

# The Bee Cause



Volume 10, Issue 5

May 2013

- Next general meeting is 7:30 Tuesday, **May 14th** at the **River Heights Community Centre, 1370 Grosvenor Ave., Winnipeg.**
- (in room right off main-door)

**Speaker: Ron Rudiak** Lyme Disease and open discussion on swarming

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## RRAA Celebrates



The Red River Apiarists' Association, formed in 1963, represents the beekeepers of the Red River Valley and the farming areas in southern Manitoba. The association continues to provide a forum for the promotion of sound beekeeping practices through education, networking opportunities, meetings, field days, workshops, presentations by local apicultural experts, sharing in the show casing of beekeeping and it's by-products at

community events in Winnipeg (the Day of The Bee as well as the Provincial fall Honey Show) and in breakfast programs in schools around Winnipeg, including dissemination of this monthly newsletter The Bee Cause.

What makes this a great organization is its members who may have differences and still plenty of mutual encouragement, novice or seasoned and those who have left their foot prints on past events. Especially those who keep the dreams alive for a safe and natural food link.

On April 26th, 2012 many retired beekeeper members and many present members made the anniversary a special meeting. Sharing reunions and ponder / revisiting old newsletters and membership lists and best of all sharing the old stories when and how one started in beekeeping and the many hilarious stories.

It was also unique opportunity to recognize the supporting agencies: Manitoba Agriculture, Food and Rural Initiatives, The University of Manitoba and the Bee Outfitters / Bee Maid ( Manitoba Cooperative Honey Producers Limited).

Furthermore, It was an opportunity to Honour special members, Ron Rudiak for his long service record and Albert Anderson the oldest member (1967).

Ron Rudiak was honoured, late last month, at a 50<sup>th</sup> Anniversary Party, with over 40 guests attending.

During the Red River Apiarists' Association 50<sup>th</sup> Anniversary Party, on Friday 26 April 2013, among the many guests recognized for their contributions, one person ranked high for enthusiasm. Ron Rudiak, Steinbach, has been a continuous member of the bee club since joining 1974. During this time, he held various executive positions throughout the past 35 years. His creativity is widely recognized in several gadgets and tools he either invented or adopted. Recognized for his passion and enthusiasm for the industry, Ron was presented with a Honourary Life Membership. Joined by his wife, Shirley, Ron expressed gratitude to the people and the organization.

John Russell, Celebrations Chair, talked briefly about the strength of the club as he welcomed everyone to the celebrations. John noted there were lots of door prizes to award during the evening.

Jim Campbell, one of the presenters and club historians, thanked several guests at the party. He reminisced about Anna Donkin, a long-serving member and founder of the club in 1963. Jim extended a "sweet" welcome to her daughter Phyllis Rodych, and granddaughter Maryanne Johannson, who were on hand for the celebrations. (cont'd on Pg 4)

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**Presidents Comments -- May 2013**

Charles Polcyn is still away with his family.

Remember Presidents Comments-- May 2011

The challenges of being beekeepers in Manitoba in late April and early May are always unpredictable. On *Thursday April 28<sup>th</sup>*, I am mixing up sugar syrup at +20 C. to fill the feed containers on all the hives, and watching them carry in loads of yellow pollen. On *Sunday May 1<sup>st</sup>*, three days later I am shoveling **15 cm.** of snow off the tops of all the hives, and not daring to have a look inside as I know they should/would be in a tight cluster at -6 C. The outside eggs chill down, die and are recycled by the bees. Life inside the hive is always a challenge for the bees, and I hope there are enough of them to keep some of the brood warm and themselves alive.

Over wintering results vary across the province from a low of 5 % loss to 90 % loss. The analysis of the wide range of mortality leads one to wonder what procedures took place last fall that made such significant differences. In my case, the losses were in the very strong hives that ran out of food in late February or mid-March. The small cluster hives I put away last November came out in April and are doing well. The amount of food consumed is related to the size of the colony and I wonder if the good flying weather of early November used up much of the stores in the large colonies of bees that were to be wintered indoors. What to do next fall is one of the questions that I need to try and answer over the summer.

As of May 6th the preliminary average winter loss numbers are between 25-40% out door and indoor much less.

The bees for sale is becoming harder to find as over wintered colonies are being evaluated and purchase orders are being filled with larger orders and some of the providers are sold out. Many providers on the MBA listing are sold out. A list that still have bees for sale pending is in the Classifieds. All bees are pending the build up, queen establishment and brood availability for nucs.

**Day of the Honey Bee** will be recognized at The Forks on Sunday, May 25<sup>th</sup> in the Central Court Area. **RRAA and MBA** are planning special displays of beekeeping equipment, frames of live bees, information charts, and appropriate signage. We need Volunteer beekeepers for a few hours to meet with visitors to the Forks and answer their questions about the simple but complex lives of the honey bee. Please contact Charles Polcyn at 284-7064 or Jim Campbell at 467-5246 to be a part of that days Volunteer Schedule.

**Field Day** Since the MBA field day at Ash Apiaries in Gilbert Plains Thursday June 20 a distance of 300 miles north west of Winnipeg and RRAA has decided to hold their own closer to Winnipeg. As this is being worked on at the present time a notice will be sent out some time later.

**September Meeting.** Topics will be various aspects of fall work including fall feeding, and wintering preparation.

**Manitoba Honey Show**

Honey Days & Cultural Days, will be held on Sept. 27, 28, 29. This will be similar to last year's event. More details to follow as the time gets closer.

A precious Mother's Day and a prosperous summer.

Ken Rowes for Charles Polcyn

### Minutes of the RRAA General Meeting River Heights Community Club April 9, 2013

Chair: Charles Polcyn  
Recording Secretary: Art Quanbury

Minutes of March meeting:

Moved: Ken Rowes and seconded Armand St. Hilaire that the minutes be accepted. Carried.

#### Business Arising

50<sup>th</sup> anniversary.

Plans are underway for an event to mark the 50<sup>th</sup> anniversary of the association at the end of the month. Stay tuned for more details.

#### Correspondence

Two brochures on Lyme's disease were brought for distribution. Charles reported that although the city decision was to not allow bees to be kept in the city many individuals still want to do so. RRAA cannot sanction doing this and doing so could result in a neighbour asking that they be removed. Charles commented that it is important for RRAA to maintain good relations with the city so an appeal can be made next year to allow urban beekeeping.

#### Treasurer's Report

John Speers reported that the association has about \$3300.00 in the bank. \$2000.00 has been given to the university to support projects on bee research.

#### New Business

**MBA Report** Jim Campbell reported that some beekeepers are reporting winter losses as high as 80 % although many beekeepers have not been able to check their hives yet. Others have reported losses in the 15 -20 % range so there is a wide variation. Losses on indoor stored bees has not been as high. Because of the high losses Bee Maid has run out of nukes and they are on back order with no indication when they will arrive. Ontario and Quebec have ordered larger numbers of nukes and this may have resulted in the shortage to Bee Maid. In other provinces BC winter losses appear to be below but Saskatchewan is reporting losses similar to Manitoba. Jim has asked Phil about hosting a Field Day for RRAA members on Wednesday June 26. The MBA field day is in Gilbert Plains which is a 3 to 4 hour drive from Winnipeg.

#### T shirts

Two quotes for T shirts were presented. Comparison was difficult because the quotes were for different numbers of shirts of different qualities. However, it appears that the price per shirt would be in the \$15 to \$20 range and would include a logo of 3 or 5 colours. The executive will try to determine the best company to go with and will order shirts. Baseball caps are also of interest and prices will be obtained for them as well. A sign up sheet was prepared so members could indicate their interest in shirts and caps and the sizes that would want.

#### Guest Speaker – David Ostermann

David gave a presentation on various aspects of spring management. He discussed and confirmed the winter loss rates mentioned earlier by Jim and talked about what to do now in light of the very late season. He felt that removing snow from in front of the hives might encourage the bees to come out and have cleansing flights. There is a strong possibility that spring feeding will be needed because of the long winter, even at the risk of over-

stimulating the bees before there are any blossoms. He suggested that the top insulation wraps could be removed but the sides wraps stay on until the end of April. He felt that many hives may have smaller clusters because of high winter losses. Because of the shortage of nukes and the high losses the price of bees is a bit higher and honey prices have also gone up 10 to 20 %. He talked about sending samples of bees to the Winnipeg lab and also to the newly formed NBDC lab in Alberta. He will provide information on how to send samples to anyone who wants to do so. He also mentioned a video on how to check for varroa mites on the MBA website ([www.manitobabee.org](http://www.manitobabee.org)). He also mentioned doing a queen check to ensure a strong healthy queen. Older queens are not as strong as younger ones. Checking and treating for mites in the spring is important and several treatments were offered. He also mentioned two publications of interest that will be coming out soon. One is Honey Bee diseases and Pests and the other is Bee Biosecurity document. It will be available online soon. The small hive beetle situation is being monitored and may result in zones within the province in and out of which bees may not be transported.

#### Draw Winners

Duane Versluis	small container of honey
John Speer	small container of honey
Dimi Borst	water bottle
Shirley Rudiak	bouquet of flowers

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#### MBA Report May 2013

Jim Campbell, MBA Representative

**Manitoba Beekeepers' Association are monitoring a couple of issues at home and abroad.**

**Last fall a report of discoveries of Small Hive Beetles (SHB) in the Morden area created much discussion at the Symposium this past March. MBA board agreed on a strategy of declaring Manitoba to be SHB free if a spring inspection of the two apiaries failed to find any adult survivors. So far this has been the case. In the meantime however, MBA approached the Western provinces to determine their approval to continue interprovincial movement of bees. MBA has yet to hear back from Saskatchewan Beekeepers.**

**Another issue is with neonicotinoids. A recent article, in Saturday 27 April Winnipeg Free Press, noted protests in London are aimed at pressuring the British Parliament to support a ban on pesticides being blamed on bee die-offs (see article elsewhere in newsletter).**

**With the shortage of spring bee stocks, MBA called a Special General Meeting for May 3 to seek member support for a resolution aimed at accessing packages from USA. The Canadian Food Inspection Agency (CFIA) is currently updating their risk assessment to address the animal health risks associated with importation of honey bee packages from USA. They are hesitant to relax import protocols until the risk assessment is completed. Meanwhile some producers are seeking an import permit, while others are just now getting into their outdoor hives to determine their needs. —/\—**

(from Pg 1) He also thanked Bee-Outfitter staff, Michael (Monique) Bergmann and Josh Kolesar for their service to the members. As well, Guy (Natalie) Chartier was appreciated for Bee Maid willingness to provide many tours of their facilities over the past years, as well as equipment for the annual Honey Shows. Jim went on to note the strength of the club has been in the men and women serving on the leadership teams, as well as many members volunteering their time.

Ken Rowes, Newsletter Editor, spoke about his relationship with many members over the past, since initially joining the club in 1968. He noted the club continues to provide helpful advice to newcomers getting into the hobby. Ken welcomed people to view the memorabilia corner where his original membership certificate was displayed.

Albert Anderson, a member since 1967, told stories from the past. One notable experience focused on package bees trucked from USA. The load of about 1500 packages suffered from heat exhaustion and all perished. Despite the club doing this to save members \$0.50 a package, Bee Maid came through to bring in a new shipment to save the club reputation. Albert went on to describe setting a limit on his hives, as well as having to switch from nuc boxes to regular hive boxes to catch swarms.

Dr. Rob Currie, U of M, noted his continuing a tradition started by Dr. Cam Jay, an original advisor to the club. He continues to invite the Red River group to talk to students attending the Beginning Beekeeping course at U of M. Rob went on to describe his adventures at capturing a swarm, only to become well known at the local hospital as the "bee man".

#### Looking Back 50 years

#### DEFENSIVE BEHAVIOR OF HONEY BEES TOWARD ANTS

HAYWARD G. SPANGLER AND STEPHEN TABER, 111 Entomology Research Division, Agr. Res. Serv., U.S.D.A. Tucson, Arizona 857 19 *Psyche* 77:184-189, 1970.

Honey bees (*Apis mellifera* L.) often exhibit a unique behavior pattern in the presence of ants. We observed this behavior pattern and obtained evidence that it is induced by odors from the ants. Although the response was not limited to odors known to be produced by ants, its primary function is probably a defence against them.

*Iridomyrmex* is a genus of ants commonly associated with honey bee colonies, and the Argentine ant, *I. humilis* (Mayr), which occurs in the south eastern United States and in California, is a frequent pest (Newell and Barber, 1913). This ant lays scent trails. No alarm pheromone has been identified from it although Blum (1969) reported that one was released

by crushing the gaster. Newell and Barber ( 1913) and Wilson and Pavan ( 1959) reported that disturbed workers of *I. humilis* did not release sufficient quantities of volatile substances to be detected by human observers, but we have detected a faint odour from workers crushed between fingers. In contrast, disturbed workers of *I. pruinosus analis* (Andre) emit a strong odour which to the human observer resembles 2-heptanone, an alarm pheromone isolated from *I. pruinosus* (Roger) (Blum et al., 1963) and also from the mandibular glands of older honey bees (Shearer and Boch, 1965; Boch and Shearer, 1967). We studied the response of bees to two species of ants to determine whether the defensive behavior of honey bees might be initiated by odorous substances and alarm pheromones from an odorous ant (*I. pruinosus analis*) and also by ants which were comparatively odour free (*I. humilis*).

#### THE DEFENSIVE BEHAVIOR PATTERN

Honey bees in a hive frequently were observed being approached by ants (*I. pruinosus analis*) running about on the landing board. This work was done in cooperation with the Arizona Agricultural Experiment Station.

Spongier and Taber 1971 found that honey bees near the hive entrance that when the worker bees and ants approached each other, the bees initiated a characteristic behavior pattern that consisted initially of turning the posterior of the bees directly toward the ant. If the ant was directly ahead of the bee when detected, the rotation of the bee often approached 180 degrees. During or immediately following this rotation, the bee fanned its wings vigorously. Also, simultaneously with the completion of rotation, the bee frequently kicked its hind legs rearward so they often struck the ant. The kicking action combined with air currents from the fanning wings often dislodged and moved the ant. This behavior pattern, repeated successively by a number of bees, effectively prevented the ants from entering the colony. Ants placed inside a bee colony on top of the brood comb frames were ordinarily removed from the colony in less than one hour. There was no evidence of the venom fanning behavior described by Maschwitz ( 1964).

#### CONDITIONING AS A FACTOR IN THE DEFENSIVE BEHAVIOR PATTERN

The following tests were conducted to determine whether bees that had not had recent or any contact with ants would respond with defensive behaviour to ants or to an alarm pheromone. Twelve colonies were selected and arranged into groups of two each in a bee yard at Tucson, Arizona. These colonies were not opened for three days before testing.

Combs with honey were placed in locations where large numbers of worker *I. pruinosus analis* readily crawled into them to imbibe. Then the combs with the adhering ants were inserted in the brood nest in one of each group of two test hives. Three hours later, an observer who was unaware of which hives had been exposed to ants placed two 3 X 150-mm dowels on the tops of the brood frames in each of the 12 hives. One end of one of the had been used to crush workers of *I. pruinosus analis*; the other (continued on Pg 6)



## Editor's Note

by Ken Rowes

Remembering & sharing the last RRAA 50 Years was an exceptional event. A welcome surprise to see Ann Donkin's daughter Phyllis Rodych, and granddaughter Maryanne Johansson.

Meeting members who have retired from bees: Connie and Ed Buss (executive members, Herb and Carol Schon and my mentor in 1966 George Drad, even my mentors of the day: Alex Remkes, Ron Rudiak and Ted Scheuneman. Sorry to have missed my mentor in the wood working line Brian Smith.

At all good meetings bee business is the talk around the socializing. Winter losses and spring queen rearing were analyzed. Above the many impacts poor fall mite control, long winter feed consumption, nosema diseases and many others, most interesting to me was the theory of lack of queen brooding in late summer so that the colonies were forced into winter with summer bees! All ready stressed would not likely survive the extended winter. So as many focused on honey the bees lacked incentive to rear winter brood. Winter losses were high and many lost their entire stock, so replacements will be hard to find.

Checking the willows—no pollen, yet bees are bring some very light pollen in out in Cloverleaf and aspen catkins are almost over. We weep with those who weep and rejoice with those who rejoice.

## CLASSIFIEDS

**1 For Sale:** Complete honey extracting line 48 Frame extractor, uncapping table, sump, tank, pump, pipes. **Contact Lance at 204-712-6783, lancewld@gmail.com**

**2 For Sale:** 20 Supers (used) for sale; \$25 each; two (2) for \$40 p/u; or delivery extra. Frames (used) \$6.00 each plus 21 feeder pails. Bee pollen for sale. **Call 204 878-4353 Glenn & Margaret or info@margsorganicsplus.ca**

**3 For Sale:** approx. 200 supers of drawn plastic comb for sale @ \$32 each. Can deliver to Winnipeg. Supers are in good to average shape and all the frames are fully drawn out plastic frames. We have no AFB history. **Paul Gregory paul@interlakeforageseeds.com**

**4 For Sale:** 50 frame Maxant extractor for sale with a brand new spare fibre drive wheel. I was hoping to get \$2000 for it OBO contact : **wrobertson86@outlook.com -Wade Robertson**

**5 Wanted:** Looking for good used Cowen type horizontal 28 to 60 frame extractor, plus sump and pump. Call **Don Friesen, Rosenfeld, at 204-746-8863 or e-mail stonefield71@hotmail.com**

*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](http://www.beekeepingmanitoba.com)

**6 Wanted:** 2 or 4 frame stainless steel extractor, crank or motorized contact **Dennis Ross at 204 878-2924 or rosskr@my mts.net**

**7 For Sale:** 12 hive top feeders, 19 queen excluders, 4 super extractor. **Contact Doug at Tel 757-4694 or doug.henry1@gmail.com**

**8. For Sale:** hives 1 super with equipment and bees - \$200. 5 frame nucs - \$150, 4 frame nucs \$125, 3 frame nucs \$120. available May 15 depending on weather. **contact Dennis Ross 878-2924 e-mail rosskr@mts.net**

**9. For Sale:** custom made Bee-gloves \$17. **Contact ken Fehler 204-667-9013**

**10 For Sale: Strong 4 frame nucs, with laying queens.** Will accommodate 3 or 5 frame nucs. Available approximately May 15 weather permitting. Ph **Chris Argiriou 296-4848 (cell) or 885-4588 (home). SOLD OUT**

**11 For Sale:** Man Lake SS Extractor 9/18 frame. Asking \$1300, used twice. **Contact Janice at 204-895-9667.**

**12 For Sale:** Bee Equipment, Nucs, Plastic Feeder Frames, Box & Frame Parts. Contact **Charles Polcyn at (204) 284-7064 or by Email- charles\_polcyn@ymail.com**

**13 For Sale:** 150 single hives with Manitoba queens, insulated tops & screened bottoms, 400 honey supers with drawn comb on plastic foundation, ~ 200 - 21/2 gallon feeder pails, numerous 4 frame nuc boxes and queen excluders, **contact Vern Derraugh 204-755-2250 or Der-**

rco@highspeed.com

15 **For Sale:** 4 frame Splits end of May \$150; Queens beginning of June \$25 own 2013 Stock. plies pre-order for availability ( weather permitting ).

Contact Waldemar Damert @ 1204-755-2340 or 204-266-2276 or e-mail wdamert@yahoo.ca

16. **Wanted** 2 or 3 over wintered bee hives. please call Clayton or Diana at 807 548 5044 (Kenora)

Clayton Brinkman <kenofarms@inbox.com>

MBA listing

**Bees For Sale MBA listing as of May 6ht Pending--**

Rod Boudreau Winnipeg 204-885-3344

Bill Bygarski Brandon 204-726-9177

Don Nilson Portage la Prairie 204-239-6824

Roger Toews Kleeefeld 204-434-6918

(From Pg 4) dowel had no ant odour. The observer then counted the number of bees exhibiting defensive behavior patterns towards the dowels in each hive during a three-minute period. The entire procedure was repeated one week later, with the ants placed in the colonies that had not received them in the previous test. No defensive reactions to the control dowels were observed. A total of 379 responses to the dowels with crushed ant odour was observed in colonies previously conditioned to ants and 293 in colonies not preconditioned. When the data from both tests were lumped, the results (mean standard error) indicated no significant change in the number of defence responses by bees that had just previously contacted ants (31.6 5.6) and those that had not (24.4 2 5.4). Other tests were conducted at a mountain apiary where *pruinus analis* was not found. Dowels dipped an inch into 2-heptanone were placed on top of the brood combs. The bees immediately responded with the defensive behaviour pattern. Thus previous experience with ants was not essential for the response.

#### COMPOUNDS RELEASING DEFENSIVE BEHAVIOR

To determine if the bees were responding to the odours of the ants, we tested several alarm and defensive secretions of ants by the same method. The bees responded with defensive behavior to the following compounds : Benzaldehyde; Citral; Formic acid Ant Reference:

*Veromessor pergandei* (Mar) Blum et al., 1969

*Iridomyrmex pruinosus* ( Roger) Blum et al., 1963

*Acanthomyops claviger* ( Roger) Regnier and Wilson, 1968

*Formica* spp. Wheeler, 1910

Other odorous compounds not known to be present in any ant (Blum, 1969) were selected and tested in the same manner, and all tested were found to release a positive response. These compounds were as follows:

Acetic acid 2-6 Dimethyl -4-heptanone

Propionic acid Propanol

Acetic anhydride Butanol

Propionic anhydride

The bees also responded to both methyl and ethyl alcohols, but this response was reduced. Therefore, bees almost certainly respond to chemicals not found in ants in the same manner as they respond to those found in ants or to the ants themselves.

#### RESPONSES TO ANTS PRODUCING HIGH-ODOUR AND LOW-ODOUR

Because *I. humilis* can be a serious pest to bees and has a comparatively low level of odour to humans and because no alarm pheromones have been isolated from it, we suspected that the low odour might be the reason it can invade bee colonies with little resistance. The previous tests had already shown that the bees readily responded to *I. pruinosus analis* and to 2-heptanone, an alarm pheromone of *I. pruinosus*. *I. humilis* workers were obtained and placed on the wooden top bars of several brood combs. The responses of the bees to these ants were reduced both in frequency and vigour from the responses to *I. pruinosus analis*; the ants generally moved freely about beneath the bees. Occasionally a bee would detect one of these ants, usually by contacting it with its antenna. The bee then went through the described behavioural response, turning its body, fanning its wings, and kicking with the rear legs. Comparatively few of the bees which detected *I. humilis* turned a full 180 degrees. When *I. humilis* workers were crushed on wooden dowels which were also laid on the tops of brood frames, some response was noted, but again it was sharply reduced.

#### DISCUSSION

Honey bee workers responded readily to several compounds that are not associated with ants and to several that are. This defensive behaviour pattern enables the bees to rid their colony of harmful pests so the response appears to be a defence mechanism against ants. It is unlikely that the compounds tested which are not associated with ants would enter a colony under normal conditions, and strong foreign odours in a hive would frequently, if not usually, result from the presence of ants.

Bees are successful in keeping practically all small odoriferous *Dolichoderine*, *Formicine* and *Myrmicine* ants out of their colonies. The fact that honey bees are apparently less able to detect and respond to ants which have little demonstrable odour indicates that the odours of the ants play a key role in their detection. Therefore, Argentine ants, *I. humilis*, which are probably nearly odourless to honey bees, have been able to invade and damage bee colonies and often cause colonies to abscond. Were the bees able to detect these ants as readily as they detect others, they would doubtless rid their colonies of them.

Boch et al. ( 1970) described the behaviour of honey bees exposed to 2-heptanone at the hive entrance as "short jerks forward and in reverse." Thus, 2-heptanone can apparently release more than one type of response. They also reported evidence to support previous suggestions that the primary alarm pheromones of the honey bee are associated with the sting and that 2-heptanone may be more important.

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(Continued on Pg 7)

**(From Pg 6)**

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**EEC- BEES ARE HAPPY: NEONICOTINOIDS WILL BE PROHIBITED FOR TWO YEARS SINCE JULY 1ST**

Hi Everyone:

Here's an article in food navigator online magazine that reports that the EU has decided to impose a ban on neonicotinoid pesticides for two years. Unfortunately, two years may not make a huge difference as this pesticide, as it has been shown, remains in the ground for several years after planting inoculated seed. And I'm sure that it must then accumulate and build up each year in the soil as subsequent inoculated seed is planted in the same location.

All the best, Ron Rudiak

EU Member States have voted in favour of continent-wide suspension of neonicotinoid pesticides that have been linked to bee deaths. The crucial vote was returned in favour of banning the use of pesticides containing neonicotinoid chemicals that have been linked to a collapse of bee populations in scientific studies. As a result, Europe will now enforce the **world's first continent-wide ban** on widely used insecticides that contain the chemical. The European Commission had suggested that sprays containing the chemical should be restricted to crops not attractive to bees and other pollinators – however many farmers and crop experts argue that there is insufficient data, and that data from field studies is needed. The Commission said that it wants the moratorium to begin no later than 1 July this year. —/\—

**Effective Control of Carpenter Ants****Government Canada****Control Measures**

Correction of conditions conducive to carpenter ant infestation should be the first step. This includes clearing away any decaying or infested wood from around buildings and removing firewood from inside the premises and away from the sides of buildings. If possible, decaying or infested structural wood should be replaced with sound material. Humidity problems in the home should be investigated and corrected. Removal of potential food sources will discourage ants from entering buildings. This can be accomplished by keeping food in sealed containers and by implementing good sanitary practices such as regularly sweeping up all crumbs and other food fragments.

Chemical control methods have two major goals: elimination of existing nests and prevention of further pest entrance. Chemical control is most effective when used in conjunction with the above methods of physical control. It should be noted, however, that once a colony is well established, it is usually necessary to locate and treat the actual nest site to achieve permanent or long-term control. In difficult instances, this job may best be left to a professional exterminator.

*This webpage has been published by the Pest Management Regulatory Agency to provide homeowners and consumers with a relevant and useful resource regarding household pest management. It is intended as an informational guide only.*

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**Spring Tasks**

If you haven't checked your bees yet – get out there! Bees are already busy collecting pollen and some other sweet substance including propolis.

Here's a list to start with from *The Beekeeper's Handbook*:

- remove winter insulating protections and remove entrance reducers & mouse guards
- clean bottom boards
- feed colonies that need it (1:1)
- inspect hives when temps above 24 C or 75 C  
Just checked the temperature here 6 May 4:30 pm 26 C.
- do spring reversal of brood chambers watch for signs of swarming and if necessary try control techniques
- mark colonies to be requeened and order them
- replace dark, old, sagging frames and provide new foundation when the nectar flow is on.

If winter colonies are too light double up with a strong hive as per Ted's article "Give'm a chance" pg 7 *Bee Cause* March 2011.

Last of all clean up apiary sites and stack your field equipment on pallets up out of the damp ground.

Bears are out so make sure your electric fences are working.



## GMO Seeds

When you read this article think of the impact on bees.

The Vancouver Sun published an article by CropLife Industry an affiliate of Monsanto of sorts 22th April 2013. The article promotes GMO for Canada claiming that modern plant breeding technology helps the farmer, is safe for humans and environment and makes food cheaper. It claims world farmers are adopting GM seeds. It also claims millions of farmers in 28 countries are planting biotech crops. It does not substantiate its claims, most of which could be considered as misinformation.

In response the Vancouver Sun editor has put online many of the letters to the editor for public review. Of the many here is one for your information by Dr. Thierry Vrain a scientific respected scientist and reviewer of the food and agriculture products.

I retired 10 years ago after a long career as a research scientist for Agriculture Canada. When I was on the payroll I was the designated scientist of my Institute to address public groups and reassure them that genetically engineered crops and foods were safe. I don't know if I was passionate about it but I was knowledgeable. Like you I took side and I defended the bright side. The side of technological advance, of science and progress.

I have in the last 10 years changed my position. I started paying attention to the flow of published studies coming from Europe, some from prestigious labs and published in prestigious scientific journals, that questioned the impact and safety of engineered food. I was the speaker after you at the AVICC convention in Sooke. Your presentation intended to reassure the audience that genetic engineering is necessary to feed the hungry world of the future, and that the food derived from engineered crops is not different from the non engineered food. I thought it was bold of you to make the sweeping statement during the question period that all I had said was pseudo-science. You appear to be a passionate man, emotional and knowledgeable about your topic. And very dedicated to reassure the public in your opinion letters to the Globe and Mail and other newspapers.

In my presentation following yours I refuted each of the claims of the biotechnology companies that their engineered crops yield more, that they require less pesticide applications, that they have no impact on the environ-

ment and of course that they are safe to eat. My presentation was basically a review of over 100 separate published studies. There is a good number of scientific studies that have been done for Monsanto by Universities in the USA, Canada, and abroad. Most of these studies are concerned with the field performance of the engineered crops, and of course they find GMOs safe for the environment and therefore safe to eat. There is however an overwhelming and growing body of scientific research done mostly in Europe, Russia, and other countries, showing that diets containing engineered corn or soya cause serious health problems in laboratory mice and rats. Mice and rats are the canary in the mine. We use them to test the safety of a lot of pharmaceuticals and other chemicals. We should all take these studies seriously and demand that the government agencies replicate them rather than rely on studies paid for by the biotech companies.

The Bt corn and soya plants that are now everywhere in our environment, are registered as insecticides. But are these insecticidal plants regulated and have their proteins been tested for safety? Not by the federal departments in charge of food safety, not in Canada and not in the USA. There are no long term feeding studies performed in these countries to demonstrate the claims that engineered corn and soya are safe. All we have are scientific studies out of Europe and Russia, showing that rats fed engineered food die prematurely, with breast cancer, and kidney and liver damage. All these studies are compiled and referenced in a report published last June called GMO Myths and Truths – available for free at Earth Open Source.

These studies show that proteins produced by engineered plants are different than what they should be. Inserting a gene in a genome using this technology can and does result in damaged proteins. The scientific literature is full of studies showing that engineered corn and soya contain toxic or allergenic proteins.

Genetic engineering is 40 years old. It is based on the naïve understanding of the genome based on the One Gene – one Protein hypothesis of 70 years ago, that each gene codes for a single protein. The Human Genome project completed in 2002 showed that this hypothesis is wrong. The whole paradigm of the genetic engineering technology is based on a misunderstanding, and ignoring of the new knowledge. Every scientist now learns that any gene can give more than one protein and that inserting a gene anywhere in a plant eventually creates rogue proteins. Some of these proteins are obviously allergenic or toxic.

It appears that many people in the Comox Valley are concerned enough. Our latest local poll in the CV Echo was 95% of people in this valley want labeling or an outright ban of engineered product. This is our local reality, I cannot speak for the rest of Vancouver Island but I suspect that the AVICC delegates voted “what their constituents want”. (Continued on pg 9)



Thank you for your consideration Mr Wager, I don't suppose that we will ever reconcile our positions. For my part I will keep pushing and writing to alert the public and government agencies until the safety studies are initiated. I assume that you will keep your reassuring stance as well.. —/\—

## Team Finds Substances in Honey That Increase Honey Bee Detox Gene Expression

Research in the wake of Colony Collapse Disorder, a mysterious malady afflicting (primarily commercial) honey bees, suggests that pests, pathogens and pesticides all play a role. New research indicates that the honey bee diet influences the bees' ability to withstand at least some of these assaults. Some components of the nectar and pollen grains bees collect to manufacture food to support the hive increase the expression of detoxification genes that help keep honey bees healthy.

The findings appear in the *Proceedings of the National Academy of Sciences*.

University of Illinois professor of entomology May Berenbaum, who led the study, said that many organisms use a group of enzymes called cytochrome P450 monooxygenases to break down foreign substances such as pesticides and compounds naturally found in plants, known as phytochemicals. Honey bees have relatively few genes dedicated to this detoxification process compared to other insect species, however, she said.

"Bees feed on hundreds of different types of nectar and pollen, and are potentially exposed to thousands of different types of phytochemicals, yet they only have one-third to one-half the inventory of enzymes that break down these toxins compared to other species," Berenbaum said.

Determining which of the 46 P450 genes in the honey bee genome are used to metabolize constituents of their natural diet and which are used to metabolize synthetic pesticides became a "tantalizing scientific question" to her research team, Berenbaum said.

"Every frame of honey (in the honey bee hive) is phytochemically different from the next frame of honey because different nectars went in to make the honey. If you don't know what your next meal is going to be, how does your detoxification system know what enzymes to upregulate?" Berenbaum said.

Research had previously shown that eating honey turns on detoxification genes that metabolize the chemicals in honey, but the researchers wanted to identify the specific components responsible for this activity. To do this, they fed bees a mixture of sucrose and powdered sugar, called bee candy, and added different chemical components in

extracts of honey. They identified p-coumaric acid as the strongest inducer of the detoxification genes.

"We found that the perfect signal, p-coumaric acid, is in everything that bees eat—it's the monomer that goes into the macromolecule called sporopollenin, which makes up the outer wall of pollen grains. It's a great signal that tells their systems that food is coming in, and with that food, so are potential toxins," Berenbaum said.

Her team showed that p-coumaric acid turns on not only P450 genes, but representatives of every other type of detoxification gene in the genome. This signal can also turn on honey bee immunity genes that code for antimicrobial proteins.

According to Berenbaum, three other honey constituents were effective inducers of these detoxification enzymes. These components probably originate in the tree resins that bees use to make propolis, the "bee glue" which lines all of the cells and seals cracks within a hive.

"Propolis turns on immunity genes, it's not just an antimicrobial caulk or glue. It may be medicinal, and in fact people use it medicinally, too," Berenbaum said. Many commercial beekeepers use honey substitutes such as high-fructose corn syrup or sugar water to feed their colonies. Berenbaum believes the new research shows that honey is "a rich source of biologically active materials that truly matter to a bee."

She hopes that future testing and development will yield honey substitutes that contain p-coumaric acid so beekeepers can enhance their bees' ability to withstand pathogens and pesticides. Although she doesn't recommend that beekeepers "rush out and dump p-coumaric acid into their high fructose corn syrup," she hopes that her team's research can be used as the basis of future work aimed at improving bee health.

"If I were a beekeeper, I would at least try to give them some honey year-round," Berenbaum said, "Because if you look at the evolutionary history of *Apis mellifera*, this species did not evolve with high fructose corn syrup. It is clear that honey bees are highly adapted to consuming honey as part of their diet." —/\—

Someone has said, "WE NEVER REALLY GROW UP; We only learn how to act in public."

Maybe it's important to let the little child in us come out to play from time to time so we can be refreshed by the wonder of childhood and the exuberance and excitement of discovering the beauty of life all around us.

Be well, be blest and enjoy the younger age which you still carry inside.

**Individual import of bees into Manitoba:**

An email from a beekeeper in Ontario wanting to sell nucs initiates a word of caution. If any beekeeper in Manitoba is interested in purchasing bees from Ontario or any other province, remember you have to request an inter-provincial permission letter to move bees or used hive equipment into the province. You can get this permission letter by contact the Provincial Apiculture office (i.e. David or myself). This letter is only granted if a recent inspection of the vendors bees have met a specific standard of health. The inspection requirement is the disease/pest incidents cannot exceed the following: 1% varroa mite, no visible signs of AFB and soon to be added to the criteria are no visible signs of small hive beetle. The small hive beetle criteria already existed for inter-provincial movement from Ontario and Québec but it will soon be extended to all other provinces as well. Again, if you have any questions about purchasing or selling bees or used equipment that involves another province, please feel free to contact either David or myself.

**Rhéal Lafrenière M.Sc. P. Ag.**  
**Business Development Specialist - Provincial Apiarist**  
**Manitoba Agriculture, Food and Rural Initiatives**

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**DAY OF THE HONEY BEE IN 2013**

**WHEN:** Takes place Saturday 25 May 2013, 9:30 a.m. until 6:30 p.m.

**WHERE:** Forks Market, Winnipeg; Centre Court (Centre Aisle-West end).

**WHAT:** Celebrate the Importance of Honey Bee for pollination (and the foods we eat).

**WHO:** Food consumers, families, gardeners, farmers, students and fruit growers are invited

**WHY:** To see and learn which foods, fruits, vegetables and flowers depend on pollinators.

The Manitoba Beekeepers' Association (MBA) plan to request the Manitoba Provincial Government and Rural Municipalities (St Andrews, Rosser, & Rockwood, Gimli, and Whitemouth) around Winnipeg proclaim May 29 as The Day of the Bee, with celebrations taking place the Saturday prior. Members of the Red River Apiarists' Association staffed the display at The Forks.

Theme- "*Honey Bees - Good for Us*".

Although the official Bee Day is Wednesday May 29, the public celebration will take place on Saturday 25 May, 2012, since this is more convenient for visitors to attend. The reasons for the public awareness campaign are described in previous years' reports as indicated below:

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**Red River Apiarists' Association**  
**Winnipeg, Manitoba**  
**2013 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 \_\_\_\_\_

City \_\_\_\_\_ Prov. \_\_\_\_\_ Postal Code \_\_\_\_\_

E-mail address \_\_\_\_\_

Signature \_\_\_\_\_

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

Other. Please specify. \_\_\_\_\_

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., MB R2C 2Z2