

The Bee Cause



Volume 8, Issue 2

February 2011

- Next general meeting is 7:30 Tuesday, **January 11th**
- at the **River Heights Community Centre, 1370 Grosvenor Ave., Winnipeg.**
- **(in room upstairs)**
- **Topic: The Vanishing Bee**
Narrated by Ellen Page

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Do We Have A

PESTICIDE BLOWOUT by Tom Theobald

Clothianidin is agriculture's Deep Water Horizon. America's farmland is awash in questionable chemicals as surely as the shorelines of the Gulf Coast are awash in crude oil – and for many of the same reasons.

I doubt that there are many readers who have escaped reports of the oil well blowout - the explosion and collapse of the Deepwater Horizon drilling platform and the subsequent environmental disaster that has ensued.

Evidence is mounting that the blowout of the Deepwater Horizon was brought on by a climate of lax oversight by the federal agency responsible for *“insuring the safety and environmental*

protection of offshore drilling operations,” the Mineral Management Service, or MMS.

As I've listened to the news and read the articles describing events leading up to the explosion I'm struck by the parallel to what has been occurring in the beekeeping world over the past several years. In May of 2008 there were massive bee kills in the Baden-Wurttemberg region of Germany, with two thirds of the colonies there killed. The damage was quickly traced to one of the pesticides in the controversial family of neonicotinoids produced by the German corporation Bayer. Planting of corn seed coated with clothianidin, by way of pneumatic planters, supposedly resulted in fugitive clothianidin dust which caused the disaster. Within two weeks Germany banned clothianidin on corn and several other crops, but the damage was done. Clothianidin is just one of a number of pesticides in the family of neonicotinoids. Neonicotinoids are systemic pesticides, which means that they become incorporated into the system of the plant when the seed germinates.

In the United States clothianidin was given a conditional registration by the EPA in 2003. Originally approved for use as a seed coating on corn and canola, it is now being approved for a growing list of other crops as well.

The German bee kill came as no surprise to

the beekeeping community, which had been concerned about clothianidin since its registration in the U.S. in 2003, and in Germany in 2004. For four years those concerns were met with repeated assurances of safety, until finally disaster struck in Germany. Even in the aftermath of this huge bee kill the assurances continued. Bayer's explanation was that the bee kill was caused by *“. . . an application error by the seed company which failed to use the glue-like substance that sticks the pesticide to the seed . . . It is an extremely rare event and has not been seen anywhere else in Europe . . .”* This is reminiscent of the finger pointing in the oil industry over the past several weeks.

It appears that two years later we have now had a repeat of this *“rare event,”* this time here in the United States. This bee kill occurred in Indiana in April, reported by two entomologists at Purdue University in an article written for the Indiana Beekeepers Association newsletter and circulated widely. Titled *“Pesticide Kill at the Purdue Bee Lab?”* it reports a significant bee kill across Indiana, again believed to have come from fugitive dust from pneumatic corn planters.

According to these two entomologists *“Every corn seed that goes into the ground in Indiana these days has a coating of clothianidin on it. It has been a dry spring.*

We have had very warm, windy weather this week. As I watched my neighbour planting, I could see huge clouds of dust being stirred up.” As researchers at a major university, the authors (continued on pg 4)

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Presidents Comments – February 2011

The days are slowly getting longer and Spring is one month away. The indoor wintered hives are still humming happily whenever I open the door to the wintering room. A few adventuresome bees fly towards to the light and survey the snowy outdoors. Very few make the roundtrip, has most falter and fall quickly onto the snow.

My indoor feeding program will begin in the first week of February with a small experiment for my 20 hives. I intend to raise the indoor temperature up to 50 degrees Fahrenheit for a week and feed two different mixtures of syrup mixture in half liter water bottles. One syrup mixture will be honey and water in the ratio of 2 parts of honey to one part of water, and the other will be 2 parts of white sugar to one part of water. Since the literature seems to indicate that white sugar (sucrose) may not be the healthiest carbohydrate for us and perhaps not for bees either, this small trial of 10 hives each will provide some information. I am curious to see what differences there may be. I will monitor the progress of this feeding program and provide updates and information until our meeting on April 12th or until the bees are moved outside.

On my recent trip to Saskatchewan, I had a chance to visit some to their grocery stores and as usual, I had a look at the honey shelves. Prices were similar to Manitoba in all stores, except in COSCO in Regina, which carried Bee Maid honey in 3 kg containers at \$17.95 each and also featured creamed honey from Wink Howlands' apiary near Yorkton. The sale price on his 1 kg tubs was \$ 4.99, a dollar less than the usual price. It is good to see local honey available to the public in a major shopping store, but the price for quality locally produced honey is much lower than comparable kg prices here in Winnipeg. The other four stores I visited had no local honey on their shelves, and when I asked why, they said it was a management decision. This again is another example of the major grocery stores not marketing nor supporting locally produced better quality honey.

A newspaper article by Michael McCarthy in The Independent on January 20th, 2011, a British newspaper, provides some current information on the possible causes of the CCD situation. The headline says that "**Bees Face a Poisoned Spring**". In the article the linkage between the use of Bayer's **Neonicotinoid Chemicals** in pesticides and the effects they have on the honeybees immune system has been documented. It was scientifically demonstrated. by the USA Department of Agriculture Bee Research Laboratory in Beltsville, Maryland by Dr. Jeffery Pettis. This unpublished study took place two years ago. His study/experiment indicated a very strong relationship between small doses of the **neurotoxin Imidacloprid** and the subsequent weakening of the honeybees immune system. The critical part of this type of neurotoxin pesticides are that they are a systemic formulation, so that the entire plant contains the poison which is transmitted in the nectar and the pollen to all the insects that visit those flowers. Many other insects visit flowers and their populations are also decreasing. The chemical basis for these pesticides is derivatives of Nicotine. Is Rachel Carson's 1950 warning of "A Silent Spring" which related to the cumulative effects of DDT, now being revisited 50 years later in terms of Bayer's sale of these neurotoxin pesticides?

The chemical company " Bayer" is based in Germany and this chemical/pesticide/poison was one of their best sellers in 2009. This type of neurotoxin pesticide was first introduced on a small scale in the 1990's, and some effects were beginning to be noticed in those days, but no massive honeybee die offs had occurred. What is now interesting is that there is an official government ban on the sale for the last three years of this particular pesticide in Germany, France, Italy and several other European countries.

And closer to our border or perhaps on both sides are the effects of the USA Environmental Protection Agency or EPA as they are better known affecting our own beekeeping losses which seem to have dramatically increased. The EPA gave conditional approval several years ago for the use of the Bayer pesticide **Clothianidin**, another form of a neurotoxin. This pesticide is used as a seed treatment on a variety of crops including corn, soybeans, canola and other crops. What has been uncovered is that the test trials paid for by Bayer for this particular pesticide were done on a minimal basis, and the results are seriously flawed. However EPA has now been put on notice to ban the sale of this particular pesticide until a proper study can be done. This ban has been requested by large numbers of beekeepers all across the USA. What Manitoba beekeepers see across our southern borders are large fields of canola and soybeans and we need to wonder what our own bees are bringing back to our hives. Also is this particular pesticide being extensively used by our farmers in our honey production yards. (cont'd on pg 3)

**Minutes of the RRAA Annual General Meeting
River Heights Community Club – January 11,**

Ron Rudiak, recorder – RRAA

7:30 P.M. Brian Smith opened the meeting with 27 members and guests in attendance.

Minutes of the November general meeting: No errors or omissions noted. Moved by Gilles and seconded by Armand that the minutes be accepted as circulated in the January issue of the Bee Cause. Carried.

Bee Cause Newsletter: Ken Rowes reminded everyone that any advertisements in the newsletter must be renewed for 2011. Membership renewals must be received before March 31 to ensure that your newsletter subscription is continuous.

Financial: John Speer reported the year end general account balance was \$4812.00.

MBA Report:

MBA Convention: Jim reported that the MBA Convention has been scheduled for March 4th and 5th. Advanced registration for both days is \$19 and an additional \$25 if you want to include the evening social.

Speakers:

Randy Oliver, US commercial beekeeper and writer.

Randy has written extensively about Varroa mite, bee viruses.

Dr. Steve Pernal, a Brandon native, who has been researching at Beaverlodge, Alberta will detail some of their completed projects. They are working on the 3rd year on nosema, examining fumigillen residues.

Details of the MBA Convention program will be posted on the RRAA website as soon as they are finalized.

Provincial: MBA has sent a letter of thanks to the Manitoba Minister of Agriculture, Stan Struthers, in appreciation for the continuing work and assistance of Rhéal Lafrenière and David Ostermann to the beekeeping industry.

The MBA is very concerned about the impact skunks to bee colonies in the province and is looking for economical ways to control the large skunk populations. Chris Argiriou noted that skunks that are active during the daylight hours have been shown to be rabid.

Nominating Committee: John Russell Badiuk provided a election committee report. Members who are presently on the executive have agreed to let their names stand for 2011. Jim Campbell called requests from the floor thrice and no further nominations were made. The present executive was declared re-elected for 2011.

Loonie Draw: This month there were quite a lot of prizes to be drawn. A special thanks to those who donated items and all those who contributed loonies to the pot.

Program: Rhéal Lafrenière provided an overview of the **North American Beekeeping Conference** in Galveston Texas.

There were so many excellent presentations Rhéal relayed the importance for anyone attending to review the program before hand and lay out a daily event plan for oneself

in order to get the best out of the convention. The major topics dealt with chemicals and regulations were just a few dealt with Varroa mites.

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MBA Report February 2011

By Jim Campbell, MBA rep

Plans are being firmed up for the March 4-5, 2011 Symposium for Beekeepers of Manitoba. The event this year will be held at the completely renovated Viscount Gort Hotel, in Winnipeg. Advance registration forms are available on manitobabee.org (bulletin section), and will be \$195 for the two-day event.

By popular demand, Randy Oliver, beekeeper, scientist, pollinator, and researcher, from Grass Valley, California, will return for his second engagement. He wowed the audience in Brandon last year with his energetic and practical presentations. Dr. Steve Pernal, Beaverlodge Research Station, Alberta, will bring updates on his recent research on efficacy and residue associated with treatments for Nosema. In addition, he will talk about the various project outcomes over the past few years. Joining the slate will be Pierre Giovenazzo, research center, Laval University, Quebec. Pierre will bring updates on the Small Hive Beetle invasion in eastern Canada, plus additional information on importance of integrated management for varroa control. In addition, Dr. Currie and his students will be updating beekeepers on their research projects.

In other areas, MBA has embarked on a three-year trial to look at screening several varroa control products, to verify their effectiveness in Manitoba climate. This project uses about \$22,000 from MBA to lever Federal Government and other funding resulting in a project valued at over \$140,000. In January, MBA met with Dr. Rob Currie, U of M to set out the preliminary list of treatments such as Thymol, Apilifevar, Hopp-guard, and Thymovar. Specifics may change, as part of the mandate is to coordinate activities with Alberta, Saskatchewan, Manitoba, and possibly Ontario, to ensure products are screened while maintaining cost effectiveness. Dr. Currie will be looking for donations of 4 frame nucs (with 3 frames of brood and lots of bees) in spring. Although regular nucs are good, he will be seeking untreated bees with lots of varroa for his research project. If anyone finds they have heavy infestation, and they can spare a nuc, or possibly five, make sure you set the bees aside, or keep them untreated.

Meanwhile, the Canadian Honey Council reported appointment of Rod Scarlett, Edmonton, as the new Executive Director. He began work in early January 2011. Rod has good contacts within the agriculture industry and government places, and is looking forward to the new role. His most recent job was with the Wild Rose Association of Alberta.

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(president's report continued)

The regular RRAA meeting on February 8th at River Heights Community Club will take place in the Upstairs Room starting at 7:30 PM.. There will be a short business meeting, followed by a DVD video of a recently released video called the "**Vanishing of the Bees**". It is narrated by Ellen Page and has many comments and information provided by David Hackenberg and by Dave Mendes, a former President of the American Bee Federation. This is one of the best films I have seen on the CCD story, and I hope that many of you will be able to come to the February meeting.

Yours in Beekeeping and remember your Honey on Valentines Day.

Charles Polcyn RRAA President

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(from pg 1)

had the resources to do some immediate analysis that would have been beyond the reach of most beekeepers, and they found high levels of clothianidin in the dead bees and the incoming pollen.

Along with other beekeepers, I have been concerned about clothianidin for some time, in part because it is not the first neonicotinoid to cause problems. Imidacloprid, the first, was registered in the U.S. in 1994 and was soon implicated in widespread bee kills. Several commercial beekeepers in North Dakota filed suit because of damage from imidacloprid used on sunflowers and similar damage in France from use on sunflowers led to a ban there in

1999. However it is still used without change in the U.S.

France declined to even register clothianidin.

I became concerned about clothianidin in 2007 as the possible cause of a break in the Fall brood cycle I was seeing in my bees and in early 2008 I began digging into the facts surrounding its approval. That story is instructive and cause for great concern I believe.

The first record I found on the consideration of clothianidin comes in the form of an EPA memo dated February 23, 2003, titled "Risk Assessment for Seed Treatment of Corn and Canola." To their credit, EPA scientists raised serious concerns in that document and called for strong label language if clothianidin was to be approved for use. They cited the experience in France with imidacloprid as the basis for extreme caution and called for label language which would highlight the dangers.

Quite responsibly, they called for a field test of the dangers prior to registration: *"The possibility of toxic exposure to non-target pollinators through the translocation of clothianidin residues that result from seed treatment (corn and canola) has prompted EFED [Environmental Fate and Effects Division] to require field testing that can evaluate the possible chronic exposure to honey bee larvae and queen. In order to fully evaluate the possibility of this toxic effect, a complete worker bee life cycle study must be conducted, as well as an evaluation of exposure and effects to the queen."* and they called for strong label language as well: *"This compound is toxic to honey bees. The persistence of residues and the expression of clothianidin in nectar and pollen suggests the possibility of chronic toxic risk to honey bee larvae and the eventual stability of the hive."*

This level of concern expressed by EPA scientists in February of 2003 wasn't to last however. In the next memo just two months later, dated April 10, 2003 – an Addendum to the Risk Assessment - EFED retreated.

They stuck to their guns on the label language, sort of, but they appear to have been handed their heads by an EPA management that would brook no interference with corporate objectives. *"However, after further consideration ..."* is what the scientists had to say after having their attitudes adjusted: *"However, after further consideration, EFED would like to suggest that the registrant be given a conditional registration that is contingent on their conducting the chronic honey bee study that evaluates the sublethal effects of clothianidin over time. EFED will therefore defer the require-*

ment for this bee labelling statement until after the chronic study has been reviewed."

Bayer was given eight months, until December of 2003, to complete the study, but clothianidin was released to the market and the horses were out of the barn. It is here, with the April memo, that the regulatory process begins to unravel. The condition of registration, the [chronic] life cycle field study, would go undone for years. *"After further consideration..."* meant that the real field test was to take place across the farmlands of America, without control and with serious concerns as to the safety of this pesticide unanswered.

The next memo, which established the final protocols for the field study, is dated March 11, 2004. The original deadline for the field study, upon which the conditional registration had been granted, had already passed three months before. Bayer requested and was granted, retroactively, an extension to complete the field study by May of 2005. All the while however clothianidin would be out on the market and useage would increase rapidly. This has become a common tactic in the corporate playbook, get these products out there by whatever means possible, get agriculture hooked, and then convince farmers they can't live without them. Previously EPA scientists had clearly stated that any study should be done in the United States, but Bayer was given permission to do it in Canada instead. More significantly, rather than require that the field study be done on both crops, corn and canola, Bayer was allowed to test only canola, while corn was dismissed with a single sentence. This is significant because in the United States canola is a relatively minor crop, with less than a million acres grown. Corn on the other hand accounts for about 88 million acres. Further, we had just seen a decade of enormous damage to bees from a product called encapsulated methyl parathion, where contaminated corn pollen had been the major vector of damage and EPA scientists were well aware of this. I knew the biologist who signed off on the March, 2004 memo which dismissed corn so casually and he most certainly would have known of the dangers corn pollen could represent, yet Bayer was given a pass and was allowed to disregard corn.

Since clothianidin becomes part of the plant it is expressed in all parts of the plant, thus any insect which chews or sucks on the plant ingests the pesticide and dies. Don't worry though, we were told, it only affects the bad bugs. Besides, it's one of the new "green" pesticides, derived from a natural substance, nicotine (this is a whole other story, because like many other "green" pesticides it is a product of heavy chemistry, not nature). It also reduces the need for the application of other, supposedly more toxic pesticides we're told.

Neonicotinoids have come under increasing criticism however, not the least of which has been levelled by the beekeeping industry and others for the alleged detrimental effects on honey bees and other pollinators.

The word "alleged" could start the fight I suppose, because critics believe the case against the neonicotinoids is complete and compelling. On the other hand, Bayer, and apparently the EPA, would have us believe otherwise. Much of the evidence is in the public arena now, and with the publication of this article, the conduct of the EPA, revealed through its own documents, will be as well. The readers can judge the evidence for themselves and draw their (continued on pg 6)



Editor's Note by Ken Rowes

I suppose some may say I've **become fearful of the future and have grown suspicious of the past.**

With the claims of diminishing pollination species and horrendous losses of bee colonies. It seems to me that one fear plays on another and the corporate market keeps the cycle churning with the regulators fearful of carrying out the correct form of action. Some resist corporate funding to put a hold on the wholesale demise of our Health.

You may think: Who do you believe. Who can you believe. Who should you believe.

It is the wish for those in most circles to do what is correct for the health of the environment, the health of all even the natural beneficial insects and animals especially those that end up on our daily plate for sustenance. So is the focus on the corporations and the government regulators or are we included? Yes **US** to act in favour of what's best for all.

Why is chemicals '**riding on doing harm**', how have they gotten through the radar? Profit rules from corporate cash flow to farmer's cash flow. Health has been put on the bottom of the pile in the basket were it randomly surfaces for a workshop or research issue in the funding highway. Definitive answers aren't acted on. No one believes in France's research and chemical bans? Why?

Now upon us is our concern for our lives and those of our descendants. It seems to me we as Associate members need to learn, understand and take our part to change our ways and encourage change of Agra-business for the better.

CLASSIFIED

1. Wanted: S.S Bottling Tanks Single wall or double wall with water jacket, good condition or repairable. Also needed—Belt Barrel Heater for drums: **call Brian Rich 204 739-5481**

2. FOR SALE: Clearance of a variety of Beekeeping Equipment, Brood Boxes, Queen Excluders, Bottom Boards, Lids, Empty Shells, Bare Frames, etc. Reasonable Prices on all items. Call Charles Polcyn at 284-7064 or email at: **charles_polcyn@ymail.com**

4. For Sale: 1-Wood Burning Stove ideal for workshop— used one season \$350.00; 2- 10 kg plastic containers and lids \$2.65 each; 3 Plastic drum 200 L with tap \$100.00 . Ph Ted Scheuneman 338-6066, West St Paul

5. Wanted - Strong nucs, with laying queens. Available approximately May 15 weather permitting.

The Bee Cause is the official publication of the Red River Apiarists' Association for distribution to its members and their colleagues in the beekeeping industry. It is published eight times a year on a monthly basis except December and the summer months of June, July, and August when membership meetings do not occur.

Articles can be best submitted in word documents as email attachments. Though they may be edited for spelling and basic grammar, no changes will be made to their contents, message and opinions. They are those of their originator and not of the Red River Apiarist Association.

Deadline for any submission to this newsletter is the second Saturday preceding the membership meeting to allow for publishing and mailing delays. Regular membership meetings are normally scheduled 7:30 PM on the second Tuesday of every month at the River Heights Community Centre located at 1370 Grosvenor Avenue in Winnipeg except the months as noted above.

The Red River Apiarists' Association, formed in 1963, represents the beekeepers of the Red River Valley and environs in southern Manitoba. The association provides a forum for the promotion of sound beekeeping practices through education, networking opportunities, meetings, field days, workshops, presentations by local apicultural experts, as well as the dissemination of this monthly newsletter.

We are on the web!
www.beekeepingmanitoba.com

Ph Chris Argiriou 296-4848 (cell) or 885-4588 (home)

6. Wanted - extractor please contact Marty McIlwain 226-3437

7. Wanted: Candle moulds, tapered and pillar various sizes. Contact: **Lance Waldner Phone or Text 712-6783, lancewld@gmail.com**

8. For Sale - 10 hives for sale. single brood boxes with lid, bottom-board. inner cover and feed 378 5351 Dahlen Barkman 378 2778 Wes Barkman

Canadian Honey Council

New executive Director

Mr. **Rod Scarlett**, an Albertan with an MSc in Canadian Studies from Carlton U and 14 years as Executive Director of Rose Agricultural Producers as well as ex.director of Woodlot Ass. Of Alberta the last 5 years GM of the Canadian Young Farmers' Forum: a wealth of knowledge in ass. Management and policy development.

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(from pg 4)

own conclusions. I'm presenting my view of the goings on and that can be part of your consideration. Obviously, I'm not without my own opinions in these matters.

The official life cycle study was to languish for years. In March of 2004 the initial deadline for the study had passed and the EPA granted Bayer an extension, until May of 2005, allowing further that if accurate data could not be produced in the summer of 2004, the study might be extended yet again, through the 2005 growing season. According to its own records, dated March 11, 2004, the T

EPA says "*EFED wants usable data to decide the potential adverse effects to bees from clothianidin's seed treatment use and opposes rushing the study and having deficient information.*" While this may seem to evidence concern, you must remember that this would mean a pesticide with serious questions as to its environmental consequences could then have been on the market and in wide use for three full growing seasons without any answers to those questions. While there may have been concern about rushing the study, there seemed to be no comparable concern about

rushing an untested pesticide onto the market. These tests should have been completed before clothianidin was ever registered, as EPA scientists had initially recommended.

Then in May of 2008 we have the German incident – two thirds of the colonies in the Baden-Wurtemberg region killed, with 99% of the dead bees showing high levels of clothianidin. Within two weeks of this incident

Germany had suspended the registration for clothianidin and this action was soon followed by bans in Italy and Slovenia. And what came from regulators in the U.S.? Silence. Worse than silence actually, because it soon began to appear that the EPA was going into hiding. It was in the Spring of 2008, before the German incident, that I began investigating clothianidin. I did so because the previous Fall I had discovered that there was a break in the Fall brood cycle in nearly all of my colonies, and when I tried to match the symptoms to some known or suspected cause, the trail led to clothianidin. I wasn't the only one who was concerned about pesticides. In the Fall of 2006 Pennsylvania beekeeper David Hackenberg had broken the story of huge bee losses, what would come to be called Colony Collapse Disorder, or CCD. Dubbed the great mystery by many researchers, over time more and more beekeepers began to believe that there was little mystery and that pesticides were a major ingredient in CCD.

The Natural Resources Defense Council had begun questioning the safety of clothianidin and subsequent to the incident in Germany asked the EPA to provide the long awaited life cycle study, which was by now four years overdue. The EPA failed to respond so the NRDC filed a Freedom of Information Act request. The EPA failed to respond once more and on August 18, 2008 the NRDC filed suit for the study. It was just prior to the NRDC suit that I discovered the infamous missing study; the internet can be an amazing resource if you just keep digging and prying. Within a month of my discovery the EPA had put their review and approval of the study on

their web site, apparently flushed out by the NRDC lawsuit. What the review does and doesn't reveal is disturbing. Let me first put the study in a more agricultural context, and then look at it more closely. Let's say you had a noxious weed that was affecting your cattle and you wanted to assess the dangers. So you plant two and a half acres of the suspect weed in the middle of 2000 acres of lush Wyoming grassland and put four cows on the test plot. The cows aren't fenced in, however, and are free to roam over the entire 2000 acres. What do you think is going to happen? How long do you think your four cows are going to stay on your dinky little test plot? How significantly is that noxious weed going to be represented in their diet? I think you know the answers.

Here's what the life cycle study of bees and canola consisted of: four colonies of bees were set in the middle of one hectare (2½ acres) of canola planted from treated seed, with the bees free to forage over thousands of surrounding acres in bloom with untreated canola, which they most surely did. What do you think the results were?

They were exactly what Bayer wanted of course.

Why was the chronic life cycle study and the EPA's review unavailable? Was it ineptitude? Perhaps it was simply embarrassment, because the study had been completed on August 1, 2006, already long overdue, and yet despite all the controversy had not been reviewed by the EPA until November 16, 2007, nearly a year and a half later, after clothianidin had been on the market for five full growing seasons.

Perhaps it was because in the opening paragraph of its review the EPA states unequivocally "*This study is scientifically sound and satisfies the guideline requirements for a field toxicity test with honeybees (OPP Gdln. No. 141-5; OPPTS 850.3040).*" Scientifically sound? If you're in 4th grade perhaps, but certainly not if you have a Phd after your name. They should be embarrassed, this makes a mockery of science. Further concerns are emerging as a consequence of the Indiana bee kill.

High levels of atrazine were found in the dead bees and pollen along with clothianidin. This suggests that dust alone may be a vector, with the atrazine contamination coming from airborne soil. We now find evidence, again from the EPA's own documents, that clothianidin can be persistent in the soil, remaining for years in some cases, and that it may accumulate from successive uses of treated seed, a common practice in the corn belt. Has the soil itself become a source of toxicity as a consequence of clothianidin use? Only further tests will give us answers to those questions. What are we to do with circumstances like these? It is simply nuts, and yet this bogus science has now been

Since clothianidin becomes part of the plant it is expressed in all parts of the plant, thus any insect which chews or sucks on the plant ingests the pesticide and dies. Don't worry though, we were told, it only affects the bad bugs.

used as justification to approve the use of clothianidin on a rapidly growing roster of other crops while there is mounting evidence of problems coming from around the globe. The EPA still seems to lack any sense of urgency and says it will not review clothianidin until 2012.

I still believe that most of the working level people at the EPA want to do things right, but there seems to be a serious management failure and (continued on pg 7)

(from pg 6)

nobody seems to be stepping in to get the ship back on course. Some very spooky chemicals are coming onto the market without proper testing and once out are virtually unregulated. We are seeing the legacy of more than a decade of deregulation and self regulation and it has not worked. This is the Deepwater Horizon in agriculture. America's farmland is awash in these questionable chemicals as surely as the shorelines of the Gulf Coast are awash in crude oil, and for many of the same reasons. The bees are telling us something. We need to start listening before it's too late.

Tom Theobald is a sideline beekeeper & activist in Niwot, CO. We now find evidence, again from the EPA's own documents, that clothianidin can be persistent in the soil, remaining for years in some cases, and that it may accumulate from successive uses of treated seed, a common practice in the corn belt.

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International SETAC Pellston Workshop Identifies Pesticide Risk Assessment Process for Bees

Pensacola, Fla.—January 24, 2010—The Society of Environmental Toxicology and Chemistry (SETAC), an international non-profit organization dedicated to the study, analysis and solution of environmental problems, held a Pellston workshop on pesticide risk assessment for pollinators from 16–21 January in Pensacola, Fla. Because pollinator species are declining not just in North America but also in many other parts of the world, there is an urgent need to use the best available science to develop a globally harmonized approach for assessing the risks that pesticides pose to pollinators. The workshop evaluated information on the risk of pesticides to both honey bee (*Apis*) and wild bee (non-*Apis*) pollinator species. Workshop participants aimed to find ways to improve the risk assessment process for pollinators and to identify the data needed to inform that process.

Consistent with the objectives of SETAC, the workshop participants reflected a balance between academia, business and government as well as a wide range of expertise from toxicologists, statisticians, biologists, modelers, practitioners (i.e., beekeepers), risk assessors and risk managers from Europe, Australia, Africa, and South and North America. The workshop proceedings are intended to inform and be of assistance to pesticide regulatory agencies.

Workshop participants discussed the contributions of *Apis* and non-*Apis* bees to pollination and biological diversity. Potential toxicity study designs and test result interpreta-

tions were discussed with respect to the relevancy of the data in estimating the viability of *Apis* and non-*Apis* bee populations. Participants also discussed potential routes of pesticide exposure to *Apis* and non-*Apis* bees as an element of risk assessment. Participants worked to develop an improved system for conducting assessments of risk to *Apis* and non-*Apis* bees using existing and proposed tools for estimating exposure and effects. The process defines a tiered system to identify chemicals with potential to pose a risk to bees and to refine risk estimates for such chemicals.

SETAC will produce an executive summary of the workshop by the end of April 2011 and intends to publish full proceedings within one year. For questions regarding the workshop contact Mimi Meredith, SETAC Publications Manager, at setac@setac.org. For more information about SETAC, visit www.setac.org.

SETAC is a not-for-profit, worldwide professional organization comprised of individuals and institutions dedicated to the study, analysis and solution of environmental problems, the management and regulation of natural resources, research and development and environmental education. Our mission is to support the development of principles and practices for protection, enhancement and management of sustainable environmental quality and ecosystem integrity. SETAC fulfills its mission through the advancement and application of scientific research related to contaminants and other stressors in the environment, education in the environmental sciences and the use of science in environmental policy and decision-making.

SETAC meetings serve as open forums for environmental professionals to present the findings of their scientific research. The opinions and ideas expressed in the workshop are those of the participants, not of the Society.

Media Advisory

For Immediate Release

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*ScienceDaily (July 29, 2009) — A compound from honeybees known as propolis, the substance bees use to seal their hives, may protect against heat stress in athletes, according to an article in the *Journal of Food Science*, published by the Institute of Food Technologists.*

From Honey Bee's Kitchen

Honey Toasted Miesli

1/2 cup honey 1/2 cup veg. oil
3 c. rolled oats 1 c. coconut
2 c. bran flakes (wheat germ flakes) (optional)
2. Tbsp. sesame seeds (toasted)
1 c. mixed nuts (walnuts, pecans, cashews, almonds and/or seeds)

* 1 c. raisins

* 1/2 c. chopped dried apricots/cranberries

Note: add the * (dried fruits) later.

Mix all ingredients except the *dried fruits together in a large roasting pan.

Warm honey and oil together gently and pour over the dry ingredients and mix well.

Bake for 40-44 min. in a 350 degree oven until lightly browned, stirring every 10 minutes.

Leave to cool and then add the * dried fruits. Store in an air tight container.

Good over regular cereal.

From Marg Smith



**Red River Apiarists' Association
Winnipeg, Manitoba
2010 MEMBERSHIP APPLICATION**

I apply for membership in the Red River Apiarists' Association. Membership includes one-year subscription to the newsletter "The Bee Cause" (8 issues)- \$25.00.

Name _____ Tel. _____

Address _____

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New Member [] Renewal [] Student [] [free 1st year]

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This completed form may be brought to the meeting or mailed with your cheque to :

**John Speer, RRAA Treasurer
Box 16, Group 555. Winnipeg, Manitoba R2C 2Z2.**

Make cheques payable to Red River Apiarists' Association.
Please do not send cash in the mail.