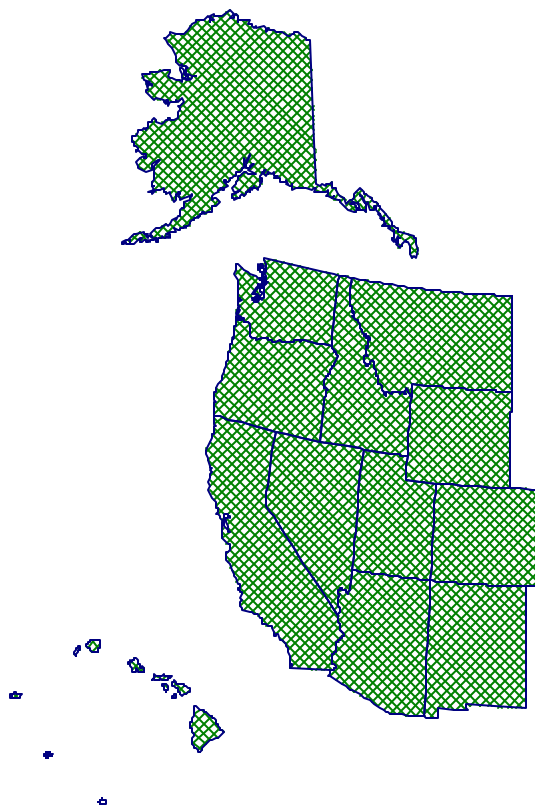


MINUTES OF THE MEETING OF
THE WESTERN ASSOCIATION OF
AGRICULTURAL EXPERIMENT STATION DIRECTORS

ALASKA
AM. SAMOA
ARIZONA
CALIFORNIA
COLORADO
GUAM
HAWAII
IDAHO
MICRONESIA
MONTANA
NEVADA
NEW MEXICO
OREGON
UTAH
WASHINGTON
WYOMING



Washington, DC

November 19, 1989

SUMMARY OF ACTIONS

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2.0	Approved minutes of July 25-27, 1989 meeting	1
3.0	Accepted the Treasurer's Report on the Western Director-at-Large account and the Western Directors Association Special Account	3
4.0	Approved adjournment of meeting	10

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WESTERN ASSOCIATION OF
AGRICULTURAL EXPERIMENT STATION DIRECTORS

MINUTES

November 19, 1989
Marriott Hotel
Washington, DC

ATTENDANCE:

ALASKA	James V. Drew	MONTANA	James R. Welsh
ARIZONA	C. Colin Kaltenbach	NEW MEXICO	Dinus M. Briggs
CALIFORNIA	Lowell Lewis	OREGON	Thayne R. Dutton
	David E. Schlegel		L. J. (Kelvin) Koong
	Seymour Van Gundy		Margy J. Woodburn
COLORADO	Robert D. Heil	UTAH	Doyle J. Matthews
	Helen F. McHugh	WASHINGTON	
	Merle H. Niehaus		James J. Zuiches
GUAM	Chin T. Lee	ARS	William Tallent
HAWAII	Ned P. Kefford	CSRS	William D. Carlson
IDAHO	Richard C. Heimsch	NASULGC/CSRS	Terry Nipp
	Gary A. Lee	DIRECTOR-AT-LARGE (DAL)	L. L. Boyd
		OWDAL	Harriet Sykes

1.0 Call to Order

The meeting was called to order by Chairman Drew.

2.0 Introductions and Announcements

The attendees introduced themselves.

3.0 Adoption of Agenda

The motion was made and seconded to adopt the agenda as presented. MOTION CARRIED. A copy of the agenda is Appendix I, p. 11.

4.0 Approval of Minutes of 7/28-29/88 Meeting

The motion was made and seconded to approve the minutes of the July 25-27, 1989 meeting as presented. MOTION CARRIED.

5.0 Interim Actions by the Chair/Executive Committee Report

Drew reported on two items that he covered since the Summer 1989 meeting. He attended a meeting of the Western Regional Council. The purpose of the meeting was to review the activities of the Western Regional Council in relation to the Joint Council. Dr. Charles Hess requested the meeting and Mark Bailey, of the Joint Council, organized it. The purpose was to find how the Regional Councils should be working, how they are working and how they might more effectively work in support of the activities of the Joint Council. The Joint Council was authorized by Congress to have four regional councils. Only two have functioned, the Northeast Regional Council and the Western Regional Council. The North Central Regional Council and the Southern Regional Council have not operated. The message from Dr. Hess was that he would like to see more direct input from the Regional Councils into the Joint Council. If the

Joint Council makes specific budget recommendations that the USDA adopts there is less likelihood of dissenting views distracting from the forward motion of the budget process if there is a record of solid input from each of the regions. Consequently, the question is whether to get four good Regional Councils working with input into the Joint Council, or drop the Regional Councils. The outcome of the meeting was a recommendation that the Chairs and Vice-Chairs of the various groups (Experiment Station, Extension Directors, Instructional Directors, International Directors, Veterinary Medicine, CARET, Forestry, Home Economics, Non-Land Grant Agricultural Schools) within the Western Region meet annually to provide some harmonization for the priorities that would be sent forth to the Joint Council.

Dr. Hess has suggested another alternative, that the various regional CAHA groups serve this function. It would be up to the CAHA groups to obtain information and input from the other groups by whatever mechanism they see fit.

John Naegele, of CSRS, requested information about the WDA criteria for evaluating regional project proposals. CSRS is going to sponsor a workshop in which the Committee of Nine will meet with representatives from each region to discuss ways in which the criteria can be refined so that not as many regional project outlines are rejected by the Committee of Nine after approval by regional committees. Drew provided Naegele with the pages from The Supplementary Manual of Procedures for Western Regional Research and The Manual for Cooperative Regional Research that are used by RIC to evaluate regional project outlines. Drew also indicated that the WDA does not use national priorities as criteria in approving regional research projects.

The Executive Committee designated Boyd, McHugh and Sykes to recommend two individuals to serve as a representative on the ESCOP Human Nutrition Subcommittee. ESCOP needs a technical representative for the Communications Subcommittee. The Executive Committee recommended that Andrew Duncan (OR) continue as representative. An alternate to the ESCOP Home Economics Subcommittee is needed. The Executive Committee recommended that Peggy Pletcher (ID) serve as the alternate.

The Executive Committee named L. James (WA) as replacement Administrative Advisor for WRCC-65. H. Goetz (CO) was named replacement Administrative Advisor for WRCC-55.

M. Jensen (AZ) is the representative to the Western Regional Aquaculture Board replacing G. A. Lee (ID).

The 1990 USDA Honors Awards nominees from the Western Region will be screened by Drew, Schlegel and Boyd. The three highest ranked nominees' forms will be submitted to CSRS.

6.0 Treasurer's Report

The Treasurer's Report, distributed and presented by Welsh, is included as Appendix II, pp. 12-13. The motion was made and seconded to accept the Treasurer's Report on the Western Director-at-Large account and the Western Directors Association Special Account as presented. MOTION CARRIED.

7.0 CSRS Report

The CSRS Report distributed and presented by Carlson, is included as Appendix III, pp. 14-16.

8.0 ARS Report

Tallent reported that ARS is concerned that Gramm-Rudman will take effect. If it does, with some locations using 80 percent of their budgets on salaries, a 5.3 percent cut would remove 25 percent of operating budget.

No ARS scientists or their families were injured in either Hurricane Hugo or the San Francisco Bay area earthquake.

ARS and the Forest Service are participating in a personnel demonstration project. One change is from a one-year probationary hiring period to a three-year period. Also, administrators will have more flexibility in competing salary-wise in recruiting. ARS is planning a national meeting with all Research Leaders and National Program Staff to increase interaction among their key personnel.

Closer communication and interagency cooperation is taking place under the leadership of Hess and Mussman with Jordan, Plowman, Howard, and Johnsrud.

9.0 DAL Report

Boyd presented the DAL Report which is included as Appendix IV, pp. 17-28.

10.0 Reports by Representatives to:

10.1 ESCOP

Drew reported that ESCOP passed several motions in August 1989: (1) They strongly affirmed support for the National Initiative and joined CARAFE as a full member; (2) They passed a motion supporting the report of the ESCOP Committee on Agricultural Facilities and recommended that funding not be pursued until there was assurance that it did not interfere with the National Initiative; (3) They approved the continuation of Terry Nipp for an additional year to continue lobbying activities in Washington, DC. (4) They approved a motion to appoint a study committee to evaluate having additional representation in Washington, DC. (5) They approved a motion requesting ESCOP and ECOP to join in development of a sustainable agriculture publication.

Boyd reported on the ESCOP Interim meeting in September 1989. There has been a request for support from ESCOP to assess the need for greater U.S. involvement in international research. The request stemmed from a publication that stressed that there is a large global agricultural research system that has dwarfed the U.S. system from which the U.S. is excluded and isolated by its policy, funding methods and complacency. ESCOP appointed a committee to work with ICOP to prepare a report regarding U.S. involvement in international research.

10.2 ESCOP Research Planning Group

Zuiches reported that a meeting involving scientists and administrators was held in August to develop research priorities for the Experiment Station system. A document titled Research Agenda for the 1990s: A Strategic Plan for the State Agricultural Experiment Stations was developed. The document will go to ESCOP for consideration and the final version will be published in February 1990. The Plan identifies 32 priority areas with documentation and a research agenda under each priority area, and funding requirements to fund fully both start-up and operational dollars. It is important to keep in mind that the

organization of the document is congruent with the organization of the National Research Initiative. It was set up so that the Plan could be the operational blueprint of the National Initiative.

Dutson commented that, to avoid bias, the priority ranking of the ESCOP Research Planning Group will not be included when the Experiment Station Directors are asked to rank the priority areas. There is a background statement for each of the six areas that gives the present activity, level of support and the relationship of the existing program to the new initiatives that are in each of the six subsections. The attempt is to describe the existing programs and separate the request for new programs so that the old program is not forgotten. The base program document and the research priorities document that were prepared in the 1980s were combined to show where we are presently and how we want to build.

10.3 ESCOP Special Initiatives Subcommittee

Lee reported that the Special Initiatives Subcommittee met in Denver in September 1989. One pressing question asked was discussion of what the role and mission of the Subcommittee should be. The major role is: to review new initiatives; to help initiatives to come forth by developing supporting background information.

Two issues surfaced: (1) There is concern about the consumer issues facing American agriculture. ESCOP and the agricultural community need to be more aware of consumer concerns and needs. It was recommended that ESCOP appoint a working group to develop an active program to face the issues, and develop a symposium to define the problems and develop action plans. (2) The Subcommittee also recommended that ESCOP request that CSRS create an IPA position of a communications specialist from the SAES system to develop a better communication system. There is a need to get people to come to the scientists and people who have factual data to get some input. There is a need for the Experiment Stations to get more exposure and communication to the public.

10.4 ESCOP Leadership Development Subcommittee

The report on the ESCOP Leadership Development Subcommittee is included in the DAL Report, Appendix IV, pp. 17-28.

10.5 FY1991 ESCOP Budget Group

Zuiches reported that the Division of Agriculture had distributed copies of Strategic Investments in Agricultural Research, Extension and Higher Education. The research components can be extracted from the document that show the research priorities, the research objectives under those priority areas, and the budget for the priority areas.

Neville Clarke reported to the FY1991 ESCOP Budget Group on the National Initiative. The National Initiative is very well received by the USDA. It was proposed as part of the USDA budget request to the President at a full \$500 million with \$110 million of internal USDA reallocation from outside Science and Education. Of the remaining \$400 million, \$45-50 million would be a reallocation of the Competitive Grants Program, incorporating the program into the National Initiative. Therefore, we are looking for an additional \$350 million new dollars.

The FY1991 Budget Group is proposing a 40 percent increase in Hatch and a 60 percent increase in the Competitive Grants Program. The basic instructions from the ESCOP Budget Committee were that we ought not make any sort of decision on what level we would ask for in the January budget until we see what the President's budget is. If the President's budget comes in very strongly for the National Initiative, then we might request a very realistic inflation plus some factor increase in formula funds. There is no question that we will argue very strongly for maintaining base funding. The National Initiative will have to be dovetailed with programs such as the Competitive Grants Program. Many Special Grants would need to continue as they are not amenable to national competition. They are part of the base support for efforts underway. These programs are: integrated pest management, biological impact assessment, pesticide clearance, pesticide impact assessment, LISA grants, and the centers (Rural Development, Aquaculture, International Trade).

Drew commented that CARET has questioned how research from the National Initiative would be conducted if facilities are not up to date. The National Initiative would begin to attract national attention and gain additional momentum and positive press for agricultural research. Perhaps funding for facilities improvement would be forthcoming in FY1992. There is going to be an attempt to get a multi-agency program going with NSF and NIH.

10.6 FY1992 ESCOP Budget Group

McHugh reported that the FY1992 ESCOP Budget Group had meet with the FY1991 Budget Group. The FY1992 Budget Group has been waiting for the report from the ESCOP Planning Group workshop, to see how the Executive Budget is going to treat the National Initiative, and what impact the Executive Budget will have on the budget proposal that might come forward from ESCOP.

10.7 Committee of Nine

Niehaus distributed the Committee of Nine report, included as Appendix V, pp. 29-33. The Committee of Nine approved the development of the National Research Project system, to consist of two categories of projects: (1) National Research Projects, and (2) National Research Support Projects. The National Germplasm group is currently developing a National Research Support Project proposal.

Koong reported that the Committee of Nine has evaluated the procedure for granting extensions of regional projects. Preparation of a revised outline for the next cycle is not appropriate grounds for extension. Extension should only be used to complete the work not completed during the current term of the project. Extensions for another year beyond a one-year extension are very difficult to obtain.

A proposal is to be presented at the next Committee of Nine meeting that is a National Research Support Project to replace IR-6 that involves planning, evaluating, and reviewing the CSRS project system. If the project is approved, the method of funding is the next problem. It could be funded from off-the-top RRF funds.

10.8 National Initiative

Boyd reported that copies of the National Initiative had been mailed to all directors. It is important that each director promote the National Initiative individually. All agriculture, research-extension-teaching, will greatly gain if the National Initiative is funded.

11.0 Other Reports

11.1 Users Advisory Board

The Users Advisory Board report is included in the DAL Report, Appendix IV, pp. 17-28.

11.2 Joint Council

No report was given.

11.3 Water Quality Funding

Nipp reported that \$6.7 million for Experiment Stations and \$5.2 million for Extension had been awarded for water quality funding. Authorizing legislation on groundwater quality was introduced to the Subcommittee on Department Operations and Research. It is the first bill introduced in the last two years and in the current session of Congress that has a broad agenda for the Department of Agriculture, and specifically acknowledges that the SAES and Extension have lead responsibility in particular areas. It was crafted to stay within the House Committee on Agriculture and was not intended to affect the responsibilities of USGS, EPA or any other agency. It has some chance of being passed. There are some coordinating and organizing functions in the bill that were present in the earlier version of the bill they wanted to proceed with that were not negotiable. Hopefully, we can use this as leverage for the negotiations for the appropriations process the next time around. Another bill would have been introduced on the Senate side within a week or two had Congress stayed in session. It probably will be introduced as soon as Congress reconvenes in 1990. There are components not present in the House bill that will be present in the Senate version of the bill. A summary of the bill, and a copy of the bill will be distributed to SAES directors. The directors are requested to look at the research component of the bill and note items to be added or changed.

The Farm Bill process is underway. Nipp developed a draft piece on which the committees could work after a conference with the NASULGC staff, Anderson (MI) and Jones (IL). A working structure and several subtitles such as global change, water quality, sustainable agriculture, food safety, etc., were created from Title XIV of the 1985 Farm Bill. The idea was to capture some of the interest in particular issues and bring order to the bill. Experts in the research community need to be contacted to identify items which will need to be incorporated into the structure of the Farm Bill. A draft document will be available in late December that contains an introduction to the issues to be addressed in the 1990s with detailed side by side comparisons showing the 1985 legislation and the changes being proposed.

11.4 Joint Planning/Activities

11.41 Western CAHA

Matthews reported that committees have been appointed to continue to look at the possibilities of joint projects. Planning will proceed in the area of animal sciences.

The regionalization project demonstrated at the Joint Meeting in Bozeman, MT in July 1989 will continue. A status report of that project is included as Appendix VI, pp. 34-37.

A new program is being proposed to the Department of Commerce called AG*STAT. It is a program to obtain hardware to put in the institutions to give them the capability to uplink programs onto a satellite and to receive programs from a satellite. Information regarding AG*SAT is included in Appendix VI, pp. 34-37.

12.0 Future Meetings

12.1 Spring WDA Meeting Plans

The Executive Committee recommended that participants plan to depart from the continental U.S. no later than March 24 and arrive in Guam on March 26, to take advantage of an overnight Saturday reduced airfare. The WDA will meet March 27-28, 1990. The WDA Executive Committee will meet March 26. RIC will schedule their meeting either in Guam or on the West Coast of the U.S. prior to departure for Guam.

Lee distributed information about hotels in Guam, as well as additional general information. It was decided to schedule the meeting at the Guam Hilton as conference rooms were available there. There will be a tour of Guam on March 29 and an optional tour to Saipan on March 30. Lee will distribute information to the WDA concerning arrangements.

12.2 Summer Meeting Plans; Joint Meeting with Deans, Resident Instruction, Extension & CARET

Dutson distributed information about the 1990 Summer Western Region Meeting which is included as Appendix VII, p. 38. The meeting is scheduled June 25-29, 1990 at Newport, Oregon.

13.0 ABRAC Plans/Needs

Young reported that great strides had been made in the past year in biotechnology. More than 49 field plots were established in 18 states during the past growing season. All of them had a permit from the USDA's Animal, Plant Inspection Service. Biotechnology is essentially a company/industry program. Almost all the plots, with the exception of three (Iowa State, Cornell, and Idaho) were done by industry.

Although the permit at APHIS is free, making sure that the paperwork is legal and sound can be expensive. The key is to provide some mechanisms so that the low-risk research need not come to Washington for approval. There is a great deal of research where some of the responsibility for oversight can be put with the institutions. There are times when the regulatory oversight is required. USDA's efforts to develop guidelines is essential so there will be a continuum from providing oversights of low-risk research to permits for high-risk research.

The guidelines are to be finalized at the January 1990 ABRAC meeting. In addition to the guidelines, Mississippi State will be publishing a handbook titled Agricultural Biotechnology Introduction and Field Testing. In February 1990 each SAES will receive 30 copies of the handbook for distribution.

Cordel, a Senior Regulatory Specialist who transferred to the Office of Agricultural Biotechnology from the Food Safety Inspection Service, reported that a report had been developed by the International Food Biotechnology Council which oversees whether new genetic products are safe for human consumption.

Young stated that, as a nation, we are investing about \$2.7 billion in biotechnology. Almost all but \$200 million is in biomedical technology. The major supporter for agricultural biotechnology is the Department of Agriculture, contributing \$100 million. The states are doing their best to match the dollars and yet agricultural biotechnology research is underfunded. ABRAC is evaluating priorities for funding and will request input from directors through the Director-at-Large offices.

The United States is not the only country doing agricultural biotechnology research. France had 30 field plots last season, and they have a very good relationship between their industry, their academic institutions and their government. Many of the issues for commercializing biotechnology are being worked on by the French. We're just beginning to think about it. We're still a nation that has problems putting apples on the shelf. There are some real concerns about where the international community is going and how we should be interacting with the international community.

Steinbach, international specialist, distributed information regarding international aspects of biotechnology, included as Appendix VIII, pp. 39-44.

14.0 Resolutions

No resolutions were presented.

15.0 Other Business

15.1 Requested input from the WDA regarding W-084

Van Gundy reported there is a problem with interaction between APHIS, ARS and the SAES people in terms of importation and handling of parasites and predators. APHIS is running its own program and does not interact with the universities. The scientists are concerned that they may import something that could create a problem. APHIS does have the operational authority for importation but does not have the research expertise. The technical committee for W-084 is to send a letter expressing their concerns to the WDA Executive Committee with copies to members of the WDA.

15.2 Conservation plan required to receive some Federal funds

Welsh reported that, in order to receive Federal payments through the Wool Incentive Program, a conservation plan must be filed for the entire Experiment Station. The language of the 1990 Farm Bill should be changed to address the problem.

15.3 Changing of the Guard

The gavel and responsibilities as Chairman of the WDA for 1990 were passed from Drew to Schlegel.

16.0 Adjournment

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

WESTERN ASSOCIATION OF AGRICULTURAL EXPERIMENT STATION DIRECTORS
 Marriott Hotel, Washington, DC
 Sunday, November 19, 1989
 2:30 - 6:00 pm

AGENDA

2:30	1.0	Call to Order	J. V. Drew
	2.0	Introductions and Announcements	J. V. Drew
	3.0	Adoption of Agenda	
	4.0	Approval of Minutes of 7/28-29/88 Meeting	J. V. Drew
2:35	5.0	Interim Actions by the Chair/Executive Committee Report	J. V. Drew
2:45	6.0	Treasurer's Report	R. B. Muntifering
2:55	7.0	CSRS Report	J. P. Jordan
3:05	8.0	ARS Report	W. H. Tallent
3:15	9.0	DAL Report	L. L. Boyd
	10.0	Reports by Representatives to:	
3:30	10.1	ESCOP	D. L. Oldenstadt
3:40	10.2	ESCOP Research Planning Group	T. R. Dutson/J. J. Zuiches
3:50	10.3	ESCOP Special Initiatives Subcommittee	G. A. Lee
4:00	10.4	ESCOP Leadership Development Subcommittee	L. L. Boyd
4:10	10.5	FY1991 ESCOP Budget Group	J. J. Zuiches
4:20	10.6	FY1992 ESCOP Budget Group	L. L. Boyd/H. F. McHugh
4:25	10.7	Committee of Nine	M. H. Niehaus
4:35	10.8	National Initiative	L. L. Boyd
	11.0	Other Reports	
4:45	11.1	Users Advisory Board	L. L. Boyd
4:50	11.2	Joint Council	J. P. Jordan
5:00	11.3	Water Quality Funding	V. V. Volk/T. Nipp
	11.4	Joint Planning/Activities	
5:10	11.41	Western CAHA	D. J. Matthews
	12.0	Future Meetings	
5:20	12.1	Spring WDA Meeting Plans	C. T. Lee
5:30	12.2	Summer Meeting Plans; Joint Meeting with Deans, Resident Instruction, Extension & CARET	T. R. Dutson
5:35	13.0	ABRAC Plans/Needs	A. L. Young
5:45	14.0	Resolutions	
	15.0	Other Business	
5:55	15.1	Changing of the Guard	
6:00	16.0	Adjournment	

Thirty copies of all reports should be brought for distribution at the meeting. Because time will be limited, please plan for your oral report to be brief to allow maximum time for discussion. Also feel free to provide copies of other materials (not on the agenda) of value/interest to Association members.

WESTERN DIRECTORS' AT LARGE ACCOUNT
FINANCIAL REPORT

ASSESSMENTS AND INCOME

ITEM	ANNUAL ASSESSMENT	INCOME	BALANCE
JULY 1 BALANCE			4,883.28
AM.SAMOA	500.00		4,883.28
MICRONESIA	500.00	500.00	5,383.28
ALASKA	6,406.03		5,383.28
ARIZONA	11,488.52	11,488.52	16,871.80
CALIFORNIA	17,874.84		16,871.80
COLORADO	8,696.17	8,696.17	25,567.97
GUAM	6,235.62	6,235.62	31,803.59
HAWAII	8,399.00		31,803.59
IDAHO	10,162.31	10,162.31	41,965.90
MONTANA	10,755.03	10,755.03	52,720.93
NEVADA	8,250.84	8,250.84	60,971.77
NEW MEXICO	8,554.60	8,554.60	69,526.37
OREGON	13,059.18	13,059.18	82,585.55
UTAH	10,932.83	10,932.83	93,518.38
WASHINGTON	12,525.72		93,518.38
WYOMING	9,636.29		93,518.38
SUB TOTAL	143,976.98	88,635.10	0.00
COLORADO RENT	4,200.00		
TOTAL	148,176.98	88,635.10	0.00

INTEREST AND EXPENDITURES

DATE	TRANSACTION	INCOME	EXPENSE	BALANCE
	BALANCE			93,518.38
04-OCT-89	TRANSFER OF FUNDS TO COLORADO		32,500.00	61,018.38
16-NOV-89	TRANSFER OF FUNDS TO COLORADO		32,500.00	28,785.14
16-NOV-89	JULY INTERST	266.76		29,041.64
16-NOV-89	AUGUST INTEREST	256.50		29,281.14
16-NOV-89	SEPTEMBER INTERES.	239.40		29,281.14

WESTERN DIRECTORS' SPECIAL ACCOUNT

FY 1990

ITEM	ASSESSMENT	INCOME	EXPENSE	BALANCE
JULY 1 BALANCE				6,850.27
ALASKA	793.40			6,850.27
ARIZONA	1,415.94	1,415.94		8,266.21
CALIFORNIA	2,198.18			8,266.21
COLORADO	1,588.36	1,588.36		9,854.57
GUAM	772.53	772.53		10,627.10
HAWAII	1,037.52			10,627.10
IDAHO	1,253.50	1,253.50		11,880.60
MONTANA	1,326.10	1,326.10		13,206.70
NEVADA	1,019.37	1,019.37		14,226.07
NEW MEXICO	1,056.58	1,056.58		15,282.65
OREGON	1,608.33	1,608.33		16,890.98
UTAH	1,347.88	1,347.88		18,238.86
WASHINGTON	1,542.99			18,238.86
WYOMING	1,189.07			18,238.86
TOTAL	18,149.75	11,388.59		18,238.86

DATE	TRANSACTION	INCOME	EXPENSE	BALANCE
	BALANCE			18,238.86
01-SEP-89	ZUICHES-DIV OF AG BUDGET MTG.		1,055.08	17,183.78
01-SEP-89	G. LEE ESCOP-ORLANDO, D.C., FAIRBANKS		3,330.70	13,853.08
22-SEP-89	MUNTIFFER-ESCOP SPEC. INITIATIVES		567.35	13,285.73
22-SEP-89	DREW-ESCOP-ORLANDO		1,143.21	12,142.52
18-OCT-89	KOONG-ESCOP-DENVER		749.95	11,392.57
18-OCT-89	ZUICHES-ESCOP BUDGET MTG-DENVER		732.35	10,660.22
16-NOV-89	JULY INTEREST	104.52		10,764.74
16-NOV-89	AUGUST INTEREST	100.50		10,865.24
16-NOV-89	SEPTEMBER INTEREST	93.80		10,959.04

Cooperative State Research Service
Report to the
Western Experiment Station Directors
November 19, 1989
Washington, D.C.

1. **Budget.** A conference report for the FY 1990 agricultural appropriation was released last week, more than a month after the initial conference meeting. It includes funding for water quality research for the amount and program requested. Modest increases requested in special grants for pesticide research are also included. The formula programs all continue at constant or modestly increased levels. The competitive research grant funding shows a modest increase, but is disappointingly far below the level requested in the President's budget. The main growth areas are funding for research facilities and special research grants. The action's by the Congress demonstrate continuing support for agricultural research and tendency to designate specific projects in the appropriations process.
2. **Water Quality.** Great effort on the part of many individuals went into planning and coordination of programs for water quality research. A USDA Research Plan for Water Quality was issued in January and a report, Water Quality Program to Support the President's Water Quality Initiative, was completed in July. The later integrates the education and technical assistance plans with the research plans for USDA and its cooperators. CSRS began its special grants program with awards last summer for water quality research. The FY 1990 CSRS research grants program has been announced and proposals are due in CSRS December 18. The extent of joint planning within the SAES system, with ARS, USGS, EPA and others, has been impressive and very demanding. I would like to particularly recognize Directors Norm Scott, Jim Davidson, Dale Vanderholm and Van Volk who worked with Drs. Chuck Smith, Berlie Schmidt and Bob Volk for a strong stateside involvement in this important program area. A new work group on water quality was established in USDA this month and we are pleased that Deputy Assistant Secretary Harry Mussman has been designated chairman.
3. **National Biological Impact Assessment Program (NBIAP).** I am pleased to report that the National Biological Impact Assessment Program's Information System is established. The electronic bulletin board and 12 data bases on biosafety are accessible from VPI through a toll-free number (1-800-NBIAPBD). Plans are underway to soon add a knowledge base to facilitate compliance with the Federal Coordinated Framework for the Regulation of Biotechnology. Projects to foster biological monitoring and biosafety research are underway.
4. **Honor Awards.** A call for nominations has gone to all Directors with a deadline of December 1 for receipt of nominations in John Naegele's office. Regional Committees will be provided copies of nominations from their region for ranking and recommendation to CSRS by December 18. Final nominations go to the Secretary for consideration by the Honor Awards Committee. The Awards Ceremony is scheduled for June 13.
5. **Competitive Research Grants.** The Federal Register announcement for the Competitive Research Grants Program for FY 1990 was published on November 8, 1989. The earliest deadline for submission of proposals is January 8, 1990.

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6. CSRS Staffing. We are pleased to announce the appointment of Dr. David R. MacKenzie as plant geneticist for CSRS. Dr. MacKenzie has been with CSRS for the past year under the Intergovernmental Personnel Act (IPA) and has directed the National Biological Impact Assessment Program (NBIAP). Prior to that, he was Head of the Department of Plant Pathology and Crop Physiology, Louisiana State University. His B.S. degree is from the University of New Hampshire, and M.S. and Ph.D degrees from Pennsylvania State University.

Dr. Meryl C. Broussard has accepted the new position of Principal Aquaculture Scientist in Plant and Animal Sciences/CSRS. Dr. Broussard was previously National Program Leader for Aquaculture with CSRS and the Extension Service, a position he has held for the past four years and one that was expanded into two full time positions—the Principal Aquaculture Scientist position and a corresponding one in the Extension Service. In addition, he has been serving as Acting Aquaculture Coordinator for USDA since December 1988. Dr. Broussard's experience includes a wide range of aquaculture research, teaching, and extension with Texas A&M University, both at College Station and with their International Program in the Philippines. Dr. Broussard earned his Ph.D. degree in Fisheries Biology at Texas A&M University. His B.S. and M.S. degrees are from Memphis State University.

Dr. Lewis F. "Frank" Flora reported to CSRS in September as Food Scientist. Dr. Flora comes to CSRS from McCormick and Co., Inc., where he had been R&D manager of Corporate Research and Development. Dr. Flora was previously assistant professor, Department of Food Science, University of Georgia, Experiment. His B.S., M.S. and Ph.D. degrees are in food science from the University of Maryland.

We are delighted that Dr. Paul Stumpf has agreed to serve as Chief Scientist for the Competitive Research Grants Office for another year.

Dr. Ann Datko will join the Competitive Research Grants Office in December as Associate Program Manager for plant responses to the environment. Dr. Datko is a plant physiologist with 20 years experience at NIH. She holds a Ph.D. degree from McGill University.

In our water quality efforts, we are pleased to have Dr. Bob G. Volk from the University of Missouri on a full-time IPA assignment. Dr. Volk has been head of the Department of Agronomy and holds degrees from Ohio State University and Michigan State University.

To further our relationships with EPA, we have two of their employees on board. Leslie Touart is working with us on water quality and Martin Kovacs on pesticide reregistration.

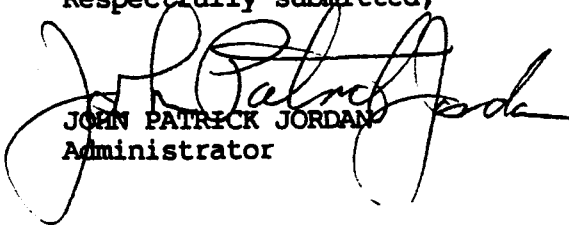
Dr. Dyarl King has been on extended sick leave due to a condition diagnosed as amyloidosis. All treatment for this disease is still in the experimental stage, but his physicians are somewhat optimistic at this point because his treatment seems to be having some effect.

-3-

It is a pleasure to inform you that Dr. Ray Loan, Professor of Microbiology and Parasitology, College of Veterinary Medicine, Texas A&M University, has accepted an IPA position to help us implement the animal health programs. Ray is presently on board and is enthusiastic about the programs for which he is responsible. He has previous experience in CSRS and is already familiar with the Special Grants Program and the 1433 Formula Funds Program.

Our success in carrying out our mission depends heavily on the availability of staff at your institutions to work with us on part-time, temporary full-time and special project assignments. Your cooperation is greatly appreciated.

Respectfully submitted,



JOHN PATRICK JORDAN
Administrator

Western Association of Agricultural Experiment Station Directors
Marriott Hotel, Dallas, Texas, November 14, 1988

DAL Report
L. L. Boyd

This report covers the time period from the Summer meeting in Ft. Collins, Colorado through November 11, 1988. I participated on your behalf in the following activities that required travel during this period.

8/2-3 ESCOP Interim meeting with ECOP, Drake Hotel, Oak Brook Park, IL
8/3-4 DAL meeting, Drake Hotel, Oak Brook Park, IL
8/8-10 Joint Council/Users Advisory Board, Boston area
8/23 USDA Small Grains Facility dedication, Aberdeen, ID
9/13-14 ESCOP Budget Initiative Group, NAS, Washington, DC
9/14-15 ESCOP Research Planning & Budgets Subcommittee, Wash, DC
9/15 DAL Meeting, Washington, DC
9/22-23 ESCOP Special Initiatives, Denver
9/26 ESCOP FY91 Budget Subcommittee briefing by CSRS, Washington, DC
9/27-29 ESCOP Fall Meeting, Boston, MA
9/29 DAL meeting, Boston, MA
10/3-5 ESCOP Communications Subcommittee, Albuquerque, NM (for Briggs)
10/10-12 Farming Systems Res & Ext Symposium, Fayetteville, AR
10/13 DAL meeting, Washington, DC
10/13-14 ARI, Capitol Holiday Inn, Washington, DC
10/23-26 New Crops Symposium, sponsored by Purdue, Indianapolis, IN
11/1-2 Montana State University "Futures Conference", Bozeman; state visit
11/9-11 UAB meeting, Purdue University, Lafayette, IN

ESCOP Interim Meeting with ECOP. The joint meeting with ECOP in August in Chicago was useful. However, the Interim group believed that having only the small group with the full ECOP group was limiting in what might be accomplished. As a result ESCOP has decided to schedule its usual, full Committee, late September or early October meeting in early August to meet jointly with ECOP in Fairbanks, Alaska. Neville Clarke updated the group on the status of the National Initiative and the other activities of the Subcommittee on Research Planning and Budgets. I presented the ESCOP FY1990 budget along with Zerle Carpenter of Texas, who presented the ECOP FY1990 budget.

Joint Council/Users Advisory Board (Aug) & UAB (Nov). The UAB and the Joint Council meet together in Boston for a day on August 8, 1988. UAB met separately on August 9-10. August 9 was devoted to tours, one to the University of Massachusetts Waltham Experiment Station. Dean and Director Bruce MacDougall had scientists and extension specialists cover programs conducted there. They were heavily urban oriented because of the urban location of the station. This included an excellent presentation on the EPNEP program by a woman, who had been a recipient of information, but later had finished college and was now a professional helping administer the program. The other visit was to the USDA/Tufts University Human Nutrition facility. We learned about the facilities they have for nutrition study participants including the preparation of foods. The third morning Colin Kaltenbach gave the UAB a comprehensive view of the competitive mode of many of the CSRS

funds. He focused considerably on Special Grants to make certain that the UAB members understood how these funds were used and distributed.

The UAB also met at Purdue November 9-11, 1988. The first day included a number of presentations of the exciting research being done there. Included was procedures for packing line determination of swine carcass composition that would make it possible to pay a premium to producers for lean pork. Another visit covered biotechnology methods to produce tetraploid fish and then cross them with diploids to produce a triploid hybrid that is sterile and gains rapidly. It also will dress out at a higher percentage because it has a smaller head and a very small oviduct. We also had presentations by Ted Hines of EPA and Steve Ravlins of ARS on global warming projections by various groups. These will be sent to you. There also were presentations by Agricultural Engineers on machine vision and robotics. The first evening Karl Brandt, Associate Dean and Director of Resident Instruction, told us what Purdue has done to turn around enrollment drops and how they were presenting agriculture in challenging science opportunity terms vs. the more usual disciplinary approaches.

The second day a field trip took us to the ARS Erosion Laboratory on the Purdue campus. We also went to the Carroll County Fairgrounds where the Agent discussed his programs. A progressive hog farmer discussed his operation via videotape and an Extension specialist discussed farm financial planning software that farmers are using and their training efforts for it. In the afternoon we visited the Andersons Elevator and Corn Cob Plant at Delphi, IN. After that we visited the beef and dairy research facilities that are near completion. Purdue has received \$15 million in three allocations for relocating their animal facilities off campus. On the third morning I presented the National Initiative. I received some good suggestions and was told that ESCOP should "go for it." I will send the UAB copies of the updated version as soon as it is available as well as the updated version of the FY1990 budget proposal. Roy Cameron from Nevada, who is a consultant and program director for EPA, made a presentation on global warming. He also distributed a draft of report to Congress on The Potential Effects of Global Climate Change on the United States. It was prepared by the Office of Policy, Planning and Evaluation and the Office of Research and Development, EPA. I will send a copy of it to all of you also.

Small Grain Facility Dedication. I appreciated the opportunity to represent you there, because I was familiar with the antiquated and inadequate facility at Beltsville. We certainly have a fine facility to interface with the National Seed Storage facility in Fort Collins, the Plant Introduction Stations, the Clonal Repositories and the various Curators. Gary Lee gave me a tour of the Aberdeen Branch Station, so I got a good view of their southern Idaho research activities. I also had an opportunity to visit with Washington small grain producer leaders with whom I had worked when I was in Washington. I believe I sent you some information on this facility, so I will not comment further.

National Budget Initiative. Each of you have received copies of the National Initiative from Neville. It appears to be moving forward well. NASULGC President Bob Clodius seems to "have bought on" fully. He is appointing a NASULGC task force that will include the Ad Hoc Steering Committee plus others including industry, as I understand it. Presentations are being or have been made here at Land Grant to all groups having

possible interest in the initiative. You will have just heard Neville at the Experiment Station Section luncheon. Further coalition building will proceed immediately following these meetings. It will go to the transition team soon, possibly yet this week. The Board on Agriculture report has undergone its first review. It appears to be on schedule for February/March release. The plan is to seek funding for FY1990. It will be in addition to the budget proposal that is now "behind the curtain".

ESCOP Research Planning & Budgets Subcommittee. Much of this Committee's energies have been directed to the National Initiative. However, Norm Scott and his group are well along with the planning of the Symposium scheduled for June, 1989 in Washington, DC. George Kriz and his priorities/needs input group has contacted all the commodity organizations and professional societies that we plan to, unless someone points out some we have missed. I believe George has done a very good job developing a mailing list using the groups contacted in 1984 plus my NISARC mailing list and also added organizations from the 1983 Directory of National Trade & Professional Organizations. George is working on a classification process that will link closely, if not directly, to CRIS classifications. We should be well prepared for the priority setting workshop in late August or early September, 1989.

ESCOP Special Initiatives Group. The group held its third straight fall meeting in Denver, September 22-23, 1988. Our office again made the arrangements for it. The group held a half day brainstorming session to come up with some new initiatives. These were ranked and forwarded to George Kriz for consideration as input to next year's priority setting process. The group agreed to recommend to ESCOP that a brief, one page-two side-three fold, document describing the agricultural research system be prepared. ESCOP accepted the recommendation. I expect Norm Scott will have at least the mock up here with him. Because of a tri-state meeting neither Gary Lee or Jim Zuiches were able to attend. Bob Heil sat in for them. Seymour Van Gundy, an at-large member, also participated. Other actions and recommendations likely will be reported by them.

ESCOP Budget Subcommittee Activities. FY1989 Subcommittee activities were essentially over with the passage of the budget by the Congress before it adjourned to campaign. We need to remember to give special thank yous to those who helped us. Please help us identify those people. The FY1990 activities have been rather dormant since the proposal was submitted to CSRS in July. Cran Little will distribute a new document at the Experiment Station Section meeting. For various reasons including Oran moving back from Louisiana to Kentucky and my leg injury preventing me from being in DC, when it was presented to the Division and to CSRS, I have not worked as closely with Oran as I would have liked. I did provide him early with considerable well organized spreadsheet information from which he could work. I also participated in the meeting with ECOP budget representative in March in Baton Rouge. In addition, I prepared a considerable amount of graphic materials, some of which I understand he is using in a modified form. My role with the FY1990 budget is over except to make certain that the UAB has the latest version. I hope to work much more closely with Jim Zuiches as we develop the FY1991 proposal. Jim will report the activities of the FY1991 group to date, so I will not comment further.

ESCOP Fall Meeting. The meeting was held in the Boston area at the Brookline Holiday Inn. Neville Clarke provided a further update on the National Initiative and

other activities of the Subcommittee on Research Planning and Budgets. Patrick Madden of CSRS brought the group up-to-date on the low input sustainable agriculture funding and programs. Merritt Nelson of Arizona reported for the Pest Control Strategies subcommittee encouraging higher priority for needed research. Related to this, Norm Scott reported for the Pesticide Resistance Management ad hoc group. Dick Lower of Wisconsin reported for the Seed Policy subcommittee. As you know our agenda calls for the region to take a position on that subcommittee's recommendations. The field trip included a stop at the University of Massachusetts Waltham station that I had visited with the UAB in August. There were some similar presentations, but an interesting change was a presentation by Don Hudson, President of Transgenic Systems, about his company's activities in Biotechnology. We also visited Biotechnia International, but time constraints were such that we didn't get to see or learn much. Later, we visited the USDA/Tufts Human Nutrition Center. This was a more satisfying visit than the one with the UAB.

ESCOP Communications Subcommittee. I filled in for Dinus Briggs, who was in Africa on an assignment. You may remember that I was your representative to the subcommittee, when it was first established. I have sent you information about the meeting and the status of the "communication plans" both in the region and nationally. I am pleased that some of you already have submitted your plans, since I urged you to do it by year' end. I hope all will be able to do so. We still are willing to send you a copy of the Minnesota plan, which I found to be well done. Two states have requested copies.

Farming Systems Research & Extension Symposium. I decided to attend and participate in this meeting to determine to what extent the farming system activities were related to low input sustainable agriculture programs. Also, because I knew that a high percentage of the farming systems participants had been involved in overseas programs, I wanted to make an assessment of what might be used domestically. I am trying to find a way for this group to feed into the priority setting process. I sent each of you a considerable packet from this meeting, so I will not comment further.

Agricultural Research Institute Meeting. The program theme was Emerging Priorities for Agricultural Research in the 1990s. The presentations were quite good, but attendance was down somewhat. As I remember there were no Directors from the Western region in attendance. I sent you information from the National Livestock and Meat Board that I became aware of as a result of this meeting. I may have sent other material as well.

New Crops Symposium. I found the new crops symposium very interesting and useful. It helped me focus better on "new and expanded uses". I see much, much, more opportunity for enhancing farm income and reducing crop surpluses through new uses than I do new crops. However, we need to make an analysis to determine what products, if any, tend to be in short supply globally. Then we can determine whether or not we can produce them in the U S at a profit in international competition. I also sent you a considerable packet of materials from this meeting, so I will not comment further.

Montana State University State Visit. I was pleased to have an opportunity to participate in Montana's planning meeting for 2000 and beyond. President Tietz

opened the meeting. Acting Academic Vice President Malone, who is an historian, gave some interesting history of Montana agricultural events. Bill Carlson represented CSRS emphasizing the recent priorities from the Joint Council and the desirability of research and extension working closely together. The most stimulating speaker was Mary Miller, a media specialist from VPI. I plan to get her paper and send it to all of you. The trip also included visits to some outstanding facilities. You will want to see these next summer during our meeting there. These were: 1) the Plant Growth Facility including the insect quarantine area; 2) the laboratory animal facility; 3) the Veterinary Science research facilities; and the 4) Plant Sciences building with a number of good laboratories and equipment for "new science". Montana appears to have a number of excellently trained young faculty to work with some very productive and innovative mid career faculty.

Joint DAL Activities. The DALs as a group have discussed workshops for newly appointed administrators primarily, we believe, for new department chairs/heads. We need to decide whether or not you want me to proceed with a workshop for the Western region in 1989 and, if so, when. We also have spent time trying to determine the most fruitful ways to mount industry advocacy for our research priorities, i.e. would it be possible and desirable to revive NISARC, or is there a better way(s). We also have discussed possible people to serve as Assistant Secretary.

Appreciation - I want to express my appreciation to each of you for your responses to my requests for information, e.g. patent and intellectual property information. Also, thanks for copies of the salary data that you have sent to CSRS. I have about half of this information. I hope that I can have the remainder by December 1, 1988, so I can get it back to you in December. I believe it will be the most useful then.

I again want you to know that representing you in various ways is personally satisfying. However, I again encourage you to provide more feedback relative to what you believe is important. Thanks.

BITMAIL Help file --- last update: September 28, 1988

The BITMAIL routine provides a user interface to the Dialcom Electronic Mail system to automatically format messages to be routed to the BITNET electronic mail network.

You will be prompted to enter a Subject:, just as you enter for regular electronic mail messages on Dialcom. The only limitation here is that the Subject not contain quotation marks and is limited to 1 line (appx. 70 characters).

Next, you will be prompted for the BITNET address of the person to whom you are sending the message. BITNET addresses can be referenced in the Extension BITNET directory published by Margaret Ezell or copies may be obtained here on Dialcom after April 1, 1989 by entering BITNET DIR at the system prompt.

COMMAND LINE OPTIONS

=====

Once you have become familiar with the BITNET routine, you may save a little time and a few keystrokes by entering data on the command line instead of waiting for prompts.

The format to follow is:

```
>BITMAIL addr subj
```

where addr is the BITNET address of the recipient and subj is the Subject of your message (without quotes!!). For example:

```
-----
>BITMAIL mezell@uga This is just a sample
```

```
-----
is the same as answering the prompts
```

```
-----
BITNET address: mezell@uga
```

```
Subject: This is just a sample
-----
```

IMPORTANT CONSIDERATIONS

=====

As this routine provides an interface to an entirely different network with different syntax and rules from our own, BITMAIL can provide no validity checks on your BITNET addresses. Therefore, please be sure to enter them properly.

Additionally, should you find the need to edit your message DO NOT EDIT the first 3 lines (containing Forward, To and a blank) as they are necessary for the translation to the BITNET system and MUST REMAIN AS THEY ARE!

BYPASSING BITMAIL
 =====

Experienced electronic mail users may wish to completely bypass the BITMAIL routine by formatting their own electronic mail messages with the necessary information.

The message must be addressed To: BITNET, that is you must tell Dialcom's Electronic Mail system to send it to BITNET.

The Subject can be as any ordinary message.

The first line of the Text MUST BE as follows:

Forward: ARPA

The second line will contain the BITNET address of the person to whom the message is being sent and MUST be preceded by To:. For example:

To: mezell@uga

The third line MUST be blank!

The remainder of the message can be as any normal electronic mail message you send on Dialcom.

BITNET to DIALCOM
 =====

In this direction the BITNET user must first send mail to the DIALCOM mailbox on the ARPA-BITnet. The address of "DIALCOM" is "Intermail@ISI.EDU". Next, the DIALCOM forwarding information must be added at the beginning of the text of each message. This information is in the form:

Forward: NSF-MAIL <entered EXACTLY as you see here>
 To: <a valid Dialcom, or list of addresses>
 <blank line>

The "Subject" field from the BITNET-Mail header will also be used as the subject in the Dialcom header, when the message is forwarded.

In the following example, "To" copies of the message are sent to four mailboxes (F.Washington, the mailbox of account AGS1234, J.Smith, and the account number AGS0123), "CC" copies are sent to two mailboxes (account CSN678 on Dialcom system 5005, and F.Gordon). Note that in the forwarding information section, the "To" field must start at the beginning of the line. Continuation lines of the "TO:" and "CC:" fields, however, are indented. The "To" field can contain anything that DIALCOM allows. Addresses are separated by spaces (commas are legal).

Example 2 -----

To: Intermail@ISI.EDU

Subject: Test Message Number 2

Forward: NSF-MAIL

To: F.Washington AGS1234 J.Smith

AGS0123 CC 5005:CSN678 K.Gordon

Fred,

This is a test of mail forwarding.

--Joe

Note that all systems of Dialcom, and in particular the remote systems must now use the combination domain and system number. For example, system "57" is now "157". System "05" is now "5005". You can only use a person's name when sending to people on Dialcom system 157 who are part of the AGS network (accounts that start with "AGS"). For people on Dialcom system 157 but NOT in the AGS network group use the account number, for example, "DIF0123". To send to a Dialcom system other than "157" use the combination domain and system number and account number form of mailbox. For example, "5005:ABC678". User names like "5005:J.Smith" will not work.

Data Transparency Limitations

=====

When sending mail from BITNET to DIALCOM, a "." in column one cannot be transmitted, because it would be interpreted as a local command by the Dialcom system. Therefore the Intermail program inserts a "%" before each "." that occurs in column one. NROFF files in particular are affected. When Intermail makes this substitution, it prints a warning immediately preceding the first occurrence of the "%" in the DIALCOM message. To return a message back to it's original form, delete the warning, and replace "%" with "." using a text editor.

In addition, since most control characters are not accepted by the DIALCOM system, they should not be included in a message that is to be forwarded from BITNET to DIALCOM.

IN CASE OF QUESTIONS OR PROBLEMS PLEASE SEND A MESSAGE TO:

AGS002 (Chuck Kramer - USDA Extension Service)

or to

198:JACKIE (Dialcom Federal Sales Representative)

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Create or edit text messages offline and send them yourself, instantly, right where you are: at the office, from home, or in your hotel room—wherever there's a phone. All you need is the phone number of the receiving fax machine. It's that fast and that easy.

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When you use a fax machine to send a fax, you can send only one message at a time. For 500 recipients, that means 500 messages. When you use electronic mail to send a fax, you can send a single message to an unlimited number of recipients. And for repetitive tasks, you can create automated distribution lists.

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Mix and match message types.

Dialcom links your access to the facsimile networks with electronic mail. That means you can send one message to any combination of recipients. For example, you can send a message to a fax and telex recipient with a carbon copy to an electronic mail recipient. Automatically, with the touch of a few keystrokes.

Receive automatic acknowledgement of all fax messages sent.

When you use Dialcom to send fax messages, you receive confirmation notices of message delivery—automatically. And at no extra cost. There's never any question of whether your fax was delivered.

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For a demonstration, information on how to register for access to the fax connection, or a needs analysis tailored specifically to your requirements, contact your Dialcom representative. Or call Dialcom. It's the best decision you'll make today.

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REFERENCE CARD

USING GENERAL XMAIL OPTIONS

1. Use a blank space between recipient addresses to send messages to multiple recipients.
2. Enter a user's MAIL ID at the XMAIL To: prompt to send mail messages within XMAIL.
3. Use command line mode in XMAIL in the same way it's used in MAIL.
4. Enter the ampersand (&) at the end of a To: line or command line to receive the --More-- prompt and continue entering address information, if you need more than one To: line.
5. Enter cnx at the To: prompt or as a dot command within the text of your message to receive an express priority delivery notice.
6. Use your MAIL.REF and PARAM.INI files to customize XMAIL.

READING TELEX MESSAGES

>MAIL READ

Telex messages are sent to you in the form of MAIL messages. You will see TELEX-RECEIVER at the From: prompt. At the Disposition: prompt, enter any MAIL Disposition: prompt option except reply and ap reply.

USING XMAIL TEXT: PROMPT OPTIONS

Most options available at the MAIL Text: prompt are also available at the XMAIL Text: prompt. However, XMAIL offers several other options. They include the following:

- .check Check the format of your XMAIL message
- .display all Display the To: list and the text of your message
- .dis myaddress Display your return address
- .dis mytelex Display your telex number
- .dis signature Display your signature block
- .myaddress Create a return address for your mailgram envelope or temporarily override the myaddress option in your PARAM.INI file
- .queue Scan items in your queue
- .remove Remove a recipient from your existing To: list
- .scratch Delete the text of your message to begin again
- .send Send your message to all recipients
- .sendok Send your message to valid recipients only
- .signature Create a signature block for your telexes, mailgrams, or cablegrams; or temporarily override the signature block in your PARAM.INI file
- .uppercase Place the text in upper case letters



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0489/423

ACCESSING THE XMAIL SERVICE

>XMAIL
Send or Queue: (Enter either of the following options:)

SEND XMAIL message
QUEUE Display the status of XMAIL messages

To: (Enter any of the following commands to indicate your message type:)

- FAX Send a FAX message
- TLX Send a Telex I message
- TWX Send a Telex II message
- ITX Send an international Telex message
- MLG Send a Mailgram
- ICB Send an international Cablegram
- DDY Send a Direct Delivery message

Queue Command: (Enter scan to display the "queue" of XMAIL messages. The queue is divided into the following categories:)

- QUEUE NO. Number assigned each message in the queue
- USER NAME User's ID
- MESSAGE NUMBER Reference number for the message
- DATE QUEUED Date your message was placed in the queue
- TIME QUEUED Time your message was placed in the queue
- SYSTEM System from which your message was entered
- MSG TYPE Message type, for example, telex, FAX, ddy, etc.
- ADDRESS First 10 characters of the recipient's address
- STATUS Status of your message, for example, waiting, sent, accept, or acknowledged

SENDING A FAX MESSAGE

To: (Enter the following address format to send a FAX message:)

FAX Telephone Number (including the number "1" for domestic FAX messages followed by the area code, if necessary); for example, fax 12015551234 for domestic FAX messages, fax 4415466789 for international FAX messages, where 44 represents the country code for the United Kingdom and 1 the city code for London

SENDING TELEX MESSAGES

To: (Enter any of the following address formats:)

- TLX Address
Send a Telex I message; for example, tlx 123456
- TLX Address(answerback)
Send a Telex I message with answerback; for example, tlx 1023459(PExpo 88)
- TLX Address Attention Line
Send a Telex I message with attention line; for example, tlx 234567 J.Masters
- TLX Address(answerback) Attention Line
Send a Telex I message with optional answerback and attention line; for example, tlx 234567(masters 77) J.Masters
- TWX Address(answerback) Attention Line
Send a Telex II message with optional answerback and attention line; for example, tlx 123456789(Amazour) Mr. F.S. Salazar, where 975 represents the country code for Tanzania
- NDC Primary Address=Secondary Address
Send a telex message to an alternate address (where ndc represents the network designator code, such as tlx, twx, or itx); for example, tlx 12345=67890

IRI #
Specify an alternate telex address in the reply instructions; for example, tlx 12345678 Irl 90876543

NOIRI
Eliminate the reply instructions altogether; for example, tlx 12345 noiri

SENDING A MAILGRAM

To: (Enter the following address format:)

MLG Name/Address/City State Zip; for example, mlg Exploration Institute/10 Lincoln Street/Champaign, IL 61820

Text: (Enter the following to create a return address:)

.MYADDRESS Name/Address/City State Zip; for example, .mya Harris/123 Main Street/Arlington VA 22209

SENDING A CABLEGRAM

To: (Enter the following address format:)

ICB Name/Address/City (Country); for example, icb Ching-yu Hsueh/Academy of Meteorological Science/Beijing (Peoples Republic of China)

SENDING A DIRECT DELIVERY MESSAGE

To: (Enter the following address format:)

DDY Address Attention Line; for example, ddy 62123456 D.Delgado

APPENDIX V

29

WESTERN ASSOCIATION OF AGRICULTURAL EXPERIMENT STATION DIRECTORS

November 19, 1989

Committee of Nine Report

The Committee of Nine met in Corvallis and Newport, Oregon, on September 6-8, 1989. The Committee approved the development of a National Research Project System to consist of two categories of projects: National Research Projects and National Research Support Projects. Copies of the document are attached.

Subcommittees are being appointed to write the actual proposals for the germplasm system and for the pest management system.

The Committee recommended for approval for RRF funding beginning October 1, 1989 through September 30, 1994, a total of five projects.

Thirteen projects were recommended for conditional approval.

It was recommended that six projects be deferred.

One project was rejected.

Five projects were extended for one year.

Request for extension for one year for one project was denied.

The FY 1990 Tentative RRF Allotment Schedule could not be approved because of some states' delinquent response to the August 18, 1989 deadline. The Committee of Nine viewed this as a serious impediment to conformity to rules and regulations permitting legal expenditure of federal funds. Therefore, a specific motion carried recommending action by CSRS.

The next meeting of the Committee of Nine will be in Washington, D.C., on November 30 and December 1.

The National Research System

The SAES research system is characterized by its extensive decentralization and great diversity in scientific capability. These characteristics enable the system to address widely varying research problems, ranging from those of site-specific nature to broad national and international issues. Those problems of site-specific nature are managed effectively by the SAES organization at the state level. Similarly, the Regional Research System has for several decades fostered responses to issues of multistate or regional nature.

Increasingly, however, issues of national scope are developing which should most appropriately be addressed by this decentralized system, but which require an additional management structure. Many of these issues are being well characterized by the ESCOP Planning and Budget Subcommittee, in collaboration with CSRS. There is an obvious need, however, to develop a structure which can foster reaction to these national issues and bring to bear the immense strengths of the SAES system on the issue. To accomplish this goal, the following recommendations are presented as modifications or additions to the existing regional research system.

A "National" research project system will be established. Projects will be divided into two categories for purposes of management, function and funding. These are 1) National Research Projects; and 2) National Research Support Projects. Each will be discussed individually.

I. National Research Projects (NRP)

NRPs provide an opportunity for the SAESs to demonstrate that they are committed to addressing high national priorities, including using some formula funding. NRPs are designed to align closely with the National Initiatives as identified by the ESCOP Planning and Budget Subcommittee and the National Agricultural Research Committee (NARC). Since many of these initiatives are very broad in nature, a system of criteria for identifying and describing specific projects is needed.

A. Criteria for NRPs

1. National Priority Initiative. The project must identify with a National Initiative as determined by the system noted above. Programs not meeting these criteria will not be given consideration for Off-the-Top funding.

1

This document is based on the joint efforts of the Committee of Nine (C9) and an Advisory Subcommittee comprised of W. B. Benton (DE), L. L. Boyd (DAL-W), J. E. Hunter (NY-G), K. A. Huston (DAL-NC), S. E. Leland, Jr. (KS), R. L. Lower (WI), J. A. Naegele (CSRS), D. E. Sclegel (CA), N. P. Thompson (FL) and co-chairs R. R. Johnson (OK) and M. H. Nishaus (CO). It builds on the concepts of National Research Projects and National Research Support Projects recommended in the January 22, 1988 Report of the Committee on Inter-regional Projects. This concept was accepted in principle by the Regional Associations and by the Committee of Nine, and endorsed by ESCOP. After several iterations, the extant draft reports of the Advisory Subcommittee were approved with editorial changes at the C9 meeting of September 6-8, 1989. Editorial changes were completed in October, 1989.

2. Projects will have a defined target or set of objectives.
3. The scope of the project will be national rather than regional, and uniquely different from existing regional projects.
4. At least three of the four Regional Associations agree to participate in the project.
5. An NRP will have a clearly defined management and coordination system.
6. The project will demonstrate an adequate base of science to accomplish its objectives, including appropriate interdisciplinary contributions.
7. Benefits of the project should accrue to the nation as a whole.

B. Identification and Designation. NRPs will be designated by the Committee of Nine in close collaboration with the ESCOP Planning and Budget Subcommittee. Projects designated will ordinarily be from those already identified by the ESCOP Planning and Budget Subcommittee. Only one Off-the-Top RRF funded project will be approved each year and each will have a maximum duration of five years for support from this source.

C. Funding Sources

1. An NRP may be funded from Off-the-Top Regional Research Funds (OTRF) up to a maximum of \$1,000,000 per year, and will be of a maximum duration of five years. OTRF will be distributed regionally to those regions participating, using current regional distribution procedures.
2. C/9 will recommend that requests for Special Research Grants (P.L. 89-106) to supplement the OTRF be included in the ESCOP Budget Request. If those requests are funded by Congress, the funds will be divided equally among the regions.
3. When appropriate, funding from other federal agencies or the private sector may be requested. Distribution will depend on source and intent.
4. NRPs may be developed which do not require funding beyond that already available through the present RRF system.

D. Implementation

1. One NRP may be approved for OTRF each year by C/9. Other NRPs not requiring OTRF may be approved at any time by C/9.
2. C/9, in collaboration with CSRS, will appoint an ad hoc technical committee to develop a Project Outline.
3. The Project Outline will be reviewed by the four RRCs and recommendations submitted to C/9 for approval.

4. The approved Project Outline will form the basis for each Region to develop a Request for Proposals (RFP) with specific objectives most appropriate to that region. C/9 will inform each Region how much OTRF will be allocated to the NR and what the regional share will be.
 5. C/9 will review the RFPs and if two or more regional RFPs are sufficiently similar in objectives they may be combined.
 6. All RFPs will be distributed nationally. Proposals received in response to any and all RFPs will be peer reviewed by CSRS and selected review panels. A priority rating system will be established and a priority listing established for proposals under each RFP.
 7. C/9 will use the priority listings to determine which proposals receive awards, taking into consideration ranking within an RFP, regional source of the proposal, and the pertinent regional share of the OTRF allocated.
- E. Review. C/9, in collaboration with CSRS, will establish a review process for NRPs to be conducted between years 3 and 4 after their initiation. A favorable review will be necessary to obtain funding through the fifth year.

II. National Research Support Projects

The Purpose of National Research Support Projects (NRSPs) is to provide the support needed to accomplish high priority research having national objectives as identified by the Experiment Station Committee on Policy (ESCOP) Planning and Budget Subcommittee, the National Agricultural Research Committee (NARC), and the Regional Associations. In some cases they may provide support needed by agricultural and related industries if no other feasible means of support is possible. The following outlines the criteria, origin, approval, review, and funding for NRSPs, ~~and the disposition of the current IR support projects.~~

A. Criteria for NRSPs.

1. The proposed NRSP must provide broad support to the mission of the agricultural research system
2. An NRSP is the most, or perhaps the only, effective way to supply the required support
3. The NRSP must support some aspect of the entire food and agriculture system, in its broadest concept, which is considered to have a high priority and be approved by at least three out of four of the SAES regional associations

- B. Identification and Designation. NRSPs will be identified by the Committee of Nine with input from ESCOP, NARC, and from other organizations involved in planning agricultural programs. The organizations listed below may nominate NRSP programs to the Committee of Nine:

1. Directors of SAESs (through their regional associations)
2. ESCOP and its Planning and Budget Subcommittee
3. The Secretary of Agriculture

C. Funding Sources. NRSPs will be approved for five year periods. Funding will be as follows:

1. Off-the-top funding of RRF funds allocated by the Committee of Nine
2. Off-the-top funding of RRF funds at the regional level
3. Industry funds, e.g. user fees
4. Special grants
5. State SAES funds (non-RRF)
6. Other federal agency funds

D. Implementation

1. A new NRSP must be approved by at least three of the four SAES regional associations
2. A new NRSP must be approved by the Committee of Nine which may solicit outside review
3. The Committee of Nine will appoint a technical committee in consultation with the Regional Research Committees and other appropriate interest groups
4. The technical committee will prepare a project outline and a budget submission to the SAES Regional Associations through the Committee of Nine
5. The NRSP project outline and budget must be approved by at least 3 of the 4 regional associations and the Committee of Nine before off-the-top RRF can be made available.
6. Annual NRSP budgets shall be submitted to the regional associations for review and comment before approval by the Committee of Nine.

E. Review. In the fourth year of each five-year period, the projects will be reviewed by a panel of administrators and peers established by the Committee of Nine and CSRS. The panel will review the project's progress, importance, and appropriateness for continued support. Termination or continuance following each five-year period will be recommended to CSRS by the Committee of Nine. Continuation for a subsequent 5-year period shall require approval of 3 of the 4 regional associations.

Brief Status Report for the Western Region Regionalization Project

BACKGROUND

At its 1988 annual meeting, the WCAHA formally approved the concept of regionalization for agricultural programming in the Western United States. Utah was asked to prepare a preliminary report of the feasibility of regional cooperative research, extension and resident education programs. Since communications between institutions is vital to this concept, the study was to include an evaluation of the technical and economic feasibility of telecommunications technology available for transmitting information among states.

The model examined was one where each college of agriculture in the Western states would identify subject matter areas of "specialization" and "participation." Each state would have transmission and reception capability from and to each other state in the region. Each state would also have its own internal distribution system. For the initial study, only dairy production and sheep and wool production were considered.

A study was completed and published under the title, "Development of an Interstate Cooperative Research and Educational System for Colleges of Agriculture in the Western United States. The study was also reported to the Western Dean Directors, and CARET Representatives at their 1989 meeting in Montana along with a full-scale demonstration of three classes of telecommunications technology using live programming from three states. The systems demonstrated were full motion analog video, slow scan video and compressed video.

Based on the potentials demonstrated and the need for a continuing study of the constraints and issues related to regionalization, WCAHA voted to go forward with development of the concept with the cooperation of USDA.

Proposed Objectives for a Five Year Regionalization Study

The plan of work includes: (1) development of grass roots data on all agriculture planning by departments wanting to implement one or two pilot projects, (2) development of operational prototype models of physical facilities for telecommunications transmission and reception, (3) development of a student exchange model that will allow for the interstate transfers and cooperation implied in the concept of regionalization.

FINANCING THE PROJECT

A cooperative relationship between USDA and the member universities of the Western Region was instrumental in kicking off the program in 1989. Much coordination and travel remain to be done and a new horizon is proposed for developing the potentials of the regionalization concept over the 5-year period. The division of cooperation suggested is that USDA make a major effort to provide the needed planning financial support for the period to bring the concept of regionalization into being and that the individual states provide the human resources and funding to establish the physical telecommunication facilities required for the project.

EXECUTIVE SUMMARY
OF THE
AGRICULTURAL SATELLITE PROJECT

Introduction

Twenty-six land grant universities, are planning a satellite network to originate, distribute and share residential instruction domestically and, eventually, internationally. This dedicated agricultural education network will meet critical university curricular, agricultural extension and agribusiness needs. It will help American agriculture sustain profitability, enhance the safety of food products and promote broad environmental goals.

The participating land grant universities, from all regions of the country, have formed a nonprofit, tax-exempt corporation to build and operate the network. The corporation is likely to have a board of 13 directors. Deans of Instruction from participating institutions form a Residential Instruction Program Council to identify and develop the courses to be provided each year. Similarly, heads of state extension services comprise a Cooperative Extension Program Council to determine all satellite extension programming. Institutions' video managers serve on a Production/Technical Council to develop and maintain operational procedures and standards. It is anticipated that most, if not all, land grant institutions will eventually become affiliates, and that agribusiness will also participate.

The name proposed for this new agricultural satellite communications system and service is AG*SAT.

Funding Considerations

Initial capital costs for the AG*SAT network are projected to include: network design and engineering, uplinks for a MOT (main operating terminal), and a prescribed number of institutions that will originate programming; switching equipment for the MOT; and, receiving dishes and equipment for specified receiving sites. Institutions participating in AG*SAT will seek grants for network origination and reception equipment (January deadline each year), probably in at least three phases of a year each, from the Public Telecommunications Facilities Program (PTFP) of the National Telecommunications and Information Administration, U.S. Department of Commerce. The PTFP makes matching grants each year to fund public telecommunications facilities. Federal funding for initial transponder lease also will be sought. For calendar year 1990, PTFP will distribute approximately \$19 million in matching grants. PTFP typically funds approximately 50 percent of eligible equipment costs for a project, although it may by regulation provide up to 75 percent. The remainder is paid for by non-federal funds. AG*SAT will seek approximately \$1.5 million from PTFP in each of calendar years 1990, 1991, and 1992.

When the network begins operations, programming will be paid for from a mix of revenues. Students taking resident instruction will pay tuition, as will corporations receiving AG*SAT courses for the benefit of their employees. Programming revenue for agricultural extension services may come from user fees in some instances, but is more likely to come from traditional state and federal sources that have historically funded extension services and are presently built into the participating institutions' budgets. Content-specific grants will be sought from federal agencies and private foundations.

Office of the Dean
College of
Agricultural Sciences



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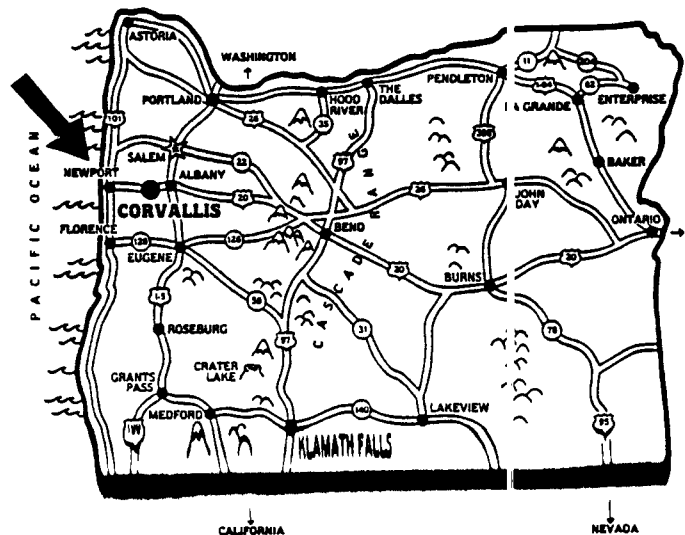
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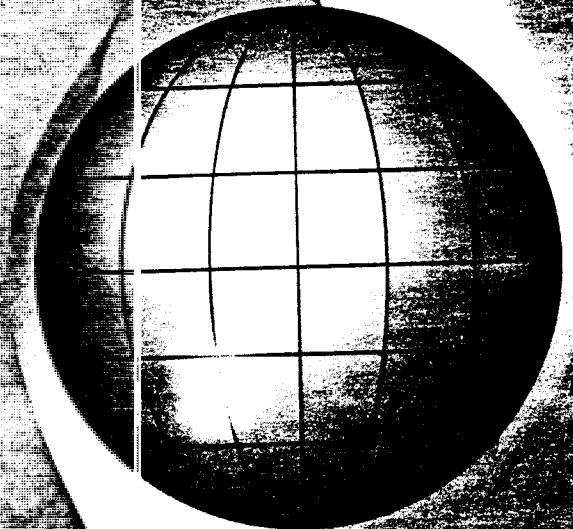
**Information regarding program and arrangements
will be mailed in March, 1990**



United States Department of Agriculture

APPENDIX VIII

Guidance For U.S. Researchers Involved In International Exchange on Agricultural Biotechnology



Foreword

How to balance the need for science to maintain an open process with the need to protect U.S. competitiveness, is one of the most important issues involving biotechnology today. As a world leader in agricultural biotechnology, the U.S. scientific community is increasingly being asked to share its biotechnology knowledge with foreign scientists.

This brochure offers some points to consider as guidance to U.S. researchers who are considering international scientific and technical exchanges. I would ask each member of the U.S. scientific community to consider them carefully. By making informed decisions on international exchanges involving biotechnology, we can ensure that U.S. farmers, businesses, and consumers derive the full benefits from our investment in this exciting area of research, while maintaining the openness which is fundamental to our scientific process.

Charles E. Hess

Charles E. Hess
Assistant Secretary
Science and Education

Introduction

U.S. science has a long and proud tradition of openness that has contributed to its strength and success. The United States is recognized worldwide for sharing scientific knowledge, especially in basic research. In the last few years, however, observers both inside and outside the scientific community have been concerned that the United States may be losing ground in the competition for world markets. They see research results slipping away to foreign commercial development without adequate compensation. For agricultural biotechnology, the concern is reflected in two related issues:

- (1) Will sharing scientific knowledge allow other nations to increase agricultural production and displace U.S. food and fiber exports?
- (2) Will U.S. developed technologies be used to produce biotechnology products abroad such as improved seeds, fertilizers, and insecticides without fair compensation to those who invested in their development?

Both the President of the United States of America and the U.S. Congress have focused on national competitiveness as a central issue in the 1980's and beyond. Considerable legislation and several executive orders have encouraged the transfer of U.S. Government basic research knowledge to private firms for product development. These directives require that Federal agencies, in consultation with the U.S. Trade Representative, closely monitor international activities to ensure that U.S. intellectual property rights are protected. Congress recently directed the U.S. Department of Agriculture (USDA) to screen all of its international activities to ensure that none have the potential for displacing U.S. agricultural exports. Furthermore, recent legislation called the 1988 Omnibus Trade and Competitiveness Act requires that "federally supported international science and technology agreements should be negotiated to ensure that (a) intellectual property rights are properly protected, and (b) access to research and development opportunities and facilities, and the flow of scientific and technological information are, to the maximum extent practicable, equitable and reciprocal."

What Does This Mean for the Individual Scientist?

A successful balance between an open scientific process and protecting the U.S. lead in agricultural biotechnology can only be achieved if individual scientists are aware of the issues and make informed judgments about sharing information. Several U.S. scientists have recently asked: What criteria do I use to make these judgments? The answers are not all that simple. There are few hard and fast rules to be observed. But there are some guiding principles and points to be considered which can help individuals judge for themselves the desirable degree of openness.

What Do We Mean by Scientific Exchange?

The scientific knowledge shared between people when visiting foreign laboratories or when foreign scientists visit domestic laboratories is recognized as a major impetus to scientific discovery. This exchange can occur between principal investigators and postdoctoral scholars and graduate students. Scientists also exchange views and knowledge during scientific meetings and through correspondence. All of these exchanges are important to the open scientific process.

Scientific exchange also includes biological materials, such as gene libraries, which are shared between laboratories internationally. Biological material may include nonmodified organisms as well as transformed organisms.

Finally, information is perhaps the most common item of exchange. Innovations in communications technology allow scientists to link data bases and exchange large amounts of data internationally with relative ease. Through international contacts scientists give and receive not only this published information but also the "gray literature"—those reports of unpublished results which are often very difficult to obtain except on a personal basis.

Points to Consider for Scientists Before Entering Into International Activities

1) Are there equitable and reciprocal benefits to be realized from the exchange?

In order to remain in the lead of agricultural biotechnology, the United States must actively seek international cooperation which will benefit the United States. Exchange should not be a one-way street. However, when assessing cooperative activities, it is important to recognize that the nature of the benefits may be quite different for each country. For example, one side might obtain access to unique germplasm in exchange for a new technique.

Issues which need to be weighed when considering reciprocity include access to laboratories, germplasm, and natural environments; the length of the visits proposed; the source of funding for the cooperative activities; the disposition of intellectual property resulting from the exchange; and how the exchanged information will be used by both parties. The details of the exchange should be set out in writing in advance by the participating scientists to the extent possible. Ongoing exchanges should be monitored frequently to make sure that the anticipated benefits are being realized by the parties, and that inadvertent losses are not occurring.

2) Is the activity consistent with the policies and directives of your institution?

This question is perhaps obvious to corporate employees looking for commercial applications of biotechnology. It is less obvious for public sector researchers. Recently, there have been new thrusts by Federal agencies and public institutions toward commercial development of their discoveries. Scientists should be well aware of their employing institution's programs and policies as well as the policies of firms which have licensing agreements with their institution before inviting foreign scientists to collaborate in research.

Here are some specific procedures:

- Researchers in the USDA Agricultural Research Service (ARS) and Forest Service should contact their international program offices in Washington, D.C., before entering into cooperative programs.
- Some universities may require visiting scientists to sign agreements which specify the terms of their stay.
- All proposed activities submitted to the USDA Office of International Cooperation and Development (OICD) must have agency or university clearance. Proposals will be routinely screened for U.S. benefit and trade sensitivities by OICD, the Foreign Agricultural Service, and other USDA agencies before they are approved. OICD submits new agreements and major new activities with foreign countries to the U.S. Department of State, which coordinates an interagency review for scientific merit, equity of access, possible trade or commercial linkages, and national security concerns. In addition, every activity with Warsaw Pact Countries is sent for review.

3) Is it the intention of the research to eventually commercialize the discoveries?

Research is a spectrum of activity, ranging from basic to applied, with applied research leading to commercial applications. In most cases, it appears that basic research represents a good area of scientific exchange. Exchanges which deal with the more applied end of the research spectrum may compromise the commercialization of research discoveries in the United States. ARS and many universities have active programs to promote the patenting of biotechnology discoveries and technology transfer, including licensing arrangements with private firms. Public disclosure prior to filing a patent application may jeopardize the patent award and allow the technology to be used without compensation.

4) Does the cooperating country have a record of respecting intellectual property rights?

The emerging global economy makes protection of intellectual property rights increasingly important. As agreements for scientific and technical coopera-

tion between USDA and counterpart ministries of agriculture are negotiated or renewed, USDA is working with the Department of State, the Department of Commerce, and the U.S. Trade Representative to comply with recent legislation requiring more extensive protection of intellectual property rights. The National Science Foundation and other Federal agencies are also reviewing intellectual property rights provisions as part of their agreements with cooperating nations. Moreover, some universities are strengthening intellectual property rights in sections of their agreements with foreign institutions. Activities which occur outside formal agreements do not enjoy these protections and therefore should be approached more cautiously.

5) Will the exchange foster safer experimentation?

Exchanging knowledge on methods, procedures, protocols, and techniques for safe field testing with genetically engineered organisms is in everyone's best interest. Given the very modest opportunities for commercial advantage in biosafety research and the need to protect public health and the environment, the free and open exchange of information, especially in safe field testing, should be encouraged.

In some cases it may be safer and more effective to field test genetically engineered organisms abroad. This might occur when a particular pathogen does not exist in one country but is endemic in another. However, scientists should not participate in foreign field tests as a means of avoiding regulation, and in all cases they should follow safe practices for field testing. Such tests must also follow all of the regulations of the host country and any international guidelines which may apply.

6) Does the exchange contribute to biodiversity?

Genetic diversity is in the best interest of science and agricultural production. The exchange of genetic materials contributes to biodiversity and, hence, is an important consideration which should be considered when assessing reciprocity, especially when taken in the long-range view of agricultural science. Although tradition supports the open exchange of nonmodified organisms, U.S. scientists should exercise judgment when exchanging novel organisms

which may have commercial application. Again, reciprocity and the protection of intellectual property are keys. The regulations of the USDA Animal and Plant Health Inspection Service, the Centers for Disease Control, Department of Commerce, and U.S. Postal Service regarding movement must also be followed.

Categories of Exchange Topics

Good Topics for Exchange

Basic research attempts to understand the fundamental principles of a discipline and represents a good area for international scientific exchanges. The benefits of international exchanges in basic research are:

- A shared workload;
- Avoidance of duplication;
- Lower costs; and
- Assistance in verifying results.

For example, the mapping of plant and animal genomes requires a great deal of research time. By dividing the most important organisms among countries and then sharing the results, everyone stands to benefit. Short-term visits of principal investigators to the laboratories of others working in basic research can be very helpful in planning cooperative activities. Long-term visits, foreign graduate studies, and postdoctoral positions offer many opportunities to master complicated research methods and procedures.

Another area which offers good prospects for exchange is biosafety research. Sharing information on field test procedures with engineered organisms will promote the development of agricultural biotechnology in a responsible manner. Information exchanges will lead to a better understanding of the safety of biotechnology products and should diminish the possibility of nontariff trade barriers aimed at these products.

Finally, research aimed at improving the quality of life and the environment is considered a good area for international scientific exchanges in biotechnology. The prospects for cleaning up hazardous wastes and removing pollutants from soil, air, and water using genetically engineered organisms should be an international priority addressed through scientific exchanges. Exchanges might also focus on governmental procedures for ensuring compliance with environmental quality standards.

Exchange: Which Merit Careful Review

Strategic research is categorically different from basic research in that it attempts to develop a broad-scope effort to make major changes in an agricultural production system. An example of strategic research would be the modification of plants to grow in new agro-climatic zones. Sharing strategic research information internationally is a concern because of the potential for assisting U.S. trade competitors in displacing U.S. agricultural exports. Discoveries in strategic research that are given away may also compromise future patent protection. Scientists should proceed with caution in these exchanges and strongly weigh the benefits versus the potential costs to U.S. agriculture. If a scientist would like assistance in evaluating a proposal for exchange, the USDA Office of Agricultural Biotechnology (OAB) can help. This can be done informally by contacting the Director's office (see below). For complex questions, OAB may convene an *ad hoc* panel of experienced specialists from within USDA or refer the request to other appropriate Federal agencies such as the U.S. Trade Representative, Department of State, Department of Defense, or Department of Commerce.

Exchange: Which May Not Be Appropriate

Applied and adaptive research are investigations aimed at developing the commercial uses of a nearly finished product, such as a crop variety, an improved animal breed, or a marketable drug. Sharing information at this stage of research has the potential for loss of commercial advantage for any research discoveries. As a general rule, exchange should not take place during the critical year prior to filing a patent application.

Exchanges Which Are Prohibited

The U.S. Government prohibits the export of technology related to national security and defense, including disclosure to foreign nationals visiting the United States. This may apply not only to biological research, but also to such areas as computer technology and advanced instrumentation used to do the research. Although very little agricultural biotechnology research falls in this category, extreme caution should prevail.

Would You Like More Information?

The Office of Agricultural Biotechnology would be pleased to review proposals for international scientific exchange and to provide assistance to researchers on any of the issues discussed in this brochure. Please contact:

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U.S. Department of Agriculture
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Washington, D.C. 20250-2200
Telephone (202) 447-9165
Telefax (202) 447-8987

This publication represents a joint effort of the U.S. Department of Agriculture's National Biological Impact Assessment Program, the Office of Agricultural Biotechnology, and the Office of International Cooperation and Development. It is based on the recommendations of an intradepartmental task force which developed the initial conceptual framework.

October 1989