedt from Nebraska was requested to be chairman of the committee. As a result of a meeting in early July, 1986, they have put together a plan to proceed with the development of the guidelines. The Committee may need to add a miscellaneous category which covers all animals other than those accounted for in the six species designated: beef, dairy, horses, poultry, sheep/goats, and swine.

Jordan commented that the issue is one primarily of individuals being concerned that people are using livestock in experiments without regard to the issue of pain, suffering, housing, feed and water availability. The

NIH has assembled a set of guidelines for animal care and use of laboratory animals. The guidelines for care of agricultural farm animals in research, if generated by the ESCOP Subcommittee, would be proactive rather than reactive.

The issue of funding is still with us. CSRS and ARS both have pledged $20,000 for this effort. It is estimated that it is going to take $100,000 for the project. The budget will be used to pay travel expenses for the writers, for operating supplies and publication costs, etc.

Experiment Station support for this activity was discussed at ESCOP and there was a general feeling that we should try to develop some direct monetary support from the Experiment Stations. Initially, it was suggested that maybe the stations who had scientists involved in it would simply pay for travel. Subsequent to that there have been some other thoughts on it. Basically, the proposal now is that each of the Experiment Stations contribute $1,000 to the effort.

The Executive Committee discussed the proposal at length and strongly supported the issue. The two options for the WDA are: simply assessing each station $1,000; or to commit $13,000 from the Western region and to assess each of the stations based on our accepted formula which was developed for funding the DAL office. It was moved and seconded to commit $13,000 to support the development of guidelines for the care and use of agricultural animals in research and teaching and that this sum of money be collected into the DAL account using the accepted formula. MOTION CARRIED.

21.0 Western Rural Development Center -- R. Youmans

Witters distributed copies of the written report on the Western Rural Development Center from Youmans which is included as Appendix T, pp. 121-122.

22.0 CSRS Strategic Management Plan -- J. Naegele

Naegele gave a slide presentation of the conceptual plan which has been developed by CSRS which is an organizational structure which will allow the total system to address issues of program. It is a framework which will encourage systemwide participation in CSRS.

The plan consists of a planned hierarchy; mission, goals, objectives, action plans, and an implementation plan. It has strategic directions in which CSRS thinks the agency should go and the directions that the total system should consider in terms of its general direction over the next ten years. Having the strategic directions allows CSRS to get involved in organizational implementation and, finally, it does develop some new relationships within CSRS which will be productive.

The hierarchy that has been established consists of: missions, goals, objectives, and unique standing committees, which are patterned after the

regional research committee model of; a technical committee, a chairman chosen by the technical committee, and an administrative advisor. The technical committee would be composed of CSRS faculty plus Directors of Experiment Stations. The Experiment Stations can choose how they wish to be represented, either by the DAL or by elected representatives.

The standing committees are to develop the policies, budgets, allocations, and directions to CSRS staff that are appropriate to deliver to the system and to produce for the system those action plans that are appropriate for the achievement of goals and objectives.

The CSRS mission is: to advance science and technology in support of agriculture and forestry, people and communities, in partnership with the State Agricultural Experiment Station system, with colleges, universities and other research organizations and in concert with the Secretary of Agriculture and the intent of Congress.

The graphics layout of the Strategic Plan is included as Appendix U, pp. 123-130.

23.0 DAL Report -- L. L. Boyd

Boyd distributed the DAL Report which is included as Appendix V, pp. 131-133.

24.0 Interregional Project Discussion -- D. E. Schlegel

Background information for discussion on interregional projects is included as Appendix W, pp. 134-138.

Dewhirst commented that IR projects contain contain two different categories of effort, as they currently are represented. One of those is the service type of project, such as IR-4 or IR-5. There are also some that don't quite meet that category. One if them is IR-1, which was established as an IR project on potatoes because at that time it was propitious to set it up as an interregional project. He expressed concern about those projects over which the WDA has little control of expenditure of funds, as the Committee of Nine recommends the funding. The WDA has representation on the Committee but can only indicate preference since they have minority voting power. Therefore, an increase in IR projects would mean even less control over funding. There is already a mechanism for having interregional projects, that is through the regular regional project system currently in effect. Representation is allowed from all regions.

Jordan indicated that the many of the interregional projects serve as the cornerstone for funding from other organizations, e.g. USGS, EPA. They allow the Experiment Station system control over the direction of the projects.

Briggs reported that IR-6 was created in a period of national need to show the cost benefit of the Experiment Station agricultural research program and there was one specific state upon whom the burden to do the report would fall. The IR mechanism provided the initial funding necessary for the work, and then other states and other regions also participated. Currently, IR-6 is functioning similar to regional projects which have participation from states in other regions, and probably should have state support for those people who are participating because they are producing scientific publications.

Heil recommended that an ad hoc committee be appointed to study the situation and report back to the WDA.

Witters suggested that the ad hoc committee consist of an individual from RIC, one of the administrative advisors from each of the projects, as appropriate, plus the DAL. Further, he suggested that the DAL encourage the other three regions to form similar ad hoc committees and then to coordinate the findings.

Clark indicated that he would appoint a committee to report to the WDA at the next meeting.

25.0 Reports from Representatives to Regional and National Committees

25.1 Committee of Nine -- D. E. Schlegel

Schlegel presented the Committee of Nine report which is included as Appendix X, p. 139.

25.2 W. Agricultural Research Committee -- H. F. McHugh/R. R. Bay

McHugh reported that in December, 1985, the Directors of Experiment Stations in the Western region, as well as members of WARC, were polled for their response to priorities for research areas. In January, 1986, the top 10 priorities were submitted to the ESCOP Planning Subcommittee and were incorporated into the ESCOP priorities list which was then presented to NARC. This led to the list of 22 research priorities which NARC compiled from the lists from ESCOP, ERS, ARS, FS, industry, non land-grant agricultural programs, and trade association representatives.

WARC met and reviewed the ESCOP Research Initiatives report, the list from NARC and the WARC list. WARC was asked to begin with the ESCOP Research Initiatives list and make adjustments from there. WARC recommended that the list be shorter than the ESCOP list. After discussion it was moved and seconded on behalf of WARC that the WDA submit the following list of 11 priorities for submission to the ESCOP Planning Subcommittee. MOTION CARRIED:

1. Protect water quality and maintain supplies adequate for Western agriculture, forestry and human needs.

2. Increase efficiency and profitability of Western agriculture and forest systems.

3. Enhance agricultural and forestry enterprises through biotechnology.

4. Increase understanding of interrelationships among food and the nutritional and health status of people.

5. Analysis of the impact of agricultural policy on global markets.

6. Develop integrated management systems for crop pests and diseases.

7. Genetically improve plants.

8. Strengthen the well-being of rural families and communities.

9. Maintain and improve profitability of Western range and pasturelands.

10. Market penetration and efficient marketing of agricultural and forestry products.

11. Improve the energy efficiency of agricultural and forest production and processing systems.

25.3 National Agricultural Research Committee -- H. F. McHugh

McHugh reported that the major activity of NARC had been to develop a list of 22 research priorities (attached as Appendix Y, p. 140, discussed in Agenda item 25.2 above.

25.4 Plant-Water Stress Task Force Report/Gordon Conferences -- R. D. Heil/L. W. Dewhirst

Heil distributed the report on the Plant-Water Stress Task Force, included as Appendix Z, pp. 141-142.

Dewhirst reported that the Plant-Water Stress Task Force cut across many disciplines. It was not limited to soil or water. The participants were invited from the best scientists that could be identified from ARS, Experiment Stations, private industry, non land-grant institutions, etc. This type of expertise is needed in research planning. He encouraged planning regional research efforts, rather than allowing them to come from one or two stations by two Directors who have been approached by two faculty members.

He suggested that the ad hoc committee which is to study the IR projects consider the possibility of a combined approach in terms of implementing regional research efforts.

25.5 Western Regional Council -- D. J. Matthews

Matthews indicated that the Western Regional Council is made up of representatives from: WARC, Western Extension Committee, Western RI Committee, Western Home Economics Association, veterinarians, non land-grant agricultural colleges, and private industry representatives. Each of the committees has priorities which the representatives bring to the Western Regional Council. It is the duty of the Western Regional Council to amalgamate those priorities into some sort of an overall list.

The list that evolved from the meeting in February, 1986 is very similar to that which was developed by WARC. One difference is the Western Resident Instruction Committee concern about recruitment. The amalgamated list was sent to the Joint Council who published it in "FY 1987 Priorities for Research, Extension, and Higher Education, A Report to the Secretary of Agriculture."

26.0 Plant Gene Expression Center -- G. Still

Still reported that the Plant Gene Expression Center grew out of the interest in biotechnology. As the foundation was laid for a technology that came out of biochemistry called endonuclease, the foundation was also laid for informational molecules. Agriculture is the application of biology for profit and biology is the orchestration of informational molecules. Biotechnology is the fledgling technology that allows us to understand informational molecules and alter them to our own benefit.

ARS felt that biotechnology for agriculture, and particularly plant agriculture, was of national importance. There is an enormous amount of expertise in plant germplasm, both in the public and private sector. In some plant systems, the private sector is moving in more vigorously, and there is a need for a focal point whereby a group of scientists can look very hard at the informational molecules that make the crop plants productive, but being realistic with the concept that the tools of this technology must fit the hands of breeders and geneticists.

There was a need to establish an institute that would have a history of basic science, and also an appreciation for agriculture. Association with a state that had a unique agricultural environment and also a strong Agricultural Experiment Station system was needed. A location was needed where ARS had activities and space. California was the location of choice.

The concept of the core is that there will be scientists who will be doing targeted research, but not necessarily research that will impact on any particular commodity, on the short term. The movement of the science will

be directed toward the technology. The ARS product will be to provide the means from which technology will evolve. The technology must be developed in the hands of the users. the breeders and geneticists in the particular crop plants systems.

The Plant Gene Expression Center Scientific Council is a subgroup of the National Academy of Science Board on Agriculture. It is responsive to the Director of the Center. the Administrator of ARS. the Chancellor of Berkeley. and the Vice President for Natural Resources. They serve to give guidance on science and to give guidance to the top administrators as to the quality of the science and the direction of the Center. They will also serve to help make decisions if and when there are points of controversy.

There will be 30 PhD scientists in the core. Each senior scientist will be responsible for a laboratory of about 1600 square feet. He will have two full-time PhD associates. either post-doctoral or professional, technicians and clerical support. The concept between the core and the consortium is: when the work in the core appears to be ready to interface with the particular plant system. experts will be contacted in that plant system and invited to become part of the consortium. The Center is now actively recruiting scientists.

Presently, there is an ad hoc group that oversees the California and ARS management package. They are sponsoring an ad hoc users committee who is asking breeders and pathologists from around the country to begin to convert the concept. because if the means are being created by which tools will be made available to breeders and geneticists, they have to be in on the ground floor.

Patent rights will be worked out on a case by case basis. The Federal regulations on patents have shifted so it is now possible to work with exclusive licenses.

27.0 National Plant Germplasm -- M. H. Niehaus

Niehaus presented the following report on the National Plant Germplasm Committee:

NPGC met in New York in March. Key points discussed included the Plant Quarantine problem at Glenn Dale. At issue is the handling of clonal germplasm including the loss of. and delays in, the release of material and the circumvention of the system (legally and probably illegally). NPGC is urging immediate steps to resolve the problem.

The GRIN system (a computer based data system) is being well received. NPGC recommends that special genetic stocks and microbial and fungal collections be added to GRIN. Also. it recommends that Canada and Mexico be considered for on-line access.

Dr. Paul Fitzgerald was elected Chair and M. Niehaus Vice-Chair for two-year terms.

A communication from Dr. Hanry Shands, National Program Leader for Plant Germplasm, indicated that he is concerned about the lack of support for W-6 from the Western states. Several states are not participating in W-6 and several more did not send representatives to the 1986 W-6 meetings. With the current push for support for germplasm collection and evaluation it is clear that the concern of Dr. Shands is justified.

Discussions with Dr. Sam Dietz, W-6 Coordinator, have been held over the past few months. It appears that W-6 is underfunded relative to the needs and relative to the other Plant Introduction Stations. I, therefore, ask for special consideration for W-6 as budgets for the future are developed.

One possibility which deserves discussion is to make the four P.I. Stations and their associated technical committees into one IR committee. This would insure that each station would be treated on an equal basis. Such a change can be justified because germplasm is certainly an inter-regional issue and it certainly deserves continued support of each of the states.

28.0 Pacific Rim -- D. E. Schlegel

Schlegel reported that, since the 1980s, there has been more trade across the Pacific than the Atlantic and California has a strategic location in this. Parenthetically, the West does as well. The West as a whole tends to be parochial and are not prepared to deal and work with people from different cultures from the all the different Pacific Rim nations. For example, how many students take foreign languages to the extent that they should? How many business departments really get involved in the cultural issues that hinder or become barriers to trade?

California has an Agricultural Issues Center in which emphasis has been on a university program and a number of plans and initiatives which have been put forward to support the program. There is an education abroad program which puts students in foreign countries. The University expects an increase from 125 students to 525 by 1988-89 and to increase the number of Pacific Rim countries from seven to 15. Increased research is also being encouraged in those regions in the area of finance, government, resource development and all the other issues that bear on our relationship to the Pacific Rim community. The Agricultural Issues Center is looking at a variety of issues that face California agriculture. One of them is international trade.

A new graduate school is going to be established at San Diego called the School of International Relations and Pacific Studies to provide professional training for careers in Pacific Rim industry, government, internal organizations, national organizations and community groups. The graduate research will be on economic, political, social, cultural, psychological and security of Pacific Rim issues. It would also serve as a center to disseminate knowledge about events in the Pacific region.

The Kapalua International Foundation, a not for profit organization in Hawaii, provides a meeting place convenient to all the countries of the

Pacific Basin wherein appropriate conferences, research, consultative and educational activities may be conducted in attractive and neutral surroundings. The purpose is a center where a variety of activities and conferences relative to the Pacific Rim can be held.

One particular item of interest is that a need for an agricultural database has been identified which helps predict the potential for different commodities, changes in the cultural patterns and changes in the economic development of the various Pacific Rim nations, and potential markets for agricultural commodities.

29.0 Resolutions

MOTION CARRIED to approve unanimously the following memorial and resolutions:

MEMORIAL #1

WHEREAS, Dr. Marvin L. Wilson, long-time contributor to agriculture, died May 3, 1986, and

WHEREAS, Dr. and Mrs. Wilson participated in the meetings of the Western Association of Agricultural Experiment Station Directors from 1963 to 1977, and

WHEREAS, Dr. Wilson served well on the regional and national committees for agricultural research, and

WHEREAS, Dr. Wilson will be remembered for his 32 years of service to agriculture at New Mexico State University as Scientist, Department Head and Associate Director,

NOW THEREFORE BE IT RESOLVED that those attending the 1986 summer meeting at Coeur d'Alene Idaho stand in respect for our departed colleague, and

BE IT FURTHER RESOLVED that the original of this memorial be sent to Mrs. Wilson and a copy be made a part of the minutes of the July 18, 1986 meeting of the Western Directors Association.

RESOLUTION #1

WHEREAS, Dr. John Patrick Jordan received the award for Superior Service in Administration on June 9, 1986 from the Secretary of Agriculture, and,

WHEREAS, Dr. Jordan will continue to support the interests of Agricultural research, and,

WHEREAS, Dr. Jordan has again shown his interest and continued affiliation with Western Association of Agricultural Experiment Station Directors by attending this summer meeting, and,

WHEREAS, one of our own, (formally CO-AES), is unquestionably the leading leprechaun in the U.S. Department of Agriculture,

NOW THEREFORE BE IT RESOLVED, that the Western Association of Agricultural Experiment Station Directors express sincere congratulations to Dr. Jordan on receipt of his award, and,

BE IT FURTHER RESOLVED that the original of this resolution be sent to Dr. Jordan and a copy be made a part of the minutes of the July 18, 1986 meeting of the Western Directors Association.

RESOLUTION #2

WHEREAS, Dr. Arne Hovin has announced his retirement as Associate Director of the Montana Agricultural Experiment Station effective July 1, 1986, and,

WHEREAS, Dr. Hovin has served well agricultural research as scientist since the early 70's and as administrator since 1981, and,

WHEREAS, Dr. Hovin has served the Western Association of Agricultural Experiment Station Directors with distinction, most recently as Administrative Advisor of W-166, and Ad Hoc W-Riparian, member of the Research Implementation Committee, and,

WHEREAS, Dr. Hovin has served as an alternate to the Committee of Nine at the National level,

NOW THEREFORE BE IT RESOLVED that the Western Association of Agricultural Experiment Station Directors assembled at the 1986 summer meeting held in Coeur d'Alene Idaho, recognize and express their gratitude for his contributions and wish him a a very enjoyable and fulfilling retirement, and,

BE IT FURTHER RESOLVED that the original of this resolution be sent to Dr. Hovin and a copy be made a part of the minutes of the July 18, 1986 meeting of the Western Directors Association.

RESOLUTION #3

WHEREAS, Dr. J. B. Kendrick has announced his retirement as Vice President for Agriculture and Natural Resources of the University of California effective October 1, 1986, and,

WHEREAS, Dr. Kendrick has served on many national committees, including but not limited to: Agricultural Research Policy Advisory Committee, Executive Committee - NASULGC, Chairman of CAHA, Chairman - Division of Agriculture - NASULGC, Joint Council of Food and Agricultural Sciences, and,

WHEREAS, Dr. Kendrick has served the Western Association of Agricultural Experiment Station Directors with distinction on the Western Regional Council, and as Chairman of the Western Directors Association,

NOW THEREFORE BE IT RESOLVED that the Western Association of Agricultural Experiment Station Directors assembled at the 1986 summer meeting held in Coeur d'Alene Idaho, recognize and express their gratitude for his contributions and wish him a a very enjoyable and fulfilling retirement, and,

BE IT FURTHER RESOLVED that the original of this resolution be sent to Dr. Kendrick and a copy be made a part of the minutes of the July 18, 1986 meeting of the Western Directors Association.

RESOLUTION #4

WHEREAS. The Western Association of Agricultural Experiment Station Directors at their summer meeting in Coeur d'Alene, Idaho approved new Regional-National Research Planning Procedures and Structure, and,

WHEREAS, the Western Directors Association is scheduled to meet jointly with CAHA, RI, and CARET in July, 1987, and may provide input to the Joint Council from that meeting,

NOW THEREFORE BE IT RESOLVED that the Western Directors Association request the Western Regional Council to evaluate the need for continuing their current function at their next meeting, and that the representative from the Western Directors Association to the Western Regional Council convey the concerns of the WDA to the Council, and,

BE IT FURTHER RESOLVED that the original of this resolution be sent to the Chairman of the Western Regional Council and a copy be made a part of the minutes of the July 18, 1986 meeting of the Western Directors Association.

RESOLUTION #5

WHEREAS, Directors Lee, Wiese, Heimsch, Dr. Maurice Johnson and Joyce Anderson, with the support of the Idaho staff, have done a commendable job in coordinating arrangements for the 1986 summer meeting of the Western Association of Agricultural Experiment Station Directors meeting,and

WHEREAS, Coeur d'Alene, A resort on the Lake, provided comfortable surroundings, and opportunity to view the beauty of the surroundings, and

WHEREAS, the Cruise-Dinner allowed an excellent opportunity to visit and enjoy the beauty of twilight on the lake,

NOW THEREFORE BE IT RESOLVED that the Western Association of Agricultural Experiment Station Directors express sincere appreciation to the meeting organizers,

AND BE IT FURTHER RESOLVED that the original of this resolution be sent to Dr. Maurice Wiese, copies to be sent to Dr. Maurice Johnson and Joyce Anderson, and a copy be made a part of the minutes of the July 18, 1986 meeting of the Western Directors Association.

30.0 Future Meetings

Future meetings of the WDA are scheduled as follows:

November 11, 1986	Phoenix, AZ
July 21-24, 1987	Reno, NV

(A joint meeting with CAHA, Extension, Resident Instruction, and WDA is scheduled for Tuesday, July 21, 1987 with the WDA meeting on July 22-24, 1987 in Reno, NV.)

31.0 New Regional Planning Approach - Vote -- C. E. Clark

The proposed restructuring of the regional and national research planning system is an attempt to decrease the superstructure and decrease duplication (Western Regional Council and WARC each send in priorities lists). The superstructure in the West has over 100 people identified, including the RPGs, WARC and the Regional Council. The original intent, when the structure was set up, was for all of these people to meet in their various groups during the year and come up with their recommendations. That was done more successfully in the beginning than recently. The system has evolved a bit and the Federal agencies and ESCOP are taking a different stand on identifying research priorities.

McHugh stressed that she had come to appreciate the Western Regional Council having a voice. There are some issues that are unique to the West and people in the other regions tend to ignore the West and some of its needs. By the Western Regional Council being an avenue through which our voice can be expressed again, it does make a difference. She requested the WDA to think carefully about withdrawing from the Western Regional Council.

It was suggested that the ARS and FS be invited to participate in the new WARC in as much as they are involved in the RIC program and in as much as they have a point of view in the West regarding establishing priorities for the West. The ARS and FS have representation in the Joint Council and a system of their own to establish their priorities. The proposed structure does not prohibit the WDA from including other representation at a later time, if it is needed.

Matthews reported that CAHA does not intend to replace the Western Regional Council with another organization. It would like to find a way to strengthen and integrate so that it is more responsive to the needs of the West.

Clark will compose a resolution to be sent to the Western Regional Council which expresses the concerns and subsequent action of the WDA.

It was moved and seconded to accept the Proposed Procedures and Structure -- Western SAES as modified. MOTION CARRIED. The Regional-National Research Planning Proposed Procedures and Structure -- Western SAES are:

REGIONAL-NATIONAL RESEARCH PLANNING
PROPOSED PROCEDURES AND STRUCTURE -- WESTERN SAES
JULY 1986

I. TERMINATE W-SAES AFFILIATION WITH:

A. RPG System
B. Western Agricultural Research Committee

II. JUSTIFICATION

A. The Joint Council is passive toward regional councils.
B. Both ERS and ARS have assumed a greater national focus.
C. ESCOP has become more active in identifying SAES research priorities and increased efforts to ensure impact on the "systems."
D. NARC will continue to integrate research priorities from independent sources (ARS, ERS, ES, SAES, etc.) into a "one-voice" recommendation to the Joint Council.
E. WARC was established on good principal; however, due to significant changes, the cost benefit ratio and membership composition may need to be revisited.
F. Significant changes in the system as identified above, imply the need for WDA to give more identity to SAES priorities.

III. STRUCTURE

A. Establish a new committee (WARC or other appropriate title) to identify Western-SAES priorities.
1) Suggested committee membership
. Three Western representatives -- ESCOP
1st year -- WDA Chairman
2nd year -- Western representative NARC: ESCOP Subcommittee on National Research Planning and Evaluation
3rd year -- Chairman WARC; member ESCOP Interim Subcommittee
. W- representative ESCOP Special Initiatives Subcommittee
. Western representative ESCOP Home Economics Research Subcommittee
. RIC Chairman-elect
. WDAL (provides staff and continuity)

IV. PROCEDURES FOR THE NEW "WARC"

A. Annually request each SAES director in the Western Region to identify research priorities as perceived in the respective states. The director would consult at his discretion department heads or others qualified to discuss priorities for both new initiatives and base program.

B. Receive and collate research priorities identified by the individual western SAES Directors and other appropriate sources, review current ESCOP research initiatives and priorities and integrate into a consolidated priority list. Present this list annually (preferably at the summer meeting) to the W-SAES directors for their evaluation and collective action on ranking the research priorities for Western Region SAES.

C. Prepare a narrative statement on each priority area describing its importance to Western Region agriculture and submit the priority list and narrative to ESCOP Research Planning Subcommittee and to NARC according to time schedules established by these committees.

32.0 Election of Officers

It was moved and seconded to accept the list of nominees as presented (Agenda item 12.2). MOTION CARRIED.

33.0 Other Business

Dewhirst conducted the final orientation of neophytes before their acceptance into the WDA.

34.0 Adjournment

It was moved and seconded to adjourn the meeting. MOTION CARRIED.

JOINT MEETING OF
WESTERN ASSOCIATION OF AGRICULTURAL EXPERIMENT STATION DIRECTORS
AND WESTERN CAHA AND CARET ADMINISTRATORS

July 16-18. 1986
Coeur d'Alene Resort
Coeur d'Alene. Idaho

AGENDA

WEDNESDAY. JULY 16. 1986

Joint Session -- CARET. CAHA. WDA. Liaison and ARS Representatives

8:00 am	1.0	Call to Order	
	2.0	Introductions and Announcements	
	3.0	Adoption of Agenda	
	4.0	Approval of Minutes of March 26. 1986 Meeting	
	5.0	CARET Activities	
8:20	5.1	Review of CARET/CAHA Tuesday Meeting	L. A. Bulla. Jr.
8:40	5.2	CARET Guidelines	Dick Joyce
9:00	6.0	The Federal Budget Process. Gramm-Rudman-Hollings and Other Budget Issues	G. William Hoagland
9:45	BREAK		
10:15	7.0	Cost/Benefits of Agricultural Research	W. B. Sundquist
10:45	8.0	Expert and Related Systems Research for Production Agriculture	Brian Croft
	9.0	Biotechnology	
11:15	9.1	Regulations. Funding, etc.	J. P. Jordan
11:45	9.2	Division of Agriculture Biotechnology Committee Activities and Plans	L. A. Bulla. Jr.
12:00	LUNCH BREAK		

WDA. Liaison Representatives. and ARS Representatives

1:00 pm	10.0	Identification and Orientation of Neophytes	
1:15	11.0	Treasurer's Report	
1:30	12.0	Report of Chairman/Report of Executive Committee	C. E. Clark
	12.1	Regular Items of Business	
	12.2	Nominations	
	12.3	DAL Committee	
	12.4	New Regional Planning Approach	C. C. Kaltenbach
	13.0	Reports from Liaison Representatives	
2:00	13.1	ARS Administrator's Report	W. H. Tallent
2:15	13.2	ARS Western Area Report	W. G. Chace. Jr.
2:30	13.3	Forest Service Report	R. R. Bay
2:40	13.4	W. Home Economics Research Administrators	R. R. Rice

2:50	13.5	Council of Veterinary Deans/ Association American Veterinary Colleges	B. I. Osburn
3:00	BREAK		
3:20	13.6	National Association of Professional Forestry Schools and Colleges	R. F. Fisher
3:30	13.7	Western RI Directors	D. J. Matthews
3:40	13.8	Western Extension Directors	H. Guenthner
3:50	13.9	ARI Conference on Agricultural Policy	L. W. Dewhirst
4:00	13.10	Users Advisory Board	Marshall Tarkington
	14.0	Interregional Project Activities	
4:15	14.1	IR-6 Status - Activities and Plans	W. B. Sundquist
4:45	14.2	IR-4 Report - Recent Review and Plans	G. W. Ware
5:00	14.3	Receipt of Written Reports from IR-1, IR-2, IR-5, and IR-7	
	14.4	Electronic Transmission of AD-419 Data	D. M. Briggs
5:15	ADJOURNMENT		

THURSDAY, JULY 17, 1986

WDA, Liaison Representatives, ERS and ARS Representatives

8:00	15.0	RIC Report	M. J. Woodburn
	16.0	ESCOP Committee Reports	
8:45	16.1	ESCOP Structure and Activities	C. C. Kaltenbach
9:00	16.2	ESCOP Special Initiatives Subcommittee	C. C. Kaltenbach
9:15	16.3	ESCOP National Research Planning and Evaluation Subcommittee	J. R. Welsh
	16.4	ESCOP Budget Subcommittees	
9:30		16.41 FY87	L. W. Dewhirst
9:45		16.42 FY88	D. E. Schlegel
10:00	BREAK		
10:15	16.5	ESCOP Communications Subcommittee/ Workshop	R. E. Witters
10:30	16.6	ESCOP Pest Control Strategies Subcommittee	G. W. Ware, Jr.
10:45	16.7	Hatch Centennial Subcommittee	D. Oldenstadt/ J. P. Jordan
11:00	17.0	CSRS Report	J. P. Jordan
11:15	18.0	Joint Council on Food and Agricultural Sciences	J. P. Jordan
11:30	19.0	ERS Report	B. H. Robinson
11:45	20.0	Animal Care	C. C. Kaltenbach
12:00	21.0	Western Rural Development Center	R. Youmans
12:15	22.0	CSRS Strategic Management Plan	J. Naegele
12:30	ADJOURNMENT		

FRIDAY, JULY 18, 1986

WDA and Liaison Representatives

8:00	23.0	DAL Report	L. L. Boyd
8:30	24.0	Interregional Project Discussion	D. E. Schlegel
	25.0	Reports from Representatives to Regional and National Committees	
8:45	25.1	Committee of Nine	D. E. Schlegel
9:00	25.2	W. Agricultural Research Committee	H. F. McHugh/ R. R. Bay
9:30	25.3	National Agricultural Research Committee	H. F. McHugh
9:40	25.4	Plant-Water Stress Task Force Report/ Gordon Conferences	R. D. Heil/ L. W. Dewhirst
9:50	25.5	Western Regional Council	D. J. Matthews
10:00	BREAK		
10:15	26.0	Plant Gene Expression Center	G. Still
10:45	27.0	National Plant Germplasm	M. H. Niehaus
11:00	28.0	Pacific Rim	D. E. Schlegel
11:15	29.0	Resolutions	
11:30	30.0	Future Meetings	
11:45	31.0	New Regional Planning Approach - Vote	C. E. Clark
12:00	32.0	Election of Officers	
12:05	33.0	Other Business	
12:15	ADJOURNMENT		

GUIDELINES FOR STATES RECOMMENDED
by
CARET Strategic Planning Committee
March 1986

Dave Farley, MI
Bonnie Hammerstedt, NJ
Dick Joyce, OR
Chip Morgan, MS

Charge: To identify an improved process of communication, information development and recommended action for CARET to achieve nationwide efforts in support of federal budgets for Agricultural Research, Extension, and Teaching.

Preface: CARET provides a national forum for support of agricultural science and education whose base and focus is in the respective land-grant institutions of the States. Effective support of Federal funding for agricultural science and education requires the development of strategies that will enhance understanding and support of agricultural research, extension, and teaching at the Nation, State, and local levels. To this end the committee proposes the following guidelines for building comprehensive support. The success of the effort is dependent on a cooperative effort of the Division of Agriculture units, land grant university administrators in the states, and their CARET delegates. Further, the dual issues of current budget support (the pending appropriations bills) and the longer team support of Agricultural Science and Education must be recognized.

Development of NASULGC Budget Recommendations (Pending Appropriations)

The Division of Agriculture has an effective budget development process that works with USDA and which includes representatives from all Division units including CARET. This process is an evolutionary process that uses the COP's as well as other program units to build national recommendations based on state needs. This process begins nearly two years in advance of the President's budget submission. However, all of the "preliminary" work must be reconsidered and recast after the President's budget is submitted to the Congress. This is done in early February by the Division Budget Committee. The following recommendations are made to enhance the achievement of necessary federal support in the active appropriations process.

In-State

A. Administrative heads together with CARET delegates should identify and implement a plan to inform various agricultural interest groups in their state about the current budget recommendations of the Division of Agriculture to achieve broader support.

B. Outline concepts and approach to orientation session. Offer explanation of President's budget and Gramm Rudman Hollings budget impact on your state.

- Explain budget process

- Explain Budget Proposal

- Explain Gramm-Rudman

- Implications for the State

Suggestions for groups to be included in Orientation Session are:

1. Agriculture Alumni
2. Financial Institutions and Farm Credit System
3. Farm Supply Organizations - Ag Chemical, Consultants, Implements, dealers, etc.
4. Commodity and General Farm Organizations
5. Crop Commissions and Promotion Boards
6. 4-H, Homemakers leaders
7. Chief Administrative Official of University System
8. Local and State Governments (city, county, etc.)

C. Materials and Data for Orientation and future use

1. Implication Executive Budget Proposal
   (a) Provide examples of "accomplishments"
   (b) Identify projects/programs that will be affected eliminated if
   (c) Specific examples of successful projects that may be terminated
   (d) Summarize number of positions and personnel that will be lost.

2. Document the importance of Agriculture to the State including the corollary economic and social activities.

3. Prepare a Congressional Directory for State
   (Congressman's name)
   (address) - Washington and In-State
   (phone) - " " "
   (name of Agriculture Staff Person)
   (indicate if membership committee on Agriculture, Appropriations, or Budget)

4. Prepare proposed draft of letters to Congressman calling for support of NASULGC Budget request (suggest that draft only be used as a model and urge personal message)

5. Identify Congressional Recess date to target local education efforts.

6. Prepare Gramm-Rudman-Hollings timetable analysis to stress importance of timely contact.

D. Suggestions for Implementation

1. Correspondence - personal letters preferred over proposed draft
2. Phone calls - contact immediately and register concern and reminders throughout Budget and Appropriations process. (contact staff person, if Congressman unavailable)
3. Contact district or State office of Congressman to urge action in favor of NASULGC Budget request.
4. Request local Congressional Staff personnel to hear and review conclusions and recommendations of Orientation Session group.
5. Arrange special meeting for Agriculture leadership to discuss NASULGC/Budget concerns with Congressman during recesses.
6. Request an official responses from Congressman regarding his/her position on NASULGC/Budget request.
7. Responses from Congressional offices should be reported to CARET offices as soon as they are received.

E. Timetable Goals

1. Prior to March 1st, Administrative Heads will hold orientation sessions for agricultural interest groups.
2. Regional representatives to CARET will report status of Orientation Sessions to CARET/Lay Leaders Seminar in early March.
3. Progress report and responses from Congressional offices filed with NASULGC office by CARET delegates in each state as soon as received. Administrative Head reports results to NASULGC office.
4. CARET Executive Committee meets in August to review Strategic Planning Committee initiatives.
5. Evaluate State and Regional Performance at November meeting of CARET.

National Thrusts:

1. Letter over signature of Division of Agriculture Budget Chairman to all commodity groups requesting endorsement of NASULGC Budget recommendations (all commodity groups included in Friends of Agriculture Breakfast)
2. Letter over signature of Division Budget Chairman requesting their policy statements and priorities regarding research, extension, and teaching. Send to NASULGC office.
3. Invitation to Friends of Agriculture/CARET dinner at the March meeting of CARET over CARET Chairman's signature.

   Urge CARET delegates to participate in state and national meetings of respective Farm and Commodity organizations.

Long Term Understanding and Support:

1. Develop state and national efforts to explain the importance of agriculture and land-grant system to agricultural interests as well as others: i.e. consumers, state legislators, county commissioners, etc.

COST/BENEFITS OF AGRICULTURAL RESEARCH*

W. Burt Sundquist

The topic of my presentation is costs/benefits of agricultural research. And, although this is what I want to talk about, I would like to broaden the title a bit to something like, "Criteria for Evaluating Public Investments," of which, of course, agricultural research is a subset of particular interest to this group. Then this afternoon I will comment more directly on the program of work of IR-6 on Agricultural Research Evaluation.

The choices among alternative policies or programs involving public investments are not, of course, limited to costs/benefit considerations. They are not even based entirely on economic considerations. Obviously there are political considerations involved in some cases, ideological consideration in other cases, national security considerations in other cases, and so on. But, for the purposes of this discussion I would like to focus on the criterion of "relative economic efficiency" as a basis for evaluating public investments or programs. Generally speaking there are at least three economics based measures or decision rules by which public investments can be evaluated.

These are:

(a) Net Present Value

(b) Benefit-Cost Ratio

(c) Internal Rate of Return

---

* Comments prepared for discussion with Western Agricultural Experiment Station Directors, Coeur d'Alene, Idaho, July 16, 1986.

Since I think we are going to see more in the future of all three measures, I would like to talk a little about all three.

1. Net Present Value - The present value basis for ranking alternative public investment programs can be stated as follows: The program with the greatest net present value (NPV) should be ranked first and others ranked in the order of their declining, but still positive, NPVs. The net present value is defined by the following formula:

$$(a) \qquad NPV = \sum_{t=1}^{T} \frac{B_t - C_t}{(1 + i)^t}$$

where B_t is the benefits in year t, C_t is the costs in year t, i is the discount rate, and T is the last year for which benefits and costs are computed. The net present value analysis aims at incorporating the appropriate time discounting procedure for future anticipated costs and benefits. For simplicity the actual computations of the present value of costs and benefits are generally carried out independently. The stream of annual expected benefits is discounted to arrive at a present value for that income stream and the stream of annual expected costs is also discounted in order to provide an aggregate present value of expected costs. NPV is then calculated simply as the

difference between total discounted benefits and total discounted costs. Thus the computational procedure can be shown simply as formula (b):

$$(b) \qquad NPV = \sum_{t=1}^{T} \frac{B_t}{(1+i)^t} - \sum_{t=1}^{T} \frac{C_t}{(1+i)^t}$$

Only programs or projects with a positive NPV are justifiable on economic grounds. If the NPV is negative a program is projected to cost more than it is worth. One of the key issues in this and other economic evaluations is the choice of the appropriate discount rate. Before the early 1970s interest rates were low and some economic evaluations didn't even bother to discount future benefits and costs. But, I think those days are gone forever. As an economist, of course, I think interest rates are important and cannot be conveniently ignored. But they have been highly variable and difficult to predict in the past decade or more.

2. Benefit-Cost Ratio - A second decision rule for ranking alternative public investment programs is to compute the ratio of discounted benefits to discounted costs. This is probably the most common type of public investment evaluation. And to be economically justifiable, a program or project should have a

benefit-cost ratio of one or more. And of course, the greater the ratio, the more economically justifiable the project. The formula for the benefit-cost ratio is shown as follows:

$$B/C = \frac{\text{Present Value of Benefits}}{\text{Present Value of Costs}} = \frac{\sum_{t=1}^{T} \frac{B_t}{(1+i)^t}}{\sum_{t=1}^{T} \frac{Ct}{(1+i)^t}}$$

Again it is readily apparent that in order to compute the benefit-cost ratio of a public investment we must decide upon a discount rate to be used in the computation. So we don't get rid of the problem.

3. Internal Rate of Return - A third procedure for evaluating the economic profitability of public investments is to determine the discount rate which just makes the net present value of benefits equal zero. This we call an "internal rate of return." And, the formula for computing the internal rate of return may be written as follows:

$$IRR = \sum_{t=1}^{T} \frac{B_t - C_t}{(1+r)^t} = 0$$

T, t, B_t and C_t have been defined above and r is the internal rate of return to be calculated. Then

investment projects can be ranked from high to low priority in the order of the values of their computed internal rates of return. In general, to be economically justifiable, projects should have an internal rate of return (IRR) that is at least equal in value to the prevailing market interest rate. Otherwise the project is not earning a competitive rate of return.

One limitation of the IRR decision criterion is that in some cases there is a possibility that more than one IRR will make the present value of benefits equal the present value of costs. Thus, the possibility of a non-unique solution for the IRR is a possible objection to its use as a decision rate for evaluating public investments. But in actuality, this is not generally a problem. An off setting advantage, on the other hand, is that we don't need to assume an interest or discount rate but can simply evaluate the calculated IRR and make a judgement about it's adequacy to justify the investment of public resources.

Those of you familiar with the literature on agricultural research evaluations realize that IRRs which have been calculated on agricultural research investments (work by Evenson, Peterson, Norton, Davis, Ruttan and others) have historically been very high, generally 40% or more on an annual basis. And, past

benefit/cost analyses of agricultural research have also turned out to be very favorable (or well in excess of one). And, I am personally aware that these favorable results have impressed people in OMB and elsewhere.

Measuring Aggregate Research Benefits

I want to only briefly comment on the topic of measuring research benefits since this can easily become a very complex topic in its one right.[1]

A very simple perspective is to view the benefits from agricultural research in terms of the resource savings associated with producing a given level of output (Q_0 in Figure 1). Although this completely inelastic demand curve and completely elastic supply curve are unrealistic, they do illustrate well the area of cost or resource savings (producer surplus) resulting from research which shifts producers from S_0 to S_1. This saving is shown here as the cross hatched area.

A more realistic scenario is the one shown in Figure 2 which permits measurement of an area of producer and consumer surplus (below the demand curve) resulting from research that shifts the producer supply curve from S_0 to S_1. Although the process can become rather complex, we now have rather effective econometric procedures for

---

[1] For a more comprehensive discussion of this topic see George Norton and Jeffrey Davis, "Evaluating Returns to Agricultural Research: A Review," American Journal of Agricultural Economics, Vol. 63, No. 4, Nov. 1981, pp. 685-699.

estimating the net amounts of producer and consumer surplus.

A second procedure used to estimate the contribution of research is to include agricultural research as an argument in a production function along with other traditional arguments such as land, labor, fertilizer, etc. and to compute the contribution of research to output from that function. This has the additional advantage of permitting an evaluation of the marginal product from research as a derivative of that function.

In short, although the process is by no means perfect, we can estimate the benefits of research <u>if we have appropriate measures of market quantities and prices</u>.

<u>Limitations of Past Benefit/Cost Analyses</u>

If past economic evaluations of agricultural research have turned out highly favorable, why not say "good job" and close up shop? I think there are several important answers to that question:

1. Ideally these benefit/cost measures for agricultural research should be compared with similar measures for other public investments (say welfare programs, defense programs, highway construction, and even other kinds of public research, like health research, for example) but these benefit/cost measures are not available for most other public investments. There are two big reasons they aren't available. First, although one can generally measure the costs of these other programs, it's difficult to measure their benefits. For example, how much is national defense worth? We can't measure

that let alone the marginal value of another aircraft carrier or nuclear submarine. And we have similar problems in measuring health program benefits. How much is an additional life worth? Or some modest improvement in the quality of a human life. This lack of comparable information from other public investments is probably a problem we will have to continue to live with.

2. Second, we can do a pretty good job of measuring research benefits when the output involved is a marketable commodity like corn, cotton, wheat or soybeans. But we have problems in measuring the output associated with environmental improvement or the quality of living of farm families. In these cases even if we can measure the output quantities involved, we don't have a market price to apply. And, although we are working on these topics, they will always have some element of subjectivity.

3. Third, we have some temporal problems associated with periods of commodity shortages (and high prices) and with commodity surpluses (and low prices). Since we generally have a very inelastic demand for farm commodities, at least in domestic markets, the short-term effects of increased output are usually those of pushing down producer prices. The main defense against this problem is to realize that the benefits of

agricultural research need to be evaluated over the long term when these short term fluctuations can balance out and when the resources saved in agriculture from research (including human resources) can be effectively utilized in other economic sectors. Thus "productivity" gains from research need to be viewed as a long-term objective.

4. We have done very little to partition out the productivity maintenance benefits of agricultural research from the productivity enhancing components. As a result many observers do not understand about the role of and need for "maintenance" or "productivity sustaining" research. But we have some good evaluative research underway in this area.

5. Another need is to better partition research benefits into different categories including that which derive from more basic research, on the one hand, and that which derives directly from technology enhancement, on the other hand. I believe the public agricultural research community will be under increasing pressure to address separately the benefits from these two lines of research. This separation is obviously not an easy one but try we must, I believe. For example, it will probably be increasingly difficult to justify public research for most new mechanization technology. Too many observers are questioning the benefits of

additional mechanization vis-a-vis the labor displacement and farm size concentration that is expected to accompany it.

6. Sixth, we need to do a better job of sorting out the benefits from public sector agricultural research from those accruing to private sector R & D. This topic, of course, relates closely to item number five and the two cannot be completely separated. But, I believe we need to make a serious attempt to do so and one of our research projects under IR-6 is aimed at addressing this problem.

7. Seventh, we have not, historically at least, done a very good job of partitioning the benefits of agricultural research among the different categories of recipients including, for example, producers, consumers and the agribusiness sector. And we have done very little to measure the distribution of research benefits between small and larger producers and between low income and high income consumers. We have expanded these lines of inquiry under IR-6 and will be reporting out some of these results at a national workshop next winter.

8. Eighth, and finally on my short list of problems with our historical agenda of cost/benefit analyses, is that most past work has been of an ex post nature. That is we have measured the benefit/cost relationships for

past research. And, if benefit/cost analysis is to be as effective a tool as possible for research evaluation and planning its needs to be cast in an ex ante or "projective" mode.

My general perspective here is that although some generic ex ante benefit/cost analysis can be done at the national level, most must be done at the level of the individual agricultural experiment station or private sector firm.

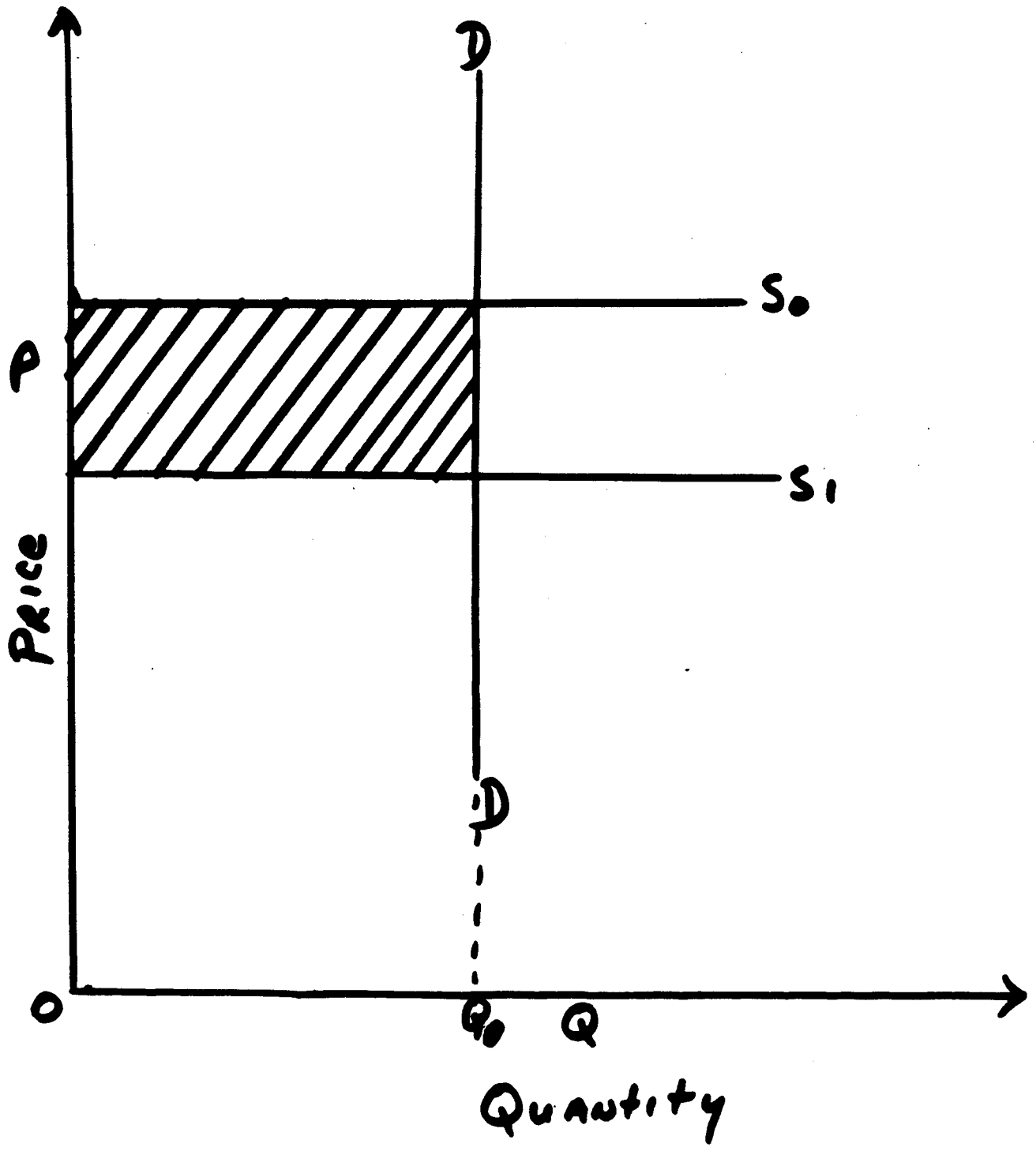


Figure 1

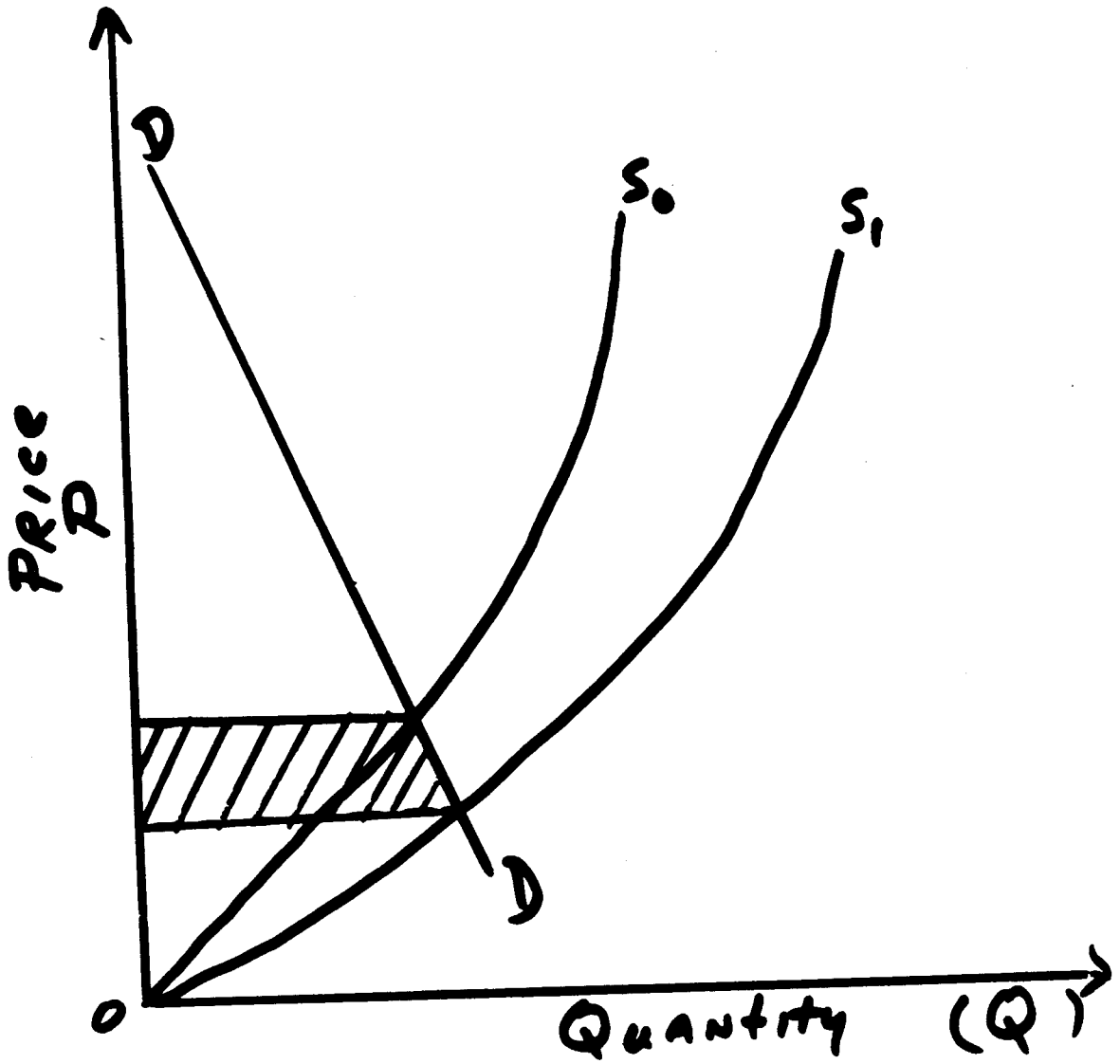


Figure 2

WD012 26-Jun-86

WESTERN DIRECTORS' AT LARGE ACCOUNT
FINANCIAL STATUS -FY1986

ITEM	ALLOCATION	INCOME	BALANCE
JULY 1 BALANCE			69436.59
ALASKA	812.66	812.66	70249.25
ARIZONA	4296.92	4296.92	74546.17
CALIFORNIA	9177.91	9177.91	83724.08
COLORADO	6059.94	6059.94	89784.02
GUAM	695.84	695.84	90479.86
HAWAII	2178.94	2178.94	92658.80
IDAHO	3352.11	3352.11	96010.91
MONTANA	3794.10	3794.10	99805.01
NEVADA	2077.36	2077.36	101882.37
NEW MEXICO	2285.60	2285.60	104167.97
OREGON	5373.69		104167.97
UTAH	3915.99	3915.99	108083.96
WASHINGTON	5007.99	5007.99	113091.95
WYOMING	3083.85	3083.85	116175.80
TOTAL	52112.90	46739.21	116175.80

DATE	TRANSACTION	INCOME	EXPENSE	BALANCE
7/17/85	TRANSFER TO COLORADO		20000.00	96175.80
8/14/86	BOYD MOVING EXPENSES		478.79	95697.01
8/27/85	INTEREST EARNED	833.49		96530.50
8/25/85	WASH.STATE-BOYD SALARY		16419.69	80110.81
9/9/85	TRANSFER TO COLORADO		20000.00	60110.81
10/3/85	INTEREST EARNED	1658.70		61769.51
1/9/86	TRANSFER TO COLORADO		10000.00	51769.51
1/7/86	SEMI-ANNUAL INTEREST	700.23		52469.74
2/24/86	U OF AZ-WATER SYMPOSIUM		6000.00	46469.74
2/4/86	AMERICAN SAMOA PAYMENT	500.00		46969.74
4/2/86	TRANSFER TO COLORADO		25000.00	21969.74
6/16/86	SEMI-ANNUAL INTEREST	1358.57		23328.31

WD003

26-Jun-86

WESTERN DIRECTORS' SPECIAL ACCOUNT
FINANCIAL STATUS -FY1986

ITEM	ASSESSMENT	INCOME	BALANCE
JULY 1 BALANCE			474.14
ALASKA	226.52	226.52	700.66
ARIZONA	1197.72	1197.72	1898.38
CALIFORNIA	2558.23	2558.23	4456.61
COLORADO	1689.14	1689.14	6145.75
GUAM	193.96	193.96	6339.71
HAWAII	607.35	607.35	6947.06
IDAHO	934.36	934.36	7881.42
MONTANA	1057.56	1057.56	8938.98
NEVADA	579.04	579.04	9518.02
NEW MEXICO	637.08	637.08	10155.10
OREGON	1497.85	1497.85	11652.95
UTAH	1091.54	1091.54	12744.49
WASHINGTON	1395.92	1395.92	14140.41
WYOMING	859.59	859.59	15000.00
TOTAL	14525.86	14525.86	15000.00

DATE	TRANSACTION	INCOME	EXPENSE	BALANCE
				15000.00
10-Oct-85	BEGINNING BALANCE		362.08	14637.92
10-Oct-85	DEWHIRST-ESCOP TRAVEL		1191.14	13446.78
10-Oct-85	WELSH-ESCOP TRAVEL		928.81	12517.97
10-Oct-85	DEWHIRST-ESCOP TRAVEL		681.75	11836.22
10-Oct-85	KALTENBACH-ESCOP TRAVEL		486.43	11349.79
26-Feb-86	KALTENBACH-ESCOP TRAVEL		999.37	10350.42
24-Apr-86	KALTENBACH-ESCOP TRAVEL		1169.86	9180.56
28-Apr-86	DEWHIRST-ESCOP TRAVEL		1009.36	8171.20
16-May-86	CLARK-ESCOP TRAVEL		1303.58	6867.62
02-Jun-86	OLDENSTADT-ESCOP TRAVEL		651.11	6216.51
24-Jun-86	CLARK-ESCOP TRAVEL			6400.61
26-Jun-86	INTEREST EARNED	184.10		

REGIONAL-NATIONAL RESEARCH PLANNING
PROPOSED PROCEDURES AND STRUCTURE -- WESTERN SAES
JULY 1986

I. TERMINATE W-SAES AFFILIATION WITH:

A. Western Regional Council
B. RPG System
C. Western Agricultural Research Committee

II. JUSTIFICATION

A. The Joint Council is passive toward regional councils. Only the West has an active regional group.
B. Both ERS and ARS have assumed a greater national focus.
C. ESCOP has become more active in identifying SAES research priorities and increased efforts to ensure impact on the "systems".
D. NARC will continue to integrate research priorities from independent sources (ARS, ERS, ES, SAES, etc.) into a "one-voice" recommendation to the Joint Council.
E. WARC was established on good principal; however, due to significant changes, the cost benefit ratio and membership composition may need to be revisited.
F. Significant changes in the system as identified above, imply the need for WDA to give more identity to SAES priorities.

III. STRUCTURE

A. Establish a new committee (WARC or other appropriate title) to identify Western-SAES priorities.

1) Suggested committee membership
   . Three Western representatives -- ESCOP
     1st year -- WDA Chairman
     2nd year -- Western representative NARC; ESCOP Subcommittee on National Research Planning and Evaluation
     3rd year -- Chairman WARC; member ESCOP Interim Subcommittee
   . W-representative ESCOP Special Initiatives Subcommittee
   . Western representative ESCOP Home Economics Research Subcommittee
   . RIC Chairman-elect
   . WDAL (provides staff and continuity)

2) See attached diagram for Regional-National Planning System for Agricultural Sciences.

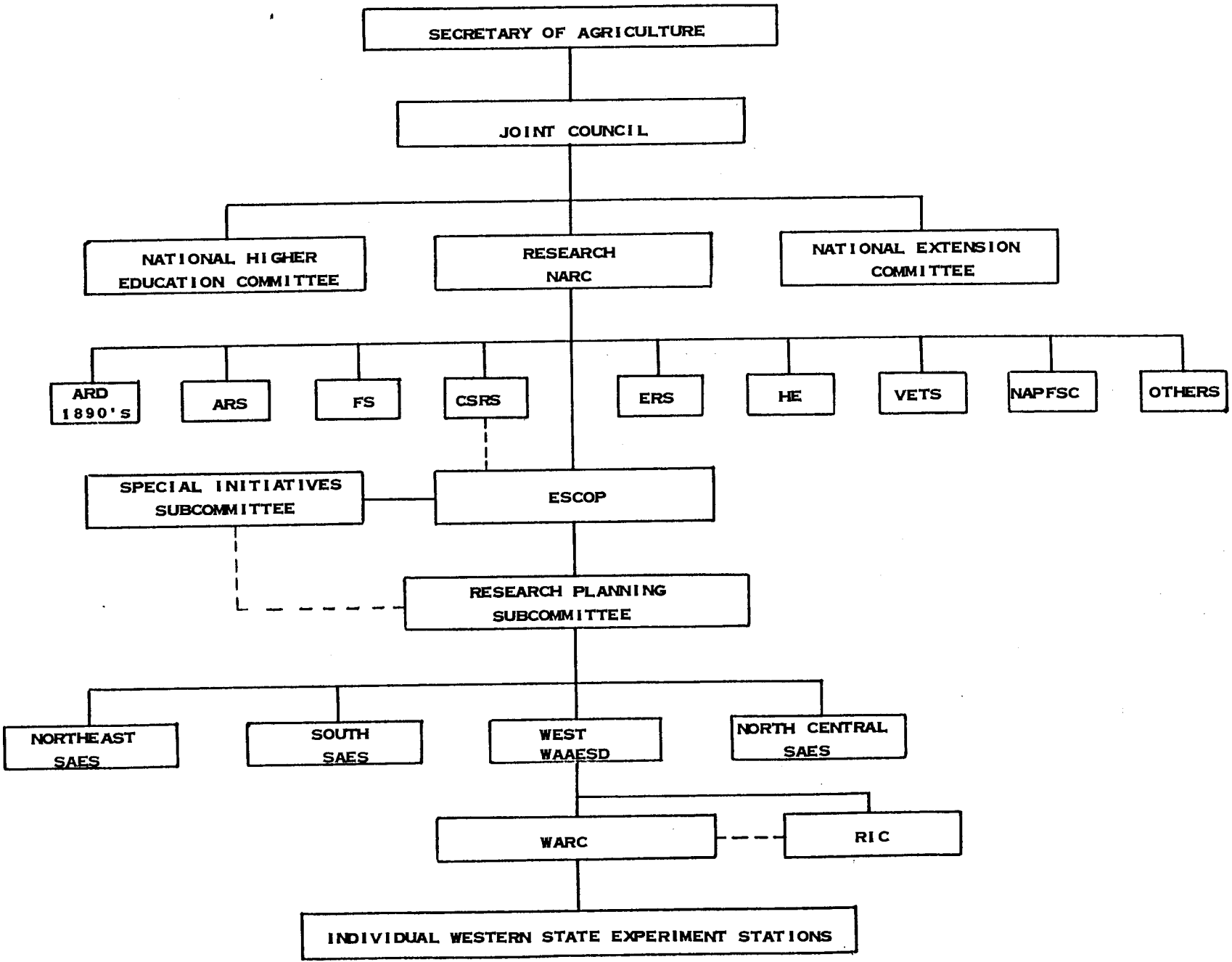
IV. PROCEDURES FOR THE NEW "WARC"

A. Annually request each SAES director in the Western Region to identify research priorities as perceived in the respective states. The director would consult at his discretion department heads or others qualified to discuss priorities for both new initiatives and base program.

B. Receive and collate research priorities identified by the individual western SAES Directors and other appropriate sources, review current ESCOP research initiatives and priorities and integrate into a consolidated priority list. Present this list annually (preferably at the summer meeting) to the W-SAES directors for their evaluation and collective action on ranking the research priorities for Western Region SAES.

C. Prepare a narrative statement on each priority area describing its importance to Western Region agriculture and submit the priority list and narrative to ESCOP Research Planning Subcommittee and to NARC according to time schedules established by these committees.

REGIONAL-NATIONAL PLANNING SYSTEM FOR AGRICULTURAL SCIENCES



AGRICULTURAL RESEARCH SERVICE
REPORT OF NORTHWEST AREA, MOUNTAIN STATES AREA,
AND PACIFIC BASIN AREA TO
WESTERN EXPERIMENT STATION DIRECTORS
Coeur d'Alene, Idaho
August 16-17, 1986

PACIFIC BASIN AREA

The shift in emphasis of ARS programs to include more basic research in solving the major problems has led to major efforts to renovate and update facilities. Renovating efforts should be completed in September to provide facilities for the Plant Gene Expression Center at Albany, California. Also, we anticipate staffing of PGEC to begin with the hiring of the top University of California Technical Director, 4 to 6 scientists and several post docs by this October. Plans are being developed for an extensive renovation of Western Regional Research Center (WRRC) facilities to be accomplished over the next 2 - 4 years to provide up-to-date facilities for new high priority programs. Dr. Martin Rogoff is the new Center Director for WRRC. Many of you know Martin from his previous position on the National Program Staff.

Construction has been started on the new National Clonal Repository for Tropical Fruits in Hilo, Hawaii, to be completed in 1986. The curator for the repository has been hired. Construction for the National Clonal Repository for Citrus on the campus at UC Riverside will begin in FY 86 with an estimated completion in late FY 87.

Plans are being developed to upgrade the Aquatic Weed facilities at Davis, CA, consolidate the remaining programs in Fresno to our Peach Avenue facilities, construct new facilities to concentrate more of our Fruit Fly Program at Hilo, upgrade the greenhouse and headhouse facilities in preparation for a joint research program with the California Experiment Station and expansion of the ARS programs .

We are in the process of selecting a new Laboratory Director of the U.S. Salinity Lab at Riverside.

A new research unit will be established in Hawaii on Aquaculture Production with Dr. Dan Freeman as the Research Leader. The Aquaculture Production Research Unit will be located with the Oceanic Institute at Waimea, Hawaii.

NORTHWEST AREA

The major effort during FY 1985 was in strengthening high priority programs. The Wheat Quality Lab at Pullman and the Cereal Crops Unit at Bozeman have received increased support. Construction of the National Forage Seed Production Center at Corvallis is scheduled to be completed in early September, about 3 months early. Along with new facilities, the Forage Seed Production Unit will receive increased support. The TCK research program at Corvallis will be terminated. Planning phase for construction of the Small Grain Germplasm Research Facility at Aberdeen, Idaho, has been initiated.

The total appropriation for this new facility is $3 million and the estimated completion date is early 1988. Doral Kemper from the Kimberly, Idaho, station has been selected to join the National Program Staff. The new Lab Director will be Dr. Dave Carter.

MOUNTAIN STATES AREA

For FY 1986, ARS and USDA had hoped to recommend nearly $20 M for renovation of the National Seed Lab in Fort Collins. Budget restraints eliminated all consideration of construction items. With the untimely death of Louis Bass, we must find a new Director for the Laboratory. ARS considers this activity and this position as high priority. However, there still is some uncertainty as to the exact organizational structure we need in view of potential restructuring and strengthening of the total program. Dr. Eric Roos has been appointed RL for Plant Germplasm Preservation Research.

Earlier, ARS had decided to not review Specific Cooperative Agreements with several states for research on chalkbrood disease in leafcutter bees, but to do the work in-house. We now have agreed to continue our cooperative work through FY 1987.

The Arthropod Borne Animal/Disease Lab at Denver has been moved to Laramie. Renovation of facilities is still underway and staffing will be brought back up to strength after the physical facilities are in place. A decontamination facility, needed for disposal of virulent wastes, still needs to be provided, as also facilities for some large animals at containment level 3+.

At Reno, loss of 2 out of 3 scientists in the alfalfa unit led to the decision to discontinue that work. The range research at Reno is to be strengthened.

FOREST SERVICE REPORT TO WESTERN AGRICULTURAL EXPERIMENT STATION DIRECTORS

Coeur d'Alene, Idaho, July 16, 1986

BUDGETS

Congress has not yet acted on an appropriation bill for the Forest Service. The President's FY1987 budget request for Research is about 11% less than the FY1986 appropriation. The Forestry Competitive Grants Program was deleted in the President's budget (6.8 million in FY86). At this time, we don't know when Congress will mark-up a bill or how they will act on the major program reductions. The Western Stations could have programs reduced in timber management, forestry inventory, and fire research.

PERSONNEL

Over the last several years, all Forest Service Experiment Stations have reduced administrative and management positions in response to reduced rsearch programs. The Intermountain Station has not replaced a Program Manager or an Assistant Director for Planning. The Pacific Southwest Station has not filled the Deputy Director position after Ben Spada retired, and the Rocky Mountain Station has recently closed out a Deputy Director position (Dr. Dixie R. Smith retired) and chosen not to fill an Assistant Director for Planning position in Fort Collins (Dr. J. S. Krammes transferred to Arizona).

PROGRAMS

On July 11, 1986, The Forest Service announced a series of major changes in the national fire research program. Fire science research capability will be strengthened by concentrating fire research funding at five locations: Missoula, Montana; Riverside, California; Seattle, Washington; Fort Collins, Colorado; and Macon/Athens, Georgia. Scientists and programs at a number of scattered locations in the eastern and western U.S. will be moved to these major centers. Fundamental research programs, and major national and regional priorities will be emphasized. This also moves additional resources into the Western U.S. with more likely contacts at western universities.

Atmospheric deposition research in the alpine zone (headquartered: Fort Collins) and deposition effects on western conifers (currently concentrated in Riverside, CA) have been strengthened this year with support from EPA funding.

ROGER R. BAY

July 1, 1986

Report of the

WESTERN HOME ECONOMICS RESEARCH ADMINISTRATORS

to the

WESTERN ASSOCIATION OF AGRICULTURAL EXPERIMENT STATION DIRECTORS

The WHERA group has played a significant and valuable role during 1985-1986. The following summarizes major areas of activity.

1. Major focus has been on the current efforts and future planning as it relates to regional research within the scope of home economics. The sharing among administrators of detailed information on individual contributions to the various projects, special problems and notable successes have helped unify and strengthen home economics research in the Western region. The following projects are monitored closely.

   W-143 Nutrient Bioavailability. WHERA endorsed renewal of this project which subsequently has been approved to run from 1986 to 1991.

   W-159 Consequences of Energy Conservation Policies for Western Region Households. Highly successful and productive project. Will terminate in 1986 and the new project developed by these scientists is W-176.

   W-167 Coping with Stress. This project addresses an important issue and is making reasonable progress.

   W-175 Consumer Health Influenced by Clothing and Household Fabrics. A new project which is on the cutting edge of scientific investigation in the relationship of clothing and fabrics and human health. Great potential for new and impactful information and results.

   W-176 Housing and Locational Decisions of Maturing Populations. New project growing out of W-159. Excellent participants, well conceived and designed project with great potential.

   WRCC-23 Textile and Clothing Research. Important and useful committee for Western region scientists in clothing and textiles.

   WRCC-57 Community Participation, Work and Retirement Among the Elderly. Considering the demographics of our changing society, this committee is focusing on key issues and concerns.

2. WHERA members are taking an increasingly active part in the identification of research and Extension priorities and budget planning at the national level. This involvement is valuable in that the impact of home economics constituencies can be brought to bare in the political process and home economics can be more supportive of agriculture.

3. WHERA is planning an extended session to be held in conjunction with the NASULGC meetings in November.

4. WHERA was involved in the planning and conduct of the Home Economics Research Administrator's workshop held in Washington D.C. in April 1986. Several new home economics administrators from the Western Region attended.

Report of the American Association of Veterinary Medical Colleges

Bennie I. Osburn
Associate Dean-Research
School of Veterinary Medicine
University of California
Davis, California

The AAVMC represents 27 veterinary schools and colleges and 11 veterinary science departments. These units represent the principal organized veterinary medical teaching and research programs in the United States. The Schools and Colleges of Veterinary Medicine in the Western United States include the School of Veterinary Medicine at the University of California, Davis, The College of Veterinary Medicine and Biomedical Sciences at Colorado State University and the Northwest Regional College of Veterinary Medicine involving Washington State University, Oregon State University and the University of Idaho (WOI). The participating Veterinary Science Departments in the Western United States include University of Arizona, Montana State University, Utah State University and University of Wyoming.

The areas of particular interest to the Schools and Colleges of Veterinary and Veterinary Science Departments this

year include manpower needs, research thrusts and support and animal welfare issues.

Manpower Issues

The AAVMC is planning to devote its 9th Symposium on Veterinary Medical Education to addressing issues of health manpower. The Symposium will be held at the University of California, Davis from June 27 to July 1, 1987.

Research

The AAVMC is sponsoring its second Workshop on Animal Health Research for American Animal Agriculture at the Winrock International Conference Center, Petit Jean Mountain, Arkansas September 15-17, 1986. The Workshop will review progress made on the Animal Health and Disease Research Special Grants and 1433 Programs and make recommendations for future research directions.

Animal Welfare

The new regulations for housing and care of animals supported on federally funded research places additional responsibilities on veterinarians. Although animals used for production research do not always fall under the new laws, any animals used on National Institutes of Health funded research must be kept in compliance with the guidelines. Guidelines for housing and care of animals are being considered by other agencies including USDA.

Western Extension Director's 1986 Report to
The Western Agricultural Experiment Station Directors
Coeur d'Alene, Idaho, July 15-18, 1986

As you are aware, the Extension Director for the state hosting the WAAES would serve as the WED liaison representative. Unfortunately, the WED are also meeting the same week you are meeting in Coeur d'Alene, Idaho. Since I can not be with you, I am preparing a short report.

1. The Westen Computer Consortium is in full swing at the University of Arizona to meet the needs of the Western Region. Please interact with your WCC representative about the activities and programs underway at the Consortium and the opportunities for Research and Teaching to also participate.

2. There is a need to enhance communications and programming between WED and WAAES. This could be greatly improved by having joint meetings every two or three years. Plans could be developed to have part of the program jointly and also allow separate sessions to conduct ongoing business. Possible topics for discussion could be: joint regional projects, increasing the effectiveness of the Joint Council, changing role of Research and Extension in the 1990's, or other topics of mutual interest.

3. We appreciate your support for Extension as we have faced the potential budget cuts proposed by the President. We must continue to work closely as partners if we are to meet the challenges of the future.

4. If there are any particular concerns of WAAES, please let us know so that these can be discussed with you at any of your future meetings.

We hope you have a successful meeting and that our meeting schedules will enable us to be at your future meetings.

IR-6 Status - Activities and Plans*

W. Burt Sundquist**

The revised IR-6 project is in its' second year of a 5-year program which will continue until September 30, 1989. We are operating with a basic $200,000 annual budget which was retrenched 4.9 percent this year as a result of Gramm-Rudman. Our current budgetary process is to allocate most of the available funds to support individual research projects plus covering about .2 of the coordinator's salary and related travel. In FY 1986, nine projects were supported and in FY 1987, 11 or 12 projects will receive financial support.

The general objective of this revised project is to develop information on the allocation of research resources, the benefits derived from these research investments, and to whom and where the benefits accrue, and to provide this information to research managers and others who support and use the research results. This general objective is to be accomplished through the following specific objectives:

1) Evaluate the incidence of benefits and costs of food and agricultural research on participants in the agricultural and food sectors, including consumers.

2) Estimate the degree of transferability of scientific discoveries and evolving technologies across state, regional and national boundaries.

3) Examine the processes by which basic and applied research and public and private research interact to enhance innovation.

As some of you are aware, previous work under IR-6 concentrated heavily on 1) estimating returns to past agricultural research mainly as measured by internal rates of return and 2) estimating the degree of transferability of research results mainly through the use of so called "spillover" variables which represent the "spill out" and "spill in" of research benefits from one state or production region to another. Generally the results of these analyses have shown very high rates of return to agricultural research (typically in the range of 45-60% per year) and very substantial spillovers of research benefits (generally 1/3 or more, depending on area and type-of-research, of the research benefits flow out of the state in which the research was conducted).

*Comments prepared for discussion with Western Agricultural Experiment Station Directors, Coeur d'Alene, Idaho, July 16, 1986.

**Coordinator (Part-time) of IR-6.

In my discussion this morning I suggested several of the problems to which IR-6 research is currently being directed. These include:

1. Broadening the basis for estimating the incidence of research benefits to producer, consumer and agribusiness groups. Cooke and Sundquist at Minnesota will have a report out shortly for the major grain commodities and cotton which shows research benefits and the distribution of these benefits by size of farm.
2. Expanding the work on transferability of research results across regions. Gordon Kearl at Wyoming is involved in looking at this topic from the standpoint of range and livestock related research, Bob Bancroft at Vermont is working on Dairy, Fred White at Georgia (Athens) is looking at a broad range of research and regional configurations and Bob Eddleman at Mississippi State has recently completed extensive analysis on soybeans.
3. Partitioning the contributions of agricultural research into categories of productivity maintenance and productivity enhancement. Lee Blakeslee at Washington State University and George Norton at VPI are working on this topic. Blakeslee's general economic model will be applied to wheat research specifically.
4. Estimating the research investment and the types of research being undertaken by the Private Sector and its contribution to total research benefits. Initial work is being undertaken by Carl Pray at Rutgers.
5. Efforts to better identify the individual and interactive roles of basic and technology related research is being undertaken by Sundquist at Minnesota, Norton at VPI, White at Georgia and Buttel at Cornell.
6. Analyses which continue to expand the evaluation of agricultural research to the post-harvest sectors is being undertaken by Langham at the Florida Station and additional work has been proposed.
7. Initial efforts are underway to identify the likely future impacts of the emerging biotechnologies on agricultural productivity and the structure of agriculture. Buttel at Cornell and Sundquist at Minnesota have initiated this line of inquiry and additional work has been proposed.

In addition, several IR-6 research efforts are heavily aimed at developing key information needed for research evaluations and the distribution of research benefits. Of particular note are the following;

1. Pardey at Minnesota is undertaking to finalize a major reconstruction of the state-level historic data series on research expenditures, research personnel, research factor mix, etc., so that analysts undertaking research evaluations will have a more accurate data set on which to base their analyses. These reconstructed data sets will also permit some analysis of agricultural research along disciplinary lines.
2. Purcell at Georgia (Griffin) is continuing work on a comprehensive specification of value added in the agricultural and food industries - from inputs used in production to food products delivered to consumers at retail. One of the key needs for this information is in the allocation of research benefits to farmers, agribusiness firms and consumers.

Two special activities are planned and will be completed under IR-6 auspices during the next year:

1) A pamphlet is being prepared using a series of single page question-answer format which addresses some of the major questions being asked about public sector agricultural research, including the incidence of benefits from this research. Although we will draw heavily on IR-6 research results, other information sources will also be used. Distribution is intended primarily for research administrators.
2) IR-6 will sponsor a workshop on Agricultural Research Evaluation in late January 1987. The program will focus on state-of-the-art methodology and the empirical results from ongoing work on agricultural research evaluation.

   The results of this workshop will be edited for a Proceedings Bulletin or Book and will include papers by several non-IR-6 participants (Evenson at Yale, Edwards from Australia, and others) who are actively involved in evaluation of agricultural research. It is envisioned that the proceedings of this conference will have substantial value both to analysts working on research evaluation and to research administrators.

Finally, it is the interest of IR-6 participants to address questions of interest to public sector research administrators and policy makers. Thus, we are particularily interested in hearing from you about work in agricultural research evaluation that is of particular value to you.

July, 1985

Report to WAAES Directors

M. V. Wiese, Administrative Advisor

IR-1: Introduction, Preservation, Classification, Distribution and Evaluation of Solanum Species (Headquarters: Madison, WI)

Objective: Improve Commercial potato production in the U.S. by maintaining a reservoir of potato breeding stock.

1985 Accomplishments:

Collected 16 new genotypes and produced true seed from 210 lines in existing collection. Sent 1,000-seed samples of 340 lines to National Seed Storage Lab (to replace old seed).

Put 26 lines through shoot-tip culture and tested 107 other lines in propagation. All were found free of 6 different viruses.

Herbarium collection grew by 4,000 newly prepared specimens that await species identification (by volunteer or new ARS taxonomist).

Potato seed sent on request to 22 states and 15 countries. A total of 2,955 seed samples, 643 tuber samples and 600 germplasm samples were distributed as was a printed index of 247 species in the IR-1 collection.

Seed samples of 6,500 lines sent to cooperating scientists as part of annual field testing against insects, diseases, nematodes, drought, etc.

1985 Products:

Three new potato varieties ('Elba', 'Hampton', 'Norking') were released in 1985 with 2, 9 and 13 foreign potato genotypes, respectively, in their pedigree.

Publications in 1985 that cited IR-1 stocks included 42 papers, 20 abstracts and 8 theses.

Since 1982, 165 of 169 new potato varieties in U.S. have had 2 or more of the IR-1 foreign plant introductions in their pedigree.

Work Planned:

- Continue agreement with University of Wisconsin for disease testing (tissue culture).
- Continue subcontracts with state and federal scientists for testing seed stocks in the field against diseases, insects and other environmental variables.
- Increase those seed stocks depleted by requests for seed.

- Complete species inventory. For this, professional toxonomic services are needed. An ARS search for a botanist (toxonomist) closes on July 3, 1986.

- Install new boilers in greenhouse, erect screen house and recover plastic house (Madison, Wisconsin facility).

- Collection in Bolivia with Dr. Hoopes (Cornell) as leader.

Budget:

Authorized FY 85	$147,052	
Authorized FY 86	$133,049	($126,530 actual due to 0.6 and 4.3% cwt.)
Requested FY 87	$146,559	($2,400 travel increase plus 10% U of W personnel increase)

Next Meeting: Ashville, NC July 23-24, 1986.

ja-0970E-2-3

WESTERN ASSOCIATION OF AGRICULTURAL EXPERIMENT STATION DIRECTORS
Coeur 'd Alene, Idaho, July 15-18, 1986

Interregional Project IR-2 Report
L. L. Boyd, Interim Administrative Advisor

IR-2, Derive, Preserve and Distribute Virus-Free Deciduous Tree Fruit Germplasm is in its first year of a five year renewal. It also is in a transition status as Dr. Paul Fridlund, the Plant Pathologist-in-Charge since the beginning of the project is retiring December 31, 1986. He will be employed back at a 20% level through September 30, 1986 to assist his replacement get oriented. The search is in the initial phases at WSU. Dr. Dennis Gonsalves, the Northeast Region Technical Representative, will represent the Committee in working with WSU on the search. Dr. David J. Gumpf of the University of California-Riverside has replace Dr. George Nyland, University of California-Davis at the Western Region Technical Representative.

The 1985 meeting was held at the New York State Agricultural Experiment Station at Geneva, New York following the practice of holding the meeting in alternate years at the IR-2 headquarters in Prosser, Washington. A feature of the meeting was the opportunity to view the new USDA-ARS clonal repository located at Geneva, as well as some the related research being conducted by state scientists there. Under the date of January 27,, 1986 I sent you a copy of the 1985 Annual Report, so I will not dwell at length on its contents. Seventy seven cultivars were acquired as "candidate clones" in 1985 with all but seven successfully derived from thermotherapy-treated plants. Releases of over 35,000 buds were made to 74 scientists. In addition, some virus free foliage and nearly 18 pounds of virus-free sees were released. IR-2 hosted a number of scientists, regulatory personnel and nurserymen during 1985. Among these were twenty two visitors from forteen foreign countries. I refer you to the annual report for further information. I have a copy with me, should you have questions.

Recently the Regional Research Office indicated the availability of some unused contingency funds to assist the IR projects. I solicited the needs from Dr. Fridlund and forwarded about a $6,000 request to Dr. Wilson at CSRS. The decisions on allocations have not yet been made, so I do not know if IR-2 will get some badly needed assistance.

I have a question relative to the minutes of the annual meetings. To the best of my knowledge they have not been distributed to all Directors in each of the regions. Do you wish this done in the future? The minutes of IR-2 generally do not have as much information in them as do regional projects that are research oriented. If you desire minutes in the future, we need to inform the new Administrative Advisor. If you want copies of the 1985 meeting minutes or earlier years, I can provide them.

IR-5 REPORT

WDA SUMMER MEETING

Cour d'Alene ID

August 15, 1986

Although the Western Directors approved the IR-5 revision at the March 86 meeting in Tuscon, the Chairman of the Western Directors and the Chairman of the Southern Directors had not signed the project revision at time of the Committee of Nine meeting. The Western Directors recommended that the original title of the IR-5 project be retained.

There have been 35 copies of the floppy disk program distributed for preparation of the AD-416/417. After preparation on the PC, Dialcom Electronic Mail may be utilized to submit the project outline and classification. After approval, the station will receive a copy of the the "approved" project via Dialcom. For projects authorized for federal funds, the station will also receive a signed hard copy from CSRS.

There is also a template available for preparation of the AD419. Currently the template is based on Lotus 1-2-3 release 1a. The completed floppy is mailed to CRIS rather than transmitted via Dialcom. Stations with a few projects could be transmitted via Dialcom, but larger stations would take too long to transmit electronically.

The new Prime 9750 minicomputer has arrived. Currently staff is being trained. The CRIS database is being redesigned to include budget data as well a previous years actual data. CRIS would like input as to other enhancements to the database that would benefit the stations. New output products are anticipated to take advantage of the current microcomputer technologies available at the stations.

WESTERN ASSOCIATION OF AGRICULTURAL EXPERIMENT STATION DIRECTORS

July 16 - 18, 1986
Coeur d'Alene, Idaho

IR-7 REGIONAL PROJECT REPORT

Submitted by
R. D. Heil. Advisor, Western Region Representative

IR-7 is in its fourth year of a five year project with a scheduled termination date of 9/30/87. A preliminary draft for extension has been completed and will be available for final review at the next IR-7 meeting to be held in October in Atlanta, Georgia. Currently, Keith Huston, WDAL, North Central Regional, is serving as chairman of the Administrative Advisor's Committee.

Productivity of this group has been outstanding as evidenced by the level of participation (approximately 130 participants) in the conference developed by the IR-7 technical committee and held at Fort Collins in October, 1985. The AES system can be proud of the fact the effort initiated by C. Harris, J. Fulkerson and others with the AES system has served as a framework for the development of a much broader monitoring and research program on a national basis. The broad institutional and agency participation at the Fort Collins meeting was a reflection of the impact which the IR-7 activities have had on the research community and others associated with acid precipitation. Earlier this year, the National Academy of Science/National Research Council panel on atmospheric deposition and chemistry issued its report which included a considerable amount of data from IR-7. Most Directors should have received Keith Huston's memo dated May 16, 1986 indicating that samples from the Western location associated with IR-7 were used by EPA to monitor radiation fall-out from the Chernobyl reactor.

Development of the RFP for next year's competitive grants program in acid precipitation is nearing completion and the announcement is expected in August or September. Funding for next year is anticipated to be $600,000 to $695,000. The shift of the CSRS Acid Deposition money from Special Grants to Competitive Grants has caused this program to lose focus and timeliness. Politically, it is in "no-man's land" because the Executive Budget eliminated Special Grants and some in Congress think Competitive Grants is not a very important program.

The data evaluation effort funded by CSRS on a one-year basis is nearing completion and a report should be available this fall. The report will represent a significant advance in our understanding of spatial and temporal trends.

Concerns associated with IR-7 primarily center around the rapidly changing environment taking place nationally with regard to concerns about and involvement in the issue of atmospheric deposition.

Acid precipitation or "atmospheric deposition" or whatever term might be used to describe concerns about the quality of the atmosphere in relation to

terrestrial and aquatic environments presents a challenge to the agricultural research community in terms of future involvement. The data gathered and research conducted as part of the IR-7 activities is viewed as high quality by other agencies. Thus, it appears that the agricultural research community can and should have an influence on direction of future atmospheric deposition research.

I recommend for your reading a recent article in the July 4 issue of Science addressing acid precipitation in the west. It is clear from the article we have only scratched the surface in dealing with this problem. Serious questions in research methodology, objectives, approaches, etc., etc. continue to surface.

RESEARCH IMPLEMENTATION COMMITTEE REPORT

July 15, 1986

RIC met Tuesday, July 15, 1986, at the Coeur d'Alene Resort in Coeur d'Alene, Idaho. Members present were: M. J. Woodburn (Chair), R. R. Bay, W. G. Chace, Jr., G. W. Ware, M. H. Niehaus, L. J. Koong: Ex-officio Member D. E. Schlegel. Guests attending: L. L. Boyd, C. E. Clark, M. Tarkington.

1.0 REGIONAL RESEARCH PROJECTS AND COORDINATING COMMITTEES SCHEDULED TO TERMINATE ON OR BEFORE SEPTEMBER 30, 1986

*	W-110	Interactions Between Bark Beetles and Pathogens and Their Influence on Forest Productivity
*	W-133	Outdoor Recreation and Public Interest: Benefits and Costs in Federal and State Resource Planning
*	W-140	Energy in Western Agriculture -- Adjustments, Alternatives and Policies
	W-142	The Augmentation of Poult Yield
**	W-143	Nutrient Bioavailability--A Key to Human Nutrition
*	W-145	Evaluation of Production and Marketing Changes in the Beef Industry
	W-159	Consequences of Energy Conservation Policies for Western Region Households
*	W-162	Interrelationships Among Low Intensity Land Uses, Population Growth, and Public Lands in the West
*	WRCC-50	Soil Moisture and Temperature Regimes as Predictors of Western Range and Forest Land Potentials
*	WRCC-52	Food Legume Production Improvement
	WRCC-53	Seedling Block Transportation in Vegetable Production
*	WRCC-54	Drainage Water Management

* Outlines or requests for extensions or revisions were acted upon

** W-143 is being edited and resubmitted for C/9 September meeting

2.0 REQUESTS FOR PROJECT EXTENSIONS

2.1 W-140 Energy in Western Agriculture--Adjustments, Alternatives and Policies

The replacement project for W-140 (W- Water Management and Conservation in Western Irrigated Agriculture) was not approved by the Committee of Nine at the May meeting.

<u>RIC recommends that W-140 be extended for one year to September 30, 1987 with D. L. Oldenstadt (WA) to continue as Administrative Advisor.</u>

(Action of WDA: Approved)

3.0 REQUESTS FOR PROJECT REVISIONS

3.1 W-110 Interactions Between Bark Beetles, Pathogens, and Conifers in North American Forests

A revised project outline bearing the above title was received from Administrative Advisor W. W. Allen (CA-B) on behalf of W-110.

RIC recommends the WDA defer action to allow the technical committee to rewrite the outline to address the concerns of RIC and peer reviewers. RIC also recommends that W-110 be extended for one year, to September 30, 1987. Alternatives for the committee are to terminate, revise or petition for a WRCC.

(Action of WDA: Approved)

3.2 W-133 Benefits and Costs in Natural Resource Planning

A revised project outline bearing the above title was received from Administrative Advisors C. A. Fasick (FS-CO), Lead-AA and J.M. Hughes (CO), Co-AA on behalf of W-133 "Outdoor Recreation and Public Interest: Benefits and Costs in Federal and State Resource Planning."

RIC recommends approval of the project for a period of five years, from October 1, 1986 to September 30, 1991 with Drs. C. A. Fasick (FS-CO) and J. M. Hughes (CO) to continue as Lead- and Co-AA, respectively. Before the project is submitted to C/9, minor editorial changes are recommended by RIC.

(Action of WDA: Approved)

3.3 W-145 Domestic and International Marketing Strategies for U.S. Beef

A revised project outline bearing the above title was received from Administrative Advisor B. M. Jones (NV) on behalf of W-145 "Evaluation of Production and Marketing Changes in the Beef Industry."

RIC recommends approval of the project for a period of five years, from October 1, 1986 to September 30, 1991 with Dr. B. M. Jones (NV) to continue as Administrative Advisor. Before the project is submitted to C/9, minor editorial changes are recommended by RIC.

(Action of WDA: Approved)

3.4 W-162 Resolving Competing Demands for Rural Land Resources

A revised project outline bearing the above title was received from Administrative Advisor J. M. Hughes (CO) on behalf of W-162 "Interrelationships Among Low Intensity Land Uses, Population Growth, and Public Lands in the West."

RIC recommends the WDA defer action on the revision to enable the committee to rewrite the outline, addressing the RIC comments. RIC also recommends the project be extended to September 30, 1987.

(Action of WDA: Approved)

4.0 REQUESTS FOR ESTABLISHMENT OF NEW PROJECTS

4.1 W- Crop Loss Assessment in the Western United States

A project outline bearing the above title was received from Administrative Advisor M. R. Nelson (AZ) on behalf of WRCC-28 "Developing, Implementing, and Coordinating Research on Crop Loss Appraisals."

RIC recommends the outline be deferred and that the committee be encouraged to rewrite the outline. RIC recognizes the importance of the proposed research and will appoint an Administrative Advisor to assist the committee in structuring the outline to address the concerns of RIC.

(Action of WDA: Approved)

5.0 REQUESTS FOR ESTABLISHMENT OF AD HOC TECHNICAL COMMITTEES

None

6.0 REQUESTS FOR WRCC RENEWALS OR EXTENSIONS

6.1 WRCC-30 Western Regional Soil Survey

A request for a three-year extension of WRCC-30 was received from Administrative Advisor J. C. Engibous (WA).

RIC recommends approval of extension of WRCC-30 for three years, from October 1, 1986 to September 30, 1989 with Dr. J. C. Engibous (WA) to continue as Administrative Advisor.

(Action of WDA: Approved)

6.2 WRCC-50 Soil Moisture and Temperature Regimes as Predictors of Western Range and Forest Land Potential

A request for a three-year extension of WRCC-50 was received from Administrative Advisor R. D. Heil (CO).

RIC recommends approval of extension of WRCC-50 for three years, from October 1, 1986 to September 30, 1989 with Dr. R. D. Heil (CO) to continue as Administrative Advisor. During the three-year extension, members of WRCC-50 are requested to work with members of WRCC-30 to consider melding the two WRCC's together.

(Action of WDA: Approved)

6.3 WRCC-52 Food Legume Improvement and Production

A request for a three-year extension of WRCC-52 was received from Administrative Advisor G. A. Lee (ID).

RIC recommends approval of extension of WRCC-52 for three years, from October 1, 1986 to September 30, 1989.

(Action of WDA: Approved)

6.4 WRCC-54 Drainage Water Management

A request for a three-year extension of WRCC-54 was received from Administrative Advisor J. van Schilfgaarde (ARS-CO).

RIC recommends approval of extension of WRCC-54 for three years, from October 1, 1986 to September 30, 1989 with Dr. J. van Schilfgaarde (ARS-CO) to continue as Administrative Advisor.

(Action of WDA: Approved)

7.0 REQUESTS FOR ESTABLISHMENT OF NEW OR AD HOC WRCC'S

7.1 WRCC- Artificial Intelligence

No formal petition was received by RIC.

(Action of WDA: Approved authorization of Ad Hoc WRCC- Artificial Intelligence for one year, from October 1, 1986 to September 30, 1987 to allow for development of a formal petition with Dr. R. E. Witters (OR) to serve as Administrative Advisor.)

7.2 WRCC- International Marketing

A request from two directors was received requesting appointment of an Ad Hoc Committee to develop a formal petition for establishment of WRCC- International Marketing.

RIC recommends establishment of Ad Hoc WRCC- International Marketing for one year, from October 1, 1986 to September 30, 1987 to enable the requesting Directors to develop a formal petition for a WRCC with Dr. D. L. Oldenstadt (WA) to serve as Administrative Advisor. RIC encourages participation of a marketing specialist and for the WRCC to incorporate other aspects of trade.

(Action of WDA: Approved)

8.0 FOLLOW-UP OF AD HOC TECHNICAL AND COORDINATING COMMITTEES

8.1 W- Livestock management in riparian zones

No reported activity since March 1986 meeting.

8.2 W- Development of marketing strategies for maximizing returns to alfalfa producers in the Western United States

No new proposal was submitted.

(Action of WDA: Approved extension of Ad Hoc Committee to September 30, 1986.)

9.0 ADMINISTRATIVE ADVISOR ASSIGNMENTS

RIC makes the following changes in Administrative Advisor assignments, to be effective immediately:

W-118 Impacts of Human Migration Flows on Nonmetropolitan People and Places -- J. J. Zuiches (WA) to replace D. L. Oldenstadt (WA).

W-128 Water and Nutrient Management of Crops under Micro-Irrigation -- D. Nielson (CA-D) to replace J. R. Davis (OR).

W-130 Freeze Damage and Protection of Fruit and Nut Crops -- K. E. Foster (AZ) to replace D. E. Schlegel (CA-B).

W-147 Effect of Soil Factors in the Suppression of Crop Diseases Caused by Soil-Borne Plant Pathogens -- G. A. Lee (ID) to replace N. I. James (ARS, OR).

W-158 Determine the Causes and Corrections for pH Imbalance in Grapes for Processing -- J. M. Lyons (CA-D) to replace D. E. Schlegel (CA-B).

W-166 Characteristics and Feed Value of Barley and Western Protein Supplements for Swine -- D. J. Matthews (UT) to replace A. W. Hovin (MT).

W-168 Seed Production and Quality Investigations -- J. L. Ozbun (WA) to replace C. O. Qualset (CA-D).

W-172 Genetic Engineering to Improve Plant Health and Production Efficiency -- L. Bulla (WY) to replace C. O. Qualset (CA-D).

IR-2 Interregional Program for Collecting, Maintaining and Distributing Virus-Free Tree Fruit Clones -- J. J. Zuiches (WA) to replace L. L. Boyd (WDAL)

WRCC-20 Virus and Virus-Like Diseases of Fruit Crops -- M. R. Nelson (AZ) to replace D. E. Schlegel (CA-B).

WRCC-23 Textile and Clothing Research Coordination -- S. A. Wallace (NV) to replace M. E. Mitchell (WA)

WRCC-28 Developing, Implementing and Coordinating Research on Crop Loss Appraisals -- M. V. Wiese (ID) to replace M. R. Nelson (AZ).

WRCC-29 Diseases of Cereals -- L. E. OKeeffe (ID) to replace A. D. Davison (WA).

WRCC-43 Codling Moth Management in the Orchard Ecosystem -- W. W. Allen (CA-B) to replace J. Owens (NM).

WRCC-47 Climatic Data and Analyses for Applications in Agriculture and Natural Resources -- W. Gardner (AZ) to replace K. E. Foster (AZ).

WRCC-52 Food Legume Improvement and Production -- R. Heimsch (ID) to replace G. A. Lee (ID).

WRCC-56 Overstory-Understory Relationships in Western Forests and Woodlands -- F. Gifford (NV) to replace D. R. Smith (FS, CO).

WRCC- Artificial Intelligence -- R. E. Witters (OR).

WRCC- International Marketing -- D. L. Oldenstadt (WA).

10.0 SECOND AND FOURTH-YEAR REVIEWS OF REGIONAL PROJECTS AND COORDINATING COMMITTEES

RIC had the benefit of historical data on personnel, funding, and publications summarized from the DAL office for each review. Written RIC review comments were discussed in committee and will be sent to Administrative Advisors. The following projects and coordinating committees appear to be progressing satisfactorily with good publication records, adequate resources and/or participation, and the committees are following their stated objectives:

No.	Project/Committee	Advisor	Reviewer
W-82	Pesticides and Other Organics in Soil and Their Potential for Groundwater Contamination (2nd year)	Kefford	Ware
W-128	Water and Nutrient Management of Crops under Micro-Irrigation (2nd year)	(Vacant)	Niehaus
W-150	Genetic Improvement of Beans for Yield, Pest Resistance, and Nutritional Value (2nd year)	Welsh	Koong
W-151	Utilization of Range Forage for Rangeland and Domestic Ruminant Animal Production (2nd year)	Dewhirst	Carlson
W-153	Economic and Behavioral Factors Associated with Food Supplement Usage (2nd year)	McHugh	Woodburn
W-154	Crop Productivity as Limited by the Rhizosphere and By Water and Nutrient Use Efficiencies (2nd year)	Lewis	Chace

No.	Project/Committee	Advisor	Reviewer
W-155	Characterization and Management of Soil Water and Solutes in Field Soils	Smith	Niehaus
W-163	Surge Flow Surface Irrigation (4th year)	Matthews	Niehaus
W-164	Postharvest Biotechnology and Quarantine Treatments for Insect Control in Horticultural Crops (4th year)	Lyons	Chace
W-165	Rural Credit Systems in the West: The Role of Public Lending Programs (4th year)	Briggs	Woodburn
W-171	Germ Cell and Embryo Development and Manipulation for the Improvement of Livestock (2nd year)	Price	Carlson
IR-4	A National Agricultural Program: Clearances of Chemicals and Biologics for Minor or Special Uses (4th year)	Ware	Carlson
IR-7	Chemistry of Atmospheric Deposition--Effects on Agriculture. Forestry, Surface Waters. and Materials (4th year)	Heil	Bay
WRCC-11	Turfgrass (2nd year)	Brink	Chace
WRCC-17	Control of Fruiting (2nd year)	Weiser	Ware
WRCC-21	Reclamation of Lands Impacted by Mineral Development and Other Drastic Land Disturbances (2nd year)	Foster	Bay
WRCC-23	Textile and Clothing Research Coordination (2nd year)	Matthews	Woodburn
WRCC-28	Developing, Implementing, and Coordinating Research on Crop Loss Appraisals (2nd year)	Nelson	Chace
WRCC-46	Ram Epididymitis (RE) (2nd year)	Koller	Carlson
WRCC-56	Overstory-Understory Relationships in Western Forests and Woodlands (2nd year)	Smith	Bay

No.	Project/Committee	Advisor	Reviewer
WRCC-57	Community Participation, Work, and Retirement among the Elderly (2nd year)	Woodburn	Koong
WRCC-58	Production, Transition Handling, and Reestablishment of Perennial Nursery Stock (2nd year)	Weiser	Niehaus

RIC has specific comments to make concerning the following projects and coordinating committees:

W-118	Impacts of Human Migration Flows on Nonmetropolitan People and Places (4th year)	Oldenstadt	Woodburn

RIC reviewer indicates that, although there has been a sharing of research instruments, no common denominators have yet been identified. The minutes reflect that each state has its own project and accomplishment of objectives. New questions needing research have been identified by participants and should be considered if a revised project is to be developed. If a unified research plan cannot be reached, a WRCC request may be a better alternative.

W-122	Improve Food Safety by Control of Natural Toxicants (4th year)	Clark	Ware

RIC reviewer reports that this important project is exceptionally productive, yet the annual meetings are poorly attended by its members, including the CSRS representative. Some of the reported publications appear inappropriate as they relate to the project objectives.

W-134	Quantifying the Nematode Pest Management Decision Process (2nd year)	Van Gundy	Ware

RIC reviewer indicates that this is a small project, underfunded, but of great attraction to the participants, and whose publication record needs improvement.

W-158	Determine the Causes and Corrections for pH Imbalance in Grapes for Processing (2nd year)	Schlegel	Boyd

RIC reviewer is concerned about low level of productivity in terms of publications and indicates that most of the publications cited are from outside the Western region. The minutes of the meetings do not reflect plans for research during the coming year and do not indicate research accomplishments for the past year. If the concerns of RIC have not been met at the time of the four year review, the committee should consider termination of the regional project or establishment of a WRCC.

No.	Project/Committee	Advisor	Reviewer
W-170	Chemistry and Bioavailability of Waste Constituents in Soils (2nd year)	Lee	Bay

RIC reviewer reports that it would be helpful, for review purposes, if the annual minutes and reports would address progress on the specific project objectives.

IR-1	Introduction, Preservation, Classification, Distribution and Evaluation of Solanum Species (2nd year)	Wiese	Koong

Committee discussion covered the long-term contributions of this project. The possible inclusion of Solanum with the National Germ Plasm Repository System should be explored.

WRCC-59	Influence of Microclimate and Nutrition on Physiological Responses of Poultry (2nd year)	Arscott	Koong

RIC reviewer noted that the objectives of the WRCC are very similar to those of W-173. Since it is the intent of this WRCC to develop a regional project, it is suggested that WRCC-59 consider joining W-173 instead of establishing a new regional project.

11.0 OTHER BUSINESS

11.1 Discussion of IR Project Review and Related Questions

D. E. Schlegel (CA-B) reported information to RIC from the C/9 regarding a study on funding of IR projects. The report will also be presented to the WDA.

11.2 Evaluation of RIC review process for projects and coordinating committees.

RIC members approved the procedures for the review process for Western regional projects and coordinating committees in response to the changes in WDA policy as established in August 1985. The cover letter which is sent to peer reviewers will be shortened to one page, instead of the present two page form letter. The summary of the procedures will be part of the Supplementary Manual for Western Regional Research.

11.3 Review of format change for 1987 "Status of Regional Projects."

Copies of the revision of Section V of 1986 Information for Western Directors containing updated information on Western Regional Publications, the status of Western Regional Research Projects and Coordinating Committees and Administrative Advisor Assignments as of 3/26/86 were distributed to members of RIC. Copies will also be

distributed to members of the WDA at their meeting and mailed to other holders of copies of 1986 Information for Western Directors.

11.4 Marshall Tarkington, Executive Secretary of the Users Advisory Board, reported briefly on priority setting by the UAB and her concept of what the members of the UAB know concerning the regional research process. Her presentation to the WDA will be more detailed.

11.5 M. H. Niehaus (CO) reported that W-6 "Plant Germplasm Introduction, Increase, Evaluation. Documentation. Maintenance and Distribution" is evaluating the possibility of being assigned IR status, since each region has a germplasm repository. He will convey to the WDA the rationale for the proposed IR status during his report on National Plant Germplasm Repository.

ADMINISTRATIVE ADVISER ASSIGNMENTS AS OF 7/15/86

Allen, W.W. (CA-B)	W-110, WRCC-43
**Arscott, G.H. (OR)	WRCC-59
Briggs, D.M. (NM)	W-165,IR-5 W-Alfalfa Mktg
**Brink, K.M. (CO)	WRCC-11
Bulla, L.J. (WY)	W-172
Capinera, J. (CO)	WRCC-60
Clark, C.E. (UT)	W-122, IR-6, W-106
Chace, W.G. (ARS,CA)	W-164+
Dewhirst, L.W. (AZ)	W-102, W-151
**Engibous, J.C. (WA)	WRCC-30
*Fasick, C.A. (FS,CO)	W-133
Foster, K.E. (AZ)	WRCC-21, W-130
**Garrett, R.E. (CA-D)	WRCC-51
**Gardner, W (AZ)	WRCC-47
**Gifford, F. (NV)	WRCC-56
Heil, R.D. (CO)	W-160+, IR-7, WRCC-50,
Heimsch, R. (ID)	WRCC-52
**Hinds, F.C. (WY)	WRCC-39
Hughes, J.M. (CO)	W-133+, W-162
*James, N.I. (ARS,OR)	IR-2+
Jones, B.M. (NV)	W-145, WRCC-1
Kaltenbach, C.C. (WY)	W-112
Kefford, N.P. (HI)	W-82
**Koller, L.D. (ID)	WRCC-46
Koong, L.J. (NV)	W-173, W-174
**Laycock, W.A. (WY)	WRCC-40
Lee, G.A. (ID)	W-170, W-147
Lewis, L.N. (CA-S)	W-154
Lyons, J.M. (CA-D)	W-158, W-164, WRCC-53
Matthews, D.J. (UT)	W-163, W-166
McHugh, H.F. (CO)	W-153
**Nelson, M.R. (AZ)	WRCC-20
Niehaus, M.H. (CO)	W-6, W-157
Nielson, D. (CA-D)	W-128
**OKeefe, L. (ID)	WRCC-29
Oldenstadt, D.L. (WA)	W-140, WRCC-Int. Market.
Ozbun, J.L. (WA)	W-126, W-168
**Plowman, R.D. (UT)	WRCC-37
*Price, D.A. (ARS,OR)	W-151+, W-171+
**Rasmussen, H.P. (WA)	WRCC-27
**Rice, R.R. (AZ)	W-159, W-167 W-176
**Rogers, L.F. (WA)	WRCC-55
Schlegel, D.E. (CA-B)	W-161
Sherman, I.W. (CA-R)	WRCC-42
Smith, D.W. (NM)	W-155
**Smith, O.E. (OR)	W-161+
Van Gundy, S.D.(CA-R)	W-84, W-134
*van Schilfgaarde, J. (ARS,CO)	W-160, WRCC-54
Wallace, S.A. (NV)	W-175, WRCC-23
Ware, G.W. (AZ)	W-45, W-169 IR-4
**Warkentin, B.P. (OR)	WRCC-61
*Webster, R.K. (CA-D)	WRCC-24
**Weiser, C.J. (OR)	WRCC-17, WRCC-58
Welsh, J.R. (MT)	W-150
Wiese, M.V. (ID)	W-142, IR-1, WRCC-28
Witters, R.E. (OR)	W-132, W-171+ WRCC- AI
Woodburn, M.J. (OR)	W-143, WRCC-57
Zuiches, J.J. (WA)	W-118, IR-2

* USDA research administrators
** Other research administrators
\+ Designates Co-Administrative Advisor in a project with Co-Advisors

Report of the ESCOP PLANNING SUBCOMMITTEE to the WESTERN ASSOCIATION OF AGRICULTURAL EXPERIMENT STATION DIRECTORS

The Planning Subcommittee of ESCOP, chaired by Neville Clarke, had a brief lull in activity following the completion of its initial report entitled, Research Initiatives.

The next effort, just commencing, is an attempt to portray the dynamic character of the base program of experiment stations. An intensive session involving representatives of the Subcommittee and several specially assigned writers (Drafting Committee) was held at The Woodlands near Houston in mid June. The purpose of the session was to develop a common orientation to the situation and agree on an approach for the writing of the report. It was agreed that the following strengths derive from the base program:

- decentralization for addressing site specific problems
- responsive to changing needs
- linked to industry as well as to academic environment
- provides continuity through stable formula funding
- provides leveraging for other funding
- develops human capital necessary for the research enterprise
- nurtures young scientists and new ideas
- bridges gaps that exist in targeted grant programs
- spawns new initiatives that emerge in Joint Council planning

A feasible way to portray these strengths and the characteristics of the base program is through specific examples of research endeavors. A number of areas were discussed and twelve topics were selected for their suitability in conveying certain qualities emanating from the base program. A given example is not expected to embody all characteristics; each characteristic will be portrayed in more than one example. Research examples to be developed are:

- lean meat
- integrated pest management
- integrated farming systems
- water quality and quantity
- opportunities for diversification (a series of examples)
- family stress and the agricultural crisis
- food quality, safety and nutrition
- processing forestry products
- corn, an agronomic crop example
- conservation tillage
- biotechnology
- protecting and preserving the existing agro-ecosystem

Writing assignments were made with intensive review of the strategic design for the paper. All statements are to be completed by early August. The draft consolidating the inputs from the various writers is to have been reviewed by the Drafting Committee and the Planning Subcommittee by September 15th with the target date for publication to coincide with the land-grant meetings.

Helen F. McHugh
July 8, 1986

ESCOP BUDGET RECOMMENDATIONS

Proposed budget increases for the Cooperative State Research Service and the Office of Grants and Program Systems of the U. S. Department of Agriculture Fiscal Year 1988

Recommended by the Budget Subcommittee of the
Experiment Station Committee on Organization and Policy
July 1, 1986

ESCOP BUDGET SUBCOMMITTEE - FY 1988

P. S. Benepal	1890 ARD
L. L. Boyd	Western Region DAL
N. P. Clarke	Texas
L. W. Dewhirst	FY 1987 Budget Subcommittee Chair
R. G. Gast	FY 1989 Budget Subcommittee Chair
J. E. Halpin	Southern Region DAL
K. A. Huston	North Central Region DAL
R. R. Johnson	Oklahoma
A. C. Mace, Jr.	Forestry
R. L. Mitchell	Missouri
C. Morgan	CARET
B. I. Osburn	Veterinary Medicine
R. J. Sauer	Minnesota
D. E. Schlegel	California
N. R. Scott	New York
J. R. Welsh	Montana
M. J. Woodburn	Home Economics
D. W. Zinn	Northeastern Region DAL
C. R. Krueger, Chair	Pennsylvania

7/1/86

Proposed Budget INCREASES for FY 1988

The State Agricultural Experiment Station System will begin its "Second Century" of agricultural research in FY 1988. The achievements of the first 100 years are well documented and have added significantly to the security and stability of this nation. Federal funding for agricultural research has leveraged state funding nearly 400 percent. In fact, the Federal-State partnership has become unbalanced due to Federal shortfalls. This document summarizes the Experiment Station Committee on Organization and Policy (ESCOP) Budget Subcommittee's proposed federal funding INCREASES for the Cooperative State Research Service and the Office of Grants and Program Systems of the U.S. Department of Agriculture.

The FY 1988 Federal budget recommendations for agricultural research by the Experiment Stations have been developed from the recent extensive ESCOP planning document, "Research Initiatives, A Research Agenda for the State Agricultural Experiment Stations," the FY 1988 recommendations of the National Agricultural Research Committee, and the "FY 1988 Priorities for Research, Extension, and Higher Education" prepared by the Joint Council on Food and Agricultural Sciences. The ESCOP planning process involved input from scientific and professional societies, commodity groups, general farm organizations, and various elements of the organized research planning system. The Joint Council document was prepared after considering the priorities submitted by the national committees and regional councils of the Joint Council.

The FY 1988 budget proposal reaffirms previous research emphases for additional formula funds in the following three areas:

Restoring Agricultural Profitability
Sustaining Soil Productivity
Focusing on Human Resources

The following national research program that was recommended for initiation in FY 1987 through Special Research Grants must be continued:

Water Quality and Management

These recommendations add the following important national research initiative which should be base funded through the Hatch and Evans-Allen programs, and enhanced via Special Research Grants awarded on a competitive basis:

New Food and Nonfood Uses of Agricultural Products

Priorities for INCREASES in Research Funding through CSRS/USDA

I. Major Emphases with Additional Formula Funds and New Special Research Grants (PL 89-106):

A. Continuing National Research Programs

RESTORING AGRICULTURAL PROFITABILITY. $14,300,000

Continued expansion of domestic markets and the recovery of declining export markets are keys to future profitability in a competitive global economy. Research must focus on cutting costs and reducing losses while increasing product quality and improving net income. The application of new scientific methods in the development of pest resistant plants and pest-free animals can reduce production costs. Research is needed on agricultural and forest management systems to improve decision making, increase efficiency, and allow utilization of new technologies, such as artificial intelligence, machine vision, sensor and real-time monitoring, the products of biotechnology, and new financial decision models. Also, research must be expanded on integrated reproduction management.

Hatch Act	$10,000,000 1/
McIntire-Stennis Cooperative Forestry	1,400,000 1/
Evans-Allen Program	1,400,000 1/
Animal Health and Disease (Sec. 1433)	1,500,000

SUSTAINING SOIL PRODUCTIVITY. $6,300,000

Soil erosion by wind and water is a threat to the long-term productivity of America's cropland and forests. Research is needed to develop a basic understanding of the soil chemical, physical, and biological properties important to production capacity. Scientists need to evaluate alternative soil erosion control practices that are economically and socially acceptable. Tillage equipment designs and tillage land-management interactions need further study.

Hatch Act	$5,000,000 1/
McIntire-Stennis Cooperative Forestry	700,000 1/
Evans-Allen Program	600,000 1/

1/ Base funding appropriated by Congress in support of the Federal-State research partnership.

FOCUSING ON HUMAN RESOURCES. $8,050,000

Food/Nutrition/Health

Expanded research is needed in human nutrition to identify the availability of nutrients in foods and the optimum nutrient intakes for people of all ages and to improve the understanding of diet and health relationships.

Family and Community Well-Being

Research can improve the well-being of families and thus, of their communities through identifying the outcomes of management decisions and responses to stress resulting from social, economic, and technological changes.

Hatch Act	$5,000,000 1/
Evans-Allen Program	1,050,000 1
Special Research Grants (PL 89-106)	2,000,000 2/

B. New National Research Program

NEW FOOD AND NONFOOD USES OF AGRICULTURAL PRODUCTS. .$10,700,000

New uses for America's abundant supply of agricultural commodities will be the focus for this research effort. Basic information is needed on chemical, physical, and functional properties in order to develop new food or nonfood uses. New technologies utilizing bioengineering, fermentation, and reduced water activity must also be developed in order to stay on the leading edge of world competitiveness.

Hatch Act	$5,000,000 1/
Evans-Allen Program	700,000 1/
Special Research Grants (PL 89-106)	5,000,000 2/

1/ Base funding appropriated by Congress in support of the Federal-State research partnership.

2/ This will enhance base funded programs with awards to be made on a competitive basis by peer review of proposals.

II. Additional National Research Programs for Special Research Grants (PL 89-106):

A. Continuing National Research Programs

	INCREASES 1/
Water Quality and Management 2/	$10,000,000
Integrated Pest Management	1,000,000
Pesticide Clearance	300,000
Minor Use Animal Drugs	250,000
Pesticide Impact Assessment	550,000
Rural Development Centers	250,000
Animal Health (Sec. 1414.c.1)	2,400,000
Germplasm Resources	400,000

B. New National Research Programs

Scientific Equipment 3/	20,000,000
Research Facilities 4/	20,000,000
Forest Productivity 5/	2,000,000
Biological Control of Pests	1,000,000
Biological Impact Assessment Program	250,000

1/ Indicates increases for continuing programs recommended for funding in FY 1987. Level funding is recommended for the continuing programs in aquaculture research and tropical and subtropical research. Initial funding is requested for new programs.

2/ Program recommended for initiation in FY 1987. Deteriorating groundwater quality and availability represent major national concerns. The ESCOP Groundwater Quality and Management Research Initiative will provide the scientific base needed to assure an adequate supply of high quality water for agricultural, domestic, and industrial needs. Research grants will be made to improve water quality and optimize availability with awards to be made on a competitive basis by peer review of proposals.

3/ First year of 5-year thrust to bring scientific equipment in publicly-supported agricultural research centers to the level of industry. Universities cannot conduct "cutting edge" research without "state-of-the-art" equipment. Fifty percent of these funds ($10,000,000) are to be made available equally to each state on a matching fund basis, and the remaining 50 percent ($10,000,000) are to be made on a competitive basis by peer review of proposals.

4/ Needed to improve research facilities in publicly-supported agricultural research centers. All funds to be made available on a matching basis. Authorized under the Research Facilities Act of 1963 (7 U.S.C. 390) as amended by the Food Security Act of 1985, Sec. 1411, PL 99-198.

5/ Expanded research is needed on biological relationships to regenerate desired forest, silvicultural systems for the production of specific products, maintenance of site productivity, and the relationship between the production of timber and other products from forests.

III. Competitive Research Grants (PL 89-106):

	INCREASES 1/
Plant Science	$ 5,500,000
Human Nutrition	2,500,000
Animal Science	5,500,000
Pest Science (not insect specific)	1,500,000
Biotechnology (animal and plant)	10,000,000

IV. Summary:

Total INCREASES Requested for FY 1988

Hatch Act	$25,000,000
McIntire-Stennis Cooperative Forestry	2,100,000
Evans-Allen Program	3,750,000
Animal Health and Disease (Sec. 1433)	1,500,000
Continuing Special Research Grants (PL 89-106)	15,150,000
New Special Research Grants (PL 89-106)	50,250,000
Competitive Research Grants (PL 89-106)	25,000,000

1/ Indicates increases for continuing programs recommended for funding in FY 1987.

MINUTES
ESCOP Communications Subcommittee
Minneapolis, Minnesota
April 21 and 23, 1986

Present: April 21 - M. Ashman, R. Cook, J. Halpin, L. Hood, P. Jordan, K. Kleinschuster, P. Lewis, J. MacMillan, G. Northcutt, H. Schweitzer, F. Tolver, R. Witters. April 23 - M. Ashman, J. Halpin, L. Hood, P. Lewis, J. MacMillan, G. Northcutt, B. Riechert, H. Schweitzer, F. Tolver, R. Witters.

April 21

Dr. Jordan introduced the concept of a public relations network. He emphasized that the public awareness program of CSRS should reflect the total system, not just CSRS. The components of the network would have three foci: point of contact (Good Morning America), program area, projects.

Two types of networks were envisioned: proactive and reactive. The SAES system can develop a proactive mode. It is unlikely that we will be as effective in a reactive mode because of the decentralized nature of the system. The SAES can speak out when the "Washington folk" can't.

Dr. Schweitzer suggested that we have two objectives: to develop and maintain a responsible and a responsive system.

Dr. Jordan proposed that the subcommittee: (1) develop a limited number of objectives for a proactive program, and (2) develop a reactive component managed from Washington with inputs from the SAES. The key element is that University-based agricultural research be viewed by the public as a part of the solution, not part of the problem. An alternative term for the system was the "Cooperative State Research System."

An intensive, total immersion process to plan the national network was discussed. Dr. Jordan suggested that we have representatives from all sectors, including "the great body of the unwashed." The ESCOP Communications Subcommittee would appoint a design team to develop a proposal. The team would include representatives from the following sectors (the suggested names are in parentheses).

Experiment Station Directors (Witters, Sauer)
Extension Directors (Guyer, Gerwig, Cheetum)
Dean (Eisgruber, Liska)
Communicator (McClure, Kelly, Ferris, Webb, Jenkins)
User (Edwards, Strickler)
Media Consultant that is Detached from Agriculture (Hebert, Ciervo)
Administrator, CSRS (Lewis)
Staff Assistant (Tolver)

The reactive program would be project based and housed in CSRS. The data base to be established will include a list of topics and respective authorities from within the SAES system. It was suggested that this list be confidential, or at least not shared widely with those that might abuse it. Obviously, it should be shared with the Directors.

April 23

Workshop on Changing Strategies for a New Era.

It was agreed that proceedings of the Workshop would be published by the University of Tennessee. Publication costs that were not covered by the registration fees for the conference will be reimbursed to the University by CSRS through the broad form cooperative agreement. Bonnie Reichert will take the lead. Each Committee member agreed to share the proceedings and summarize the conference with their respective regional organizations. Directors will do so at their summer meetings. Feedback from the respective organizations will be solicited and inputted to the Committee at its next meeting.

Proactive Public Awareness Plan

May 10 -	Witters to develop design team concept and Jordan/Lewis to develop charge to design team. Submit to Hood.
May 15 -	Hood to seek approval of concept from ESCOP Chairman Baumgardt. Communications Subcommittee may have conference call to update status and future directions.
May 20-25 -	Design team to be appointed by Hood.
August 20 -	Design team report to be circulated to Communications Subcommittee. Subcommittee may need to meet in late August or early September to review draft of design team product.
September 15 -	Input from Subcommittee to Design Team Chairman and finalization of plan.
October 6 -	Report of plan to be presented to ESCOP.
November 10 -	Plan to be presented to Division of Agriculture, NASULGC.

Reactive Plan

Pat Lewis will send out potential list to Subcommittee. Feedback should be returned to her. The revised list will go back to the Subcommittee in time for each Director to discuss with their respective Regional Associations at the summer meetings.

FY 1987 Budget Resolution

	FY 1986 Spending Estimate (2/5/86)	FY 1987 President's Budget (2/5/86)	FY 1987 CBO Baseline (3/86)	FY 1987 Budget Resolution (6/27/86)
		(Outlays in Billions)		
Defense	$279.0	$295.2	$284.0	$279.1
Domestic	700.9	698.8	742.8	715.9
Total	979.9	994.0	1,026.8	995.0 a/
Revenues	777.1	850.4	844.0	852.4
Deficit	202.8	143.6	182.8	142.6
Gramm-Rudman-Hollings Target	171.9	144.0	144.0	144.0

a/ Excludes a $4.8 billion contingency fund (two-thirds for defense and one-third for domestic programs) provided the President proposes and Congress approves offsets by reduced spending or increased revenues.

Gramm-Rudman-Hollings Schedule

July 15	Transmission of mid-session review to the Congress
August 15	OMB and CBO estimate deficit for upcoming year
August 25	Comptroller General issues report to the President and the Congress on the OMB/CBO sequester report
September 1	President issues sequester order
October 1	Sequester order becomes effective
October 5	OMB and CBO update sequester report
October 10	Comptroller General updates reports to the President and the Congress
October 15	President issues final sequester order

OVERALL ASSUMPTIONS INCLUDED IN THE FY 1987 BUDGET RESOLUTION

-- DEFENSE SLIGHTLY BELOW FY 1986 LEVEL

-- MOST DOMESTIC PROGRAMS CONTINUED AT THE FY 1986 LEVEL OR REDUCED SLIGHTLY

-- ASSUMES SMALL INCREASES FOR SEVERAL BASIC RESEARCH PROGRAMS

-- SOCIAL SECURITY AND FEDERAL RETIREMENT COST OF LIVING INCREASES ARE INCLUDED FOR EACH OF THE NEXT THREE YEARS

-- FEDERAL CIVILIAN AND MILITARY PAY RAISES ARE ASSUMED AT 3 PERCENT IN JANUARY FOR EACH OF THE NEXT THREE YEARS

-- INCLUDES A CONTINGENCY FUND THAT WOULD ALLOW ADDITIONAL SPENDING EACH YEAR IF THE PRESIDENT AND THE CONGRESS AGREE ON ADDITIONAL REVENUE OR DECREASED SPENDING BEYOND THE RESOLUTION ASSUMPTIONS. (FOR FY 1987 THE CONTINGENCY WOULD ALLOW ADDITIONAL OUTLAYS OF $3 BILLION FOR DEFENSE AND $1.8 BILLION FOR DOMESTIC PROGRAMS)

-- USDA PROGRAMS:

- ASSUMES CURRENT POLICY FUNDING FOR CCC PRICE SUPPORT PROGRAMS
- P.L. 480 AS A PART OF OVERALL FOREIGN AID CUT 10 PERCENT
- ASSUMES NEW USER FEES WILL NOT BE ESTABLISHED FOR USDA PROGRAMS
- ASSUMES $1.4 BILLION REVENUES FROM REA LOAN REPAYMENTS TO FFB
- ASSUMES AN ADDITIONAL $150 MILLION PER YEAR FARM CREDIT INITIATIVE TO HELP DISTRESSED FARMERS
- ASSUMES CONTINUATION OF RURAL HOUSING LOANS AT THE FY 1986 LEVEL
- ASSUMES REVENUES OF $1.15 BILLION FROM SALES OF RURAL HOUSING LOANS
- ASSUMES SMALL INCREASE FOR WIC AND CHILD NUTRITION PROGRAMS

Cooperative State Research Service
Report to the
Western Experiment Station Directors
Coeur d'Alene, Idaho
July 15-17, 1986

1. Animal Care. A meeting on animal care was held on May 14, 1986 in Washington, D.C., to consider the development of guidelines for care and use of animals in agricultural research and teaching. Attendees included representatives from ESCOP, professional societies, National Research Council and Federal research agencies, and APHIS. The group agreed that there is an urgent need for the development of voluntary guidelines for the care and use of the major farm species. A second meeting was held July 2, 1986 in Rosslyn, Virginia to agree on an organizational structure and to recommend procedures for developing and reviewing the guidelines.

2. Biotechnology.

   (a) The Secretary of Agriculture has established an Office of Agriculture Biotechnology (OAB), which will have primary responsibility for implementing and coordinating the Department's policies and procedures pertaining to all facets of biotechnology. This includes the conduct of laboratory and field research, experimentation on biotechnology products prior to their commercialization, and all matters of oversight of biotechnology in agriculture. The new office will report to the Assistant Secretary for Science and Education through the authority provided in the amendment to the Food Security Act of 1985. The Assistant Secretary for Science and Education will seek to establish an Agriculture Biotechnology Recombinant DNA Advisory Committee (ABRAC) and shall continue the responsibilities for agriculture formerly handled by the NIH-RAC during the last 10 years. The OAB shall operate in a close parallel manner to the Office of Recombinant DNA Activities (ORDA) of the National Institutes of Health. This includes the responsibility of the ABRAC and the implementation of the USDA Guidelines for Biotechnology Research.

   (b) The Office of Science and Technology Policy published a coordinated set of policy statements, guidelines and regulations in biotechnology on June 26, 1986 in the Federal Register. Copies have been sent to all cooperating institutions for review and comment. DO NOT LET THIS OPPORTUNITY GO BY!

   (c) Sessions for public comment on the Agriculture's proposed guidelines are planned as follows:

Guidelines for Biotechnology Research

Washington, D.C.	-	August 12-13
San Francisco, CA	-	September, 3-4
St. Louis, MO	-	September 17-18

Regulations for Introduction of Products of Genetic Engineering

Sacramento, CA	-	July 29, 1986
Washington, D.C.	-	August 5, 1986

3. Research Quality Assurance. The response to the CSRS/SAES research quality assurance survey has been very good. The data are currently being summarized and a report will be ready for ESCOP by the end of July. A preliminary analysis shows that we have a high level of quality assurance within the SAES system. For example, one hundred percent of the returns indicated new or revised project proposals were subject to peer review with 96 percent being mandatory.

4. USDA Honor Awards. The State Agricultural Experiment Station System was exceptionally well represented on June 4, 1986 when six SAES scientists were honored at the fortieth annual USDA Honor Awards Ceremony. Thanks to the regional AES associations for providing excellent nominations on such short notice. For 1987 we would again appreciate the help of the AES associations in nominating up to three candidates each, plus a group or team award. The instructions and nomination forms have been mailed to your chairmen. In order to meet the Department's deadline, we should have your nominations by December 1, 1986.

5. FY 1987 Budget. The House Appropriations Subcommittee has marked up the FY 1987 budget for Agriculture, but the results have not been released. The overall Budget Resolution for 1987 has passed the Congress and provides target spending levels for the various appropriation committees.

6. FY 1988 Budget. The Secretary's Budget Review Board will look at the CSRS/OGPS proposal on July 29. The request that I am taking forward was developed with the Budget Committee of ESCOP. The cooperation among the leaders in research, extension and higher education in the Division of Agriculture's Budget Committee in making a unified budget request has been very helpful in making the programs more understandable to people outside of the system. The Division Committee meets again with Assistant Secretary Bentley on July 21.

7. CSRS Personnel. We are delighted with recent progress in our personnel actions. On July 6 Dr. C. B. Rumburg dropped his "acting" designation and was formally appointed as Deputy Administrator for Natural Resources, Food and Social Sciences. We also have two new employees who recently joined CSRS. Dr. Dyarl King, who will be leading our animal health programs, comes to us from ARS where he was a member of the National Program Staff. Ms. Kay Hatch came to us from OICD and is quickly becoming established as our Operation's Manager. Dr. Donald A. Hegwood (MD) will be joining us in August on a temporary assignment to assist in higher education and plant sciences programs. We still have vacancies in agronomy, animal science, and economics and will appreciate your assistance in attracting capable candidates for these positions. Dr. Dale Sorenson (MN-Veterinary Science) soon will be completing a temporary assignment with CSRS. Our thanks to him and his institution for making this valuable exchange possible.

8. Equal Opportunity and Civil Rights. Secretary Lyng recently issued a clear statement of his commitment to equal opportunity and civil rights and requested that it be publicized widely. Copies of the statement have been sent to all of our cooperators.

9. Penalty Mail. We have analyzed the penality mail program for the State Agricultural Experiment Stations and concluded that it would be preferable to reassign the penalty mail funds to program. This would mean that reports of research results could no longer be distributed using penalty mail. Limited and uneven use among the States and burdensome reporting requirements were major factors in our decision. It is also significant that for some classes of mail, the rates charged for penalty mail are much higher than the usual postage costs. We are proposing to make this change effective October 1, 1987.

10. Wood Utilization Research. A grant program for wood utilization research in the eastern hardwoods has been announced to the A-TRs. Proposals are due in CSRS by August 25. Michigan State University has assumed a lead role for this program.

11. McIntire-Stennis Celebration. August 5, 1986 is the date for a silver anniversary celebration of the McIntire-Stennis Cooperative Forestry Research Program. A symposium at USDA will be followed by a dinner and program to honor Senator John C. Stennis and the late Representative Clifford G. McIntire.

12. Hatch Centennial. Jim Halpin and Pat Lewis are the team carrying the ball on this one. The most significant single event that has happened recently is the approval by the Kellogg Foundation of the request prepared by Filmore Bender (MD) for approximately $1 million to fund the Smithsonian exhibit, "Search for Life." It is not clear at the moment when the construction will be completed, but it is still planned that the opening events on March 2, 1987 would include the display of some parts of the exhibit. I wish to discuss with you the issue of the invitees to the "gala!" The history book appears to be on time; the Yearbook of Agriculture appears to be on target; and the Symposium/Challenge Forum at the National Academy of Sciences scheduled for March 2-3 is in the process of being firmed up. The commemorative stamp is being championed by Secretary Richard E. Lyng and Deputy Secretary Peter C. Myers with the Postmaster General. A number of experiment stations are having dedications of new buildings, etc., with an aspect focusing on the Hatch Centennial. Finally, there will be two Hatch lectureships; one at the November land-grant meetings and one in connection with the Centennial Symposium/Challenge Forum.

13. Hatch Memorial Lectures. As indicated above, there will be two such lectures; one in 1986 and one in 1987. Each will be awarded a special commemorative medal. The introductory comments for the Hatch lectureship at the land-grant meetings will be made by a distinguished Director or former Director who will be honored with a special medal presentation. The awardees for all three awards will be announced at the regional association meetings.

14. Extension Service Administrator Mary Nell Greenwood requested reassignment and became Assistant to the Administrator on July 14. Director Myron Johnsrud (ND) will serve as Interim Administrator while a search is made for a new Administrator.

15. CSRS Strategic Plan. At my request, the CSRS faculty has over the last ten months drafted a strategic plan for the agency. An early directive to the leaders in the planning process was to maintain complimentarity with the strategic program plans being developed by ESCOP and other cooperator groups. What has emerged is an operational plan that calls for broad involvement of State administrators in the CSRS activities. The plan has been reviewed with the DAL's and the Interim Committee of ESCOP. Your comments and suggestions will be appreciated.

16. Station Reviews. May 15, 1986 was the target date for us to receive requests for station reviews for the period October 1, 1986 to December 31, 1987. We have received requests for 115 reviews and are in the process of screening them and appointing CSRS team leaders.

    If you plan to have reviews during this next period and have not made a request please do so before the end of July.

17. Sprucing Up Justin Smith Morrill Building. Now that some of the gross work on the roof has been completed, plans for sprucing up the outside, including replacement of all window units, sandblasting of the building, and sequential plans for redecorating offices inside have been in progress. We also would like to adorn the walls of the hallways and offices with appropriate pictures and project posters from the experiment stations and cooperating units, as well as logos from the various institutions, experiment stations, or cooperating units. The size of such logos and pictures should be approximately 11"x 14". CSRS will pay for the framing and hanging of the materials. Contact for this effort should be Kay Hatch.

Respectfully submitted,

JOHN PATRICK JORDAN
Administrator

Report From The Economic Research Service

I appreciate the opportunity to participate in your program and discuss the ERS program. Of course, I will not be able to discuss the breadth of the ERS program in the time allotted. Thus, I will concentrate on what I consider to be areas of mutual interest and potential cooperation.

While changes have occurred in the last decade as ERS has consolidated its staff, cooperative agreements continue to be an important part of our program. Cooperative efforts between ERS and the Western Experiment Stations have a long history. In addition to informal cooperation and professionally supportive work, ERS has a formal cooperative agreement with each of the 13 Western States. ERS supports cooperative agreements at about $1.5 to $1.6 million per year. Areas of mutual interest will likely continue as we seek collectively and individually, to address the problems confronting the broadly defined agricultural sector and adjustments in rural America.

There are many research opportunities in local, State, or regional problems and issues. We continue to get pressure from State legislatures and public and private interest groups to concentrate our resources and our expertise on the more local problems. Some of the pressure and outside direction of the research agenda is justified and leads to productive efforts. Yet, as you well know, we no longer operate in State, regional, or national isolation. Our economy, particularly the agricultural sector, is heavily influenced by changes at the national and international level. Changes occurring in one State or region affect another State or region. Similarly, changes in currency values, national and international macroeconomic policy, or international supply or demand forces have significant and far-reaching effects on U.S. agriculture and rural adjustment. Most often, we are required to go beyond our State, regional, and national boundaries to appropriately address the issues that promise the greatest potential or the areas that hold the greatest problems for agriculture.

We are in a new era in both production agriculture and agricultural research. Just as producers and agribusinesses must become more adept at making decisions in a more risky environment, we must become better at managing research; better at anticipating change, issues, and critical problems; and better at articulating problems and research needs. Thoughtful, well-planned, well-managed, and well-executed research is probably more important today than ever.

The ERS research agenda differs from yours. It should. If it were identical, there would be no need for ERS. The problems would be handled elsewhere. As the name implies, ERS concentrates its efforts in social science research. We are concerned with economic, social, resource, and human adjustment to economic, technological, institutional, and policy change. Your research agenda includes many more disciplines and a greater variety of problems. Yet, our overall mission is similar and we have some interesting, productive, and critical overlaps in our respective research agenda.

In an effort to illustrate what I am talking about, I will spend the remainder of my time discussing four ERS research programs of mutual interest and that represent potential areas of cooperation between ERS and Experiment Stations.

Financial Conditions of U.S. Agriculture

ERS has an established research program addressed to determining and analyzing the financial conditions of farmers and farm lenders. While this area is important to each of our institutions and constituents, ERS probably has a comparative advantage.

Through a cooperative arrangement with the National Agricultural Statistics Service, ERS conducts an annual survey of producers to determine farm costs and returns. The survey has generated a data base unsurpassed in the country. From this data base, ERS publishes several reports describing and analyzing the financial condition of agriculture. The latest such report, "Financial Characteristics of U.S. Farms, January 1986," is based on the 1985 survey data.

The 1985 data provide some interesting insights. Preliminary analysis suggests that net farm income was slightly below 1984, but net cash income rose to $43-$46 billion, up from $38-$39 billion in 1984. There were 2 consecutive years of favorable net farm incomes and net cash incomes. Many farm operators took advantage of the improved income situation to reduce farm debt. Farm operator debt, excluding CCC commodity loans, declined to $105 billion from $118.4 billion in 1984. Income levels are expected to increase slightly in 1986, and debt is expected to decline further. Three primary factors were responsible for the improved situation: (1) increased levels of direct payments helped boost net income levels, (2) increased Commodity Credit Corporation loans provided price supports, and (3) farmers reduced their inventories.

Despite improved income levels and reduced debt, farm equities continued to erode. This directly reflected the 12-percent drop in farmland values during 1985. Equity declined by about $75 billion from the 1984 level and fell by over $200 billion since 1982. Aggregate farm sector data indicate that farmers as a group were more highly leveraged at the close of 1985, although on a sectorwide basis, they had fairly strong earnings to service debt and meet other commitments. Debt/asset ratios deteriorated slightly. A total of 21 percent of farms, which owe 66 parity of the debt, have debt/asset ratios over 0.40. The equivalent figures in 1984 were 19 percent of farms and 62 percent of the debt. The proportion of farms and debt with the most serious financial problems--both high debt/asset ratios and negative cash flows--declined from January 1985 to January 1986. These farms comprised 11.2 percent of all farms, down from 12.6 percent in 1985. They accounted for about 37 percent of farm operator debt, compared with 45 percent in 1984.

An important point to note in describing the financial condition of U.S. agriculture is that 40 percent of all farms were debt free in January 1, 1986, and that an additional 23 percent had debt/asset ratios below 0.4 and had positive cash flows. Thus, over 63 percent of farm operators were not exhibiting financial stress. Another 16 percent of operators had good debt/asset positions but showed negative cash flow in 1985. Nearly 50 percent of all debt was owed by farms with positive cash flows, as opposed to 36 percent in 1984.

Current projections for 1986 indicate that net cash income will likely increase slightly, supported by direct government payments and reduced production costs. Land values are expected to continue to decline but at a much lower rate: 5-6 percent compared with 12 percent in 1985. Thus, additional declines are expected in the sector's equity position.

The upper Midwest had the highest proportion of farms and farm debt at risk. Three regions--the Corn Belt, the Northern Plains, and the Lake States--accounted for over two-thirds of the farms and farm debt at risk. Financial stress was also highly concentrated among farms with annual sales of $40,000 and above, among grain and livestock farms, and among younger to middle-aged farmers. Dairy farms accounted for 10 percent of farms and farm debt at risk.

What about farm lenders? With over two-thirds of the farm operator debt owed by farms that are highly leveraged and have negative cash flows, farm lenders still face considerable risk of losses. As expected, the Farmers Home Administration (FmHA) had the highest proportion of its operator loans at risk. Other lenders typically had 10-15 percent of their farm operator loan portfolios owed by operators whose debts exceeded their assets, and half or more of their portfolios owed by operators with debt/asset ratios of 0.4 to 1.0. About 35 percent of FmHA debt was owned by farmers who were technically insolvent, and 85 percent had debt/asset ratios of over 0.4. percent. The Farm Credit System is also experiencing losses and an increasing number of nonaccrual loans.

ERS likely has a comparative advantage in collecting and analyzing data on national and regional production costs and returns. ERS likely has some advantage in analyzing national and regional farm financial conditions. Yet, cooperation with land-grant universities is a must. University experts serve as advisors to ERS staff who work in this area and are involved in reviewing the analyses. We are making every effort to provide access to this data base.

Competitiveness of U.S. Agriculture

Another important ERS research program is the general area of international competitiveness. The basic question to be addressed is "what is the competitive position of U.S. agriculture in world markets vis-a-vis other nations?" The international market for U.S. agriculture has changed dramatically over the past decade. Recent declines in both export volume and value raise serious questions about the short- and longrun competitive position of U.S. agriculture in the world market place. Also, the proposed multilateral trade negotiations and discussions of trade liberalization have raised questions about both competitiveness and the impacts of liberalized trade.

Obviously, one of the first requirements for this type of research is to determine the relative resource and technology endowments of both market and competing nations. Secondly, how do the different resource endowments, when combined with available technology, labor, and capital, translate into relative costs of production and ultimately into the comparative advantage of different nations in producing different goods? Once country comparative advantage is determined, it should be easy to understand the reasons for trade

and the advantages of trade. Such is not the case. Market intervention distorts country comparative advantage, and no country in the world is free of market distortions. All types of intervention occur, ranging from tariffs and quotas to more subtle intervention in the form of domestic agricultural policy. In fact, domestic farm policy both here and abroad, trade policies, macro-policy, and international financial markets have had and will continue to have the greatest influence on trade patterns and often camouflage the underlying comparative advantage of nations to produce and deliver goods.

It is far easier to change policy than to alter the basic resource and technology environment that determines relative production costs. Yet, a well-designed study must consider both and must consider the effects on competitive position.

In addition to the rather broad research program dealing with overall competitiveness in world commodity markets, ERS has an additional but related research thrust in the general area of trade liberalization. One project relates to the upcoming multilateral trade negotiations. The basic objective is to measure, country by country, the extent of government support of all types provided to agriculture. This research program is related to ongoing work by OECD. However, the ERS research goes beyond OECD countries and includes most market or competing countries important to the United States. An additional objective is to determine the trade effects of unilateral or bilateral relaxation of specific trade barriers or domestic supports.

A related but separate project addresses U.S./Canada trade liberalization. The objectives are to determine barriers to trade, internal supports to agriculture in both the United States and Canada, and the impacts on trade and production adjustments of relaxing trade barriers.

Questions about competitiveness should signal mutually productive efforts of ERS and Experiment Stations. Since exports account for such a large share of our markets, maintaining and/or improving the U.S. competitive position in world markets is a key concern to both our institutions. Our historic and future competitive position was and is closely tied to technology development and adoption. Experiment Stations have been the major developer of the technological base for improved efficiency in U.S. agriculture. Contrary to popular criticism that additional technological developments simply lead to surpluses, these same developments also lead to per unit cost reductions and contribute to improved competitiveness. Thus, research that leads to technological progress is critical to the competitive position of U.S. agriculture.

Agricultural Capacity

Our research program on capacity issues within agriculture relates to the former two areas but takes a different approach to the current problems and potential of agriculture.

This area of work concentrates on measuring and assessing, under different conditions and constraints, the capacity of the U.S. agricultural plant. How does technological change influence capacity? Do we have too much capacity? Under what conditions? The United States may have excess capacity under

certain commodity and input price assumptions but not under others. How do different types of domestic farm programs or resource policies affect capacity?

ERS also has a research project designed to evaluate the effectiveness of the Conservation Reserve Program (CRP). Research is underway to analyze bid criteria, erosion control, supply control, and government costs per unit of erosion and/or supply control. Results of this analysis, we hope, will aid in more effective implementation of the CRP.

In each of these areas, cooperative efforts between ERS and the Experiment Stations could have high payoffs. For example, much of the research in the Experiment Stations ultimately leads to technological developments that alter the capacity of the agricultural plant and stimulate adjustments in resource use, production patterns, and income levels.

Cooperative endeavors would permit interchange that could prove useful in guiding our respective research agenda.

Rural Adjustment and Economic Change

I have discussed three high-priority ERS research programs that address problems and/or potentials of the agricultural sector. These areas are of historic and continuing interest and importance to both ERS and Experiment Stations.

The last area that I will discuss briefly is the broad area of rural economic adjustment and development. Rural economies, rural families, and rural people are undergoing adjustment stimulated by changes taking place in agriculture and agribusiness. As agriculture adjusts to economic change, the spillover effects on rural residents are significant. Changes occurring in other sectors also alter the availability and mix of off-farm job and investment opportunities in rural areas. While areas more dependent on agriculture face the greatest adjustment in the near term, rural areas generally are not improving as fast as the general economy.

ERS has a major research thrust that addresses rural adjustment to economic change and the impacts of changes in the structure and viability of agriculture on rural economic viability.

Research at both the micro and macro levels is needed to address the problems of rural areas. Each of our institutions has a continuing mandate to provide information, analysis, and guidance to policymakers in this area. We have two cooperative projects with Experiment Stations on segments of this research program. The potential for cooperation between ERS and Experiment Stations to conduct research directed at seeking solutions to rural adjustment problems seems great.

Summary

I have discussed only a small, yet important, segment of the ERS research agenda. By concentrating on only four research programs, I hope I have conveyed some sense of ERS' research priorities; some of the key results of our research program, particularly as related to farm financial conditions;

the urgency in conducting research in these critical problem areas: and a sense of where we see our advantage in research. But mostly, I hope I have stimulated your interest and indicated areas were ERS and Experiment Stations could pool critical resources to improve products and to ensure breadth and depth of our collective research programs addressed to critical agricultural and rural problems and potentials. Each of our institutions has a comparative advantage. We see ours in aggregate analysis--national and international. Yet, specialization and trade has much to offer in an era of limited research resources.

WRDC

Western Rural Development Center
Oregon State University
Corvallis, OR 97331
(503) 754-3621

July 8, 1986

TO: Western AES-ES Directors

TOPIC: 1986 WRDC Report

The Western Directors' meetings coincide with the first meeting of an ECOP Task Force on Rural Revitalization chaired by Director Koval of Wisconsin. Given my job assignment and this topic, I am in Chicago with the Task Force.

You have been receiving more frequent copies of the Western Wire, the WRDC newsletter, and the reaction has been good. We are trying to put out three per year and to keep it focused fairly closely to rural development work associated with the WRDC.

Last year I neglected to mention any research efforts, although there were, and are, several. "Role and Potential of High-Tech Industries in Rural Communities", and "The Extent of Interest and Transfer Income in Rural Areas" are two research projects that were started last year. This year, a project is starting to study the consumer prices for rural residents, especially those who are served by small towns. A smaller, exploratory project will look at mail ballot elections as an alternative to increase rural voter participation. A couple of seed projects are likely on the farm/ranch-rural community interrelationships for generating family income. A letter has gone out to western department heads in Agricultural Economics, Sociology (Rural Sociology), and Family Life.

The Extension Education program receiving the major share of attention has been a community Small Business Management Workshop that was piloted in four states. The education was well-received by participants, and at least four states have the ability to continue the workshops. A researcher is extending a portion of the study for this Small Business workshop to make the information available to every county in the West. The WRDC is supporting this work.

A new program is emerging in the development of education materials for training local government officials. Several states have partial programs in this area, and a strong program appears possible through a combination of existing material and a limited amount of original work.

(Over)

Several short notes:

- Dr. Emery Castle has returned to Oregon State from Washington D.C., where he had served as President of Resources for the Future (RFF). He has an office with the WRDC and will provide assistance with projects as his time permits.

- On August 6, the WRDC is coordinating a rural issues presentation to the joint session of the Users Advisory Board and the Joint Council. The opportunity was provided through the efforts of Mr. Fred Blanchard, UAB member for rural development from Portland.

- Under Jim Matthews' chairmanship, the WRDC is involved in developing, and hopefully coordinating, the Executive Leadership Training Program for ES, AES and RI faculty in the West. A proposal to W. K. Kellogg in the next couple of months.

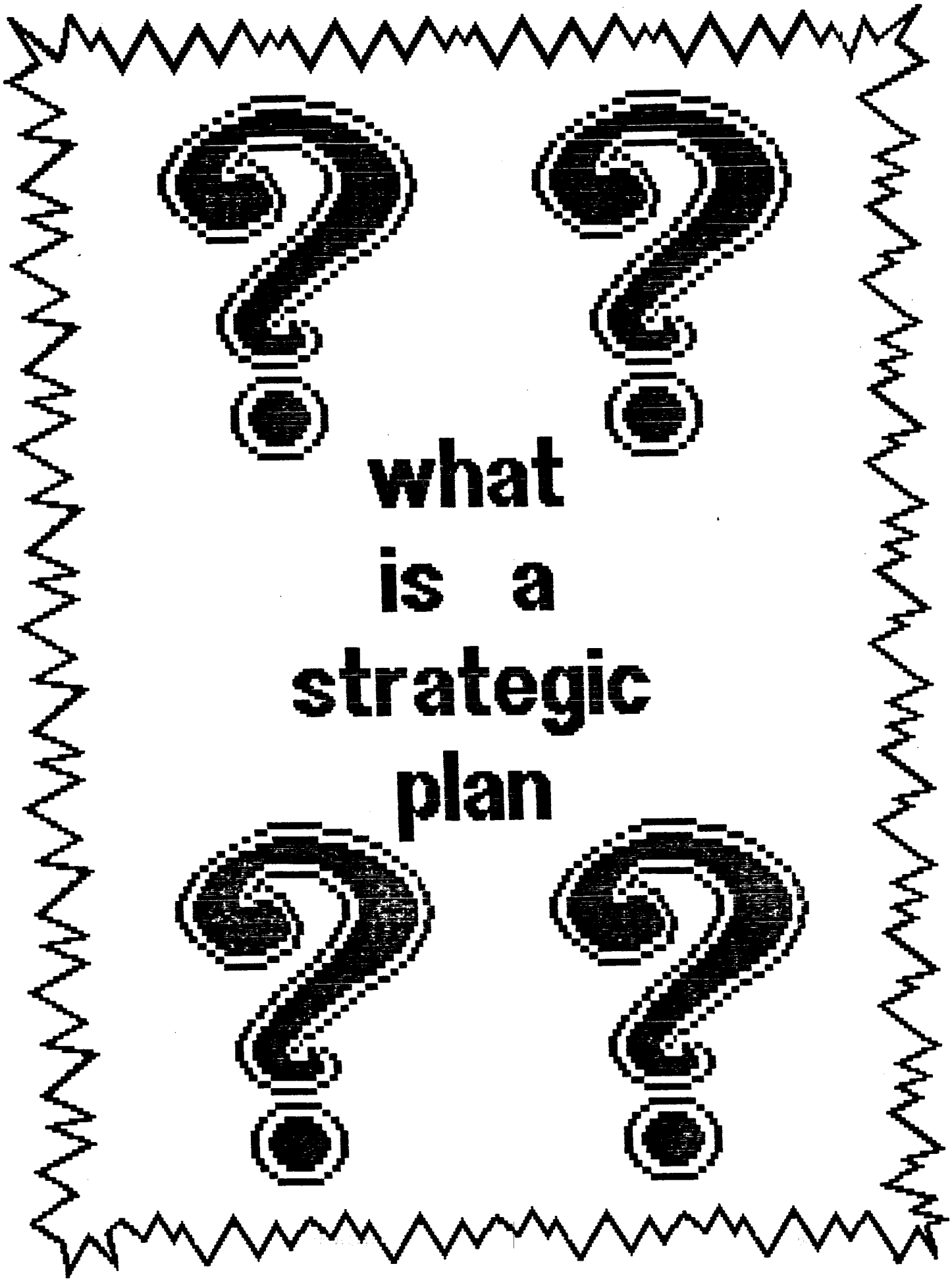
- My thanks for the support that Directors have provided to faculty as they have worked through the WRDC to develop and extend programs. The interest of Congress in rural issues has never been higher in my professional career. The next few years will be a challenge to translate concerns into assistance for rural people and communities.

Russ Youmans
Director

RY:lb

cooperative state research service

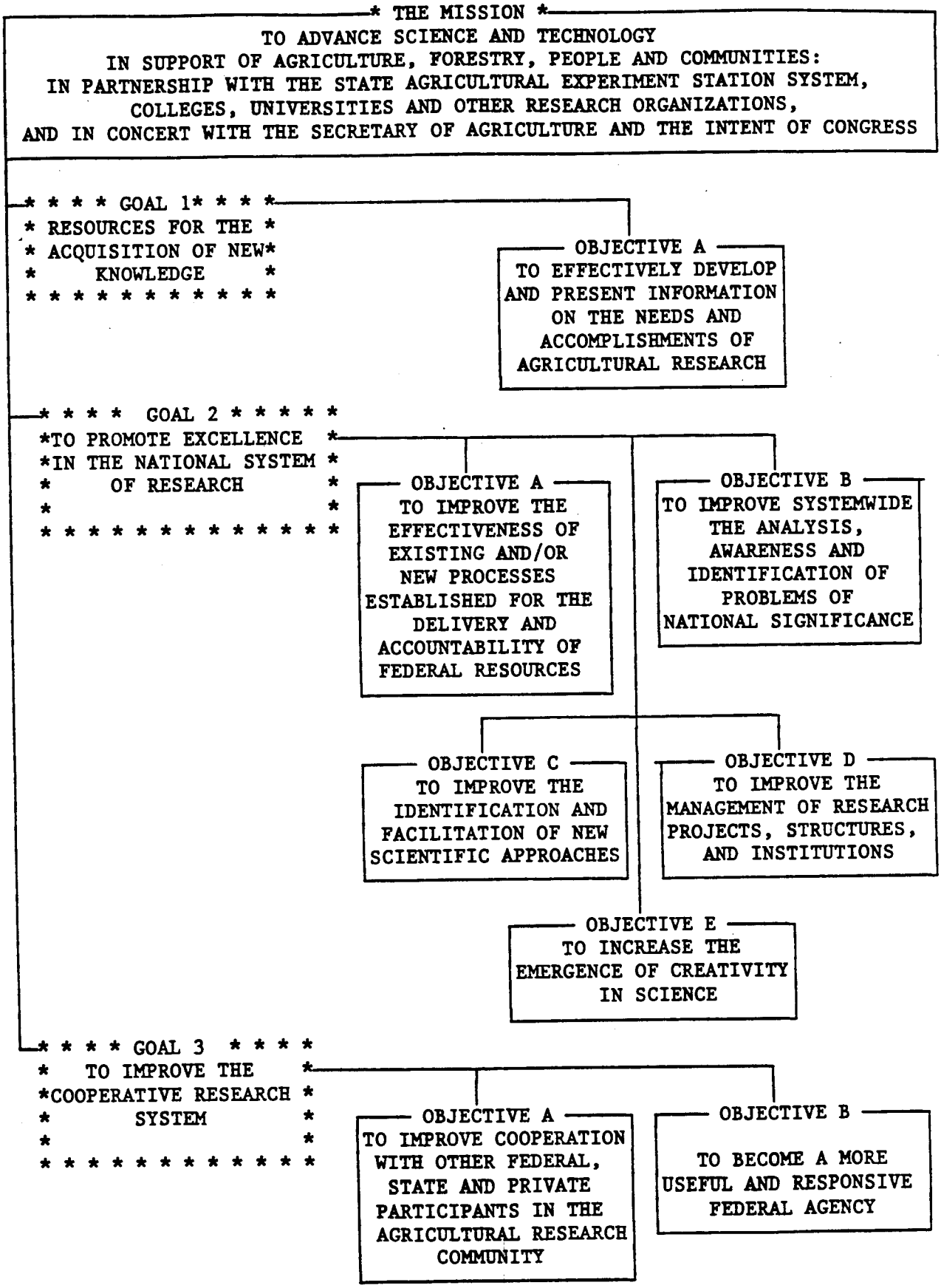
STRATEGIC PLAN


what
is a
strategic
plan

it is a ...

conceptual
organizational
plan that
erects a
framework
to encourage
systemwide
participation

STRATEGIC DIRECTIONS



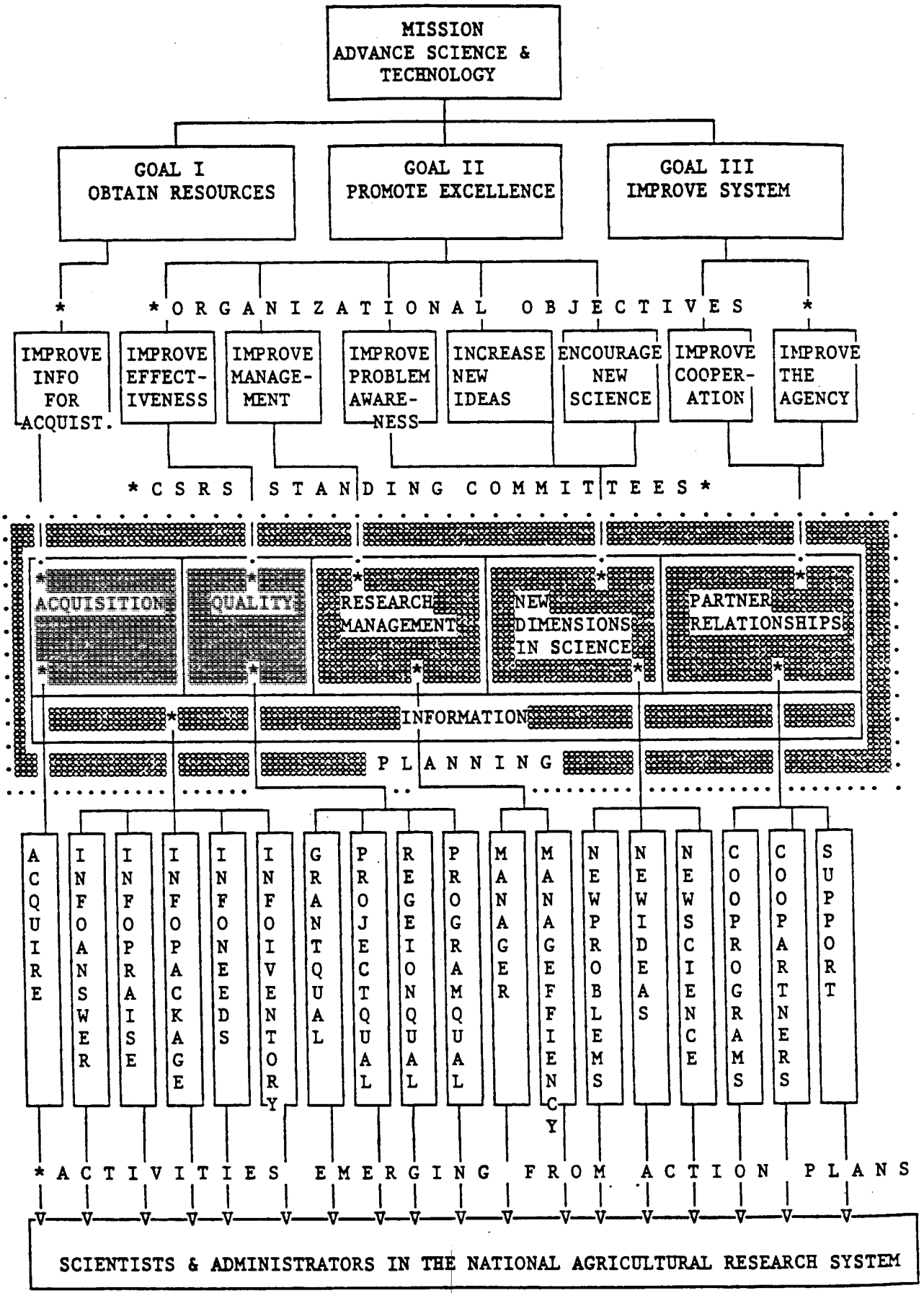
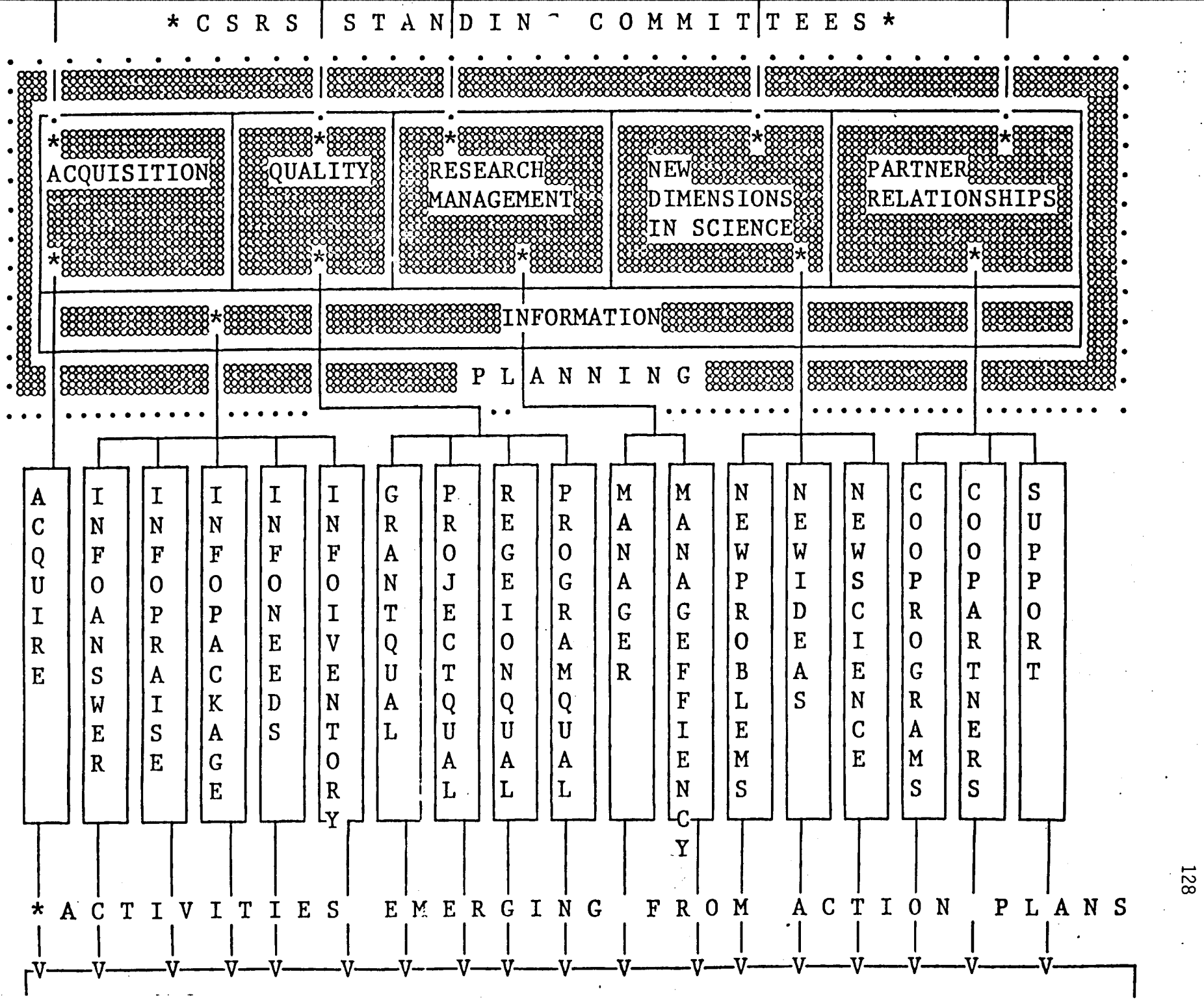


FIGURE 2: CONCEPTUAL IMPLEMENTATION OF THE STRATEGIC PLAN.


CSRS STANDING COMMITTEES
ACQUISITION
QUALITY
RESEARCH MANAGEMENT
NEW DIMENSIONS IN SCIENCE
PARTNER RELATIONSHIPS
INFORMATION
PLANNING
ACQUIRE
INFOANSWER
INFOPRAISE
INFOPACKAGE
INFONEEDS
INFOIVENTORY
GRANTQUAL
PROJECTQUAL
REGEIONQUAL
PROGRAMQUAL
MANAGER
MANAGEFFIENCY
NEWPROBLEMS
NEWIDEAS
NEWSCIENCE
COOPROGRAMS
COOPARTNERS
SUPPORT
*ACTIVITIES EMERGING FROM ACTION PLANS

ESCOP
-COMPUTER AIDED DECIS
-COMMUNICATIONS
IR - 5
CRIS
TBD

ESCOP
-BIOCONTROL
-RSCH PLANNING
-SPECIAL INITIATIVES
IR-4; IR-7
NARC
TBD

RESEARCH ADMINISTRATORS WORKSHOP
SOC SCI ADMIN WORKSHOP
RESEARCH MANAGERS WORKSHOP
TBD

SOME ILLUSTRATIVE

EXAMPLES

O

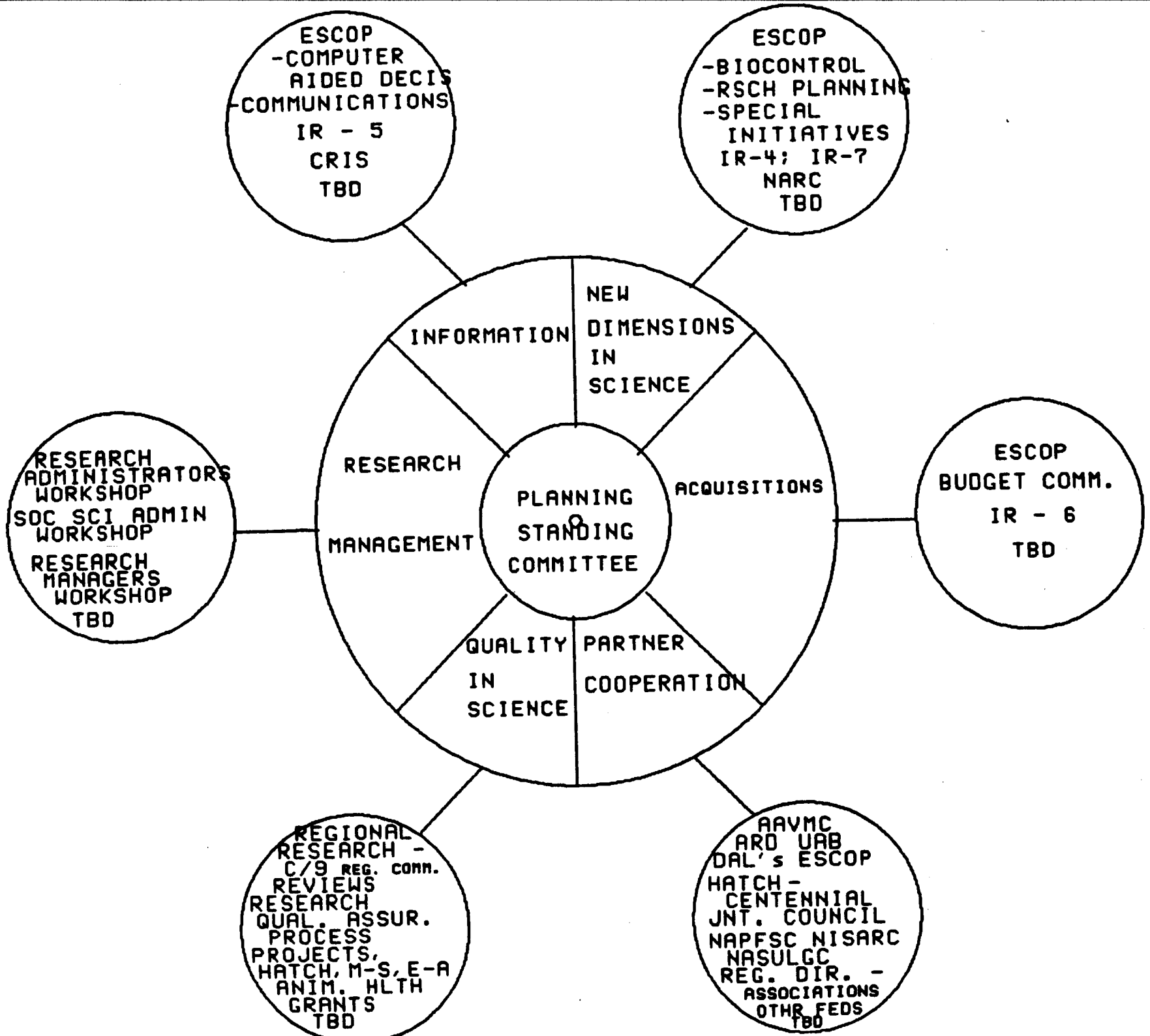
OF ACTIVITIES AND ORGANIZATIONS

IN THE SYSTEM

ESCOP
BUDGET COMM.
IR - 6
TBD

REGIONAL RESEARCH -
C/9 REG. COMM.
REVIEWS
RESEARCH QUAL. ASSUR.
PROCESS
PROJECTS,
HATCH, M-S, E-A
ANIM. HLTH
GRANTS
TBD

AAVMC
ARD UAB
DAL's ESCOP
HATCH -
CENTENNIAL
JNT. COUNCIL
NAPFSC NISARC
NASULGC
REG. DIR. -
ASSOCIATIONS
OTHR FEDS
TBD


ESCOP
-COMPUTER AIDED DECIS
-COMMUNICATIONS
IR - 5
CRIS
TBD
ESCOP
-BIOCONTROL
-RSCH PLANNING
-SPECIAL INITIATIVES
IR-4; IR-7
NARC
TBD
INFORMATION
NEW DIMENSIONS IN SCIENCE
RESEARCH MANAGEMENT
ACQUISITIONS
PLANNING & STANDING COMMITTEE
QUALITY IN SCIENCE
PARTNER COOPERATION
RESEARCH ADMINISTRATORS WORKSHOP
SOC SCI ADMIN WORKSHOP
RESEARCH MANAGERS WORKSHOP
TBD
ESCOP
BUDGET COMM.
IR - 6
TBD
REGIONAL RESEARCH -
C/9 REG. COMM.
REVIEWS
RESEARCH
QUAL. ASSUR.
PROCESS
PROJECTS,
HATCH, M-S, E-A
ANIM. HLTH
GRANTS
TBD
AAVMC
ARD UAB
DAL's ESCOP
HATCH -
CENTENNIAL
JNT. COUNCIL
NAPFSC NISARC
NASULGC
REG. DIR. -
ASSOCIATIONS
OTHR FEDS
TBD

WESTERN ASSOCIATION OF AGRICULTURAL EXPERIMENT STATION DIRECTORS
Coeur 'd Alene, Idaho, July 15-18, 1986

Director-at-Large Report
L. L. Boyd

This report covers the period from the last week of March, 1986 up until this meeting. The following lists the various functions in which I have participated as your representative or which contributes to my ability to serve your interests:

4/9-10 PBAG Proposal Review, University of Hawaii, Honolulu
4/13-16 ESCOP Spring Meeting, Savanah, GA
4/16 DAL meeting, Savanah, GA
4/22-23 ESCOP Communications Workshop, Minneapolis, MN, Radisson Hotel
5/6 Western Region Planning, Exec Com Subgroup, Denver Airport(Red Carpet Rooms)
5/7-9 Users Advisory Board, Picadilly Aiport Inn, Fresno, CA (sub for Halpin)
5/12-13 Special Initiatives Committee, Capitol Holiday Inn, Washington, D.C.
5/19 DAL meeting, 8:00 a.m., 336A USDA Administration Bldg
5/20-22 Committee of Nine, CSRS, Washington, D.C.
6/10 DAL Meeting, USDA Room 336A
6/10-11 ESCOP Interim, NASULGC
6/12-13 NSF Engineering/Research Equipment Mtg, Wash, D.C.(for ASAE)
6/16-17 W-161 meeting in Reno-UNV campus
6/18 Utah state visit
6/19 National Assn of Conservation Districts, Twin Falls (sub for Zinn)
6/29-30 ASAE, San Luis Obispo, CA; Research and Awards Committees
7/1-2 Nevada state visit

At the March meeting I reported my efforts along with Ted Wilson and Lizzette Williams of the CSRS RRF office, John Myers of CRIS, Dave Schlegel and Margy Woodburn to improve the amount and quality of information available for the Committee of Nine first and second year project reviews and for the RIC second and fourth year reviews. Considerable information was developed for the Committee of Nine meeting in May. This has been improved upon and extended for the RIC meeting that was held here in Coeur 'd Alene. It still needs further development. However, it has provided not only information for the Committee of Nine and RIC, but has given me much greater insight into the operation of our regional research projects. I am convinced that the information can be of considerable use to Administrative Advisors in working with their Committees. Further, it can be useful to a Director within a state in assessing the paricipation and productivity of his scientists compared to those in other states considering the relative resources made available to the scientists.

I made two state visits during this period, to Utah and to Nevada. In Utah I was able to interact with scientists conducting exciting research, particularly that relating to biotechnology. I also was able to visit the new Dairy facilities, which many of you saw last summer, but which I did not because of RIC and Executive Committee meetings. I also had the opportunity to have dinner with several department heads. A highlight of the visit was a lengthy discussion with Elmer Clark and Doyle Matthews about the perceptions on campus about agriculture and agricultural research. We concluded the situation likely is similar on many of our campuses. This discussion reinforced for me the need for all of us to make certain that we nominate our highly qualified

agricultural science leaders for higher administration leadership positions both on our individual campuses and for other universities. I plan to bring together a list of leaders that I believe to be our best qualified, to discuss these with as many of you as possible, and then to make the list available to all who wish it.

My visit to Nevada also was stimulating as I learned of the policies and practices that Bernard Jones and Kelvin Koong have put in place to encourage high quality research and timely publication of the results. I saw several of the facilities and was particularly impressed with those for biochemistry as well as by the research being conducted in them. I had an interesting discussion with Department heads during which I believe they gained a better understanding of the agricultural research system and where they fit into it. Most of them are recently appointed. They also learned something of my role. I also had an interesting visit with supporting staff in the experiment station. I hope to get in at least three more state visits by the end of the calendar year.

I participated in the first day of the W-161 meeting, so that I would be better prepared to assist with the administration of the special grants. I will be working closely with Dave Schlegel as Administrative Advisor and Gary McIntyre as program coordinator. Your scientists have received their letters from McIntyre and each station has been sent a report. We need to decide whether Directors or Scientists make major decisions relative to the use of these funds. My view is that the Directors should decide what commodities will be included and the scientists/reviewers decided which project are worthy of support.

I participated in two liaison activities in substitute roles for Halpin and Zinn. At the User's Advisory Board the interaction was largely one to one or with small groups. Their meeting was two days of tours and presentations plus three hours of business meeting. I am concerned about the lack of understanding of the agricultural research system by UAB members and what appeared to me to be limited interest in learning more. I can make available a copy of my report to ESCOP about this. Because of this and because Marshall Tarkington, UAB Executive Secretary, represents a degree of continuity in the UAB, I rememended to Elmer Clark, and he concurred, that Marshall be invited to our meeting. Also, because of UAB co-chair David Stevens' interest in peer review of projects, we invited, with Margy Woodburn's concurrence, Marshall to sit with RIC. Incidentally, Pat Jordan also concurred and encouraged Marshall to come. Stevens also was invited, but was unable to come. I have encouraged each of you to interact with Marshall, so she will feel comfortable about calling any one of you, if she needs information and so each of you will not be reluctant to offer suggestions to her. Further, I suggest that when you are visiting Pat Jordan's office that you stop in to see Marshall and ask if you can help her.

At the National Association of Conservation Districts Research and Technology Committee meetings, I gave a 10-15 minute presentation on the agricultural research systems priorities, how they were determined and budget information for both FY1987 and FY1988. There seemed be great interest and there were a numbers of questions both during the meeting and later at dinner with about eight of them. I was surprised to learn that they did not have and were not familiar with many of the documents that I had expected them to have. As a result I did an on the spot revision of my remarks. I have arranged for them

to receive the following: 1) Research Initiatives, 2) ESCOP Water Quality and Management proposal, 3) FY87 Budget information and 4) FY88 Budget information. I am in the process of getting my remarks including some revisions and additions because of questions into print for them.

Information from the ESCOP and ESCOP Interim meetings have been reported by your ESCOP representatives. Also, I believe each of you receive a copy of the ESCOP minutes. Urgent things that come up at these meetings such as the information about the USDA Research Support Agreements are sent to you via Dialcom as soon as we have the information. Information from the ESCOP Special Initiatives subcommittee meeting and from the ESCOP Communications Workshop have been reported by representatives of those committees. I still plan to send you copies of the opening addresses from the Communications Workshop by Dick Sauer and Jim Anderson, but I haven't received the latter one yet.

I did not participate in the NSF meeting as planned. It was moved forward a day, which overlapped with the second day of the ESCOP Interim meeting and they finished their business in one day. So there was no one there, when I went to attend the second day. I did get an opportunity to discuss research with Dr. Nam, Butcher and Hall (former Engineering Dean at WSU that I have know most of my career). The major discussion was on water research needs, although I did ask about plans for equipment initiatives, which was the main reason that I planned to attend, since I was going to be in Washington, D. C. anyway for ESCOP Interim. I am an active participant in and a former Chairman of in the ASAE Research Committee. We selected our top four priorities and made plans to continue to interact with the research committees of other professional societies. ASAE sponsored an evening session in December, 1985 that included reports on priorities from eight other societies. We are investigating the possibility of a two day workshop, so that we could discuss interactions in greater depth.

I have been selected to participate in the ESCOP Subcommittee on Computer-Assisted Decision Support Systems for Agriculture deliberations. The first meeting will be July 28-29, 1986 in St. Louis. I gathered some background information at the ASAE meeting and previously elsewhere. I will want to consult at times with your scientists in this area. I would appreciate your informing me of the best people in your stations. Brian Croft is one, e.g. The DALs are having a retreat in Minneapolis, July 24-25. We will be discussing ways that we can be more affective and reviewing our liaison responsibilities, as well as other items. I may be picking up some additional things, because the other three assumed several between the time Mark left and I came aboard.

I continue to enthused about the role of DAL and look forward to the state visits and other interactions with you. I will continue to try to initiate things through both actions and tossing out ideas and concepts for consideration. Be certain that you let me know of things that you think should be considered.

BACKGROUND INFORMATION FOR DISCUSSION ON INTERREGIONAL PROJECTS

July 8, 1986

You will recall that the Committee of Nine and ESCOP were requested by the North East to "evaluate how the quality of IR projects can be maintained in the context of limited budget sources including the possibility of discontinuance of some in order to better support others and the possibility of seeking alternative sources of funding." I do not see this as a challenge to the Interregional Project concept, but rather a request that we evaluate it carefully.

The Committee of Nine has asked each region for an indepth review of this issue during their summer meetings. The information below is presented as background for an agenda item at Coeur d'Alene.

THE PROBLEM:

1. Most states in the Northeast receive a substantial portion of the budget from formula funds, 40 to 50% in some of the smaller states. Furthermore, in recent years, increases in the Hatch and McIntire Stennis appropriations have generally not kept pace with salary increases in their institutions, creating some real stress. This stress was intensified this year by Gramm Rudmann.

2. The situation is accentuated by the fact that IR projects have automatically received budget increments to meet institutional salary increases for their staff, a policy that reduces the amount available to the individual states because when more is taken off of the top there is less to distribute. Because of the uncertainties of the Federal Budget this year, the Committee of Nine did not recommend that institutional cost of living salary increases be provided in FY 86-87, but held them the same as last year prior to Gramm Rudmann.

3. Research funds are being assigned to service projects such as IR-2, 4, and 5 and this is being questioned because the practice reduces funding that can be distributed for research.

4. There are concerns that we fund the right regional projects and that they are funded at a sufficient level to be effective. Are there other sources of funding and are there other IR-projects that should be developed?

OBSERVATIONS:

1. There are good and sound reasons for a policy that meets the institutional salary increases as there are people whose entire salary depends upon that project but are on the payroll of the lead institution. If the IR funding provided does not cover their salaries, there will either have to reduce their operation through layoffs or reductions in work time or the lead institution will

have to make up the difference. Because of their relatively small size, some of these projects do not have the flexibility to adjust to shortfalls that stations or the larger projects do.

2. IR-projects are visible and may have strong political implication For example, the IR-4 project is well known to growers, the chemical industries and Congress and was well supported by this group in the recent review of that project. We need this kind of visibility.

3. The off the top funding base for an IR-project appears to be essentially set at the time of approval. Adjustments have been made for salary increases and special one time purchases but major realignments generally have not been made.

4. Some projects are primarily service oriented but are funded with research dollars.

ESCOP provided the following comments to the questions raised by the Northeast:

1. Does the present process provide for terminiation of IR projects which have fulfilled their purpose and/or are no longer of highest priority?

2. Are proposals for renewal subjected to critical review to determi if it really is necessary for the IR-project to continue?

3. Are there appropriate mechanisms to consider NEW areas for which IR- projects should be considered? ESCOP suggests that in some cases IR- projects should be used as a way of starting new initiatives (research thrusts).

4. ESCOP urges that all IR-projects which cover service (rather than true research) activities be carefully examined. Perhaps service activities should be handled by ARS or by other funding mechanisms.

5. ESCOP urges that a more critical and organized process be develop for determining the annual funding level for each IR-project.

The Committee of Nine also considered this topic at length during their May meeting. Some of the concerns expressed by the Northeast were echoed in one form or another by others on the Committee. There was unanimity on the need for review and discussion of where this important program was going. There was also the desire on the part of the Committee to be able to provide each state with some figures ($) that would show each station what the cost of the IR programs are to that station. The Committe of Nine asked each region to consider this issue at their summer meetings. Some of the questions that need answering are shown below:

1. What is the purpose of an IR project?
   a. Has the purpose been changed? Should it be reassessed?
   b. What is the unique role of IR projects? (Research vs Service

c. How do IR-projects fit into the total regional and national research picture?

2. Is the process for determining the annual funding level for IR projects and alternate sources of funding adequate amd realistic?

3. Is the process of the critical review of proposals up for renewal and the process for termination of IR-projects which have fulfilled their purpose and/or are no longer of highest priority adequate.

D. E. Schlegel

WESTERN ASSOCIATION OF AGRICULTURAL EXPERIMENT STATION DIRECTORS
Interregional Research Project Discussion
Coeur 'd Alene, Idaho, July 18, 1986

The following questions were developed during an evening discussion during the Committee of Nine meeting. The purpose was to partially structure an in depth discussion at each of the Regional Association Summer meetings. The results of these discussions will provide guidance to the Committee of Nine in making recommendations relative to interregional research project issues. These were included in a written report by L. L. Boyd to the ESCOP Interim Committee on June 10-11, 1986.

I. Importance of Interregional Research Projects
   A. How to assess
   B. Research projects versus service projects
   C. Political importance

II. Should There Be More/Fewer Interregional Research Projects
   A. How do we determine
      1. What to add or
      2. What to close out

III. Funding of Interregional Research Projects
   A. Are the current ones adequately funded
      1. How do we decide
   B. If not adequately funded, what are the sources
      1. Should they seek grants
      2. If they should seek grants, from what sources
         a. Public sources only
         b. Private sources - what implications

IV. Should Regional Projects With Substantial Input From At Least One Other Region Be Changed to IR Status
   A. Is IR status synonomous to off-the-top funding
   B. Should a new status such as MR (multi-regional) be established

V. Should Proposals Be Made To:
   A. Move IR service projects (IR-5, probably IR-4, possibly IR-7 to some type of line item funding, e.g. Federal Administration
   B. What are the pros/cons of line item funding

VI. Should the Regions Use Off-the-Top to fund Major Developments, e.g. (This question does not relate directly to IR projects, but it does to off-the-top funding, which seems to be a major concern of some Directors.)
   A. North Central took off-the-top for 2-3 years to refurbish the NC-7 Plant Introduction facilities at Iowa State University. ARS also assisted .
   B. North Central provided major funding for establishing a Pest Laboratory at Michigan State University

FY1986 IR PROJECT FINANCIAL INFORMATION
JULY 17, 1986

ST	RRF BASE	% OF BASE	*COST OF IR TRUSTS	IR-1 0.1126	IR-2 0.1752	IR-4 0.2706	IR-5 0.174	IR-6 0.1693	IR-7 0.0983
AK	126.694	0.37332	4.269	481	748	1.155	743	723	420
AZ	669.894	1.97372	22,570	2.541	3,954	6,107	3,927	3,821	2,219
CA	1,352,456	3.98416	45.560	5,130	7,982	12,329	7,927	7,713	4,479
CO	820,342	2.41691	27.638	3,112	4,842	7,479	4,809	4,679	2,717
GU	108.481	0.31962	3.655	412	640	989	636	619	359
HI	339.698	1.00094	11.446	1,289	2,005	3,097	1,992	1,938	1,125
ID	528,155	1.55615	17.795	2,004	3,118	4,815	3,096	3,013	1,749
MT	591,501	1.74276	19.929	2,244	3,492	5,393	3,468	3,374	1,959
NV	323,861	0.95415	10.911	1,229	1,912	2,953	1,899	1,847	1,073
NM	356,327	1.04982	12.005	1,352	2,103	3,249	2,089	2,032	1,180
OR	837,762	2.46841	28,227	3,178	4,945	7,638	4,911	4,779	2,775
UT	610,505	1.79873	20,569	2,316	3,604	5,566	3,579	3,482	2,022
WA	780,750	2.30034	26,305	2,962	4,609	7,118	4,577	4,453	2,586
WY	471,934	1.39043	15,900	1,790	2,786	4,303	2,767	2,692	1,563
Total	7,918,360	23.3295	266,779	30,039	46,740	72,190	46,420	45,166	26,224
Grand Total	33,940,684	100.000	1,143,528						

* cost of IR trusts to each state if 3.3691 of the state's base RRF, i.e. 266,779/7,918,360 = 3.3691%

COMMITTEE OF NINE MEETING
WASHINGTON, DC
MAY 20-22, 1986

The Committee of Nine met in Washington, DC, May 20 through 22 and reviewed approximately 20 requests for new or revised projects. In addition there were several items of interest discussed that have a direct impact on the regional system.

Dr. Jordon, in his remarks, emphasized the importance of building a positive image for agricultural research -- being a part of the solution and not the problem. He cited the Regional Research Program as providing examples of research coordination and accomplishments that are used to encourage Congressional support for our budget. For example, the IR-4 project enjoys an incredibly broad base of support from the Congress to the States, the Growers and the Industry. His point was that must take advantage of this visibility and goodwill and make certain that it carries across into all of regional research.

Jordon also reported that progress is being made on the Smithsonian Exhibit and that funding for it is now assurred. In additon the prospects for the Centenial Stamp and a History of Agriculture are looking better. Finally, there has been significant progress in the development of the "USDA Guidelines for Biotechnology Research" scheduled for publication in the Federal Register in June. (The guidelines appeared in the June 26,1986 issue of the Federal Register.) He encouraged us to review the guidelines carefully and comment as they will have a marked impact biotechnology research in agriculture.

There was further discussion of the concerns of the Northeast Directors about off the top funding for IRs. The NE agrees that IRs are important but was concerned that the majority of the IRs were service oriented (IR-1, 2, 4 and 5) and that research funds were being used to support them. They also expressed concern about the fact that pay increases were authorized for the IRs at a time when formula funds did not provide for such increases, with the result that their their total funding for research was decreased. Another issue that came up was the fact that IR budgets are often submitted so late that they can not be considered at the spring meetings of the regions, yet the Committee of Nine authorization process takes place in May.

In an effort to place all of this into perspective the Regional Research Office was requested to provide a statement showing the budget impact of the IR projects (in $) to each Director. It was also agreed that the Committee of Nine would become more actively involved indetermining the need for, and establishing procedures for reviews of IR projects at the end of three years. The regional representatives were instructed to place a discussion of Interregional Projects on their respective Summer Meeting agendas.

D. E. Schlegel, Chair
Committee of Nine
July 8, 1986

National Agricultural Research Committee
Research Priorities for FY 1988

February, 1986

WESTERN ASSOCIATION OF AGRICULTURAL EXPERIMENT STATION DIRECTORS
June 15-18, 1986
Couer d'Alene, Idaho

Report on Plant-Water Stress Task Force
R. D. Heil, Administrative Advisor

The Plant-Water Stress Task Force was authorized by the Western Directors Association (WDA) at the Corvallis, Oregon meeting in August, 1983. Objectives of the Task Force were to 1) identify loci of strength by research agency and individual, and 2) develop an implementation plan for coordination of research in the area of Plant-Water Stress. The Task Force includes membership from both state and federal agencies.

The Task Force assembled in Phoenix, Arizona at the U.S. Water Conservation Laboratory on December 5, 1983 and was provided orientation and charge by L. W. Dewhirst (chairman, WDA), H. E. Bouwer and V. V. Volk (RPG-1).

The Plant-Water Stress Task Force was charged: to identify areas of research strength, topic, and location; to identify research needs and how they would best be met; and to suggest implementation and coordination procedures.

Initial accomplishment was the publication of a regional report which addressed charges given to the Task Force. The report has been distributed to all state and federal agencies and was used as background information for the conference held at Lake Arrowhead, California in April, 1986.

The workshop held at Lake Arrowhead was to facilitate the exchange of knowledge of plant-water stress processes from the molecular, cellular, and whole plant levels, with a broad overview at the plant community level. The workshop was highly successful with 83 people participating. The Steering Committee has already developed proceedings from the Plant-Stress Workshop. Publication will occur within the next two months or less.

Activities of the Task Force including the initial Task Force report and the workshop has resulted in the following major recommendations:

1) The Western Directors (in consultation with ARS and other regional directors) should immediately appoint a new committee to begin planning for a second workshop. This committee should include representation from the existing committee.

2) A committee composed of administrators from ARS and State Experiment Stations should be appointed to examine and implement procedures for facilitating cooperative research according to the recommendations of the 1983 Plant-Stress Committee Report.

3) Experiment Station Directors should solicit proposals for regional research projects in the area of plant stress. The new Steering Committee could be used to aid in evaluation of these proposals, but the initiative should come from individual or groups of scientists.

By this report, I would like to formally acknowledge the outstanding efforts of the entire Task Force, and particularly Dr. W. R. Gardner and Dr. R. Reginato, for their efforts in organizing and carrying out the workshop. Members of the Plant-Water Stress Task Force include:

NAME	AGENCY/DEPT.	LOCATION
H. Ayer	USDA-ERS	Univ. of Arizona Tucson, AZ 85271
G. S. Campbell	Dept. of Agronomy & Soils	Washington State Univ. Pullman, WA 99164
W. R. Gardner, Co-Chair	Dept. of Soil & Water Sci.	Univ. of Arizona Tucson, AZ 85721
R. J. Hanks	Dept. of Soil Science & Biometeorology	Utah State Univ. Logan, UT 84322
T. C. Hsiao	Dept. of Land, Air & Water Resources	Univ. of California Davis, CA 95616
E. V. Maas	U. S. Salinity Laboratory USDA-ARS	4500 Glenwood Drive Riverside, CA 92501
B. A. Melton	Dept. of Crop & Soil Sci.	New Mexico State U. Las Cruces, NM 88003
J. E. Quisenberry	Cropping Systems Res. Lab USDA-ARS	Route 3 Lubbock, TX 79401
R. J. Reginato, Co-Chair	U. S. Water Conservation Lab., USDA-ARS	4331 E. Broadway Phoenix, AZ 85040