

Apiary Inspectors of America's 2005 Conference

Tuesday, January 11, 2005

Business Meeting

Members Present included:

Jeff Brothers (DE)	Doug McRory (ONT)
Anette Phibs (WS)	Judy Carlson (ND)
Ed Levi (AR)	Keith Progue (IN)
Harry Fulton (MS)	Dennis Barclift (AL)
Jerry Hayes (FL)	Paul Poling (WV)
Paul Jackson (TX)	Wade Stiltner (WV)
Dennis van Engelsdorp (PA)	George Clutter (WV)
Patricia Deneke (MT)	Jerry Fischer (MD)
Keith Tignor (VA)	Phil Craft (KY)
Don Hopkins (NC)	Medhat Nsar (AB)

Others present:

Tom Rinderer, USDA/ARS	Mike Hood, Clemson University
David Anderdusen, NOD Apiaries	Wayne Wheling, USDA/APHIS
Danny Weaver, ABF	Laurence Cutts, Honorary Member
Steve Forest, Bushy Mountain	Sara Kaman, USDA/DVM

President Phil Craft called the meeting to order with introductions and adjustments to schedule.

Committee Assignments

Auditing

J. Brothers*
J. Hayes
K. Prough

B. Reiners

D. Hopkins

Pesticide Advisory

M. Hanson*

Awards

P. Jackson *
J. Dunkley
J. Bach

Resolutions

D. van Enlesdorp*
J. Fischer
D. Hopkins
E. Levi

Research / Advisory

J. Bach
J. Hayes*
A. Phibbs

Sites

D. Hopkins*
J. Brothers
J. Carlson

Nominating

A. Phibbs*

AIA President's 2005 Address

Good morning! Welcome to Reno! I'm very happy to see you all here. While I've been very much looking forward to getting together with you, I have not been looking forward to this Nevada weather. I'm used to these meetings being held in warm southern winter locations, like Texas or Florida. And this winter I learned that my understanding of the geography of the western United States is not that great. When envisioning Nevada weather, for some reason, desert images came to mind. So you could imagine my surprise upon consulting my internet weather site last month, to discover that they were experiencing high temperatures in the mid-twenties here, and lots of snow. With a little checking I discovered that, actually, Reno is north of my home in central Kentucky and 3500 feet higher in elevation. So while I know I'm going to enjoy myself this week, I'm not getting the fix of warm weather this year, that I've come to expect at our winter meetings, And I don't think I'm going to enjoy a dinner sitting in an outside café like I enjoyed last year with several of you in San Antonio.

I would first like to thank our Vice-President, Harry Fulton, for all of his work in putting together the program for this year's meeting. When Don Hopkins asked me if I would consider taking the vice-president's job two years ago, he didn't tell me what I was getting into. After putting together last year's meeting I have a real appreciation of Harry's efforts in arranging this one. In addition to coming up with a suggested list of speakers, he had to contact all our speakers, coordinate our schedule with ABF's schedule - which is no small feat - arrange for our meeting rooms, arrange with our treasurer for the meeting registration process, send out numerous emails to all of us, and many other tasks that I'm not going to enumerate. So I very much appreciate the job that he did.

I would also like to express my appreciation to Troy Fore, ABF Executive Director, for his assistance and cooperation in coordinating this meeting.

In 2000 I attended my first AIA meeting in Gainesville, Florida. I had assumed my duties as the Kentucky State Apiarist the previous June. At that time my employment, which re-established the apiary program in Kentucky, was bucking a trend, a trend that has since developed into a real pattern - a continuing pattern of state budget cuts, that are accompanied by cuts in state apiary programs. That January in Gainesville, as AIA President Blaine White welcomed me to AIA, Blaine also made note of the dropping of the apiary program in the state of Washington. Since 2000, we have seen the loss of apiary programs or positions in Iowa, and Tennessee. We've also seen the loss of numerous apiary inspector positions in other states. These budget problems have been evident in the decrease in attendance s at these meetings. Blaine did not give his address in 2000 in person; his address was read by the AIA Vice-President, because Blaine was unable to travel to Gainesville due to lack of funding in his budget. Last year in San Antonio, I read AIA President Bob Reiner's address, because he was unable to attend, Bob is not with us again this year, along with a number of others. I am very appreciative that there are this many of us present.

However, while state apiary programs have experienced this loss reduction in positions and resources, the challenges facing the American beekeeping industry and the demands this places on all of us continue to increase. We all know what those challenges are; we'll be discussing them in the following days, which is why we are here.

However, even with the burdens that budget cuts and problems in the industry put upon each of us, there are positives. It looks like we will soon have an alternative antibiotic to Terramycin for the control of American Foulbrood. The possibility of a legal use of formic acid may become a reality. The success in research of varroa resistance in honeybees gives us hope that continued development of new and better chemical varroa control agents may not be as critical to the industry as we once thought. Many of us see a renewed interest in beekeeping and an increase in the numbers of hobby and side line beekeepers, this increase in numbers of beekeepers results in new support for us, at least morally if not economically.

And last but not least, as many of us struggle to find the resources to get to these meetings, we continue to do so. We do it not only because of the opportunities to hear presentations from university and USDA researchers, and others in the beekeeping community, which is a great opportunity. And not only due to the opportunities that these meetings give us to discuss with each other the problems and issues that we face, and to try to speak out with a united voice about these issues. But also we gather together because we are still able to continue to learn from each other, and give each other support - not only because we face the same problems, but because of the relationships we have built with each other over the years. When I attended that AIA meeting in 2000, I did not realize that it would be the people and not the content of the meetings themselves that would prove to be of greater value to me in the coming years. I very much look forward to spending the next few days with each of you, and hopefully for many more years to come.

Secretary's Report
Ed Levi (AR)

The following items were completed since the January 2004, AIA meeting in San Antonio, Texas.

1. Sent out thank you letters to the appropriate people involved in the Ontario conference.
2. Continued correspondence regarding a USDA survey program.
3. Published a state/provincial apiarist directory.
4. Conducted correspondence and miscellaneous duties.
5. Sent a state report questionnaire to all states and provinces.
6. Nearly published the proceedings of the 2004 AIA Annual Conference held in Texas.

Respectfully submitted on January 10, 2005

Auditing Committee

J. Brothers (DE) reported that the committee approved of the Treasurer's report
P. Denke moved, H. Fulton 2nd, Passed

Treasurer's Report

Keith Tignor (VA), Treasurer

Income:

Dues	\$2,245.00
Registration	\$975.00
Misc.	\$55.00
<u>Interest</u>	<u>\$7.09</u>
Total	\$3,282.09

Expenses:

Meeting	\$1,477.45
Mailing	\$89.86
<u>Printing</u>	<u>\$648.00</u>
Total	\$2,215.31

Yearly Balance:

Total	\$1,066.78
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2004 Beginning Balance	\$13,831.57
2004 Ending Balance	\$14,898.35

Nominations Committee

Report by A. Phibbs (WI), as Chair nominated the following slate:

Officers:

Harry Fulton (MS) - President
Jerry Hayes (FL)- Vice President
Ed Levi (AR)- Secretary
Keith Tignor (VA)- Treasurer

Directors:

2005-2006 At large – Patricia Denke	2004-2005 South - Jimmy Dunkley
2005-2006 East – Jeff Brothers	2004-2005 West - Jim Bach
2003-2006 North – Kathleen Prough	2004-2005 Provinces - Medhat Nsar

E. Levi moved and D. Hopkins 2nd, Passed by acclamation

Sites Committee

D. Hopkins (NC) reported as Chair of committee

Baton Rouge for 2006;

Paul Poling 2nd;

Passed .

Award Committee

Paul Jackson (TX) reported as Chair of Committee

Patti Elzen shall receive the Research Award (posthumously)

Resolutions Committee

D. van Engelsdorp (PA), D. Hopkins (NC), J. Fisher (MD), E. Levi (AR)

Resolution #1 National Survey of Honeybee Diseases and Pests

Author: Resolutions Committee

Expanding world trade increases the risk of introducing new pests and diseases of honeybees. Past introduction of such pests, such as Varroa mites and Small Hive beetle, underline the seriousness of such threats.

Presently, numbers of managed colonies across the country are decreasing rapidly. This is happening while demand for pollination units in many states (i.e. almond pollination in California, East Coast blueberries, and mid-west cucurbits) is increasing at an unprecedented rate. This demand will increase cross-continent traffic of bees. Coupled with importation of bees the risk and rate of spread of newly introduced bee pests will increase dramatically.

In the past, United States borders restricted bee and queen imports, and thus USDA-APHIS obligation to coordinate national surveys was not critical. United States' commitments under WTO and NAFTA treaties change this situation as they allow signatory nations to export bees and queens into the US when they demonstrate their disease and pest situation is no different than those that exist within the United States. In order to meet requirements set out by international trade agreements, nations wishing to export bees or queens to the United States must have in place a national annual disease survey. Similarly, if US bee and queen producers hope to export to other nations a national annual survey must be in place in the United States. In short, trade treaties that have opened US borders to foreign bee supplies were passed without provision for a national disease survey, thus placing the US at a disadvantage when compared to nations who have invested in these national surveys.

It is incumbent upon USDA-APHIS to fulfill its obligation under the Honey Bee Act and Plant Protection Act. This obligation requires USDA-APHIS to centralize and collect data on the current status and risks of honey bee diseases and pests, including honey bee viruses, so that informed decisions may be made regarding interstate travel regulations and importation of bees and queens. The apiary industry and the pollination dependent producers are placed in serious risk by USDA-APHIS inaction.

Therefore, the Apiary Inspectors of America (AIA) resolves that USDA-APHIS establish a nationwide honey bee disease and pest survey to meet the requirements necessitated by rules recently enacted to meet treaty obligations. Without this survey the apiary industry is not

accorded the same protection and opportunity as the apiary industries of other signatory nations. This jeopardizes the US food supply.

It is further resolved that the USDA-APHIS establishes a committee to explore how best to utilize existing state apiary inspection programs to conduct the necessary nationwide survey. From a regulatory perspective, the infrastructure already exists within most states to implement such a national survey. Cooperative Ag Pests survey (CAPS) offers a model to get this program underway. The AIA stands willing to take an active role in this regard.

Audience: USDA, NASDA
#1 Committee moved and 2nd by H. Fulton
Passed

Resolution #2:
Petitioning Support for National Bee Disease and Pest Survey
Author: Resolutions Committee

In light of the serious threat to the apicultural industry posed by importing exotic honey bee diseases and pests, the AIA encourages state and national beekeeping organizations, as well as other producer groups reliant on honey bees for pollination to vocalize their support for a nationwide bee disease and pest survey conducted under the auspices of USDA-APHIS. Further, the AIA requests that stakeholder group memberships contact their representatives in Congress to appropriate the funding necessary to conduct this national survey.

Audience: stakeholder groups
#2 Committee moved and 2nd by H. Fulton
Passed

Resolution #3:
Alternative Medications For Treatment Of American Foulbrood Disease
Author: Resolutions Committee

The only currently labeled product for the treatment of American foulbrood disease (AFB, *Paenibacillus larvae*) is oxytetracycline (Terramycin®). Tolerance to oxytetracycline by the AFB bacterium has been documented in the United States creating a need for alternative products for the management of AFB. The use of alternative methods and products for AFB control would impede the further development of resistant strains of AFB.

Be it resolved that the Apiary Inspectors of America urge the USDA-ARS to develop and facilitate alternative methods and treatments for AFB.

Audience: USDA, ARS
#3 Committee moved and 2nd by A. Phibbs
Passed

Resolution 4
EPA Registration of Chemicals for the Beekeeping Industry
Author: Resolutions Committee

In light of documented resistance of the Varroa mite to fluvalinate and/or coumaphos in many states, the beekeeping industry is in desperate need for alternative control for Varroa mites.

Be it resolved that the Apiary Inspectors of America appreciates the expeditious manner in which the EPA has addressed the beekeeping industry's need for Section 18 approval of Checkmite+® and ApiLife Var®. The AIA also looks forward to the continued timely review of alternative compounds currently under consideration for Section 3 approval. In order to reduce risks of resistance development and residue accumulation we encourage the EPA and State pesticide officials to allow Section 18 approval of multiple alternative products.

Audience: EPA, State Pesticide Officials
#4 Committee moved and 2nd by H. Fulton
passed with one abstention

Other Business

H. Fulton suggested that we pay for L. Cutt's expenses to come to the meeting.
D. Hopkins 2nd; Passed.

Need a CAPA meeting representative Feb 2nd
President will find a person.

List serve situation since Blane's departure;
North Carolina will check to see if they can house/manage the list.

Web Server is needed. Where is going to reside? Keith Tignor said he'd manage that site in Virginia.
Need to put Africanized Honeybee Action Plans on web.

E. Levi (AR) moved for adjournment; J. Fischer (MD) 2nd.

NOTES FROM PRESENTATIONS AND DISCUSSIONS

Keynote Address . The Two Big “R”s of Beekeeping: Resistance and Residue -

Lawrence Cutts, Florida, Chief Apiary Inspector, retired

Resistance:

AFB to OTC, Varroa resistance to Apistan, CheckMite, Amitraz, Formic Acid?

Solutions:

Enhancing screen bottoms with smoke, Sucroside

Research in Apiguard- thymol

Thymivar – Thymol

Fugus

Formic acid

Compound H

Uterus wash

Apitol (not being manufactured)

Amitraz (not being made)

Citrus Oil??

Vinegar (not working well)

Oxalic acid (might be good)

FGM (mixed results)

Drone brood removal (causes worker brood selection?)

Bayer has two new products

Heat?

Sunshine (lessens mites)

AFB controls

TM

Sulfa causes residues

Tylosin

Lincomycin

Residue Issues

Cloramfenicol story

TM has a half life of 7 days

Tylosin half life 120 to 186

Lincomycin stable in honey for about 300 days

Apistan (Mavrick)

Mavrick residues are 100 times as much as Apistan

This means you get resistance 100 times faster.

Zylene makes queens sterile and doesn't have to be on the label

Fluvalinate makes drones sterile

CheckMite

Two week withdrawal before honey supers

Two week withdrawal before queen cups

Stable in honey for nine months!

Fumigants

Phostoxin, sulfa,

cyanide (eats nails)

Wood preservatives

Many leave residues

Honey Robbing Chemicals (we don't know enough)

Carbolic acid

Bee-go

Bee Quick

Horace Bell destroyed \$3,000,000 of combs and frames due to his belief of residues

He says his bees are better than they've been for many years.

AFB Resistance Management

Anyone's misuse is a threat to every beekeeper in the country

Solutions:

- Burn Active Cases

- Resistant Stock

Varroa Resistance Management

Use the right products right

Rotate products

Use resistant stock

Screen Bottoms (with powdered sugar or smokes)

Post-treatment checks

Residue Management

Use proper product

Follow labels

Rotate Brood combs

- Replacement of combs

- Keep brood combs wax separate

Beekeepers are gaining the reputation of Departments of Agriculture as being the worse offenders of pesticide misuse.

How are Queen Breeders and Producers Assuring the Industry of AHB Free Honey Bee Stock – Presentations and Discussion

Paul Jackson, Texas Apiary Inspection Service

As of Nov. 24 of 2004, Texas dropped quarantined language –inspections must be requested, no trap lines – certification is on a volunteer basis! Some beekeepers will want certification for sales of queens/bees, pollination contract, law-suit risk management. Use FABIS and follow up with full morphometrics. The general public is calling for certifications to know their risks and especially when there's been a stinging incident.

Danny Weaver, B.Weaver Apiaries

Texas stands as a model to the rest of the country in dealing with this public nuisance pest. Education of the public is paramount.

Weavers increased the vigilance of monitoring of behavior and have always asked for certification. Re-queening is not difficult and is effective. Mitochondrial DNA only checks maternal lines. Nuclear DNA methods are going to be the long term certification tests.

Concentration of mating nucs. Ensure drone flooding of European stock. They don't have many feral colonies in the area due to their flooding of the area with their stock. Testing of queen and drone mothers is the best they can do.

Beekeepers should be part of the solutions and not part of the problem. Keep colonies concentrated in an area and therefore minimize the foraging for others. Also, flooding the skies with European drones.

Molecular markers have to show a relationship to defensive behavior.

Migratory beekeepers aren't always careful about defensive behavior and can't necessarily do anything about the situation due to the drones that have been produced.

We need a survey of feral colonies. Pushes DNA markers for behavior.

Tom Rinderer, ARS/USDA, Baton Rouge

Certify that you're not shipping Africanized bees by not operating in an Africanized area.

One bee breeder in Southern California has shifted from production queens to selling breeders that are AI. Is he for sure controlling his drones? Or is he just getting drones where he's checked the queens?

Then there are the boarder line breeders (those in boarder line areas). People who are working on the margin areas can do fine if they are drone flooding, etc.

It's probably fairly stable right now.

Are they still moving? Not so much. The intensity of Africanization (strength of genetics) seems to not be gaining.

Genetic dilution is happening in southern Texas where there's an abundance of kept bees.

They seem to stop at about 55 inches of rain. (In Africa they queue up during the monsoon and make haste afterwards on the flowers that follow.) In East Texas and LA, what follows the rains is the winter. The bees dwindle and often starve. OK is an example of them reaching out under optimum conditions and less favorable conditions will push them back.

Their resistance to Varroa is marginal. With other pests are very marginal at best. The upsides of AHB cannot outweigh the downside.

What makes an AHB? Does a single DNA test make an unwanted trait?
A full-blown morphometric test is the best method. Yes, there are lines to be drawn regarding hybridization.

What's the risk of queens?

The beekeeper will know in 6-7 weeks but what about the drones that have been produced?

Current Distribution of AHB in the US and Recent Findings on AHB – Open discussion

Five Africanized colonies have been found in Alabama.

Florida uses 500 traps. Got 300+ swarms. 59 + on mit DNA from 95 on positive FABIS
They're putting together an Action Team.
USDA isn't helping due to their concerns with Homeland Security.

Maryland is experiencing less support also due to Homeland Security.

Mississippi is trapping in ports. They've had one positive in a port.

LA has done a good job. There was a carry-in from s. Texas. Swarms have been found on ships.

One swarm was found in British Columbia three years ago.

One colony was found in KY a few years ago.

Arkansas has a Task force and runs traps. None found to date.

Oklahoma has 11 positive counties and two more on the way. Re-entering the inspection program.

South Carolina had a swarm in the stabilizer of a plane.

West Virginia has had a find in a box car.

North Dakota only worries about it if they come in through natural migration or if there's a stinging incident.

Media and public perception is an AHB situation.

Federal Bee Regulations - Wayne Wehling , APHIS/USDA

There's lots of "hot" issues without answers.

There's been some changes from old regulations to what happened on Nov. 22

Risk Assessment for NZ and Australia

Risk Assessment is in process for Argentina

These assessments deals with all aspects of bees.

Open comment period is closed and 308 were received with most being "against".

Changes:

- nothing can go into Hawaii from Australia Canada and NZ
- Germ Plasma can come in from the same as before
- Needs a good export certificate from exporter nation
 - Has to state that the bees originate from that country
 - Has to detail diseases found from inspections.

These agreements override states' laws (ie; if USDA approves bees from X with AFB, they can enter into a state that doesn't allow AFB from another state ...too bad.)

APHIS will notify the state authorities that the bees ARE coming.

For Export, "state inspectors are not qualified". APHIS will come to certify inspectors to do APHIS inspections.

There needs to be a national survey program.

To make this happen there will need to be both an industry and an legislative push.

Advances in Breeding Mite Resistant Honey Bees -Tom Rinderer, ARS/USDA, Baton Rouge

Research of 2004:

They specialize in breeding & evaluating to produce honeybee stocks with useful traits

Russian program

Explained culling process

Last year was the last year to bring in new material.

They don't like to just judge on mite presence.

Bees also need to also to be producers

Mite populations can be relative to the productivity of the colony.

Honey production coupled with mite control.

Russian bees don't build up until there's a consistent pollen flow.

Then they build fast!

Russian bees tend to reduce brood nest during dearth

Mite populations also drop without brood due to Russian mite biting

Pure Russian queens are not easy to find. And there's a market.

Charlie Harper is the main breeder/beekeeper (\$300)

By and large, Russian bees are mostly resistant to Tracheal mites also and therefore, they winter well!

They're looking at:

- Longevity of colonies without treating.
- The effect of dividing colonies on Varroa growth
- Russian queen management
 - Production of supersedure cells and tearing them down
 - Tear down is about the 8-10 day
 - Re-queening complaints have not been confirmed.
 - Acceptance of protected cells true in all bees.
- Development & use of Mite resistance traits
 - SMR - the eating back of infested brood
 - Length of Phoresy period - the length of time the mites spend on the adult bees. The longer the better because they aren't reproducing.

Russian bees are more tolerant to Small Hive Beetle infestations

Partially because they remain stronger due to their Varroa resistance.

Tracheal mites can kill bee colonies in the south even in the summer months as they reduce longevity of workers

How do bees resist tracheal mites?

Grooming with mid leg during questing period

They are now evaluating Russian bees for crop pollination.

Biology & Management of SHB - Mike Hood, Clemson University & Jerry Hayes, Florida Inspection Service

Finding them:

Ouze coming out of hive.

Winter time inspection

There's only adult beetles and they'll be in the center of the cluster

Can't find them!

55+F beetles will be moving:

Lay cover on the ground and bounce supers for beetle drop

Varroa mite sticky screen bottom

Take top off

Attractants will help!

Beetles will look for weak colonies.

Keeping strong colonies is a defense.

Alarm Pheromones are attractants.

West Beetle trap works well.

Precautions Necessary for Inspecting Hives under Treatment with Formic Acid, Api-Life Var and other Mite Control Agents - David VanderDussen, NOD Apiaries

MiteAway II- Sect. 3. --Feb. 28 at the latest

Not the formic gel.

Not Mite-be-Gone (bee yard pad charging)

NOD's product is a pre-charged pad which sits on top of frames in a spacer.

It's 80-90% effective and works best in temperatures between 50 – 80 F.

Screen bottom board reduces the efficacy

What to do as an inspector when you find MiteAway pad in a hive? Should use gloves, eye protection and respirators.

Apilife Var – Thymol, Steve Forest, Brushy Mountain

Consists of pharmaceutical product made in France

It's not essential oils.

Works effectively to control Varroa.

Other Regulatory Issues & Discussions:

K.Prough, IN –

Who's regulating imports of SHB?

How do you regulate for SHB in packages?

It was agreed that you can't really stop people from importing queens or packages but they need to be aware of the risks.

The purpose of regulations is to slow the spread of problems.

K. Tignor, VA.

SHB - what about natural migration?

E. Levi – described the movement across the river

H. Fulton – They'll find their natural boundaries
J. Hayes – Larvae need the slim

D. Hopkins, NC –

Compliance agreements that includes list of customers for importation of queens and packages.

Weaver's don't want to comply with that.

How to certify for AHB?

AHB – Action plans

AR, FL, & MD will provide their action plans and provide a model plan by June 1

Import questions

Put together of some regulatory scenarios? Setting up ad hoc committee to put these together. Wayne will take it to an Attorney for interpretation. We can't stop the importation of problems because we can't say we don't have specific problems because we don't have a national survey. We can't burn hives with AFB if they've been imported! That'd be "impeding commerce". Code of Federal Register, vol. G9 #203 – Nov. 21, 2004

Office Internationale des Epizooties

Medhat Nsar - Queen Imports in Canada

SHB was imported to Winipeg w/wax cappings from Texas two years ago.

Started finding them around a wax processing plants.

Got Coumaphos resistant varroa in Ontario from Pennsylvania. Also got the same in New Brunswick from Florida.

Neither PI nor NS have tracheal mites.

600,000 hives (Alberta has 40%)

Canola is big in Calgary area at \$120

Blueberry is about \$80

There are provincial and federal inspection programs

There are bee and honey inspection services

CAPA is organized with committees to communicate issues to the Federal Minister of Agriculture

Discussion on Importation- Wayne Welding, Sarah Karman, & Dr. Castilla

Resistant strains are considered another "pest"

10-day notice before arrival.

Shipments must be accompanied with a certificate of health that must meet the standards if not or it doesn't - shipment will be returned at shippers expenses or destroyed

Problems with states that don't have a program for inspection.

There are two problems.

1. Qualifying potential exporters to meet requirements
2. Having a national survey to demonstrate what's here for the defense of imports.

This is too big for a CAPS program. We're talking about a lot of money and that's going to take an act of congress.

Thomas Kruchten, Agri Statistician, USDA National Agricultural Statistics Services brought up the potential of them being part of the solution.

Sara is going to contact all states to find out what each state is doing.