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Center Administrators Society

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WELCOME TO LOUISIANA

Dr. Ken Tipton
Vice Chancellor & Director
Louisiana Agriculture Experiment Station
Baton Rouge, Louisiana

Chancellor's opening:

Agriculture is Louisiana's largest industry. Louisiana's agricultural products...and the processing of those products are valued at about seven-and-a-half billion dollars annually. Best of all, agriculture is based on Louisiana's wealth of renewable resources.

Agriculture is a high-tech industry, and requires high tech research and development to keep pace with today's society. That's where the LSU Agricultural Center comes in. The Ag Center is responsible for developing agricultural technology and delivering it to the people who use it.

For the next few minutes, I would like to show you some specific examples of what the Ag Center is doing to help Louisiana's agriculture...her young people and families in general. But, first, I'd like to begin by showing you how the LSU Agricultural Center fits into the Louisiana State University System....

Narration begins:

LSU System chart	The LSU System is composed of eight campuses. Each campus is administered by a chancellor who reports to the president of the System. The Agricultural Center is one of the eight campuses. In a major reorganization in 1972, the LSU Board of Supervisors moved agricultural research and extension from the LSU College of Agriculture into the new Ag Center campus.
Video of Ag Center activities	The Agricultural Center is an unduplicated, statewide campus dedicated to supporting industries based on Louisiana's renewable agricultural and natural resources. The mission of the Agricultural Center is to conduct research in agriculture and natural resources. Then, through extension education programs, the Ag Center teaches and encourages Louisiana's citizens to use this information. The Ag Center also conducts life-enriching programs for young people and adults throughout the state.

Ag Center chart	The two major units of the LSU Agricultural Center are the Louisiana Agricultural Experiment Station and the Louisiana Cooperative Extension Service. International Programs is a third Ag Center unit, but is much smaller than the others.
Ag Center chart	The Ag Center administrative offices, the Experiment Station departments and the Extension Service state specialists are located in Baton Rouge.
Ag Center chart	The Experiment Station's 17 branch research stations are strategically located throughout the state to conduct agricultural research that is specific to the areas in which they are located.
Ag Center chart	The Extension Service's field operations include county agents, home economists and 4-H agents in each of the state's 64 parishes. These parishes are divided into five districts.
Ag Center chart	Science has no international boundaries. And, because shared international science and education are important to Louisiana, the Ag Center maintains an Office of International Programs. This office is funded by international grants and contracts.
Video of International activities	The Ag Center participates only in programs of mutual benefit to Louisiana and the contracting country. The Ag Center often benefits from these efforts through technology advances generated by visiting scientists. For example, traded technologies gives Louisiana scientists access to plant germ plasm not otherwise readily available, as well as plant protection systems for controlling insects, diseases and other pests.
Video of teaching activities	Although the Ag Center is not responsible for the classroom teaching of agriculture, its faculty is directly involved with the teaching effort on the LSU Baton Rouge campus. Because teaching and research are so closely related, many of the Ag Center's Experiment Station faculty members hold joint appointments with the LSU College of Agriculture. In fact, through this cooperative effort, two-thirds of the Experiment Station scientists hold joint teaching appointments.

Video of agriculture, LSU, etc.

So, the LSU Agricultural Center is an integral part of the LSU System and Louisiana's agriculture. Here are a few examples of the research and extension education program under way now in the LSU Agricultural Center.

The Louisiana Agricultural Experiment Station is the research component of the LSU Agricultural Center. Its mission is to enhance the quality of life for Louisiana's citizens through basic and applied research. This research identifies and develops the best use of natural resources, conserves and protects the environment. It permits further development of community resources in rural and urban areas and fulfills state and federal legislative mandates.

Senator J. B. Johnston: I follow the work of this experimental station. For years you went through all the things you're doing and there's a tremendous lot more to do. There are a lot of things that we can do without in this country. We can't do without the farmer, can't do without them. And it's the basis of the economy of this country and certainly of this state.

One of the Experiment Station's highest priorities is to conduct research that provides the state's agricultural industries with the newest technology. Plant breeding and the release of new agronomic and horticultural plant varieties that increase profitability and productivity are cornerstones of this research. For example, Bengal and Cypress are two new rice varieties that were developed and first made available by the Experiment Station in 1992. Other rice research is directed toward having American-grown rice accepted in Japan. Dr. Steve Linscombe, one of the Rice Research Station scientists who helped develop these varieties, said he uses some Japanese rice varieties in his research...

LINSCOMBE: What we're trying to do is making crosses between these lines and adapted southern medium grain varieties and through extensive, screening, taste test, work like this that we're doing - we're trying to develop lines that come much closer to acceptability in this quote premium quality type market.

Other agronomic crops such as cotton, sugarcane and soybeans are the subjects of Experiment Station research. For example, one study in soybeans is investigating ways to overcome harvest losses caused by badly weathered grain.

MOORE: So, the primary purpose of this work is to put a protective covering on the soybean seed that it will allow it to go through rains that delay harvest, and yet still harvest high quality seed, or high quality grain. In addition, scientists study other areas that may lead to breakthroughs that benefit the environment.

Timber production requires a long-term investment that may span 60 years. New data collection methods on larger trees now allow Experiment Station scientists to improve their ability to predict the effects of cultural practices and weather patterns on trees.

CHAMBERS: With the sophistication that we have today in technology it allows us to move to the field to gain access to larger sized trees so we can actually look at the responses that are occurring on large trees and not trying to predict what's going to occur on a tree that's say 12 or 20 years old from a tree that's two years old.

In an effort to help farmers conserve valuable crop land and comply with the provisions of the 1985 farm bill, research is under way on various soil tillage systems. Scientists are studying ways to reduce the erosion of highly erodible soils. Research projects include conventional tillage, minimum tillage and no-tillage approaches.

HUTCHINSON: In dry years these treatments have often significantly out-yielded conventional till treatments. In wet years, some of the advantages that we see with reduced tillage or no-till have not been very large and in those situations conventional till yields and no-till or minimum-till are very similar.

Controlling diseases on both traditional and specialty crops is the focus of other Experiment Station research. New peach varieties developed by the Experiment Station have extended Louisiana's peach season into early September. But, this extended season creates a need for better control of brown rot on peaches.

JOHNSON: We're looking at pruning systems that will affect the incidence of brown rot. Also, we're looking at different spray materials, some of the newly developed experimental spray materials that can be used to give good, effective control of brown rot.

Experiment Station scientists conduct research that reaches beyond the farm gate. Working with industry to provide the highest quality plants for Louisiana consumers, the Experiment Station evaluates roses to determine which varieties are best suited for Louisiana's growing conditions.

OWINGS: Burden Research Plantation has an All America rose display garden. And one of the objectives of this project is to evaluate the commercially available rose varieties that we now have in the horticulture industry in addition to evaluating the growth habit, the flower form, the hardiness, the disease resistance of numerous experimental selections of roses.

Aquaculture has a primary research emphasis in the Experiment Station. Naturally, a number of crawfish studies are under way, but one recent project promises to benefit crawfish farmers, seafood markets and consumers.

A new crawfish grader developed by an Experiment Station researcher allows crawfish to grade themselves in water. This grader, designed by Sam Rollason and developed in cooperation with Ray McClain, was the featured attraction at a Rice Research Station crawfish field day.

MCCLAIN: The first advantage is that the crawfish are graded in their natural environment in this situation. All the graders that are used today grade crawfish out of the water. The problem with that is the crawfish pinch each other, grab hold of each other and you don't get a good

grade separation.

Some of the Experiment Station's fisheries research projects are collaborative efforts with industry to produce new food products.

Louisiana produces one-fourth of all the crab landings in the United States. The meat extracted from crabs through traditional hand-picking amounts to about 10-to-15 percent of the live crab weight. Experiment Station research shows that mechanical extraction, which produces a meat mince, can increase the yield by about 50 percent. Research is under way to develop new products from this mince.

LEE: We utilize this mince into the crab cake formulation and some other various types of food products. Improved human health and animal health may result from research in veterinary science, animal science and forestry.

Experiment Station scientists believe that better, more reliable tests will help to reduce the cost of animal health care. A technology known as an **SIB** test can detect minute amounts of disease antibodies in blood serum or in whole blood through a process that eliminates the need for first separating the antibodies. The Agricultural Center licenses the new technology for commercial applications.

TODD: And we found a way to go about formatting a particular test in which this separation, that's believed to be necessary, of your antigen specific or disease specific antibodies from all other antibodies present in that serum can be accomplished in the same tube.

Embryo transfer and embryo splitting are two valuable technologies in domestic farm animal production. Both of these procedures also have the potential of helping to preserve endangered species. Horses are particularly well-suited for this embryo transfer research, and Experiment Station scientists are studying the possible benefits of this technology for Louisiana farmers and ranchers.

GODKE: In this case, these animals would good candidates, because if they produce one embryo each and every cycle, of possibly collecting the embryo and bisecting the embryo, simply cutting the embryo in half to produce two half embryos from a single embryo.

Although cancer research is not a primary focus of Experiment Station scientists, one current project in that area requires the expertise of Ag Center faculty members. One man's struggle with cancer led to a cooperative effort among several universities.

MOORE: My wake-up call came in September of 1991 when I was diagnosed with advanced or D-1 prostate cancer. So, all of a sudden my life took a change. Rather than people referring to my life in terms of years they started talking in terms of months.

While Moore underwent treatment for cancer, he began studying the disease. During Moore's research, an oncologist in New Orleans told him about the derivatives from a tree called *Camptotheca acuminata*. This information led to a cooperative effort among the LSU Medical Center, the LSU Agricultural Center and Louisiana Tech to study the possible benefits of this tree in cancer treatment. Experiment Station scientists will evaluate where the tree grow best in the state and under which conditions it grows best.

All industries, including agriculture, must have new ideas for meeting the changes of an increasingly complex society. The Louisiana Agricultural Experiment Station provides the research on which new products, techniques and systems in agriculture are based. But, for research to be useful, it must move from the field or laboratory to the people who will use it. Moving research information from the laboratory to the work place is the task of the Louisiana Cooperative Extension Service.

"EVOLVING ISSUES IN AGRICULTURE AND HOW THEY AFFECT AG POLICY"

Mr. Bob Odon
Louisiana Commissioner of Agriculture and Forestry
Baton Rouge, Louisiana

Here in Louisiana we've got a very, very close working relationship between the Department of Agriculture and the Chancellor of Agriculture, Dr. Calfee, Ken Tipton, and the Extension Service. Dr.Calfee and I have served on a number on committees together. I've put him on a number of committees that work with us and what we try to do is to make sure that all of our dollars that we receive on agriculture is spent in a way that is for the total program and not for the different agencies. When we go down before the legislature for money, if his budget is hurting we are right in there punching with him and trying to make sure that those dollars are there. Because when you get to the end result in agriculture today I believe that research and development is what has kept the farmers in business. If you go back and look to the last ten to fifteen years in agriculture we've seen a tremendous change in times. We've seen agriculture go from an individual that all he had to do was to worry about production. If he could produce he could stay in business. That's no longer true. Today a farmer no longer has to be a producer, he has got to be a marketer, he has got to be a manager, and it's getting to the point that he has almost got to be an environmentalist in order to understand all the environmental regulations that's coming down, those that has been mandated by Washington or some local area in order for him to be able to exist. So I believe very strongly that we need to be involved in states to make sure that the dollars that are there are spent in a way for one purpose and that purpose is to make sure that farmers can stay on their farm and can farm it.

The other thing that I think that we've got to do for agriculture, and I believe that we are beginning to move in that direction, is that we've got to stop legislating for the farmers that can't make it. Go back and think over the last ten or fifteen years, or twenty or thirty years, the good portion of the legislation that has passed out of Washington has been in order to keep the guy in business. If we continue to do that we're going to weaken agriculture to the point that those people that are our good managers and good marketers are not going to be able to stay there. I believe that the crop insurance bill is one of the important pieces of legislation that I've seen come down in a long time that at least treats all of the farmers equally. I happened to have been involved in that legislation. I happened to have been involved with Secretary Espey in the reorganization plan, but at least we've moved the crop insurance to where its on a proven yield rather than on some parish average that's been misused. As you and I both know it has, from disasters that have occurred over the last several years.

The other thing that's there, and we as commissioners, I happened to have been President of the National Commissioners last year on the Environmental Work Requirements. If you go back and look at the number of pieces of legislation that on national basis has an impact on the farmer in the environmental aspect from nonpoint, to coastal zone, to worker protection, to endangered species, to FIFFRA, to the drinking water, all these pieces of legislation has to some respect a part that deals with agriculture.

One of the things that we as commissioners decided that we were going to do, and we did, we drafted a part of the farm bill that's an environmental section and we did that because we believe that if we're not involved then somebody is going to do it, and maybe it's going to be some environmentalist that's going to try to end up making the farm bill so restricted that farmers don't really want or could not participate. But basically what it says is that if a farmer desires to plant on that farm they can do that. They can do that by writing a plan, having it approved by SCS, having some dollars set aside to be able to do some of the things that may need to be done to bring it better into compliance. The most important thing is that then they will only have one agency at the state level that they have got to report to in all of the environmental areas that relate to them. And just that, within it self is a tremendous break for the farmer, in my opinion.

Because today, many people talk about coastal zones, my friends in other areas of this country say well coastal zones do not affect me, it's related to Louisiana and it's related to a few coastal states. No, coastal zone goes all the way to North Dakota. If a stream empties into a stream that empties into the Gulf it's regulated by coastal zone.

Another point, there is a committee right today that is trying to get Louisiana to hold a conference on the Mississippi River on trying to tell all of the other states that the Mississippi River is coming through your state, it can not have any pollutions as far as ag is concerned. It wouldn't affect us that much, because we are basically levied, but look what it would do to all the other agricultural states and that's the purpose, it's trying to get in it through the back door.

Another thing that I have worked on this last year and I hate to tell you that we have not been successful, and I got involved in it because Congressman Pat Robinson, who is now chairman of the Ag Committee, Congressman Stan Long and a couple of others, came to us as National Commissioners and said, we have been trying to keep agriculture together not mesh all the organizations, but somewhere in this country we need to sit down and say this is the positive message that we as agriculturist are going to tell about agriculture throughout this country. I have been involved in a number of meetings around the Gulf lake and it has become apparent to me that unfortunately the group of organizations that represent agriculture is so jealous, that they are not the ones that are going to come back to tell the message to their organizations. That has been an impossibility. I was back in Washington two weeks ago with Pat Robinson and a group, that again is taking this up. Let me tell you what brought it home to me. About six or seven months ago I was sitting at home in St. Francisville, Louisiana, where I live, just north of Baton Rouge. One Wednesday night my door bell rings. I go to the door, here is this nice looking young lady, "Would you please sign this petition?" I said, "Petition for what?" She said to, "Stop using all pesticides in this country," I said, "Lady, do you know what you're doing?" "Oh yes, haven't you heard, haven't you read that pesticides are killing our own kids." I said, "Lady without good integrated pest management programs have you seen on the television the African countries where we haven taken bulldozers and digging holes and pushing kids and people in because they are starving to death." "Oh, but we can provide enough food without pesticides with organic farming and other methods." Two and a half hours later I didn't convinced her but she didn't get any more signatures that night. They are out there, they are working, they are organized, and since I've related that story I've had two or three other people to tell me the same thing. And you know it's sad to me to see that we in agriculture that have got such a message to tell. We've got the

cheapest food of anywhere in the world and the safest food, but yet we are to stubborn to sit down somewhere in this country and say this is the message, regardless of the dollars that's there, when spend dollars we are going to make sure that, that message is uniformly where we can make sure the consuming public understands that milk, understands that food don't come off the grocery store. And boy that's a tremendous opportunity, I hope it can be accomplished, I'm not sure. And currently today what we are working on a farm bill, that probably is the most important farm bill that we've ever had. As we've looked, government is changing, and if you haven't been in Washington in the last thirty days you need to go, government is changing. I believe that we are going to see a down size of government, maybe somewhere in the neighborhood on fifty percent. I believe that we are going to see less dollars being spent by the government and what's even more important, we've got to make sure that the dollars that we've got to spend in research are spend wisely. That we send President Clinton a message that we spend it wisely, because it is our responsibility as people that are involved in sciences and as individuals to make sure that farmers have got the tools, that farmers have got the ability to be able to farm. To be able to farm, that's your and my responsibility in this world we live in today. And you know, I have had the opportunity to travel around the world, and I'm sure that most of you, wherever I may go and whatever country it may be in, I find that individuals in those countries are saying that I want to go to America. Why? Because of the freedom of opportunity, the freedom of opportunity. And you know, as we look and tell the story of agriculture, as we begin to try and formulate the message, that one very simple message is there. Show me a country where an individual can go and spend twelve percent of their bring home dollars on food. And what we need to be telling, of that one percent of the total budget that's spent on agriculture, to the consumer is, what's better, what's best for you? To spend twenty-five or thirty percent of your bring home dollars or provide us with funds so that we can make sure that our farmer can compete, so we can make sure that we do the research and development that's needed to keep them in business. And it doesn't take much of a mathematician to see that they are much better off, compared to spending that portion of their tax dollars, rather than spending somewhere around twenty-five or thirty percent. The challenge is there, I think you are living in one of the most exciting times of research and development. I think the opportunity is there and unfortunately everybody can't farm. It's going to take an individual, that's a good manager, and a good marketer, and committed, if he has got the tools in order to be able to stay in business. We, the people that are involved in government need to make sure that we don't work some of regulations and regulate them out, but we'll have good common sense in developing whatever requirements that we're going to be placing, whether it's at the farming end or the processing end. If we'll do that, we will do our responsibility, and that is, we've got is to make sure that this country and this nation always have an abundant supply of food.

I appreciate this opportunity and I want to welcome you to this great state of Louisiana. I've only got one request of you that are from out-of-state. I hope you brought plenty of money, I hope you spend every penny, so that we can have the tax dollars to continue to fund this university's research and development and things we need here in Louisiana. Thank you very much.

STEWARDSHIP - WHO CARES?

Henry W. Ivey
Superintendent, Wiregrass Substation
Auburn University
Headland, Alabama

Stewardship is defined by Webster as the act of caring for or managing for whatever you have the responsibility. The airline stewardess cares for the passengers of the plane. The bank president cares for and safeguards his customers deposits while he manages his stockholders investments.

So what about stewardship as it applies to us as managers of our lands and who cares?

Of course we know our responsibilities to our people are to provide food and fiber of high quality at a reason- able cost - and we have and are doing that very well.

However, our foremost stewardship responsibility is to our God and creator who has placed us in charge of his creation and who expects us to manage it with minimum disruption of the order that he created.

I asked my pastor to give me a Biblical perspective of stewardship and he provided the following: From the time of Adam and Eve, God has given man the responsibility of stewardship of the creation. All that was created was for the purpose of man's ongoing relationship with God, the creator. There is no greater representation of this relation than in agriculture. Prosperity in harvesting healthy crops, has since the Old Testament times, been seen as a sign of a favorable relationship with the Lord. Likewise, disease, locusts, and drought were seen as pure signs that man's relationship with God was in serious trouble.

One of the foremost parts of man's commandments to be good stewards of the land, the gift of creation, was of course the tithe. The supreme purpose of tithing was to ensure that man's will to consume the harvest did not overcome the discipline of preparing for the future. Therefore, one tenth of the best of the current crop was set aside as a tithe in order for there to be a significant investment of seed for the next season's planting. Thus arose the disciplines of capital investment and quality management, two concerns of today's agri-business world.

In the Old Testament, those who had good farm land were always seen as great powers of the known world. The temptation for the Israelites was to act as though this land, a gift from God, was merely a possession. Whenever this took place, there were examples of poor land management and eventually poor harvests. This had a direct impact upon the lives of the people of the nation. On the other hand, there was a moral crisis because the people had broken the laws of God. THEREFORE GIFT CAN NEVER BECOME POSSESSION.

Realizing that our existence depends on public funds, we know how important it is for us in Agricultural Research to keep favor with our people. We must be involved in influencing our public perception and not leave it the T.V. talk shows and network specials or we could end up

like the Democrats did a few weeks ago.

One way we can do this is to go straight to the people with our side of the story as our friend, Greg Gregory with ISK Biotech has done. Greg has put together a presentation designed for civic clubs, and the urban people explaining our side of the food production story and the use of pesticides and has made numerous present actions over the past years.

Greg asks the question "Are you involved in Agriculture?" and points out that you are involved four times a day - when you dress in the morning and three more times at each meal.

Other questions, facts, and statements in the presentation include: 1) if you had lived 100,000 years ago, what would you be doing - hunting for food? 2) today that is not necessary because Agriculture allows you to do things you like to do.

Our farmers make up only 2% of the population in the U.S. yet we feed the entire country.

YEAR	NUMBER OF PEOPLE FED
1776	3
1955	20
1965	37
1989	80
TODAY	OVER 100

Constant innovation has been the key to this amazing increase in productivity:

1) invention and utilization of machinery
2) invention and utilization of pesticides & fertilizers
3) improved hybrids & varieties of seed plants
4) utilization of land grant universities for research and extension

A modern pesticide takes 7 to 10 years to develop at a cost of $30 to $50 million dollars. Only one of 20,000 compounds synthesized are commercialized as pesticides.

Numerous safety tests are involved including acute toxicity, mutagenicity, chronic toxicity, wildlife and aquatic organism toxicity, and chemical fate in the environment. The EPA constantly monitors and reviews the above process.

Greg talks about carcinogens and how they abound in nature and the fact is that the negligible risk of cancer from eating a single raw mushroom containing natural carcinogens is 1000 times greater than pesticide residues on food.

RISK

Perception of risk far exceed actual pesticide risk

45,000 die in car accidents
3,000 die from swimming
1,000 killed on bicycles
2,866 killed by poisoning from medicines
22 killed by misuse of pesticides

Since 1930 only two types of cancer have been increasing -lung and skin - caused from smoking and overexposure to the sun.

Then Greg presents: IN BALANCE WITH NATURE
BY: DR. JOHN CAREW

IN the beginning
there was earth, beautiful and wild
and then came man to dwell....

AT first, he lived like other animals
feeding himself on creatures and plants around him
and this was called in balance with nature.

SOON man multiplied.

HE grew tired of ceaseless hunting for food.

HE built homes and villages.

WILD plants and animals were domesticated.

SOME men became farmers so that others might become
industrialists, artists, or doctors.

AND this was called society.

MAN and society progressed.

WITH his God-given ingenuity, man learned to feed, clothe, protect, and transport himself more efficiently so he might enjoy life.

HE built cars, houses on top of each other, and nylon.

AND life became more enjoyable.

THE men called farmers became efficient. A single farmer grew food for 28 industrialists, artists,

doctors, writers, engineers, and teachers as well.

TO protect his crops and animals, the farmer produced substances to repel or destroy insects, diseases, and weeds.

THESE substances were called pesticides.

SIMILAR human substances were made by doctors to protect humans.
THESE substances were called medicines.

THE age of science had arrived and with it came better diet and longer happier lives for more members of society.

SOON it came to pass.

THAT certain well-fed members of society disapproved of the farmer using science.

THEY spoke harshly of his techniques for feeding, protection, and preserving plants and animals.

THEY deplored his upsetting the balance of nature, they longed for the good old days.

AND this had emotional appeal to the rest of society.

BY this time farmers had become so efficient, society gave them a new title:

UNIMPORTANT MINORITY

BECAUSE society could not ever imagine a shortage of food.

LAWS were passed abolishing pesticides, fertilizers, and food preservatives.

INSECTS, disease, and weeds flourished.

CROPS and animals died.

FOOD became scarce.

TO survive, industrialists, artist, and doctors were forced to grow their own food.

PEOPLE and governments fought wars to gain more agricultural land.
MILLIONS of people were exterminated.

THE remaining few lived like animals feeding themselves on creatures and plants around them.

AND this was called in balance with nature.

If we look back at our record of stewardship in the country over the past 200 years, we know that the wear and tear on this great county has been excessive.

History tells us that many of our forefathers recklessly cleared our lands with little regard for conservation practices. Effects can still be seen today on some of our land.

During my career with Auburn University, I have witnessed rapid increases in production and efficiency. However, along with that increase in efficiency, our image of stewardship suffered from certain segments of the population - the Dr. Carew article inferred.

How can we as leaders of research stations positively influence the perception of Agriculture in our area and the image of our station? Generally speaking we in the experiment station system have good credibility with our agricultural community. This is due in part to the fact that this is where the research and the farmer come together.

In this modern day of "my business is everybody's business" it is even more imperative that we keep our house in order.

Certainly we should be in full compliance with all conservation, worker protection, and environmental protection programs. And our station should stand out with their reflection.

We have found at our station that appearance is probably the single most important consideration in maintaining a positive image to the public. We feel that even though we may have the highest quality field research program possible, if the appearance is not maintained in a high state our public image will suffer.

We all face budget problems and probably will never completely solve this problem. However, in the area of maintenance we either pay now or pay more later. We may not be able to replace old buildings and equipment with new but if we maintain what we have in a high state it will reflect positively.

Our personnel should be an extension of our operation and should exhibit professionalism. This means we need to move from the unskilled to the skilled and multi-talented technicians to meet the standards of quality requirements of our program.

At our station, the use of students from high school and junior college provides us with good reasonably priced help and often time these students develop an interest in agriculture and may continue their education at Auburn.

WHAT DOES THE FUTURE HOLD? I feel good about the direction of Agriculture today. We've gone through the pesticide boom and are on the threshold of change. Words like blanket application, over-the-top, salvage,and indescriminated use are being replaced by IPM, genetic engineering, BT, phermone, and transgenic. These benign measures of controlling pest should enable us to maintain favor with our urban population and avoid getting into a situation as Dr. Carew described in the earlier read article.

Stewardship goes beyond our research station. We can and do influence the direction of agriculture in our area. For example, we have seen a large shift in research toward solving environmental problems.

Our outlying research centers are exposed to the public daily and often times are the only contact the general public has with our university. We must present our research centers favorably to win approval of the general public as well as the farm sector and continue to maintain credibility.

INFLUENCE OF ENVIRONMENTAL CONCERNS ON THE RESEARCH AGENDA OF THE STATE AGRICULTURAL EXPERIMENT STATIONS

Gale A. Buchanan
Interim Director
Georgia Agricultural Experiment Station

In recent years, environmental issues and concerns have become an increasingly important factor in influencing research programs in the state agricultural experiment stations (SAES) across the United States. This is not unexpected when one considers how the SAES were created and how they have evolved over the years. Let's go back about 150 years.

Formalized agricultural research began in the middle of the 1800's in England and soon thereafter in Germany. Much of this early work focused on plant nutrients and ways to boost plant growth and crop yields. As you can imagine, even with slow transportation in those days, it didn't take many years until this idea of experimentation crossed the Atlantic.

The first agricultural experiment station in the United States was begun in Connecticut in 1875. In rapid order, agricultural research efforts were initiated in many parts of the country. Again, the work mostly revolved around how to more effectively use and provide plant nutrients for crop growth.

While I could go into detail about these early beginnings, it is quite clear that the the state agricultural experiment stations were created in direct response to needs of agriculture and society. Consequently, it is not difficult to understand why society has placed such high expectations on agriculture or why agricultural research efforts are so responsive to these new constraints and expectations of society.

I believe it is appropriate for us to consider just how our research programs have evolved to meet these new expectations in general and agriculture in particular.

When I initiated my first experiment as an experiment station scientist almost 30 years ago, I can assure you that environmental issues and concerns were not nearly as important as they are today. But such issues were a part of the experiment stations' research portfolio. Even then, we had a great deal of research that would be defined as "environmentally related", but the emphasis was in a different vein. It is important to think for a moment about what has changed during the past 30 years to bring us to the point today where environmental issues and concerns play such an important role in directing research in the state agricultural experiment stations.

Some might say this is possible because agriculture has been so successful. I think we all clearly recognize that there are fundamental reasons why environmental issues and concerns are having a greater influence on our research agenda.

First, I believe there is an increasing awareness that our planet is not indestructible. But

there is a realization that agriculture must be prepared to feed the expected 10-12 billion people projected to make up the human population some time during the next century. Such increases in agricultural productivity cannot be achieved without some negative effects on natural systems, environmental quality, as well as rural communities. These are certainly among the concerns that drive our changing research agenda. Also, there is simply a realization of what our environment once was, and what it has become. More importantly, perhaps, is the hope of how much it can be improved.

Another point that has caused even greater concern has been the uncovering of environmental issues in other parts of the world. While degradation of the environment in some parts of the world is on a scale many times that of this country, it has driven the point home that we must protect, preserve, and improve the environment in which we live.

These concerns have been clearly reflected by society and are incorporated into the experiment station research planning process. You should be aware that a number of the highest priorities identified in the experiment station strategic plan developed by the Experiment Station Committee on Policy (ESCOP) are of an environmental nature. An important characteristic of much of our research is tied closely to maintaining agricultural productivity in an environmentally friendly manner. This is critically important because we must maintain environmental quality at the same time we are maintaining or improving agricultural productivity.

The next fundamental questions is, "what are the areas of our research agenda being influenced by environmental issues and concerns?" While there are many different ways of considering this point, there are five major areas that I would like to mention briefly. These include —

(1) fertilization and fertilizer management;
(2) pest control and utilization of pesticides;
(3) tillage and tillage systems;
(4) usage and disposal of animal manures, and

FERTILIZATION

Among the earliest experiments in agricultural research were those concerning soil fertility. We would all agree that the application of plant nutrients is an essential component for successful agriculture, and they are also a potential source of concern in the environment.

Today, fertilizer management must be economically efficient as well as environmentally friendly. Much of our research has moved away from maximum yields as the ultimate goal, and today focuses on maximum economic yields, product quality, as well as environmental friendliness.

Research needs will continue to focus on better diagnostics and definitive recommendations for plant nutrients. Tissue analysis is one area that can be used as a tool for predicting nutritional health and nutrient needs of crop plants. Currently, this procedure is not being utilized to

its fullest extent. Another area is variable fertilization within fields that relate to changes in soil test, soil type, and production potential. This concept, which employs global positioning systems (GPS) and other very highly innovative space age technology, will continue to be important to the future. We are experiencing a resurgence of research in this area.

More research will be directed toward validation of nutrient needs — not only total needs but needs in a time sequence. This approach provides an opportunity for removing most of the uncertainty involved in nitrogen fertilization; especially on sites with a history of manure or sludge application, recent rotation out of forage legumes or use of winter annual legumes as cover crops.

A key tool in reducing the uncertainty in nitrogen recommendations is the development and use of models that can predict mineralization of nitrogen from crop residue, waste, and soil humus. Models might also be useful for sulphur since much of it cycles through organic matter also. Much progress is being made in this area.

Another area that has great potential is in developing crops that are more efficient. An excellent example of such crops are the millets which are very efficient users of nitrogen.

We need more research to determine why millet is so efficient with N. It is probably due, in part, to its extension and efficient root system. Since this is probably genetically controlled, intensive genetic engineering and breeding could lead to more efficient cultivars of corn, sorghum and wheat.

Another area of concern is high levels of P and various heavy metals. While much research has been done, we need more to define plant toxicity and other responses.

PESTICIDES

Since the 1950's, pesticides have become indispensable tools in crop and livestock production. While these have provided incalculable contributions to agricultural productivity, they are also a potential source of environmental concern. This was made abundantly clear by publication of the book, "Silent Spring" by Rachel Carson in the early 1960's. Fish kills, reproductive failure of birds, and other problems have been attributed to the ingestion or exposure to pesticides. While such incidents are usually the result of misapplication, careless storage or careless disposal of unused pesticides and pesticide containers, the truth is chemicals still are a potential source of environmental concern. Consequently, a great deal of effort in recent years has gone into finding replacements for pesticides or developing more efficient and safe means of using the ones we have.

In 1950, the Environmental Protection Agency completed a 5-year study that revealed that pesticide contamination in drinking water was not as severe as once thought, but certainly still of concern. In addition, potential health and environmental threats, pesticide losses from fields and

contamination of surface water and ground water represent a direct loss to the farmer.

Research must determine the best management practices utilizing pesticides for our farmers, such as application rates, timing of applications, seasonal use and tillage practices. Our research is also being directed toward preventing leaks and spills associated with storage, mixing and loading, as well as disposal chemicals in containers.

Our research goes hand-in-hand with the chemical companies in determining which pesticides are most effective and which are the most effective ways of using them. We are certainly in the lead in developing non-pesticide alternatives for pest control. Much of our research is directed toward enhancing the concept of integrated pest management, biocontrol and related approaches. WPS training is required for employees every 5 years, however it is recommended that employees receive training annually.

Decontamination Sites - Worker and handler decontamination sites must be within 1/4 mile from where work is being conducted. Handlers mixing pesticides must have a decontamination site at the mixing area. Each decontamination site must be equipped with: water for routine washing and emergency eye flushing. OSHA requires eye flush kits to deliver .4 gallons/minute for a duration of 15 minutes. Soap and single-use towels must be available. Handler decontamination sites must also provide enough water for washing of the entire body, and a clean change of clothes.

Emergency Assistance - When any worker or handler has been poisoned or injured by pesticides you must provide: transportation for the victim and emergency information to the victim or medical personnel. Emergency information including name, telephone number, and address of the nearest medical facility must be posted.

Protections for all Agricultural Workers - Some pesticide labels require you to notify workers both orally and with posted signs. Signs must be posted 24 hours or less before the scheduled application of the pesticide, during the application and throughout the restricted entry interval (if any). Signs must be removed within 3 days after the REI has passed. Signs should be posted at common points of entry (such as field road entrances) and at research plots. You must post all four corners of a field if there is no common point of entry. The REI does not apply if a worker will have no contact with anything that has been treated with the pesticide. Staying inside an open-cab vehicle is an example of a situation where a worker would be expected to have no contact with anything that has been treated with a pesticide.

Early-entry - workers that come in contact with treated surfaces before the restricted-entry interval has elapsed are permitted in treated areas only when: less than an hour is required to perform a task which does not involve hand labor, during an emergency, and for specific EPA approved tasks. Early entry workers must wait at least 4 hours after a pesticide application is made before entering a treated area. Early entry workers must be provided with general and special protections including: training and instructions, decontamination sites, and personal protective equipment.

Certain restrictions apply to the employer and handler. On pesticides that exhibit the skull and crossbones symbol you must check on handlers applying pesticides at least once every 2 hours. Handlers applying or handling greenhouse fumigants must be monitored continuously. Equipment must be inspected to make sure it is safe to operate. When it is serviced, equipment must be free of contamination. A long sleeve shirt and pants are required, to do any handling task, when using a closed system equipped with an air filtration system.

Employers should provide personal protective equipment (PPE) to handlers at no charge. PPE is coveralls, respirators, protective eyewear and chemical resistant suits, gloves, footwear, aprons, and headgear. Three manufacturers make respirators. KleenGuard chemical resistant suits breathe better than Tyvek suits and reduce heat stress. Handler employers should train handlers to clean and maintain PPE clothing properly. Cotton clothing spilled with a concentrated pesticide bearing the warning or danger label should be discarded.

"Solving the Waste Management Riddle — Public Reactions vs Workable Solutions"

Judy Mier, Manager
Legislative and Regulatory Affairs
Chemical Waste Management, Inc.
Baton Rouge, Louisiana

Since becoming the government affairs manager for Chemical Waste Management, Inc. in the State of Louisiana four years ago, I have had the opportunity to speak to a variety of groups on various topics. Whereas I have always enjoyed public speaking, I must admit that the introduction has become somewhat difficult on me.

Reflecting on my career, I realize I have gone from being a college instructor, one of the most respected professions in America, to becoming a lobbyist, which, if you heard the President's State of the Union Address last week, makes me part of what's wrong in America today.

Interestingly, I am here today to discuss with you the need for credible, meaningful dialogue with the public.

Seven and one half years ago, I decided to end my employment with a small state university as its campus recruiter and venture out into the "real world" to become the spokesperson for a commercial hazardous waste treatment and disposal facility in Southwest Louisiana. Talk about a major career change.

To say the least, I knew nothing about hazardous waste and all I knew of the facility where I was to be employed was what I had heard or read through the local media — hardly an objective source of information.

Although the facility was located in a highly industrialized area, among a number of large petrochemical plants which produced and disposed significant volumes of hazardous waste, the CWMI facility remained the most controversial entity. When all you do is manage someone else's garbage, this is not unusual. The disposal of waste remains much more distasteful and controversial than the generation of that waste — especially since that disposal involves transporting waste to a centralized location. Actually, I was quite surprised to get offered the job. As a local resident, the facility general manager asked me two questions during my interview that should have killed any prospects of my even being considered for employment at CWMI.

The first question — What one thing would I change about the company in order to improve its image in the community? My response — change the name. I felt and stated that Chemical Waste Management was a little too descriptive of the dreadful business the company was in. Toxic waste disposal was the only way to make things worse. Couldn't we come up with a kinder, gentler, perhaps less graphic name? As you can see, this suggestion was never taken seriously.

The second question — What possible strategy did I envision to educate the public about the positive aspects of the facility? I was ready. Having taken a tour of the site prior to my interview, I knew I had the correct response. Despite my preconceptions of a big pit in the ground where all kinds of nasty chemicals were dumped and subsequently bubbling and oozing in a toxic stew, I found the facility including the landfill to be clean, well managed and almost a little boring by comparison. Therefore, my suggestion was to do whatever it took to get as many local citizens as possible out for their own boring tour. I would accomplish this by mimicking the method used in the timeshare real estate business. We send a letter to the 50,000 + households in the surrounding community inviting them to schedule a visit. As compensation for these concerned citizens time and effort, we will give them a small prize, say a set of steak knives, and in order to add a little excitement, each visitor has the possibility of winning a Buick Regal. Over 7 years later, facility personnel continue to conduct numerous informational tours for local citizens, but the prizes never became part of the program.

Believe it or not, I was hired and soon became aware of why these early ideas were not real solutions for solving the "waste management riddle" for Chemical Waste Management. I have also learned a few things that do work. Primarily it is absolutely necessary to establish and maintain a long term, proactive, credible relationship with your community, elected officials, regulators, media, vendors and, of course, your employees and their families. Anything less will be viewed as a gimmick and is a waste of time and resources.

First, let me mention a few basic principles that must be adopted by you and your organization:

- Always tell the truth.
- Speak in the same language as your audience.
- Involve the public early on and continually, not just when you want something.
- Don't be content to preach to the choir.
- Practice active listening.
- Be prepared.
- Respond appropriately to criticism, i.e., don't take it personally.

The next step is to determine your communication goals and subsequently develop a plan that takes into consideration such things as target audiences and messages, time constraints, and available resources. For many of us, this is the painful part but we are destined for failure and/or disappointment without it.

Typical proactive public information/communication tools include:

- Community liaison committees
- Tours/open houses
- Newsletters
- Community outreach/involvement
- Public meetings
- Employee ambassadors
- Press releases

Let me conclude my formal remarks on a personal note. As I mentioned, I did not come to Chemical Waste Management with a technical background. Eventually, I was hired because I was like the public — interested, confused at times, somewhat concerned and seeking information about the waste management business.

My personal prejudices exceeded my knowledge. I was no different then from what your public is now.

I have been able to meet most of my communication goals. Along the way I have been challenged, frustrated and rewarded. I see it, as do my superiors, thank goodness, as a necessary part of what we do.

RESEARCH CENTERS ADMINISTRATORS SOCIETY

CONFLICT OF INTEREST

Presented January 30, 1995
New Orleans

BROAD DEFINITION

Being in a position where your own needs and desires could possibly lead you to violate your duty to a person or persons who have a right to depend on you. A conflict need not be intentional.

NARROW DEFINITION

A term used to describe the situation in which a public official of fiduciary who, contrary to the obligation and absolute duty to act for the benefit of the public or a designated individual, exploits the relationship for personal benefit, typically monetary.

EXPLANATION

The concept of conflict of interest has its roots in the biblical verse of Matthew: "No man can serve two masters, for either he will hate the one and love the other, or else he will hold to the one and despise the other." Certain relationships in which people or the general public place their trust and confidence in someone to act in their best interests are recognized at law. When an individual has the responsibility to represent another person —whether as administrator, attorney, executor, government official, or trustee - a clash between professional obligations and person interests arises if the individual tries to perform that duty while at the same time trying to achieve personal gain. The appearance of conflict of interest is present if there is a potential for the personal interests of an individual to clash with fiduciary duties.

Incompatibility of professional duties and personal interests has led Congress and many state legislatures to enact statutes to define conduct that constitutes conflict of interest, specifying the sanctions for statutory violations. Similarly, both private and public institutions have established policies that define conflict of interest. A member of a profession who has been involved in a conflict of interest might be subject to disciplinary proceedings before the body which granted permission to practice that profession.

CASE STUDY #1

* The superintendent of an agricultural research center, at the encouragement of the university, commits station resources for various community activities related, to some degree, to agriculture.
* The station conference building is made available for education and training at the discretion of the superintendent.

* The superintendent, himself a reformed smoker, is active in a "Stop Smoking" program and permits the use of the facilities to teach smokers how to quit.

CASE STUDY #2

* Throughout the summer, a university professor who is in charge of numerous agricultural experiments, travels extensively across the state to several project sites.

* The professor also manages his family's business (unrelated to his job) located approximately one hundred mile from the university.

* As he travels to his project sites, the professor stops and checks on the business operation (usually every month)

* After each trip, the professor files for travel expenses incurred (less the few miles traveled off the interstate to his business)

CASE STUDY #3

* A university policy prevents an agricultural extension agent from owning a farm in the county of his responsibility.

* An extension agent in the county X inherits a farm (also in county X) which has been in his family for generations.

* The university requires the agent to make a choice — the farm or his employment — and the agent questions the reason and intent of the policy.

CASE STUDY #4

* A department head in the Institute of Agriculture is given approval by his superior to remain involved in a commercial venture (an agricultural consulting company).

* He hires several professors under his supervision to generate historical data as needed for person consulting projects.

* The professors, on their own time, use university property (computers, databases, telephone service, etc.) to gather the data, and they are rewarded for their efforts.

* As projects are accepted, both the venture and the department head profit.

* The department head annually leaves a generous gift to the Institute of Agriculture as a result of his personal success.

CASE STUDY #5

* A research associate of an agricultural research center owns a crop farm near the facilities.

* Occasionally he hires research personnel he supervises directly and rewards them well.

* Occasionally he borrows equipment from the station, but more often he loans his equipment to the station.

CASE STUDY #6

* A herdsman at a dairy research center buys several bull calves from the station at market price.

* He raises the calves on the station premises in an unused barn and often feeds them unsaleable milk from the dairy but buys his own calf ration and hay.

The preceding discussions should reveal a diverse view on the issue of conflict of interest forming a continuum of two extremes (broad and narrow). The broader the scope, the more entrepreneurial in nature. The narrower the view, the more restrictive in nature.

CONFLICT OF INTEREST

	Broad Definition		Narrow Definition
1)	inclusive,complex	1)	exclusive,simple definition
2)	inductive reasoning	2)	deductive reasoning
3)	indirect conflict	3)	direct conflict
4)	focuses more on possible consequences of any action as a conflict	4)	focuses more on defining specific actions as a conflict
5)	proactive in nature	5)	regulatory in nation
6)	flexible	6)	inflexible

Organizational "conflict of interest" policies reflect how an organization defines conflict — from a narrow to broad scope. The broad view looks at the possibility of both direct and indirect conflict of any personal venture, while a narrow view defines specific actions which may or may not create a conflict. The broad definition is flexible and debatable, while the narrow scope is regulatory and authoritative.

From our discussions, what do you feel is the ideal definition and perception of conflict of interest an organization should have:

1) more loosely defined and open for debate?

2) more narrowly defined and regulated?

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RESEARCH CENTERS ADMINISTRATORS SOCIETY

CONFLICT OF INTEREST

Presented January 30, 1995
New Orleans, Louisiana

SUMMARY

The broad and narrow definition of conflict of interest were given and illustrated in six case studies that covered the range of two definitions. The cases were designed (and sometimes altered during the discussions) to evoke discussions and opinions among those present.

There was more disagreement among the first three cases that dealt primarily with the broad definition than among the latter three cases that leaned more to the narrow definition. However, as the discussions progressed, it became evident that there was not a distinct dividing line between the broad and narrow definitions (i.e., conflict of interests form a continuum between the two extremes: broad and narrow). There was general agreement among the participants in regard to the following:

1) The opportunity for conflict of interest is ever present in the type of work we do, and we should be ever vigilant about our own conduct as well as those under our supervision.

2) Public perception is a strong deterrent and must be considered in all actions we undertake regardless of the rules and regulations the institution might have (i.e., certain actions could be perceived by the public as conflict of interest although no rules or policies concerning conflict of interest were broken).

3) University vehicles probably affords the most visible opportunity for conflicts of interest and should be used strictly for business.

4) What constitutes a conflict of interest may vary from on institution to another or even from on station to another depending on the policies of the institution and the clientele the station is serving.

There was also a general but not unanimous consensus among those present that policies of conflict of interest for both professionals and supporting staff should be explicit and as detailed as possible. However, some felt the policies should cover both the broad and narrow definitions. The participation among those attending was excellent, and their opinions were enlightening.

TEAM BUILDING - IS THERE A WORKABLE APPROACH?

Prepared by:
Dennis Onks and Ben Kittrell

PEOPLE WORKING TOGETHER

Guidelines for Creating an Effective Team

1. The managerial climate that you create is crucial to the development of a research team.

   a) Is it "my research team" or "our research team"?

   b) Do you recognize the "necessity for" and the "continuing contributions" of other employees?

      1) gold watch at retirement concept vs. the concept of really caring about employees.

   c) Do recognize and utilize other individuals in decision making which they are capable of and responsible for?

   d) Do you "hear" what employees are saying and show them by acting on those factors which need change?

   e) Do you consider the consequences of a decision on others in the organization (from their viewpoint) prior to making that decision?

   f) If implementation of a decision will greatly affect the activities of others in the team, are they consulted prior to making the decision?

   g) Do you reward constructive criticisms or suggestions which are given by employees?

   h) Do you personally seek professional improvement?

   i) Do you encourage and make it possible for key employees to seek to improve their technical and managerial skills?

   j) Do you readily accept the responsibility for research failures as well as successes?

2. Does each employee in your organization know where he/she fits into the team structure and how his/her contributions interact with those of others to achieve the team objectives?

a) Do you have a formal organizational chart which is in the hands of every employee?

b) Does each employee know and understand the major objective the research team seeks and where his contributions are important?

3. When you hire an individual do you always seek out the best qualified individual you can afford? Our relationship to a research team is influenced by the recruitment, selection, and placement of personnel at all levels.

a) You should address yourself to the qualifications of the individual you are considering. Do his/her qualifications match the requirement of the job? **DO NOT** be tempted to help out a friend or hire a customer's son or daughter. It's easy to "slip" here and doing so can be very expensive in terms of time and money. (job description or profile)

1) It's much more difficult to correct the selection of an unqualified individual than it is to avoid this mismatch in the first place.

2) After the person is hired, there is a need for continuous motivation, stimulation, and education. This will enable him/her to play a meaningful role in fulfilling the team's goals.

4. In order to attract good key people and have them fully productive, you recognize management's obligation to them after they come aboard. Can you help sell a prospective employee on your team by showing him/her a concrete (in writing) proposal for his/her technical or managerial improvement?

5. Do your employees know (in writing) what is expected of them and the methods by which their performance will be evaluated?

6. If you look upon your key people as a management team, there will need to be a sharing of leadership responsibilities.

a) There is the need to look at leadership as a function rather than as a person. It is the responsibility of all team members to see that the various leadership functions are met.

b) The manager's major responsibility is not in meeting the needs of all the company employees, BUT rather in coordinating so that leadership is provided by the person most capable at a given time or in a given area.

c) Delegation:

1) Makes it possible for a person to accomplish results broader than what he/she can do to what he/she can control.

2) Release time for more important work.

3) Develops subordinates' initiative, skill, knowledge, and competence.

7. Do you encourage management level employees to work together or do you place them in competition for limited budget, higher promotions, etc?

a) Are individuals often more concerned with pushing certain programs without concern for how they affect other members of the company?

8. At a staff meeting do you spend as much time listening as talking?

a) In effective management, listening becomes as important as talking.

b) Creates effective communications.

9. Are employees encouraged to present minority viewpoints on issues?

a) Disagreement may be healthy if understanding is achieved.

b) The expression of differences of opinion may open new avenues or ideas.

c) Where minority points of view are not permitted, openly or by other means, valuable ideas are lost.

d) Conflict can be healthy — the key is not to avoid conflict but to manage it.

10. Do you recognize the value of other motivators beyond monetary rewards?

11. Do recognize the many ways in which you communicate your ideas, attitudes, and feelings to employees?

a) **TIME**

1) **LATE FOR MEETINGS**

2) Interrupted during meeting

b) Space

1) Location of work area relative to yours

2) Size of office

c) Things you do

1) Body language

2) Words you use (gravity heavier on receiver than sender)

12. Do your recognize that opportunities and issues look different from the top down than they do from the employee position lower in the organization?

EVALUATE YOURSELF

You may find it hard to choose the words that best describe your leadership style because there are no right or wrong answers. Different characteristics described in the inventory are equally good. The aim of the inventory is to describe how you lead, not to evaluate your leadership ability.

Instructions

There are nine set of four words listed below. **Rank order** each set of four words, assigning a **4** to the word which best characterizes your leadership style, a **3** to the word which next best characterizes your leadership style, a **2** to the next most characteristic word, and a **1** to the word which is least characteristic of you as a leader. **Be sure to assign a different rank number to each of the four words in each set.** Do not make ties. Now, total the columns, using only the sets numbered below in the scoring section.

1. ___Forceful	**___Negotiating**	**___Testing**	**___Sharing**
2. ___Decisive	**___Teaching**	**___Probing**	**___Unifying**
3. ___Expert	**___Convincing**	**___Inquiring**	**___Cooperative**
4. ___Resolute	**___Inspirational**	**___Questioning**	**___Giving**
5. ___Authoritative	**___Compelling**	**___Participative**	**___Approving**
6. ___Commanding	**___Influential**	**___Searching**	**___Collaborating**
7. ___Direct	**___Persuasive**	**___Verifying**	**___Impartial**
8. ___Showing	**___Maneuvering**	**___Analytical**	**___Supportive**
9. ___Prescriptive	**___Strategical**	**___Exploring**	**___Compromising**

SCORING

T	S	C	J
_____	_____	_____	_____
2 3 4 5 7 8	1 3 6 7 8 9	2 3 4 5 8 9	1 3 6 7 8 9

JOIN — The manager defines the problem and its limitations, and then passes to the group (including herself as a member) the right to make the final decision. She can bet subordinates are capable of making decisions as good as or better than her own. She feels that human resources are best utilized by allowing them equal decision making authority.

The Leadership Style Inventory describes only your **perception** of your behavior. Take feedback from others to expand on this perception. Remember also that it matters how you behave as a leader in your current work environment. Styles are not hard parts of your personality, rather, they represent how you have conditioned yourself.

	TELL	SELL	CONSULT	JOIN
100%				
	20			21
		21	21	
	17	19	18	19
80%				
				18
			18	
		18		17
	15			
			16	
60%		17		16
	14			
		16	15	15
	13			
40%		15		14
	12			
			14	
	11	14		13
			13	
20%	10			
				11
		12		
			10	
	8			
				9
0%				

Leadership Styles Profile
(Normative Data)

The above chart can be developed into a profile of your leadership style. Circle the number which corresponds to your score on each dimension. For example, if your scored 15 on the TELL scale, then circle the number 15 under TELL on the above chart. The ruled-in percentile

provides you a way of comparing yourself to others who have taken the inventory. The percentiles are keyed to style scores to indicate the number of people who scored below a particular score. For example, a score of 15 on the TELL style means you scored higher than almost 85 percent of the people tested.

Summary

How To Live with WPS

Dennis Thompson

The Worker Protection Standard (WPS) Group Discussion was moderated by Chip Riedelburg - North Carolina Department of Agriculture. Beginning January 1, 1995 Pesticide Safety Training is required for agricultural workers and handlers that you employ. With the exception of South Carolina, state Departments of Agriculture are the lead agencies for implementing EPA requirements governing the protection of workers from agricultural pesticides.

WPS REQUIREMENTS

Duties for all employers include:

Anti-Retaliation - You must not prevent or discourage any worker or handler from complying or attempting to comply with WPS.

Information at a Central Location - Three types of information must be displayed: 1. A list of pesticide applications that must include: location of area to be treated, product name, EPA registration number, active ingredient(s) of the pesticide, time and date the pesticide is scheduled to be applied, and restricted entry interval (REI) for the pesticide. 2. Emergency information 3. Approved pesticide safety poster.

Pesticide Safety Training - Station employees trained as handlers are also qualified as workers. A person who conducts handler training may include a currently certified applicator of restricted-use pesticides, or an individual that has completed a state approved pesticide safety train-the-trainer program. State Department of Agriculture and EPA WPS training materials are available. WPS training is required for employees every 5 years, however it is recommended that employees receive training annually.

Decontamination Sites - Worker and handler decontamination sites must be within 1/4 mile from where work is being conducted. Handlers mixing pesticides must have a decontamination site at the mixing area. Each decontamination site must be equipped with: water for routine washing and emergency eye flushing. OSHA requires eye flush kits to deliver .4 gallons/minute for a duration of 15 minutes. Soap and single-use towels must be available. Handler decontamination sites must also provide enough water for washing of the entire body, and a clean change of clothes.

Emergency Assistance - When any worker or handler has been poisoned or injured by pesticides you must provide: transportation for the victim and emergency information to the victim or medical personnel. Emergency information including name, telephone number, and address of the nearest medical facility must be posted.

Protections for all Agricultural Workers - Some pesticide labels require you to notify work-

ers both orally and with posted signs. Signs must be posted 24 hours or less before the scheduled application of the pesticide, during the application and throughout the restricted entry interval (if any). Signs must be removed within 3 days after the REI has passed. Signs should be posted at common points of entry (such as field road entrances) and at research plots. You must post all four corners of a field if there is no common point of entry. The REI does not apply if a worker will have no contact with anything that has been treated with the pesticide. Staying inside an open-cab vehicle is an example of a situation where a worker would be expected to have no contact with anything that has been treated with a pesticide.

Early-entry - workers that come in contact with treated surfaces before the restricted-entry interval has elapsed are permitted in treated areas only when: less than an hour is required to perform a task which does not involve hand labor, during an emergency, and for specific EPA approved tasks. Early entry workers must wait at least 4 hours after a pesticide application is made before entering a treated area. Early entry workers must be provided with general and special protections including: training and instructions, decontamination sites, and personal protective equipment.

Certain restrictions apply to the employer and handler. On pesticides that exhibit the skull and crossbones symbol you must check on handlers applying pesticides at least once every 2 hours. Handlers applying or handling greenhouse fumigants must be monitored continuously. Equipment must be inspected to make sure it is safe to operate. When it is serviced, equipment must be free of contamination. A long sleeve shirt and pants are required, to do any handling task, when using a closed system equipped with an air filtration system.

Employers should provide personal protective equipment (PPE) to handlers at no charge. PPE is coveralls, respirators, protective eyewear and chemical resistant suits, gloves, footwear, aprons, and headgear. Three manufacturers make respirators. KleenGuard chemical resistant suits breathe better than Tyvek suits and reduce heat stress. Handler employers should train handlers to clean and maintain PPE clothing properly. Cotton clothing spilled with a concentrated pesticide bearing the warning or danger label should be discarded.

Challenges of Managing A Fish Research Station

Randal Goodman
Superintendent, Fisheries Research
and Allied Aquaculture
Auburn, Alabama

The fisheries program at Auburn began 60 years ago this year. It has grown into the world leader in freshwater fisheries and aquaculture. The program is very diverse providing graduate degrees in fish diseases, nutrition, genetics and breeding, fishery biology and management, water quality and production aquaculture. In 1964, the Department became the Southeast Center for Fish Diseases serving 11 states. In 1970, it was named the International Center for Aquaculture. Students from over 90 countries have received degrees from this program.

The Department of Fisheries and Allied Aquaculture is the largest department in agriculture at Auburn and maintains approximately 100 students in their graduate program. The highly productive faculty teaches approximately 20% of the weighted semester credit hours in the School of Agriculture and produces almost twice the average number of publications per FTE for the school. They have for many years averaged producing 50% of the grants and contracts for the school and about 10% for the whole university.

The recognized foundation for this faculty to build such a fine program on has been the research unit. The Fisheries Research Unit is the largest such facility in the world. It consists of approximately 1800 acres of land and 300 acres of ponds. There are over 70 miles of unpaved roads and 300 individual ponds with miles of underground water and electric lines. The real challenge of managing this unit is the fact that it is not a part of the substation system and must be maintained and operated primarily on departmental funds. Deferred maintenance is really taking its toll however, and major capital renovations are desperately needed.

There are many other day-to-day problems with such a large and highly diverse operation. Keeping equipment working, grass mowed, feed and chemicals on hand and the many repairs to ponds, tanks and buildings keep the maintenance and construction crew of 11 people really on the move.

CRAWFISH RESEARCH: ADDRESSING PROBLEMS IN A UNIQUE AGRICULTURAL INDUSTRY

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Of over 500 species of crawfish worldwide, red swamp crawfish (*Procambarus clarkii*) account for about 85% of all crawfishes harvested. Culture methodology of this species has largely been developed in Louisiana where it is presently cultured in approximately 115,000 acres of shallow ponds. In 1993, roughly 1,600 farmers produced over 54 million pounds of crawfish worth around $26.6 million. Crawfish culture began in Louisiana in the late 1960's and expanded largely during the 1980's to its present level. The integration of crawfish aquaculture and traditional agriculture in this state has greatly contributed to its growth and success as an industry.

THE PRODUCTION CYCLE

Red swamp crawfish have evolved in a wet/dry cyclic environment and endures the dry period by burrowing. It can survive in the burrow for several months and usually spawns while in the burrow. The culture of the red swamp crawfish relies on control of the hydrology of ponds to simulate conditions that occur in the species' natural habitat. The dry period (summer in Louisiana) is utilized to establish a forage crop that will serve as the food supply during the season. Crawfish are not fed formulated rations as with most other cultured species; rather, vegetation serves as the base of a detrital food web that encompasses microbially enriched decomposing vegetation and a myriad of associated aquatic organisms.

Vegetated ponds are flooded in the fall, which brings female crawfish laden with hatchlings out of the burrows to deposit the young in open water. Water will remain in the ponds for 7 to 9 months. Crawfish will grow rapidly until water temperatures fall below about 60°F. Harvest is by baited traps and begins 90 to 120 days after flood-up. Wire mesh traps are set at a density of 15 to 25 traps per acre and are emptied 3 to 5 days per week. Rapid growth and peak harvest occur when water temperatures warm up during the spring. By May or June, the vegetative food resource has usually disappeared and most harvestable animals have been removed so the ponds are drained.

PRODUCTION SYSTEMS

Crawfish ponds are generally categorized as permanent ponds or rice-field ponds with

somewhat different management requirements. Permanent ponds are of the typical aquaculture type with permanent levees and drain structures that are constructed solely for the purpose of cultivating crawfish. Rice-field ponds are modified rice fields that are used to culture crawfish following a rice crop in what is termed rice/crawfish double cropping. The fields are used in crop rotational practices, and crawfish are usually not farmed on the same site for consecutive seasons. One major difference is that permanent ponds are stocked initially and utilized for production year after year without additional stockings. Rice-field ponds are usually stocked after each rotation. Another difference is that in permanent ponds, forages (mostly rice) are planted strictly for crawfish production, without regard to grain production, while the residue and regrowth material present after a rice crop serves as the food supply in rice-field ponds.

ROLE OF RESEARCH

Part of the mission of the Louisiana Agricultural Experiment Station (LAES) is to enhance the quality of life for people through basic and applied research that permits further development of existing and new agricultural enterprises. One specific goal is to enhance the competitiveness and profitability of these agricultural enterprises. Crawfish aquaculture has been identified by LAES as a viable and growing agricultural industry and has been allocated resources for research.

The uniqueness of the Louisiana crawfish industry provides a challenge for researchers. Because of its relative newness as an agricultural enterprise and the fact that it is mainly a Louisiana industry, few scientists have worked with crawfish, especially in a culture setting. Therefore, much baseline information from which to draw upon is lacking. As with many new and rapidly developing agricultural industries, researchers are called upon to address specific and pertinent problem areas experienced by the crawfish industry and to continually investigate potentials for improvements. The approach undertaken by LAES researchers is to conduct largely applied research using a logical and systematic strategy.

CURRENT PROBLEM AREA

A serious problem for many Louisiana crawfish farmers is the excessive production of small or "stunted" crawfish with low market value. Stunted crawfish are characterized by slow growth or a cessation in growth at less than the desired market size. With recent advances in crawfish grading and the establishment of national and international markets that require large crawfish, producers of small crawfish are at a serious economic disadvantage. For example, producers have difficulty marketing small crawfish when there is an abundant supply of large wild-caught crawfish and, when there is a market for small crawfish, producers average only about one third the price per pound of the largest animals. Only about 5% of crawfish harvested from ponds are within the most valuable and most easily marketable size category.

RESEARCH FOCUS AND FINDINGS

Because the harvests of small, low value crawfish were often associated with a premature depletion of vegetative food resources late in the season, it was thought that food shortages

were the major cause of stunting. Therefore, early research focused on the use of hays, agricultural by-products, and formulated feeds as feed supplements for crawfish production. Some of these studies reported increased yields (0-21%), improved growth or size-at-harvest (0-7%), but feeding practices frequently proved uneconomical, and positive results were often inconsistent and difficult to reproduce.

Based on the assumption that some crawfish are harvested before they have an opportunity to reach larger sizes, trapping frequency was decreased in several studies to investigate whether crawfish would complete more molts on average. Trapping frequency was reduced from the typical 5 days/week to 3 days/week, and an intermittent strategy was investigated that called for periods of trapping followed by periods of non-trapping. Reducing trapping pressure proved generally effective at increasing catch-per-unit-effort but only moderately effective at increasing harvest size.

Due to an overlap in crawfish and rice seasons during the spring, it is common to have newly established rice fields at the time that crawfish stunting often occurs in ponds. Since many producers of crawfish are also rice farmers, this provided an opportunity to investigate a new concept of integrating crawfish production with that of rice production in a non-traditional approach. This concept involved transferring or "relaying" small, low value crawfish from traditional ponds into a growing rice crop to achieve a quick "feedlot" type gain, after which, they were reharvested prior to grain harvest. A series of studies were successfully conducted at the LAES's Rice Research Station and found that this intercropping strategy may have very favorable economic impacts to farming systems that are already somewhat integrated. The effectiveness of relaying crawfish in this manner was very good (Table 1) and subsequent rice yields were acceptable. The slight reduction in rice yield (< 15%), due mainly to the presence of trapping lanes, would likely be compensated by increased returns for high value crawfish. This practice would especially be appropriate in lieu of stocking rice fields intended for rice/crawfish double cropping because the unharvested crawfish would serve as brood animals for the following fall/winter/spring crawfish season.

Table 1. Mean yield as % of total harvest, by grade, for crawfish harvested after being relayed into a rice crop (1991-1994). Average crawfish weight at stocking was 13.5 g and stocking densities of 250-1,000 lb/A were evaluated with a mean retrieval rate of 91%.

Grade Category	Yield as % of Total Harvest
Large (>32 g)	36%
Medium (23-32 g)	49%
Small (14-22 g)	15%

Recent studies by LAES scientists have shown that high population density is the single most limiting factor affecting crawfish growth and harvest size, regardless of available nutrition,

which was once thought to be the overwhelming factor. Figure 1 illustrates the profound effect that density has on crawfish growth in well replete forage ponds. Efforts to reduce density in overpopulated crawfish ponds have resulted in the greatest achievement to date for increasing size-at-harvest within a current production season. As illustrated in Figure 2, by achieving the appropriate reduction in density prior to initiation of harvest, the proportional yield shifted from mostly small (82%) to a high percentage (68%) of crawfish in the top two grades with only a slight reduction in total yield.

FUTURE RESEARCH CHALLENGES

According to Louisiana Cooperative Extension Service specialists and field agents, the most significant production problems facing crawfish producers today are either low yields or high proportions of small crawfish. Our most immediate challenge as researchers is to find ways to incorporate recent findings into workable management practices that will allow producers better control over their outcomes. Long-term goals for crawfish aquaculture research are to continually identify means to improve and "fine tune" production strategies and increase profitability while conserving resources. All the while, our research must accommodate the needs of a changing industry and, to a large extent, must be instrumental in that change.

Figure 1. Mean final weights (g) of crawfish placed in enclosures, within crawfish ponds, under typical culture conditions for 12 weeks. Initial weights averaged 1.1 g.

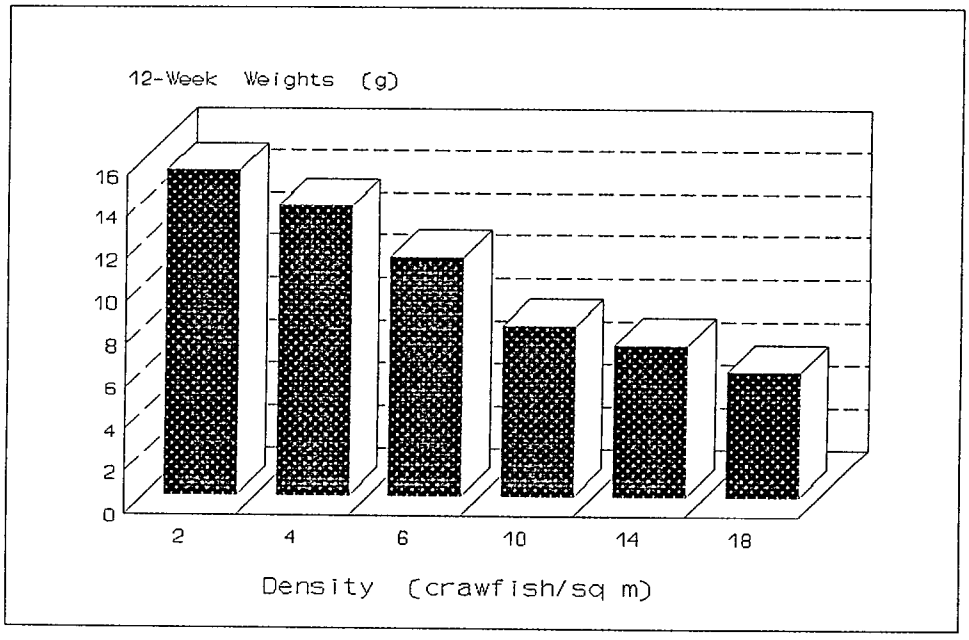
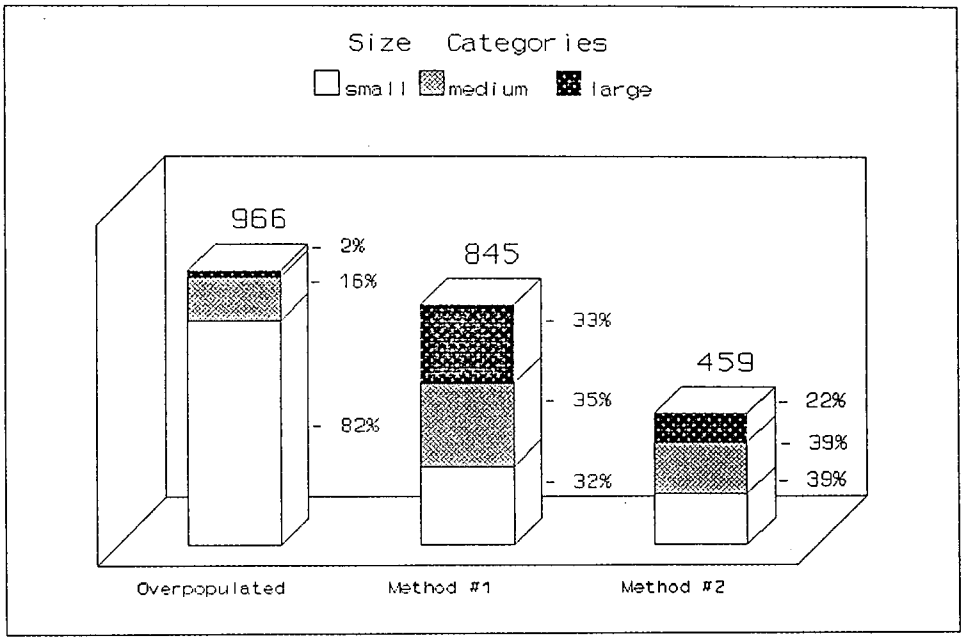


Figure 2. Mean crawfish yields (lb/A) and proportional percentages by grade for crawfish harvested from overpopulated ponds and ponds subjected to two methods of density reduction prior to initiation of harvest.



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"OPERATING A COMMERCIAL RESEARCH STATION - A GREASED TRACK?

Daniel L. Pitts
Research Biologist, FMC Corp., Southeast Research Station
Sparks, Georgia

FMC Corporation, head quartered in Chicago, is one of the world's leading producers of machinery and chemicals for industry, government and agriculture. The company was incorporated in 1928, and principally through a series of acquisitions, has built up its presence in five main business areas, namely industrial chemicals, defense systems, performance chemicals, precious metals and machinery and equipment. The agricultural chemical group, with its main offices in Philadelphia, PA and research center in Princeton, NJ, compromises about 11.5% of the total company sales

Facts about Agricultural Industry

From the early beginnings of salt, Bordeaux mixture and nicotinic acid, the modern agricultural chemical industry is less than 100 years old. Today in the United States there are over 2,000 entities registering pesticide products. These range from the manufacturers of agricultural pesticides to the specialty entrants of entrepreneurial hopefuls. Of these registrants, 16,000 end-use products are registered which make up a pool of 700 different registered active ingredients.

This industry is a high risk business. Estimates in 1994 show that of 20,000 compounds synthesized by the bench chemist only one ever reaches registration. Compounds that do make it through the stringent economic and regulatory maze require an investment of $60 million per compound with break even projections set at 10 -15 years.

Today, the top 25 Agricultural Chemical companies make up about 90% of the total business, and with most of these companies, the agricultural sector is a small percentage (15 - 20%) of the company's total operation. Over the past 10 years, the profile of this list has changed substantially. With the increasing cost of discovery and registration, compatible companies have gone into partnerships to remain competitive and to gain the critical mass of $40 million needed to produce a product.

Dollars set aside for research vary from company to company.
The average spent on R& D today is 10.5 % of its total Agrichemcial sales. These numbers are set by the business management teams based on economic forecasts and potential product profiles.

Of the dollars allocated for R&D, developmental issues such as product understanding, formulation optimization, EUP trials and market surveys utilize 40% of the funding. Product defense issues such as residue metabolism, environmental fate studies, re-registration expenses and end user performance issues utilize 25% of the funding. The reminding 35% is directed toward discovery which include synthesis, chronic and acute toxicity profiling, greenhouse testing, patent searches and initial field trials (research stations).

Out of the 35% used for all R&D activities, about 1% is allocated to research stations. These figures vary among from company's and reflect the expenses associated with the overall mission of the station. Changing economics and company focus often results in quick and negative impact on these values.

Research Station Types

There are 3 basic types of commercial research stations in the agricultural chemical industry. These can be grouped into three loose categories, (1) the field biologist work center, (2) the research station, and (3) the regional research center.

The field biologist work center is composed of one or maybe two researchers that resonate from a single location. The focus of these sites is more directed toward pest / crop complexes native to the area. It is characterized by less overhead per location and numerous locations within a geographic area, the strength of this setup. Several companies have opted for this setup in order to place numerous biologist at separate sites across a wide range of geographic areas. A couple of disadvantages of this type operation is the limited control of field conditions (such as grower over sprays and irrigation) and limited opportunity to pool resources with cohorts within their group.

The research station is the most common facility and is closely related to the USDA and State research sites. Composed of 3-5 biologists on a single location, it is often an extension of the company's central research headquarters. These staff members have more defined areas of expertise and responsibility. Pooling of efforts is afforded on these sites where associates can become involved in assisting in the research efforts outside their main areas of responsibility. Since most of these locations operate on company owned land or property under long term lease, better control of field conditions are possible. The relatively higher fixed and maintenance costs as compared to the field biologist work center as well as the limited "off the farm" exposure afforded to the staff biologists are a downside to this setup.

The regional research center is often used as a direct compliment to, or even in place of the early testing force at the company's central research campus. This center is typically composed of a full slate of research staff and support technicians. Often this staff includes sales, development, and tech service personnel in addition to the research group. With each staff member being responsible for a well-defined area of specialty, these sites are very capable of doing primary screens through late stage product testing. The major drawbacks to these centers are the prodigious operational costs involved and the limited geographic mobility of its staff.

FMC's Southeast Research Station

FMC's research station in Sparks, GA began operation in 1988. The driving forces for locating in south Georgia were increased insect pressure and longer testing season. The facility occupies 168 acres of sandy soil and includes a 2 acre irrigation reservoir pond, 13 acres wetland and 140 acres of crop land. The main compound includes the 2400 sq. ft office building, 1200 sq. ft shop, 2 field equipment shelters and two insect rearing areas. The mission of the station is field screening of newly synthesized compounds and efficacy testing against urban insect pests.

Current operations include a staff of 7 which include 3 biologists, 2 full time technicians, a part time secretary and a seasonal worker. Roughly 65% of the efforts are directed toward testing new candidate compounds in the field while 35% of the work involve efficacy and support work for urban pest control projects.

Planning

The daily operations of a commercial station are similar to University and USDA operated locations. The testing season normally begins in late fall with pre season planning for the next seasons trials. Preliminary data from the current seasons field trials are used as a guide to determine the coming year's directives. By mid February, most of the field protocols for that season are in place and final locations are being identified.

Part of this planning process is the development of pest pressure windows. Developed over several seasons of work, and including input from local USDA and state Extension personnel, these tables provide information relative to the normally expected peak populations for key insect pests and their respective crops. We would like to know how a compound performs in every situation but are limited by time and budgets to target the species on a priority basis.

Data collection parameters are also determined early in the protocol development process. Information gained from early lab and greenhouse testing is implemented into the data collection profiles to hedge the odds in favor of collecting usable and realistic data. Uniform data collection methods ensures compatible across trials summaries at the end of the season.

Candidate Identification

Field candidate identification occurs in late fall or early winter. Compound preparation is very expensive with a normal price tag of $1000 per gram of active ingredient. With this type of investment into a candidate, accurate compound usage and tracking are critical. Trials are prioritized to optimize data potential while minimizing material usage.

Upon arrival at the station, every compound even standards, are dated and arranged according to chemical group and kept under constant lock. Materials are held in environmentally maintained rooms to prevent temperature and humidity extremes. Data is referenced to sample lot number to ensure accurate applications.

Applications

Numerous application methods are used for field delivery. Back pack applicators are the most commonly used for the small plot trials although other delivery systems ranging from the high clearance agricultural sprayers to the hand held Devilbis atomizer sprayers are also used. These are selected based on normal cultural practices for the crop/pest complex, plot size and experimental compound availability. Calibration measurements (<2% deviation) are performed and recorded prior to every application. These intensive calibrations help insure accuracy and minimum compound usage

Containers for field application are chosen for minimal overage and practicality. The smaller field plots utilize pressurized beverage containers while larger plots may use stainless steel con-

tainers. In every case the application type is matched to emulate natural field applications while still allowing a minimal of compound usage

Personal Protective Equipment and Waste Handling

Information on every compound on the station is available on a material safety data sheet (MSDS). Data on these sheets are painstakingly put together for the benefit of the field person handling the compound. Personal protective equipment is incorporated with every application situation based on information found on these MSD sheets.

The final field handling of experimental compounds is the triple rinse procedure. Following field applications, spray containers are triple rinsed and the rinsates from these containers are transferred to a holding tank. Contents of this tank are disposed of on an annual basis according to EPA guidelines. An environmental service company under corporate contract picks up the rinsates and disposable lab packs on an annual basis for proper disposal. Under our current field application procedures, 25-30 gallons of rinsates are generated per season.

Operations involving cover sprays are also calculated for minimal overage. Rinsates from these operations are used as the diluent for subsequent applications to a same crop or are re-applied over the original treatment area.

Long term records are made to each cover spray application and its location. This is done for our benefit and to satisfy the worker protection standards.

Data Management

Good field data is a primary goal of research station efficacy testing. Actual field data is often collected on standard notebooks, but numerous other devices are beginning to appear on the scene. Done within predetermined parameters to insure that optimum data analysis is available, these pieces of information are processed in an extremely rapid system.

With FMC as with most other agricultural companies, the data stream is a two level format. In the first level, data collected by the field biologist, is run through local data management software, such as Pesticide Research Manager, Professional Data Management Program and Field Trial Manager. These programs enhance uniformity of data types while allowing each biologist to conduct varying statistical processes prior to assessing performance trends. Hard copies of the original data sets are kept with the local biologist.

The second data level is the main frame computer, most often located in the home office. Data from field trials are uploaded to this main frame via modem from the local data handling software. Through this procedure, data is readily available to the study directors within hours of collection. It is this ability to quickly and efficiently handle data that helps Agricultural Chemical companies to maintain competitiveness. As research funds continue to decrease and the need for data increases, the commercial stations cannot tolerate delayed data communication and stay competitive.

Safety

Safety is threaded through a research stations practices more consistently than any other policy, and this is true across the agricultural chemical industry. Studies have shown over and again that safety not only is a good choice for the personnel involved, but is also a good economic decision. Ideas that may have previously presented safety as an unnecessary evil are now viewed as a beneficial and time saving portion of the total research effort. With the intense competition to complete efficacy trials in a limited time window, we have found we cannot afford to conduct ourselves in an unsafe manner.

To encourage compliance to our safety strategy, monthly meetings are held. These meetings involve everyone on site and promote different agendas each date. We have found that full involvement, even to the point of summer interns being responsible for that month's safety meeting, is beneficial. During these meetings, we discuss various safety topics related to station safety. Each of these meetings is followed by a station safety walk through inspection. Safety inspections not only look for unsafe conditions, such as unguarded shield and PTO shafts, but also look for unsafe behavior. An example of an unsafe behavior is not using proper equipment for the sake of time or convenience. Data has shown that 90% of all accidents are behavior related. Ironically, only 10% of our time is spent correcting behavioral areas.

One of the more productive safety procedures that we have implemented is the what Can Go Wrong walk through. These are conducted on random pieces of equipment or activities were the group collectively names things that could go wrong and result in an injury. We have found these to be invaluable in making everyone aware of the potential problems and preventative solutions.

One particular example of how safety has resulted in labor and time savings while affording workers with needed protection is the jiffy Hitch. During one of our safety what can go wrong walk through, we realized the amazingly large potential for injury while connecting implements to tractors. The potential danger signaled the need for a better system which resulted in the location of a quick hitch device being developed by an individual in Florida.

This device allows the tractor operator to connect, disconnect and adjust each implement while remaining in the seat or cab. Calculations show that within 4 years, this device will pay for itself in time savings alone, not to mention the safety factor it provides. This is just one example of how a logical approach to safety helps us remain competitive.

Environmental Stewardship

Environmental stewardship is an issue that is ever on our minds, not just because of legislation, but because we live here too. Issues such as wetland conservation and ground water contamination are of considerable concern. To address these issues, permanent sampling wells are in place to monitor ground water qualities and deviations. Samples taken to date show no traceable quantities in the local aquifer.

The Chemical Manufacturer's Association's Responsible Care Initiative which states that we at FMC are responsible for our products from discovery to disposal helps us maintain focus on overall product and environmental stewardship.

Public Relations

The last issue I would like to touch on is public relations. Commercial agricultural experiment stations are sometimes viewed in a negative manner by the uninformed public. Maybe because they are part of the chemical industry some people associate them with industrial refineries. Perhaps the quiet way we conduct efficacy testing is mistakenly viewed as clandestine. Even weedy herbicide or infested insecticide plots are sometimes viewed by uninformed observers as ignorance in farming practices.

To dissolve some of these fears and jeers of locals, we have become more involved in community activities. An example of involvement is the use of station facilities to host grower meetings for our sales representatives. These meetings are of mutual benefit with the community and our staff. These meetings have allowed station personnel to have a higher profile in the community while comforting the curiosity of people outside the agricultural community as well as assisting local growers with agricultural related issues.

Conclusion

The perception that commercial stations provide an easy and smooth ride for research efforts is in part correct. We do make extended efforts to ensure quick and accurate data, and often these efforts take form in monetary expenditures. However, since we are in a very competitive atmosphere, none of these decisions are done in a capricious manner. Every investment made is in the light of making the center a safe and efficient machine to produce answers to our discovery questions.

R.C.A.S. Executive Committee Meeting Minutes
Nashville, TN
Sunday, February 6, 1994
submitted by
James A. Reinert, Secretary

Committee members present: James R. Hill (SC), Executive Committee Chair; Joe Music (LA), President; Dennis Onks (TN), First Vice President; Jim Pitts (AL), Second Vice President; James Reinert (TX), Secretary; Jere McBride (LA), Executive Treasurer; Joe Little (AL); John Clark (AR); David Calvert (FL); Ed Worley (GA); Lyle Lomas (KS); Bill Peterson (KY); Jonathan Edelson (OK); Ben Kittrell (SC); John Hodges (TN); Joe McFarland (TX); and Bob Horsburgh (VA). Also attending were: Joe W. High, Jr., Local Arrangements & Past President; Howard Malstrom (TX), Past President; Will Waters (FL), Past President; and Bill Webb (OK), Past President; Tom Evrard (AR); Rick Matheson (OK); John Eason (AL); Randy Akridge (AL); F. J. Peterson (LA); and Ed Hall (TN). We were grateful to so many members for making the Sunday afternoon meeting.

Chairman James R. Hill, Jr. call the meeting to order at ca. 3:00 PM, February 6, 1994, greeted all present, and asked each member to please introduce himself and his affiliation.

Minutes: James Reinert presented copies of the minutes from the Fall Executive Meeting that was held in Winchester, VA on October 7-8, 1993. Reinert added one correction that Chairman Hill had appointed a Bylaws Update Committee composed of Jake Fisher (chair), John Hodges, James Reinert, and Jere McBride. Since the minutes had been mailed to each Committee member previous to this meeting, Chairman Hill call for a motion to suspend the reading. Motion made by Joe Musick, and seconded. (Minute were accepted by unanimous voice vote).

James Reinert also added: A mailing had been received from SAAS Secretary Boggs. The next SAAS meeting would be held Feb. 408, 1995 at the Hyatt Hotel in New Orleans. Room rates would be $108. Future meetings scheduled: Feb. 3-7, 1996 — Greensboro, NC; Feb. 1-5, 1997 — Birmingham, AL; Jan. 31-Feb. 4, 1998 — Little Rock, AK.

Registration report: 75 preregistered, with 82 registered now, including 80 registered for the Seminar and 83 registered for the Tour.

A call was made for reports on retirees, deaths, and relocations by members. copies of the Executive Committee list was distributed and a request for any updates in State Reps was made.

Committee & Reports:

Local Arrangements Committee: Joe High and Dennis Onks distributed copies of the Tuesday tour with stops at South Central Growers, Springfield Tobacco Warehouse, Malone & Hyde Grocery Distributors, Bluegrass Country Club for the Banquet, and then to Music City Tonight. Two busses (90 passengers) and two vans were available. Considerable discussion fol-

lowed regarding the Music City Tonight ticket commitment of 90 tickets at $6.00 each. Joe Musick made a motion to use proceeds from the meeting registration and membership fees collected to cover this cost. (seconded). Jere McBride motioned to amend the motion on the floor to allow for sales at the meeting of any tickets not used by those already registered. (More discussion). (Amendment was approved by a hand vote of Executive Committee). (Motion as amended was approved by a voice vote of the Executive Committee). An option was available for any who wanted to separately pay extra for the tickets they used. Chairman Hill instructed the Treasurer to pay the bill. Spouses tour for Monday afternoon was also presented ($8.00 each).

Program Committee: Dennis Onks reported that the Program was in order and all speakers were expected. A good response, with preregistration, was received for the Management Seminars.

Bylaws Update Committee: James Reinert (for Jake Fisher, Chair) reported and distributed copies of the Bylaws with suggested changes. The committee reviewed the revisions one page at a time and general agreement was reached on all proposed changes except the development of a new office of Editor. Duties had not been developed and discussion on the feasibility of formalizing the office of Editor was asked for. (Discussion followed). Chairman Hill ended the discussion and asked the same committee (with John Hodges (Chair), James Reinert, Jake Fisher, and Jere McBride, ex officio) to again review the whole document and develop proposed duties for the office of Editor. This committee is to report at the Mid-Year meeting.

Treasury Report: Jere McBride distributed copies of the financial report for review. The RCAS account has been set up in an interest baring account now that an IRS number has been obtained. Current balance is $9,945.54 including the $4,045.00 from registration and membership dues for this meeting. (Motion made and seconded to pay current bills of $1,118.16).

Membership Services Committee: Butch Withers & Randy Akridge reported that we needed better overall communication with and among the membership. the Center Directory with maps approved last year was a start toward better communication.

Recommendations are:

1) Implementation of quarterly (March, June, September & December) RCAS newsletter for timely update of the membership and prepared by the 2nd Vice-President, Secretary, and the Executive Treasurer. It should include news on the annual meeting, calendar of events, actions taken by the executive committee, announcements of member's recognition, necrology, and other summary articles of regional or national interest to the Southern Region;

2) Implementation of evaluation process by the membership of the annual meeting;

3) Continue to provide high quality program at annual meeting to address their broad interest and provide adequate discussion groups to encourage membership participation;

4) Additional awards of recognition should be established to include possibly, Best Paper Award for the best paper presented by a member, and an Industry Award for unselfish support to enable a Research Center to succeed;

5) Investigate the use of E-Mail and Internet communication to provide better and cost

effective communication among the membership. Some discussion followed on the use of E-Mail and a newsletter. No implementation was approved and the item was tabled for further discussion at the Mid-Year meeting.

Proceedings Report: Howard Malstrum reported the need for early submission of papers for the 1994 Proceedings. Extra copies of the proceedings are available through the Executive Treasurer. Dennis Onks has agreed to do the 1995 Proceedings.

Awards Committee: No report given.

Historical Committee: Bill Webb expressed appreciation to State Reps for their efforts to get the missing information and biographical data on past awards recipients that will be published in the proceedings. Copies of past meeting agenda that are still missing were requested.

Nominating Committee: James Hill reported that the committee would nominate the existing officers to advance in office; Dennis Onks to President, Jim Pitts to First Vice President, Jim Reinert to Second Vice President and Jere McBride to remain as Executive Treasurer. Two candidates are being considered for the office of Secretary.

State Maps: Dennis Onks distributed the Branch Station Locations brochure to the members present and stated that copies would be available throughout the meeting to take back to other members not attending the meeting. He had 185 copies printed at a cost of $187.34. Joe Musick made a motion to pay the expense and it was seconded. (Motion passes unanimously by voice vote).

Mid-Year Meeting: David Calvert reported the Fall meeting would be held in Ft. Pierce, FL on October 5-6,1994. Air service is available through West Palm Beach or Melbourne. Format for the meeting will be one day of meeting and one day for tours to a large ranch/citrus grove, winter vegetable production, and citrus packing and concentrate facilities.

An offer was extended by Joe Musick and accepted for the group to go to Louisiana for the Mid-Year Meeting in 1995.

New Business:

State reports on deaths, retirements, and relocation of members were accepted.

Corrections of State Representatives were accepted.

Bob Horsburg received a round of applause for his excellent hosting of the Mid-Year meeting last October in Winchester, VA.

Chairman Hill (upon the suggestion of Joe High) appointed Dennis Onks, (Chair), Jonathan Edelston, and Joe McFarland to committee to review how the Society approves expenditures, what types of expenditures, and how much cash reserve is appropriate for the Society.

A discussion on RCAS representation at the Southern Directors Meeting follower. Chairman Hill will write a letter to the Southern Directors Chairman to request RCAS representation at their meetings at the SAAS meeting. This would be in line with the representation and input they receive from member University Department Heads.

Registration Badges were distributed.

R.C.A.S. Annual Business Meeting Minutes
Nashville, TN
Tuesday, February 8, 1994
submitted by
James A. Reinert, Secretary

Executive Committee members present: James R. Hill (SC), Executive Committee Chair; Joe Musick (LA), President; Dennis Onks (TN), First Vice President; Jim Pitts (AL), Second Vice President; James Reinert (TX), Secretary; Jere McBride (LA), Executive Treasurer; Joe Little (AL); John Clark (AR); David Calvert (FL); Ed Worley (GA); Lyle Lomas (KS); Bill Peterson (KY); Roy Constantin (LA); F. T. Withers (MS); Carl Tart (NC); Jonathan Edelson (OK); Ben Kittrell (SC); John Hodges, III (TN); Joe McFarland (TX); and Bob Horsburgh (VA). We were grateful for so many members attending the final business meeting.

President Joe Musick call the meeting to order at 10:00 am, February 8, 1994 at the Holiday Inn Crowne Plaza, Nashville, TN. He presented the planned agenda and asked for any additions or corrections. None were received.

Minutes: James Reinert presented copies of the amended minutes from the Fall Executive Meeting that was held in Winchester, VA on October 7-8, 1993. James Hill made motion that minutes be accepted as mailed out and amended. Seconded by Ben Kittrell. (Motion approved by unanimous voice vote).

Secretary's Report: For the meeting we had 75 preregistered with final registration of 82 for the meeting. Reinert commented that the outstanding preregistration made it easy for the Secretary to plan ahead and do a lot of the work before the meeting which allows for good organization at the meeting. Members were encouraged to preregister for future meetings as well. Eighty were registered for the Seminar on Monday and 83 were signed up for the tour on Tuesday. At the Sunday Executive Committee meeting, 27 attended. State Reps were encouraged to solicit their stat members to remit the membership fees for the year. The next meeting will be held February 4-8, 1994 at the Hyatt Hotel in New Orleans.

Treasury Report: Jere McBride reported the financial summaries had been distributed to the State Reps at the Executive Committee meeting on Sunday. A bill of $746 was paid for the 1993 proceedings. this left a balance of $4,896.03 in the treasury to start this meeting. Registration and dues taken in for this meeting total $5,785 so far. Estimated expenses for the meeting are $4,593.00, plus the entertainment and $1,140.00 for the 1994 Proceedings. Of this, $1,140 had to be paid to SASS for their part of registration. Motion to accept the Treasurer's Report was made by David Calvert and seconded by Ben Kittrell. (Motion was approved by unanimous voice vote.

Committee Reports:

Membership Services Committee: Butch Withers (Chair) Randy Akeridge, Joe McFarland, members) reported this committee was formed to make recommendations for improved communication and membership involvement and benefits.

Recommendations:

1) Develop either biannual or Quarterly newsletter to provide timely communication to the membership.

2) Develop process for evaluation of the annual meeting program.

3) Continue to provide high quality program to address the broad interest of the membership including discussion groups and workshops.

4) Develop additional awards for recognition of members.

5) Evaluate the potential of E-Mail and Internet for better communication among the group.

Report of the Activities of the Executive Committee: James Hill reported that the Executive Committee was concerned that better communication was needed between the committee and the members as was just expressed in the preceding report from the Membership Services Committee. He also asked each member to please provide feed back on the recommendation that were presented. The committee has as its prime concern that the program meets the needs of the membership through a variety of formats. Additionally, we would like to know if there is interest in more tours of regional agriculture. Each year at the Mid-Year Executive Committee meeting, we take a tour. For example, at the Winchester meeting, we toured the apple growing and processing industry in VA. He reminded the membership that the Executive Committee meeting is open to any of the membership to attend. By-laws are also being updated by a committee. The status, size, and use of the treasury are also being review in committee.

State Maps Report: Dennis Onks review the need for the state maps and encouraged each State Rep to take additional copies for their state members that were unable to attend the meeting.

Nominating Committee: James Hill (Chair), Will Waters, and Ed Worley presented the nominations for officers for the coming year as follows: Dennis Onks for President, Jim Pits for First Vice President, James Reinert for Second Vice President, Butch Withers for Secretary, and Jere McBride to continue as Executive Treasurer. James Hill moved that the slate of officers be accepted and Joe McFarland moved that the nominations be approved by acclamation. (Seconded). (Motion was approved unanimously by voice vote).

New Business:

President Musick instructed the new Secretary to design an application form for new members to use with the membership fee noted. this was in response to discussions on the membership fee.

SAAS has proposed that they provide centralized coffee breaks and audio/visual support for all the SAAS member groups. This would involve about a $20.00 increase in SAAS membership, and it was assumed that this would have a corresponding reduction in RCAS registration fees. Following discussion of pros and cons for both coffee breaks and A/V, a motion was made by James Hill that our representatives to SAAS vote against the proposal. (Seconded by Ben Kittrell). (Motion was unanimously disapproved by voice vote).

Retirements and Relocations were read by the President:
Wallace Griffey, Upper Coast Plains Substation, Winfield, AL —RETIRED

William C. Loe, Southwest Res & Ext Center, Hop, AK — RETIRED

Howell O. Gentry, Jr., Upper Piedmont Res Station, Reidsville, NC —RETIRED

Edward Worley, NW Georgia Branch Station, Calhoun, GA — RETIRED

Warren Meadows, Burden Res Plantation, Baton Rouge, LA — RETIRED, but still part time.

James Riley Hill, Edisto Res & Ed Center, Blackville, SC —RETIRED, but still part time.

RCAS Executive committee Meeting Minutes
October 5, 1994
Fort Pierce, FL

Committee Meeting Members Present: Joe Music (LA), Chair; Dennis Onks (TN), President; Jim Pitts (AL), First Vice President; F. T. Withers (MS), Secretary; Joe Little (AL); John Roberson (AR); David Calvert (FL); Dennis Thompson (GA); Lyle Lomas (KS); Bill Peterson (KY); Bill Brock (MS); Carl Tart, Jr. (NC); Jonathan Edelson (OK); Ben Kittrell (SC); John Hodges III (TN); Joe Freeland (TN); Joe High (TN); Howard Malstrom (TX); Will Waters (FL); and Bill Webb (OK). Absent were: Jake Fisher (MO); Jere McBride (LA), Executive Treasurer; Larry Rogers (LA).

The meeting was called to order by Chairman, Joe Musick, at 8:30 am, October 5, 1994 at the Ft. Pierce Agricultural Research and Education Center, Ft. Pierce, Florida. the chairman thanked David Calvard for hosting the RCAS Committee meeting in Florida. David Calvert, Center Director, welcomed the group to Florida and provided the local arrangement agenda for the two-day session. Calvert recognized Will Waters and Findlay Pate of Florida for their assistance in making the local arrangements.

F. T. Withers, Jr., Secretary, presented the minutes of the RCAS Executive Board Meeting of February 6 and the RCAS Annual Business Meeting of February 8, 1994 as submitted by Jim Reinert. The minutes were corrected. Motion was made and seconded to approve the minutes of both meetings.

Dennis Onks, President, announced that a registration fee for the meeting was set at $36.00 per person to cover the cost of the meeting and tours.

Dennis Onks read the board a letter of resignation from Jim Reinert asking that he be relieved of his position as Second Vice President of RCAS. he expressed his regrets of not being able to fulfill his obligations and of his support of the organization. A motion was made and seconded to accept the letter of resignation.

David Calvert announced he would be relinquishing his position as Center Director at the fort Pierce Center and as the Florida Representative to RCAS and would be replaced by Findlay Pate, Center Director of the Ona-Agricultural Research and Education Center. Bob Horsburgh, Center Director of the Winchester Agricultural Experiment Station announced his forth coming retirement and stated that James L. Jones, Center Director of the South Piedmont Agricultural Experiment Station would be the State Representative from Virginia. Jonathan Edelson of Oklahoma announced that Rick Matheson, Station Superintendent of the Agronomy Research Station at Perkins, will be the new State Representative from Oklahoma.

Carl Tart, Jr. (NC), was appointed to serve as chairman of the local arrangements for the 1996 SAAS meeting to be held in Greensboro, North Carolina on February 3-7, 1996.

RCAS Treasurer's Report prepared by Jere McBride, Executive Treasurer, was presented by Joe Musick. As of August 31, 1994 the RCAS account balance was $4,181.56 from October 19, 1993 through August 31,1 994; total income was $11,646.56; total expenses were $7,465.00. A motion was made to approve the treasurer's report as submitted.

Report of Local Arrangement Committee was given by Joe Musick on the local arrangements for the annual meeting in New Orleans on January 29 through February 1, 1995. The meeting will be headquartered in the Hyatt Regency Hotel. the committee is recommending a tour of agriculture facilities in the New Orleans area or a tour of the Experiment Station in Hammond and several agribusinesses in the area. The committee requested a cost range of $30.00 for the tour and banquet and a cost of $10.00 for the spouses tour to cover expense cost.

The RCAS Executive Committee meetings are scheduled to be hosted by Alabama in 1995 and to be held in the Huntsville area and hosted by Missouri in 1996 and held in the Portageville region.

Dennis Onks presented the Finance Report for the committee consisting of Jonathan Edelson, Joe McFarland, Jere McBride and Will Waters. The committee made the following recommendations to clarify policy by which the local arrangement chairman can have maximum authority to develop the annual meeting itinerary based on the Chair's knowledge of local conditions.

1) RCAS should maintain a minimum of $2,000 bank balance to cover a low turn out meeting at some point in time.

2) The local arrangement chair will provide a proposed budget for the executive committee at the Fall Planning Meeting and in conjunction with the SAAS and RCAS fees, the total amount will be approved.

3) The local arrangement chair should have a five (5) dollar per person authority above the approved budget submission to the executive committee, to allow for unexpected costs or additions.

4) Any amount above this five (5) dollar ceiling will have to be approved by the officers of the society

Recommendations of the Finance Committee were approved.

Awards Committee Report was given by Ben Kittrell. The committee placed in nomination the name of Ed Worley for the RCAS Distinguished Service Award. Motion was made and seconded to accept the nomination and the motion was approved by an unanimous vote. Appropriate contacts will be made with the recipient and the executive treasurer will handle arrangement of the award plaque.

Historical Award Committee composed of Bill Well, Chair and Joe High informed the Executive Board that historical information has been compiled which included leadership lists

back to 1970 and program agendas back to 1973. Some of the information from 1968 to these periods are still not complete. Presently, the minutes for both the annual meeting and the executive board meeting are now being included in the proceedings on an annual basis which will provide a complete historical record of the Society.

The committee recognized the many hours of services that Ms. Pamela Bernardo has provided RCAS in working with this committee. the committee recommended that appreciation be expressed to Ms. Bernardo in the form of a letter from RCAS which was mistakenly overlooked and requested that this letter of thanks and appreciation be extended.

The Historical Committee report was seconded and approved. President Onks stated he would write a letter to Ms. Bernardo.

By-Laws Committee Report was presented by John Hodges, Chair. (Committee: Jake Fisher, Jere McBride, James Reinert, and Bill Peterson). Previous By-Laws changes were made in the years 1985, 1989 and 1992.

The Board's discussion addressed three major and some routine editorial changes and corrections. The major By-Law changes were:

1) to delete the name of Southern Association of Agricultural Scientists from the Society's name.

2) a change in the responsibilities of the Office of Past President, who presides as Chairman of the Executive Board Meeting and to have the Office of President assume these responsibilities.

3) to formalize the responsibilities of the position of Editor of the Society Proceedings.

The Board approved the recommendations and changes made to the By-Laws with said corrections an changes to be incorporated in the By-Laws Report and presented 45 days prior to the Executive Committee Meeting and the Annual Meeting of RCAS Membership where it will be voted on for approval. Motion made, seconded and approved.

Membership Service Committee (Members: F.T. Withers, Randy Akridge, James Reinert, Joe McFarland and Lyle Lomas), reported that the perceived cause for limitation of the RCAS Membership development has been a lack of direct communication with the membership. Since membership fees are now assessed, the issue of having members more involved and informed is vital to the Society.

The following recommendations were made by the committee to enhance development in:

1) A RCAS Newsletter should be implemented which would be published 3 times a year (months of November, April and August) and distributed to the membership. The Second Vice

President should assume responsibility of coordinating the publishing of the newsletter. Sample of newsletter format was presented.

2) E-Mail/Internet be considered as an alternative method to establish more effective communications and expanded services to RCAS membership.

3) RCAS establish an industry recommendation award. This award would be given in recognition of support at RCAS or for special outstanding support to agriculture research and education.

The Executive Board asked the Membership Service Committee to accept the responsibility of publishing the first RCAS Newsletter since the organization does not have a Second Vice President; approved the committee to continue its work on developing detailed to the implementation of services through sources of electronic communication; work jointly with the awards committee to establish criteria and guidelines for an industry recognition award; and that a Certificate of Membership for the Society be developed.

Nominating Committee: Joe Musick, Chair. (Members: James Riley Hill and Will Waters). Recommended the following slate of officers to be presented for nomination at the 1995 annual meeting. President, Jim Pitts (AL); First Vice President, F. T. Withers, Jr. (MS); Second Vice President, Ben Kittrell (SC); Secretary, Jonathan Edelson (OK).

Meeting was adjourned for lunch.

The Executive Board Meeting was called to order by Chairman, Joe Musick and turned over to First Vice President and Program Chairman, Jim Pitts, to preside over the program planning session for the 1995 Annual Meeting.

The format of the annual meeting was set for a 2-day meeting which included two morning programs of formal type presentation by selected speakers; a planned afternoon session for interactive discussion groups and a tour and banquet on the second afternoon and evening. The Annual Business Meeting was scheduled for the end of Tuesday morning session.

A lengthy discussion of suggested topics of interest were conducted and major area of interests were noted. Topics of interests which could be effectively addressed by a discussion session were selected. Program Chairman then requested and received names of speakers who were diverse in the other areas of interest and could speak at the annual meeting. Attentive approval was given to the program agenda.

The Discussion Session was planned for four (4) concurrent group sessions addressing the following topics and assigned moderators:

Public Perceptions - What is Conflict of Interest?
Moderators: Joe High and Joe McFarland

Team Building - Is There a Workable Program?
Moderators: Ben Kittrell and Dennis Onks

How to Live with WPS
Moderators: Chip Riedelburg and Dennis Thompson

Challenges and Techniques in Conducting Environmental Research
Moderators: John Eason and Bill Brock

Jim Pits expressed his appreciation to the group for their input and assistance.

Chairman, Joe Musick, expressed on behalf of the members of the RCAS Executive Board, appreciation for the hospitality of the Florida group in hosting the meeting and for the individual work and tireless effort, the Florida Representatives and the Staff of Ft. Pierce-Agricultural Research and Education Center provided for the local arrangement activities of the meeting.

The meeting was adjourned at 3:15pm

Minutes recorded by F. T. Withers, Jr., Secretary.

BY-LAWS
OF THE RESEARCH CENTER ADMINISTRATORS SOCIETY

Article I
Name

The name of this organization shall be "Research Center Administrators Society" and for the purpose of this document shall be frequently referred to as"Society".

Article II
Objectives

The objectives of the Research Center Administrators Society shall be to hold educational meetings; to provide opportunities for interaction with colleagues; and to enhance the profession within the scientific community.

Article III
Members

Section 1

The membership shall include superintendents, resident directors, center directors, and other individuals with various titles having administrative responsibilities involving a field station, branch station, research station, research center, or other branch research facility of a state agricultural experiment station or any other public or private agricultural research organization.

Section 2

The membership shall be composed of regular and active members. Any unit head of a branch research facility in any participating state shall be considered a regular member. Any individual, with administrative responsibilities involving a satellite research facility, who pays the designated membership fees shall be an active member with all rights and privileges afforded by the Society.

Article IV
Officers

Section 1

The officers of the Society shall be a President, a First Vice-President, a Second Vice-President, a Secretary, an Executive Treasurer, and a Society Proceedings Editor. These officers shall perform the duties prescribed by these By-Laws and by the parliamentary authority adopted by the Society.

Section 2

The officers shall be elected by the membership to serve for one year or until their succes-

sors are elected, and their term of office shall begin at the close of the annual meeting at which they are elected. The Executive Treasurer and the Society Proceedings Editor shall serve at the pleasure of the Executive Committee and the Society for a specified term announced upon the election of the officer. Additional terms may be served if deemed in the best interest of the Society.

Section 3

No member shall hold more than one office at a time, and no member shall be eligible to serve consecutive terms in the same office. The Executive Treasurer and the Society Proceeding Editor may serve more than one term upon recommendation of the Executive Committee and approval of the Society.

Section 4

Duties of the President shall include:

- Serve as overall coordinator of Society activities;
- Preside at annual meeting;
- Prepare letters for distribution to State Agricultural Experiment Station Directors requesting them to invite and to encourage attendance of membership from their state at annual meeting;
- Appoint Nominating Committee in accordance with By-Laws;
- Appoint Local Arrangements Committee Chair;
- Serve as a member and attend Executive Committee meetings;
- Appoint all other committees as needed;
- Serve as Executive Committee Chair.

Section 5

Duties of the First Vice-President shall include:

- Serve as Chair of the Program Committee;
- Mail copy of program to Secretary-Treasurer of the Southern Association of Agricultural Scientists at designated time;
- Mail copy of program to all Society officers;
- Serve as a member and attend Executive Committee meetings.

Section 6

Duties of the Second Vice-President shall include:

- Serve on Program Committee;
- Perform other duties as President assigns;
- Serve as a member and attend Executive Committee meetings;
- Assist Secretary in registration at annual meeting.

Section 7

Duties of the Secretary shall include:

- Following the annual meeting, report new officers to Secretary of S.A.A.S.
- Responsible for registration at annual meeting;
- Collect fees at annual meeting;
- Prepare minutes of all business sessions; prepare attendance roster from registration cards; and send copies of each to incoming and outgoing President and Executive Committee officers;
- Mail programs and other appropriate information to membership;
- Serve as a member and attend Executive Committee meetings.
- Maintain contact with S.A.A.S. Secretary throughout the year on appropriate matters.

Section 8

Duties of the Local Arrangements Representative:

- Survey assigned meeting room well in advance of annual meeting and decide if adequate;
- Set up and arrange for banquet and/or social;
- Arrange for coffee breaks at annual meeting;
- Arrange for visual aid equipment and other needed equipment at annual meeting;
- Coordinate all of the above with other Program Committee members;
- Shall have the option to solicit additional assistance from the membership as needed;
- Attend the Executive Committee meeting prior to annual meeting at the invitation of the President.

Section 9

Duties of the Executive Treasurer shall include:

- Maintain the Societies' banking accounts, fiscal records, prepare financial state ments and provide such statements to the Executive Committee and the member ship at the annual meeting;
- Issue checks for payment of invoices as submitted by members of the Executive Committee;
- Represent the Society when designated by the President;
- Maintain current Membership List;
- Maintain current copy of By-Laws;
- Maintain liaison with S.A.A.S. Secretary-Treasurer on matters of interest to the Society;
- Serve as a member and attend Executive Committee Meetings;
- Maintain past copies of Society Proceedings.

Section 10

Duties of the Society Proceedings Editor shall include:

- In association with the First Vice-President, assemble all program presentations of the annual meeting and edit for publication;
- Publish approved minutes of annual meeting and Executive Committee Meeting as provided by the Secretary;
- Procure all needed publishing materials and report cost to the Executive Committee for approval;
- Serve as a voting member and attend Executive Committee Meeting.

Article V
Meetings

Section 1

The annual meeting of the Research Center Administrators Society shall be held in association with the Southern Association of Agricultural Scientists, unless otherwise ordered by the Society or by the Executive Committee.

Section 2

Special interim meetings can only be called by the President in conjunction with the Executive Committee.

Section 3

Active members in attendance at any annual or special meeting shall constitute a quorum.

Article VI
Executive Committee

Section 1

The Executive Committee shall consist of current officers, the immediate past President, and one representative from each participating state.

Section 2

The Executive Committee shall have general supervision of the affairs of the Society between annual business meetings, make recommendations to the Society, and shall perform such other duties as are specified in these By-Laws. The Committee shall be subject to the orders of the Society, and none of its acts shall conflict with action taken by the Society or the Southern Association of Agricultural Scientists.

Section 3

The immediate past Society President shall serve as an advisor to the President and voting members of the Executive Committee.

Section 4

State Representatives shall be selected by the regular Research Center Administrators Society membership of their respective state.

Section 5

The Executive Committee shall meet at least twice annually. One meeting will be held during the summer or fall and one meeting will be held the day prior to the annual meeting.

Section 6

Duties of the Executive Committee Chair:

- Preside over Executive Committee meetings;
- Set date, time, and place of all Executive Committee meetings;
- Establish program agenda;
- Provide committee members with agenda 30 days prior to meeting;
- Appoint Executive Committee sub-committees.

Article VII
Committees

Section 1

A Program Committee shall be appointed by the President to be headed by the First Vice-President and to include the Second Vice-President and the Local Arrangements Representative. The duties of the Committee shall be to plan the annual program of the Society and submit annual program to S.A.A.S.

Section 2

The President shall appoint a Nominating Committee consisting of three immediate past Presidents that are still active in the society. The Nominating Committee shall be appointed during the annual meeting. It shall be the duty of this committee to nominate candidates for the offices to be filled except for the office of Executive Treasurer and Society Proceedings Editor. The Nominating Committee shall report during the business session of the annual meeting and prior to the election of officers. Before the election, additional nominations from the floor shall be permitted. An Executive Treasurer candidate and a Society Proceedings candidate shall be selected by the Executive Committee prior to the annual meeting, and the appointment shall be recommended to the Society for approval. The Society may also make nominations from the floor.

Section 3

Special committees shall be appointed by the President as the Society or the Executive Committee shall from time to time deem necessary to carry on the work of the Society. The President shall be ex-officio member of all committees except the Nominating Committee.

Article VIII
Parliamentary Authority

The rules contained in the current edition of "Robert's Rule of Order Newly Revised" shall govern the Society in all cases to which they are applicable and in which they are not inconsistent with these By-Laws and any special rules of order the Society might adopt.

Article IX
Amendment of By-Laws

Section 1 - Amendment by Active Membership

The By-Laws can be amended by a two-thirds vote of the active membership during the business session of the annual meeting. Notice of the proposed change must be given to the Society President and Executive Committee members one week prior to the annual meeting. The notice shall include the full text of the amendment and the President will make such amendment available to the entire membership at least 24 hours prior to the Annual Business Session.

Section 2 - Amendment by Executive Committee

The By-Laws can be amended by action of the Executive Committee provided strict procedures are followed. A member proposing the amendment shall provide the Executive Committee Chair with the full text of the proposed change. The Chair shall distribute copies of the full text to the committee members 45 days prior to the voting deadline. Voting may be by letter, telephone with confirming letter, or by roll call if taken during an Executive Committee meeting. State Representatives of the Executive Committee are to review the amendment with their respective delegation and cast one vote reflecting the delegation's view. A two-thirds vote of the Executive Committee members voting is required for adoption of an amendment. The Chair shall announce the voting results, and should the proposed amendment pass, revise the By-Laws to include the amendment and distribute the revised By-Laws to the Society membership.

Revised 10-1-85
Revised 2-5-89
Revised 2-6-92
Revised 1-29-95

MR. EDWARD EUGENE WORLEY

Superintendent, Northwest Georgia Branch
Experiment Station
University of Georgia
Calhoun, Georgia

Award Recipient - 1995 New Orleans, LA

Ed Worley was born and raised on a farm in Bartow County, Georgia. He attended the University of Georgia on a scholarship awarded by the First National Bank of Cartersville, Georgia. After receiving a BS Degree in Agricultural Economics in 1954, he served for two years in the U.S. Army Signal Corps. He was employed by the University of Georgia Extension Service as Assistant County Agent from 1956-1961. He returned to the University as a graduate student and received the MS Degree in Ag. Economics in 1962 and was hired as Assistant Superintendent of the Northeast Georgia Branch Experiment Station from 1963 until 1971. He was promoted to Superintendent in 1971 and remained there until his retirement in 1994.

The Northwest Georgia Branch Station is located in two counties on 1300 acres near Calhoun, Georgia. Research projects in Agronomy, Plant Pathology, Entomology, Agricultural Economics and Animal Science are conducted there with a staff of 14 full time employees. The North Georgia Bull Test Station is also located there.

Ed and his wife Martha have one son and three daughters and now have five grandchildren. He is active in the Calhoun Baptist Church having served as Chairman of Deacons. He has also been active in Civic Affairs serving as President of the Calhoun Rotary Club and Calhoun Lions Club.

Ed Worley has been one of the most loyal and dedicated members of the RCAS. He has been a member since its beginning in the late 60's and has attended most every convention as well as the Executive Committee Meetings as the Georgia representative and/or as an officer. He has served two terms as secretary/treasurer 1976-77 and again in 1987-88. He has also served as Second Vice-President 1988- 89. First Vice-President 1989-90, Chairman 1990-91 and Chairman of the Executive Committee 1991-92. He has also served on several committees and made program presentations at the Society's Convention.

It is a privilege to honor Edward Eugene Worley as the 1995 recipient of the Distinguished Service Award of the Research Center Administrators Society.

RCAS COMMITTEES
1994 - 1995

Local Arrangements
1995 Meeting - New Orleans
Jere McBride, Chair
G.T. Berggren
R.J. Constaintin
Richard O'Barr
H.P. Viator

Finance Committee
Dennis Onks, Tennessee, Chair
Jonathan Edelson, Oklahoma
Joe McFarland, Texas
Jere McBride, Louisiana
Will Waters, Florida

By-Laws
John Hodges, Tennessee, Chair
Jake Fisher, Missouri
Jere McBride, Louisiana
James Reinert, Texas
William Peterson, Kentucky

Awards
Ben Kittrell, South Carolina, Chair
Howard Malstrom, Texas
John Robinson, Arkansas

Historical
Bill Webb, Oklahoma, Chair
Joe High, Tennessee

Nominating
Joe Music, Louisiana, Chair
James Riley Hill, South Carolina
Will Waters, Florida

Membership Service
F.T. "Butch" Withers, Mississippi, Chair
Randy Ackeridge, Alabama
James Reinert, Texas
Joe McFarland, Texas
Lyle Lomas, Kansas

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

PAST PRESIDENTS, RCAS

Years	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