Public Funding of Agricultural Research
The Family Farm and Ranch Security Program
Grain Elevator Explosions
Farm Labor
Bonding of Commodity Warehouses
Transportation of Agricultural Commodities
Pesticides

INTERIM REPORT
TO THE 68TH LEGISLATURE
SENATE NATURAL RESOURCES SUBCOMMITTEE
ON AGRICULTURE

Bill Sarpalius, Chairman
Carlos Truan, Vice Chairman
Buster Brown
E. L. Short
John Wilson
INTERIM REPORT

TO THE 68TH LEGISLATURE

SENATE NATURAL RESOURCES SUBCOMMITTEE

ON AGRICULTURE

Bill Sarpalius, Chairman
Interim Study
by the
Agriculture Subcommittee
of the
Texas Senate

The Honorable William P. Hobby, Jr., Lieutenant Governor of Texas
Members of the Texas Senate

The Senate Subcommittee on Agriculture herewith submits its interim report
on transportation of agricultural commodities, pesticides, grain elevator
bonding, farm labor, public funding of agricultural research, grain elevator
explosions, water and the farm security loan program.

Respectfully submitted,

Bill Sarpalus, Chairman

Carlos Truan, Vice Chairman

John Wilson (deceased)

J.E. Buster Brown

E.L. Short
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INTRODUCTION

The Subcommittee on Agriculture of the Texas Senate Natural Resources Committee was charged with eight subjects for interim study between the 67th and 68th legislative sessions. They were: public funding of agricultural research, farm and ranch security loan program, grain elevator explosions, farm labor, commodity warehouse bonding, transportation of agricultural commodities, pesticides, water availability for crops and livestock.

The Subcommittee consisted of Senator Bill Sarpalius, Chairman, Senator Carlos Truan, Vice Chairman, and Senator John Wilson. Ex officio members were Senators Buster Brown and E. L. Short. Staff members were Mr. Guy Finstad, Mr. Steve Ellison and Mrs. Catherine Swofford. Secretarial assistance was provided by Mrs. Geneva Finstad and the Senate Staff Services.

Seven public hearings were held throughout the state for the purpose of gathering information on the study topics. These were conducted in areas where certain topics were of specific interest. Hearing locations were: Austin, Fort Worth, Corpus Christi, Amarillo, Abilene, Lubbock, and Brownsville. The Subcommittee took testimony from over 135 witnesses who ranged from experts in their field to concerned citizens. This testimony, along with the staff's research, provided the bulk of the material upon which this report was based.

The need for action on the part of the Legislature concerning agriculture has never been greater. Texas agriculture has suffered not only from the current country wide agricultural price depression but also from some of the worst economically crippling natural disasters in history. These have caused an upheaval in the agricultural community: one that could be devastating to our state's third largest industry.

The following attempts to summarize the current situation concerning each subject and give recommendations for action the Texas Legislature could take that would be beneficial. It is our hope that the members of the Legislature will consider these and use the information enclosed in evaluating related agricultural issues in the 68th session.
RECOMMENDATIONS

I. PUBLIC FUNDING OF AGRICULTURAL RESEARCH

If Texas Farmers and ranchers are to receive the technical assistance they need, the state will have to assume an expanded role in funding this organization. Therefore, it is our recommendation that the Texas Legislature appropriate the required $1.4 million.

In Texas today there are 866 school districts that have vocational agricultural programs. This subcommittee feels that the program is one of the most valuable offered to young Texans. We support adequate funding for equipment and travel allocations.

One critical issue facing this program is related to the "Agricultural Education Specialist Program" which has been in continuous operation since 1958 serving the vocational agriculture teachers and young farmers. The committee favors continuation of this important program through Texas A&M University at approximately $500,000 each year.

II. THE FAMILY FARM AND RANCH SECURITY PROGRAM

This nation cannot survive if the producers are continually put out of business. We believe that this program will do a great deal in keeping Texas land in efficient agricultural production. Therefore we support any needed amendment to the program which will allow it to function as it was designed.

III. GRAIN ELEVATOR EXPLOSIONS

Texas is one of the largest producers and warehousers of grain in the world. We are also fortunate to contain some of the leading agricultural research and extension facilities to be found. It is our opinion that we must therefore assume a leading role in solving the problem of elevator explosions. This can be done by increased funding to related research and extension facilities. We recommend an increase in appropriations in this area.

IV. FARM LABOR

We must demand that farmers receive fair returns so that in turn, everyone involved in the agricultural system can benefit. The farmer is in a situation of rising production costs coupled with decreased produce prices. With the prevalent market conditions, there isn't enough of the profit left to go around. Perhaps, more study needs to be given to farm production incomes to assure better returns on investments and allow the farmer to pass the benefits to the farm laborer.
V. BONDING OF COMMODITY WAREHOUSES

The Subcommittee feels that the state's laws as to auditing, measurement and bonding are adequate for the majority of the well run warehouses. Therefore, at this time we feel that the best method to protect the depositor from possible loss is for the depositor to only deal with honest, reputable warehousemen. This is not difficult to do, as 99% of the state's warehousemen fall into this category.

The depositors of agricultural commodities in a warehouse deserve to feel that they have money in the bank. Therefore, we feel that the goal should be 100% of the market value protection for depositors. But since no widely accepted, workable plan has been formulated to accomplish this, the Subcommittee suggests continuing with the current bonding requirements.

VI. TRANSPORTATION OF AGRICULTURAL COMMODITIES

Based on the subcommittee's research we suggest that reform of the intrastate transportation regulations for agricultural commodities would be beneficial for Texas. Specifically, we feel that the state's laws should come into uniformity with current federal interstate regulations.

VII. PESTICIDES

If the Legislature feels that the enforcement of pesticide laws needs improving, we suggest that an increase in funding to the TDA's environmental service division would be much more beneficial, than any regulation activity.

We see no reason why the TDA's complaint form shouldn't contain adequate space for personal injuries. We also see a need for strengthening the process of licensing applicators, especially in the area of owner-applicator licenses. The enlargement of the "N" numbers on aerial applicator planes is another action that could benefit the investigation process.

VIII. WATER AVAILABILITY FOR CROPS AND LIVESTOCK

Many people concerned with Texas' current water problems feel that increased research and development in this area can be of great benefit in the short and long run.

One good way to reduce the use of water in agricultural production is for the state's producers to implement conservation equipment. Yet with current economic conditions in agriculture, few have the required money to purchase such equipment. In response to this problem, it has been suggested that the state provide low interest loans to assist producers in buying water conservation equipment.
PUBLIC FUNDING OF AGRICULTURAL RESEARCH

An Overview

The Texas Agricultural Experiment Station needs support to address the crisis situation in Texas agriculture. The cost price squeeze, with surplus supplies and increasing production costs in the short run along with limitations on irrigation water and other natural resources for maintaining production in the long run created the critical issues which must be addressed by an expanded program of research. This critical issue targeted research which would allow the state to take advantage of its unique location, natural resources, production capability and key elements for additional growth and development of the economy.

The Agricultural Extension Service has items that they require. First and most importantly, they need continued support for salaries. The maintaining of the highest caliber personnel is the best way to ensure high quality Research and Extension education. Increased travel allocations are needed. The Texas agricultural producing area is virtually as big as the state itself, and covering this area requires many miles and hours of travel. Unfortunately, as the sphere of responsibility for these organizations increased, so has the cost of travel. In the last decade, mileage and per diem costs have increased 130 to 182 percent, respectively. In the same period the Extension Service has received a 20 percent increase for travel. Since travel is mandatory for effectiveness, especially for the Extension Service, we recommend an increase in both mileage and per diem allowances and the necessary funding to provide for this increase and also for purchase and maintenance of vehicles. This is an important issue, and we consider these funds as crucial. General maintenance funds are critically needed for these agencies. These are needed to keep these organizations operating on a day-to-day basis. Operating funds are less in "real" dollars now than that appropriated in 1975. The Experiment Station and the Extension Service have been strongly encouraged by the agricultural producers of the state to establish a statewide computer network. This will allow farmers and ranchers access to production and marketing system models prepared by Research (TAES) and Extension (TAEX) agencies. These decision aids will allow optimization of returns to agriculture. Financial management and production management decisions will be based upon vast amounts of data accessible through the computer network. Texas is behind other states in providing a system for the agricultural sector. Agricultural producers will not be the only ones to benefit from this research and education. All Texas consumers will also benefit from this Research and Extension as it will, to a great extent, hold down the cost of food. In addition, these agencies will provide further assurance
that food and fiber will be available to consumers in the future. Additionally, the return on investment on taxpayer dollars in agriculture research and extension is between 20 and 50 percent year. Therefore, investments in agricultural Research and Extension generate revenue for the state as opposed to costing taxpayers funds. It is a good, proven investment.

Other Research and Extension Facilities

The Texas Agricultural Experiment Station and the Agricultural Extension Service are those organizations in Texas mandated to provide agricultural Research and Extension education. However, some agricultural research, carried out by a number of colleges and universities, called "auxiliary enterprises" by Texas law, have a hard time conducting extensive research as they have little funding. They receive no money for research from formula funds from the Federal government, and state funding is limited to the formula funding generated for teaching with student credit hour production. Therefore, these institutions are required to generate income from these research operations to pay the expenses of the operations. With the current depressed agricultural prices, it has recently been very difficult for these colleges to provide resources for research. Consequently, research is limited. These non land-grant institutions favor special item funding for the public universities offering agriculture. They further suggest that this be administered by the Texas Department of Agriculture.

This Subcommittee likewise suggests that the Legislature take full advantage of these facilities and capabilities by providing them with specified research duties and the necessary funding. Perhaps this funding should be administered by the Texas Agricultural Experiment Station, the State's agricultural research agency.

There are other agricultural information and education programs operating in Texas. These include the Soil Conservation Service (a Federal agency), the State Soil and Water Conservation Board and Districts, and the Vocational Agriculture programs in Texas' secondary schools.

Texas cropland loses an average of 3.47 tons of soil per acre a year due to water erosion and, on the Plains, 1.3 tons per acre by wind erosion. This wind erosion loss is the largest of all the great plains states. Combating this erosion are the conservation technicians of the Soil Conservation Service (SCS), State Soil and Water Conservation Board, and the Texas Agricultural Extension Service. Such personnel are available at the land owners request to advise them on the optimal use of their property. Unfortunately, since November 1979, Texas has lost 115 SCS technicians due to USDA cutbacks. In response, the State Soil and Water Conservation Board has formulated a program that will attempt to regain the 1979 personnel level. $1.4 million is needed to carry out this plan. If Texas farmers and ranchers are to
receive the technical assistance they need, the State will have to assume an expanded role in funding this organization. Therefore, it is our recommendation that the Texas Legislature appropriate the required $1.4 million. We feel this will more than pay for itself through increased production and soil and water conservation. This increased assistance will be important in insuring the efficient use of water and top soil for our crops and livestock.

Vocational Agricultural programs are working to see that agriculture remains a viable, growing industry by educating future producers. In Texas today, there are 866 school districts that have vocational agricultural programs. They employ 1,472 teachers that educate 62,390 students. These programs stress the actual production of agricultural commodities. This gives the student a solid background for entering a professional career as an agriculturist.

These programs are also valuable to Texas in another way. In 1979-80 these high school students earned over $23.5 million. This Subcommittee feels that the program is one of the most valuable offered to young Texans. We support any increased funding for this program, whether it be increased agriculture teachers' salaries or specific funding. One critical issue facing this program is related to the "Agricultural Education Specialist Program" which has been in continuous operation since 1958 serving vocational agriculture teachers and young farmers. The program has been funded by the Texas Education Agency through annual contractual agreements with Texas A&M University. This program will not be funded in FY 1984-85 through TEA. Therefore, the committee favors continuation of this important program through Texas A&M University at approximately $500,000 each year. This is a critical link of the vocational agriculture programs to the land-grant university. Gross farm receipts in 1981 totaled over $10 billion, and with the multiplier effects total contribution to the State's economy exceeds $34 billion.

Research

The Texas Agricultural Experiment Station is the primary source of agriculturally related research in Texas. This agency conducts research at centers located throughout the State so that the research can be regionally related. This provided for a much closer relationship between the laboratory and the farm. These stations work closely with the central facilities at the headquarters located at Texas A&M University. Approximately, 50 percent of the funds are expended on research activities.

A producer's profit is the difference between the cost of production and the price received by the farmer for the commodity. Research benefits the producer in both these areas. Many feel the only way to maintain a viable agricultural industry is in increasing commodities prices. This is only partially the solution to the low returns on invest-
ments in agriculture. Another major benefit can come about by a decrease in production costs. These costs are varied and, therefore, so is the research and education. Research into becoming more efficient and reducing the farmer's input costs can have a positive effect on his profit margin, on the farm operation. Marketing research, on the other hand, will have its beneficial effects by expanding farm products markets and improving the efficiency of the marketing process -- from the farm sale to the customer. Specifically, research can find ways of making the product more attractive to purchasers and increasing potential markets. Many producer organizations have stated their prime objective for the upcoming year is the expanding of Texas' markets. Research is needed in this area to develop foreign markets and ascertain how Texas could profit. This research could be the savior of the Texas agriculture system.

Extension

Since its formal inception in 1915, the Texas Agricultural Extension Service has grown into the largest adult educational system in the world. This system has employees in almost every county in the state. These specialists are in a close working relationship with virtually all of their area's producers. This facilitates the easy transfer of information from scientist to farmer and market operator. These extension service specialists support almost all major areas of agricultural production from sheep and goat raising to rice growing to marketing organizations. Perhaps Mr. J. R. Hartman, speaking on behalf of the livestock industry, put it best when he testified at our Austin hearing on October 19, 1981.

"The people of Texas today live in a continuously and rapidly changing society. Technology from all levels related to the livestock industry is being developed daily. As our production costs rise and the world demand of food increased, we must be provided this new technology as quickly and effectively as possible. It must come from an unbiased source and it must be proven not only in the laboratories and research farms of our university but in demonstrations on our own local farms and ranches. It must be relayed to us in a manner that we can understand and in a form that we can utilize. The Texas Agricultural Extension Service has such a system and we in the livestock industry want you to know that the system is working for us in communicating on both a statewide and local basis to help keep this important industry viable in Texas."
Funding

The Texas Agricultural Experiment Station (TAES), and the Texas Agricultural Extension Service (TAEZ) are administered by the Texas A&M University System.

Although the TAES and TAEZ acquire operating funds from several sources, the bulk of their funding, approximately 75 percent, comes from the Texas General Revenue Fund. The Texas Legislature has provided substantial funding for research and extension. However, the total amount of State funding is small relative to other agricultural producing states and last of the southern states for Agricultural Research and Extension. We only pay an amount equivalent to 0.37 percent of the State's total farm cash receipts for Research and less than 0.2 percent for the Extension education program. We consider this too low for the nation's third largest agricultural producer. Many witnesses felt that this lack of adequate funding is keeping Texas from leading the nation in production.
THE FAMILY FARM AND RANCH SECURITY PROGRAM

An Overview

The Family Farm and Ranch Security Program has been a major issue in Texas politics in the last two sessions. Although it has been accepted by the agricultural community, the State Legislature, and the people of the state, it still remains a nonfunctioning program. During the course of the interim, we have heard a great deal of strong support for its enactment. This support not only came from producers, but also from state officials and educators.

This Subcommittee was directly involved with this program in the 67th session and we feel that we understand the past and current issues concerning it. With these in mind, plus the supporting testimony we heard on the subject, this Subcommittee supports any needed amendments to make this program function as it was designed.

Introduction

Throughout the history of Texas it has been very important for those involved in producing food and fiber from the land to be able to hold on to their farm or ranch and be able to pass it on to their descendants. It has also been important for new people to be able to realize their dream of having a place of their own on which to farm or ranch as their livelihood.

From 1975 to 1980, though, the number of Texas farms has been decreasing by an average of 3,200 farms per year. During the same period of time the average size of a Texas farm has increased by 70 acres. This change is made even more dramatic considering the fact that there are 1.6 million less acres available for agricultural use than there were in 1975.

The price of land has been driven up tremendously by demand for land on which to build shopping centers, offices, residential areas, and industrial plants. The average working farm or ranch sells for about $250,000. To purchase such land usually requires a down payment of approximately 29% or $75,000. At the same time, money has gotten tighter, and the rate of interest is too high for most people, particularly those just starting out, to be able to borrow the money to purchase a farm or ranch on which they could make sufficient income to earn a living and pay back the loan. Today's rates call for a large yearly debt payment which can obliterate profits and needed expansion or improvement plans.

The average age of the Texas farmer and rancher is between 55 and 59 years. Additionally, Texas loose a significant number of farmers each year. If this trend keeps up and it continues to be difficult for a young person to start a production operation, Texas could be heading for a crisis situation.
To assist qualified people who need help acquiring farm and ranch real estate so they can enter or expand agricultural production, a Family Farm and Ranch Security program was designed. This program, in the form of House Bill 304, was passed by the 66th Legislature. The voting public approved the idea in the form of a constitutional amendment which passed on November 6, 1979. This Subcommittee feels it is time that this program be implemented.

Program History and Functions

During the course of our research we have seen many summaries of this program. However, none was better than the one provided by the Texas Department of Agriculture. Not being able to improve upon this, we are reproducing it here to provide the reader with a basic understanding of this program's workings and background.

Under the Family Farm and Ranch Security Program, the Commissioner of Agriculture is authorized to guarantee loans made by the seller of the land or a private lender for 90% of the sum due and payable under the first real estate mortgage or deed of trust or, if the borrower makes a down payment of 10% or more of the purchase price, all of the sum due and payable under the first real estate mortgage or deed of trust, in the event of default on a family farm and ranch security loan. The Commissioner may also provide for payment adjustments, to qualifying individuals, which can reduce and defer a portion of the interest being charged on said loan.

This guarantee will in many cases result in a reduction in the amount of down payment required to secure a loan for the purchase of farm and ranch real estate. Thus, helping young people make farming and ranching their life's work by reducing the down payment barrier and the amount of collateral necessary to secure a loan. This guarantee will also provide an incentive to local and private financial institutions to provide financing on farm and ranch land, an area most are not currently participating in. The payment adjustment, when available, would help reduce the amount of payments due for the first few years of the loan, allowing the applicant to become better established financially.

To insure the program's success and that the program is administered properly, it is under the direct supervision of the Commissioner of Agriculture. A nine member advisory council, which is appointed by the Governor, is also responsible to review and appraise the program, give advice and counsel to the Commission regarding the program, review all applications, make recommendations to the Commissioner as to their disposition and approve applications for payment adjustments.

To be eligible for a Family Farm and Ranch Security Loan an applicant must: (1) be a citizen of the United States; (2) be a bona fide resident of this state; (3) have education, training or experience in the type of farming or ranching for which the applicant wishes the loan; (4) to-
gether with the applicant's spouse and their dependents, have a net worth of less than $100,000, excluding the value of a residential homestead; (5) intend to purchase farm land and/or ranch land to be used by the applicant and family for agricultural purposes as the applicant's primary occupation; and (6) be worthy of credit according to standards established by the Commissioner.

To be eligible for a guarantee under this program and to have said guarantee remain in effect, the land purchased must be kept in active agricultural production as defined by the rules and regulations.

Upon being approved for and securing a Family Farm and Ranch Security Loan, an applicant is eligible to apply to the advisory council for payment adjustments if said loan has a term of not more than 20 years and provides for equal annual payments. If the application is approved by the advisory council, the Commissioner, subject to the availability of funds, may annually pay to the lender an amount not to exceed four percent of the outstanding balance due on the loan at the beginning of the year for the first 10 years of the loan.

The borrower and all dependents shall annually submit a sworn statement of their net worth. If their net worth in any year exceeds $200,000, exclusive of the residential homestead, the applicant is ineligible for a payment adjustment in that year.

Beginning with the 11th year of the loan, the applicant shall reimburse the Commissioner for the sums paid in his or her behalf plus six percent simple interest. (An applicant may petition the Commissioner for one 10 year renewal of the payment adjustment.) The obligation to repay a payment adjustment is a lien against the property.

A lender, upon receiving a payment adjustment from the Commissioner, on behalf of a borrower shall reduce the borrower's payments for the next year in accordance with the amount received from the Commissioner.

This program can help young people get started in the farming and ranching profession. The State of Minnesota initiated a program similar to this in July 1976. Since that time, there are 248 applicants participating in the Minnesota Family Farm Security Act with guaranteed loans totaling $43,796,717. (Smallest guarantee $27,500; largest guarantee $460,000; average guarantee $163,000) All approved applications have a repayment schedule of 20 years or less and all receive a four percent payment adjustment. Minnesota has experienced only two defaults in its program, both occurring in 1980.

We should point out that the State of Minnesota exempts all interest paid to the seller of the land for state income tax purposes, thus, providing an additional incentive for participating in the program.

We don't know that we will ever be able to develop a program that can help the individual who has no machinery, equipment or land to begin with. But, we believe this program will prove beneficial in the sale of farms within a
family and will also be helpful to the individual who has the machinery and equipment, but operates on leased land. This program can help these individuals acquire land and begin their own operation.

The program authorized the sale of ten million dollars worth of bonds which have been sold (Dec. 23, 1980, at an effective rate of 9%) and the program was opened in late December 1980. But no loan guarantees have been issued since the program, as constructed, does not offer a proper incentive.

The Commissioner found that certain provisions of the Act could not be efficiently and effectively implemented unless the Legislature granted additional or alternative powers, with respect to the Family Farm and Ranch Security Program, by appropriate amendments to the Act. Specifically, funds are needed to allow the Commissioner to implement the payment adjustment provision of the Act.

The Federal "Arbitrage" regulation applied to the bond proceeds earning, which states that an amount not substantially more than 9% (amount bonds sold for) can be earned annually by investing the proceeds of the bond sale. All proceeds, earned from the sale of said bonds, were sufficient only to pay the principle and interest as due, leaving no additional funds available for the payment adjustments. Thus, contrary to the obvious legislative intent of the Act, the payment adjustments authorized by the Act, could not be implemented without further alternative methods of funding these payment adjustments.

Amendments to alleviate this problem (the lack of funds available for payment adjustments & Federal Arbitrage application) were presented to the 67th Legislature (1981) in the form of House Bill 1234. All of this bill passed the House of Representatives but the funding provisions failed to clear the Senate Natural Resources Committee and was thus sent to a subcommittee where it was further amended. These further amendments suspended any guarantees under the program until September 1, 1983 and removed the funding provisions, which were felt to be vital to the program, for the making of payment adjustments.

Although the program was suspended and all funding removed, the passage of other amendments were approved, and is very important, as it allows the proceeds of the bond sale to be invested in tax exempt, special and general obligation bonds. This feature gets the Family Farm and Ranch Loan Security Bonds out from under the Federal Arbitrage regulations, thus adding approximately $200,000 per year earnings to the fund.

When the program is implemented in 1983, additional funds needed for the making of payment adjustments will still be necessary along with funds for administering the program.

Considerable interest has been shown in the program, with the Department receiving an estimated 2,500 plus inquiries regarding the Family Farm and Ranch Security Program (letters and phone calls). In addition, until the program
was suspended, 41 applications were under consideration by applicants.

Testimony

During this interim, we have also heard comments about the program by prospective borrowers. These people are understandably distraught over the program's current inability to serve its intended purpose.

One such young man, Mr. Dayne Golightly of Floydada, has written and sent testimony to this Subcommittee. The following are a few of his remarks.

"The only way my wife and I could get into ranching would be by the state financing us. If we could get the help we would make it work."

"I believe the program should be acted upon to help young people get started. If things keep going the way they are you are not going to have very many, if any, young farmers or ranchers."

We also took testimony from Mr. Barry Roberts of Hereford. He commented as follows:

"Because of (the) "Cheap Food Policy" it is virtually impossible to purchase and pay for farm and ranch land because the returns, if there are any, are so low the payments easily become delinquent. These facts decrease the incentive to farm to such an extent that there must be a program, such as the one we're discussing, to assist farmers to obtain land and make a living on it."

We feel these types of inquiries demonstrate the desire and frustration on the part of Texas young farmers and ranchers. They, and the members of this Subcommittee, feel that one good way out is through the Family Farm and Ranch Security Program.

The majority of the testimony that we gathered over the interim was in favor of enacting this program. Comments have been made to the effect that, of course, the small producers would back this program, after all, they are the ones benefitting from it. From our research, we have seen that the would-be borrowers are not the only supporters of this program. We heard from a variety of statewide producer organizations, state officials, and educators.

Reasons for support of this program are varied. Some thought that this program would help curb the huge losses in land to urban concerns and keep it in production. They feel that many times the conversion of land to non-agricultural purposes is due to the inability to find people that want to produce agricultural commodities with it and can afford to buy it. Some think that this program will provide incentive for people to get into farming. This is needed considering
the shrinkage of the agricultural community. Many supported it on the basis that it will allow current producers to expand their operations. This will help them to continue in business and thereby avoid possible bankruptcies during these rough times. Some felt that this program would effectively lower the average age of the states producers. They think that this will have a beneficial effect on overall productivity.

Most testifiers stressed the family aspects of the program. They feel that it would provide the means to allow producers to keep their land in the family and in production. They feel that the family farm is the backbone of the United States agricultural system. It has been sighted as producing a greater number of high quality commodities. Therefore, to have this system decay would not only hurt the producers but also all consumers.

The timing of the turnover of land to other family members is not gauged to current economics. Rather, it is a function of the age of people involved. Currently, many families wish to hand down productive land but are unable to because of the economy. Many can not wait long, so the result is the selling of the land to outside parties. A program such as this will help solve this problem.

We also heard some opposition to the Family Farm and Ranch Security Program. A few people felt that the program might help the agricultural system but were opposed to it because they felt it was socialistic in nature. They think the program would cause the state to needlessly tamper with the forces of supply and demand. We also heard objections to the state competing in the financial market. Some thought that this program would be virtually ineffective on the overall system as it would only effect a small percentage of producers. There were also concerns expressed about that this system might encourage inefficient production operations. If it did so, this would surely be counter productive to the states objectives.

There were a few comments related to why the state should help people get into a business that is so unprofitable. It was hard for them to see why anyone would want to go into farming or ranching at this time.

Recommendation

Agricultural production is a long run and vital business operation. It is not possible for a producer to go in and out of business as the economy fluctuates. This is not only due to the huge capital investments required but also to the importance of the agricultural industry. This nation cannot survive if the producers are continually put out of business.

We believe that this program will do a great deal in keeping Texas land in efficient agricultural production. Therefore we support any needed amendments to the program that will allow it to function as it was designed.
GRAIN ELEVATOR EXPLOSIONS

An Overview

Grain elevator explosions is a uniquely serious topic as failure to correct the situation has resulted in repeated economic ruin and tragic loss of life. After studying this subject from a statewide perspective, we recognize that implementation of solutions to the problem must be handled at the federal level. Nonetheless, there is much that the Texas legislature can do to aid the grain storage industry and Texas taxpayers in general.

In the past there have been, and undoubtedly will be in the future, attempts to lessen these explosions by increasing the number of safety inspectors for Texas elevators. It is agreed upon by dust explosion experts and the industry itself that this plan would be ineffective. In our opinion, this increased inspection would only cost the state money and needlessly aggravate the grain storers.

As no method for preventing dust explosions has yet been implemented, we suggest increased funding for research and education concerning this topic. In this way, state money can be utilized to help permanently solve the problem and not be wasted on counterproductive measures.

Introduction

Grain elevator explosions have been the subject of an increasing amount of interest, concern, and controversy; particularly in the last several years. The problem is not a recent development. In fact, since 1860 there have been at least 1300 such explosions in North America alone, and the occurrence of these explosions is practically worldwide.

An insight into the devastating nature of these blasts can be gained by looking back at the two month period from December of 1977 through January of 1978. During that time there were seven major explosions in the United States. The loss in terms of life was 62 killed with another 55 injured. The monetary cost was high with the replacement of an elevator ranging from 20 to 100 million dollars. Resultant litigation and lawsuits totalled over $100 million for one of the elevator companies. Farmers Export Company of Kansas City never fully recovered from the financial loss they suffered.

There is a lack of agreement on how grain dust explosions can be avoided. Two camps have formed with opposing viewpoints on the best way to end the problem of elevator explosions.

One camp contends that the solution to the problem is routine safety inspections by a governmental agency; preferably a state agency rather than OSHA. In order for this to happen, the legislature must grant funding to a state
agency thus affording it the authority to inspect elevators and enforce a safety code.

The second camp maintains that inspection is not the answer, but rather a hassle, and that the safety inspectors could wind up as another casualty if an explosion was to occur. Those sympathetic to this point of view give as evidence the April, 1981 explosion of the Port Authority elevator in Corpus Christi. The elevator where the major blast occurred had undergone $53.5 million of work since 1978 that made it supposedly the cleanest, safest elevator around. Those in this camp, primarily grain elevator owners and marketers of grain and seed, believe that more research is needed to determine exactly how to prevent grain dust explosions from occurring in existing elevators. Based on our research, we agree with this group.

Federal Regulators

Although grain elevators can be either federally or state licensed, it's the federal government that assumes all important regulatory duties. These include grain grading, inspecting grain elevators, setting and enforcing minimum safety levels, and measuring dust emission levels. Related agencies include: the Federal Grain Inspection Service, the Occupational Safety and Health Administration, the Environmental Protection Agency, and the U. S. Department of Agriculture. None of these agencies grant specific authorities to implement new explosion supression systems, but rather the elevator simply must continue to meet existing regulations. Therefore the cure to this problem will come through the industries initiative, not the governments.

Explosion Ingredients

To cause an elevator explosion, four things must be present. The elimination of any one element will effectively prevent explosion. The necessary ingredients are: fuel, ignition source, confinement, and oxygen.

The fuel in this case is grain dust. This "dust" is minute grain particles that arise through the grain handling process. Dust levels rise as the grain is moved more frequently. This dust must be suspended in air at a specific density to be combustible. Even at noncombustible levels, this dust can be hazardous. It has been blamed for health problems in workers, air pollution, and early equipment wear. Most elevators try hard to keep this explosion ingredient to a minimum.

Many methods are used to remove grain dust. They include bag filters and cyclone fans, which are comparable to huge vacuum cleaners that suck the dust off the grain. Other methods, such as adding oil to the grain, are up and coming solutions. We will expand on one of these methods in a later section. In addition to sophisticated equipment, there are also common ways to remove grain dust. These include mops
and brooms. As the dust collects on walls and floors, workers must go into the elevator and physically remove it.

This dust can be used as feed or fertilizer or can be added back with the grain. As this dust can amount to many pounds of lost grain, and therefore money, most solutions attempt to keep them together.

All methods for dust removal are expensive. Operation of filters can amount up to 50% of an elevator's total energy bill and obviously labor must be hired to do the cleaning job. This is one reason why grain warehouses are receptive to new dust elimination ideas.

Ignition sources are another main target for elimination. The sources can be friction from belts, overheated bearings, welding or even smoking. It is this part of the explosion that inspection is aimed at reducing.

There are recognized measures that can be taken to reduce ignition sources such as enclosed bearings and plastic buckets. The problem with reducing the hazards by inspection is that the ignition happens in a fraction of a second and is almost impossible to see coming. Also, all of the sources of ignition aren't known. Inspection can find the major infractions and we don't want to seem averse to it; but between insurance companies, regulatory bodies, and the elevator themselves virtually all of these hazards that are possible to find are found.

We feel that increasing inspection will be burdensome to the elevator operators, fiscally wasteful, and most importantly, ineffective in reducing explosions. We are not the only ones who believe this. The elevator operators, who have the most to lose by an explosion, also do not want extra inspection. Likewise, the explosion experts agree that increased inspection is not the answer, or even part of it.

A restricted volume, or confinement, must also be present for a grain dust explosion. Most of the efforts to reduce this ingredient are aimed at a type of relief valve or "blow out panel."

Elevator "head houses," or the structures on top of the elevator that runs its length, are being increasingly made of flimsier material so as to not contain multiple explosions. However, these can not be so loose as to allow amounts of dust into the atmosphere, as elevators have to meet air quality control standards.

The last ingredient, oxygen, seems impossible to eliminate. In a practical sense, this is true. But at specialized facilities, oxygen content can be lowered by the addition of a large carbon dioxide or nitrogen generating plant. At this time this method is financially prohibitive. Also, as elevators contain human workers, this system may be damaging to their health.

Oil Application

In the last few years, the major strides in eliminating explosions have dealt with suppressing grain dust. One
promising system (Dust Sorb<sup>R</sup>) has been developed by the Industrial Fumigant Company. This process involves the addition of oil directly on the grain.

Specifically, the system calls for the addition of food grade white or mineral oil at a rate of 200 parts per million. This oil is sprayed on while the grain passes on a belt conveyor or similiar mechanism. The amount of oil used is so small that it does not measurably effect the grain as to grade or quality. On treated samples that were officially inspected, no down grading occurred. All this system does is prevent grain dust. This in turn prevents excessive filtering costs, possible health hazards, and explosions.

Financially, oil equipped elevators can eliminate up to 50% of their energy costs by reducing the use of their air filtering systems. In large elevators, this can mean up to $5,000 a month in savings. In contrast, the oil will only cost .5 to .9 cent per bushel for application. Additionally, the total cost of this application system is virtually recovered by the increase in weight due to the retained dust.

Listed below are a few of the attributes this system contains. The reduction in dust will lower health hazards to the elevator workers. The reduced cost of this system will make it obtainable for the thousands of small elevators that couldn't afford the large capital investment needed to obtain air filtration systems. Insurance premiums should drop due to the addition of the system. The white oil does an excellent job in helping prevent insect damage.

We feel this system is inexpensive, easy to install and run, and controls the multiple problem causing dust. Yet even with viable systems like "Dust Sorb" available, research is needed before widespread implementation will occur. The Texas grain storage industry is responsible for billions of dollars worth of Texas produce a year. It is therefore not prone to immediately accept systems that have not been completely tested for effectiveness and safety.

**Recommendation**

Texas is one of the largest producers and warehousers of grain in the world. We are also fortunate to contain some of the leading agricultural research and extension facilities to be found. It is our opinion that we must therefore assume a leading role in solving the problem of elevator explosions. This can be done by increased funding to related research and extension facilities.

There remain a few questions that still need to be answered by research. These include the regulation of the amount of oil applied, how this oil will affect filtration systems, and the possible reapplication as the grain travels between elevators before export or use. There is also some concern as to how the treated grain will be received by its importers. All these questions can be answered by appropriate research.
When this new information is collected it must be presented to the warehousers in best way possible. Fortunately, Texas is equipped with such a system; the Texas agricultural extension service. We feel the Legislature should bear in mind that an increased load given to these facilities should be coupled with increased appropriations for them. Other benefits of such research and extension is contained in this report in the section, "public funding of agricultural research."
FARM LABOR

An Overview

The situation surrounding the farm labor force has been an area of concern and controversy in Texas agriculture for many years. Although it is only recently that these issues have received much consideration by the Texas Legislature or producers in general, this increase in awareness is due to increased organization on the part of the farm workers.

There are many problems surrounding the Texas farm worker. These include areas such as health, housing, and education. Most persons, including the workers, feel that all these problems will work themselves out in time, provided the laborers acquire an increase in income. They feel that this will only come from self-organization in the community and the workplace.

The employers/agricultural producers feel that any increase in wages will be virtually impossible to pay, considering the economic situation in agriculture today. Farmers express serious concern about their ability to continue farming because of the low market return on their crops and the high cost of equipment and manpower. More profits must be realized in the production of agriculture so the producer and laborer can both benefit.

Definition and Scope

Although no one knows the exact number of farm workers in Texas, most estimate close to 500,000. These workers are generally located in the South Plains and South Texas areas, but there are some farm laborers in virtually every county in Texas.

For the purposes of clarification, what is meant by "farm labor" can be broken down into two groups: migrant and seasonal. Migrant labor is employed on a seasonal basis by agriculture but they live and work in areas outside of their resident community. Seasonal labor is also employed like migrant labor, but is not required to travel. These definitions vary for each organization that deals with farm labor. This is one area of concern to the laborers. They feel that uniformity in the definitions will provide a more accurate picture of the workers and therefore better application of state and federal programs.

Problems Facing Farm Labor

There are many serious problems facing this generally impoverished segment of society. Factors of life that most Texans take for granted, such as health, housing and education, are a major concern to the farm laborers.

Health concerns range from basic nutrition, to protection of life and limb. According to the National Safety
Council, agriculture is the third most dangerous occupation. If you include farms with less than eleven workers, then it is the most dangerous occupation. Yet, Texas does not provide worker's compensation coverage to farm laborers as it does to laborers in other occupations.

Housing is also a problem, especially for the migrant worker. Although many employers provide adequate housing and there are camps set up specifically for farm labor, many are forced, by economic conditions, to live in substandard housing. During the recent crop disaster that plagued the Panhandle and South Plains farms, many workers were reportedly residing in their cars and trucks because they did not have the financial means for adequate housing.

As a way of dealing with these problems, most persons who provided testimony want a system set up for gathering and assimilating information on farm work related problems. Those speaking for farm workers feel that it is impossible to adequately address these areas without a more comprehensive understanding of the worker's lifestyles.

The education level achieved by farm laborers is, perhaps, the lowest of any work-related group in the country. This situation has received a number of legislative attempts at improvement. Recent well-publicized issues such as bilingual education and education of illegal immigrants, have demonstrated a desire to raise overall state education levels. Yet a farm labor student only has a 11% chance of making it to 12th grade, and it is common for these children to take three years to move up two grades, usually the 3rd and 4th grades. As with the other problems, most feel that this is largely due to the poor economic conditions that force the children to work or move with the migrant parents.

Some problems that this group experiences are caused by their environment and some by work-related factors, but most are directly due to their prevailing poverty.

**Income**

It is widely felt throughout the farm labor community that all the aforementioned problems will eventually work themselves out if only the laborers could make a greater income. Currently, there are various farm labor organizations in Texas fighting the laborer's cause and trying to organize. For example, there is the Texas Farm Workers' Union, which is independent; and the United Farm Workers, which is affiliated with the AFL-CIO. These organizations state that the longstanding displeasure for unions in Texas, the overabundance of unskilled labor, and the mobility of the laborers promote difficulty in organizing. Organized labor attributes farm workers' lack of power, in part due to their lack of enough political influence.

The minimum wage, applicable to farm labor, is also an area of concern. The farm labor community wants the Texas Minimum Wage Act amended to increase the minimum wage from
$1.40 to $3.35 per hour. This would bring the state law into line with current federal law.

They also ask for more stringent enforcement of these laws. It is felt that many laborers get paid less than minimum wage because the proper regulatory agencies are not doing their job adequately. These feelings have caused several suits to be filed on South Texas producers for violating the minimum wage standards.

Recommendation

The Subcommittee on Agriculture recognizes the problem of the farm laborers. They play an indispensable role in the Texas agricultural system. We are for measures that improve their condition; such measures should be mutually beneficial for the producer, as well as for the farm laborer.

We do not oppose, nor do we necessarily support, collective bargaining for any labor group, including farm labor. There are no state laws prohibiting such action.

The farmer is faced with a situation of rising production costs, coupled with low produce prices. The following graphics illustrate the escalating costs paid by farmers for commodities, services, interest, taxes and wage rates and annual farm incomes.

Further consideration needs to be given to farm production incomes in order to assure better returns on investments and allow the farmer to pass the benefits to the farm laborer.
BUMPER 1982 HARVEST

... But Fewer Dollars for Farmers

American farms are expected to yield a bumper harvest this year, but it is not going to mean higher incomes for American farmers. Because of depressed prices, over-all cash receipts are projected at $142 billion, down 1 percent from 1981 and only the second such decline in the last 15 years. After expenses, farmers will keep some $19 billion of that — their lowest net return since 1977.
BONDING OF COMMODITY WAREHOUSES

An Overview

The present system of bonding commodity warehouses in Texas does not provide all the protection desired for depositors. As we researched this subject and heard from the people involved, we realized that the only agreed upon point is that the depositors should receive 100% protection for their stored crop. The present bonding system does not provide this, or even come close. What is not agreed upon is the method of achieving this protection.

This Subcommittee feels that the plans presented to us have been too taxing on one sector or another. We recognize that the current system allows widespread loss upon default, yet, until a better system is formulated, one agreed upon by all participants, this Subcommittee suggests staying with the current bonding method.

Introduction

Bonding of commodity warehouses refers to the bonds that warehouse operators must buy to back up the commodities they store. The money in these bonds is used to pay off the producers who deposit their products in the warehouse in case of default.

Producers and warehouse operators alike agree that the depositors should have full protection for their stored commodities. This means that the producer, or the owner of the commodity, should receive 100% market value of their stored commodity if the warehouse should go under. Herein lies the problem in the current bonding system.

As it now stands, at times of peak capacity, the bond's value is only 10% or less of the market value of the produce stored. Upon default of this situation, the owners stand to loose 90% of their commodities value.

It would seem that the state's producers would be clamoring about this, demanding a better system. This is not so. They realize the current deficiencies and want the system improved, but they also realize that the probability of a commodity warehouse defaulting is very slight. Additionally, the problem of default in warehouses is centered in the Texas grain elevator industry. The rice and cotton depositors seemingly have little or no problem in this area. For these reasons, we heard many pleas for moderation in dealing with this system. They feel, as we do, that it will do until a workable plan is formulated that will provide the 100% protection without overburdening any one sector.

Licensing and Regulation

Commodity warehouses can be either state or federally licensed. In Texas today there are about 750 state licensed
warehouses and about 125 warehouses that have federal licenses. Total capacity licensed in these warehouses is about 400 million bushels. Backing up this produce is only $111 million in bonds; a small percentage of the market value of the stored produce.

The bonding laws concerning state licensed warehouses were last updated in 1977. At that time the state bonding levels were brought into line with current federal law. Specifically, the bonding levels are 20¢ per bushel for the first million bushels, 15¢ for the second million, and 10¢ for all bushels over 2 million. The minimum bonding level allowable is $15,000 with the largest possible bond being $500,000.

Texas law requires the Texas Department of Agriculture (TDA) to audit the records and physically measure each state licensed facility in Texas once a year. In actuality, the TDA averages about one and one third inspections per year on each warehouse. They have the ability to measure and audit more often in a particular warehouse if they feel the situation warrants it.

Defaults

Since warehouse defaults are few and far between, they have no lasting impact upon the overall system. However, the failing of a warehouse can cause a devastating domino effect on the local community. The wiping out of several producers’ crops through such loss will not only hurt the producers but also the bank that loaned the money to plant and the local stores that extended the producers credit.

In the last decade there have only been about 10 warehouse defaults in Texas. Considering the poor economic conditions during that same period, we feel that this is an excellent record. This outstanding record is attributable to the Texas warehousers. These people carry financial responsibility not unlike that of the state's bankers. Even more so because the warehouses don’t have a large insurance policy backing up their depositors like the bankers do.

The producers that deposit their years work in warehouses know that their receipts for deposit are only as good as the warehousers issuing them. Because of the general excellence of the warehousers, this fact doesn’t greatly worry the depositors in Texas or any other state.

There are a few agricultural producing states that have no warehousing laws and don’t want any. There are about 30 states that require bonds before licensing warehouses, while only one state, Oklahoma, has implemented a plan to provide improved protection for depositors.

Oklahoma System

Oklahoma has a duel system that requires the posting of a bond and paying a small amount per bushel into a permanent monetary fund. Whenever the fund reaches a certain level and
can sustain itself, the bonding requirements will be discarded. After this time, upon default, money would be drawn from the fund to pay depositors 100% of the market value of their stored commodities.

To better understand this system and its possibilities, the Chairman and staff of this Subcommittee went to Oklahoma and talked to those responsible in the Oklahoma Department of Agriculture. These state officials did not seem to be impressed with their system as of yet. They seem to feel that the costs of implementation were greater than the benefits.

The Oklahoma system has had a hard time getting off the ground. There were early suits filed against the pooling fund and the Oklahoma Legislature was forced to double the indemnity fee.

The Oklahoma warehousers that this Subcommittee contacted didn't seem to be greatly affected by the new law. They didn't feel the costs were excessive and claimed that these increased costs were not being passed on to the depositors. However, there was concern expressed over whether this system may encourage the isolated, unscrupulous dealers to defraud depositors and the average warehouser to use riskier management practices.

The effective evaluation of this system will require waiting until it is in full effect. At that time it will be possible to measure its benefits and weigh them against the previous costs.

Suggested Plans for Texas

There have been several suggestions on how to achieve the optimal 100% protection for commodities depositors. One that would at first sight seem logical, 100% bonding requirements, is agreed upon by all parties to be unworkable.

If bonding requirements were raised to match the market value of stored produce, the effect on the system would be dramatic. Most feel that this would result in eliminating all the state's middle sized warehouses, the backbone of the system. The only warehouses that would be able to operate would be the few extremely large ones that could afford to own their own bonding company to write their bonds. On the other extreme, the very small warehouse could operate, but only to the extend that they could afford the needed bonds.

This system would probably cause widespread storage of commodities in substandard containers because there would not be enough storage space to deposit all of Texas' produce. Therefore, 100% bonding requirements would be an extreme case of overkill as it would hurt every participant in the system and provide very little benefit. The problem of warehouse default is not to the extend that makes this plan feasible.

Additionally, any increase in the bonding requirements are unsuitable. The current levels are about as high as the warehousers can stand. A small increase in bonding require-
ments would greatly reduce the profit for the warehouse and not measurably benefit the depositors.

There has been one suggestion that the licensing government, whether state or federal, should assume the liability for losses due to default. They feel that the act of issuing a license is comparable to a guarantee of quality. If the government is to license, inspect, and regulate this industry, these people feel the same government should back them up financially. They feel that this will require a small amount of money in relation to the state's resources.

To implement such a system would not only run into legal, and probably constitutional, problems but it would also require the addition of many stricter regulations concerning commodities warehouses. If the state was to back up all receipt tickets at warehouses, it would have to be more selective in the issuing of licenses. Also, this would probably result in increased and expanded measurement and auditing inspections. For these reasons, at this time this Subcommittee sees no need to burden the state and the warehousing industry with such a system.

There have also been suggestions that the state implement a pooling system in a fashion after Oklahoma's. As with the Oklahoma system, this would require the payment by the warehousers into a fund that would eventually sustain itself. Subsequent losses on warehouse receipt tickets would be taken from this fund.

Although this system would eventually provide the 100% protection to the depositors, we have heard some opposition from Texas warehousers. They point out that all warehousers are in competition like any other businesses. It seems unlikely that the majority of the warehousers, who operate soundly and efficiently, would want to pay the loss for the one percent of the warehousers that don't. As with the other suggested plans, there isn't widespread support for this proposal from the people involved.

Some feel that default could be eliminated by increased auditing and measuring by the TDA. The Texas House Subcommittee on Agricultural Commodities report to the 67th Legislature suggested increasing the mandatory inspections from one to two per year. As it now stands, the TDA is doing all the inspections possible with the manpower and funding they are provided. Given increased backing, the TDA could catch some intentional defraud plans and could help prevent some bankruptcies due to bad management.

The problem with the increased inspections is that it would be burdensome on the vast majority of the sound warehouse operators and the state. Finding the one or two warehouses out of 750 that is going to go bankrupt would be a difficult task. Also, if a default does occur, there would still be the problem of paying the depositors the market value of their grain.

This Subcommittee suggests the state not implement any bandaid measures such as this. Rather we feel that the state
should wait until the warehousing industry agrees upon a system that provides 100% protection for depositors.

Recommendations

We heard the statement, "you can't legislate honesty," many times during the course of this interim. We agree. The Subcommittee feels that the state's laws as to auditing, measurement and bonding are adequate for the majority of the well run warehouses. It would be extremely difficult for the state to prevent the dishonest warehouse operations from defrauding the public. Therefore, at this time we feel that the best method to protect the depositor from possible loss is for the depositor to only deal with honest, reputable warehouse owners. This is not difficult to do, as 99% of the state's warehouse owners fall into this category.

The depositors of agricultural commodities in a warehouse deserves to feel that they have money in the bank. Therefore, we feel that the goal should be 100% of the market value protection for depositors. But since no widely accepted, workable plan has been formulated to accomplish this, the Subcommittee suggests continuing with the current bonding requirements.
TRANSPORTATION OF AGRICULTURAL COMMODITIES

An Overview

Agriculture is completely dependent upon a reliable and efficient transportation system. Therefore anything that could be done to improve this system could be of great benefit to Texas agriculture. While looking at the broad subject of transportation of agricultural commodities, one issue stood out: intrastate trucking regulations. Consequently, we have concentrated our research on this topic.

We have found that a growing number of Texans think that the current statewide regulatory system dealing with transportation of agricultural commodities is flawed and should be done away with. They feel it makes entry into the industry overly restrictive and guarantees an unwarranted profit for authorized carriers. They believe the forces of supply and demand working on the trucking industry in an open market would better serve the state.

Based on the subcommittee's research we suggest that reform of the intrastate transportation regulations for agricultural commodities would be beneficial for Texas. Specifically, we feel that the state's laws should come into uniformity with current federal interstate regulations. We believe the current insurance and safety requirements on intrastate carriers is viable, necessary and should be continued.

Importance of Transportation

We would like to state at the outset that our suggestions are directed only at intrastate trucking regulations of agricultural commodities. Even though much of our report is based on results from totally deregulated transportation systems, we feel qualified to only comment upon trucking as it applies to agriculture.

Texans are very mobile. Our agricultural commodities are no different. Because of the size of the state and the fact that it contains dispersed agricultural producing areas, many miles must be covered between producer and storage and processor. This vast transportation system involves a large number of people who depend on its smooth execution for their livelihoods. An inefficient system can mean economic trouble; Whereas, any increase in efficiency can greatly aid those involved. This, in turn, will benefit the state as a whole as it will lower the cost of food production. We feel the best action the Texas legislature could take to aid this system would be motor carrier reform of state regulations as they concern agricultural commodities.
Problems With The System

Texas first enacted motor carrier regulations in 1929 to restrict competition during that time's economic collapse. Our present form of regulation has remained largely unchanged since 1935. Most of our testifiers felt that this system does not fit Texas' current needs. It is one hindrance that agriculture can do without and one that we can do something about. Objections were centered around two major issues: rate setting and entry requirements.

Most witnesses felt the method of rate setting is completely inequitable. One farm organization's president testified that he believed that the Texas farmer has grounds to file suit in federal court against the Texas Railroad Commission on discrimination charges. This was due, according to the witness, to the Commission's uncompetitive regulations which causes intrastate rates to severely hinder the Texas producer in competing with neighboring states that ship into Texas. Interstate agricultural shipments are exempt from regulation and are therefore less expensive.

Many other testifiers also believed that shipping prices are unnaturally high, set and held there by the Railroad Commission. In actuality, the rates are set by rate bureaus made up of different parts of the transportation industry. These are submitted to the Railroad Commission which approves them. This is the cause of many of the complaints we heard. Many feel that these rate changes are unneeded and don't represent a fair price for the service. It is their opinion that this rate setting process is a detriment to the market as a whole. Shippers don't see why the Texas government should be the protector of the transportation industry.

We also heard many complaints, both in testimony and in correspondence, that entry into the industry is overly restrictive. Again, the Railroad Commission is responsible for determining the need for new or expanded service under Texas law.

To be granted a permit or certificate to haul in Texas, a few things must be proven. Not the least of which is that the existing carriers that serve the territory involved are not rendering an adequate service based upon substantial evidence. This burden of proof that is placed on the applicant is one major area of dispute. To provide this evidence, shippers in the area must testify that they are not receiving adequate service. This can be hard to get a shipper to do as they are dependent upon the current carrier.

Other requirements must be met also, but the point is that it is easy for a carrier to keep competition out of their market. This makes authorized permits and certificates a highly valued commodity. As an example of the desire for these authorities, some sell for over $20,000. Even if one can meet all the requirements for authorization, lawyer's fees in doing so are often prohibitive.
Support For The System

We also heard from some that supported Texas' current regulatory requirements. Such people were in the minority and most tended to have vested economic interest in having the system maintained. They felt that the current laws were set up to protect the public and, in fact, do so. Some saw motor carriers as a utility and felt it should continue to be treated as such by maintaining monopolistic systems and regulatory rates.

Such people feel that reform would mean an unstable, inefficient market that would serve neither shipper or carrier. Concerns included reduced service to rural areas, fluctuating rate setting mechanism, and less reliable service.

They felt that this reduction in service quality would cause an increase in loss and damage. To guard against this, we support the continued bonds and/or insurance requirements. This is not, in our opinion, restrictive and provides a needed service for a small price.

Predicted Results of Motor Carrier Reform

We believe that motor carrier reform will be beneficial to Texas agriculture in a number of ways. First, we feel that if left up to market forces, transportation rates will drop. This will obviously aid the producer/shipper. We base this on the fact that current unregulated interstate rates through Texas are less expensive than the same length trips within our borders. Also, the increase in the number of carriers should cause the rates to reach an equilibrium level that, we feel, will be below regulated rates.

This equalization of federal and state regulations should aid Texas shippers to increase their share of Texas markets. They will no longer be at a disadvantage to out-of-state shippers who can move their products into Texas at a cheaper price.

Second, after reform, the only restriction on entry will be the existing economic factors. We feel this will make more trucks available with little or no decrease in service quality. Rural areas will not be abandoned in the rush for more profitable markets, in our opinion.

With no backhaul restrictions there will be a smaller number of empty trucks on Texas highways. This will save fuel and slow down the deterioration of our roads.

In summary, it is our belief that the Texas agricultural commodities transportation system would function better in an open market. We base this belief upon testimony of knowledgeable Texans, studies of probable results upon Texas, and research of results from similar reform attempts. These include deregulation activity in Florida and other states.
Deregulation in Florida

Florida was the first state to deregulate the motor carrier industry. Because of this, it's transportation industry has been under close scrutiny. Although Florida is unique geographically and totally deregulated, we still feel that its resulting effects are relevant to Texas.

Surprisingly, Florida's deregulation has occurred with very little incident. Florida's transportation system has not suffered from some of the predicted slowed or less efficient service. The high quality provided in the past has been continued after deregulation. The majority of shippers and receivers in Florida appear to be satisfied with the current system.

As with federal reform results, there was an increase in service options with generally lower rates. The rate setting system under the open market has seemingly been stable.

A constant concern over reform is that the rural areas will not be served as they are not as profitable as metropolitan areas. This is a major concern to Texas agriculture as it is extensively rural based. The Florida experience has shown that those predictions have not materialized. Surveys have even proved that the majority of nonmetropolitan shippers expressed a preference for deregulation.

All these factors add up to a successful system in Florida. We feel that comparable efforts would aid Texas.

Nationwide Trend

There are two states that have ended economic motor carrier regulation and a few others are expected to soon follow. In the last few years, many states have looked into changing their intrastate trucking regulations. About half of them have made, or are considering making, changes in their transportation laws. Most of these are doing so in a piecemeal basis. The most common change is the relaxing of entry requirements. Only eleven states have no current reform activity.

The majority of states studied the effects of federal regulatory reform and Florida's recent deregulation experience before deciding whether to act similarly. After reviewing these two actions, most states have started some sort of reform movement. Our neighboring states are no different.

New Mexico has passed a new motor carrier act that is reportedly 95% similar to federal regulations. Oklahoma is studying motor carrier reform. Louisana considered, but did not pass, reform legislation. Only Arkansas has no transportation reform activity.

Statewide Support

The subject of motor carrier reform is not new to Texas although it is only recently that it has gained wide accept-
ance. In this interim, many groups have come out in favor of reform or encourage looking into it. The Governor's Task Force on Agriculture's Transportation Committee has recommended equalization of state and federal agricultural motor carrier regulation. The Texas 2000 Commission likewise recognized a possible problem and suggested further study into it. We have specifically heard support from groups including the Texas Farm Bureau, the Texas Grain and Feed Association, the Texas Poultry Federation, and the Texas Industrial Traffic League.
PESTICIDES

An Overview

The subject of pesticides as they affect human health is one of immediate concern to many Texans. The farm laborers are the most seriously affected group and, consequently, have many ideas for reform. Some of these would have to be dealt with on the federal level, while many require an addition to the Texas regulations and laws. Our current system requires that a chemical must be cleared and registered by the Environmental Protection Agency. It costs manufacturers millions of dollars a year in research to develop a product which will satisfy government agencies as to the safety of a chemical. Chemicals must be regulated; perhaps, strict enforcement of existing laws would better ensure the safety of all involved.

Information

The subject of pesticides and their use is very broad. We have limited this report to the health aspects as they affect the Texas farm laborer. This was done because this is an area of immediate concern and because we are also studying the overall problems concerning the farm workers. It is very hard to separate these two topics as they are so closely interrelated.

Texas is the second largest user of pesticides in the nation. It is estimated that, in 1977, a total of 100 to 150 million pounds of pesticides were applied in Texas. In South Texas, this equated to about 13 pounds of pesticide for every man, woman and child. Additionally, the use of these pesticides are expected to increase due to technological advances in the agricultural industry. No one discounts the value of these chemicals to food production, but if misused, these can also result in a multitude of health problems for those individuals directly involved.

The most vulnerable group to pesticide poisoning is the farm laborers. They can come in contact with pesticides due to working in a recently treated field or by being directly sprayed. Such exposure can result in acute and chronic ailments. A recent study by the National Association of Farm Workers Organizations on these acute effects showed that most of the laborers in the Rio Grande Valley have had skin inflations, many have had chronic headaches, some have complained of dizziness, and others suffered from blurred vision. The chronic effects of pesticide poisoning can include cancer, nerve damage, and respiratory diseases.

Federal Law

The federal law regulating pesticide is the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). This is enforced by the Environmental Protection Agency (EPA). The
The most important function this agency carries out is the registration of pesticides. The EPA registers any pesticide that is manufactured or sold on an interstate basis.

Registering a pesticide means that the EPA determines the degree of toxicity and decides whether they will restrict use to certain crops or application methods. These products are evaluated with respect to usefulness and riskiness to man and the environment. They are concerned with potential hazards to applicators, farm workers, and the product handlers. This process is very stringent and can take years to complete. At this time, they also decide whether the pesticide will have to be applied by a certified applicator.

FIFRA also contains regulations relative to container labeling. The product label is the legal document that dictates whether misuse has occurred. Specifically, the federal law says it is "unlawful for any person to use any registered pesticide in a manner inconsistent with its labeling." These labels are required to bear adequate directions for use and warning or cautions which are designed to prevent injury to people or the environment. These include the requirements for protective clothing or equipment for all who handle the product. All instructional materials accompanying the product is also included in the labeling process.

The section of the FIFRA regulations specifically dealing with the protection of the farm laborers, Part 170, is entitled "Worker Protection Standards for Agricultural Pesticides." It specifically prohibits the exposure of laborers to a pesticide, either directly or through drift. The term "drift" refers to the carrying of the pesticide in the air to unintended areas. This occurs mainly through aerial application of the pesticide. Farm workers, home owners and even communities have complained of getting exposed to pesticides due to drift.

FIFRA also sets reentry requirements for specific pesticides and requires warnings to be given to laborers expected to be working in treated areas. A reentry requirement is the specified time that a field must remain vacant of laborers, or other persons for that matter. This is to allow the residue of the freshly applied pesticide to dissipate to safe levels.

State Law

The federal pesticide statutes allow for the states to assume the role of primary regulator if they so desire. In this case, the EPA and the corresponding state agency will work together, but the state has the power to reinforce the federal laws as they see fit. Texas has assumed this regulatory role and has delegated the authority to the Texas Department of Agriculture (TDA).

The Texas Pesticide Control Act of 1975 brought the state regulations in line with current federal statutes. Under this Act we receive grant money from the EPA for
enforcing both the state and federal law. This statute was revised in the 67th Legislative Session and is now referred to as Chapter 76 of the Texas Agriculture Code.

Investigation

The Texas farm workers are extremely concerned with the TDA's role as complaint investigator. The following summarizes the investigative process and current objections to it.

It has only been since 1976 that the TDA has had the authority to investigate complaints in all counties in Texas. The process involves the filing of a formal complaint within 30 days of the actual occurrence. The TDA then investigates, documents, determines the degree of severity, determines the source, and then acts through the legal system within the realm of the statute. The TDA doesn't directly act on all documented cases, some are referred to the EPA for action under FIFRA.

The TDA division dealing with pesticides contains 37 full-time employees; approximately 18 of these directly work on the misuse of pesticides. In 1981, the TDA logged 18,548 contacts with Texas citizens. As a result of these investigations, the TDA filed 26 cases, had 8 hearings, suspended 61 user licenses, revoked 4 licenses and wrote 6 misuse warning letters. There were also 90 stop sale orders for mislabeling of insufficient products.

There were many objections to the current method of investigation done by the TDA. Many cited a report published in 1981 by the U. S. General Accounting Office that concluded that 42% of complaint investigations done by the TDA were inadequate, while another 15% were questionable.

A specific complaint concerning the investigative procedures was that the TDA will accept no anonymous complaints. The farm workers want to be able to complain anonymously because many are afraid of losing their job for complaining to the TDA. Therefore, they feel that the current system discourages many complaints. TDA officials report that it is hard to follow up on complaints because of rapid dissipation of the pesticide and, in many cases, a lack of eye witnesses.

Another objection to TDA investigative methods is that the complaint forms have no space for personal injuries. The farm workers take this as a lack of concern for health and safety issues. Reportedly, attempts to correct this, by many organizations, have not been successful.

Additional Problems

There were many other complaints voiced about the state's pesticide laws and regulations as they concern the farm laborers. We will summarize the most common ones.

Currently, the citizens of Texas have no "private right of action" pertaining to pesticide suits. This means the
people injured cannot personally file suits for damages and
injunctive relief since this is done solely by the TDA.

Texas is also lacking a method of collecting and cor-
relating records dealing with pesticides use and misuse.
Currently, no records are kept on what, or how much, pes-
ticide is bought or applied in Texas. There are also no
accurate records of the number of pesticide poisonings in
Texas. To make this possible, many farm worker represen-
tatives support making the reporting of pesticide exposure
incidents mandatory. This, in addition to the keeping of
usage data, would make this issue easier to address.

This record assimilation will make another request
possible. This is the desire for a continuing, long term
study on the effects of pesticides on the public and the
environment.

Two of the most frequent suggestions concerned the
posting of treated fields and setting up of a minimum reentry
time. Posting means the placing of signs on all fields
stating when the field was treated and with what pesticide.
It is felt that many times complaints are suppressed because
the workers don't realize that they are working in a treated
field. It is hoped that posting will keep workers from going
into areas too early after application. These signs would
contain the basic information that is on the container
labels. In addition, these should be in English and Spanish.
Consideration should also be given to illiterate workers who
may not be able to read in either language.

Moreover, many farm labor representatives want a manda-
tory 24 hour reentry limit. As it is now, different pesti-
ticides have varying reentry limits. They feel that setting
minimum time requirements would be safer for the laborers.

We hear many objections about the state relying on the
EPA information concerning individual pesticides. In the
last years, there have been claims on the inaccuracy of
reports from one of the largest research laboratories in the
country. If the information gathered was incorrect, then
many of the resulting EPA registrations were also incorrect.
The state of California, which has over 500 people working on
pesticides, has recognized this and is doing much of their
own research and registration. Many want a similar system
set up in Texas. To carry this out would require large
amounts of funding and years of work.

Another concern is that there have been over 200 pesti-
cides in the last seven years licensed by the TDA under a
local need basis. These are pesticides not registered with
the EPA for one reason or another. This complaint is cen-
tered on the fact that these pesticides are not properly
researched. Many feel the Texas' laws should be strengthened
to prevent such actions.

To protect against drift problems, the farm labor
community would like larger "N" numbers on aerial applicator
planes to make complaint reports easier. Also, the estab-
lishment of buffer zones is wanted. These buffer zones will
be areas around houses and communities that will receive no
application, thereby protecting the nearby residents from close drift problems.

There is much need for increased education and communication on the proper methods of handling pesticides. Many farm laborers and producers don't know the many dangerous aspects of application. During our research, we saw a desire and willingness on the part of the pesticide manufacturing companies to help in this area. We feel that they are willing to provide any information concerning their products desired.

The TDA has also devised public service spot announcements to provide information to workers concerning steps that they should take to protect themselves. Texas was the first state in the nation to do this.

There were many other complaints concerning pesticides and the farm laborers. A list would include no worker protection laws in Texas, the ease of gaining an applicator license, no washing facilities available to promote better hygiene, small maximum fines for violators, and a general lack of research on pesticide problems.

Recommendations

The Subcommittee on Agriculture realizes the tremendous possibility for mishap surrounding these chemicals. We must focus our attention on strict enforcement of existing laws to assure the safety of all those who may come in contact with the chemicals. We feel the majority of the problems can be solved by enforcing the statutes already on the books.

If the Legislature feels that the enforcement of pesticide laws needs improving, we suggest that an increase in funding to the TDA's environmental service division would be much more beneficial than any regulation activity.

There are steps that the state and federal governments can take that would greatly benefit the people that are endangered of being exposed. First of all, we see no reason why the TDA's complaint form shouldn't provide adequate space for reporting personal injuries. This could greatly help in the investigation of pesticide exposure complaints and perhaps stimulate more people to contact the TDA in case of personal exposures.

Some see a need for strengthening the process of licensing applicators, especially in the area of owner-applicator licenses. Perhaps if it becomes more difficult to get a license, there could be increased knowledge of pesticide use and misuse.

The enlargement of the "N" numbers on aerial applicator planes is also an action that could benefit the investigation process. We understand that the Federal Aviation Administration is in the process of implementing this.

We feel that strict policing should be exercised in the area of pesticides to make sure that these chemicals and other toxicants are used only on the specific crops intended and not misused in any way.
WATER AVAILABILITY FOR CROPS AND LIVESTOCK

An Overview

Virtually all sectors of agriculture are dependent upon available, abundant water. The total amount used is extremely large. Over 75%, or 13 million acre feet, of the states total water usage per year is due to agricultural production. Because of reduced supplies and increased usage by other industries and municipalities, the availability of water for agriculture is diminishing. This situation demands immediate action on the part of the Legislature to provide for both short and long run water supplies.

This Subcommittee feels that there are many ways to immediately deal with this reduced water supply. These include various conservation encouragements, creation of more surface reservoirs, and providing for more conservation related research.

Background

There have been many studies on Texas' water problems in the last few years and during this interim. The majority of these have dealt with statewide plans that would effect both urban and rural areas. These plans are large in scope and will do a great deal to aid Texas in the years to come. In contrast, our report is concerned solely with the availability of agricultural water in the near future.

We are confident that the State Legislature will be far sighted enough to provide for Texas' water requirements in the long run. In the meantime we feel it is important to take short run measures to maintain the supply of water for crops and livestock. There are many workable measures that are available for immediate implementation. This section attempts to summarize a few such actions.

Research and Development

Many people concerned with Texas' current water problems feel that increased research and development in this area can be of great benefit in the short and long run. We heard many suggestions for specific research needs; listed below are a few.

In the area of crops, research is needed to develop various commodities that are less water-intensive. In these times of reduced water resources, dry land farming is making a comeback. Research is needed to make this a productive and efficient undertaking. Such efforts should include crop breeding to increase drought tolerance and changing of plant physiology to reduce the amount of needed water. Improving salt tolerance in plants to make irrigation with saline water viable is also an avenue being pursued.
There is a need for more energy efficient irrigation pumping methods. These pumping costs are extremely high, and getting higher due to rising energy costs and declining water tables.

There have been many recent strides in developing irrigation conservation equipment. It is felt that these can go even further and do more in reducing the wasting of water. The possibility of weather augmentation is currently being studied in a few areas of the state. The benefits of this research will not be fully known for many years.

The use of conservative irrigation methods has already benefited Texas in several producing areas. Irrigation methods such as row dams and low pressure systems have been proven effective and should be expanded so as to become available to all irrigators. This, as with the implementation of the other measures previously stated, will require continued increases in research, development and extension.

**Increased Surface Storage**

In many areas of the state increased surface water would be both economical and beneficial. These could range from stockponds to lakes of up to 50,000 acre feet. We feel the cost of constructing these needed dams would be minimal compared to the present and long run benefits they could provide.

One benefit is that the rainfall amounts increase in an area with additional surface water. Also, to a small degree, the seeping of moisture into the soil will provide some ground water recharge. Surface storage will prevent some erosion of valuable topsoil. There are also many recreational and wildlife benefits that could occur.

Not only will this increase in surface storage benefit in existing agricultural producing areas, but there are many arid areas of this state that need such action so it can reach its maximum potential. 25 million acres, or 26% of all range and native pasture land in Texas, show a need for surface water improvement.

Texas producers have slowly started to improve this condition. Since 1965 average range conditions have improved by 24% with over 44,000 stock ponds in place in the Rolling Plains alone. However, with current economic conditions, producers are finding less money to spend on capital improvements such as these.

**Importance of Irrigation**

The irrigation of agricultural land is a main reason that the U.S. has been a world leader in food commodities production. The benefits of irrigation to Texas produce can be demonstrated by increased production yields.

Irrigated cotton land can produce up to 1½ bales per acre while dryland cotton farming can only produce ½ bale per acre. The 35% of Texas cropland under irrigation produces
over 50% of this state's total crop value. Therefore, we feel it imperative that the State Legislature take the necessary steps to provide for the continuance of this vital production input.

Additionally, the shift from irrigation to dryland farming will mean a significant change in the population distribution. The dryland areas will be less productive and therefore draw fewer producers to it. This, coupled with the lower value of dryland crops, will soon cause the failure of the current local, agriculturally based economic systems.

Today over 75% of the water used for irrigation comes from ground water sources. There are no short term measures available to greatly increase this supply. Consequently, one of the only avenues available is to make irrigation conservation technology available.

Water Conservation Encouragements

Most state water plans concern acquiring increased volume of water. The same effect can be gained by reducing the amount of water needed.

One good way to reduce the use of water in agricultural production is for the state's producers to implement conservation equipment. Yet with current economic conditions in agriculture, few have the required money to purchase such equipment. In response to this problem, it has been suggested that the state provide low interest loans to assist producers in buying water conservation equipment.

The largest user of agricultural water, irrigation, can be reduced up to 50% by new conservation techniques. If wide spread use of these could be implemented, huge amounts of water could be saved annually. This could, in turn, provide the state with the needed time to enact a larger, more comprehensive water plan.

Technical Assistance

Technical assistance can do much to stimulate the voluntary implementation of conservation techniques. Additionally, technical assistance organizations can provide the information needed to build and maintain surface storage areas.

Such groups that provide this service are the Texas Agricultural Extension Service, the Agricultural Conservation and Stabilization Service, and the State Soil and Water Conservation Board. Further expansion upon this subject is found in this report in the section entitled "Public Funding of Agricultural Research."