

The Bee Cause



Volume 11, Issue 6

September 2014

- Next general meeting is 7:30 Tuesday, September 9th at the **River Heights Community Centre, 1370 Grosvenor Ave., Winnipeg.**
- (in room right off main-door)

Speaker: Phil Veldhuis and fellow Filipino beekeepers George and Cma speaking on fall management

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Bees and Colony Collapse by Mark Winston July 14, 2014 NYTimes.com

Vancouver, British Columbia—Around the world, honeybee colonies are dying in huge numbers: About one-third of hives collapse each year, a pattern going back a decade. For bees and the plants they pollinate—as well as for beekeepers. Farmers, honey lovers and everyone else who appreciates this marvellous social insect—this can be a catastrophe.

But in the midst of crisis can come learning. Honeybee collapse has much to teach us about how humans can avoid a similar fate, brought on by the increasingly severe environmental perturbations that challenge modern society.

Honeybee collapse has been particularly vexing because there is no one cause, but rather a thousand little cuts. The main elements include the compounding impact of pesticides applied to fields, as well as pesticides applied directly into hives to control mites; fungal. Bacteria and viral pests and diseases; nutritional deficiencies caused by vast acreages of single crop fields that lack diverse flowering plants; and, in the United States, commercial beekeeping itself, which disrupts colonies by moving most bees around the country multiple times each year to pollinate crops.

The real issue, though, is not the volume of problems, but the interactions among them. Here we find a core lesson from the bees that we ignore at our peril: the concept of synergy, where one plus one equals three, or four, or more. A typical honeybee colony contains residue from more than 120 pesticides. Alone, each represents a benign dose. But together they form a toxic soup of chemicals whose interplay can substantially reduce the effectiveness of bees' immune systems, making them more susceptible to diseases.

These findings provide the most sophisticated data set available for any species about syner-

gies among pesticides, and between pesticides and diseases.

Observing the tumultuous demise of honeybees should alert us that our own well-being might be similarly threatened. The honeybee is a remarkably resilient species that has thrived for 40 million years, and the widespread collapse of so many colonies presents a clear message: We must demand that our regulatory authorities require studies on how exposure to low dosages of combined chemicals may effect human health before approving compounds.

Bees also provide some clues to how we may build a more collaborative relation-

ship with the services that ecosystems can provide.

Beyond honeybees, there are thousands of wild species that could offer some of the pollination service needed for agriculture. Yet feral bees – that is, bees not kept by beekeepers - also are threatened by factors similar to those afflicting honeybees: heavy pesticide use, destruction of nesting sites by overly intensive agriculture and a lack of diverse nectar and pollen sources thanks to highly effective weed killers, which decimate the unmanaged plants that bees depend on for nutrition. Recently, my laboratory at Simon Fraser University conducted a study on farms that illustrated the profound value of wild bees. We discovered that crop yields, and thus profits, are maximized (continued on Pg 4)

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Presidents Comments for September, 2014

The summer of 2014 arrived late and was cool and wet. My own bees struggled to expand their population as brood did not do well. By the end of July and into August things began locally to improve and the brood boxes began to expand and the bees were able to bring in some nectar and cap over some honey in the supers above.

Worldwide honey production seemed to be less as Global Weather patterns have changed .

The local Bee Maid Co-op raised their prices on Honey several times. Thus store prices of honey have increased as have general food prices. When the supply of any commodity is decreased the market eventually re-acts with higher prices. I was pleased to see in the summer edition of the MBA 2014 magazine that the recommended price for Honey in a customers container was \$3.50 per pound, with a higher price for speciality Honeys. Beekeepers do work hard and need to be rewarded in producing a quality product.

At the local St. Norbert's Farmers Market people continue to ask for different types of honey and are disappointed when they are told that particular type of fresh honey is not available yet and may not be as it is weather and farmer dependent.

The Manitoba Honey Show is the 26th thru the 28th of September at the Forks and I hope that many of you will have entries in the different categories. The details and entry forms are in the September RRAA newsletter and it is a good idea to have a look at them before that last week of September. Also Volunteer members of the Association will be needed for 4 hour shifts at the Forks for the three days. For this activity a free bright yellow RRAA Tee-Shirt will be available for the Volunteer as well as a \$10.00 Donation Certificate for any restaurant at the Forks. The Executive of RRAA appreciate the time and knowledge that members provide. The visitors to the Honey Show always have a variety of questions about bees and beekeeping and appreciate the answers to their questions.

Our local monthly meeting place and day at the River Heights Community Club has been booked by another group for the second Tuesday of the month, so we shall have our October and November meetings on a different day and hope that those dates can be confirmed so that the RRAA newsletter of October and November will contain the dates and the location of our last 2014 meetings. This doesn't happen too often and the Club decides who will meet where and when.

The topics for our meeting in September will be some information from one of our Provincial Apiarists on Fall Management of Bee Hives, a request for Volunteers at the Honey Show as well as a presentation from 2 Filipino Beekeepers who are working and learning about a large beehive operation at Starbuck with Mr. Phil Veldhuis. Phil is a second or third generation beekeeper and has been a presenter at previous RRAA meetings. The Filipino beekeepers return home at the end of September and have some interesting observations of Manitoba beekeeping. Their names are George and Cma and they are able to handle heavy supers on most days. I have met both of them at St. Norbert's market and found their comments interesting.

I hope that all of you had a good beekeeping summer and that the work you do now will help get the bees ready for winter. I am looking forward to meeting many of you at the meeting in September or at the Honey Show at the end of the month.

Best wishes to all of you-- Charles Polcyn ----2014 RRAA President

**Red River Apiarist's Association
May 8, 2014
Minutes**

Chair: Charles Polcyn
Recording Secretary: Armand St. Hilaire

Approval of Minutes of April 8, 2014
Moved: Waldemar Damert
Seconded: Ken Rowes Carried

Treasurer's Report:
Bank account has \$8400.00 ??? (seems too high to me)

The meeting was a general information sharing session with Rheil Lafreniere. He mentioned that 3400 hives had been lost in California. Winter losses in Canada averaged 30% with Manitoba on average or slightly above. USA losses were similar. CCD media has a lot of information available to the public but research is not always well done; eg: cell phone cause of bee problems. Possible causes for colony collapse include: viruses, pesticides that accumulate in the hive wax, not only neonics. Research is being done on corn seed treatment and air seeder dust that spreads neonics. Rain can wash the chemicals away from seeded areas. The problem seems to be in the accumulation of different insecticides. Farmers are using more fungicides and pesticides. Low levels can be toxic when the bees' detox system is overwhelmed with many chemicals.

Other members comments
Chris Argiriou commented to never put a new queen in a split when still over the hive. A queen bank: to keep many queens before using them in a hive place them in a large box with more bees to care for the queens. Feed only water to queen cages. Move the splits with new eggs to new location and then add the queen. Check and add food to all hives at this time.

Waldemar Damert commented that locally raised queens are more efficient than imported queens and also cheaper. Imported queens do not live or lay for as long. Local queens winter better and have better spring results. Waldemar showed his queen rearing methods and advised on good hive observations for bee health, food stores, diseases and general bee Behaviour.

Door Prize winners
Victor Dyck Nova Scotia honey
Marty McIlwain tool
Ken Rowes hammer
Chris Argiriou screwdriver

Adjournment
The meeting adjourned at 9:00 pm. Next meeting is Tuesday September 9, 2014 at River Heights Community Club. Time is 7:30 pm.

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MBA Report May 2014

Jim Campbell, MBA Representative
MBA Report September 2014

Directors of Manitoba Beekeepers' Association (MBA) thought the funding for the 2014 Honey Bee Surveillance and Diagnostic services merely depended upon a formal Service Agreement being signed in May. The reality however has been quite different. The province reneged on the agreement and thus alternative plans had to be developed. The province thus retained responsibility for the 2014 program. As this is a busy time for honey producers harvesting their "sweet" rewards, an official response from government awaits. MBA will need to conduct a conference call to learn how the program will run during 2015. MBA members still desire continuation of the surveillance service to maintain high health standards within the industry.

Hon Ron Kostychyn invited over 20 commodity groups to send a representative to a consulting session in early July. The session was to provide industry feedback on issues faced and suggestions for improvements as material for an upcoming Provincial/Federal/Territorial Ag Ministers meeting in Winnipeg. Information dealt with Growing Forward 2, Trade Strategies, Regulatory Modernization, and Agriculture Future. MBA provided verbal input at the meeting and followed up with a formal e-mail response.

MBA continues to seek Federal Government easing of the limitation on work durations for Temporary Foreign Workers. As this workforce comprises about 100 people during the brief beekeeping season, several producers may be forced to cut back operations due to a shortage of helpers. This cutback will affect the estimated \$28 M value of the honey industry to the Manitoba Economy. In addition, a reduction in the approximately \$50 M in pollination benefits could result. MBA is attempting to have the 4 n 4 rule (4 years work in Canada, then 4 years stay at home) eased. The Canadian Honey Council is also working on this issue on behalf of the national industry.

The results of Pest Management Regulatory Agency (PMRA) evaluations of corn planting dust adversely impacting honeybees are not yet available. PMRA planned to evaluate bee colonies both in and remote from 2014 crops. The study was to collect samples at pre, during, and post planting times, and evaluate the results for residue impacts. With the pressure of the situation in Ontario and Quebec, it seems the Manitoba results are still unavailable.

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(from Pg 1) if considerable acreages of cropland are left uncultivated to support wild pollinators.

A variety of wild plants means a healthier, more diverse bee population, which will then move to the planted field next door in larger and more active numbers. Indeed, farmers who planted their entire field would earn about \$27,000 in profit per farm, whereas those who left a third unplanted for bees to nest and forage in would earn \$65,000 on a farm of similar size.

Such logic goes against conventional wisdom that fields and bees alike can be uniformly micromanaged. The current challenges faced by managed honeybees and wild bees remind us that we can manage too much. Excessive cultivation, chemical use and habitat destruction eventually destroy the very organisms that could be our partners.

And this insight goes beyond agricultural economics. There is a lesson in the decline of bees about how to respond to the most fundamental challenges facing contemporary human societies. We can best meet our needs if we maintain a balance with nature – a balance is as important to our health and prosperity as it is to the bees.

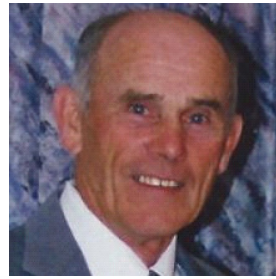
Mark Winston, a biologist and director of the Center for Dialogue at Simon Fraser University, is the author of the forthcoming book "Bee Time: Lessons From the Hive," A version of this op-ed appears in print on July 15, 2014, on page A25 of the New York edition. —/\—

Day of the Honeybee

Everything went well at the Forks. Visitors were eventually able to find us as well as the Bees. It was a fairly busy day for the Vendors and the Bee Equipment display as well as the 2 frames of Bees, The bees attracted attention and provoked many questions to the 2 RRAA Executive members, John Speer and Ken Rowes.

Your staff members were very helpful and one of them gave me the 4 parking passes which made everyone happy. We hung our large banner from the nearby balcony and it helped direct visitors to our location. We didn't need the Fork's Gift certificates for this day, but will need several in September as a three day show will involve many RRAA members.

Thanks for all your help.
Charles Polcyn -- RRAA 2014 President



RAYMOND HOURD

RAYMOND ARTHUR HOURD November 6, 1933 - August 19, 2014 Peacefully with family by his side, Ray passed away after a lengthy battle of respiratory illness on Tuesday, August 19, 2014, at Concordia Hospital. Ray will be sadly missed by his beloved wife and best friend Donna, children Darcy (Louise), Drew, Kerry (Nic), Kevin, Christine and Glen (Marcy), grandchildren Raymond, Declan, Imogen, Andrew, Richard and Ethan, brother Gerry (Paulette), brothers-in-law John (Doreen), Gerry (Jackie), Barry (Doris) and many nieces and nephews. Ray was predeceased by his son Christopher, parents Stanley and Ann Hourd, brother Bud, sister Audrey, mother and father-in-law George and Matilda Searcy, sister-in-law Georgina and nephews Raymond and Barry. Ray grew up in Badger, MB, and moved to Winnipeg at the age of 10. At 18, he joined the army and after serving his term, he worked for the Winnipeg Hydro. In 1958, he met and married Donna and in 1961, fulfilled his dream and bought a farm in Anola, MB. With the help of his neighbours, he soon became a full time farmer. In 1967, he purchased a dairy herd and after 35 years in the dairy business, he retired and decided to try his hand as a bee keeper to which he enjoyed the challenge until his passing. He always looked forward to the family picnics and reunions at the farm. One of his biggest accomplishments was completing two Manitoba Marathons. He enjoyed painting and travelled as far as Australia and Alaska. His greatest joy was operating his John Deere tractor, caring for his cattle and working with his neighbours. Special thanks to the staff at the Concordia Hospital for their special care. In accordance with Ray's wishes, there will be no funeral. *published in the Winnipeg Free Press on August 23, 2014*

Red River Apiarists' Association express our condolences to the Hourd family for the loss in August of Ray, one of our members. Ray will be remembered for being active in honey promotions and being part of the yearly honey competition continuously since 1999. He often captured first place in Liquid White Honey, Creamed Honey, Comb Honey and even Honey Beverage. In more recent years, entries in Beeswax were also awarded the red ribbon. As a result of the high calibre of show entries, Ray along with his wife Donna, and daughter Kerry, were recipients of the Bee Maid "Best of Show" trophy in three of the last four years.

Honey, I shocked the bees: inside the electrifying relationship between plants and insects. CRUX pg 16

Electrified field around fake flowers (purple disks) were used to test how bees use them while negative. In an example, the natural electrical field around a real flower draws tiny amounts of charged paint to the edges of the petals.

In a never-ending quest to ensure that bugs distribute their pollen, flowers strut their stuff, displaying their brightest colours, and lusher scents to attract bees and other pollinators. Scientists recently discovered another shocking method flowers use to lure bumblebees: electric fields.

Biologist Daniel Robert and colleagues at the University of England already know that flowers usually carry a negative electrical charge while bees tend to be positively charged. To test whether bees could make use of that difference, the researchers electrified artificial flowers. Each group of the fakes had a different kind of charge, like the unique charges around real flowers. But some of the fakes held tasty sugar and other offered a like organic solution.

With the electricity on bees could more easily learn which of the faux flowers had sugar and which had the quinine solution. When Robert removed the electric charge, the bees found the sugar only by chance.

“It’s another dimension of sensory perception that bees cleverly use to exploit flowers in an efficient way,” says Lars Chittka, biologists at Queen Mary University of London who was not part of the study, biologists believe the differences in charge around the flowers cause the small hairs on a bee’s body to bend slightly, indicating a good flower is nearby.

‘Bees can learn very well,’ Robert says. ‘Electricity provides them with an extra bit of information that makes them a little bit more clever.’ -/-

Volunteer T-Shirts

Volunteers are needed to help out with the Live Bees display at the upcoming Honey Show Sept 26-28. RRAA is offering bright Golden T Shirts for volunteers to wear while helping. These shirts, introduced in 2013, have the RRAA logo on the front, plus Manitoba Honey Show across the back. You can wear the shirt over top of your normal clothing too! Let Charles know what times you can help out. -/-

Bee Biosecurity Manuals Available Jim Campbell, RRAA Exec

A number of the Canadian Food Inspection Agency *National Bee Farm-Level Biosecurity Standard* booklets or manuals will be available at the September 9 RRAA meeting. In addition we have a handy *Honey Bee Security Checklist* booklet (these have plastic coated pages so you can use dry wipe markers to record info).

The material is provided by Canadian Food Inspection Agency, and outlines a voluntary biosecurity program for beekeepers. The material outlines a consistent countrywide approach for applying biosecurity practices for both small and large-scale operations.

Although many use some measures already, this information may be more comprehensive.

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Epigenetic Regulation of Aging in Honeybee Workers

Stig W. Omholt and Gro V. Amdam : Centre for Integrative Genetics and the Department of Animal Science, Agricultural University of Norway, 1432 Aas, Norway. Gro V. Amdam is also at the University of California, Department of Entomology, Davis, CA 95616, USA. <http://sageke.sciencemag.org/cgi/content/full/2004/26/pe28>

Abstract: Aging and longevity are complex life history traits that are influenced by both genes and environment and exhibit significant phenotypic plasticity in a broad range of organisms. A striking example of this plasticity is seen in social insects, such as ants and bees, where different castes can have very different life spans. In particular, the honeybee worker offers an intriguing example of environmental control on aging rate, because workers are conditionally sterile and display very different aging patterns depending on which temporal caste they belong to (hive bee, forager, or a long-lived caste capable of surviving for several months on honey alone). The ubiquitous yolk protein vitellogenin appears to play a key role in the regulatory circuitry that controls this variation. Here we outline the current understanding of the relation between vitellogenin and somatic maintenance in honeybee workers, and how this relation can be understood in a life history context.

Citation: S. W. Omholt, G. V. Amdam, Epigenetic Regulation of Aging in Honeybee Workers. *Sci. Aging Knowl. Environ.* **2004** (26), pe28 (2004).



Editor's Note

by Ken Rowes

Please note:

Meeting Date Changes

The next few meetings of RRAA will be delayed by one week. New meeting dates as follows:

October 21 (Civic Election use room on 14th)

November 18 (Remembrance Day on 11th)

Jim Campbell

CLASSIFIEDS

1 For Sale: Plastic queen excluders \$3.50 each. SS Tank holds 8 drums of honey, \$1800 OBO. Contact, Lance W. **Phone 204-712-6783, Email; lancewld@gmail.com**

2 For Sale: heavy frames of pollen - \$60 per super of ten frames, 15 supers of plastic frames - \$34 ea. Wrecking 2005 F-350 4x4 - asking \$4,000 OBO Booking spring colonies - minimum 4 frames of brood - mid May - \$250 30 honey supers with plastic comb - \$32 each Winter wraps made to your specifications - \$45 to \$65 each Interlake Honey Producers Ltd. Interlake Honey Producers, Fisher Branch, MB 204-372-6920. 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**

3 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**

4 For Sale: 6 hive top feeders, 20 frames with foundation call 204-612-2754 **Doug Beck or e-mail doug-janetb@hotmail.com**

5 For sale: (1) New inner covers 7/8" x 7/8" pine rimmed with 3/8" solid plywood. \$8.50 each (2) New rosin-paraffin dipped hive boxes assembled with stainless steel frame rests. Good for lifetime. \$20.00

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

each (3) New assembled standard wood frames with self-made chemical and disease-free beeswax wired foundation. \$3.50/frame. (4) Food grade white plastic 20 lb. pails, never been used. \$1.50 each or best offer (5) Approximately 50 empty wine bottles. Free of charge. **Contact: Ted Scheuneman 204-338-6066**

6 Wanted: Honey contact: **John at 204-943-0166 Email: honeyb@mymts.net**

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Honey Roasted Red Potatoes

Ingredients

- 1 pound red potatoes, quartered
- 2 tablespoons diced onion
- 2 tablespoons butter, melted
- 1 tablespoon honey
- 1 teaspoon dry mustard
- 1 pinch salt
- 1 pinch ground black pepper

Directions

1. Preheat oven to 375 degrees F (190 degrees C). Lightly coat an 11x7 inch baking dish with non-stick cooking spray.
2. Place potatoes in a single layer in prepared dish, and top with onion. In a small bowl, combine melted butter, honey, mustard, salt and pepper; drizzle over potatoes and onion.

Bake in the preheated 375 degrees F (190 degrees C) oven for 35 minutes or until tender, stirring halfway through the cooking time

MANITOBA HONEY SHOW**COMPETITION CLASSES****CLASS 1**

1. Liquid Honey, White, totaling not less than 3 - 500 g (375 ml) glass or clear plastic jars.
2. Liquid Honey, Amber, totaling not less than 3 - 500 g (375 ml) glass or clear plastic jars.
3. Liquid Honey, Dark, totaling not less than 3 - 500 g (375 ml) glass or clear plastic jars.
4. Liquid Honey, BEE-GINNER, any colour, totaling not less than 3 - 500 g (375 ml) glass or clear plastic jars. (NOTE: ONLY OPEN TO FIRST-TIME HONEY SHOW ENTRANT).
5. Granulated Honey, White, totaling not less than 3 - 500 g (375 ml) glass or clear plastic jars.

CLASS 2

1. Chunk Honey - totaling not less than 3 - 500 g (375 ml) glass or clear plastic jars, each containing one or more pieces of comb honey and the jars filled with liquid white honey.
2. Comb Honey - totaling not less than 3 pieces of either comb honey in plastic rounds or cut comb honey in individual containers.
3. Frame of Honey - one completely capped frame of white honey.
4. Beeswax - 2 kg in one cake or not more than 5 cakes.

CLASS 3

1. Best Taste - any color - totaling not less than 3 - 500 g (375 ml) glass or clear plastic containers. (Entries will be judged primarily for flavour and taste using simplified judging standards)
2. Honey Beverage – any type, colour or flavour – single container not larger than 1 litre.
3. Photography – one unframed 8” x 10” photograph depicting a) Honey Bee Pollination, b) Beekeeping in Manitoba, c) Other Bees and Insects, and/or d) Honey - In Many Forms. (If not previously submitted, Photos to arrive at Honey Show Display area by noon on Friday, the first day of show.)

CHAMPION EXHIBITOR: The exhibitor winning the greatest number of points in the Honey Division (Classes 1 and 2) will be declared the CHAMPION EXHIBITOR of the Manitoba Honey Show. Points are awarded as follows:

PRIZE	POINTS
FIRST	3
SECOND	2
THIRD	1

**MANITOBA HONEY SHOW
JUDGING STANDARDS (page 1 of 2)**

<u>LIQUID HONEY</u>	<u>POINTS</u>	<u>CHUNK HONEY</u>	<u>POINTS</u>
Appearance and uniformity of containers	5	Appearance and uniformity of containers	5
Uniform level of fill	5	Uniform level of fill	5
Colour	5	Uniformity of honey - both liquid and comb	5
Freedom from crystals	15	Freedom from crystals in both comb and liquid portions	15
Freedom from foreign material	15	Freedom from foreign material	15
Freedom from air bubbles either in suspension or as froth	15	Freedom from air bubbles either in suspension or as a froth	15
Uniformity of honey	5	Flavour and aroma	10
Brightness	10	Neatness of cut edges of comb honey pieces	15
Flavour and aroma	10	Completeness of fill and completeness of cappings on comb honey pieces	15
Density (moisture content)	15		
TOTAL	<u>100</u>	TOTAL	<u>100</u>
*****		*****	
<u>GRANULATED HONEY</u>		<u>COMB HONEY</u>	
Appearance and uniformity of containers	5	Quality and uniformity of wooden sections	5
Uniform level of fill	5	Cleanliness of sections	20
Colour	5	Completeness of fill in container	20
Firmness of set	15	Completeness of capping	10
Freedom from foreign material	15	Cleanliness and appearance of cappings	20
Freedom from froth and frosting	15	Quality and flavour	10
Uniformity of honey entry including texture	10	Uniformity of comb sections including honey	15
Flavour and aroma	10		
Texture of granulation (smooth and fine)	20		
TOTAL	<u>100</u>	TOTAL	<u>100</u>
*****		*****	

**MANITOBA HONEY SHOW
JUDGING STANDARDS (page 2 of 2)**

BEST TASTE (&BEE-GINNER)

BEESWAX

Flavour and aroma	70	Colour	30
Freedom from foreign Material	5	Cleanliness (free from honey and impurities)	35
Moisture content	15	Uniformity of appearance	20
Freedom from froth	5	Freedom from cracking and shrinkage	15
Uniformity of colour	5		
TOTAL	<u>100</u>	TOTAL	<u>100</u>

HONEY BEVERAGE

Flavour and aroma	70
Freedom from foreign material	10
Content Clarity	10
Freedom from froth	5
Presentation/Packaging	5
TOTAL	<u>100</u>

**Red River Apiarists' Association
Winnipeg, Manitoba
2014 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)

RRAA membership fee (cheque payable to RRAA or Red River Apiarists' Association. @ \$25.00/year
NEW: Optional Beekeeper Liability Insurance (details on RRAA web, Links, Insurance) @ \$45.00/year

TOTAL PAYMENT ENCLOSED.....\$_____

Name _____ Tel. _____
 Address _____
 City _____ Prov. _____ Postal Code _____
 E-mail address _____
 Signature _____

New Member [] Renewal [] Student U of M Beekeeping course [] [free 1st year]

Other. Please specify. _____

Newsletter Delivered in electronic pdf via e-mail [] or on paper via Canada Post []

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.

Please do not send cash in the mail