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Essex Beekeeper's Association

The Essex Beekeepers' Association is a registered charity whose object is to further the craft of beekeeping in Essex.

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Please ensure that all material for publication is received by the Editor before the beginning of the preceding month to publication.

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December 2008

Braintree	<i>12 Dec. Friday</i> 8pm at Constitutional Club, Great Square, Braintree for 'A Social Evening'.
Chelmsford	<i>15 Dec. Monday</i> 7.30 - 9.00pm Beeginners - Meet your mentor plus a 15 min demonstration on treating hive with oxalic acid at Trinity Hall, Methodist Church, Rainsford Road, Chelmsford.
Colchester	No meeting. Module 5 (Honeybee Biology) classes are being held on Wednesdays 7.30-9.30pm at Great Horkesley Church Hall. Ring Derek Webber 01206 271714 for further details.
DH & Maldon	<i>Date TBA</i> Divisional Oxalic Acid Treatments for all.
Epping Forest	<i>18 Dec. Thursday</i> 7.30pm Christmas social at Chingford Horticultural Show.
Harlow	<i>4 Dec. Thursday</i> 7.30pm Christmas buffet and gathering. Further details to follow
Romford	<i>5 Dec. Friday</i> 8pm Christmas Social at Chadwick Hall, Main Rd.
Saffron Walden	No meeting.
Southend	No meeting.

January 2009

Braintree	<i>30 Jan Friday</i> 8pm AGM. "AGM" Constitutional Club, Great Square, Braintree.
Chelmsford	<i>19 Jan. Monday</i> 7.30pm AGM
Colchester	<i>29 Jan. Thursday</i> 7.30pm AGM. Venue and time to follow.
DH & Maldon	<i>24 Jan. Saturday</i> AGM with venue to be arranged; contact Nan Field 01621 773297.
Epping Forest	<i>15 Jan. Thursday</i> 7.30pm AGM at Chingford Horticultural Hall.
Harlow	No details submitted
Romford	<i>9 Jan. Friday</i> 8pm AGM
Saffron Walden	<i>23 Jan. Friday</i> 7.15pm Annual Dinner and AGM Dunmow Day Centre, Gt Dunmow, CM6 1AE
Southend	<i>28 Jan. Wednesday</i> 7.30pm AGM W.I. Hall, Bellingham Lane, Rayleigh. <i>BBKA Module 3</i> Margaret Thomas will be running a module 3 course on the 7th, 14th, 21st January and 4th, 11th, 18th Feb in the Annex at Hawkwell Village Hall. 7.30pm start. Fee £15.00

Local News

Southend Fun Honey Show held 22 October

We held a Fun Honey Show. 20 jars of runny honey and 4 jars of soft set were entered. Some by experienced beekeepers and an encouraging amount by newcomers who had only started keeping bees a few months ago. We paired up and were given a quick summary of the system used to award points and were then let loose to judge the entries. Condition of jar and lid, quantity in the jar, floaters, clarity, viscosity, granulation &, of course, taste were all tested. Of course, its rather hard to judge if the jar was full when 20

people have dipped a straw in prior to you seeing the jar. Also, deciding if the sticky thumb print was in evidence prior to the competition or as a result of the previous 'judges' was a bit tricky, so perhaps it wasn't as scientific as it could have been!

We also had an example of a fermented honey and an overheated honey to taste and had thrown in a couple of 'jokers' to get people thinking.

The supplied bread and biscuits helped clear palates and prevent too much nausea creeping in by the end of the evening!

When everyone's points were added up we were delighted to find that the 2 jokers (supermarket purchased foreign rubbish) were close to the bottom.

Our 2 prize winners were Marlene Harris and Trevor Storey, who were presented with a rosette and Bee mug each.

Smokers in Whitehall Demonstration

Some 400 beekeepers met opposite the Houses of Parliament on Wednesday 5th November, with the petition of 140,000 signatures that we have all been collecting this summer. We formed a long white, smoking crocodile from there to Downing Street, where six of us went to Number 10 to present the petition. Then we 'white crocodyled' back to Westminster to lobby our MPs. If the Government (and everyone else!) does not know by now what we want, and why, then they must be living on another planet. It made the ITV news on Thursday morning, BBC Essex, and the Daily Mail, and no doubt other coverage too, including a video on YouTube.



Is this CCD?

I'm prompted to write this because the debate continues in this part of the UK, about why the yearly losses of colonies are increasing. I am setting out my arguments that I believe apply to UK beekeeping knowing that management in the USA and use of bees is vastly different. Two years ago I suffered my first high loss of colonies in 2006/7 on a farm where I have two apiaries about 300 metres apart. In the Winter/Spring of 2007/8 I also lost 11 out of 12 colonies in the home apiary.

It is my view that high losses of colonies have been present with us in the past. For example, the Isle of Wight Disease. In other words epidemics are not unknown, and when they occur it is a surprise to many beekeepers, particularly those who were not beekeeping when the previous epidemic occurred. Losses are not just caused by disease but also by management and predators; so these factors should be considered in a holistic approach.

In my experience, catastrophes/incidents of any type are multi-causal. Thus by looking for things such as varoasis as the only cause, and even viruses, we are ignoring the contribution of a number of additional factors which are leading to these increasing losses each year.

When enquiring from a honey bee inspector about my own losses of hives I was told, "The cause is varoasis". I said, "Hold on ... all my colonies in all my apiaries have varoasis and last autumn all had the same management and were fed down to have sufficient stores to last until the weather was right for foraging in the following Spring; all were given the same medication. I see very little varroa during my Spring and Summer inspections, although I watch for it on drone pupae and on the bees themselves.

Certainly, the losses, in the home apiary, are partly down to my own management. This apiary gets attention when I have a few minutes to spare, as it is so convenient to visit. In it I usually have a number of nuclei and some honey production colonies. No more than twelve at the most. What I'm saying is that it does not get quite the same planned management as the out apiaries. The management is somewhat piecemeal, although overall it is similar to the out-apiaries.

I will list the causes that, I believe, are now contributing to the high Winter/early Spring losses (Other causes exist such as siting of an apiary and moving hives for pollination, but will not be discussed): -

- 1 Weather.
- 2 Climate change.
- 3 The introduction of bought queens.
- 4 The loss of professional beekeeping lecturers throughout the UK, which occurred some years ago.

5 Feeding too late after the main honey crops have been taken.

6 Change of farming patterns.

7 Poor mating of queens

8 Viruses.

Weather This year we have lacked sunshine here in the south of East Anglia and have had less than the normal 50mm of rain per month. It does not appear to have dropped the average honey crop. I believe it has affected the mating of new queens.

Climate Change This has tempted me to start my Autumn feeding much later than the dates suggested by Ted Hooper when he taught me all my beekeeping. In these parts of the UK the recommended time was mid-August. Knowing that honey bees cannot be managed by the calendar alone, I have always been flexible with dates for the many management options. Hence, in the last few years, I have been starting feeding as late as the end of September. This is absolutely no good for colonies in which the queens have stopped laying because of the lack of forage in July and mid-August. The queens need to be encouraged to lay eggs for the young bees that will take the colonies into the Spring. Where colonies have died out in the Spring with plenty of stores left this is most likely due to the lack of young bees ... the old bees having all died.

Introduction of bought queens Having seen the colonies produced by some of these imported foreign bees they are truly very easy to handle but many are insufficiently thrifty to survive in periods of dearth after the main honey crop has been taken by the beekeeper. I was called in late May by a beekeeper of longstanding who asked me what was happening to his hive. The first frame I took out had a very good queen and only less than half the normal quantity of bees due to starvation ... there was no honey and no pollen, so I suggested a gallon of syrup. This was fed and the colony was saved. He had taken every bit of his Spring crop of honey for himself, not realising that bees could starve in our Summer.

The losses of professional beekeeping lecturers This was completed in the late nineties and since then their students have taught us. This has been OK until now when, in some areas, the minimum tuition is not as professional as is necessary. We should campaign for beekeeping lecturers in the colleges. DEFRA and the beekeeping regional inspectors provide some of the continuing education and updating needed but it is not enough. They are doing an excellent job but more professional teaching is absolutely necessary.

Feeding too late in the Autumn Feeding after the end of August means fewer young bees to go through the Winter. I use National hives in all my apiaries and winter on a deep plus a shallow above in order for there to be enough stores to see them through the Winter. The feed is at least 22 lb of sugar as thick syrup that weighs around 36 lb.

This is equivalent to around 30 lb of honey and supplements the honey already saved. I never worry about overfeeding as frames full of sealed food can be removed in the early Spring and replaced with drawn comb, so that the queen is not short of laying space. These come in handy for other colonies that may be getting short of food (take hygiene precautions though). I use Rowse type feeders and put all the syrup on the hive when I put the feeder on. Since I work each hive with only a single deep brood chamber in the active summer season it goes without saying that I remove the queen excluder at this time from above the deep chamber. Sugar syrup is better for the bees as if their own stores granulate they may starve in the period when it is too cold for them to get water to breakdown the stores. Also sugar syrup contains none of the impurities that their own honey contains and this makes fewer cleansing flights necessary. It is very noticeable that the colonies fly well, when temperature allows, during and after the feeding. This is good as it shows, and can be seen that, the colony is getting both nectar and pollen.

Changing of Farming Patterns My losses in the Winter/Spring of 2006/7 were down to the queens going off the lay during July and August, as at the two sites, on the farm, there was no income of either nectar or pollen. At first I thought there might have been a spraying problem; this was subsequently discounted. The shortage of income was caused by the wheat crop, in surrounding fields. In previous years the farmer had always grown sunflower on the headlands for game birds and this provided useful supplies of nectar and pollen. In one of these apiaries I had late robbing problems from wasps. There was no robbing in September but on a routine visit in November the wasps were robbing out two hives ... it was too late to rectify the situation. I found the wasp nest, about 70 metres away, which was destroyed in order that the four remaining hives were not robbed. The two robbed hives had obviously gone queenless and so did not defend the colony.

Poor mating of Queens This is related to weather which here in the southern part of East Anglia has meant rather poor summers in the last few years. Opportunities for mating have hardly been optimum.

Viruses It is my view that these contribute to the losses of colonies. But my view is that there is no single cause for high colony losses, but simply that this may be one of the final triggers. I therefore commend our BBKA president for his work to raise more funds for research in this regard. But equally, we must not allow tunnel vision of any of the above causes to let us think that there is a single cause.

Geoff Mills, Life Member and past President of Essex BKA

Buying queen bees: a legal perspective

I have gathered together this information because of a discussion I had with Ann Tillbrook shortly after I agreed to become involved with the editorship of this magazine. She was concerned that it was difficult to find out what was required when importing bees from a beekeeper who lived in another Member State of the European Union. Also she thought that it was hard to locate and complete all the necessary forms. Hopefully, this article provides the answers. This information applies to beekeepers in England—the rules might be different in Scotland, with additional rules for Northern Ireland—since this article is for the Essex Beekeeper, then the law of England is all that is needed!

When buying a queen, with her attendant workers, consideration must be given to the domicile of the seller. The law distinguishes three domiciles: a) the seller is from the UK, b) the seller is from a country which is a Member of the European Union (EU), c) the seller is from outside the EU.

Where the seller is in the UK there are no legal restrictions, however all beekeepers should be familiar with the checks that should be made about the health of the queen and her attendants before buying.

General Principles

Generally, animal health and public health conditions governing intra-Community trade and imports into the Community of live animals and animal products are set down in a number of "vertical" (species or commodity-specific) Council Directives. The way in which Member States exercise control over movements of animals and animal products either between Member States, or into the Community from third countries, are laid down in "horizontal" (those which apply to all species) Council Directives relating to veterinary checks.

Council Directive 90/425/EEC covers veterinary and zoo-technical checks applicable in intra-Community trade in certain live animals and products between Member States of the EU and eliminates the need for veterinary checks at frontiers on certain animals, including bees, and provides instead for a system of intensified checks at points of origin (e.g. for bees, the inspection of colonies) and spot checks at places of destination (documentary checks etc.). Council Directive 91/496/EEC covers EU trade with Third Countries.

The vertical and horizontal legislation is implemented in England by the Animals and Animal Products (Import and Export) (England) Regulations 2006.

Notifiable diseases for bees can be found in Council Directive 92/65/EEC. This lists American foul brood, *Aethina tumida* (the small hive beetle), and the *Tropilaelaps* mite as notifiable diseases in the EU (the small hive beetle and *tropilaelaps* mite were added in 2003 by Commission Regulation (EC) No. 1398/2003). This Directive lays down the provisions for intra-Community trade in bees and also (with some later amendments) sets out the health certification requirements for the import of bees from third countries.

Intra-Community Trade

EC rules on intra-Community trade (i.e. trade within the European Community) in honey bees (*Apis mellifera*) require only that each consignment is accompanied by an original health certificate issued by the relevant Member State authority confirming that it meets the requirements set out at Annex E, part 2 to Council Directive 92/65/EEC: specifically, that consignments of bees must come from an area free of American foul brood disease, the small hive beetle (*Aethina tumida*) and *Tropilaelaps* mite. An original health certificate is required for each consignment and is valid for 10 days. The original certificate must accompany the consignment to the final destination, and be kept by the holding for at least 3 years. (I will include this form in the next issue if there is a demand to see it).

An importer must give at least 24 hours notice in writing (including FAX) to the Defra Divisional Veterinary Officer with responsibility for the area in which the premises of destination is situated, of his intention to import from other Member States, giving the expected date/time of arrival and place of destination. A suggested proforma for notifications is available (see 12 page for a copy), which should be copied to the National Bee Unit. This will enable the NBU to carry out appropriate post-import veterinary checks at the place of destination.

Third Country Trade - Import Conditions

Rules concerning the importation of honey bees and bumble bees from third countries are set out in Commission Decision 2003/881/EC (as amended by Commission Decision 2005/60/EC and Commission Decision 2006/855). They are implemented in England by the Animals and Animal Products (Import and Export) (England) Regulations 2006. These include the requirement that:

—Imports of honey bees (*Apis mellifera*) can only be allowed into the Community from those third countries listed in Part 1 of Annex II to Council Decision 79/542 provided that the 3 notifiable diseases of bees in the EU - American foul brood disease; *Aethina tumida* (small hive beetle); and *Tropilaelaps* spp (*tropilaelaps* mite) - are also confirmed as notifiable diseases throughout the exporting country, or an exporting region of a third country specifically identified in Part 2 of Annex III to Commission Decision 2003/881/EC.

—The bees must come from an area that is not affected by these notifiable diseases.

—The bees have been inspected and certified as being free of diseases, including notifiable diseases and infestations affecting bees.

—Imports from the listed third countries must be restricted to consignments of queen bees and attendant workers only. Each queen bee must be contained in a single cage and accompanied by no more than 20 attendant worker bees.

—Imports of bee packages (a queen and up to 15,000 attendant worker bees) are prohibited, except from New Zealand under a special derogation to the EU/NZ Veterinary Agreement. The following third countries are known to be able to comply with the EU requirements: Argentina, Australia, the US State of Hawaii and New Zealand.

Hawaii has been given a special derogation by the EU to export to the Community in view of its high bee health status. Imports of bees from mainland USA to the European Community remain prohibited.

Importers wishing to import bees from any other third country listed in Council Decision 79/542 may check with Defra or the National Bee Unit, or alternatively with the relevant authority in the third country concerned, that it is able to comply with the requirements of the EU health certificate.

It is a requirement of the Animals and Animal Products (Import and Export) (England) Regulations 2005 that all queen bees imported directly into England from a third country must enter through one of two approved Border Inspection Posts (BIPs). These are Heathrow and Gatwick airports. In order to comply with the requirement for documentary checks, it is strongly recommended that bees be sent cargo, as opposed to airmail, which has been the preferred mode in previous years. In addition, this will ensure that the queen bees will be given special treatment as live animal cargo, as opposed to regular airmail. At the BIPs, Defra officials will issue a Border Crossing Certificate and forward the bees to their destination.

Importers must give at least 24 hours notice in writing (including FAX), of the anticipated date of arrival of the consignment to the Divisional Veterinary Manager of the Border Inspection Posts through which the consignment is to be imported (i.e. for bees coming into England, Heathrow or Gatwick). A notification form is used for this purpose. All notifications should be copied to Plant Health Division, Defra and the National Bee Unit at the addresses shown.

Third Country Trade - Post Import Controls

EC requirements for post import controls on consignments of bees imported from third countries are contained in Commission Decision 2003/881/EC (as amended). They are aimed at reducing the risk of introduction and spread of exotic bee pests, in particular the small hive beetle and tropilaelaps mites, both of which are notifiable. These post import controls are implemented in England by Article 11 of the Bee Diseases and Pests Control (England) Order 2006.

On receipt of a consignment of queen honey bees from third countries, importers are required to transfer the imported queens to new cages before introducing them to local colonies and then send the cages, attendant worker bees and other material (e.g. packaging, food) that accompanied the queen bees from the third country of origin to a laboratory for examination for notifiable pests. For queen honey bees imported into England, all such items should be sent to the - Central Science Laboratory's National Bee Unit at Sand Hutton, York YO41 1LZ.

In conclusion, if you are going to import a queen and her attendant workers from another Member of the EU or from outside the EU ensure that all documentation is correctly completed. There is also the additional transit risk that the queen will arrive dead; so consideration has to be given to who should bear the risk of this event occurring.

... *Cont. page 12* ...

TOPICAL TIPS FOR DECEMBER

By Margaret Thomas

Monitor the level of natural mite drop. To this end nearly all our colonies are now permanently on open mesh floors. For about a week in each month, a plastic tray covered in Vaseline is placed under the floors to monitor the mite drop. German figures on natural mite drop are tabulated below. The web site of the Central Science Laboratory (CSL) is also very informative.

During brood expansion phase, i.e. January to June, 1 mite on the floor => 500 in the colony During brood contraction phase, i.e. late June to end December, 1 mite on floor => 150 in the colony.

The following table gives an indication of the possible outcome indicated by the level of natural mite drop per day.

<i>Level of infestation</i>	<i>Number of mites present in the colony</i>	<i>Likely impact on a colony</i>
Infestation level 1	0-500	Far below damage threshold, colony under no threat
Infestation level 2	500 - 1,500	Still below damage threshold, colony might be under slight threat
Infestation level 3	1,500 - 3,000	Damage threshold reached, colony under threat
Infestation level 4	over 3,000	Damage threshold decidedly exceeded, colony under threat, collapse likely

What to do?

There is and never will be a magic bullet to deal with this infestation. Keep the mites down to below a damaging threshold. The buzz word is Integrated Pest Management (IPM), meaning coordinating the use of a number of methods to keep mites at a level that the bees and mites can coexist.

Use biotechnical (mechanical) controls.

—It is thought that about 20% of newly emerged mites fall off the bees. Once these mites have fallen through open mesh floors they are no longer a danger to bees, provided the drop below the floor is at least 2 - 3". Spend the winter making mesh floors.

—Add a drone comb to the brood chamber and remove it for destruction as soon as the cells are sealed. Varroa prefer drone comb and should congregate there. This is best done in the spring build up phase. We use a super frame in the brood chamber; the bees draw an extension at the bottom, usually of drone comb. The extension is cut off and placed on the bird table, then transferred into the solar wax melter once the birds have dealt with it. We leave all other drones to provide potential mates for virgin queens.

—Dust the bees with icing sugar (strictly speaking a chemical) or non scented talc. This will cause some mites to fall onto the floor and through a mesh floor. Use a sieve and gently dust about 3 - 4 tablespoons of icing sugar or talc over the top bars of the brood combs. This can be done any time of the year.

—Some people advocate trapping the queen on a comb with a special comb cage. I consider this impractical for our operation and so have never tried it. The method is described in the Ministry leaflet.

—Creating a shook swarm is a successful method of removing all the brood for destruction. It is a useful method to use if deformed bees are present in the colony, as the mites carrying the virus are sheltering in the sealed cells with the deformed brood and will pass the infection on to other brood if allowed to emerge. Get help from an experienced beekeeper. You will need a spare brood box with foundation and a feeder. Find and cage the queen if possible. Gently shake or brush all the bees off all the old comb into the fresh box located on the original site. Bees from the supers should also be shaken into the fresh box. The supers can then be given to a neighbouring colony to look after any honey. Take care not to drop unripe honey about as this may spread disease by robbing. Replace the queen and feed at least two gallons of syrup to the shook swarm to encourage the bees to draw the comb. This method provides clean comb and is a good general disease control method: it is the method of choice advocated by the National Bee Unit when dealing with EFB. The old comb is melted down, and the wax can be recycled. Do not leave the comb in the shed as wax moth will soon invade, destroying the comb and damaging the woodwork.

Medicinal control

—Treat the colony with 'soft' or natural chemicals such as Apiguard when level 2 infestation has been reached. Apiguard is a thymol based product and comes in a tray. It is usually applied in the autumn once the supers have been removed. There are two applications separated by two weeks. We have also used Apiguard in the spring. Apiguard should be applied when the temperature is 15°C or above, which makes timing the application difficult.

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—Oxalic acid diluted with syrup can be trickled onto seams of bees between brood frames during a broodless period, usually in November/ December. This is actually easier than it sounds. The oxalic acid powder can be purchased from bee suppliers. 75g of powder is mixed into the syrup made by dissolving 1kg sugar in one 1 litre of water. Each seam of bees is sprayed with 3.5ml of fluid. Do not get this fluid onto your skin; wash it off with copious water if you do. Wear nitrile gloves. The syrup can be purchased ready mixed. Southend have a calibrated animal-dosing syringe attached to a back pack filled with the medicated syrup, making the task of trickling the solution onto the bees simple and fast. The pack is passed from beekeeper to beekeeper as a Divisional activity.

—Treat with 'hard' chemical such as Apistan or Bayvarol when level 3 and 4 have been reached. These chemicals can be used for treatment only if the test has proved that the mites are not resistant to pyrethroids. Test kits are available from your Seasonal Bee Inspector. Treatments are usually applied in spring, February/March, and in the autumn August/September, when there are no supers on the hive.

—**Warning:** Do not just hop across to Europe and buy a chemical available and registered there. Using other 'hard' chemicals may build up a population of mites that are resistant to a number of chemicals, leaving us all with little defence other than 'soft' and less effective ones. In an ideal world the treatment should be co-ordinated throughout the country. Don't make up your own from farm supplies. Home-made is dangerous as dosage is arbitrary. Hopefully research currently under way will come up with a completely different solution.

References: *Living with Varroa* - IBRA. *The Varroa Handbook* - Mobus & de Bruyn. *Managing Varroa* - MAFF publication. CSL web site - www.nationalbeeunit.com. *Honeybee Pathology* - L Bailey.

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