

Proceedings of the 1996 and 1997 Program of the Research Center Administrators Society

Greensboro, North Carolina, February 4-6, 1996
Birmingham, Alabama, February 3, 1997

This Society is affiliated with the Southern Association of Agricultural Scientists and has membership from each of the member states. The Executive Committee is composed of one representative from each state, the current officers and the immediate past President, who is Chair of the Executive Committee. These are the voting members although any member can attend meetings.

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Southern Association of Ag Scientists Meeting

Greensboro, North Carolina

February 5, 1996

Good morning, ladies and gentlemen. I'm Pat Kelley, the Director of the Research Stations Division in the North Carolina Department of Agriculture, and I just wanted to let you know that we're so pleased to be hosting the 93rd Annual Southern Association of Ag Scientists Conference in North Carolina for the first time. I hope you'll find North Carolina folks hospitable while you're here, and if there's anything we can do for you during your stay, please don't hesitate to ask.

Today my charge is to explain to you all of the variables involved in the operation of the Research Stations Division in the state of North Carolina. As you'll soon hear, there are a lot of variables involved in the operation of our research stations, so when they asked me to speak, I told them that one afternoon session should about cover that speech and all the questions people would undoubtedly ask after my speech. Then they informed me I had just 15 minutes to tell our story. So I'll try to explain our setup to you as concisely as I can, but I'll understand if you still have some questions afterwards.

I tried to come up with an appropriate saying that applies to our research stations to share with you, but the first thing that came to my mind was the saying "too many cooks spoil the broth." However, I didn't think Commissioner Graham would look too kindly on that comparison without a good explanation, so let me explain right away why that sentence popped into my head.

I was trying to think of a phrase that talks about folks working together, so actually, the exact opposite of my original thought is true. We do have many "cooks" in our kitchen in the form of different agencies, but instead of getting in each other's way, each agency adds a different spice or ingredient that makes our research stations all the better when it comes time to "taste our results" -- whether it be in the form of new plant varieties or better ways of practicing agriculture.

North Carolina is proud to have some of the deepest roots in the United States when it comes to ag research. Our system was established in 1877 by our General Assembly, and duties were split between the agencies from the start. The first experiment station laboratory was located at the University of North Carolina at Chapel Hill before it moved to North Carolina State University, and it was the second such station established in the United States. In 1885, the North Carolina Board of Agriculture purchased 10 acres adjoining our state fairgrounds in Raleigh, which gave researchers their own land to work with instead of relying on area farmers. The land went for 50 dollars an acre at the time.

That first research station is no longer in use, but fifteen others have sprung up around the state to take its place. They are located from Plymouth in the east to Waynesville in the West and from Castle Hayne in the Southeast to Laurel Springs in the Northwest. These diverse locations were chosen because they offer unique production belts, soil types, and environments. North Carolina research is conducted on all crops, animals, and commodities of economic interest in the state.

Resources provided to the stations now include approximately 7,600 acres of land, numerous physical facilities, and 369 classified positions. In addition, approximately 400 to 500 temporary positions are utilized during the peak production period. Our operation and capital budgets total approximately \$13 million per year with an inventory value of approximately \$35 million.

Agricultural research in North Carolina is a cooperative effort between the North Carolina Department of Agriculture, North Carolina State University and the United States Department of Agriculture. These three agencies have specific roles and functions within the North Carolina Agricultural Research Program to ensure there is no duplication of efforts.

Having all of these agencies involved certainly makes us quite unique when compared to other programs across the country. I also believe that this involvement makes us one of the best programs in the country. Through this broad base of involvement, much more is accomplished because of our cooperation, communication and a greater interest in working toward common goals.

Because of so many “cooks in our kitchen,” sometimes it may seem confusing to try and describe who does what with the stations, but it’s really not that complicated. The important point to remember is that each agency has its own specific role in the research stations operation.

The North Carolina Department of Agriculture owns and provides funding for nine of the fifteen outlying research stations, while North Carolina State University owns and provides funds for the six remaining outlying research stations. The North Carolina Department of Agriculture Division of Research Stations manages and coordinates the daily activities of all the research stations, and the Agricultural Research Service in the College of Agriculture and Life Sciences at North Carolina State University provides the project leaders or scientists who design and conduct the research projects on all fifteen stations. The United States Department of Agriculture provides some funding and scientists also; however, these resources are all routed through the departments on the University campus.

In addition to the fifteen research stations, we also are proud to have our state farms program. Our state farms were founded with the idea of producing food for the mental institutions where they are based, but in the 1970s it became obvious that it was more cost-efficient to buy the food elsewhere than it did to raise it, so the mission of the state farms was changed to reflect modern times.

Now, the state farms program supplies and manages physical and human resources to support research, teaching, and demonstrations in agriculture, forestry, aquaculture and veterinary science. Resources include approximately 13,000 acres of land located at ten different North Carolina locations, 63 classified positions, and operation budget of approximately \$5.9 million and an inventory value of approximately \$19 million. The North Carolina Department of Agriculture owns all of these facilities as well as funds these programs and provides management for the daily activities.

One of the things we are especially proud of when it comes to the state farms program is the evolution of our Cherry Farm Unit into the Center for Environmental Farming Systems. I’m sure that like us here in North Carolina, no one sitting here today is a stranger to the trend toward practicing more environmental responsibility on our farms. We saw this trend as a real and urgent need, and we have once again utilized people from all agencies to make the new center a success. We rededicated Cherry Farm just one year ago, and already we have seen an incredible amount of progress that is appreciated by growers, industry and ultimately, the consumer.

Like I said earlier, I think I'd need a whole afternoon session to explain everything about the research stations to you in depth, but I hope you have at least a brief understanding of our history and how we work. I also hope that you can see that the North Carolina research stations, much in the same spirit of the founding of the United States, has greatly benefitted by having too many cooks in the kitchen. Sometimes having a mix of Louisiana-style crawfish, Mississippi catfish and North Carolina barbeque makes dinner-time all that more appetizing and unique -- and enjoyable, too.

Thank you for your time and attention.

Organization of an Effective Producer Advisory Committee

C. Pat Bagley, Head
North Mississippi Research and Extension Center
Mississippi Agricultural and Forestry Experiment Station
Mississippi Cooperative Extension Service
Mississippi State University

Executive Summary: Dwindling financial resources require stations to be more efficient and effective in their choices of programming. Properly structured, producer advisory committees can provide input, help direct research and extension programs, and be strong supporters of stations to decision makers.

Introduction

Scientists are in the best position to take input from producers and clientele groups and make decisions on whether items are researchable problems, in need of extension/educational efforts, or simply beyond the scope of what the university can do for that problem (i.e. increase the price of a commodity). However, producers are in the best position to know what their needs are, and what is required to keep them financially solvent. Advisory committees offer an excellent forum for exchanges between scientists and producers to develop research and/or extension priorities which are of greatest interest to agricultural producers and will have long-term benefits to agriculture. Scientists want to accomplish something that is important to the industry they support and they want to be recognized for their efforts. Producers are in search of information that can help them maintain or increase their profitability. In Producer Advisory Committees where good communication exists, both the scientist and the producers can be rewarded. The University receives increased relative support for their programs when clientele receive programming aimed at answering their most pressing concerns. Public Universities will continue to be adequately funded only as long as they have public support.

Discussion

There has never been a greater need for a producer advisory committee structure than currently exists. Most agricultural programs at the Land Grant University have had sizeable reductions in their base funding levels. Many of these budget reductions are from state legislatures who question the need of agricultural programs in an increasingly urban society. Some University agricultural programs have survived significant budget reductions, only due to senior legislators having a farm background and appreciation for agriculture and its economic impact. However, many of these legislators are close to retirement, and many are being replaced by men and women without a background or understanding in agriculture.

In several articles I have had printed in local popular press type articles, I have stated many times that 34% of the gross domestic product in Mississippi is derived from agriculture, and 25% of all jobs in Mississippi are based on agriculture. Add to that statement that income from agriculture has the greatest economic multiplier effect of any industry, and you have a strong reason for any decision maker to support agriculture. These statements seem to be

well received by our producers, but often little attention is paid by our legislators. However, when producers tell their legislators these some facts about agriculture, a positive response is usually obtained. While there are still a few in the University system who can sway politicians and their perceptions of agriculture, this task is becoming more difficult due to the changing populace and is probably done more effectively by united, concerned and organized producer advisory groups.

Strengths of a Producer Advisory Committee

In Mississippi, the current chairman of the House Agriculture Committee is fond of saying "we need to get the public University back to the public." With a producer advisory committee, you must not ignore recommendations and suggestions of the advisory committee. If you try to ignore them, they will either quit attending your meetings, or replace you. However, producers see and experience their advice with regards to agricultural programming being taken, they become even more involved and more supportive of the unit(s). Imagine the enthusiastic support we receive from our soybean growers who told us they wanted some research work on "drill beans." After the bugs were worked out and this method of planting soybeans became accepted, producers had tremendous pride in their involvement and leadership efforts. Successes of these types increase the activity and input from advisory committees.

Often, new or young scientists come from non-farm backgrounds and do not understand production agriculture as well as they should. Letting them work with a producer advisory committee can greatly educate these scientists as to the practicality required in moving science from the lab to the field. Many new technologies are not ready to be transferred directly from the lab to the field. A close working relationship between scientist and producers can greatly shorten the time period from discovery to usefulness.

Advisory committees tend to lend a more common voice to problems in production agriculture. While many factors need to be considered, is a producer's problem more important if it happens to one person or to 20 people? Because of the number of people on an advisory committee, problems can usually be divided into either specific problems or broad-based problems.

Scientists often find it more rewarding to tackle problems of widespread interest rather than those that are very specific.

The process of the producer advisory committee educates the clientele group and allows them to realize all problems cannot be worked on at the same time. Scientists work at prioritizing and then conducting research and extension efforts based on the input from producers and other sources. While a producer may not exactly agree with the priorities scientists set, it is difficult for them to criticize the process where the project was proposed through an active Producer Advisory Committee.

A surprising advantage of a producer advisory committee is the development of a pool of producers who can be used for on-farm testing programs. More and more producers are being asked to conduct on-farm testing. Producers who have participated in the advisory committee activities are more aware of the need for experimental replication, and the absolute requirement of close monitoring of tests. This helps on-farm demonstrations to be more successful because the producer knows more of what is expected of him in caring for the study.

Finally, advisory committee members can be of tremendous support for the unit(s) to people in decision making positions. A new dairy research facility is currently under construction at

one of our stations because I visited a state senator about the project several times, and gave him some names of dairy farmers on our advisory committee to call. The senator called at least one of those whose name I had supplied him. Was it me or the producers that caused the dairy research facility to be built?-----yes!

Disadvantages of a Producer Advisory Committee

This section will be short because there are few disadvantages to having an advisory committee, in my opinion. Some of those disadvantages include: 1) time commitment to make it work properly, 2) fear of scientists being “told” what to do, 3) concern over producers not appreciating basic science, and 4) concerns of scientists about showing progress each year.

- 1) The time commitment to properly organize and conduct an advisory committee meeting can be large. Lead time is critical; selecting the right committee members is important; and supplying information on research and extension effects prior to the meeting to stimulate discussion at the meeting is important. None of these problems are insurmountable; they just need to be properly planned for well in advance.
- 2) Scientists expect to be allowed to develop their own proposals so they have “academic freedom”. However, if their salary, travel and support primarily comes from public funds, are they not obligated to respond to the general needs of those who pay their salary? Loss of academic freedom is a concern I have heard repeatedly by people outside of our advisory committee. My experience has been that scientists are flattered and excited by seeing firsthand their discoveries, findings, educational materials, etc. actually being put into use. In my opinion, the fear of being “told” what to do is greatly overshadowed by the emotional high of getting bragged on at the local coffee shop.
- 3) Many producers have the misconception that “basic” research is trivial and not important and has no potential impact on their long-term farming situation. Our scientists have found that if they effectively communicate with the advisory committee members about the potential usefulness of “basic” information having future potential and usefulness, these producers turn from being detractors to supporters of so-called “basic” research. This opportunity of explaining where a project will have application is important to a producer’s understanding of the entire mix of research and education.
- 4) If a good scientist has a bad year, the advisory committee is understanding. However, these producers will not tolerate incompetence or lack of productivity by publicly funded employees. The true downside to an advisory committee lies in the fact that administrators may be forced into personnel decisions they may not necessarily want to make due to pressure brought to bear by this committee.

Forming an Effective Advisory Committee.

To be effective and long lasting, an advisory committee must be independent. The structure we use at the North Mississippi Research and Extension Center is one where we invite producers to be part of one of eight different commodity groups. These eight commodities include: cotton, grain crops (soybean, wheat, corn), beef and forage, dairy, fruits and vegetables, commercial ornamental horticulture, swine, and sweet potatoes. We have defined 24 county service areas, and county agents (not me!) nominate one or two of their top producers

representing those significant commodities from that county. Therefore, none of the scientist involved in having their program reviewed have any input into which producers are invited to the meeting and to serve on the advisory committee.

In a typical commodity session, two or more University scientists are present during the two hour long commodity meetings. Scientist are there to answer questions and give specific comments as they come up from the discussions generated by producers. The producers elect a producer chairman for the group and that chairman runs the meeting. Producers are expected to give opinions, list problems, react to on-going research and extension programs, and make recommendations on future directions.

The last 15 minute of the commodity group sessions is a time when all University employees are asked to leave all sessions. This allows producers to write up their recommendations for their commodity as honestly as possible and without interference from University employees. This obviously allows for criticisms to be voiced and adverse recommendations to be made by the committee. It is my responsibility to act on those recommendations. My view point is that I would much rather be told what the problem is directly by the advisory committee and move to rectify the situation, than to hear about problems through legislators (i.e. budget reductions).

Conclusion

Producer advisory committees can be useful to University agricultural research and extension programs. Committees can help provide guidance, influence, identify current problems, and help direct future research and extension efforts. The discussions between scientists and producers in an advisory council can lead to a better understanding on the part of both groups. A critical factor to maintaining an effective advisory committee is to have someone else select the producers, to be honest with producer-advisors, to never attempt to hide anything from them, and to always try and carry out recommendations or renotifying the advisory committee why their requests were not acted upon.

In the future, even more emphasis will be placed on accountability. Those who perform in the most effective manner will be rewarded, and those who choose to ignore pleas for accountability will be forced to change.

Remarks for the Southern Association of Agricultural Scientists

Dr. Jon F. Ort

Associate Dean and Director of the North Carolina Cooperative
Extension Service
February 5, 1996

Introduction

In his 1989 book, Taking the University to the People, Wayne Rasmussen summed up the Cooperative Extension Service as follows:

“Extension’s education program makes the results of research in the land-grant universities, the state agricultural experiment stations and USDA available to all who need them. In turn, Extension reports problems facing its clientele to researchers and administrators. This cooperative two-way communication provides direction for research and education and speeds the application of research results.”

That is one of the best descriptions of Extension I’ve ever read and am pleased to have the opportunity today to discuss with you how that description fits the North Carolina Cooperative Extension Service and the College of Agriculture and Life Sciences at North Carolina State University and how we can continue to work to benefit North Carolina in the coming years. I will talk about missions, visions, values, strengths, challenges, opportunities and most importantly, people, in the context of what I believe we, as an organization and as a part of a land-grant university, face in an ever-changing world.

Mission

The Cooperative Extension Service is a publicly funded, lifelong educational system that links the education and research activities of 74 land-grant institutions nationwide. This vast system prides itself as being **the** model in human resource development which builds partnerships among people and organizations at all levels of community, state and federal government. Extension’s ability to provide educational opportunities for so many people is unequalled and our mission continues to be “to help individuals, families, and communities put research-based knowledge to work to improve their lives”.

A key to achieving this mission is our willingness and commitment to protect the sustainability of our agricultural base and to enhance the economic and social viabilities of communities throughout North Carolina. At the same time, however, we must work to protect and improve our environment while helping people address problems through public policy education.

A working example, today, that highlights the importance of these interrelated mission components is the legislative, research and public policy challenges that presently face the animal industries with regard to waste management. Together, Cooperative Extension and the North Carolina Agricultural Research Service will help these industries overcome these challenges.

Vision

The vision we hold for the North Carolina Cooperative Extension Service is appropriately to be a “leader in outreach education and the people’s choice for reliable information and lifelong learning opportunities”.

Thus, it is important as an organization that our vision continues to be an accumulation of personal visions from throughout the organization and not a “view from the top”. For these visions to be effective they must be a function of efficient information exchange and perspective education. Providing people the opportunity to see the world through the eyes of others is at the heart of sharing a vision within an organization.

Values

The mission for the North Carolina Cooperative Extension Service and the vision for achieving that mission are extremely dependent on what each and every one of us value. We know, for example, that we optimize our resources and thus enhance all of our programs by partnering with counties, local government and other organizations outside the Cooperative Extension Service.

We also believe that almost above and beyond everything else, we must preserve our integrity by being unbiased, credible professionals who believe, as our Extension Workers’ Creed suggests,...”that people, when given facts they understand, will act not only in their self-interest but also in the interest of society.”

Strengths

When unshakable values are coupled together with Extension’s inherent strengths, we begin to see wherein lies the power and uniqueness of our organization. North Carolina is very fortunate to have **two** land-grant universities as research information bases for its citizens.

An extremely competent staff committed to excellence, working with an ever-expanding, well-educated volunteer network gives the North Carolina Cooperative Extension Service a significant competitive edge in the information delivery arena compared to other organizations within the State and nationwide.

The energy and resources applied to establishing and developing “cutting edge” informational delivery systems for Extension clearly position it as a leader in providing timely and practical responses to important issues statewide, nationwide and now, worldwide. We must never discount the importance of the cooperative linkages we have all worked very hard to establish among groups and agencies at the local, state, national and international levels.

These partnerships have helped Extension and the College anchor the public trust and provide an increased understanding of Extension’s stewardship of its resource base. We must be constantly aware as an organization which is part of a land-grant university and a College of Agriculture and Life Sciences that public trust is a cornerstone for the success of all our programs.

Designing Programs to Serve People's Needs

Extension programs are prized by individuals, families, and communities because they add value to their lives. Our Extension Service has just completed one long-range plan and are embarking on the next four-year plan that will bring us to the dawning of the next century.

It is entitled "Foundations for the Future", and it encompasses vital input from our citizen advisers, our county and campus faculty and local decision-makers. In developing programs for this new plan, we had to keep in mind that most people may know what they want today, but few know what they will need tomorrow. It is Extension's responsibility -- our challenge -- to become familiar enough with our clientele to help them anticipate their needs.

Our new long-range plan is built upon that challenge. We have taken the needs identified by more than 25,000 of our clientele and used them as the framework for 20 State Major Programs. These programs will be assembled by each county according to its needs and will build the unique structure that will house its educational efforts for the next four years.

The programs revolve around Extension's five focus areas: sustaining agriculture and forestry; protecting the environment; maintaining viable communities; developing responsible youth; and developing strong, healthy and safe families.

This development procedure allows us to put people in control instead of creating program structures that control people and will bring our mission, vision and strengths to a new level of service -- to respond as never before to North Carolinians and their needs.

One of the most powerful tools we have in Extension is our concern and caring for people. Each and every one of us must continue to genuinely care about people, families, children, partners and each other. Our customers must never, for any reason, question this.

Perhaps one of the best ways to ensure that our sincerity is never questioned is to put people in control instead of creating program structures that control people. We must empower our clients by giving them the information they need to solve their own problems.

Building Cooperation

A number of studies have shown that cooperation within an organization promotes higher individual achievement than internal competition. Cooperative Extension, must be a "people-oriented" organization willing to engage in team-building by encouraging individuals within the organization to place other people ahead of themselves.

It is much harder NOT to cooperate with people you know, and therefore establishing practices which increase the interactions between individuals and groups is an extremely worthwhile process. If everyone can win, one person's, or one organization's success does not necessitate the failure of another. If we expect these teams of specialists, agents and other scientists to succeed we must continually educate ourselves about the process of cooperation within a team environment.

As Director, I feel it incumbent upon me to continue to encourage all our employees to resist becoming servants of our organization and to reorganize our thinking so that our organization serves people rather than the organization itself. Utilizing these techniques with our colleagues and our clientele demonstrates that our organization not only believes in people, but it is willing to show it.

Our belief in people represents one of the greatest tools we have in Cooperative Extension for recruiting people to our organization and clientele to our programs.

Challenges Before Extension

I have always believed that conflicting opinions challenge people to employ more innovative thinking and certainly Cooperative Extension is faced with numerous challenges which place people on "both sides" of several important issues.

In the future, Academic Programs and Extension at the University level must continue to collaborate to provide lifelong educational opportunities for individuals both on campus and throughout the State.

The interactions both units will have with other educational systems, including community colleges, will provide extremely important linkages to communities and other local educational programs across the State.

Research and Extension must also continue to build upon their unique relationship in anticipating and providing timely research based information to citizens and organizations statewide. Extension programming cannot be limited by the research base of the university, but Extension and Research must continue to communicate and cooperate to determine priorities at the local levels.

Perhaps one of the most difficult challenges that we currently face is to explain to the State's leadership in agriculture, the legislature and elsewhere how Extension will continue to address the historic agricultural needs of this State while concomitantly dealing with newer, emerging issues with our urban audiences. We will continuously be challenged by those on both sides of this issue to prioritize our programs and focus our efforts more on one side than the other. We must be prepared to address the important needs of **both sides** and emphasize rural-urban interdependence while we serve both traditional and nontraditional audiences.

Cooperative Extension will continue to be challenged to help people understand that some of the most important issues that face production agriculture today **are** community issues -- they **are** people issues.

One does not have to look far in this State to find examples of this in the areas of waste management, water quality, youth-at-risk and so many other programs with which Cooperative Extension and the College are involved.

The problems - the challenges - today, in rural and urban North Carolina, are inextricably linked to the welfare and economic health of individuals and communities. Thus, we need to emphasize to everyone that the most important issue is that the solutions to all these problems help people preserve a quality of life for themselves and their families.

With all the changes that are occurring in Washington and with what has been proposed in the 1995 Farm Bill, it will be even more critical in the future that Cooperative Extension and the Agricultural Research Service continue to partner while they work within the land-grant system to educate Congress about their important relationship with the USDA. In addition, Extension should seek to further expand its funding partnerships with other federal agencies and organizations.

Local program development decisions will continue to be a cornerstone in our organization. We must recognize that our state advisory council and other local advisory groups statewide are composed of well-educated and well-positioned people who provide extremely important information to our organization for the development of high-impact, relevant state and national initiatives.

In addition, we need to emphasize the importance of building “working partnerships” with county managers, commissioners and others who are uniquely positioned to support Extension programs which target local priorities.

Closing

I want to thank you for this opportunity to share my thoughts about the North Carolina Cooperative Extension Service. Extension’s role within the land-grant system now and in the future is extremely important for those of us who wish to be part of something powerful and meaningful that, again, touches the hearts, minds, and lives, of so many people. We are all at our best when we are swept up by a commitment to a much larger goal --- a goal of serving people.

**The Impact of Budget Restructuring and Downsizing
on
Research and Extension Programs
An Extension Director's Perspective**

by
Byron K. Webb

(Presented to the Research Center Administrators during the SAAS
Meetings in Greensboro, NC, February 3-7, 1996)

I appreciate having an opportunity to visit with you today. As most of you are aware, we have had some rather extensive reorganization at Clemson University, so my perspective will be broader than that of an Extension Director. Our research and extension programs are tied so closely together now that it is difficult to talk about one without talking about the other.

I plan to talk, primarily, about the changes in the College of Agriculture, Forestry and Life Sciences at Clemson; however, you need to be aware that there have also been some rather significant changes at the university level. We have gone from nine academic colleges to five and from seven vice presidential positions to four. The reduction in the number of colleges caused our former College of Agricultural Sciences to expand rather significantly. Our new College of Agriculture, Forestry and Life Sciences consists of all of the units which were in the former College of Agricultural Sciences plus the forestry program and the biological sciences program which was formerly in the College of Sciences at Clemson.

Our new college has nineteen departments. Prior to reorganization, each department had a department head who was on a twelve-month appointment and was a full-time administrator. Under our new system, we now have department chairs, who are on nine-month appointments and carry only a 25% administrative appointment. Obviously, this is a very significant difference. For the current fiscal year, we have agreed that the 25% time for administration for department chairs will be split, one third--teaching, one third--Experiment Station, and one third--Extension; however, on July 1, 1996, this 25% administrative time will be paid for entirely by our teaching budget. Thus, the administrative responsibility of our department chairs will be for administering the academic programs. They will have no administrative responsibility for research or extension programs after July 1, 1996.

Our nineteen departments are combined into four schools. Each of these schools has a School Director who carries a twelve-month appointment and is a full-time administrator. These School Directors' responsibilities are split between teaching, research and extension, based on the ratio of FTE of faculty they have in their school involved in teaching, research and extension. In addition to being School Directors, they also carry the title of Assistant Director of both the Agricultural Experiment Station and the Cooperative Extension Service. Thus, these individuals become the program and budget managers for both extension and research.

In the past, researchers have had their salaries assigned to approved research projects. Extension specialists, however, have not had that level of accountability. Beginning July 1, 1996, or as soon thereafter as feasible, both research and extension faculty will be assigned to projects or teams. These projects will be multi-year, in most cases, and will, in most instances, have both a research and an extension component. Funding will be allocated to these teams to be managed by the PI (principal investigator).

Under our new system, our School Directors/Assistant Directors will function much more like our current Resident Directors at our Research and Education Centers than they will like our former Department Heads. They will be responsible for interdisciplinary teams who coordinate both research and extension efforts on particular projects. This new system will give us a greater level of accountability for our public service activities programs than we have ever had at Clemson University in the past.

Thanks very much for the opportunity to be with you.

Impact of Restructuring, Budget Reductions, and Downsizing on Research Programs in Alabama

David H. Teem
Associate Director
Alabama Agricultural Experiment Station

Introduction

I appreciate the opportunity to visit with you today and share some of my thoughts about the impact of previous and current events on the future of research programs within the Alabama Agricultural Experiment Station (AAES). I had the opportunity to visit with your Executive Committee last October at our Tennessee Valley Substation and we discussed some of our budget problems and future directions at that time. I would like to expand my comments today and discuss some of the previous events that have led us to the current budget problems and what we plan to do in the future.

These are my thoughts and they may or may not represent the opinion of others within Alabama or the Southern Region. My intent is for you to be aware and profit from our experiences. Other states have had different experiences and tried different approaches; however, I will comment only on Alabama.

Organization Background

During 1984-85 Auburn University implemented a major reorganization which resulted in the creation of several new Departments, Schools, and Colleges. In addition, the AAES was separated from the College of Agriculture and the Dean and Director split into two separate positions with the Director reporting to the University Vice President for Research. Major reasons given for this separation were (1) to provide the AAES access to all University faculty and visa versa (2) to avoid deans having to request AAES resources from another dean.

Following the reorganization, what had previously been department heads under the Dean and Director were now Deans requesting resources from the Director.

Downsizing

During the past 10-12 years our state and federal appropriations available for operations and maintenance have declined and although we have had a few increases, the general trend has been down.

The logical response to reduced funding would be to reduce the number of positions and many institutions have done this. Essentially all of our vacant positions have been the result of attrition and not planned reductions in low priority areas. In addition, during our few budget increases we filled positions and as a result we have done little downsizing. We now have a significantly larger portion of our budget in salaries and more people competing for an ever-shrinking pool of maintenance funds.

As a Division within Auburn University, we are tied to the salary structure of the University. In addition, most of the faculty have joint teaching/research or extension/research appointments and the research component is funded by both state and federal appropriations. When we have received increases from the state we have been required to give the same raise as the University. Since we have not been receiving any Federal increases it has required more funds to give raises than we received. At least once in the past 10 years the University gave raises with a level state budget and offset some of the cost by raising student tuition. Tuition is also increased when we have reduced state funding. Since raising tuition is not an option for the AAES we must fully absorb the cost of salary increases or budget reductions.

Impacts

The major impact to our research capacity has been on facilities and equipment. We have continued to use maintenance funds to offset our losses and have not maintained our buildings or equipment in the condition needed for research in the 1990s and beyond. I should add that our Substations have given more than their fair share because they had much more of their budgets in maintenance.

Another important impact is the pressure placed on faculty to fund their programs on grants. This is a positive impact up to the point that it begins to drive the direction of your program away from your mission. In some areas of research we are probably getting close to this point. By not maintaining our facilities and equipment, we are “eating our seed corn” and this will have drastic effects on our faculty and their ability to be competitive.

Causes

Aside from the obvious results of budget reductions how did we get into this situation?

First, we assumed that we were facing a temporary budget reduction and the state would recognize our importance and restore our budgets. We felt if we could get by using our reserves we would not have to make major cuts in people or programs.

Second, our organizational structure is not conducive to restraint by Department Heads and Deans. Department Heads seem to always want to fill every vacant position plus add new ones and this is generally determined by the need to teach undergraduate classes. The areas of teaching need do not always coincide with areas of research need but generally drive the position request. Since the Director's budget is separate from the Dean's there is little incentive for the Dean to hold back any of these requests. In addition, if the Dean does not put these requests forward he/she runs the risk that another Dean will get the Director's funds. This puts the Director under extreme pressure to fill positions when we should be downsizing and requires a high level of support from upper administration when the Director recommends not filling a position.

Third, we have had limited ability to reallocate resources from low to high priority areas or to unencumber salary obligations to non-productive faculty.

Current Situation

In preparation for an anticipated budget reduction by the State in 1995, the University initiated a priority setting process in which individual Departments were ranked high, medium or low within a School/College and then ranked by a University committee. The ill

feelings generated by having one Department involved in ranking another Department will be long lasting and the priority ranking appears to have had little impact on the budget process at this time. The approach to saving money was to initiate an early retirement incentive program and 221 employees took advantage of the opportunity to plan, but worst of all this plan gave no thought to priority or productivity of programs. This is a very humane way to downsize but we have lost many of our highly productive senior scientists and much of our institutional memory. We will only fill about one half of these vacant positions.

Just when we thought our budget problems couldn't get much worse, we received a ruling in the Knight *vs* Alabama desegregation lawsuit. This case has been ongoing some fifteen years and has cost Alabama taxpayers approximately \$27 million in legal fees. The ruling issued August 1, 1995 basically required AAES to make available at least 10% of our state appropriation in a grant program in which Alabama A&M and Auburn scientists could compete competitively. We are to have one integrated research program with the Director at Auburn and an Associate Director at Alabama A&M. We will also have to change our letterhead, business cards, Substation signs, etc. to reflect both institutions. In a later ruling on September 26, 1995 we were ordered to provide Alabama A&M \$350,000 within 45 days. As you can see, things can get worse.

We are now in the process of implementing the competitive grants program. Requests for Proposals have been issued to faculty at Auburn and Alabama A&M and will be reviewed by a peer panel selected from outside either institution. The major problem now is finding \$2 million to fund these grants. If we can not obtain additional funds from the state then I see no other way than cutting projects. This will require removing all funds including salary and in most cases this will involve tenured faculty. Are faculty tenured by the AAES or the University and who is responsible for providing the salary then the AAES will have much greater flexibility in shifting funds from low priority or productivity projects.

Future Direction

As a result of the lack of rewards (real or perceived) for applied research many current faculty have redirected their programs to more basic studies. This redirection is also being influenced by availability of grant funds. Most new faculty are oriented toward basic, competitively funded research. Also as a result of budget reductions, personnel reductions, and shifts in program priorities, the ability of Extension to serve producers has been hurt.

In an effort to begin addressing these problems, we plan to create at least five Research and Extension Centers. These centers will be located at our five original Substations and will be staffed with area agents. Each area agent will have a MS degree in a specific discipline needed for that area of the state. These will be nontenure track positions with an adjunct affiliation to the appropriate discipline department on campus. In addition to their extension efforts we plan for them to conduct some applied research. All Research and Extension Center personnel will answer to an Associate Director for Research and Extension Centers. Although the concept of R&E Centers is not new, we are making every effort to insure that we remove as much pressure as possible from these area agents so they can work with county agents and state specialists to truly solve local problems for producers.

Irrespective of the court ruling, we will be moving more towards making funds available on a competitive basis. I hope we can maintain some of our funds in a base program and in maintaining our infrastructure, but we are unencumbered from salary obligations then we can have a combination merit and grant program that will allow us to better fulfill our mission.

On a regional basis we must all do a better job of reducing duplication. Each state will need to concentrate research in certain areas and eliminate research in other areas. Research areas which are not highly site specific will lend themselves to this regional approach. For the site specific research I believe the R&E Centers can play a major role in taking only the better treatments from research results in other states and verifying their effectiveness on a more local level.

I have little doubt that resources will continue to be more limited and if we do not limit the scope of our research and coordinate with our neighbors we will all eat our seed corn and then slowly and painfully starve.

SUMMARY

Innovative Financing of Research

Ben Kittrell
Dennis Thompson

The 'Innovative Financing of Research' group discussion was moderated by Ben Kittrell. Each group was asked about innovative ways their respective stations and states have financed research.

All states receive state funds to finance research. Several states receive hatch funds. Local funding among states includes; money from farmers, millage rates, discretionary funds from miscellaneous donors and local contributions.

Sources of grant funding include; commodities, companies, municipalities, USDA, non-profit foundations and endowments.

Most stations generate income from the sale of commodities. Conflict of interest is a concern particularly at stations that market produce. One station trades corn for wheat at a local farm cooperative. At least one state participates in the flue-cured tobacco cooperative stabilization corporation.

Cooperators are billed for doing research in at least one state, where labor, equipment and other inputs are itemized and charged accordingly. At one station charges a per diem for animal care. One station charges a swine company for 'contract research use' of its swine facility.

Patents and royalties are another way to generate income. One station makes a percentage of the proceeds from royalties for patented vegetable varieties.

At least four experiment stations charge for the use of their facilities. Charges for use of facilities range from auditorium, classroom and conference facility use to housing for students.

Obsolete equipment is sold in at least three states to generate income. At least three stations have labor provided through the Department of Corrections which helps reduce labor costs. Volunteer services are utilized at one station.

PANEL DISCUSSION - DEALING WITH REDUCED BUDGETS

All of us have been faced with reduced budgets in the last 10 years. Some of us certainly in a more dramatic way than others. We thought it would be a good idea for us to share with each other how we have dealt with these budget reductions in order for others to get ideas to avoid as many mistakes or negative impacts on their program while dealing with these cuts. To do this, we conducted a simulated strategic planning session where we posed questions, gave thought to main ideas, and then prioritized them as to importance to that particular area.

The first question posed was, "In dealing with reduced budgets, what are the positives and negatives that we have been faced with?" It's hard for us to believe that positives can come out of a reduced budget, but they do, and in many cases make us do a better job of planning to help make our operation run more efficiently. Below are the responses received for these areas:

Negatives

- The elimination of many good programs due to lack of funding.
- Forced to down size or reduce project load on stations. Lower priority projects dropped.
- Decreased interaction due to competition for funds.
- Lack of flexibility.
- Resources spread to thin.
- Lack of updated equipment.
- Reduction of maintenance.
- Inability to timely complete activities.
- Reduction in resources has caused some loss of morale.
- Deterioration of infrastructure.
- Loss of critical positions.
- Some “innovative” things not done

Positives

- Forces efficient operation and reduction of redundancy and inefficiency.
- Development of new management ideas.
- Grant support increased to fund special projects. Outside sources sought for funding.
- Resource sharing between stations.
- Timely evaluation and reevaluation of existing programs.
- Increase mechanization to improve efficiency.
- Forced to prioritize and plan more carefully.
- Team work.

The second question is, “As a result of decreased budgets, what have you done at your locations thus far?” Below are the responses received:

- Reduced and reassigned staff.
- Better design and planning.
- Prioritize programs carefully.
- Partnering with industry and other universities.
- Developed innovative strategies to reduce bureaucracy and improve output.

- Increased level of management.
- Minimized maintenance.
- Seek more external funds.
- Forced to find ways to reward high performance without financial rewards.
- Used surplus or borrowed equipment.

The third question is, "As budgets become tighter and tighter, and we are faced with further reductions, what else is there left for us to do?" Below are the responses:

- Market the value of agricultural research.
- Combine resources and develop more cooperation.
- Communicate and promote cooperation among project leaders.
- Reduce programs.
- Combine similar operations and reduce redundancy.
- Involve all levels of management in planning and decision making.
- Prioritize and plan better to increase efficiency.
- Maintain positive attitude.
- Show higher return for investment.
- Eliminate programs rather than reduce support to all programs.
- Consider paying fewer people more money and hire more qualified people.
- Consolidate organizational units and use team approaches.
- Cultivate new and nontraditional clientele groups.

We certainly hope that we can minimize budget reductions as much as possible, but we all know that they will continue to surface at various times throughout our careers. Hopefully the ideas presented above will give us as managers ideas to consider so that we can maintain as productive a program as possible without severely impacting our total mission.

Research Center Administrators' Society Fall Executive Board Meeting

Huntsville, Alabama
1995

Those in attendance included; Jim Pitts, President, Auburn Univ., Jonathan Edelson, Secretary, Ok. State Univ., F. T. Withers, Vice President, Miss. State Univ., Ben Kittrell, Vice President, Clemson Univ. R. D. O'Barr, Louisiana State Univ., Jake Fisher, Univ. Missouri, Bill Brock, Miss. State Univ., John Eason, Auburn Univ., W. B. Webster, Auburn Univ., Lyle Lomas, Kansas State Univ., Phil Hunter, Univ. Tn., Joe High, Univ. Tn., Carl Tart, N. C. Dept. Ag., John Olive, Auburn Univ., William Peterson, Univ. KY., Dennis Thompson, Univ. GA., Findlay Pate, Univ. FL, Will Waters, Univ. FL., Will Water, Univ. FL., Mike Phillips, Univ. AR., George Granade, Univ. GA.

October 3, 1995

8:00 AM Registration

8:30 AM Introductions and welcome

Old Business:

Minutes from Jan./Feb. 1995 meetings, Jonathan Edelson, minutes approved as written by consensus of group.

Financial statements: Report by Jim Pitts for Jere McBride. Motion to accept by Carl Tart, second by Butch Withers, accepted by consensus.

Local arrangements for Greensboro, 1996 meeting: Carl Tart report. Group consensus to take tour as arranged and reported by Carl Tart.

Program report, Greensboro, 1996: Butch Withers requested program ideas from membership and discussed options offered by each member. Discussion by group and consensus approval for plan as submitted by Butch Withers.

Committee Reports:

Proceedings. Discussion in regards to number of Proceedings to publish and whether or not to distribute to all interested persons or only to those paying membership fees. President Pitts assigned a committee to review situation and make a report at next meeting (Dennis Onks, Chair; Lyle Lomas, Jim Jones, John Olive).

Awards Committee. John Hodges for Robinson. Committee submitted two names for consideration for the Distinguished Service award. Will Waters (FL) and Robert Freeland (TN). John Hodges made a motion to accept both, Wm. Peterson second, group consensus to accept motion.

Historical Committee. Joe High recommended sunset for this committee as its function has been completed. President Pitts disbanded the Committee with appreciation to its members

for a job well done. President Pitts recommended to the Proceedings Committee that they bring forth a plan to standardize items for publication in Proceedings to insure continuity of information for historical purposes.

Nominating Committee. President Pitts notified the Executive Committee of the resignation by Secretary Jonathan Edelson to be effective following this meeting (Oct. 1995). Will Waters submitted the Committee's officer slate for next year as follows:

- Butch Withers, President
- Ben Kittrell, First Vice-President
- Findlay Pate, Second Vice-President
- John Robinson, Secretary
- Jere McBride, Treasurer

Motion by Will Waters to accept the slate, seconded by Wm. Peterson, accepted by unanimous vote.

Deceased and retired members report. All changes to be submitted to Secretary Dennis Thompson.

Minutes
Research Center Administrators Society
Executive Board Meeting

Greensboro, North Carolina
February 5, 1996

The RCAS Executive Board met February 5, 1996 at the Holiday Inn Four Seasons, Greensboro NC. Due to inclement weather, the meeting was rescheduled from its original date February 4. Those in attendance included; F. T. (Butch) Withers, Vice President, Miss. State Univ., Ben Kittrell, Vice President, Clemson University, Jere McBride, Executive Treasurer, LA State Univ., Dennis Thompson, Secretary, Univ. GA, Bill Peterson, Univ. KY., Joe Musik, LA St. Univ., Joe McFarland, Texas A & M, Lyle Lomas, KS St. Univ. Rick Matheson, OK St. Univ., Jim Jones, VA Tech., Joe High, Univ. TN., Phil Hunter, Univ. TN., Will Waters, Univ. FL., and Findlay Pate, Univ. FL. The meeting was called to order at 4:15 PM with Butch Withers presiding.

Announcements by Butch regarding the program at the Annual Meeting included; Dr. Pat Bagley, MS. St. University would be unable to attend and Butch would read his prepared talk 'The Organization of an Effective Producer Advisory Committee'. Dr. Mark Keenum, Agricultural Advisor to US Senator Thad Cochran, would make his presentation 'The 1995 Farm Bill' by teleconference.

Minutes of the October 3, 1995 Executive Committee Meeting, at the TN Valley Substation, Belle Mina, AL prepared by Jonathan Edelson, OK St. Univ., were reviewed for additions and/or corrections. Jim Jones made a motion the minutes be accepted as read. A unanimous vote by acclamation was made in favor of the motion.

Jere McBride distributed and reviewed the treasurer's report. He stated the treasurer's report summarizes a calendar year beginning January 1 and ending December 31. He asked the group if reports needed to be done on a different calendar basis. No changes were noted. Jere made a motion the treasurer's report be accepted as read. Unanimous vote by acclamation was made in favor of the motion.

Butch asked for group discussion on reimbursement for those unable to attend the RCAS Annual meeting (due to weather). Jere said in the past, preregistration had been the deadline for people to respond in order to receive reimbursement. Will Waters suggested for those requesting reimbursement this year, to refund their SAAS dues and tour and banquet cost(s) only. Butch said he could prepare a letter to those unable to attend and would bring up the idea at the session(s) Tuesday.

Carl Tart reviewed the anticipated costs and estimated how much additional money was needed to cover the cost of the tour. For those requesting reimbursement, Joe Musik suggested RCAS to cover the cost for the additional money needed with the "cushion" of money in the RCAS account. A motion was made by Lyle to vote on Joe's suggestion. A vote by acclamation was made in favor of the motion.

Lyle distributed a paper from the RCAS Executive Committee, including suggestions for the future of the Proceedings. Among the suggestions was for electronic manuscripts to go to each state representative, for distribution to state members, to help reduce the RCAS budget. Joe

Musik suggested RCAS print 125 copies of the proceedings for distribution to dues paying members, Directors, Deans and libraries. A motion was made by Lyle to vote on Joe's suggestion. Lyle amended his motion to consider printing 150 copies if there was a price break. A vote by acclamation was made in favor of the motion.

Joe inquired about the number of proceedings published, and printing costs in relation to how much to charge for RCAS dues. Jere mentioned dues are collected at the end of the year. Bill suggested to delay discussion on RCAS dues until a future meeting.

The awards committee reported Bob Freeland and Will Waters were submitted as individuals to receive the 1996 Distinguished Service Award(s). Their awards will be presented at the RCAS annual banquet. Joe High will be present in Bob's absence to receive his award.

Joe High and Bud Webb were recognized for their work in compiling the history of RCAS.

The nominating committee introduced their recommended slate of officers for 1996 as follows; Butch Withers, President, Ben Kittrell, First Vice President, Findley Pate, Second Vice President, John Robinson, Secretary and Jere McBride, Executive Treasurer.

Jere stated that Premier Bank, in Shreveport, LA will begin charging to maintain the association's checking account..

Joe McFarland said the membership committee had a list of items they plan to report on at the fall meeting.

Jere said some states were not listed in the RCAS state directory.

Phil Hunter has been appointed by the membership committee to help update the directory.

Locations of future meetings were announced to include:

- Missouri - Fall 1996 RCAS Executive Committee Meeting
- Mississippi - Fall 1997 RCAS Executive Committee Meeting
- Birmingham, AL. - 1997 SAAS Annual Meeting
- Little Rock, Ark. - 1998 SAAS Annual Meeting
- Memphis, TN. - -1999 SAAS Annual Meeting
- Lexington, KY. - 2000 SAAS Annual Meeting

Joe Musik made a motion to formally recognize Carl Tart for his help with this year's meeting.

George Granade was announced as the new GA state representative.

There being no further business, Lyle made a motion the meeting be adjourned. A vote by acclamation was made in favor of the motion.

RCAS Annual Business Meeting Minutes

Greensboro, North Carolina

Tuesday, February 6, 1996

The Annual Business Meeting was called to order by First Vice-President, Butch Withers, at 10:00AM following the Tuesday morning program. Butch presided due to President Jim Pitts being unable to attend because of inclement weather.

Butch appointed Lyle Lomas to serve as Acting Secretary and thanked Dennis Thompson for filling the unexpired term of Secretary which was created by the resignation of Jonathan Edelson.

Minutes of the Fall Executive Meeting which was held in Huntsville, Alabama on October 3, 1995 were circulated. Joe Musick moved and Mason Morrison seconded that the minutes be approved as printed. Motion carried.

Butch reported that there were 46 members and 9 spouses in attendance at the RCAS Meeting. This was significantly less than the 82 that preregistered. An ice storm in the southeastern states resulted in adverse travel conditions and caused many to cancel their plans to attend the meeting.

Jere McBride, Executive Treasurer, gave the treasurer's report. He reported that there was a balance of \$4,132.53 in the RCAS bank account as of December 31, 1995. Jere moved and Joe Musick seconded that the treasurer's report be accepted. Motion carried.

Butch indicated that expenses for this meeting would likely exceed income by \$1000 to \$1500. This is largely due to the reduced attendance due to the adverse weather. Those members that preregistered and were unable to attend will be mailed a letter indicating that they will be refunded payment made for SAAS dues and the tour if they so request. RCAS registration will not be refunded since this covers dues and other fixed expenses associated with the society. Butch expressed appreciation to Carl Tart, Local Arrangements Chairman, for his efforts in reducing expenses and minimizing the financial loss to the society.

Lyle Lomas presented the Proceedings Committee Report in the absence of Dennis Onks, Chairman. Lyle indicated that the proceedings will only be sent to dues paying members, libraries, and deans and directors of participating states. This will require that 125 to 150 copies be printed. The committee will continue to explore the possibility of circulating the proceedings electronically. Ben Kittrell moved and Joe Musick seconded that this report be accepted. Motion carried.

Joe McFarland, Chairman, presented the Membership Services Committee Report. He indicated that the committee planned to develop a bulletin board home page on the Internet for RCAS. A survey of the membership will be conducted to identify areas of expertise of individual members. Results of this survey will be incorporated into a resource base for use by RCAS members. Butch requested that this committee continue efforts to involve private research organizations in the society. Jere McBride moved and Joe Musick seconded that this report be accepted. Motion carried.

Joe Musick gave the Nominating Committee Report in the absence of Dennis Onks, Chairman. The nominees for office during the next year were as follows:

- Butch Withers, President
- Ben Kittrell, First Vice-President
- Findlay Pate, Second, Vice-President
- John Robinson, Secretary
- Jere McBride, Executive Treasurer

Joe moved and Bill Peterson seconded that nominations cease and that a unanimous ballot be cast for the slate of officers presented by the Nominating Committee. Motion carried.

Butch announced that the 1996 Fall Executive Meeting would be hosted by Jake Fisher at Portageville, Missouri in early October. The 1997 Fall Executive Meeting will be held in Mississippi.

Locations and dates of future SAAS meetings were announced to be as follows:

- Birmingham, Alabama February 1-5, 1997
- Little Rock, Arkansas January 31 - February 4, 1998
- Memphis, Tennessee January 30 - February 3, 1999
- Lexington, Kentucky 2000

Joe Musick moved and Jim Jones seconded that the society send a letter of commendation to Carl Tart, Local Arrangements Chairman, in appreciation of his efforts to reduce expenses to the society when it became apparent that attendance was going to be reduced by the adverse weather. Motion carried.

Carl Tart, Local Arrangements Chairman, presented the itinerary for the tour.

Butch requested that individuals with ideas for next year's program contact Ben Kittrell.

Butch thanked everyone present for attending and helping make the meeting successful.

Joe Musick moved and Joe McFarland seconded that the meeting be adjourned. The meeting was adjourned at 10:20 AM.

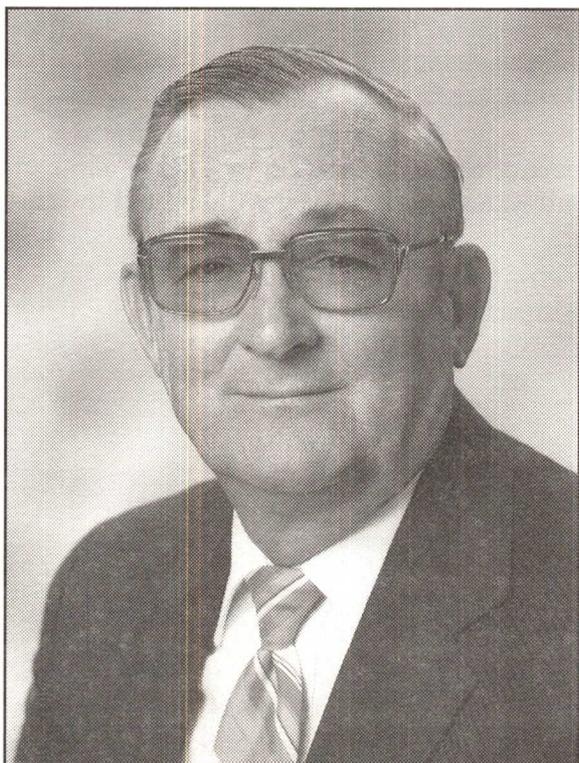
RCAS minutes submitted by Lyle Lomas, Acting Secretary.

**University of Florida, IFAS
Gulf Coast Research and Education Center**

5007 60th Street East
Bradenton, Florida 34203
February 22, 1996

Award Recipient - 1996, Greensboro, NC

Dr. Will E. Waters, Center Director and Professor of Horticulture at the University of Florida, Institute of Food and Agricultural Sciences, Gulf Coast Research and Education Center in Bradenton, received the Distinguished and Dedicated Service Award for 1996 from the Research Center Administrators Society of the Southern Association of Agricultural Scientists.



The award was presented during the Society's annual meetings February 2-8, 1996 in Greensboro, North Carolina. The Research Center Administrators Society is designed to enhance professional development and management skills for research center managers in the southern United States from Virginia to Texas.

Dr. Waters earned his BS and MS degrees in Soil Science from the University of Kentucky and his Ph.D. degree in Plant Nutrition of Vegetable Crops from the University of Florida in 1960. He has authored or co-authored over 350 scientific and popular publications in plant sciences.

Except for a 3 1/2 year period spent in establishing the Research and Education Center for the University of Florida in Apopka, Dr. Waters' entire career has been with the Bradenton Research Center where he has served as Center Director since 1970. This Center is responsible for research on vegetable and ornamental crops and includes programs in soil and water science, floriculture, vegetable crops, plant pathology, bacteriology, virology, entomology, weed science, and plant breeding. Dr. Waters also has administrative responsibility for an affiliated research center in Dover, Florida where research on strawberries is conducted.

Dr. Waters and his wife, Elizabeth reside in Bradenton. They have three children and four grandchildren.

1996 DISTINGUISHED SERVICE AWARD RECIPIENT

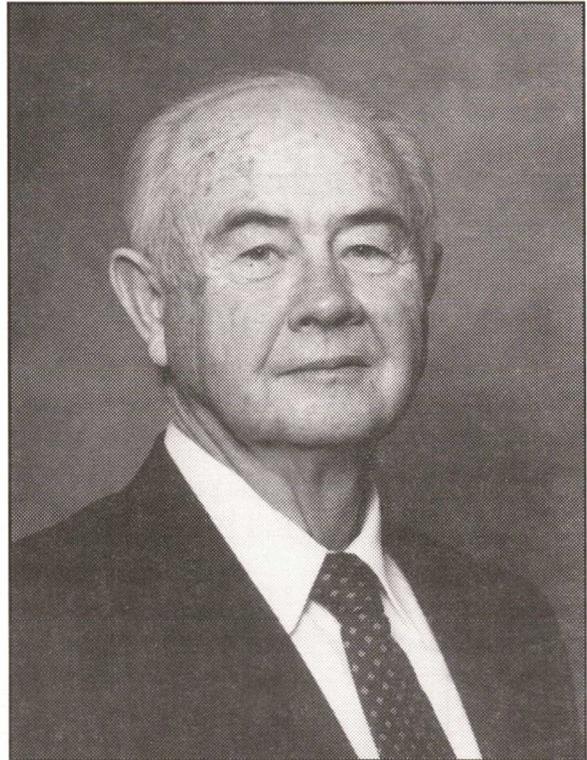
Dr. Robert D. Freeland
Superintendent
Plateau Experiment Station
Crossville, Tennessee

Dr. Robert D. Freeland is recognized for his leadership and service to RCAS during the past 23 years. He attended his first meeting in 1972, and began officiating the society in 1984 as secretary-treasurer, as 2nd Vice-President in 1985, as 1st vice-President in 1986, as President in 1987 and as Executive Committee Chairman in 1988.

He has served on the membership, nomination, local arrangements and historical committees as well as hosted the executive committee at the Plateau Experiment Station. He has actively supported the program chairman by making presentations on safety procedures in Horticulture, and finding suitable speakers for suggested topics. He has been an active supporter and participant of the Fall Executive Meetings.

Dr. Freeland is a native Tennessean who received a B.S. in Agricultural Economics, 1956, an M.S. in Horticulture, 1957 and the Ph.D. in Plant and Soil Sciences, 1969 all from the University of Tennessee. In 1957, he worked with the University of Tennessee as a community development specialist. In 1963, he became the Knox county, resource development specialist, and in 1967 the state extension horticulturist. In 1972, he became the Superintendent of the Plateau Experiment Station.

He and his wife, Sue Barker Freeland, have raised three children and reside at Crossville, Tennessee.



**Proceedings of the 1997
Program of Research
Center Administration Society**

This Society is affiliated with the Southern Association of Agricultural Scientists and has membership from each of the member states. The Executive Committee is composed of one representative from each state, the correct officers and the immediate past President, who is Chair of the Executive Committee. These are the voting members although any member can attend meetings.

STATE REPRESENTATIVES (1997-1998)

ALABAMA
John W. Olive

MISSOURI
Jake Fisher

ARKANSAS
Mike Phillips

NORTH CAROLINA
Carl Tart, Jr.

FLORIDA
Findlay Pate

OKLAHOMA
Rick Matheson

GEORGIA
George Granade

SOUTH CAROLINA
Ben Kittrell

KANSAS
Lyle Lomas

TENNESSEE
Phil Hunter

KENTUCKY
Bill Peterson

TEXAS
Jerry Cox

LOUISIANA
Gerald Berggren

VIRGINIA
James L. Jones

MISSISSIPPI
Butch Withers

OFFICERS

| | |
|-----------------|--------------------------|
| F. T. Withers | Immediate Past President |
| Ben Kitrell | President |
| Findlay Pate | First Vice President |
| John Robinson | Second Vice President |
| Dennis Thompson | Secretary |
| Jere McBride | Executive Treasurer |
| Dennis Onks | Proceedings Editor |

The Formal (Informal?) Review Process Meeting the Needs of Tennessee Agricultural Experiment Station Clientele

*John I. Sewell**
February 3, 1997

Formal Reviews

Beginning in 1989 and concluding in 1994, the Tennessee Agricultural Experiment Station (TAES) conducted a program in which two (of eleven) branch experiment stations were reviewed each year. The overall purposes of the reviews were to:

- Assess the contribution of the branch station's research program toward the achievement of the overall TAES mission.
- Evaluate the station's more important research efforts and program areas.
- Seek input from representatives of TAES clientele groups relating to the relevance of the station's ongoing research (and to inform the clientele group representatives about the station's research).
- Review the status of the station's total resources (personnel, land, animals, buildings, and equipment).

Stated another way, the TAES leadership anticipated that these reviews would help the Office of the TAES and all branch stations and departments to be better able to recognize research program strengths and weaknesses. More particularly, TAES leadership envisioned that these exercises would help to identify needed new research areas as well as existing problem areas, and that TAES relationships with friends and clientele groups would be strengthened.

**Associate Dean, Tennessee Agricultural Experiment Station, Knoxville*

For presentation at the Research Center Administrator's Society, Southern Association of Agricultural Scientists, Birmingham, Alabama

For each station's review, the superintendent, in consultation with the TAES Dean and associates, selected a review panel. Panel members generally consisted of representatives of several interest/expertise/professional groups:

- Out-of-state branch station superintendent
- Two leading area farmers
- Superintendent of another TAES station
- Head of one of the academic (subject-matter) departments
- Tennessee Agricultural Extension leader/specialist
- Tennessee Agricultural Extension district supervisor
- Agri-business representative
- Out-of-state experiment station researcher or USDA-ARS representative

The panel was appointed by the superintendent of the station being reviewed.

Initially, these exercises were somewhat structured (formalized) and included several oral reports to the panel. The reporters were generally research scientists who conduct studies on the station, local extension cooperators, research assistants/associates working on the station, representatives of station supporting personnel, secretarial personnel, sometimes agri-business representatives, and others. After observing that this rather structured organization tended to stifle effective input from the panel and dialog, in later reviews the numbers of presenters were substantially reduced. An effort was also made to eliminate as much formality as possible from the exercises. To emphasize the Dean's desire, these exercises came to be referred to as "assessments" or "planning sessions" rather than "reviews". In the opinion of the author, the adoption of this posture had a positive influence on encouraging the exercises to become more helpful--especially in identifying needed new research topics and determining program direction.

In preparation for the assessment, the superintendent prepared a status report which was distributed to panel members and the TAES administration before the review date. In addition to giving the stations' research activities and resources, these reports also included:

- Superintendent's vision of station's mission and research direction during the upcoming five-year period, as well as strengths, weaknesses, and challenges.
- Superintendent's charge to the panel.
- Overview of station's research activities during most recent five years.
- Listing of project leaders and their experiments supported during most recent five years.

- Available land, buildings, and equipment
 - Research potential of land
 - Age and quality of buildings
 - Type, age, and quality of equipment
- Listing of station personnel to include job title, assignment, and years' service.
- Summary of financial resources available.
- Names, occupations, and affiliations of team members.

Experience has shown that the overall value of an assessment depends heavily on the effectiveness with which the superintendent presents his or her opening comments to the team. Of greatest importance are the superintendent's vision of the station's future research program direction and challenges, and the charge to the team. Most charges have addressed several points:

- Evaluate the station's accomplishments with respect to resources available.
- Identify management changes which could better enable the station to fulfill its research mission.
- Enumerate ongoing program areas which should receive additional emphasis, current emphasis, or reduced emphasis.
- Within the scope of the station's resources, indicate needed new programs.
- Advise ways in which the station can better serve its clientele groups.

The teams usually convened to conduct an assessment at about mid-morning on the first day and adjourned by noon of the second day. Most assessment schedules generally followed a format similar to that given below.

| Activity | Participants |
|--|--------------------------------------|
| Introduction and Dean's charge to panel | Panel, TAES deans, Superintendent |
| Superintendent's report and vision statement | All present |
| Users' reports | Panel and reporter only |
| Tour of station | Panel and Superintendent |
| Interview of Superintendent | Panel and Superintendent |
| Panel's report preparation | Panel |
| Panel's open report and recommendations | All present |
| Panel's closed report | Panel, Superintendent and TAES deans |

Mid-Term Reassessments

In 1996 after the completion of an in-depth assessment of each of Tennessee's stations, TAES began "mid-term reassessments" of all stations. These exercises (two have been completed) have been less formal, have few (if any) reports, have involved fewer panel members, and were conducted in one day. Planning and organization have been conducted in much the same way as the first assessments. Greater attention has recently been given to selecting panel members who are recognized leaders in their respective areas and particularly those who are able and willing to engage in open discussions and deliberations about the station's research mission. This is the single most important factor affecting the outcome value of these reassessments.

The superintendent prepares a station report which is distributed to the panel before the reassessment. This report addresses the status of station's research activities, summarizes the recommendations of the previous (six years earlier) assessment, discusses the degree to which those recommendations have been implemented, gives the superintendent's charge to the panel, enumerates the superintendent's vision of the station's research program directions for the future, and summarizes the station's total resources.

The first two reassessments were begun with the Dean's brief charge to the panel. Then the superintendents gave full oral reports which explained and amplified the information given in the written reports. The superintendents' reports were followed by free and open questions and comments among the panel, the Superintendent, and TAES deans. These informal discussion sessions have been the most valuable parts of the reassessments. The exercise concluded with the panel's report and recommendations before all present.

Friends Meetings

In 1996 the TAES initiated "friends meetings" directed toward strengthening TAES relationships with clientele through giving leading farmers and agri-business representatives the opportunity to comment on ongoing research activities and making input into future research program direction. These meetings have also provided U. T. Institute of Agriculture leaders and station superintendents the opportunity to bring the visiting agriculture leaders up to date on current TAES research activities and challenges.

Friends meetings, planned for six or seven areas of the state, have been held at selected branch experiment stations. The TAES Dean and superintendents have developed for each area a list of 60-80 leading farmers and agri-business representatives. Personal invitations were sent by the Dean to invited guests. Preliminary experience (three meetings) suggests that the Dean's or superintendents' personal acquaintance with the invited guests and their following up on each invitation substantially enhances participation in the meetings.

Half-day friends meetings followed by lunch have begun with introductory comments from the Vice President for Agriculture and the Dean. Then a small number of selected research scientists have given brief and well prepared oral and visual reports of research studies and findings involving new and emerging technologies which are of interest to area leading farmers. After these reports, open discussion of the TAES total research program along with its successes, weaknesses, and challenges has been encouraged. These friends meetings have been well received by the rather limited numbers of persons who have participated in them. Almost without exception, attendees seem to leave the meetings with a better feeling for and about the TAES than they had when they arrived.

Summary

TAES has conducted the activities described to enhance and strengthen working relationships with clientele and to foster public support for TAES programs. Clientele are considered as

- Farmers and producers who can benefit from the application of TAES research developments and findings.
- Agri-business interests which will use and apply new technology developed through TAES research.
- Agricultural professionals, from both the private sector and public agencies, who use TAES research findings and technological developments in their business ventures and educational programs.

TAES administrators feel that these activities have served to improve relationships with clientele groups and that they have raised the participants' levels of awareness of TAES needs for both public and private support. TAES leadership continually strives to cultivate effective relationships with clientele groups.

Managing a Private Research Station

Dr. Robert Kincade, Manager
Valent U.S.A. Corporation, Mid-South Ag Research Center
Greenville, Mississippi

The Mississippi Delta with its rich soil has become a national center for agricultural chemical research and has more chemical company research farms than anywhere in the U.S.A. In the last 25 years, 14 national and international companies have established research farms in the Greenville, MS area. Several of these companies have since merged. Most of these research farms tend to concentrate on herbicides, fungicides, insecticides, bioregulators, adjuvants, and fertilizers. Most of the farms are about 100-200 acres and have about a dozen professionals and staff. During the summer peak workload, as many as a dozen college students may be hired on a temporary basis at a single station with an operating budget of \$1,000,000 - \$1,600,000.

The agricultural chemical research companies have chosen the Mississippi Delta for their research farms because of the following:

1. Rich soil - To those who farm along it's banks, Mississippi's Deer Creek soil is the best in the world. The next most fertile land is around the Nile River. Deer Creek soil is a deep soil with good internal and external drainage and the right pH with about 8% clay. Indians were the earliest farmers in the Mississippi Delta and they chose Deer Creek because it is high land. The land is 126 feet above sea level at the USDA and Mississippi State Research Station at Stoneville and water drains away from it.
2. Multiple soil types - Can test herbicides on sandy soils, mixed soils and heavy clay soils.
3. Warm climate and long growing season promotes rapid weed growth, heavy insect and disease infestations. There is a continuous weed flush after irrigation or rainfall.
4. Capability to conduct trials on economically important insect, disease and weed pests of major row crops, cereals, vegetables, fruits and nuts.
5. Close proximity to the Delta Branch Experiment Station and USDA facilities at Stoneville, MS. Stoneville's state and federal agricultural research centers also provide a pool of 125 scientists to tap for information and projections on future agricultural problems.
6. Close to other chemical companies.
7. Close proximity to Arkansas and Louisiana. Makes it easier to test in other states to satisfy EPA requirements.
8. Abundant and inexpensive source of water for irrigation.
9. Only commercial airport in Delta.

Several years ago, the chemical companies formed an organization called the Mississippi Delta Research Association. This Association has a lunch meeting once a month and discussed topics of mutual interest such as environmental & safety topics, residue shipping and purchase of supplies. The Research Association has made a video of research stations in Mississippi Delta and use this video for civic clubs, and school functions to give a message to the community that we are all working to provide a safe, cheap and abundant food supply that is free of insects, weeds, and plant disease for present and future generations.

The current research stations located in the Delta that belong to the Delta Research Station Association are as follows: Dow, BASF, Zeneca, Bayer, Sandoz and Ciba Crop Protection (which have merged to become Novartis), Rhone-Poulenc Ag Company, Kumiai, DuPont, Ciba Crop Protection and Valent U.S.A. Corporation.

Valent U.S.A. Corporation officially became a company on April 12, 1988, when Sumitomo and Chevron Chemical Company formed a joint venture. After Valent was established, there was a turnover in management at Chevron Chemical Company and the decision was made for the company to divest itself from the agricultural chemical business. As a result, Sumitomo acquired Chevron's half of Valent and became the sole owner in 1991.

Sumitomo is recognized world wide for its scientific progress and its achievements in bringing superior ag chemical products to bear against major farming problems. Sumitomo's Takarazuka Research Center in Japan has more than 600 scientists and support personnel engaged in all aspects of agricultural chemical development. Valent is in the position of being able to choose the very most promising candidate compounds from Sumitomo for our own product development program. The company's product development efforts are centered on compounds that address major agronomic problems, are low in toxicity to non-target species, are environmentally acceptable and require a low dosage.

Valent has two (2) major research centers. MSARC, Mid-South Agricultural Research Center located at Greenville, MS, and MWARC, Mid-West Agricultural Research Center located at Champaign, IL.

Each center researches the effect of compounds on crops typically grown in its region. The Mid-West Center concentrates on corn and soybeans while cotton, rice, and soybeans are the focus of Mid-South Center. Although the crops may differ, the goals are basically the same, field screening of new compounds.

One of the initial studies, multiple species testing, enables researchers to meet their first objective--field screening of Stage 1 chemicals. Stage 1 chemicals are those compounds that Sumitomo selects after testing many chemicals in a green house setting, for research center evaluation. Multiple species herbicide testing begins by planting rows of various weeds and crops. The crops are then sprayed with different herbicides at various rates. This testing allows tolerant crops to survive and verifies which weeds are controlled at what height and at what product rate. Insect and fungicide testing is also done in small plots at this stage.

Product development is the second objective of the research centers. Development involves further testing of the chemicals which proved successful in the multiple species testing. During this second stage, chemicals are applied on a larger scale to gauge the effects of different soils, climates and many other environmental conditions on herbicide, insecticide and fungicide performance. In addition, rates and timing of applications are refined to achieve maximum product efficiency.

Finally, the stations assist sales representatives and field market development specialists in expanding the market for existing products. To accomplish this, researchers apply Valent's registered chemicals to crops and weed for comparison with competitive products. This final

objective helps sell products by demonstrating the effectiveness of the chemical in a “real world” environment.

While Valent could contract for much of this work to be conducted by outside testing services, the “in-house” testing is advantageous. In-house testing allows Valent to have more control over the tests and provides the opportunity for using the results for follow-up trials. In addition to on-center research trials, MSARC Specialists conduct research in 12 Southern states and MWARC Specialists conduct research trials in 36 Northern and Western states when additional pests, crops or test locations are required.

Valent U.S.A. Corporation, Mid-South Agricultural Research Center is located on 250 acres of land near Greenville, MS. The station is staffed by 11 full time employees and 3-11 contract workers.

The research center has both high clay and sandy soils. Organic matter ranges from below 1 to above 2%.

The primary crops grown at MSARC are cotton, soybeans, rice, wheat, grain sorghum and corn. In addition, over 30 other annual crops can be grown. Several peach, pear, plum, apple, pecan, hardwood trees and grapes were established in 1986 for insect, disease and herbicide use.

All field trials required for registration can be executed at the MSARC including GLP environmental fate, residue, exposure/reentry experimental use, non-target species, product performance and drift.

The station is divided into specific areas for each type evaluation performed. Included are:

- 1) Row crop sites where various indigenous pest pressures have been encouraged for pesticide evaluation.
- 2) Established disease nurseries for evaluation of fungicides.
- 3) Established turf varieties.
- 4) Irrigated fields for plant growth regulator and variety evaluations which have minimal pest pressures.
- 5) Field screen sites where specific pests are introduced to determine activity.
- 6) Residue sites for single or multiple-year residue studies.

The station is equipped with commercial grower and small plot equipment necessary for handling all cropping practices. Although all of the land can be irrigated with five (5) wells, approximately 200 acres are under four (4) state-of-the-art lateral move irrigation systems to insure pesticide activity, conduct pesticide rainfast studies and to insure normal crop growth.

In addition to field testing, an insect laboratory screening program is being conducted. An Insect Rearing and Testing Facility was recently completed to expand screening SCC insecticides on insects not available in Japan (i.e. Tobacco budworm, Colorado potato beetle, beet armyworm, codling moth) and other species of interest.

Construction of a greenhouse, headhouse and spray chamber was completed in May, 1995. This facility allows us to grow plants for insect diet, conduct rainfall splash and rainfall amounts on crop injury and screen new formulation candidates for biological activity.

Valent U.S.A. Corporation - The Midwest Agricultural Research Center (MWARC) was established near Champaign, Illinois in March 1992. The MWARC is staffed by seven full time employees and one to five contract employees.

MWARC is located on 95 acres of leased land and consists of an office, shop, chemical building, corn rootworm lab, greenhouse and equipment storage buildings.

The soils are typical corn belt Drummer/Flanagan soils with 3.5 to 4.5% organic matter.

Research at the MWARC is focused on corn and soybean with cereals, vegetables, canola, alfalfa and sunflowers used to a lesser degree.

A lateral move irrigation system is used to irrigate all 95 acres to insure pesticide activity, conduct rainfall studies, insure weed emergence and supply supplemental water for normal crop development.

Station Operations

Protocol Development - Each year Valent and Sumitomo scientists exchange visits from 2 weeks to three months. Based on information gained from these visits, protocols are developed in late fall for greenhouse and field testing.

Chemical Handling - We have people specially trained to receive and ship chemicals. Once chemicals are received, they are logged in and placed in a locked room that is kept at a constant temperature. A sample inventory is made monthly and is computerized.

Weather Station - In 1988, MSARC purchased a CR10 weather station from Campbell Scientific, Inc. This station is hard wired underground to a station computer. The station records weather data such as rainfall, air & soil temperature, % relative humidity, wind speed and wind direction. The weather station provides data on a current, hourly or daily basis. The data are printed and archived weekly.

Environmental Requirements and Rinsate System - Valent has an environmental coordinator who attends several training meetings a year to keep current on environmental requirements. He is responsible for seeing that Material Safety Data Sheets (MSDS's) are present and accessible for each compound and making sure that the proper protective equipment is used, worker protection requirements are met, as well as correct amounts of each class chemical are stored properly.

Rinsate System - Valent has two (2) state-of-the-art rinsate systems at MSARC and one (1) at MWARC. The pesticide recycling system is a closed loop system that will collect filter and recycle rinsate water automatically. This collection and filtration process is accomplished by a sump pit and a system of filters. These filters first begin with an ozone saturation tank and then a line of particle filters which includes both cartridge and bag filters. Once through the filters, the rinsate enters a line of absorption filters which consist of one drum of kleensorb and three drums of activated charcoal. After the process is complete, the recycled rinsate is stored in a holding tank for reuse.

Data Collection and Data Entry - Data is collected either by visual observation, counting or hand held data collectors. Data is then either entered manually by Data Entry Person or downloaded from data collector to Pesticide Research Manager software which analyzes data.

Agricultural Research Stations in Transition

Patrick I. Coyne, Head

Kansas State University

Western Kansas Agricultural Research Centers

During 1996, I served as program chair for Division A-7, *Agricultural Research Station Management*, of the American Society of Agronomy. Our annual meeting was held in Indianapolis in November. Part of the program consisted of a symposium under the heading *Emerging Role and Structure of Off-Campus Agricultural Research Stations in an Era of Declining Resources and Changing Clientele Base*. A companion session showcased examples of how individual states were coping with declining resources and changing clientele. Because of the particular relevance of that topic to the interests of the RCAS membership, I was asked by the 1997 RCAS program chair to provide an overview of the symposium and discussion. What follows attempts to accomplish three objectives: (1) describe the context that motivated the symposium, (2) summarize that salient points made by the keynote speakers and also the panelists during the ensuing discussion, and (3) close with a case example from Kansas presented during the companion session. Space does not permit a detailed synthesis of the ideas presented, so the format encompasses lists of bullets intended to capture the take-home messages. The process of excerpting and paraphrasing, especially when based on handwritten notes of an oral discussion, is at best risky. Responsibility for misrepresentation of the point of view expressed by the various speakers obviously lies with me.

Symposium Context

Off-campus agricultural research units are coming under increasing pressure to find innovative ways to remain relevant and viable. The driving forces include shrinking state support from tax revenues and a continuing decline in the traditional clientele base and its political influence. Perhaps these challenges are opportunities to define a new role for off-campus units and a new model for carrying out that role well into the next century.

In addition to declining dollars and loss of political support, there are multiple internal and external forces affecting off-campus research locations. A partial list might include:

- Increasing dependence on grants and contracts just to survive that may detract from the land grant philosophy.
- Merging of on-campus academic departments thereby affecting linkages with off-campus locations.
- Merging off-campus locations thereby further reducing clientele contact and environments (soils, climates, etc.) served.
- Reduced administrative support leading to faculty having to do things that once were done by administration.

- Incentives and opportunities to serve urban clientele, perhaps at the expense of traditional clientele.
- Continuing to defer maintenance and inventory replacement as a short-term solution to budget shortfalls.
- Defining expectations for off-campus faculty in relation to their campus counterparts that will allow them to be successful and competitive.
- Increasing impact of regulatory actions (ADA, pesticide use, WPS, etc.).

Besides the above influences, there are perceptions among the citizens, legislators, and university administrators that all is not well in agricultural research. Any future model for off-campus units needs to address these perceptions whether or not we believe them to represent reality. Examples of public feedback received in various settings include:

- Research station scientists tend to research what they already know and what they are comfortable with, i.e., they ascribe to a model of low risk taking. *Do our faculty evaluation and reward systems promote that behavior?*
- Twenty percent of the producers produce 80% of the food and fiber. The research station program serves the 80% that produce on 20% of the food and fiber. Still others say that we serve only the median farmer and that the progressive producers are always way out in front of the research. *Who are our clientele? Is our research largely scale-neutral? Are we perhaps not serving the 20% largest producers because we can't react fast enough to changing technology by virtue of funding constraints? Do we have an obligation to serve the "hobby" farmer or the farmer whose major source of income comes from off-farm sources and whose objective may not be maximum profit, but management convenience to mesh with his off-farm schedule?*
- Producer groups perceive that value-added research is more important than production-oriented research. *Have we properly communicated the linkages, for example, between plant breeding and its effect on end-product quality, which affects the potential to add value. Have we communicated that a crop variety or hybrid has a fairly short and finite useful [competitive] life span and that continuity in germplasm enhancement is essential to keeping the "pipeline" full. Have we demonstrated the effects of weed competition or insect and disease infestations on end-product quality and the potential to add value. These groups may also fail to recognize that end product quality can be manipulated greatly by cultural techniques or methods.*

To address these issues, the symposium was organized around two keynote presentations. A six-member panel was asked to react to the ideas presented. The final segment consisted of a facilitated discussion among panel and audience members.

The keynote speakers were chosen for their broad experience as faculty and administrators in the experiment station setting and in dealing with the issues germane to the context of the symposium. They were Dr. Charles Scifres (*Dean, Dale Bumpers College of Agricultural, Food,*

and Life Sciences, University of Arkansas, Fayetteville and Associate Vice President for Agriculture, Division of Agriculture, University of Arkansas System) and Dr. Lanny Lund (Associate Dean, Agricultural Experiment Station, College of Natural and Agricultural Sciences, University of California, Riverside). The panelist were selected to provide a broad perspective and consisted of off-campus experiment station scientists and administrators as well as deans, AES directors, and academic department heads.

The Keynote speakers were challenged to consider a variety of emerging role and structure issues as they prepared their remarks. Those included:

Emerging role issues

- Has the mission changed? Should it change?
- Balancing mission research with extramural research
- Clientele. Who are they? What do they want from us?
- Balancing geographical coverage with resource constraints
- Trade-offs between economies of scale and reductions in locations served and level of administrative support.

Emerging structure issues

- **Administrations**
 - Centralized (attached directly to the AES)
 - Decentralized (attached to academic departments or administered as research or research-extension centers).
- **Maintaining contact with clientele**
 - Advisory Committees
 - Focus Groups
 - On-Farm Research
- **Faculty**
 - Appointment and tenure home
 - Role/expectations in relation to their campus counterparts
 - Evaluation and rewards (Same as for on-campus faculty?)
 - Directed service (e.g., crop variety performance testing).
 - Full employment as faculty requires technical support (faculty make expensive tractor drivers).
 - Critical mass per location.
 - Using non-tenure track positions to increase flexibility and reach.

- **Support personnel**

- Minimum level/quality of direct support per faculty FTE.
- Using support personnel to extend or leverage faculty reach and influence to satellite locations.

- **Programming**

- Establishing priorities.
- Setting the scale of research applicability (or is it scale-neutral?).
- Ensuring statewide integration and eliminating unwarranted redundancy.
- Accountability through external program reviews (uni based versus discipline based).
- Seeking and implementing interstate opportunities.
- Encouraging multi-disciplinary research.
- Identifying and implementing visionary research that leads rather than lags the industry.

Symposium Summary

In addressing the symposium theme, Dr. Scifres identified the issues and challenges as follows:

- Changing perceptions and demands by our constituents. *This includes a changing complex of industries and clientele to serve and change in our support system that has led to the questioning of our relevance.*
- A renewed zeal for accountability by policy makers at all levels.
- A growing loss of respect for system traditions. *Specific reference was made to those traditions of our system that are interpreted as an entitlement and/or appear to be counter to accountability, such as tenure.*
- The perceived inability of the system to effectively forecast and then plan and market programs accordingly. *The traditional five-year plan, mostly a wish list of needs, must have replaced with action-oriented strategies complete with follow-up implementation if we are to regain the full support of our public sponsors. We must be willing to follow creative talk with decisive action.*
- Increased competition from forces both external and internal to the system. *Agricultural research is no longer the sole domain of the public research enterprise. That domain now includes a growing private sector of personal consultants and private research companies.*
- Changing status of agricultural colleges on university campuses. *In the beginning, agriculture was the heart of the land-grant system. But many Colleges of Agriculture no longer command the same influence on their campuses as before. Land-grant campus communities that yearn to become accepted as being more "cosmopolitan" have become less understanding and appreciative of the role of the agricultural sciences. This signals, in essence, a lessening of the land-grant spirit.*

- Development of the new ethic that might be called “riding for the brand.” *The parochial domains of disciplines, departments, societies, etc., must somehow develop a perspective for the collective good without diminishing disciplinary importance. A single voice representing the aggregate--regardless of discipline, faculty and administration--must emerge on behalf of the enterprise.*
- Overcoming the inertia in the system, *i.e., business as usual.*

After examining the issues in some depth, Dr. Scifres drew the following conclusions:

- Agricultural education and research systems will continue to restructure in the face of uncertain resources.
- No single agent is driving the change at the enterprise level.
- Administrators and faculty must guard against seeking the “cookie cutter” approach to restructuring. Organizational structure will and should vary among states. One model [or size] does not fit all.
- Higher education is not facing its first crossroad portending change; a number of crossroads have been passed. Change, both evolutionary and revolutionary, is the rule in management, not the exception.
- The original reasoning for establishing geographically responsive research and extension centers and research stations is still valid.
- The central mission has not changed, but it has broadened, and must continue to broaden, to meet the demands of a changing clientele in the agricultural, food and life sciences.
- The mind set of accountability should include an institutional report card. It should emphasize productivity and be used to market the system.
- There are distinct cultural and environmental differences in relative expectations of faculty.
- Emergent technologies, such as distance education, will serve to broaden the role of off-campus faculty in teaching programs. Off-campus units should be utilized as the ‘front doors’ of the university in that region.
- Program integration, both intra- and interstate, offers possibilities to compensate for constrained resources. The approaches to program integration will be state specific.
- Research programs should be closely integrated among separate units within a given state and among states.
- The degree of program integration significantly influences procedures for program evaluation. There are appropriate times to conduct unit-based, discipline-based and program-based reviews.
- We must work toward extending and multiplying faculty efforts as a measure to counter reduced manpower.
- The agriculture industry of the future will demand more information more quickly than ever before. A good portion of that information will be related to base programs and will increase the demands on the research and extension center complex.

Keynote presenter Dr. Lund emphasized that:

- Off-campus stations/centers must set priorities because they cannot be all things to all people.
- Traditional roles of stations/centers will continue to include production agriculture, crop variety evaluation, technology application and testing, and product testing.
- New roles for stations/centers will evolve (e.g. distance learning centers) and determination of those expanded roles should involve the intended clientele.
- Critical mass of faculty at a station/center may become less relevant with the adoption of technologies such as Internet access, teleconferencing, on-line libraries, e-mail, etc.
- Emphasis on “research university” has caused us to forget the concept of “land grant university.” The former emphasize basic research and count publications, grants, and patents. The latter has a broader mission than research alone that includes service. In addition, the research agenda must be a blend of both basic and applied.

The ensuing discussion highlighted a number of premises and feelings about the role and structure of off-campus agricultural research units. These are summarized below. When the ideas were expressed by predominantly one individual, credit is given to that person.

- The increasing reliance on extramural funds (EMF) puts the land grant university (LGU) mission at risk. When the ratio of EMF/Appropriations exceeds about 0.3, it directs the focus away from the LGU mission, changes [reduces] the length of time allowed to achieve success, and misdirects state resources [by leveraging state funds]. (*Mike Martin, Dean, College of Agriculture, Food, and Environmental Sciences and Associate Dean, Minnesota Agricultural Experiment Station, University of Minnesota, St. Paul.*)
- Branch stations [including RCs and RECs] will continue to be important and integral components of the agricultural program of the LGUs providing they are anchored in the mission of the College [AES]. They will be shaped by unique conditions in each state so that one size cannot fit all. Both decentralized (attached to academic department, or RCs and RECs) or centralized (attached to AES administration) administrative models work. Tenure-track or non-tenure-track faculty appointments can be used successfully at off-campus units. Funding will continue to be a challenge, but funding challenges stimulate creativity. (*Gary Heichel, Professor and Head, Department of Crop Sciences, University of Illinois, Urbana.*)
- New roles for RCs and RECs will emerge. Those will include distance learning centers, especially for location-bound people. Degree programs offered remotely may be using off-campus faculty to proctor labs, recitations, exams, etc. Off-campus, non-degree programs may involve activities to keep clientele on the cutting edge. These will require a more formal setting and more frequent contact than that provided by traditional field days, grower meetings, etc. (*Gary Heichel*)

- Faculty numbers at off-campus locations typically range from 1 to 20 or more. Faculty size does not necessarily correlate with success. Critical mass is becoming less important as more and more off-campus locations are equipped with state-of-the-art electronic communications technology.
- Emerging roles of stations/centers may include conflict resolution or mediating situation in which values of overlapping interests groups (urban vs. rural, etc.) collide. Station scientists may be asked not only to mediate, but to serve as sources of unbiased information [expert witnesses] that is based on sound science. In this role, it is important to remember that the scientist is not cast in the role of judge, jury, or prosecuting attorney, but rather as a witness or discussion facilitator. (*Tony Svejcar, Research Scientist, USDA/ARS, Burns, OR.*)
- Regarding faculty expectations and evaluation, Charles Scifres and Lanny Lund both noted that there are real differences between on- and off-campus faculty roles. The expectations must be explicitly defined in the position description, and that document must be kept current. The ensuing discussion emphasized the importance of avoiding “bean” counting and sending the message that we no longer allow our faculty to fail to meet their goals even for a single year. Creativity requires the right to fail.
- Regarding the enuring of faculty, many participating in the discussion thought it was equally important for off-campus as for on-campus faculty. Mike Martin pointed out that off-campus faculty are actually more likely to encounter controversial situations and that the university expects them to take positions on controversial issues that are based on sound science. He also noted that tenure saves the state money and conjectured that it would require \$20-30K/yr more to hire faculty in a competitive market place if not for tenure. Others agreed that tenure has value and that job security can partially compensate for lower wages.

Case Example from Kansas

The companion session to their symposium showcased actual examples of how various states are coping with reduced resources and changing clientele. It is not possible to summarize all presentations here. Rather I will close with one example from the Kansas Agricultural Experiment Station.

Kansas State University agriculture is organized with a Dean of Agriculture, who also serves as Director of the Kansas Agricultural Experiment Station (KAES) and Director of the Kansas Cooperative Extension Service (KCES). The Dean/Director is assisted in program planning, management, and accountability by three associate deans that serve as Director, Academic Programs; Associate Director, KAES; and Associate Director, KCES, respectively. The KAES sponsors faculty and organized research in 5 colleges, 23 departments (7 of which are in the college of agriculture), 4 branch stations (two are research centers, two are research-extension centers), and 11 experimental fields. Off-campus units conform to a decentralized model of administration. The center is on the same line as academic departments and center heads and department heads are equivalent in rank. The smaller experimental fields are attached to academic departments (8 to Agronomy, 3 to Horticulture, Forestry, and Recre-

ational Resources) for administration and generally consists of one faculty and one or two support positions. The locations of off-campus agricultural research resources are shown in the accompanying map.

Branch Agricultural Experiment Stations in Kansas (1) are autonomous units similar to academic departments, (2) receive budgeted allocations that are part of the KAES line item, (3) retain all income from the sale of agricultural commodities, (4) are the appointment and tenure homes for faculty assigned to the unit, (5) have faculty that are members of the KSU graduate faculty through sponsorship by an academic department, and (6) develop and approve the faculty performance evaluation instrument for the unit.

Three of the four branch stations in Kansas are in the western third of the state. The fourth is in the southeast corner (see map). In July of 1994, the KAES Director ordered an administrative merger of the three western centers under a single head. Only the research programs were merged. The merged locations included:

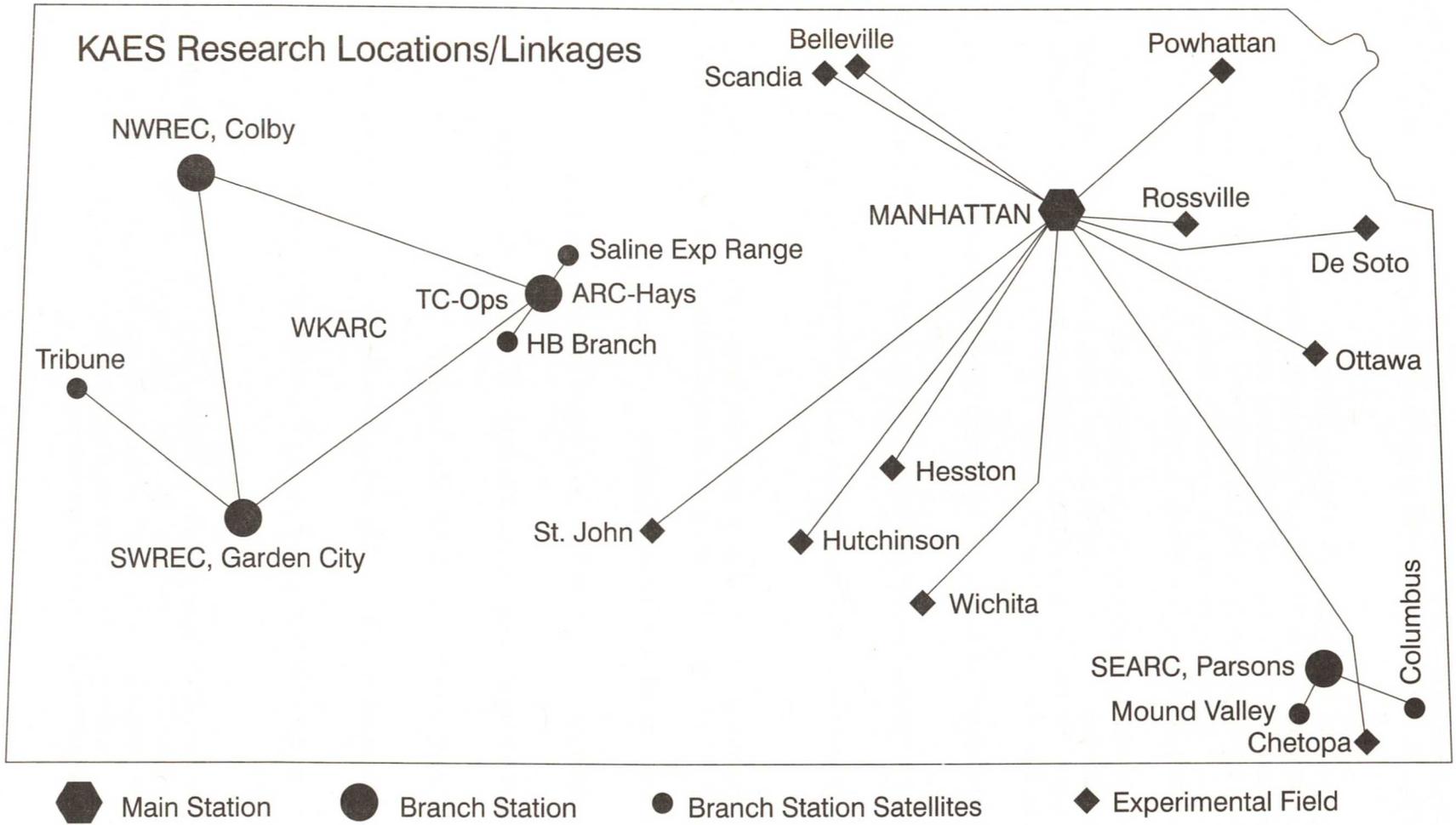
- Agricultural Research Center -- Hays (ARCH); established in 1901.
- Southwest Research-Extension Center, Garden City (SWREC); established in 1907.
- Northwest Research-Extension Center, Colby (NWREC); established in 1914.

The goal of the merger was to reduce administrative FTE and to promote program integration among the three units. The parameters established for the merger included:

- Retain name and identity of each Center.
- Retain existing [separate] budget lines (no commingling of funds).
- Establish a common business office at Hays (Tri-Center Operations).
- Appoint faculty center coordinators (see below).
- Develop a common faculty evaluation system for use across all three centers.
- Utilize a common merit pay pool when allocating faculty pay raises.

Faculty center coordinators, especially at Garden City and Colby, provide an on-site point of official contact for clientele, visitors, and the media. In addition, they make on-site decisions that cannot be conveniently referred to the head and represent the head in his absence as needed. While these duties do not require a major time commitment, directed service credit is awarded in the annual performance evaluation.

Resources are partitioned among the three centers according to the accompanying table.



| Resource | ARCH | SWREC | NWREC |
|---------------------|-------------|--------------|--------------|
| Faculty | 10 | 8 | 3 |
| Support/Technical | 18 | 16 | 9 |
| Support/Maintenance | 7 | 4 | 2 |
| Support/Clerical | 4 | 3 | 1 |
| Cropland (acres) | 1,689 | 1,166 | 605 |
| Rangeland (acres) | 4,143 | 33 | 107 |
| Other land (acres) | 268 | 136 | 55 |

The SWREC has a research advisory committee that dates back to 1961. The other two centers have not had advisory committees. Currently, the NWREC is experimenting with focus or discussion groups as a method of maintaining clientele contact and linkages with industry. The groups are targeted at 10 to 20 producers that have common interests. The purpose is to pool and interpret data from individual farms, conduct on-farm research, validate or fine-tune recommendations based on our research, and obtain feedback to help set the research agenda. Leadership for these groups is provided by extension specialists with research scientists serving in a support and listening role. County agricultural agents are encouraged to participate.

At this writing, we have operated some 31 months under the merged structure. The first year was used to observe and learn the unique and common needs of the three units and to develop standardized operating procedures, policies, and accounting methods. Year two was used to implement the standardized procedures, clarify the division of labor among administrative support staff, and train these employees to do their jobs. Now in the third year, we intend a year of relative stability with no major changes planned in operating procedures.

There are always challenges when three distinct cultures are merged into one. This merger was no exception. Those challenges include maintaining communications and public relations and providing timely administrative services and support. The unit head cannot be three places at once. Responsibility for external public relations is generally distributed among all faculty at a research station and is not just the sole responsibility of the head. However, faculty participation in this important activity is even more essential in the merged unit. Communications internally, especially between the head and the faculty or support staff at the remote centers has been greatly facilitated by e-mail and a cellular phone. It is difficult to imagine running this operation without e-mail. Manuscripts, reports, proposals, faculty input, and large accounting databases, as well as routine short message traffic, are regularly sent and received by e-mail. In addition, a wide-area network (WAN) linking the three centers with each other and the main campus is scheduled for installation in the coming year. Besides 24-hour hot INTERNET links from all networked computers, the WAN will provide sufficient band width to allow use of teleconferencing technology. That should further facilitate intraunit communications and interaction among faculty.

We continue to make progress in faculty claiming ownership in the larger unit. As restaffing opportunities occur through normal attrition, several plans are envisioned for extending faculty influence beyond their specific center of residence. For example, we have weed scientists located at both Hays and Garden City, but none at Colby. The option therefore exists to establish a weed research project at Colby under the direction of the two non-resident faculty by providing resident technical support at Colby.

A time-consuming challenge was development of an accounting system and automated audit software that provided accountability at the university account level as well as fiscal data for internal activity budgets and management decisions. Under the system developed, each research and support activity is treated as an individual enterprise which can be tracked independently with regard to expenses, generated revenue, if any, and funding sources. Revolving funds are used for all research activities involving livestock. Each activity receives an annual allocation (budget). Activity budget and transaction reports are issued monthly or upon demand.

The goal of the merger that sought out reduce administrative FTE in the KAES system was met at the outset. It should be noted that the off-campus program was not singled out bear the entire load. In addition to two FTE eliminated in western Kansas, an additional 5.5 administrative FTE was eliminated in the same time period elsewhere in the system. The goal to promote program integration will require more time to achieve and will always be an ongoing effort as opportunities and new production problems arise. While many, perhaps most, faculty might prefer independent units, they would generally recognize unit mergers as one way to maximize effort invested at the program delivery level in an era of declining operating resources.

BEAVER CONTROL

By *Allan Houston*

Introduction

The beaver has been an important player on the American stage. Prior to European colonization of North America beaver populations were estimated between 60 and 400 million individuals (Naiman et al. 1986). The great value of beaver pelts provided a powerful incentive to the trappers and explorers who expanded the early frontier. From 1620 to 1630 more than 10,000 beavers were taken annually from Connecticut and Massachusetts; and in the following decade (1630 -1640) an estimated 800,000 were trapped from the Hudson River in western New York (Naiman et al. 1986). As eastern beaver populations declined, many early 19th century expeditions were sent westward with a primary purpose of opening new trapping territory. During this era goods often were purchased on what came to be known as the "beaver standard"; and in many places the beaver pelt became the basic unit of exchange (Wesley 1978).

Uncontrolled trapping in the 1800's and early 1900's largely extirpated beaver populations from many parts of their native range (Wesley 1978; Jenkins and Busher 1979). However, land use patterns associated with an increasing rural population also contributed to the beaver's demise. For example, open range grazing along numerous watercourses destroyed small tree seedlings along with herbs and grasses that beaver populations depended on for food supplies (Milne and Milne 1960). Also, since 1834 an estimated 195,000 to 260,000 square kilometers of prime beaver and wetland habitat have been converted to dry land (Naiman et al. 1986).

Beaver populations were virtually nonexistent in South Carolina (Penny 1949), Virginia and West Virginia (Swank 1949), Alabama (Moore and Martin 1949), and Mississippi (Cook 1965) by the late 1800's. Beaver populations were rare in Tennessee during the early 1900's (Shultz 1954). Barkalow (1949) reported only 41 known beaver dams in Alabama in 1929. However, isolated populations continued to exist over most of the beaver's native range in the South (Shultz 1954).

Restocking programs were initiated in many states by the mid 1900's (Saylor 1956; Shultz 1954; Cook 1965; Beshears 1967; Wigley 1986). Decreased trapping pressure along with an increasingly urban society enabled the rapid expansion of native and reintroduced beaver populations across much of the historical southern range.

Beaver Damage

By the mid-1970's, on many watersheds within the region, beavers had become a nuisance species through dam-building and girdling activities. Bullock and Arner (1985) estimated that the loss to Mississippi's economy due to beaver damage between 1975 and 1985 approached 2.4 billion dollars. Miller (1986) concluded that "without question the beaver is the vertebrate animal causing the most damage to Southern forests at the present time."

A survey (Wigley 1986) of 3,369 rural, noncorporate landowners owning more than 2 ha of land in Arkansas estimated the impact of beaver populations in that State. Responses from

1,716 individuals holding 312,006 ha, or 2.3% of the land base, suggested that beaver activity had negatively impacted 342,105 ha statewide. Some form of beaver damage was reported by 32% of all respondents with 50% describing damage as substantial or severe. Twenty-five percent of the landowners reporting damage stated they would be willing to pay for beaver removal. However, control measures such as trapping were largely perceived as ineffectual by many respondents.

Beaver Biology

Bradt (1938) defined a beaver colony as a group of beavers occupying a pond or stretch of stream, utilizing a common food supply, and maintaining a common dam or dams. A number of studies have described the typical colony as consisting of 5 to 8 beavers with two adults (parents), the kits of the current year, and yearlings from the previous year (Busher et al. 1983).

Beavers are generally monogamous (Kleiman 1977; Svendsen 1989) and produce one litter each year. Pair bonds can be formed throughout the year, but most commonly occur in late summer and fall (Svendsen 1989). The breeding season generally occurs from January to March in colder climates (Svendsen 1980), but may occur in December or January in the South (Hill 1982). Gestation is approximately 100 days (Bergerud and Miller 1977; Woodward 1977). Kits weigh approximately 0.5 kg and average 38 cm long including a 9 cm tail. Litter size ranges from 1 to 9 and varies with several factors, especially age of the female. A review of the literature (Svendsen 1980) indicated an average of 3.7 kits per litter. Females from 4 to 6 years of age typically have the largest litters.

First parturition in beavers normally occurs at age 3, but may occur as early as age 2 depending on habitat or social structure of the colony. Although breeding activity is generally confined to the adult pair, sexually mature male and female progeny within the colony may reproduce if either or both adults are removed (Brooks et al. 1980). The oldest ages documented for wild beavers include individuals 19 (Larson 1967) and 21 years (Brown 1979) old.

Beavers could not persist over a large part of their native range without adequate supplies of woody vegetation to support them during fall and winter months. Although beavers have been known to fell trees in excess of 1.2 m in diameter (Hatt 1944), they prefer smaller diameter trees and generally confine their feeding activities to tree stems or limbs that are 2.5 to 12.5 cm in diameter. Jenkins (1980) noted that beavers cut all sizes of vegetation near the pond but progressively smaller trees further from the water, an adaptation to predation pressures.

Over time a beaver colony will significantly decrease the amount of woody vegetation around their impoundment. Depletion of forage increases risk to the beaver. Beavers can react to these circumstances by moving to another colony site (Svendsen 1989) or by adding to preexisting dams thereby backing water closer to new food supplies.

Beavers are capable of building large dams. One dam in Montana was 650 m long, another in New Hampshire 1,213 m long (Rue 1969). A dam in Wyoming was 5.4 m feet high (Rue, 1969).

Four types of beaver movements have been listed (Bergerud and Miller 1977): 1) movement of an entire colony, 2) wandering of yearlings, 3) dispersal of 2-year-olds away from the natal territory, and 4) movement of adults who have lost a mate. Young beaver generally disperse from the natal colony during the season of their second birthday, coinciding with parturition of the adult female (Bradt 1947; Townsend 1953; Beer 1955; Libby 1957; Brooks et al. 1980).

Two-year-old beavers apparently spend much of their first summer away from the natal colony in search of mates and acceptable colony sites. However, Townsend (1953) found that September was the month of greatest dam building activity and surmised that this was the primary month when 2-year-olds "settled down" into their new home. Although there seems to be an inherent tendency to leave, there is also indirect evidence that 2-year-olds are driven from the colony by dominant adults

(Hodgson and Larson 1973).

Beaver Control

Hill (1976) reported that strychnine was an effective poison for beaver; however its use is likely contrary to public acceptance (Wesley 1978) and is not registered for this use.

Chemosterilants have been suggested a means to control beavers (Arner 1964). Hill (1977) examined the effectiveness of quinestrol (17-alpha-ethanol-estradiol-3-cyclopentyl ether) but found no feasible method to get the chemosterilant into wild populations.

Surgical sterilization was performed on either adult in 14 colonies in Massachusetts, effectively inhibiting colony reproduction (Brooks et al. 1980). Yet, although the colony did not grow, it persisted and practical methods to induce sterility in wild populations are impracticable.

Biological controls such as introducing alligators (*Alligator mississippiensis*) have been used to attempt to control beaver but with little success (Hill 1976). Trapping is the method by which beaver populations were extirpated during the early history of the country and the means best able to produce measurable success.

Methods

Study Area

This study was conducted largely on the Ames Plantation, cooperatively administered by The Hobart Ames Foundation and Agricultural Experiment Station of The University of Tennessee. Ames Plantation is a 7500 ha landholding in the headwater basin of the North Fork of the Wolf River, a tributary of the Mississippi River. The watershed is located in the Mississippi Embayment section of the Gulf Coastal Plain physiographic province, 80 km east of Memphis, Tennessee, and 80 km southwest of Jackson, Tennessee. It encompasses 31,842 ha with approximately 23,562 ha in Fayette County and the remaining 8,279 ha in Hardeman County (USDA 1987).

Beaver Control

A 1619 hectare study area was defined in the floodplain of the North Fork Wolf River beginning at the downstream departure of the river from Ames Plantation property and continuing upstream approximately 12.8 kilometers until the river became intermittent. Downstream, at the point of departure from the study area, the North Fork Wolf River averaged 0.5 to 1.0 m deep and 5 to 7 m wide. Beginning November, 1984 and continuing through May, 1985 intensive trapping removed all beavers from the 22 active colonies in the study area. Individual locations were considered trapped-out if beaver activity (e.g., dam repair, tracks, cuttings) was not observed during repeated visits (spanning several days) to the site (Peterson and Payne 1986). No attempt was made during this period to distinguish initial populations from immigrants.

From 1 June 1985, through 30 September 1988, all colony sites were kept under strict surveillance and beaver attempting to recolonize were removed within 1 month of immigration. During this time all captures were considered to be immigrants.

Trapping techniques used were those outlined by Hill (1976 and 1982) and Weaver et al. (1985), employing primarily the Conibear 330 with limited use of the wire snare. Conibear traps accounted for approximately 95% of all beaver caught during the study. The most productive technique was to make a small break or series of breaks in the major dam and place one or several Conibears in or near the breach. Escaping water stimulated colony members to attempt repair. Other common sets included those on runways across the top of dams or sets in association with well worn feeding runs. Except where scavaging prevented acquisition, the lower mandible of each specimen was extracted for age determinations (van Nostrand and Stephenson 1964; Larson and van Nostrand 1968).

Based on aerial surveillance during the course of the study by Tennessee Division of Forestry personnel, beaver populations remained high downstream portions of the river (Charles Riddell, personal communication, 1987).

Statistical Analysis

The number of beaver caught from June 1985 through September, 1988 were summed by 4-month periods (June-September; October-January; February-May) with each period based on documented facets of beaver biology and behavior.

To maintain the assumptions necessary for analysis of variance, total number caught by individual 4-month periods were transformed to $\log(\text{sum} + 1)$. Analysis of variance was conducted on transformed data to determine if colonization attempts were significantly related to season (4-month time period). Trappability was assumed equal for each time period.

Results

During the first 7 months of the study, 169 beavers were captured, representing pre-study resident populations. Seventy individuals were captured the first month, 35 the next, then 14, 22, 15, 11 and 3, with removal rates closely approximating a reverse J-shaped curve.

From June, 1985 through September 1988, 162 beavers attempting to recolonize original or new sites were removed. Recolonization attempts were relatively low during the period June - September averaging 5.5 immigrants, significantly less than the periods October-January (22.7 immigrants) and February-May (23.7 immigrants). The periods October-January and February-May did not differ significantly.

Only 10.4% of all recolonization activity occurred in the summer period. The interval from the first of October through the end of May accounted for 89.6% of all average yearly immigration.

In this study 89.4% of all beaver on which age could be determined were in the 3-4 year age class or less. Only 3 individuals were estimated older than 8 years of age. Immigrants in the 1-2 year age class were prominent throughout the year. This age class made up 46.3% of all immigrants during the months February-May, the time generally thought to encompass dispersal of 2-year-olds. Beaver in the 0-1 age class made up 22.5% of all captures, being especially prevalent October-January (34.8%).

The oldest individual, a 12 year-old female, also was the largest, weighing 34.2 kg while carrying four near term fetuses.

Discussion

The underlying objective of this phase of the Ames Plantation study was to quantify beaver immigration into a portion of a watershed where resident populations had been removed. Seasonal differences in immigration patterns were clearly demonstrated.

Because February through May is the period when young adult beaver are believed to disperse from natal territories in search of mates and suitable habitat, most immigration should be expected in this period. However, in this study immigration totals from October through January were equally high and were not statistically different from February through May. This result was not expected.

Townsend (1953), working in Montana, determined that September was the month of greatest dam building and was the time when 2-year-olds "settled down" into their new home. Another study (Svendsen 1989), conducted in Ohio, determined that pair bonds are formed predominately in the late summer and early fall. However, observations at Ames Plantation suggest that the period of greatest dam building and "settling down" occurs later in the year, from late October to early December.

First frost usually occurs in mid-October at Ames Plantation, forcing beaver to abandon herbaceous food sources and begin to utilize woody species. Needing a dependable food source, young adult beaver apparently attempt to "settle down" before the onset of harsh weather. Also, during this time of the year deciduous leaves are in greatest abundance in west Tennessee streams are heavily utilized for dam building.

Two distinct and predictable periods of immigration seemed apparent. Relatively high immigration began in October and continued through May, while a less intense period of immigration began in June and concluded at the end of September. However, because immigration patterns could not be predicted on a monthly basis, a control program designed to protect vulnerable resources would require regular year-round surveillance.

Even disregarding the probabilities of trapper cheating, the results of this study argue against the use of a "bounty system" to control beavers on a small watershed. During the first month of the study 70 beavers were removed. Under a bounty system, this might represent an adequate economic reward; however, catch totals were halved during the following month and halved again the next. Quickly diminishing returns would force a bounty trapper to abandon control efforts. Also, in the Ames study older individuals at each colony site tended to be caught first. Removal of either or both adult has been shown to stimulate sexual activity in remaining yearlings (Brooks et al. 1980). Recruitment within the residual population, along with immigration, would replenish beaver populations by the following year. Therefore, even if the trapper persisted through the second month, little in the way of effective control would have been accomplished and nothing would have been done that would protect a resource in jeopardy. Residual populations would have repaired and maintained dams; therefore, the land would have remained inundated and with the water timber resources would have remained in jeopardy.

The Ames Plantation study also demonstrated that persistent trapping can extirpate beaver populations. In the face of sustained and sufficient economic pressures applied over large regions (e.g., greatly inflated pelt prices) beaver populations may require careful management to prevent over exploitation.

In Summary

A survey of landowner attitudes toward beaver damage and control in Arkansas reported that respondents often perceived control measures such as trapping to be largely ineffective (Wigley 1986), despite having been demonstrated successfully elsewhere (Hill 1976). Such responses probably represent unfamiliarity with successful techniques. Also, the average landowner likely can't differentiate between "initial populations" and "immigrants." The rapid return of immigrant beaver may explain perceptions trapping programs do not work. The landowner is left with unrealistic ideas that there must be "something better." Yet, the Ames study demonstrates that effective beaver control will seldom prove to be a "one shot deal." An effective control program makes prime habitat available and ensures that new beavers are apt to return.

Wholesale trapping "aimed at all beaver," which lacks sustained economic incentive to greatly reduce or extirpate populations over large regions is, at best, a temporary solution and will generally fail to protect specific timber resources. In addition, extirpation of any species from major portions of its range is socially unacceptable. Successful control efforts must first pinpoint the resource they are designed to protect and then evaluate beaver activity that places the resource at risk. For example, inundation might present a major threat to a tract of timber. A control program in this instance would not be judged by the number of beaver captured, but by the absence of water and survival of the timber. The control program would be focused on a specific resource and its success gauged by removal of the threat to that resource. Of course, this would require a very focused and persistent beaver removal program.

As an analogy, most people do not like rats in their home. They are not angry with all the rats in the world, or even the neighborhood; but they do not want them in their house rattling around the cupboard and getting in the breakfast cereal in the middle of the night. With sufficient incentive, time and expertise a trapping program can be initiated which will successfully remove the rats--thereby protecting both cereal and peace of mind; but unless all the holes are stopped up, continued trapping will be probable at various times in the future.

WHEN VIOLENCE THREATENS THE WORKPLACE

Robert L. Willits,

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Introduction

Violence in the workplace is growing at an explosive pace. Consider the following: In 1992, violence was the second leading cause of 6,083 workplace deaths (17 percent) based on Bureau of Statistics data. It was the leading cause with women—40 percent vs. 15 percent for men (Miller, 1993).

Guns account for 75 percent of occupational homicides, committed annually, according to a study collected by the National Institute for Occupational Safety and Health. Estimated “costs” of workplace violence in 1992 are \$4.2 billion, according to a 1993 National Safe Workplace Institute report.

More than two million people in the U.S. were victims of physical attack at the workplace. Of workers attacked, 18 percent were attacked with lethal weapons.*

Another six million U.S. workers were threatened and 16 million harassed.*

One out of four full-time workers was harassed, threatened, or attacked on the job between July 1992 and July 1993 (Northwestern, 1993).

Of all acts of violence: 57 percent involved employee to employee; 17 percent involved employee to supervisor; 6 percent customer to employee; and 7 percent spouse/partner to employee (HR News, 1996).

There are many factors that at least partially account for this trend. First, the economic climate of the past decade and increased emphasis on becoming leaner and more competitive in a global marketplace have created stressful work environments.

Also, access to weapons often seems easier than access to help. Further, law enforcement and legal systems struggle to address prevention, punishment, and rehabilitation.

Finally, it should be mentioned that many issues in the workplace mirror those of our society as a whole.

- You are 7 times more like to be murdered in the USA than most other industrialized nations.
- Also, 1 in 10 eighth graders carried a weapon to school in the past 30 days (EAP Digest, 1994).

Implications of Violence

There is a fundamental problem related to the definition and common association of the term violence. Webster’s dictionary defines violence as “physical force used to injure, damage, or destroy” (Webster, 1974). However, the psychological trauma experienced by direct victims or witnesses of violence in the workplace may be just as damaging. To be responsive to this concern, therefore, a true definition of violence at work must include verbal abuse, threats, harassment, and menacing behavior. An amended definition is therefore proposed: “Any act of physical, verbal, or psychological threat or abuse, assault, or trauma on an individual that results in physical and/or psychological damage.” (Engel, 1987).

Having reconsidered a more comprehensive definition of violence, it is much easier to now identify and comprehend various implications and costs of workplace violence to a higher education community. First, the victims are not limited to those killed or injured and their families. Teaching, research, service, and learning interruptions; medical and psychological costs; loss of student, faculty, and staff confidence and morale; drops in productivity; sick leave costs; and turnover all result in incalculable losses. In addition to dealing with these realities, administrators are finding themselves on the front lines of workplace violence issues--sometimes too literally. Grievance hearings, disciplinary actions, layoffs, and applicant screenings often place this group in the middle of precarious situations where the messenger can be too easily confused with the message.

There is also the issue of potential employer liability to its employees, as well as injured third parties. Workers' compensation is generally the exclusive remedy for employees' injuries and deaths. To constitute a compensable event, most states require that the injury "arise out of and in the course of employment." In addition, all but a few states mandate that the injury be caused by accident in order to be compensable. A major exception to the exclusivity rule of workers' compensation exists wherein tort suits may be brought against an employer. If a manager or supervisor willfully assaults an employee, then both a tort suit and worker's compensation coverage may be initiated (Hunter, 1990).

Despite the above-referenced protections or limitations from additional liability for injuries to employees, there is still potential exposure that is significant. Two theories have been commonly used to impose third-party liability upon an employer: 1) respondent superior and 2) direct negligence. Generally, the doctrine of respondent superior has been used when a staff member was acting within the scope of his or her employment. On the other hand, the doctrine of direct negligence incorporates issues of negligent hiring, negligent retention, negligent supervision, and failure to use responsible control. Accordingly, the negligent hiring theory has been used to impose liability in cases where an employee commits an intentional wrong against another individual where the employer knew or should have known that the employee might engage in injurious conduct toward others (Hunter, 1990). Colleges and universities with sovereign immunity may still be open to tort action in these cases.

Preventive Measures

To minimize the risk of violent acts occurring in the workplace, attention must focus on collective initiatives that will include four areas: applicant screening processes, specific supervisory training, physical security considerations, and a functional exit interview and outplacement programs.

A meaningful applicant screening program for prospective staff entails several components. First, an application packet is needed that not only seeks information about education and experience, but also requires an accounting of time since enrolled as a full-time student or as far back as practical. The more that is known about an applicant, the less potential for costly surprises. Questions approved by the offices of the general counsel and affirmative action also should be included, such as any convictions involving a felony or first-degree misdemeanor. Written policy on the application should allow for the dismissal of any applicant who provides false information.

A screening interview involving each individual applying for employment is highly advantageous. Again, this further assists in learning as much as possible about an applicant. Not only does this allow for further assessment prior to recommending the most appropriate individuals to hiring authorities, but this practice also provides a courteous response to individuals who are forming impressions of the research center.

Verifications of employment and, when possible, complete reference checks also are recommended. The threat of defamation suits often discourages many employers from giving accurate or complete references. In an attempt to redress this problem, Florida passed legislation indemnifying employers who provide good faith references for former employees. Comparable legislation has been passed or proposed in other states and could become more common if employers can reason with the other half of the equation--providing the same detailed employee information to other prospective employers as is sought (Visions, 1992). Also, where possible, background checks for criminal records with law enforcement agencies should be pursued for designated positions.

At the other end of the employment relationship, outplacement services to assist those who are layoff victims are recommended. This offering not only assists in real terms, but also psychologically at a time of potential despair and anguish. Likewise, exit interviews should be offered for those staff members who are resigning. This exercise allows for input to be received relative to the work environment and management practices. As with outplacement, exit interviews also can serve as a positive outlet for built-up stress.

There is a large area to be addressed in between screening incoming and exiting staff. And the critical role belongs to line managers and supervisors and their training and preparedness. Clearly, supervisors who cannot confront workers can contribute to the violence potential. But supervisors who confront too readily, who are too aggressive, or who enjoy pushing people around are just as dangerous. These individuals should be trained in effective communications, conflict resolution, team building, appraising performance, coaching, and stress management. They also should be trained to handle layoffs, disciplinary actions, and terminations with an even application of clearly communicated policies and standards.

One focus of any successful training effort designed to prevent violence in the workplace should be on developing an ability to identify the profile of potential aggressors and to recognize various warning signs of a troubled employee. Mood swings involving outbursts or withdrawal, a productivity drop-off, absenteeism, or serious personal problems are all cause for concern (Thornburg, 1993). Also, romantic obsessions, alcohol or other drug dependence, and a fascination with weapons are indications of a potential for violence in the workplace. And finally, nothing serves as a better prediction of future violent acts than an individual with a history of violence (EAP Digest, 1994). This clearly places emphasis on knowing as much as possible about a prospective employee, which will be addressed later in this article. Of course, the goal is not to turn first-line supervisors into diagnosticians, but rather to train them to detect sudden behavior or appearance changes. Counting on fellow employees for feedback is clearly insufficient. Employees threatened by co-workers may be reluctant to tell their supervisors because they fear retaliation from the co-workers. Therefore, some experts recommend establishing a "hot-line" to another source as a reporting option (Raimy, 1993). Personnel Services can serve in this capacity by having a publicized phone number(s) and by being conveniently assessable. At the University of Florida, four satellite personnel services offices are situated around campus.

However, there is a real danger in labeling people as potential perpetrators, according to James Allen Fox, Dean of the College of Criminal Justice, at Northeastern University. Fox points out that careless labeling of would-be killers may in fact ignite the very thing we're trying to prevent. Fox contends, "It's a very large haystack and very few needles" (1993). Linkage among supervisors, personnel professionals, and health care professionals is consequently important so as to allow for responsible, accurate assessment of people and situations.

A proven and significant preventive measure to violence is a Employee Assistance Program (EAP). By having an EAP, an outlet is provided for counseling and therapy that could be critical. One attractive feature of these programs to employees is the confidentiality that accompanies participation. This in turn encourages participation by those staff who may need the benefits most. Managers must remember that because of this access to feedback regarding an employee's status is extremely limited. Workplace violence may involve drug or alcohol abuse. A meaningful Drug Free Workplace Policy therefore may be of assistance by (1) making clear a policy against the use of drugs and alcohol on the job, and (2) that assistance is available upon request to deal with problems related to substance abuse.

Finally, physical security must be considered. Accessibility to buildings or areas within buildings should be limited whenever possible. Architects involved with new or renovation building activity should be consulted to include this consideration. Hi-tech hardware is another aspect of security that should be explored. Key cards, optical fingerprint, or voice print identification systems may be appropriate to protect particularly sensitive areas. A closed-circuit television system is another piece of useful hardware that can monitor and record activity around the clock (Overman, 1993). However, it is important to remain constantly focused on the overall work place "tone." What is desired is a friendly environment that conveys trust and is conducive to optimal performance. Multiple security measures at the expense of creating surroundings tantamount to Strategic Air Command headquarters do not represent progress. Also, frequently there are significant restrictions on using some of these approaches in a higher education environment with its high traffic areas opened to the public.

Threat Management

Occasionally, there will be situations that indicate a violent act could occur. Whenever an outright or implied threat is made or warning signs are detected, it is important that an investigation be initiated immediately. For these situations, it is highly recommended that an established Threat Management Team be activated. The team should be composed of representatives from Personnel Services, line management, or local campus police, the general counsel's office, and counseling psychologists and/or psychiatrists, from within and outside the EAP. This team, following a recommended written Threat Management Plan, can pull together and analyze the risk factors and plan a course of action. The team will have to make difficult judgment calls, with their overall challenge being to balance the rights of the person who made the threats with the responsibility to anyone who is the target of those threats or who could otherwise be a victim.

Part of the team's review process should be the interviewing of any witnesses. The designated team member should solicit information about what was said, under what circumstances, and the relationships of all involved. A very thorough background investigation should be initiated immediately, and any known health care provider currently or formerly seeing the employee should be contacted. If an immediate evaluation by a psychologist cannot be arranged, the subject should be sent home and instructed not to return to the premises until contacted by the designated team member (ASTD, 1993).

The appropriate health care professional(s) on the team should be informed of the situation and be updated as often as possible. It cannot be overemphasized that all team members need to be in close communications. Information that a line supervisor or co-worker may provide could be critical in allowing a psychologist to make an informed opinion. If not already arranged, a medical evaluation should be scheduled immediately. An important point is offered at this juncture. While the EAP is a fundamental component of a proactive preven-

tive program, it carries with it a high level of confidentiality, as referenced previously. But once in a threat management mode, feedback to management is needed, and therefore the EAP is an inappropriate source of medical evaluation.

Based on the evaluation and other information gathered, several key decisions can be made collectively by the team.

1. Should the employee making threats (the subject) be hospitalized, involuntarily if necessary, as an inpatient? If appropriate, a mental inquest warrant can be sought from a judge. While procedures vary somewhat from state to state, this action is available if it can be shown that a person poses a danger to himself or herself or to others (Kuzmits, 1992). If inpatient care is not warranted, are a series of outpatient sessions recommended prior to any conclusions being declared regarding further treatment and readiness for return to work? The key team members here are the institution's appropriate health care professional(s) and general counsel.
2. Should a temporary restraining order be sought to legally restrict the subject from entering the workplace? The appropriate team members are the general counsel and university police.
3. Is extra security for the designated area recommended? Police and line management should confer with other team members.
4. Should any staff be temporarily moved to another work location? The same linkage as in number three should be sought.
5. What will be the leave status of the subject? Frequently, an employee placed on a compulsory leave for evaluation and treatment purposes must use personal accrued leave and, upon depletion, be placed on leave without pay. However, the unique circumstances of the case may cause for some alternate approach to be considered. The written threat management plan should provide guidelines for this.
6. When the subject is released, will a position still be offered? If so, will any reassignment be advisable? What disciplinary action is appropriate? At times, a different supervisory subordinate mix or an entirely new venue is advisable. The health care professional's recommendation and input from Personnel Services, general counsel, and line management are the primary considerations when addressing these questions.

Throughout the threat management process, it is imperative to remain focused on the ultimate goal: to ensure a safe work environment for all, while making every reasonable effort to work toward a productive role for the subject. Even with a relatively uneventful conclusion, it is crucial to make it absolutely clear to the subject and others that threatening behavior will not be tolerated. In the end, the individual members of the threat management team should take comfort in knowing that tough decisions were made collectively and with careful thought.

The Crisis Management Team

Ultimately, despite well conceived plans and programs, there is no guarantee against violence exploding in any workplace setting. If the unthinkable should occur, the research center's readiness with a well-rehearsed crisis management plan will be crucial. The ability to immediately respond by notifying campus police, calming hysterical witnesses, notifying victims' families, and dealing with the media will be tested. And while these plans may not have prevented the violence, their presence will ease the trauma associated with the event because people will know what to do.

The Barrington Psychiatric Institute in Los Angeles studied 200 people suffering from the results of a major psychic trauma during work hours. Half began receiving therapy immediately following the incident and half weren't seen for 6 to 36 months after the incident. The group that received prompt attention averaged 12 weeks of recovery time and only 13 percent of them chose litigation. Comparatively, the other group required 46 weeks of recovery time, and 94 percent chose litigation, according to statistics released by Crisis Management International in November 1991 (Stuart, 1992). While early intervention clearly is most effective for psychological as well as other reasons, there is no panacea for the issues this type of violence raises.

A Crisis Management Team is the vehicle to show a compassionate, professional response on the part of a university or research center. This team should have as its members all involved on the Threat Management Team plus one key addition--one designated member to deal with the press, logically a representative from the public information office. During the tenuous first few days following an incident, co-workers and other witnesses should be shielded from an aggressive press corps hungry for details and reactions.

This team should seek to bring all those who witnessed the incident together to talk about their reactions in a debriefing session within two days following the traumatic event. In this first session, where shock still prevails, the goal is to let them know their reactions were normal and to give them a phone number to call as they need support (Thornburg, 1993). This number should be manned around the clock for an initial period to be identified by the health care professionals on the team. Follow-up meetings should be scheduled for those directly involved in the incident (Overman, 1991).

Among the myriad of details to address will be contacting families of victims as well as witnesses. Insurance and death claims will need the focus of Personnel Services. Clean-up and repairs should be arranged as soon as investigating law enforcement can allow, so as to not prolong a visual reminder when healing is sought. Communicating with relevant customers (students, parents, other departments on campus, and vendors) to provide facts and dispel rumors should also be pursued as soon as possible.

One goal also to pursue is getting all employees back to work as soon as possible, even though they understandably may be afraid. According to Dr. Martin Symonds, Deputy Chief Surgeon for the New York City Police Department and Director of the Victim Treatment Center at New York's Karen Horney Clinic, work is a very meaningful part of everyone's life. "Staying away means losing the experience of 'work intimacy'--which is crucial to the healing process. There are people at work who care about you and with whom you share a common bond" (1987).

As employees are brought back into the workplace, questions about leave status while away must be responded to based on written policy. Also, requests for reassignment may predictably come in. Counseling on an individual basis must distinguish facts from speculation, rational thinking from panic. In the end, senior management must determine its com-

mitment to effecting reassignments based on each individual employee's status as determined by input from them as well as health care professionals. It is critical not to promise anything that cannot be honored, as this will only serve as a source of further trauma and mistrust. As needed and feasible, temporary reassignments pending counseling and subsequent assessments may be prudent. This will allow for a more complete and rational approach to the issue of permanent moves.

Conclusion

Violence in the workplace is a reality for which research center administrators must prepare. First, it is a fundamental obligation to the faculty, staff, students, and visitors to our institutions to protect their lives. They cannot produce their best in teaching, research, support services, and learning if they are concerned about their safety and security. Second, the manner and extent to which we prepare can have a significant impact on morale and productivity. Finally, we can avoid certain liability issues if we take responsible measures.

A three-tiered approach to this challenge has been suggested. First, a preventive program should be established that involves a comprehensive screening process for prospective employees, supervisory training, physical security considerations, and meaningful exit interview/outplacement services. Second, a threat management plan and team should be in place to respond quickly to any threats or warning signs of concern. Finally, should a violent act be perpetrated, a crisis management team must be prepared to take charge of all situations and issues that will follow.

Research center administrators can take a lead in linking with key resources at their institutions to establish a responsible prevention and response plan. This presentation has not provided all the answers to this very complex subject. But by initiating the steps proposed, a research center can identify and speak to the many details that should be part of a comprehensive plan. The key is to not delay. Just as plans have been developed to cope with natural disasters, attention must likewise be turned to addressing workplace violence; it is a phenomenon that provides less advanced warning to the unprepared than any hurricane.

Minutes
Research Center Administrators Society
Executive Board Meeting
Portageville, MO
September 30, 1996

The RCAS Executive Board met September 30, 1996 at the University of Missouri, Delta Research Center in Portageville, MO. Those in attendance included; Mr. F.T. (Butch) Withers, Jr. - President, Mississippi State University, Dr. Ben Kittrell - First Vice President, Clemson University, Dr. Findlay Pate - Second Vice President, University of Florida, Dr. Jere McBride - Executive Treasurer, Louisiana State University, Dr. John Robinson - Secretary, University of Arkansas, Dr. Paul Sebesta, University of California, Mr. Bill Peterson, University of Kentucky, Dr. Jim Jones, Virginia Tech., Mr. Malcomb Peques, Auburn University, Mr. John Olive, University of Alabama, Dr. Jim Smith, Mississippi State University, Mr. Carl Tart, North Carolina State University, Dr. John Hodges, III, University of Tennessee, Dr. Phil Hunter, University of Tennessee, Dr. Joe McFarland, Texas A&M University, Dr. George V. Grande, University of Georgia, Dr. Dennis Onks, University of Tennessee, Dr. Gerard Berggren, Louisiana State University, Mr. Jake Fisher, University of Missouri.

President Butch Withers called the meeting to order and introduced Mr. Jake Fisher. Mr. Fisher welcomed the Board to the Delta Center and introduced Dr. Bill Stringer, Associate Dean of the College of Agriculture, University of Missouri. Dr. Stinger welcomed the Board to Missouri and gave an informative and interesting presentation on the structure of the College of Agriculture and the Missouri Agricultural Experiment Station, where they are presently, where they want to be in the future and some of the challenges facing the University in accomplishing these goals.

RCAS Business Meeting

Minutes:

The minutes of RCAS Executive Board Meeting at Huntsville, AL and the minutes of RCAS Annual Business Meeting at Greensboro, NC were read. One change was noted on the minutes of the Executive Board, change Bud Webb to Bill Webb. Dr. Ben Kittrell made the motion to accept the minutes with the above change as read. Dr. Dennis Onks seconded the motion. Motion passed unanimously.

Treasurer's Report:

Dr. Jere McBride, Executive Treasurer, presented the treasurer's report and an analysis of income and expenses for 1994, 1995 and 1996. The analyses showed that for the last three years our expenses have exceeded our income and that we are slowly decreasing the balance in our account. The balance in the RCAS account as of 9/26/96 was \$3,932.66. Dr. McBride reported that the funds were in an interest income. He is looking into the possibly of moving the account. Carl Tart made the motion that we accept the treasurer's report. Mr. Fisher seconded the motion. Motion passed unanimously.

Report on Annual Meeting in Greensboro, NC:

Mr. Tart reported that attendance was low due to the snow storm that covered a large part of the southeast and made travel impossible. However, he was able to work with the caterers, and bus line to negotiate lower rates. A general discussion followed and the members who attended informed the group that the meeting was informative and enjoyable and congratulated Mr. Tart on his ability to make the best of a bad situation.

Committee Reports:

Proceedings:

Dr. Onks, Proceedings Editor, reported that we needed about 250 proceedings to cover potential members and libraries. Cost would be \$6.50 each for 250 or \$8.00 each for 150. He reported that one workshop was not given and that one report was given by someone else and that he had not received these reports. A general discussion was held on whether we should have a proceedings. A general consensus of the group was that we needed the proceedings to attract potential new members and to inform our administrators of RCAS activities. Mr. Tart informed the group that his department had an in-house print shop and he could get the proceedings printed at very reasonable rate. Costs would depend on paper prices, shipping charges and if reports etc. could be submitted on disks. Mr. Tart agreed to print the proceedings this year and next year. The group decided not to include the directory in the proceedings and that work group sessions need to be taped, transcribed and summarized for inclusion into the proceedings. President Withers accepted the report as presented.

Membership:

Dr. McFarland presented the membership report. He stated that if we are going to be a viable organization we need to increase our membership. He suggested that we: develop a list of all Centers in US, encourage nonparticipants in each of our states to become active, encourage our counterparts in TO and industry to become active members and invite representatives from nonparticipating states to attend meetings. He suggested that we develop a website as a means informing potential members of activities and a means of communication information to the membership. President Withers appointed Dr. Jim Smith to the membership committee and asked Dr. McFarland and Dr. Smith to present more details on establishing a website at the annual meeting. President Withers encouraged all state reps to get their counterparts involved and suggested that we send a letter to all groups in different states asking if they would like to participate. A general discussion of dues or registration fees occurred. President Withers appointed a committee composed of Dr. Phil Hunter, Mr. Carl Tart and Dr. Jim Jones to study this problem and report back.

Financial Committee:

Dr. Jones presented the financial committee report. He stated that we were in sound financial shape. The reserve fund has \$2,000.00 in it and if we don't take on any new projects we will be in good shape. A general discussion followed. The consensus was: that we need more funds to do special projects and to reach out but that we need to develop these projects before we seek funds to do them, we need to set registration fees high

enough to cover the costs of our annual meeting and we need to encourage members to preregister to help the local arrangements committee make meeting plans.

Awards Committee:

Dr. Hodges nominated Dr. Joe Musick for the Outstanding Service Award. Dr. Kittrell seconded the motion. Motion passed unanimously. Dr. McBride will present the award.

Nominations Committee:

Dr. Onks nominated the following slate of officers: Dr. Ben Kittrell, President, Dr. Findlay Pate, First Vice President, Dr. John Robinson, Second Vice President and Mr. Dennis Thompson, Secretary. Dr. Jones seconded the motion. Motion passed unanimously. President Withers appointed Dr. Jere McBride, Executive Treasurer, and Dr. Dennis Onks, Proceedings Editor.

Local Arrangements Committee:

Mr. Olive presented several interesting overviews of possible tours. A general discussion followed. President Withers stated that the Local Arrangements Committee should decide on the best tour and set the cost accordingly.

Program Planning:

Dr. Kittrell led the discussion on program items to include. The group discussed over 20 program topics and possible speakers to present them. President Withers asked Dr. Kittrell to select from this group of topics and set the program.

Other Business:

President Withers discussed the following topics: 1997 Fall meeting would be in Jackson, MS, 1998 Fall Meeting would be in TN and the 1999 Fall Meeting would be in Arkansas; he passed out a handout from SAAS discussing the issues they are faced with, the group suggested that one RCAS member should be in attendance at SAAS Board meeting; he went over the deadlines we need to meet for the annual meeting.

Meeting was adjourned.

1997 DISTINGUISHED SERVICE AWARD RECIPIENT

Dr. Joseph A. Musick

Resident Director and Professor of Agricultural Economics
Louisiana State University Agricultural Center
Rice Research Station
Crowley, Louisiana

Dr. Joseph A. Musick better known as "Joe," is recognized for his outstanding leadership and devoted service to the Research Center Administrators Society. Joe has been a member of the RCAS since his appointment as resident director of the Rice Research Station in 1985. He attended his first annual meeting in 1987 at Nashville, TN. Following his introduction to the RCAS, Joe became very active in the organization serving in various capacities including all of the officer ranks. During 1989-90, he served on the Executive Committee as the Louisiana state representative.



In 1990, he was elected secretary/treasurer; served as second vice-president in 1991-92; as first vice president and program chairman in 1992-93; as president in 1993-94; and chairman of the Executive Committee in 1994-95. After completing his responsibilities as an officer, he served on the nomination committee for three years and worked on other important assignments. Joe was also instrumental in the formation and development of the Louisiana Resident Directors' Association. He served as secretary/treasurer, vice chairman, and chairman from 1987-1990.

Joe's home is Joiner, Arkansas. During the period 1954 and 1964, Joe was self employed as a cotton farmer. When he sold his planter, he went to the University of Arkansas where he received his B.S. and M.S. degree in 1969 and 1971, respectively. He received his Ph.D. in agricultural economics from the University of Missouri in 1980. His career has included tenures at the University of Arkansas - Monticello, 1972-1978; Louisiana State University, Department of Agricultural Economics, 1979-1983; Delta Branch Mississippi Agricultural and Forestry Experiment Station at Greenville, 1983-85. He joined the Louisiana Agricultural Experiment Station, Rice Research Station in 1985 where he is currently professor and resident director.

During his years in the RCAS, Joe developed a keen interest and genuine respect for the organization. According to Joe, "the organization has been invaluable to me as a research center administrator. I believe anyone who manages a center would benefit from attending the annual meetings. I encourage our associates who want to become a better administrator to become active in the organization." Although his service as an officer of the organization has ended, Joe is still very enthusiastic about the RCAS and will continue to support progressive ideas that enhance its value to the membership.

The RCAS wishes to express its appreciation to Dr. Joseph A. Musick for his many contributions to the success of the organization.

Past Recipients of the Distinguished Service Award for service, leadership, and outstanding contributions to RCAS over an extended period of time.

| YEAR AWARDED | RECIPIENT |
|---------------------|-------------------------------|
| 1987 | John Ewing |
| 1988 | Robert "Bobby" Moss |
| 1989 | Joe High, Jr. |
| 1990 | Wallace Griffey & Bill Webb |
| 1991 | Norman Justus |
| 1992 | Gene Morrison & Jere McBride |
| 1993 | William Loe & Howard Malstrom |
| 1994 | James Hill |
| 1995 | Edward Worley |
| 1996 | Robert Freeland & Will Waters |
| 1997 | Joe Musick |

PAST PRESIDENTS, RCAS

| YEAR | CHAIRMAN |
|-------------------|--------------------|
| 1969 - 1970 | Robert Moss |
| 1970 - 1971 | Preston Reed |
| 1971 - 1972 | Charles Douglas |
| 1972 - 1973 | Charles Douglas |
| 1973 - 1974 | D. M. Gosset |
| 1974 - 1975 | Henry Marshall |
| 1975 - 1976 | Tom Corley |
| 1976 - 1977 | H. Rouse Caffey |
| 1977 - 1978 | E. G. Morrison |
| 1978 - 1979 | Robert Moss |
| 1979 - 1980 | Joe High, Jr. |
| 1980 - 1981 | Julian Craigmiles |
| 1981 - 1982 | Freddy Peterson |
| 1982 - 1983 | Wallace Griffey |
| 1983 - 1984 | Bill Webb |
| 1984 - 1985 | Gary Elmstrom |
| 1985 - 1986 | Norman Justus |
| 1986 - 1987 | Robert Freeland |
| 1987 - 1988 | Jere McBride |
| 1988 - 1989 | Howard Malstrom |
| 1989 - 1990 | Bill Loe |
| 1990 - 1991 | Edward Worley |
| 1991 - 1992 | Will Waters |
| 1992 - 1993 | James R. Hill, Jr. |
| 1993 - 1994 | Joe Musick |
| 1994 - 1995 | Dennis O. Onks |
| 1995 - 1996 | Jim Pitts |
| 1996 - 1997 | F. T. Withers |