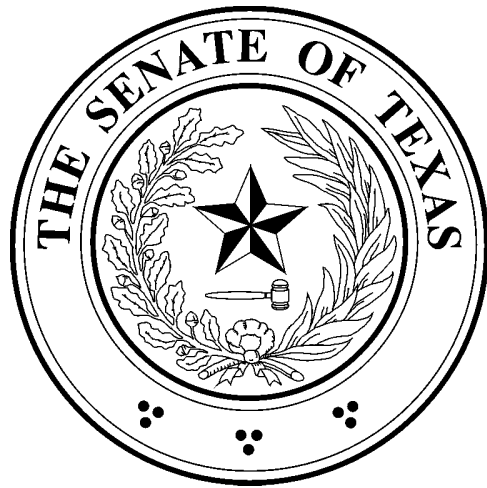


**The Senate Interim
Subcommittee on
Agriculture**



**Interim Report
To the 79th Legislature
November 2004**

SENATE SUBCOMMITTEE ON AGRICULTURE

SENATOR MIKE JACKSON
Chairman



SENATOR CRAIG ESTES
SENATOR EDDIE LUCIO

November 19, 2004

The Honorable David Dewhurst
Lieutenant Governor
Member of the Texas Senate
Texas State Capitol
Austin, Texas 78701

Dear Governor Dewhurst and Fellow Members:

The Subcommittee on Agriculture of the Seventy-Eighth Legislature hereby submits the interim report including the findings and recommendations for consideration by the Seventy-Ninth Legislature.

Respectfully Submitted,



Senator Mike Jackson, Chair



Senator Craig Estes



Senator Eddie Lucio

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INTERIM CHARGES

The Senate Subcommittee on Agriculture was charged by Lieutenant Governor Dewhurst with the following tasks:

- Charge 1:** Study and make recommendations to enhance current efforts for the early detection, exclusion and treatment of diseased plants and animals.

- Charge 2:** Explore new technologies and business opportunities in agriculture and make recommendations to enhance and develop agriculture.

CHARGE 1

Study and make recommendations to enhance current efforts for the early detection, exclusion and treatment of diseased plants and animals.

To address Charge 1, Dr. Bob Hillman, Executive Director of the Texas Animal Health Commission (TAHC), testified on the status of animal diseases in Texas. The Texas Department of Agriculture's (TDA) Deputy Commissioner, Martin Hubert, explained how their agency monitors plant disease in Texas. Dr. Ed Hellman, Viticulture Specialist with Texas Tech University and Texas A&M University, briefed the committee on Pierce's Disease.

I. ANIMAL HEALTH

A. BACKGROUND

Currently, Texas and Wyoming are the only two states not bovine brucellosis-free, but eradication efforts and surveillance are being continued. In fiscal 2004 three infected cattle herds were found in Texas. Two herds were depopulated and the third herd was put under quarantine to be tested over the next year. For the state to be declared brucellosis-free there must not be an outbreak for 12 consecutive months.

Texas is also one of four states, including California, New Mexico and Michigan, that has not been declared tuberculosis-free. TAHC is focusing on new and improved rules and national standards to attain disease-free status. Prior to 2001, Texas was briefly declared as Accredited Free Status. Two cattle herds were infected in 2001, one in 2003, and another detected in 2004. To be declared

tuberculosis-free, Texas must go two years without infection after depopulation and release of quarantine of the last infected herd.

Swine brucellosis and pseudorabies are the primary disease concern and of economic consequence to Texas swine producers. Texas is not free of either disease.

According to TAHC, there are no serious disease threats to the state's equine population. TAHC oversees an equine infectious anemia (EIA) program to address the small percentage of horses infected with EIA.

The current animal identification plan is only reliable in states, like Texas, which use a first point testing program. The brucellosis tag is the current method of identification and in disease-free states there is no a reason to identify their herds.

Because threats of bio-terrorism and disease incursions have become more significant in recent years, the Foreign and Emerging Animal Disease Plan audited the preparedness and response mechanisms of TAHC.

B. CURRENT EFFORTS

In response to brucellosis and tuberculosis, TAHC is continuing eradication efforts. In FY 2004, TAHC tested over 2.4 million cattle for brucellosis.

Surveillance of this disease will continue for at least the next five to ten years depending on when disease-free status is attained.

Also in FY 2004, over one million Mexican origin cattle were imported into Texas. In the past year, approximately 350,500 cattle have been tested with the hopes of having all of the dairy herds tested by year's end. At this time, USDA is preparing to implement revisions to program standards for cattle tuberculosis.

In response to swine diseases, TAHC is testing the blood of sows and boars from livestock markets and slaughter facilities at their laboratories around the state. The agency conducts routine surveillance for disease and monitors feral swine in holding facilities. These efforts help reduce the potential for disease transmission to commercial swine. USDA is working with the industry and states to reduce the spill-over of disease from feral to commercial swine. They are developing a new identification system for all commercial swine facilities. The federal government is also performing a risk analysis for potential pseudorabies cases and implementing risk mitigation strategies for the reduction of potential disease exposure.

To further enhance the efforts for the early detection, exclusion and treatment of diseased animals in our state, Dr. Hillman of TAHC also explained how identification tags make it easier to trace disease origins. TAHC is working with the United States Department of Agriculture (USDA) on the implementation of a newly adopted United States animal identification plan referred to as the National Animal Identification System (NAIS).

The adoption of a national identification system will help secure the health of the national herd. The program will provide animal owners and animal health officials with the infrastructure to improve efforts in current disease eradication and control; protect against foreign and domestic animal disease outbreaks; and

provide infrastructure to address threats from deliberate introduction of disease. This program includes pork, cattle, swine, equine, bison, goat, sheep, and aquaculture.

The U.S. Animal Identification Plan (USAIP) is a detailed plan created by industry representatives over the course of a two year period to address national animal identification. The USDA adopted the data standards of USAIP for the National Animal Identification System (NAIS). Moreover, USDA is using USAIP as a guide as it drafts other standards required for NAIS implementation. As NAIS is developed and implemented, the USAIP development team and species-specific USAIP working groups continue to provide input.

On April 27, 2004, Agriculture Secretary Ann M. Veneman announced the framework for implementation of a National Animal Identification System (NAIS) designed to identify any agricultural premise exposed to a foreign animal disease so that it can be more quickly contained and eradicated.

Secretary Veneman also announced in May 2004 that \$18.8 million would be transferred from the USDA Commodity Credit Corporation (CCC) to provide initial funding for the program during FY 2004. The USDA's budget for FY'05 includes a request for an additional \$33 million.

The USAIP website does not give an estimate for overall cost but in testimony on HR 3961 (S. 2070) [United States Animal Identification Bill] they estimated that the six year implementation will cost \$545 million.

The key issue to implementing this plan depends on funding. The initial money will not support the long term survival and maintenance so how the program will be paid for is what is of interest to the ranchers and farmers in Texas. The

question is whether the federal government is going to cover all of the costs or will the state need to find and allocate additional funding. The most likely solution is that both entities will be sharing the costs.

In 2004, TAHC combined efforts with the Oklahoma Department of Agriculture and the Osage Nation to apply for the funding from USDA for the new animal identification system. The funding was allocated to TAHC and Oklahoma, but at a lower level than requested. For this program to be fully implemented in Texas, more funding is necessary for the management of NAIS.

According to the Foreign and Emerging Animal Disease Plan (FEAD), TAHC proved their ability to effectively respond to the threats of intentional and accidental introduction of diseases. TAHC is also working on the development of a non-disease state animal emergency plan to improve response capabilities with local animal health personnel.

C. RECOMMENDATION

The subcommittee recommends that the Senate Committee on Finance appropriate funding for more TAHC full-time employees to adequately fulfill the requirements of testing animals, preventing and eradicating disease, implementing the new animal identification plan, and protecting the state from the intentional threats of disease.

II. PLANT HEALTH

A. BACKGROUND

To further explore Charge 1, the Texas Department of Agriculture's (TDA) Deputy Commissioner, Martin Hubert, explained how their agency monitors

plant disease in Texas. TDA oversees the regulatory program for plant disease by surveying for pests, conducting road station inspections, enforcing quarantines, and monitoring eradication efforts when feasible. TDA is also responsible for nursery and floral greenhouses and retail outlets, ensuring that quarantined plants are not sold. If a diseased plant is introduced, the United States Department of Agriculture (USDA) has primary jurisdiction and TDA assists in the efforts to quarantine.

In addition to plant diseases monitored by TDA, Dr. Ed Hellman, a viticulture specialist with Texas Tech University and Texas A&M University, explained the detriments of Pierce's Disease. It is a fatal bacterial disease of grapevine that could be a serious threat to the Texas wine industry.

B. CURRENT EFFORTS

In response to plant diseases, TDA routinely conducts strategic surveys for a dozen exotic pests and diseases in the state. If pests or diseases are detected, TDA launches a participatory effort with USDA to prevent the pest or disease from establishing itself. There is currently no federal funding for non-exotic pest infestation from other states, only from other countries.

TDA also is helping farmers and ranchers with diversification initiatives that including ethanol production. In fact, new ethanol production facilities will break ground later this year in Dumas and Lleveland.

A particular plant disease, called Pierce's disease, is presently a huge problem in California and has been detected in a few Texas' vineyards. The efforts to eradicate the disease, for which there is no cure, are focused on controlling the insects that carry it. Currently, a collaborative research program with Texas

A&M University, the University of Houston, Texas Tech University, and USDA is taking place around the state. The USDA's Animal and Plant Health Inspection Service is funding the research, but a portion of those funds for 2005 are in jeopardy.

C. RECOMMENDATIONS

The subcommittee recommends that the Senate Committee on Finance to appropriate additional funding for the protection of plants, response to diseases, and education and technological assistance to farmers and ranchers for agricultural diversification.

The Texas Legislature should pass a resolution memorializing the United States Congress to appropriate funding for more border inspections on crops entering the United States from bordering countries.

The Texas Legislature should work to restore the state's portion of funding received by USDA and investigate ways to aid the Texas wine industry through education for new growers in the state.

CHARGE 2

Explore new technologies and business opportunities in agriculture and make recommendations to enhance and develop agriculture.

The Texas Water Development Board's (TWDB) Deputy Executive Administrator, Bill Mullican, provided a status report on the TWDB's Agricultural Water Conservation Demonstration Initiative. Dr. Mark McLellan, Director of Food and Science Engineering at Texas A&M University, discussed molecular farming and bio-based foods and Dr. Mark Holtzapple, Engineering Professor at Texas A&M University, provided information about another bio-based product, bio-fuels. Scott Storment, Senior Project Development Officer for the North American Development Bank (NADB) explained the bank's mission and progress to aiding the agriculture industry.

I. TEXAS WATER DEVELOPMENT BOARD

A. BACKGROUND

The Texas Water Development Board (TWDB) supports large scale attempts to expedite technology to water producers in order to collect comprehensive data.

B. CURRENT EFFORTS

In September 2004, the TWDB authorized the use of \$10 million in grants to fund two agricultural water conservation demonstration projects, one in the Southern High Plains and the other in south Texas. To date, these projects are the most comprehensive steps taken to implement the 2002 State Water Plan.

Texas Tech University's project, *An Integrated Approach to Water Conservation in the Texas Southern High Plains*, will receive about \$6.2 million of this funding allocated by the TWDB. This project involves the collaboration of cooperating agencies and area producers to conduct large scale on-farm demonstrations incorporating the best technologies and systems developed for water conservation, thus extending the life of the Ogallala aquifer.

The Harlingen Irrigation District for *Maximization of On-Farm Surface Water Use Efficiency by Integration of On-Farm Application and District Delivery Systems* is an effort to integrate state-of-the-art irrigation water distribution network control and management with on-farm irrigation technology and management systems.

The primary goal of both projects evaluated by the TWDB is to determine the best demonstration and transfer of technology of agricultural water conservation strategies with the most potential production of water savings. The data will provide the state with the cost-effectiveness of new technologies and systems that may eventually be implemented throughout other parts of the state.

C. RECOMMENDATION

The subcommittee recommends that the state continue to support TWDB's Agricultural Water Conservation Demonstration Initiatives as well as look for more cost-effective methods to conserve agricultural water resources.

II. BIO-BASED PRODUCTS

A. BACKGROUND

Dr. Mark McLellan, Director of Food and Science Engineering at Texas A&M University, discussed bio-based foods. Bio-based products rely on plant or

animal material as the main ingredient. The plants or animals utilized are a renewable resource and with some exceptions, they generally do not contain synthetics, toxins or environmentally damaging substances. Biobased products fall mainly into three categories which include biofuels, biochemicals and biomaterials. Some examples include fuel additives, ag chemicals, adhesives, paper products, oils and personal consumer items.

Dr. Mark Holtzaple, engineering professor at Texas A&M University, provided information about another bio-based product, bio-fuels. This type of fuel is produced from multiple feedstocks such as trees, energy crops, municipal solid waste, and animal manure.

B. CURRENT EFFORTS

According to Texas A&M University, the industry of bio-based products is not currently utilized to its maximum profitability in Texas. Bio-based foods have a large potential market and the opportunities for the bio-based food industry are greatest with small corporations; thus, creating new jobs and encouraging entrepreneurs to launch new companies in the state. Dr. McLellan testified that Texas lacks the investment in natural food production and does not encourage a value-added market.

In addition to bio-based products, bio-based fuels have proven to be a sustainable energy source for transportation. These mixed alcohol fuels (MixAlco) meet standards neither ethanol nor methyl tertiary butyl ether (MTBE) can achieve, and depending on the source of biomass, these fuels have the potential for significant cost savings. Furthermore, Texas A&M University's

research team developed a prototype, the StarRotor engine, which can burn any fuel and enable a full-sized automobile to drive about 100 miles per gallon.

C. RECOMMENDATIONS

Since bio-based products are a growing industry, the subcommittee recommends the state to look for ways to boost the market for bio-based production and combine the use of science with food production to promote business development.

The subcommittee also requests for the state to give all bio-fuels the same tax credit as fuel ethanol. Texas should also provide liability protection for companies that use bio-wastes and support research in bio-fuels and high-efficiency engines.

III. NORTH AMERICAN DEVELOPMENT BANK

A. BACKGROUND

To expand on further business developments in agriculture, the subcommittee called on Scott Storum, Senior Project Development Officer for the North American Development Bank (NADB), to explain the initiative of the bank and support for bio-mass energy projects and water conservation efforts

B. CURRENT EFFORTS

The NADB sees the importance of Texas processing bio-based materials for additional revenue streams as well as for its environmental impact. Since the border region is predominantly rural with intense agricultural development, issues have emerged that affect the farming and ranching communities working with NADB. The bank is currently working on projects in the border areas to assist in processing agricultural waste products from farms and "contained animal feeding operations" (CAFO's), and then use the waste products as a feed

source for clean energy generation, called biomass energy. These projects combine improvements on the environmental and economic fronts for rural regions while giving the agriculture sector a value-added approach to developing new business opportunities.

NADB's water conservation efforts use the bank's resources to conserve water and increase water use efficiency. NADB combined efforts with the United States and Mexico by granting two countries a combined \$40 million to disperse to irrigation districts around the border region. For the US, the money was allocated across four states with the majority given to Texas. Some of the water saved in Mexico will also be transferred to the US to help pay off the existing water debt. From the \$24 million given to Texas, 13 irrigation districts received funding. It allows these districts to utilize new technologies for water use efficiency, reduce overall costs of electricity and promote water conservation.

C. RECOMMENDATION

The subcommittee recommends the state to utilize the capabilities of organizations, such as NADB, to help farmers and ranchers produce new efficiencies, revenue streams and more sustainable approaches for the future.

ADDITIONAL ISSUES IMPORTANT TO AGRICULTURE

I. COASTAL ISSUES

Texas 2007 has been formed to promote legislation and public policy that improves coastal conservation and economic opportunity over the next three years. In addition, Tracy Woody, the general manager of Jeri's Seafood Oyster Industry, provided the subcommittee with testimony regarding the condition of oysters in the Gulf of Mexico.

A. BACKGROUND

As a coastal state, the condition of ocean life is important. The Texas coast faces many growing environmental challenges and threats. These concerns include freshwater inflows, habitat destruction, water quality, commercial trawling, and pressure from user groups.

B. CURRENT EFFORTS

Texas 2007 has proposed to work with local and state officials to increase funding for the state's current shrimp buy-back program in an effort to reduce the number of licenses for bay and bait shrimping.

Texas is the third largest oyster producing state behind Louisiana and New Jersey. At this time, Texas is the only oyster-producing state which provides no state-level protections. There is no assistance when industry losses occur because Texas does not have a program in place to monitor the resources or note significant changes.

C. RECOMMENDATIONS

The subcommittee recommends that the legislature continue to support the efforts of Texas 2007 by passing legislation that will allow for increased funding of the shrimp buy-back program.

The subcommittee also asks that the legislature pursue better regulation and protection of the oyster industry.

II. FIRE ANT CONTROL

The subcommittee studied the progress and impact of fire ant control project enacted by the legislature during the 74th session. Also Dr. Thomas Shotwell, a biological research consultant, testified on the negative effects of the growing population of fire ants.

A. BACKGROUND

Red imported fire ants are very aggressive, efficient competitors. Since the 1950s, the ant has been spreading northward, westward, and southward in Texas. They now infest the eastern two thirds of the state, and some urban areas in western Texas. These fire ants cost Texas about \$1.2 billion annually and half of this cost is for the purchase of insecticides for attempted control. In the past, there has not been a method available for eradication that is cost-effective and/or environmentally and ecologically acceptable.

In 1997, the legislature allocated \$2.5 million per year for The Texas Imported Fire Ant Research and Management Project to coordinate all of the state agencies involved in addressing the fire ant problem. The project is lead by Texas A&M

University's Texas Agriculture Experiment Station who work closely with the Texas Cooperative Extension, Texas Tech University, University of Texas, Texas Department of Agriculture and several other state agencies directly related to agriculture matters. The plan usually funds about 35 programs each year.

During the interim preceding the 78th Legislative session, the Senate Subcommittee on Agriculture studied the feasibility of eradicating fire ants in the state of Texas, but due to budget constraints the effort was not further pursued.

B. CURRENT EFFORTS

In 2004, The Texas Imported Fire Ant Research and Management Project funded ten programs to study the issues surrounding this crisis. All of the research conducted proves that the current technologies are available for eradication. For example, Texas A&M developed a the bait-blower which is now available commercially. The development is a combination of a leaf blower that employs a small gasoline-powered engine and a conventional Model GT-77 Herd Seeder. The air stream blows at 150 miles per hour and delivers the bait through a directional shoot. The seeder and blower are mounted to swivel structures on either side of a vehicle and will shoot accurately up to 20 miles per hour. At this time, bait-formulated fire ant insecticides are the most cost-effective and environmentally safe products available to treat large areas.

Texas A&M University's Dr. Charlie Coble, now-retired professor of agricultural engineering, developed this concept and prototype. Dr. Coble joined efforts with the Texas Department of Transportation and the fire ant research project to create another prototype blower for treating road sides, rest stops, and right of ways. It was designed to apply the recommended amount of ant bait from the side of a

vehicle traveling 30 miles per hour. This product and other fire ant related developments can be found at <http://fireant.tamu.edu>.

In the past year, the Texas Agricultural Experiment Station also conducted research on fire-ant-killing protozoan. The survey detected that these protozoan in 120 of the 157 counties where fire ants have been found. The microorganisms may not eradicate the fire ants completely, but the result is promising enough for further investigation.

After reviewing the exploration, development and marketing of biological controls for fire ants, Dr. Shotwell also explained that with certain biological controls eradication is possible.

C. RECOMMENDATION

To combat this widespread problem, the subcommittee recommends that the legislature review the current efforts to study fire ant eradication and implement a systematic plan for eradication across the state.

III. TEXAS FOOD AND FIBER COMMISSION

Robert Avant, Executive Director of the Texas Food and Fiber Commission (TFFC), explained their agency's consolidation efforts with TDA.

A. BACKGROUND

Over the past year, TFFC commissioners and staff met with TDA and the Texas Agricultural Experiment Station (TAES) in pursuit of the possibility to merge with a larger state agency. TFFC decided to consolidate with TDA and TDA agreed with the transition of TFFC to their agency.

B. CURRENT EFFORTS

The consolidation eliminates the current organizational structure and establishes a 13-member Food and Fiber Research Council within TDA. The House Committee on Agriculture and Livestock and the Senate Subcommittee on Agriculture will be drafting the appropriate legislation for the 79th Legislative Session.

C. RECOMMENDATION

The subcommittee recommends to the legislature that Texas Food and Fiber Commission be placed under the Texas Department of Agriculture.