

Report of the Texas Apiary Inspection Service Program Review Team

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This external review team was assembled to review, advise and make recommendations on current and future directions, operations, mission and functions of TAIS. This includes budgetary and stakeholders' concerns.

The team was selected based on their combined expertise in apiculture or agriculture and because their current duties and experience qualify them to understand and better contribute to this review. Members included: Mr. Ed Levi, State Apiarist and Apiary Inspector from the Arkansas State Plant Board, who fulfills a similar regulatory responsibility to that of Mr. Paul Jackson of TAIS; Mr. David Kostroun, Assistant Commissioner for Regulatory Programs with the Texas Department of Agriculture, who works in regulatory affairs with several commodities and has experience with strategic planning, and Dr. John Skinner, Professor and Extension Apiculturist at the University of Tennessee who served as team leader.

The team studied written background materials which included: the History of TAIS; Missions and Goals; Texas Administrative Code (Apiary Regulations); Physical Plant Description; Staff and Responsibilities; Operations, which included Regulatory, Outreach and Educational Programs and Evaluation; a List of Stakeholders, including clientele, liaison groups (TDA, TCE, TAES and Professional) and Fiscal.

The review started at TAMU on October 27, 2005 where we toured the TAIS facility, had meetings with TAIS personnel including Paul Jackson, William Baxter, William Richards, Lisa Bradley and Linda Sebesta. Later we had meetings with TAMU Entomology Department Faculty (Dr. Tanya Pankiw, Dr. Robert Coulson, accompanied by Mr. Danny Weaver, a commercial beekeeper and Dr. Kevin Heinz, Department Head). The meetings consisted of questions and answers concerning facilities, personnel, physical arrangement, fiscal and budgetary matters and future directions of TAIS. Dr. Coulson made a powerpoint presentation explaining how geographic information systems could be designed for TAIS to quantify data for a wide variety of applications.

On the second day of the review we had meetings with TAMU, TAES Administration (Dr. Bill Dugas, Director and Dr. Kevin Heinz) and with several stakeholders who represented beekeepers and the Texas Beekeepers Association (Mr. John Talbot, President, TBA; Mr. Jimmy Spalten, a beekeeper and Dr. John Thomas, retired TAMU Extension Apiculturist). Our review continued by formulating a preliminary report and presenting this report to TAIS staff and TAES personnel. This preliminary report (included as appendix 1) served as an outline to develop this final report.

We thank all those involved in this review process. During our many meetings with personnel from TAES, TAIS and stakeholders we asked many challenging questions and received many frank and open answers. We listed ten topical statements that we feel must be

considered to fulfill the expanding mission of TAIS. Our comments are not intended in any manner to offend or to be overly judgmental, but are to support and improve TAIS now and into the future for the benefit of all stakeholders.

The following functional goals were accomplished:

- Reviewed written materials provided by TAIS
- Meetings with:
 - TAES personnel
 - Department of Entomology, department head
 - TAIS staff
 - Stakeholders
- Toured TAIS facilities
- Review committee interactions/discussions
- Provided preliminary recommendations
- Submitted Final Report

Recommendations:

1. The TAIS is fulfilling important needs to all stakeholders and the following recommendations will seek to provide insight into areas of improvement to strengthen and ensure the success of the program.

The unanimous consensus of all parties involved with this review is that the TAIS is a successful program that should be continued and improved. TAIS is an important asset to the state of Texas and the many stakeholders that benefit from this program. The mission of TAIS includes regulatory, inspection, public safety and outreach. This diversity of function impacts many categories of stakeholders including beekeepers, extension personnel, emergency personnel, state park employees, Department of Agriculture personnel, educators from elementary schools to Universities and the public. The presence of Africanized Honey Bee (AHB) in Texas has had a pronounced effect on TAIS. The AHB constituted an additional public health risk that requires substantial effort in personnel and time.

We consider the nine recommendations below crucial to improving TAIS. The advisory committee proposed in #5 below should work closely with TAMU to study each issue and implement as necessary.

Response:

1. The TAIS does feel that we are fulfilling an important need to each segment of the population that we serve.

It is a correct statement that the presence of the Africanized Honey Bee (AHB) in Texas has certainly changed somewhat the direction TAIS was following. We feel that one our agency's strengths has been our flexibility as a staff to respond to this need and respond perhaps more to public questions and programs than we have been historically used to doing. Weather patterns and seasonal changes can change needs and times that AHB and honeybees in general affect the

public so it will continue to be a balancing act from year to year to determine how much time, effort and funding go into public programs as compared to regular inspections.

It is becoming increasingly important to reach youth with the message of agriculture's importance, so it will continue to be a part of our mission to help educate our youth about honeybees, a vital part of our agricultural world.

2. TAIS should continue to be maintained in the Department of Entomology, which enhances cooperative activities with research and extension personnel.

The Texas Legislature created the TAIS in 1925 and placed it in the Department of Entomology, TAMU. The head of the department is responsible to the Director of the Experiment Station for its operation and administration. To have a regulatory entity housed in a University administered by an experiment station seems somewhat unusual, however, this situation has not caused problems and actually has enhanced cooperation.

The mission statement of the Department of Entomology at Texas A&M University states, "The primary strength of the Department is our collective expertise to address diverse questions that span across programmatic areas and affect most aspects of human endeavor." The TAIS benefits from collaborative efforts with other department personnel, particularly with educational outreach efforts. Stakeholders, TAMU faculty and Administration indicated that they were in favor of continuing the arrangement of housing TAIS in the Department of Entomology.

The Review Team had an opportunity to meet with Dr. Tanya Pankiw and Dr. Robert Coulson of the Department of Entomology. Dr. Pankiw has been a great asset to the TAIS in assisting with public information on the honeybee website as well as assisting with various tests to support honeybee certification. Dr. Robert Coulson has developed a management tool that could be integrated into the operations of the TAIS at a future date. The close working relationship between these and other department staff is invaluable and integral to future success of the TAIS.

The review team encourages TAMU, Department of Entomology, as administrator, to cooperate with TAIS and the Stakeholder Apiary Advisory Committee to develop a realistic strategic plan that will improve TAIS (see 5. below). The issues and recommendations presented here should be reviewed carefully by the advisory committee. Ultimately it will be the responsibility of the Department of Entomology, TAMU to initiate action to improve TAIS by making the changes that are requested in this review.

Response:

2. The TAIS staff certainly concurs that our agency should remain under the umbrella of the Texas A&M Department of Entomology.

It creates a good working relationship for TAIS to be in this spot under the TAMU system. District Research Centers across the state and TCEX personnel in each county certainly help facilitate all of the public outreach programs that TAIS strives for and TAMU staff in each local

region can certainly aid in alerting TAIS to potential problems in any given area, especially in responding to problems concerning AHB.

It has always been invaluable to TAIS to have close accessibility to TAMU administration and research staff. TAMU administration has maintained an awareness of financial standing so we maintain a high standard of fiscal responsibility to our tax dollars. Administration also helps maintain our focus on clear goals as an agency.

TAMU researchers certainly aid us in being a link to provide the latest information and methods available to the beekeeping industry.

3. Laboratory personnel should have frequent and updated trainings in latest diagnostic techniques. Equipment should be modernized as the techniques evolve.

Having a well equipped laboratory and trained staff is extremely important to fulfill the mission of TAIS. Identifications of diseases, pests and Africanized Honey Bee (AHB) must be done accurately and in a very timely manner to reduce the impact to bees and people. The TAIS has done a commendable job to alleviate the risk of AHB to public health.

The stakeholders unanimously agreed that the TAIS Laboratory is a valuable resource for the beekeepers and for the state of Texas by conducting numerous diagnoses for bee diseases, pests and AHB. Important diseases include American Foulbrood (AFB), *Paenibacillus larvae* and European Foulbrood, *Streptococcus pluton*. Important pests include tracheal mite, *Acarapis woodi*, Varroa mite, *Varroa destructor*, and small hive beetle, *Aethina tumida*. The facilities and equipment are sufficient to continue diagnoses of these diseases and pests, however, personnel should be prepared for signs of new pests or diseases. For example, AFB has strains that are resistant to Oxytetracycline, a currently registered antibiotic that most beekeepers use. Beekeepers having these strains will need to switch to another material that is currently in the registration process. The TAIS personnel will need to alert beekeepers to this new potential problem. The field activities of these inspectors are very important because they visit a wide variety of locations and encounter diverse situations. The inspector may actually discover the presence of a resistant strain or a new pest while doing an inspection.

The TAIS laboratory is the only facility in Texas certified to identify AHB. To continue identification of Africanization in honey bees and to certify honey bee queens, TAIS must have adequate facilities and accurate equipment. Currently, morphometric tests including FABIS and USDA-ID are used to identify AHB. The current facilities seem adequate for these tests. The review team recommends that equipment should be upgraded as finances become available to use the new USDA techniques for determination of AHB. This will require purchase of a digital camera that mounts on the microscope. The operator of this equipment must be properly trained for this technique, which may require travel to a USDA laboratory. The digital camera can also be used to make photographs for powerpoint presentations.

Currently, lab personnel have a cooperative relationship with Dr. Tanya Pankiw, a TAMU scientist, whereby some training has been given to conduct molecular tests for AHB in her

laboratory. This training should be encouraged because in the future (3-5 years), molecular testing (Mitochondrial DNA, Micro Satellites, etc.) should become the norm and replace morphometrics. At this time there is no “perfect” method to identify Africanization, especially concerning hybridization. Morphometric techniques should be continued until other, more accurate techniques are developed. However, the review panel strongly recommends that the TAIS lab should adapt as these newer techniques evolve. This will require purchase of specific equipment necessary for molecular tests that will be costly. Sources for funding to make this transition should be sought in the next three years. Stakeholders, especially beekeeping associations, could serve an important role by visiting their legislators and convince them to seek increased appropriations.

Response:

3. We recognize that techniques and equipment in our Texas Honey Bee I.D. Laboratory may at some point need upgrades.

The TAIS laboratory is the only facility in Texas certified to identify AHB. For the majority of public situations in Texas that require AHB identification, morphometrics is still highly accurate. We agree that DNA-based identification methods will can add to this function (and species or strain related issues) as soon as funds for equipment purchases become available, technician training suitable, and standards for data interpretation established consistent with the regulatory function of TAIS. We will continue to explore and evaluate these and other new technologies that best allow TAIS to execute its charge as mandated.

In the interim, Dr. Tanya Pankiw, TAMU researcher and nationally recognized honey bee biologist, has been, and continues to be, very helpful in meeting molecular-based identification needs of TAIS.

4. All avenues of revenue collection should be reviewed and evaluated to ensure cost recovery of inspection activities. Revenue from fees collected by TAIS should be directed to TAIS in order to meet mandated responsibilities.

In order to clearly understand the importance of the service of apiary inspections, one must understand that the overall mission is to maintain a viable honey bee population for the purpose of pollination. To do that, the service is geared to minimize the negative effects of diseases, parasites and unwanted species that impact the beekeeping industry. This is the mission of the TAIS.

It appears that over the last few years, the funds of the TAIS have been dwindling. This is happening at a time when the costs of meeting the mandated responsibilities are rising. While, on the surface, it may appear that the workload is reduced, this is not the case. Much of the money made by Texas’ beekeepers is made by migration of their bees in and out of the state or between Texas counties. Even though the AHB quarantine in Texas have been eliminated, this is not the case for honey bees, packages or queens going to many other states. Nearly all states require inspections and European certification before allowing bees to come from an area where AHB are considered established. While, it may not appear that sending bees to other states is

beneficial to Texas, if movement was not allowed because of non compliance with the laws and regulations of importing states, Texas would become less attractive for beekeepers and the state could suffer from the lack of bees. Many of the colonies sent out of the state either return to Texas or are generated by bees that remain in Texas.

On the same note, it should be understood that other states require inspection and health certification for many diseases and pests that they are trying to minimize. Furthermore, another pest has recently attacked the honey bees of Texas and many other states. Small hive beetles devastated more than 20,000 colonies of bees in Florida in the first year of their discovery there. Also, some of the older bee problems are also showing new complications that are compromising the health and viability of bees. It seems that many of the controls used to combat some of the major diseases and pests that have devastated bees over the years are becoming useless through resistance.

A viable and active inspection service needs to be in place to address these numerous and complicated problems that besiege the Texas beekeeping industry. Without an effective inspection service, the economy of the state of Texas would suffer due to reduction of pollination and subsequent loss in yield of numerous valuable crops.

It took the full two days of the review team's time in College Station to discover how the budget of TAIS had been reduced nearly \$40,000/ year. It seems that the fees collected by the service were temporarily not returned to the TAIS. Then, when it was discovered that the law requires that the fees collected by the service be returned to the service, another change took place. The fees collected by the TAIS were returned to the service but an approximately equal amount was reduced from the appropriation that had been previously afforded TAIS.

It appears that, over the last few years, TAIS has realized a reduction of two inspectors. The remaining field staff are limited in the amount of time they can spend in the field doing inspections and aiding beekeepers in ways to combat the adverse affects of problems in the bees. Due to reduced revenues and increased costs for transportation, remaining inspectors are only able to spend about half their time in the field doing this important work. With this reduction in workforce, much of the work that should be done is not being accomplished.

Whereas most states require a minimum of 20% random inspections of any bee yard requiring a certificate of health, Texas is only giving a 5% inspection. Furthermore, beekeepers are allowed to sign affidavits stating that, "to the best of their knowledge, an unwanted disease, parasite or unwanted species does not exist" in the bees that need to be certified. Certificates are issued on that basis. The expertise of our review team believes that certifications resulting from such affidavits are, to a large extent, meaningless. It is our experience that it is not uncommon that beekeepers are unaware of various problems in their colonies until trained inspectors point them out. Furthermore, if a beekeeper were to sign such an affidavit, the beekeeper whose bees may be affected by this beekeeper's bees must believe and trust that an unbiased inspector has looked at the colonies. It is also the belief of the review team that a 5% inspection not only does not meet the requirements of other states but also is not considered a good representation of the colonies in any given bee yard. It has also been indicated that in some commercial operations, the beekeeper directs the inspector to the yards the beekeeper prefers to have inspected. This

may allow the beekeeper to guarantee that yards more suspect of having contagious diseases or unwanted species are certified “by proxy.”

All this suggests that the TAIS is under funded. Not only is the service under funded to maintain the current level of service, the trend of under funding has resulted in progressively diminished service. It would be ideal if the program could demonstrate total cost-recovery for services provided, which is the required method of funding for most state agencies in Texas. On the other hand, it is not only the beekeepers that benefit from beekeeping. In fact, according to USDA studies, the value of the incidental pollination done by bees, while they’re collecting resources from the flowers, is approximately worth 50 times the value of the honey they produce. Bees are valuable to all citizens and the general economy. Therefore, the review team believes that revenues to support the program should come, in part from the regulated industry and largely from appropriations acquired from the state’s general funds. It should be noted that one of the stated goals of the review as requested by TAIS was to determine if taxpayer dollars were being spent wisely. Because of the limited amount of time allocated for the on-site review and limited amount of fiscal resources provided, the review team was unable to definitely determine the efficient use of funds expended by TAIS. However, given funding constraints, it appears that TAIS has made a concerted effort to allocate resources to the best of their ability to minimize impact on operations and services.

Members of the industry should support the regulations that protect them. But since bees are beneficial to the state, it would not be fair if significant support didn’t also come from the state. The TAIS collects fees. They collect fees for inter-state and intra-state movement as well as fees for the certification for sales of queen bees and package bee. Those fees have totaled approximately \$40,000 per annum, over the last couple of years. The state has historically appropriated a sum that has been declining over the last few years and is equal to \$264,691 for the year 2004-2005. But, in fact, the appropriation was reduced by \$40,000 in the last legislative session.

Because of the increase of costs and the decline of appropriations, to avert continued decline of services and to improve services to previous levels, funding changes must take place. It would be appropriate to restructure the fee structure used by TAIS. However, it would be counter-intuitive to ask the industry to be assessed higher fees if appropriations continue to be reduced by the amount contributed by the industry.

The fees collected by the TAIS have been commendable, even though, they do not appear fairly distributed. For example, an import or export license is the same whether the importer or exporter of bees is moving 26 or 26,000 colonies. Clearly this is not only a regressive tax but it also does not fairly cover the cost of providing services. Clearly it takes more resources to inspect 26,000 or 2,600 colonies than it does to inspect 26. The fees should be structured to be proportional to the amount of work/costs involved.

In discussing this matter in College Station, it was suggested that non-compliance would become a bigger problem if fees were made proportional. It was also indicated that on-going non-compliance necessitated investigative work and increased cost to determine who was moving bees in or out of state without applying for or paying for permits. A system of penalties

should reduce non-compliance and therefore recover costs and revenues. However, any penalties should not be returned to the TAIS as this would be perceived as self-serving. Any penalty fines should be seen as a deterrent but not a source of revenue. Some states' apiary inspection services have a process of penalties for non-compliance and it has been demonstrated that penalties have to be significant enough to actually be an incentive for compliance.

Response:

4. TAIS staff continually has discussions concerning different avenues of revenue collection and methods of fulfilling our responsibilities within our mandated budget.

The TAIS feels that foremost, we are an inspection service and a regulatory agency for the beekeeping industry in the state of Texas. Any public outreach or extension type programs should be secondary to our goals as an inspection service. Other states accepting honey bee shipments from Texas expect to receive inspection and health certificates from our state. This is why our agency was established and should continue to be our main goal and purpose.

In any budgetary discussions, it should be noted that TAIS should determine how to wisely spend the money we are given. It is much easier to achieve this than to change amounts the legislature allocates for funding of TAIS. It certainly hurt TAIS to lose nearly \$40,000/year in fee collections that the state redirected away from TAES (who had always directed it back to TAIS) to the state's central fund. This loss of revenue significantly and adversely affects TAIS' abilities to modernize and to replace vehicles and pieces of equipment vital to its operations. TAIS is committed to effective and efficient expenditure of state appropriated funds it receives for its operation; and it will continue to explore all avenues in further implementing this commitment.

Increasing the numbers of inspections conducted per year is difficult given the recent loss of funds and the size of the Texas beekeeping industry. In addition, the demands for bee pollinations beyond Texas' borders have drastically reduced the time frame that migratory and Texas bees are actually in Texas in the spring, which is certainly the primary time frame for inspections also. An approximate 60-90 day window for bees being in Texas does not allow much time to get every beekeeper inspected before the bees are ready to be moved elsewhere. Springtime weather conditions in Texas can also significantly and adversely affect the abilities of TAIS to inspect apiaries in a timely manner.

The review team found fault with TAIS accepting signed affidavits on bee health from beekeepers. One thing that was not pointed out is that the affidavit must be notarized. This, at least, constitutes a legal document signed by the beekeeper. We certainly agree that the signed affidavit is not an inspection, but it is impossible to inspect everyone in a timely manner. The size of the industry, the time frame within which bees are moved into and out of Texas, and limitations to expanding the number of TAIS personnel has led to the use of signed affidavits on some occasions. In addition, TAIS believes it is beyond its normative operating procedures to deny a load of bees entering into Texas based on the fact TAIS personnel cannot get there and inspect them.

Any discussion of inspecting 5% of colonies versus 20% of colonies is impacted by budgetary limitations that restrict the numbers of employees and the funds necessary to support their inspection activities. TAIS would like to inspect all colonies. This is not possible. A 5% inspection is not a statement of our goal, but we feel it is more important to reach a larger number of beekeepers than to hit an exact percentage of colonies. This is an area TAIS feels strongly about. We feel we should be doing more inspections and meeting more beekeepers to remain a highly visible face in the beekeeping community. The worst thing as an agency for us to face, we feel, would be for a migratory beekeeper to bring bees into Texas for three or four years and never meet anyone from TAIS. It is important to have faces with our paperwork.

The review team questioned the aspect of inspectors having the beekeeper take them to a yard of the beekeepers choice. While we agree that a random sampling may reduce sampling biases, we are unaware of occasions where hiding “bad” yards has been an issue. Most beekeepers choose the closest yard and the easiest to reach as a time savings to themselves and TAIS. In addition, an inspector cannot just go into a yard. Most landowners require gates to be locked thus requiring the beekeeper to grant yard access to an inspector.

Unless instructed otherwise by the industry, TAIS is satisfied with permits costing the same regardless of colony numbers. As initiated from stakeholders, TAIS is willing to review its fee structure and to adopt any changes stakeholders believe will increase equitability. Recalling that all fee revenues return to the State of Texas, it is TAIS’s belief that the State of Texas will not look favorably on a system that reduces overall revenue generation. Fee restructuring will not incur any benefits to TAIS..

Discussions of non-compliance on permits involve the question of penalties. Penalties are already set by law under the Texas Agriculture Code under Sect. 1, Chapter 131. Honeybees.

Sect. 1, Chapter 131, Subchapter G. Penalties—

(b) An offense under this section is a class C misdemeanor.

In the State of Texas, a maximum penalty for a Class C misdemeanor is a fine up to a maximum of \$500.00. This goes to the state and has never gone to TAIS. A possible fine of \$500.00 should certainly warrant a beekeeper paying some consideration regarding permits. Perhaps TAIS should be more active in pursuing non-compliance when there are known to be beekeepers in and out of the state each year without proper permits. The penalties for non-compliance are already in place within current bee laws. These are in the laws, not to be confused with the regulations.

All avenues of revenue are being reviewed. Because of the increase of costs and the decline of appropriations, funding changes must take place. TAIS may need to increase its efforts in revenue generating programs to compensate for lost revenue from the aforementioned inspection fees. Successfully competition in extramural funding may also become necessary should other funding avenues prove unsuccessful. What changes in securing funding we must make will require support from TAIS stakeholders and the Texas A&M Agriculture before full-scale implementation.

5. TAIS should develop a strategic plan to better identify policies, procedures, goals, etc. To initiate this process it is recommended that TAIS immediately establish a stakeholder advisory committee to provide input into the strategic planning process.

It is apparent that the TAIS has not conducted a strategic planning process in recent years. Input received during the external review from the stakeholder group suggests that a strategic planning effort was being organized by TAIS in 2002 but was not implemented. The TAIS appears to have historically operated with limited input from stakeholders and TAMU leadership. Because change in pest and disease conditions associated with bees is inevitable, the TAIS must work toward a long-term strategic plan that is comprehensive, provides for maximum coordination and seeks sustainable efforts/activities in meeting statutory requirements established by the Texas Legislature.

The Review Team recommends the immediate establishment of a TAIS Stakeholder Advisory Committee. To keep the committee size manageable, the committee should consist of representatives from the Texas Beekeepers Association, beekeeping hobbyists, the general public, local emergency response teams, Texas Department of State Health Services, Texas Department of Agriculture, Texas Structural Pest Control Board and other stakeholders identified by TAIS. It is also important that representation from TAMU administration, Department of Entomology and Cooperative Extension participate in stakeholder meetings. Clearly many individuals associated with or interested in bees and beekeeping will not be able to participate in formal meetings of the committee, but their input can be solicited and incorporated as needed.

We further recommend that the stakeholder committee be subdivided into subcommittees to focus on various aspects of the TAIS. This will help expedite the strategic planning process and maximize resources. When the plan is finalized, it should help address concerns about a) future direction, goals and priorities of TAIS; b) the need for increased communication with stakeholders; c) enhanced adaptation to a changing industry and pest conditions; and d) funding concerns.

Response:

5. TAIS agrees to implement a stakeholder advisory committee to provide input and discussion concerning strategic planning.

The TAIS seeks to have an advisory committee representative of the diverse pool of stakeholders it serves together with representatives of other state regulatory agencies. The stakeholder advisory committee should assist in identifying new goals, securing new sources of funding, and in working by consensus through issues as they appear. Within 90 days, and after receiving approval from Texas A&M Agriculture, we will name representatives who agree to serve and meet at least on an annual basis.

6. Because the industry and the complexity of diseases and pests have evolved, the regulations and the code need to reflect these changes. TAMU should, in conjunction with

the stakeholder advisory committee, review and make appropriate changes to the agricultural code.

It is an on-going challenge of apiary programs around the nation to keep its laws and regulations current with the conditions in the field. Apiculture is a constantly evolving science that is continually besieged with new challenges. Most state programs started because of the detrimental effects of American Foulbrood, a highly contagious and viable bacterium that was doing great damage to the industry.

As the globe shrinks and bees are moved great distances, both purposely and inadvertently, diseases, pests and undesirable species have spread at heretofore-unseen speed. It has become a serious challenge for researchers and beekeepers to keep up with the changes. Likewise, it has become equally challenging for regulators to help the industry minimize negative effects, slow the spread and help guarantee viable bee populations. This needs to be done while assuring the safety of related food products and balancing the laws and regulations with the financial viability of the industry being regulated. The maintenance of effective honey bee populations, the safety of products, the safety of the citizens and the financial security of the beekeeping industry all have to be balanced.

As hard as all this might seem, it remains important and necessary. In the last two decades three new parasites, undesirable specie of honey bees and a handful of viruses have all made it to the North American continent and spread rapidly over the entire industry. A lot of these new problems that have besieged the industry and put the honey bee populations at risk have spread somewhat by the fact that they are contagious and also by natural migration. But most of the spread of diseases and parasites has been accredited to the movement of bees by migratory beekeeping and the sale of packages of bees and queen bees. Regulations are in place to slow the spread in order to save bees and beekeepers while researchers discover tools that can ameliorate the negative effects.

Texas is a major contributor to migratory beekeeping and in the sale of bees both across North America and internationally. It is therefore incumbent on TAIS to assure that the laws and regulations are up-to-date, appropriate and adequately and equitably applied. The application of Texas apiary code and regulations affect other state programs and the beekeepers and citizens of other states. Those of us in other states have a vested interest in the TAIS.

Not unlike other disciplines, “best practices” in ameliorating detrimental situations are also constantly changing. While it may not appear, on the surface, that it is the purpose of regulatory work to promote current “best practices”, there are practices that are later found to be detrimental to the well being of the individual colony and therefore the industry. All this is cause to be diligent in assuring that the laws and regulations are kept up-to-date with situations in the field.

It was not the objective of this review committee to analyze the Texas Apiary Code and the regulations that make them functional and to update them. However, the team members did review the code and the regulations. It is the consensus of the review team that both the code and the regulations should be immediately reviewed and updated accordingly. These reviews

should also be conducted periodically to assess needed changes. In this process, current conditions should be taken into consideration as well as some foresight into future challenges.

Because changes to the code must go through a legislative process, it should be written in way that allows for ample adjustments in regulations to address future changes TAMU should, in conjunction with the stakeholder advisory committee, review and make appropriate changes to the agricultural code. The code must be the shell that all the regulations must fit in. Regulations, or policies and procedures, must not go beyond the parameters set out by the code. But the regulations are more pliable in that they can be adjusted to fit needed changes through a process of public hearings and doesn't need to go through a legislative process.

From experience, the review team can say that all this is not an easy process to undertake. Because the industry and other stakeholders are made up of a huge array of interests, the laws, regulations, policies and procedures must address those interests and all participants must understand the needs of others.

Response:

6. TAIS, with the assistance of its stakeholder advisory committee, will periodically review the sections of the Texas Agriculture Code appropriate to its operation.

The review team was correct in stating that honey bee diseases, pests and problems have spread at lightning speed. Bees are moved commercially more times and greater distances than ever before in the world of migratory beekeeping. Any changes in laws or regulations should be designed to remedy a problem or situation, not to exacerbate problems beekeepers are having already, especially those not of their own making.

The most relevant sections within the Texas Agriculture Code relevant to the operation of TAIS are:

Sec. 1, Chap. 131, Subchapter B. Disease Control Sec. 131.021 Powers and Duties of the Chief Apiary Inspector

(a) For the purpose of enforcing this chapter, the chief apiary inspector may:

(1) adopt rules and act as necessary to control, eradicate, or prevent the introduction, spread, or dissemination of contagious or infectious diseases of bees;

Sec. 1, Chap. 131, Subchapter A. General Provisions, Sect. 131.001 Definitions. In this chapter (7) "Disease" means American foulbrood, European foulbrood, any other contagious or infectious disease of honey bees, or parasites or pests that affect bees or brood.

These sections of the Code have served TAIS well. As stated by the review team, regulations are easier procedurally to change and can be more flexible in meeting changing needs. TAIS did recently make changes in the regulations concerning AHB within Texas as that impact on our state evolved and changed. These changes came about from our involvement and interaction with the advisory committee of the TBA. TAIS welcomes reviews and suggestions for code, rule, and relation changes from an established and informed advisory committee. All

recommendations for changes in the Code and TAIS operations shall be subject to approval by Texas A&M Agriculture.

7. The outreach component should continue to be emphasized and efforts should be made to explore all avenues of support.

The outreach component of TAIS has continued to grow and personnel estimate that 25% of their time is now occupied in an extension role. TAIS personnel realize that an outreach component is important and they need to educate beekeepers about pests and diseases while they conduct their regulatory function. To be effective educators they understand that interactions with people require a positive caring, attitude that is not dictatorial.

The inspectors need to balance time and funding for regulatory, inspection and educational activities. TAIS selected the educational presentations to undertake based on the size and potential impact of the stakeholder audience involved. Personnel have spoken primarily to large audiences that will share the information for the greatest effect. The review committee thinks this is very commendable. It is unrealistic to expect that TAIS can accept every stakeholder group's request to travel across the state to give presentations or training. With the current reduction in funding (\$40,000 less), this is simply not possible.

Therefore, outreach is also affected by lack of funds and personnel to do the job. In the past TAMU and the CES employed an Extension Apiculturist who attended to the extension activities that now are relegated to TAIS, without an increase in funding or additional personnel for TAIS assume the new workload. Every person we talked to, including TAMU administration (Dept. Head and Asst. Director, TAES), faculty and stakeholders (especially beekeepers) all agreed that the extension mission is important, but there were few suggestion of how to provide funds for TAIS, because this would require removing funds from one program and giving them to another. Beekeepers suggested that additional funds should be sought by lobbying the legislature to increase funding. More effort to gain new funds specifically for this program should be made with a group effort including TAMU and stakeholders. This funding effort should be made this year. Without additional funding, TAIS is at risk of losing more personnel. If CES benefits from TAIS, then they should have more direct interaction and assume some financial responsibility, especially to provide qualified labor to assist TAIS with outreach. CES should provide travel funding if TAIS personnel are requested to assist with extension training and workshops.

Response:

7. Outreach programs by TAIS will most certainly be continued.

Educating the public on all aspects related to bees and beekeeping has been a very rewarding and rich experience for TAIS staff. TAIS will continue to work closely with extension and public groups in providing timely programs. The level of educational programming shall be appropriate to the availability of funding and of time, as regulatory responsibilities will always remain a top priority.

8. It is important to make sure that stakeholders are kept informed of the activities of TAIS and new developments through publications, media, presentations and other avenues.

Stakeholders should have knowledge of the activities of TAIS. This can only be accomplished by improving communication with the mutual understanding that cooperation is the key. No single stakeholder group should have the authority or permission to dictate to TAIS what its exact duties are or how to achieve them. The Stakeholder advisory committee should serve this purpose by working with TAIS to achieve goals that benefit all stakeholders. A regulatory agency cannot be controlled by the stakeholders that it must regulate (by law).

Keeping stakeholder groups informed can be accomplished by written, oral and electronic methods as used by extension personnel nationwide. Written publications including factsheets, workshop handouts, reports and newsletters can be produced and mailed to clientele or distributed at meetings. A conservative supply of these should be made, especially for those persons not using electronic media. Direct communication should be made at selected meetings, especially those with the advisory committee that allow questions to be answered.

The review committee recommends expanding the electronic dissemination of information to reduce costs associated with printing and mailing materials. This may reduce the need to travel for outreach and should also reduce cost. This would be very cost effective after the initial setup. The setup/update should be done by skilled personnel, trained in web design, possibly using knowledgeable students. The website produced by Dr. Tanya Pankiw is an excellent start, but it could be expanded to showcase TAIS. Educational publications (current and new ones) for beekeepers and the public could be provided for download. Presentations can be developed and distributed to extension agents for use in their local area; and the presentation, in Powerpoint, could be viewed on site. The TAIS newsletter can be viewed and archived and “News Alerts” could be provided for instant viewing. There are many sources of educational information about beekeeping available from many universities and organizations on the Internet that the TAIS Website could link to, making this information available to Texas stakeholders without having to generate new publications. [for example: University of Tennessee: <http://eppserver.ag.utk.edu/Bees/test/Intro.html>; University of Georgia: <http://www.ent.uga.edu/bees/> and Mid-Atlantic States: <http://maarec.cas.psu.edu/>].

If TAIS must assume an increased extension role, then personnel should have the necessary equipment to accomplish this task. When presentations are required, they should be of highest quality and contain up-to-date, accurate information. TAMU should provide TAIS with a DLP projector, laptop computer and projection screen to generate high quality presentations for stakeholders.

Response:

8. TAIS is making every effort to keep all stakeholders informed of our agency’s activities and methods.

The TAIS has been striving to upgrade and improve agency communications with various groups. Several productive meetings were held recently with representatives of the TBA membership. TAIS staff has been active during the past year in placing news articles in the TBA

newsletter. Brochures explaining our agency were handed out at the next to last TBA state meeting held in Fort Worth. An electronic quarterly newsletter has also been delivered via the web during the past year.

TAIS now has a new web site set up. The web address is <http://tais.tamu.edu/> Anyone can download all permit applications from the honey bee web site. This has assisted beekeepers who are making last minute decisions to ship bees.

As stated by the review team, it is important on web sites to have links to other educational materials available. This creates a situation where a large amount of shared information is readily available with minimum searching.

While electronic delivery can be a cost saving and provide ready access to all interested individuals, it must also be remembered that some do not have ready access to electronic media. Hence, TAIS will continue to evaluate the most appropriate means of all communications.

9. To minimize the impacts of delayed receipt of mail (ie. checks, applications and other communications) changes should be made to ensure that mail is received daily.

Because the TAIS receives applications and fees for inspections, timely receipt of mail is important. Currently, the United States Postal Service (USPS) does not provide direct mail delivery to TAMU Riverside Campus, where TAIS is located; hence, mail is delivered to TAIS once or twice a week via a Department of Entomology student worker. TAIS staff were not aware of how other departments located at Riverside Campus received their mail or at what frequency.

Recommendation is made to contact the University Mail Services Department of the Texas A&M University Physical Plant to explore delivery options. In June 2004, the Texas Center for the Advancement of Literacy & Learning (TCALL) relocated to Riverside Campus, Bldg. 7751, Ste. 117 and has established a mailstop with the University Mail Services. TCALL receives mail service at Building 7751 once per day. Mr. John Stanislaw, University Mail Services Manager, can be contacted at (979) 845-4624 for more information about mail services to the TAIS.

Response:

9. Changes are being examined to facilitate mail delivery.

Staff had discussed mail service before the review, and considered it an internal matter, and did not originate any discussion on the subject of mail. Mention of the subject came up during discussion.

University Mail Services has given us a proposed expense of \$1500.00 per annum for our own mail stop.

Different approaches to mail service are being discussed and explored to expedite this process.

10. Accommodations should be provided on the ground floor for improved accessibility to TAIS.

TAIS offices are currently located on the third floor of an old military barracks. The only way to reach the offices and lab is to climb the three flights of stairs. If a client or stakeholder wanted to visit the TAIS office or staff, it is possible that there would be complaints based on the American Disabilities Act (ADA).

Most likely a client would be satisfied if accommodations are made so that TAIS personnel could be notified when someone unable to get to the offices was downstairs, and there was an appropriate place where they could meet to conduct business.

This arrangement would require easy access to a telephone and a room on the ground floor of the building. This should require minimal modifications to the building to comply with ADA requirements.

Response:

10. Accommodations can be realized for any physically disabled stakeholders.

An agreement can be reached with extension offices on the ground floor in facilitating access for physically disabled individuals. Use of a phone in the first floor extension office shall be used in summoning TAIS personnel to the first floor to meet with physically disabled individuals. The ground floor of the building is wheelchair accessible.

Concluding Statement from John Skinner, Review Team Leader

In closing, the review team hopes that the above recommendations will serve to assist TAIS in improving its operations, mission and functions. Again, we thank all those involved in the review process and for the invaluable information provided during the review.

Reviewing a program such as TAIS has been a very challenging task to all concerned. I feel that this review document is a starting point to consider the needs for TAIS at present and for the future. There will more hard work to come that will require the cooperation of all stakeholders (especially beekeepers) to understand and determine realistic solutions to the challenges listed here. This process should be started by forming and fully utilizing the Stakeholder Advisory group to examine this review. Making a Five-Year Strategic Plan will clearly define the future directions of TAIS. Please take no offense, when none is intended. I suggest that you concentrate on purpose, rather than individual goals. One tactic that I have used successfully with several diverse groups is to suggest that everyone leave their ego's at the door and remember, the goal is to improve TAIS. Thank you for allowing this review.

As team leader, I would like to thank Ed Levi and David Kostroun for their hard work during all aspects of the review. I enjoyed working with them as a team. I also thank Dr. James Parkman for editorial assistance.

Response:

Concluding statement from TAIS

We feel that the review has helped to more clearly delineate our purpose and our direction. A fresh look in can give a new outlook. Again, thanks to the members of the review team, all stakeholders, and all members of the TAMU system and administration who participated in this review process.

Appendix 1 - Preliminary Report of the Texas Apiary Inspection Service Review

PRELIMINARY FINDINGS/RECOMMENDATIONS TEXAS APIARY INSPECTION SERVICE REVIEW COMMITTEE

John Skinner, team leader
David Kostroun
Ed Levi

Friday, October 28, 2005

This external review team was brought together to review, advise and make recommendations on current and future directions, operations, mission and functions of TAIS. This includes budgetary and stakeholders' concerns.

The following things were accomplished:

- Reviewed written materials provided by TAIS
- Meetings with:
 - TAES personnel
 - Department of Entomology, department head
 - TAIS staff
 - Stakeholders
- Toured TAIS facilities
- Review committee interactions/discussions
- Preliminary recommendations provided.

Findings:

1. It is the consensus of the stakeholders that the Apiary Inspection Program is a benefit to both the citizens of Texas and the beekeeping industry and should be continued and improved.
2. Because the apiary inspection program is housed in TAES and linked with the Department of Entomology, there is cooperation with research and extension personnel.
3. Current laboratory facilities are providing valuable and important services for stakeholders.
4. Many participants expressed a concern about inadequate funding. Funding does not appear adequate to allow for mandated responsibilities.
5. It does not appear that TAIS has formulated a long-term strategic plan

6. The agriculture code (the laws) concerning bees and honey has not been updated since 1985.
7. Over recent years and with the loss of a full time Extension Apiculturist, outreach and extension responsibilities have increased for TAIS.
8. A substantial improvement by TAIS has been made to increase communication with stakeholders.
9. Because of the structure of the University mail system, mail is not received daily or on a timely basis.
10. The building where TAIS is located has limited accessibility for disabled clientele.

Preliminary Recommendations:

1. The Apiary Inspection Program is fulfilling important needs to all stakeholders and the following recommendations will try to provide insight into areas of improvement to continue and ensure the success of the program.
2. TAIS should continue to be maintained in the Department of Entomology which enhances cooperative activities with research and extension personnel.
3. Laboratory personnel should have frequent and updated trainings in latest diagnostic techniques. Equipment should be modernized as the techniques evolve.
4. All avenues of revenue collection should be reviewed and evaluated to ensure cost recovery of inspection activities. Revenue from fees collected by TAIS should be directed to TAIS in order to meet mandated responsibilities.
5. TAIS should develop a strategic plan to better identify policies procedures, goals, etc. To initiate this process it is recommended that TAIS immediately establish a stakeholder advisory committee to provide input into the strategic planning process.
6. Because the industry and the complexity of diseases and pests have evolved, the regulations and the code need to reflect these changes. TAMU should, in conjunction with, the stakeholder advisory committee, review and make appropriate changes to the agricultural code.
7. The outreach component should continue to be emphasized and efforts should be made to explore all avenues of support.
8. It is important to make sure that stakeholders are kept abreast of the workings of the program and new developments through publications, media, presentations and other avenues.
9. To minimize the impacts of delayed receipt of mail (ie. checks, applications and other communications) changes should be made to ensure that mail is received daily.
10. Accommodations should be provided on the ground floor for improved accessibility to TAIS.