Apis-UK The Electronic Beekeeping Newsletter

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The problem of Colony Collapse Disorder (CCD) seems to be the 'new varroa' talk of the day in the bee and public press. I can well remember the days not so long ago when varroa was the only thing that beekeepers talked about – and perhaps it still should be. I have been in the beekeeping world a comparatively short time and my main interests in it have been both the production side of things and the scientific side of beekeeping research. I happily trawl through an awful lot of research articles for Apis UK for example and I have watched over those few years as new and exotically named syndromes have come along – Varroasis; Parasytic Mite Syndrome; Virus diseases of various kinds; a new variant of Nosema and now CCD, and as I read various bits and pieces and listen to people talking on the subject, except for the new variant of nosema, it usually all comes back to varroa. I could be spot off here but that's what it all looks like to me.

There is also I believe the very under estimated effects of stress on bees to think about. Many beekeepers place enormous stress on their colonies. I did. Moving them from winter quarters to pollination where they could obtain no nectar (kiwifruit) and feeding them copious amounts of sugar and then moving them hurriedly from Gold fruit orchards to Green fruit and then equally hurriedly to dump sites to congregate for the big moves to manuka areas many hours away. Then splitting them for increase and finally back to often inadequate and damp winter sites (because of any lack of alternatives). Then the process starts all over again. The stress in the colony must be enormous and our moves were minor compared to the multiple shifts I have read about in America. Ally all this to the arrival of a new and devastating mite that assists in the vectoring of existing harmful viruses and I think most humans would give up the ghost. The effect on bees must be catastrophic and so it would seem. They are disappearing. So would I. Let's hope that science can help sort it all out because I'm sure that in this particular case, evolution needs a hand. So come on governments. If you still want a green and pleasant land for the future, grow the odd spine or two and start giving.

Meanwhile back at the ranch, or in this case Apis UK, we have again put together some interesting articles about bees and pollination and we include a political column for the first time which provides topical comment in this issue on the two Hillarys and how they are linked! The issue of bats and how to share them is raised and we take a look at fast learning bumble bees and investigate the latest knowledge about small hive beetles. (All of these new disease and pests seem to have come along ever since I took up beekeeping. Varroa arrived a year after I started!). Chad charms and amuses us again and in our historical note we learn of a church that based its design on that of a beehive.

Beekeeping is certainly presenting us with some challenges and the number of skills needed by beekeepers to maintain their bees in a healthy and contented state is increasing all of the time and knowledge is the key to it all. This is where Apis UK amongst other worthy publications can help. So do keep reading and learning and if there is any topic you wish raised, please get in touch.

David Cramp. Editor

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Politics and Beekeepers. A Topical Note

Last month we were all saddened by the death of Sir Edmund Hillary, well known all over the world for his conquest of Everest but little known as a commercial beekeeper in New Zealand. We are also witnessing a struggle between two 'potentials.' Hillary Clinton who may become Americas' first woman president and Barak Obama who may become Americas' first black president. But it is Hillary we are concerned with in this brief political column. Was she named after Sir Ed? In an article in the New York Post during Bill Clinton's presidency it seems that she could possibly perhaps have been! (*All good political dissembling words*).


Hillary

&


Hillary

Hillary Clinton's claim that her mother named her after Sir Edmund Hillary, the first man to climb Mount Everest was a surprise to many.

Meeting Sir Edmund by chance at the Katmandu airport, Hillary apparently made up the story on the spot, telling reporters she was named after the intrepid explorer. To further her claim, she provided some details: While her mother was pregnant, she had read an article about Sir Edmund and noticed that he spelled his name with two l's - "which," the ex first lady said, is how her mother "thought she was supposed to spell Hillary."
She continued: "So when I was born, she called me Hillary, and she always told me it's because of Sir Edmund Hillary."

The New York Post went on to say: But Sir Edmund didn't climb Everest until May 29, 1953 - 5 1/2 years after Hillary Rodham was born. In fact, until 1951 Sir Edmund Hillary hadn't even left New Zealand for his climb in the Himalayas. Before that, he was an unknown beekeeper.

(BUT, to me it was a good story and I admire her spontaneity. I would have done just the same. Ed)

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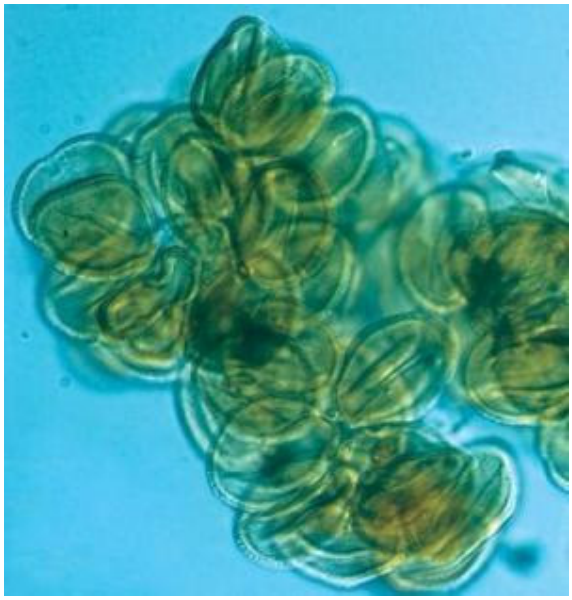
Early Pollinators - New Information 100 Miliion years old!
The collapse of honeybee colonies across North America is focusing attention on the honeybees' vital role in the survival of agricultural crops, and a new study by University of Florida and Indiana University researchers shows insect pollinators have likely played a key role in the evolution and success of flowering plants for nearly 100 million years.

The origins of when flowers managed to harness insects' pollinating power been a discussion and study point amongst scientists for decades and now, a new study, published in the Proceedings of the National Academy of Sciences in the USA is the first to show a 96-million-year-old timeframe as a turning point in the evolution of basal angiosperm groups, or early flowering plants, by demonstrating they are predominantly insect-pollinated.



A 96-million-year-old fossilized angiosperm pollen clump of Phimopollenites striolata taken from three sites in Minnesota's Dakota Formation. (Each grain in the clump measures approximately 14-by-19 microns). Clumping is generally found only in animal-pollinated flowering plants.
(Image courtesy of University of Florida)

"Our study of clumping pollen shows that insect pollinators most likely have always played a large role in the evolution of flowering plants," said David Dilcher, a graduate research professor of paleobotany at the Florida Museum of Natural History. "It was true 96 million years ago and we are seeing it today with the potential threat to our agricultural crops because of the collapse of the honeybee colonies. The insect pollinators provide for more efficient and effective pollination of flowering plants."

The study provides strong evidence for the widely accepted hypothesis that insects drove the massive adaptive radiation of early flowering plants when they rapidly diversified and expanded to exploit new terrestrial niches. Land plants first appear in the fossil record about 425 million years ago, but flowering plants didn't appear until about 125 million years ago in the Early Cretaceous period.

The study also is the first to describe the biological structure of pollen clumping in the early Late Cretaceous, which holds clues about the types of pollinators with which they were coevolving. Previously, scientists found examples of early clumped pollen from a slightly earlier time period but these were interpreted as

immature parts of anther from a flower, or dismissed as insect packaging activity or faecal pellets.

The scientists say that they really had to jump out of the box and think in a new way on these widespread pollen clumps.

Today, flowers specialized for insect pollination disperse clumps of five to 100 pollen grains. Clumped grains are comparatively larger and have more surface relief than wind- or water-dispersed pollen, which tend to be single, smaller and smoother.

These clumps represent an amazing new strategy in the evolution of flowering Plants say the researchers. The important thing here lies in the early times of these fossil flowers, when angiosperms were making these huge evolutionary steps. What they found with the fossil pollen clumps folds nicely into what has been suggested by molecular biologists that those plants that are basal in angiosperm evolutionary relationships seem to have been dominated by insect pollination."

The nine species of fossil pollen clumps, combined with known structural changes occurring in flowering plants at this time, led the researchers to suggest that insect pollination was well established by the early Late Cretaceous — only a few million years before the explosion in diversity and distribution of flowering plant families. Known structural changes include early prototypes of stamen and anther, plant organs which lift pollen up and away from the plant, positioning the plants' genetic material to be passed off to visiting insects.
The researchers sampled pollen from three sites in Minnesota's Dakota Formation, which represents a time period when a shallow seaway covered North America's interior.

Note: This article has been adapted from materials provided by University of Florida.

A New perspective on the evolution of social organisation
The January 2008 issue of BioScience includes an article by biologist Edward O. Wilson that argues for a new perspective on the evolution of advanced social organization in some ants, bees, and wasps (Hymenoptera).

Eusociality -
A problem for scientists to understand

Wilson's article surveys recent evidence that the high level of social organization called "eusociality," found in some Hymenoptera (and rarely in other species), is a result of natural selection on nascent colonies of species possessing features that predispose them to colonial life. Wilson concludes that these features, principally progressive provisioning of larvae and behavioural flexibility that leads to division of labour, allow some species to evolve colonies that are maintained and defended because of their proximity to food sources.

Eusociality is a challenge for biologists to understand because worker castes in eusocial species forgo individual reproduction but rear young that are not their own, a behaviour that biologists label altruistic. Wilson's current view about eusociality differs from the assessment in his seminal book Sociobiology: The New Synthesis (1975). According to that widely accepted earlier account, selection acting on individuals that are related (kin selection), rather than on whole colonies, explains eusociality in Hymenoptera. Kin selection is thought to be especially powerful in these animals because of an unusual genetic system, known as haplodiploidy, that they share.

Wilson's survey in BioScience, which examines the findings of a number of researchers, points out aspects of the occurrence of eusociality that the standard explanation has difficulty accounting for. Eusociality has evolved only a few times, and not all of them were in haplodiploid species. Furthermore, the great majority of haplodiploid species are not eusocial. Wilson holds that selection acting on traits that emerge at a group level provides a more complete explanation for eusociality's rare instances than kin selection. Kin selection is, he writes, "not wrong" but incomplete.

The view Wilson advocates is controversial because theoretical biologists have thus far been unable to create mathematical models that demonstrate the strong colony-level selection that Wilson postulates. Any theory about eusociality has to explain why selection acting on individuals does not lead some to undermine the colony by reproducing themselves. According to some of Wilson's critics, the theory he now espouses relies on unacknowledged individual-level selection rather than group selection.

Notes:
1. Journal article: One Giant Leap: How Insects Achieved Altruism and Colonial Life. Edward O. Wilson
2. Adapted from materials provided by American Institute of Biological Sciences.

Fast Learning Bumblebees Reap Greater Nectar Rewards

The speed with which bees learn affects their ability to collect food from flowers, according to a new study from Queen Mary College, University of London.

As nectar levels in flowers change from minute-to-minute, faster learning bees are more likely to keep track of which blooms are most rewarding, and thrive as a result.

Dr Nigel Raine and Professor Lars Chittka from Queen Mary's School of Biological and Chemical Sciences presented twelve bumblebee (Bombus terrestris) colonies with flight arenas containing blue and yellow artificial flowers, which were stocked with different amounts of nectar reward. The bees were challenged to overcome their natural preference for 'blue' flowers, and to learn that the 'yellow' flowers were more rewarding. The team found that the colonies which learned colours quickly, were more successful foragers.

The colonies' learning speeds varied by a factor of nearly five; those colonies which learnt to associate the yellow, nectar-rich flowers, with rewards fastest in the laboratory, went on to harvest 66 per cent more nectar than the slowest learning colonies, from real flowers under field conditions.

The scientists say that it is often assumed that the learning abilities of animals are adapted to the environments in which they live and that faster learning animals should be at an advantage. Their study is the first to go out and test this assumption looking at an animal in the wild. They found that faster learning bees appear to have an advantage when looking for food."
Foraging bees use a variety of cues, including floral colour, pattern and scent, to recognize, discriminate and learn the flowers from which they collect food. As bees naturally forage in an environment in which the most rewarding flower type often changes, it seems likely that bees which learn quickly have the flexibility to keep track of the most rewarding flowers.

The team's findings suggest that differences in learning performance have important evolutionary consequences for animal foraging and fitness under natural conditions.

Rather like us, some bees learn from their mistakes more quickly than others. These faster learning bees also collect more nectar from flowers, which ultimately means their colony will be more successful.

Notes: "The correlation of learning speed and natural foraging success in bumblebees" was published online in the Proceedings of the Royal Society – B on

Wednesday, 16 January 2008:
(http://www.publishing.royalsociety.org/proceedingsb)
The work has been funded by the Natural Environment Research Council.
This article was adapted from materials provided by Queen Mary, University Of London.

HIVE BEETLES AND BEE ALARM SIGNALS – A new found danger
The Small Hive Beetle is looming on many beekeepers horizons especially in Europe where it has not yet established itself. It has however reached the USA where a considerable amount of research is going in to find ways of combating it. A new piece of research has found that this beast is smarter than we thought – and smarter than the bees as well.

The honeybee's alarm signal to other bees while sting you may not only bring help, but it also attract the small hive beetle. An international team of researchers has found that small hive beetles can detect some alarm pheromones at levels **below** that detected by honeybees.

The Small Hive Beetle – Perfectly adapted to its environment

The beetles associate the alarm chemicals with a good food source and head for the hive. The researchers tested the response of both the small hive beetles and honeybees to isopentyl acetate (IPA), the major chemical in the bee's alarm pheromones. The first tests showed that when worker bees become alarmed, they produce from 1,500 to 10,000 times more IPA than found in an undisturbed hive. Next the researchers used a gas-chromatagraph-electroantennogram to analyze the chemical sensitively of the insects' antennae. They report in a recent online issue of the Proceedings of the National Academy of Sciences that the beetles could detect the equivalent of 2 nanograms of IPA at the entrance to an undisturbed honeybee colony, but the antennae of guard and forager bees did not detect this level of IPA.

This indicates strongly that the heightened sensitivity of the beetles to volatiles released from the hive entrance allows them to key in on the bee colonies without bees responding to their attack. Complicating the issue is a yeast that grows in the hives that produces the same alarm substance. The researchers found that this yeast only produced IPA when it grew on pollen. Even pollen substitute, a food sometimes provided for bees, did not increase the amounts of IPA produced.

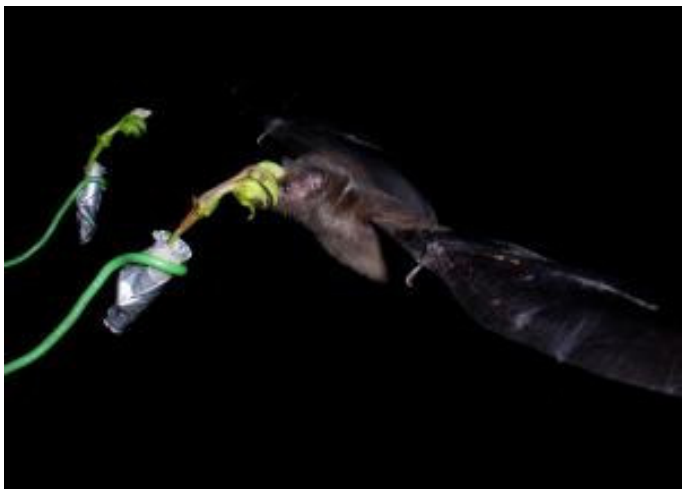
The researchers are not really sure how the yeast gets into the colony and hypothesise that perhaps one beetle finds and carries the yeast in and it reproduces, or, because the yeast grows on pollen in nature, perhaps bees bring it into the hive.

Adapted from materials provided by Penn State

Bat Sharing – (Nothing to do with Bees).
It is because pollination of plants is so important to human beings and the planet generally that bees are one of the most economically important insects on earth. The co-evolution of plants and bees to get to this state is incredible, but other life forms have also evolved to service plants an bat are one of the most specialised.
New research shows how different species of plants evolve unique floral adaptations in order to transfer pollen on different regions of bats' bodies, thus allowing multiple plant species to share bats as pollinators.

A pattern of character displacement has only rarely been shown for plants, and this is the first study to examine the competitive mechanism and process driving this pattern.

When multiple plant species occur in the same habitat and share the same pollinator, large amounts of pollen may be transferred between different species. This form of plant-plant competition can reduce the fitness of all species by interfering with successful pollination. Researchers have found that co-occurring bat-pollinated species of the genus Burmeistera reduce competition by evolving differences in flower shape. This serves to place pollen in different regions of the bats bodies, and thus greatly reduces "incorrect" (between-species) pollen transfer. Experiments with bats and flowers showed that greater differences in flower shape between two species decreases "incorrect" pollen transfer and thus maximizes successful pollination.
This research study clearly demonstrates that these plants are competing and the competition is strong enough for them to evolve unique characteristics in order to reduce competition for pollination.



Along with the experimental work, the research team also analyzed Burmeistera in 18 field sites, and found that differences in flower morphology between co-occurring species were much greater than what would be expected by chance.

The study, titled "Character displacement among bat-pollinated flowers of the genus Burmeistera: analysis of the mechanism, process and pattern", was recently published in the Proceedings of the Royal Society B, and implies that Burmeistera evolve to use different portions of bats bodies than the co-occurring species in their habitat.

HONEY AS A COUGH MEDICINE
(Honey found to be better than over the counter treatment)

For thousands of years, honey has been thought of as a cure or at least a relief giver for many ailments. Most of the evidence for this is anecdotal and clinical research on the subject is rare. Because of this, the medical profession is naturally reluctant to take up honey as a medicine. In recent years however we have seen manuka honey emerge from the 'alternative' unproven category of medicines to be a major treatment for wounds because of research carried out mainly in New Zealand. Now, clinical research in the USA has found another medicinal use for honey.

A new study by a Penn State College of Medicine research team in the USA found that honey may offer parents an effective and safe alternative than over the counter children's cough medicines.


Buckwheat honey proven as a cough medicine

The study found that a small dose of buckwheat honey given before bedtime provided better relief of night time cough and sleep difficulty in children than no treatment or dextromethorphan (DM), a cough suppressant found in many over-the-counter cold medications.

Honey did a better job reducing the severity, frequency and bothersome nature of night time cough from upper respiratory infection than DM or no treatment. Honey also showed a positive effect on the sleep quality of both the coughing child and the child's parents. DM was not significantly better at alleviating symptoms than no treatment.

These findings are especially notable since an FDA advisory board recently recommended that over-the-counter cough and cold medicines not be given to children less than 6 years old because of their lack of effectiveness and potential for side effects.

A previous study published in 2004, showed that neither DM nor diphenhydramine, another common component of cold medications, performed better than a placebo at reducing night time cough or improving sleep quality. However, honey has been used for centuries in some cultures to treat upper respiratory infection symptoms like cough, and is considered to be safe for children over 12 months old. Honey has well-established antioxidant and antimicrobial effects, which could explain its contributions to wound healing. Honey also soothes on contact, which may help explain its effect on cough as suggested by the World Health Organization.

The study adds to the growing literature questioning the use of DM in children, but it also offers a legitimate and safe alternative for physicians and parents

Potentially dangerous effects of DM in young children include dystonic reactions, severe involuntary muscle contractions and spasms. Further, DM is a commonly used as a drug of abuse by adolescents. Cough is the reason for nearly three percent of all outpatient visits in the United States, more than any other symptom. It is particularly bothersome at night because it disrupts sleep. Consumers spend billions of dollars each year on OTC cough and cold medications despite little evidence that these drugs provide significant relief.

Journal reference: Arch Pediatr Adolesc Med. 2007;161(12):1140-1146.

This article was adapted from materials provided by Penn State University.

SMR Research in New Zealand

Using SMR research from mainly the USA, New Zealand researchers say they have bred honeybees which are not only resistant to varroa mites, but fight back by making the mite larvae sterile.

Using bees selected from around New Zealand, HortResearch honeybee scientist Mark Goodwin and his team have been crossing breeding lines of bees to increase the levels of a natural resistance in the population.

"It's a tricky business, requiring the careful artificial insemination of queen bees in the lab," Dr Goodwin said. "We've been able to breed bees whose hives render up to 80 per cent of varroa sterile," he said.

"The problem is that the process is expensive and time-consuming. We could never rely on artificial insemination to supply the amount of bees needed to continuously replenish the resistance genetics of New Zealand's 300,000 commercial beehives."

Can SMR knowledge counter Varroa

Dr Goodwin's team hope that they can establish a self-sustaining "stud" population of high-resistance bees by keeping them isolated as "closed hives" as crossbreeding from any remaining wild bees or ordinary hives would effectively dilute the resistance.

Their stud bees are being bred up on Great Mercury, an island billionaire entrepreneurs Sir Michael Fay and David Richwhite own off the coast of the Coromandel Peninsula.

If the experiment is successful the island could provide a model for other offshore breeding centres for large numbers of highly resistant queens. These could then form the basis of a continuous flow of new genetics to the mainland, helping to maintain high levels of resistance in commercial hives.

HONEY DRESSINGS - NEW RESEARCH

There has been a wealth of clinical research the great value of honey as an effective wound dressing, and they are increasingly used in the UK and USA mainstream medicine centres. Also in this Apis UK we report on trials of honey as an effective cough medicine, but just as an aspirin won't cure an in-growing toenail (I don't think it will anyway), honey might not be the panacea for all wounds and injuries. Recent trials in New Zealand have found that treating venous leg ulcers with honey dressings is unlikely to help healing when compared with normal care. Treating a leg ulcer with dressings impregnated with honey did not significantly improve the rate of healing, but did lead to a significantly increased number of reported adverse events, according to research published recently in the British Journal of Surgery.

Honey dressings. Excellent for many applications, but not for all

The breakdown in skin tissue below the knee that ends in venous leg ulcers forming has been recognised for centuries. Since the 17th century it has been treated by applying a compression bandage and we now know that this helps the leg cope with the constant pressure of fluids in lower parts of the body (hydrostatic pressure).

The current interest in alternative medicines has led to renewed interest in honey as a potential healing agent, and some people have suggested using honey dressings as well as a compression bandage.

In a trial run in four centres around New Zealand (Auckland, South Auckland, Waikato and Christchurch), 368 patients were randomly divided into two groups. One was given conventional dressings, the other was given dressings impregnated with honey. Both groups had compression bandaging. After 12 weeks there was no significant difference between the rates of healing in the two groups. However, the honey treatment was more expensive, and people in that group reported significantly more adverse events than in the conventional group (111 vs 84 P=0.013).

"In our trial the honey dressing did not significantly improve healing, time to healing, change in ulcer area, incidence of infection or quality of life," says lead author Dr Andrew Jull who works in the Clinical Trials Research Unit at the University of Auckland.

"The current focus of venous ulcer management should remain on compression and other treatments that have demonstrated that they improve compression's ability to work or prevent ulcer recurrence," says Dr Jull.

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A Day at the Office By Chad

How was your Day at the Office?

I write this article several hours after spending all day selling honey at a cold and windy stall outside the Outlet Village in Swindon.

I suppose dealing with customers is an intrinsically necessary, though tiresome occupation when working on farmers' markets. Whereas the vast majority of the public are well-meaning, polite and engaging, there are those who continually try to thwart my efforts to be pleasant. Anyone who has ever worked on a stall, maybe anyone who has worked in retail, or maybe just anyone who has ever worked will know that it is the rudeness of others that can really grate on ones nerves and make a potentially nice day, less so.

Being a teacher, I cannot stand to see children that have failed to receive their healthy and correct dose of discipline by the age of two. Though I suppose the blame ultimately lies with the parents, I reckon most two year olds are self aware enough to know right from wrong; their sticky little grabbing hands aren't displaying playfulness, I'm sure it's malicious intent.

These children fall into two categories, (as defined by the behaviour of their parents.) I will summarise both. There are those children who have beaten their parent(s) into submission, their parents are at their wit's end, they have probably played-up all day, so, when the child decides my honey stall is the next play-area the parents are too numb to their surroundings to react to their frantic behaviour so that it is down to me to fend them off.

Then there is the other variety of child, this one has been brought up by parents who believe that fair discipline and good manners will rub off on their child passively, the best word to describe these children is feral.

As my honey may ultimately be bought for the feral child in question, whose sticky fingers are everywhere and ruining my efforts to display good hygiene, I cannot stop the child from tasting the honey, in fact I must actively encourage this. I have learned that children will rarely take a prepared tasting stick from me, this may be because some idiot taught them not to accept things from strangers, but instead they are taught that, Chad's Honey stall is a holistically tactile experience where the privilege of getting to dip the stick is as rewarding as the sweet, sweet taste of summer that Chad's Honey brings.

The novelty of certain situations has worn off, like when the child dips their stick into the sample pot, tastes the honey, smiles or makes appropriate noises of joy and then sticks the same licked stick back into the pot. There then follows a thousand apologies from mum: Dad, of course, never apologies, he just tells said child off which, when the child then cries, is as good as an apology.

There is also the dexterity test; many members of the public seem quite slow to understand that liquids run. I now always instinctively say, 'make sure you twiddle the stick.' I loose count of the number of scowls I receive from angry mums who have Sunday-best tops to wash when they get home because their son or daughter was too kack-handed to roll the tasting stick. I love it when adults (and sadly it's usually men) get it all down their fronts. This is usually a result of them trying to get far too much honey on to the stick, greed, greed, greed.

Mind you, I like greedy customers. Greed, though sinful, is good for business. My best customers are not thin. What I cannot stand, is the greedy customer who doesn't want to buy anything. If there is one thing worse than that, it is the customer who tries the honey, tells you that it isn't to their taste, or that it's too sweet, too runny or too stiff and then helps themselves to some more, reasserts his or her opinion before walking off. Like I wanted your opinion, ****! Or the customer who eats half of the sample pot

before looking and checking that you don't have cut comb, before asking if you have cut comb and then telling you that that it is cut comb they were really after.

I am very nervous of the large family group that can sometimes descend on my stall; they are like industrial Hoovers that treat my stall like a bird table. Mum, Dad, three children, the neighbour's children and two other extraneous adults, take two sample sticks each and pass the sample pot around several times, often remarking on how delicious the honey is, before saying a (usually very honest) thank you before walking away without purchase.

I don't mind the excuse, 'I might come back later.' Nor do I mind the very up-front 'I am not going to buy anything today,' I like people to try my honey. It is nice when people say nice things about it. It's just the ignorance of some which gets under my skin sometimes, that's all. Happy New Year.

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The National Diploma in Beekeeping.
The Examinations Board of the National Diploma in Beekeeping would like to announce that an examination will be held in 2008.

The written papers will be held on Saturday 15th March, the same date as the BBKA exams, to be taken at a convenient location to be arranged. The practical assessment will be held on one day of the weekend of July 19th / 20th, at Easton College, Norwich, Norfolk. The Fee for the Examination will be £100.

Although the NDB Board has discussed changes in the format of the examination, these will not take place until 2009, so the format of the 2008 examination will be exactly as given in the syllabus on the Board's website, and will exactly follow the format of the past papers also available there:-
http://www.national-diploma-bees.org.uk/

The 2008 Advanced Beekeeping Course will be held at CSL York from 7th to 11th July. Details will be available shortly from Ken Basterfield, Course Tutor:
ken@basterfield.com

For further details please contact the NDB Board Secretary: Norman Carreck, New Hall, Small Dole, Henfield, West Sussex. BN5 9YJ Email:
norman.carreck@btinternet.com

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The Legend of Hagia Sophia Church
It isn't every day that the design of a church is based upon that of a beehive, but the great Justinian who effectively converted Rome to Christianity, did just that.

Hagia Sophia, "Holy Wisdom," was originally a basilica style church built in the fourth century. After the church burned down twice, Emperor Justinian built the present, fireproof structure around 537 A.D. Hagia Sophia served as a Christian church for 900 years until 1453, when Moslem Turks took the city and converted it into a mosque. In 1935, it was turned into a public museum.

A legend about the design of the church says that one day during Mass, Emperor Justinian dropped the holy bread from his hands. Before he could grasp it, a bee picked it up and flew away. Justinian sent a message to all beekeepers in the empire to look for the bread in their hives. After a couple of days, a beekeeper arrived with a

hive of peculiar design. Upon seeing it, Justinian decided that he would build a magnificent church with the design of this hive as its ground plan.

RECIPE OF THE MONTH Back to top

Asparagus with Honey-Garlic Sauce
This fine recipe includes a superb mix of ingredient that brings out a taste of Southern Europe in every delicious bite. The ingredients are all easy to get hold of and I tried it with green asparagus but I guess hat the big white asparagus would do just as well.

1 lb fresh asparagus
1/2 cup Dijon mustard
1/2 cup beer dark or dark ale
1/3 cup honey
1 clove garlic minced
1/2 tsp dried thyme crushed
1/2 tsp salt

Trim or break off asparagus spears at tender point; rinse.

In large skillet, in boiling water to cover, cook asparagus until crisp-tender, 3-5 minutes. Do not overcook. Drain and rinse under cold water.

Combine remaining ingredients for the sauce. Pour over asparagus.

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This month I include two short 'humorous' poems. If anyone knows of the author of either, please write in and let me know. The poems may be a tadge frivolous – almost infantile but they do sum up certain situations very well.

THE HONEY LOVER
I eat my peas with honey,
I've done it all my life,
It makes my peas taste funny,
But it keeps them on my knife.
Author: Unknown

THE BEEKEEPER
There was a man who loved the bees,
He always was their friend,
He sat around upon their hives,
But they stung him in the end.
Author: Unknown

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The person who made this quote is very well known and one of those characters who even in this modern day managed to capture the imagination of a whole generation of people. Who said this?

The happiness of the bee and the dolphin is to exist. For man it is to know that and to wonder at it.