

THE ESSEX BEEKEEPER



Monthly Magazine of the E.B.K.A

No. 533

EBKA website www.ebka.org

**May
2009**

Registered Charity number 1031419

Printed by Streamset, 12 Rose Way, Purdeys Industrial Estate, Rochford, Essex SS4 1LY.

Essex Beekeeper's Association

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

President

Derek Webber

Trustees

Chairman: Ms Pat Allen, 8 Frank's Cottages, St Mary's Lane Upminster, Essex RM14 3NU
Email chair@ebka.org tel. 01708 220897

Secretary: Position vacant

Treasurer: Richard Ridler, Rundle House, High St., Hatfield Broad Oaks, Bishops Stortford, CM22 7HE
email treasurer@ebka.org tel. 01279 718111

Divisional Trustees

Richard Alabone, 11 St. James Park, Chelmsford CM1 2JG

Geoff Pears, 82 Lexden Rd, Colchester CO3 3SR

Jean Smye, 8 Gate Street Mews, Maldon CM9 7EF

Jenny Johns, 21 Mornington Rd., Chingford London E4 7DT

E Fenner, 36 Chequers Rd, Writtle CM1 3NQ

William Stephens, 87 Newark Knok, Winsor Park Estate, Beckton E6 6WL

Penny Learmonth, The Watch House, Watch house Green, Felsted CM6 3EF

Daphne Wardle, Apton Hall, Canewdon, Rochford SS4 3RH

Mrs Pat Rowland, 29 Mill Lane, Cressing, Braintree, Essex CM77 8HP

Divisional Contacts

To contact a regional division:

Braintree: Nobby Clark, 01277 220561

Chelmsford: Jean Smye, 07731 856361

Colchester: Lydia Geddes, 01206 392226

DH & Maldon: Jean Smye, 07731 856361

Southend: Ann Cushion, 01702 545555

Harlow: Eric Fenner, 01245 420622

Romford: Pat Allen, 01708 220897

Saffron Walden: Jane Ridler, 01279 718111

Epping Forest: Jenny Johns 07944 755658

Essex Beekeeper's Magazine

Editor: Howard Gilbert Glencairn, Eastside Boxted Colchester CO4 5QS
email editor@ebka.org

Advertising, Distribution and Mailing Secretary: Mary Heyes, email advertising@ebka.org
tel. 01702 588009

Web site: Richard Ridler email treasurer@ebka.org tel. 01279 718111

Please ensure that all material for publication is received by the Editor before the 10th of the preceding month to publication.

Regional Bee Inspectors for EBKA

Epping Forest and Romford Divisions (excluding Brentwood):

Alan Byham email a.byham@fera.gsi.gov.uk

tel. 01306 611016

All other Divisions:

Andy Wattam email andy.wattam@fera.gsi.gov.uk

tel. 01522 789726

May 2009

- 1 May* *Friday 8.00pm* **Romford** Chadwick Hall, Main Road Gidea Park. 'Selling Honey: the Regulations with Louise Coben-Gipps.
- 7 May* *Thursday 7.30pm* **Harlow** Kings Church, Red Willow. A talk by Mr D. Nichol on "swarm control".
- 9 May* *Saturday 2.00pm* **Maldon** Blue Boar Silver Street Maldon. Beginners Mistakes. As told by near-beginners. Perhaps experienced beekeepers might also reveal their blunders?
- 9 May* *Saturday* **Epping Forest** Apiary Meeting—details to follow.
- 10 May* *Sunday TBA* **Braintree** at The Apiary Coney Green, Gt. Bardfield. Queen rearing Part 1—ring Pat Rowland 01376 326036.
- 16 May* *Saturday 10.00am* **Romford** Inspection Tour starting at the Chase.
- 17 May* *Sunday 2.30pm* **Saffron Walden** Gunsmead, Gt Easton, CM6 2HD. Apiary Meeting—Queen rearing Part 2 with Robert Pickford.
- 17 May* *Sunday 3.00pm* **Braintree** Young Farmers Show at Boyton Hall Roxwell Chelmsford CM1 4LN.
- 18 May* *Monday 7.30pm* **Chelmsford** Link Hall Methodist Church CM1 2XB. Looking down the microscope with Regional Bee Inspector, Andy Wattam. A practical demonstration and a hands-on to evaluate the level of nosema in your hive. Bring along a sample of you bees and see for yourself .
- 23 May* *Saturday 3.00pm* **Colchester** at Aldham Apiary. Assess the strength of your colonies against those at Aldham Apiary. Ring Derek Webber 01206 271714.
- 24 May* *Sunday 3.00pm* **Braintree** Apiary Meeting at Terling Farm. D. Rees telephone Darren Rees, 01245 233759.
- 27 May* *Wednesday 7.30pm* **Southend** W.I. Rayleigh. A talk by David Blackwood on 'Portrait of a honeybee'.

June 2009

- 5 June* *Friday 7.00pm* **Romford** at Eastbrookend. Bee Garden
- 7 June* *Sunday TBA* **Braintree** The Apiary, Coney Green Gt. Bardfield. Queen-rearing Part 2. Telephone Pat Rowland 01376 326036.
- 7 June* *Sunday TBA* **Harlow** The King's Church, Red Willow, Katherines Estate, Harlow. Mr. J. McNeil on the subject of processing honey.
- 14 June* *Sunday TBA* **Romford** Eastbrookend. Divisional Stand.
- 7 June* *Sunday 2.30pm* **Saffron Walden** Gunsmead, Gt Easton, CM6 2HD. Apiary Meeting—Queen rearing Part 2 with Robert Pickford.
- 13 June* *Saturday TBA* **Epping Forest** Willow Cottage.
- 21 June* *Saturday 2.30pm* **Colchester** An afternoon inspecting bees and a walk round the wildflower meadow at Daws Hall, Lamarsh, Bures CO8 5EX by kind invitation from Iain Grahame. To book phone Iain Grahame 01787 269213.
- 24 June* *Wednesday 7.30pm* **Saffron Walden** at Great Easton Primary School—Lecture—Preparing Honey for Showing with Jim McNeil, Romford Division (winner of most awards at the last EBKA Honey Show). Members from other Divisions warmly welcomed!
- 24 June* *Wednesday 7.30pm* **Southend** W.I. Rayleigh. A talk by Terry Clare, 'Is there a best bee?' Terry Clare is President of BIBBA (Bee Improvement and Bee Breeders Association); his talk will be of great interest to all bee-keepers concerned with the characteristics of their bees and colonies.
- TBA* **Chelmsford with Maldon** Starting around 10 am, we will join the regional bee inspector and our divisional disease liaison officer to visit a number of apiaries in and around the Chelmsford area. If you wish to have your hives examined or would like to join us, please contact Jean for details. Tel: 07731856361.

**Comb Construction by Honey bees.
Summary of Apidologie article by Howard Gilbert**

One aspect of beekeeping which has fascinated me is how bees decide when to build new comb and how they decide what type of comb to build. Stephen Pratt has reviewed most of the relevant journal papers that consider this aspect of colony behaviour. It can be found in the article "Collective Control of the timing and type of comb construction by honey bees", (Apidologie 35 2004, p193-205). Comb provides both the facility for brood rearing and the storage for honey to supply the colony with food in times of dearth. Comb building is not lightly undertaken as 6.25kg of honey is needed to build 1kg of comb and "once an investment in comb is made, the colony cannot later redirect it to other needs, as bees do not eat wax". The issue is "how a honey bee colony optimally controls the timing and type of new comb construction". This leads one to ask how this allocation of resources at the colony level is reflected in the behaviour of individual workers. There is no "central controller" in the colony directing this sort of behaviour so coordination between workers depends upon "combining individual decision rules with specialised signals and informative local cues".

When a swarm finds its new nest site it will immediately embark upon building comb so that brood rearing may commence and for storing honey. However there are different considerations pulling in opposite directions. On the one hand, greater comb will permit the colony to acquire greater stores during the foraging months, whilst on the other hand there is the large cost of making comb.

After the initial comb creation, how does the colony decide when to make new comb? According to the author there are static factors and other factors which vary widely over a season. The static factors are: (i) Bees will only really initiate construction in darkness, (ii) building is severely reduced (eliminated) in the absence of a queen, (iii) where newly emerged workers are suffering from a lack of pollen as this interferes with their normal wax gland production. The factors which vary over a season are (i) the colony's daily nectar intake and (ii) the amount of empty comb available for storage. According to the author, "bees condition building on the satisfaction of two requirements: adequate nectar collection in the field, and the filling of their comb above a threshold level. ... While both nectar intake and comb fullness are necessary for building to start, nectar intake alone can maintain construction once it has begun."

The author found that the bees do not follow the mathematically optimum building policy (which includes the variable quality of nectar). The author applied stochastic dynamic programming to the building behaviour of a colony in its first foraging season "as a function of the day of the season and three state variables: the quantity of nectar available ... the amount of comb already present ... and the amount of nectar already stored in the comb". He concluded that the optimal policy was: comb should be built only when the fullness of the comb already present exceeds a given threshold. The exact fullness threshold would vary but would be "typically rather low, with building the optimal choice even when sufficient storage for several kilograms of honey was already available".

According to the author the strategy followed by the bees was to build with a low threshold during nectar flows and not building at all in the absence of nectar. This strategy was only a slightly sub-optimal strategy inasmuch that if bees had been following the optimal strategy they would have built comb when there was no nectar flow and the fullness threshold had been exceeded. How does this strategy emerge from the individual decisions of thousands of workers? One attractive idea is that certain house bees (aged approx. 15 days) are responsible for comb building and also for unloading nectar from returning foragers. These somehow determine the rate of comb building because they will have difficulty in unloading the nectar into empty cells and so their honey crop will become distended. When this occurs, new comb is built. Pratt has shown that experimental data does not support such a hypothesis. Very few nectar receivers build comb and "crop distension is not necessary to trigger a building bout." Pratt suggests that bees who build comb may in fact independently follow two conditions which they update through contact with other worker bees. These two conditions are: (i) the rate they encounter other bees offering to regurgitate nectar--this would be evidence of foraging conditions, and (ii) the distribution between empty and full cells--this would update them on comb fullness. How do bees decide whether to build worker or drone comb? The type of comb changes with age and size of the colony. New swarms only build worker cells for the first few weeks. Another consideration is the status of the queen. Queenless colonies tend to build more drone cells. In a queenright colony drone comb generally makes up less than 25% of the total comb area and this proportion is regulated. So what mechanisms regulate the amount of drone comb in a colony? How does an individual bee decide when to build drone comb? The real answer is that we do not really know. But this much is known: (i) bees need direct access to drone comb in order to inhibit further drone comb being built, (ii) the queen does not play any role in this regulation, (iii) the inhibition arises from the drone comb itself even with the absence of drone brood. Pratt points out that these findings exclude two appealing alternatives that are highly centralised mechanisms. The first is that the amount of drone comb in the nest is not communicated to each builder in the form of a volatile chemical signal, (ii) drone comb regulation does not rely upon the queen acting as a central information processor.

Pratt concludes that at present we have "only the first steps in understanding the developmental biology of the comb" He admits that his optimization model does not address "the myriad other investment decisions that a colony makes simultaneously with comb construction, nor did it consider the fitness consequences of the regulation of comb type".

The Article can be read at <http://www.apidologie.org/articles/apido/pdf/2004/02/M4205.pdf>

Technical topics
More on Frames by Richard Alabone (Mr Beesy)

The main item of beekeeping equipment are the frames that the bees build their comb on, and with the aid of a flat sheet of foundation, they do a wonderful job in both supers and brood box. Unfortunately the frame design makes the job of the beekeepers much more difficult than it need be.

The main problem of course is that bees are programmed to fill any small gap with propolis, thinking it will stop water and unwanted insects getting in. If we add up the length of propolis on each frame, to its neighbours and the brood box, we find it is 23in. [nearly 2ft.!). So it is not surprising that we struggle to remove a frame; but it's all so unnecessary. The problem could be solved by supporting each frame by six points to the box, and four to the adjacent frames, rather than with seams totaling 2ft, and at the same time use a material that doesn't stick to propolis, like plastic. As well as converting all the seam joints to points, it would be a great help to provide the standard spacing at the bottom corners of each frame, insuring that the frames hang parallel to each other, avoiding uneven comb thickness, which is a definite advantage on the deeper brood frames. Incidentally there are plastic frames available, but they are copies of the wooden ones which support 23in. of propolis.

Now let's look at frame lugs, whose design has been dictated purely by making the frames of wood. Short lugs, of which there are three different lengths, are all too short, Langstroth, Smith and Commercial, and the National long lug which is too long and unnecessarily complicates the hive design. This long lug was standardized in 1890 as it was considered that the Langstroth lug was far too short. A move towards a 1in. lug would be worthwhile - I've been using them for some years to good effect. But that's not all; if we have just a point contact at the end of each lug, the lug itself can be tapered allowing finger room between lugs, and the addition of a small ridge at the sides of the lug makes it much easier to lift out a heavy frame. Of course there is far more than a bee space between a tapered lug and the next - up to about an inch - but bees never build brace comb in this area of a hive. So much for Langstroth's bee space.

Then there is one more propolis problem, preventing easy removal of frames, which is where the gap between the side bars and the walls of the box is less than a bee space. As discussed previously, it's no good having a nominal 6mm gap. Firstly because both the hive and frame are sometimes several millimeters out of square, and there will probably be 1mm float of the frame in the hive, which reduces our 6mm gap to perhaps 1 or 2mm so that the bees will propolise the frame to the box in a week or so. And secondly we don't need a gap as small as 6mm anyway.

Ten years ago I patented, and had a tool made, to make plastic frame corners - all at great expense - which made frames having all point to contacts and with tapered lugs.

Cont. page 8

But defraying the cost of the tool, together with the expense of knot-free wood, made the frames uneconomic to make. But now that the tool is paid for, and also by using plywood, we now have an easy to produce frame which is much cheaper than the 120 year old design.

The corners were designed to make frames with the standard spacing, that were compatible with standard frames, and having wood of the same section all the way round. To start with there were split bottom bars and a 'wedge' system to hold the foundation. All this was fiddly and unnecessary. Nowadays all the wood is 9mm ply, by 1in. wide all round, with a groove for the foundation which is fitted directly to the top bar without the 'wedge' system, which incidentally is not a wedge at all although many years ago it was. Horizontal wires may be used to support unwired foundation, but most people prefer wired foundation which can easily be fitted to the top bar by three staples over the wire loops.

Thus we have a plywood frame with plastic corner pieces, incorporating all the complications that traditionally have been machined from wood, but having considerable advantages over the frames in current use. It is much simpler, can even be D. I. Y., and is compatible with 100 year old designs.

When used in the super, these frames are convenient as they are like Manley's in that the uncapping knife is guided by the top and bottom bars that are both the same width. But this only works because bees built their comb out to the edge of the frame. If the bottom bar is only half an inch wide, then the bees only build comb half an inch thick, but if there is a 1inch bar the comb will be 1in. thick, and hold twice as much honey along the bottom of the frame. Furthermore, narrow bottom bars encourage wavy comb of varying thickness which is inefficient and difficult to uncap. Wide bottom bars are a must. I have found that after the comb is drawn out the addition of top and bottom bar wideners, in the form of pieces of old Venetian blinds, encourage flat comb building, to well over an inch thick, which is easy to uncap.

Next time I propose to talk about the various frame sizes, and the hives they go in, being aware that generally speaking we are all quite happy with what we currently use. Controversy is not my aim, although interest and comment are always welcome.



Tendring Wax Day



Topical Tips for May 2009
PREVENTING CONGESTION IN RELATION TO SWARMING
Margaret Thomas

Swarming usually starts in May.

A colony will not usually swarm until sexually mature drones are present.

The drone life cycle is 24 days from egg to adult, of which 13 days are sealed in the cell. On emerging the drone takes 2 weeks to become sexually mature.

Hence the first possible swarm can emerge about 4 weeks after the first drone cells are sealed.

Golden rules to prevent swarming:

Don't let the bees feel congested – inspect regularly and act decisively.

Keep young queens – no more than 2 years old.

Keep stocks of a low swarming strain – don't raise queens from colonies that have swarmed with a young queen.

Preventing congestion:

The queen should always have room to lay eggs.

She starts laying as the days increase in length, laying only a few eggs a day and rises to a peak in early summer. She will lay from 1,500 to over 2,000 eggs a day, depending on the race, strain and age of the queen.

There are 5 worker cells to the inch, 25 to the square inch.

A Commercial Hive frame (16" x 10") contains effectively 3,500 worker cells on each side. Given that not all the frame is in use, as it contains honey, pollen, misshapen cells, may not be drawn fully to the bottom bar, old queen cells and other blemishes, the queen could lay up one side a day.

The combs in an 11 frame brood chamber have 22 sides. Laying up one side a day, the queen could lay up all the frames in 22 days.

Worker bees emerge in 21 days, so it is possible that a good queen in full lay may run out of comb space, with the queen held up waiting for brood to hatch.

This becomes even more critical with prolific queens in smaller hives such as the National (11 frames of 14" x 8½")

The skill is in reading the colony and being able to spot this happening and give more space.

This can be done in a number of ways.

—You could **add another box of frames** to be used as an additional brood chamber, called a double brood if two boxes of the same size are used, or brood and half if a super is used to provide the additional space. The disadvantage is that you now have 22 frames to inspect instead of 11. Some of the honey crop will be stored in this top box, and not in a super accessible for extraction. However some say that by splitting the two boxes you detect queen cells easily as they often hang from the bottom bars of the top box, but on the other hand you may miss some placed elsewhere!

—Another method is to **remove frames of sealed hatching brood** and adherent bees (but not the queen) and make up nuclei, or give them to a small colony needing boosting.

Cont. page 10

The donor colony seems to suffer no ill effects from this frame removal and replacement frames are soon laid up. Always ensure the replacement combs are drawn comb, as foundation would put a brake on the space available to the queen and actually cause congestion. If no drawn comb is available, then use the rising heat from the brood nest by placing the foundation in a second box above the original, with about 7 frames with brood in the lower box and one frame of brood surrounded by foundation in the upper. It is not ideal, but the foundation will be drawn faster and more evenly this way.

Removing younger bees from the brood nest:

—Super as early as the weather will allow. There is a need for space for bees at this stage, space for honey comes a little later. If you are not sure about the weather, place the first super over a sheet of newspaper with some holes in it (above a queen excluder). The bees will chew their way through. This super could also be placed above a crown board (one with holes). Encourage the bees upstairs by using some comb with a little honey in it, or comb that has been stored 'wet' over the winter period. 'Wet' comb is comb that has been extracted and not given back to the bees to clean. The combs will have a film of honey on them and be very messy, but the bees love them.

—Especially in areas where oil seed rape is grown, keep adding supers well before the bees need them, that is when the cluster of bees covers more than half of the combs. Bees need space to store the dilute nectar as they process it into honey. For example the water content of rape nectar is about 65% and in honey less than 20%, so nectar will take up more room than ripe honey.

—Two supers can be added at once. Remember a good colony can fill a super in less than a week in good weather during a nectar flow.

—Fresh supers can be added under the old one – called undersupering. This gives instant room for house bees to unload nectar. Placing fresh supers on top of the old one is called top supering.

—Give them foundation to draw, this gets young bees out of the brood nest. A full super of foundation, or even a super with some foundation should be placed above the brood nest (undersupered) where it is warmest. As they draw the comb move the completed ones to the outside where it is coolest. One word of warning, don't give them a full super of foundation as the very first super to go onto the colony, as bees will be reluctant to leave the brood area for foundation. Unfortunately beginners with new equipment may not have a choice.

THE TEN DAY INSPECTION SYSTEM.

Making it easier:

Mark the queen, she will be easier to find. Clip the queen.

Having a clipped is an essential part of the '10 day inspection' system

Normally the old queen will depart with the swarm as soon as the first queen cell is sealed. If the queen is unclipped, the swarm will issue and you lose half the bees in the colony plus the queen. If the queen is clipped the swarm can still issue, but as the queen is unable to fly, she will get lost.

The swarm returns home as soon as 'mother' is found to be missing – in less than an hour.

The queen is lost, but not the workforce, and the swarm will not have been a nuisance.

The next time that colony is able to swarm is with the a virgin queen 8 days later.

Thus if on inspection queen cells are found and destroyed by the beekeeper, the colony will make emergency queen cells using worker larvae up to 3 days old.

The earliest that colony can swarm, remember the old queen cannot fly, is with the first virgin in 10/11 days.

The calculation is as follows:

3 days as egg, using a 3 day old worker larva, cell extended and fed as queen = 6 days. The cell is sealed 2 days later = 8 days.

Virgin queens emerge 8 days later on the 15/16th day from the laying of the egg - that is 9/10 days after your inspection.

She usually takes another day before she flies = 10/11 days, hence the name for the system

The 10 day inspection system allows the beekeeper to act to dissuade the bees from swarming by taking action, such as the artificial swarm, once queen cells are discovered in the brood chamber.

Tending Wax Day

Leonie Henderson

This was the first every Wax Day I had managed to attend in Roger and Penny Barker's car denuded garage. As we arrived we were welcomed by the smell of hot wax and candle moulds together with metres of different sized wick. Even a confused bee came to investigate. Help and advice was at hand in the form of the resident Barker team with Martin Frostick and Lydia Geddes overseeing the wax filtering cauldron.

About a dozen of us were soon beavering away dipping pairs, or single, candles, filling moulds to create candles resembling beehives, pine cones or skeps as well as square, hexagonal and round ones both tall and short. Night lights and wax blocks were also made.

Breaks in the industry were taken through the non-stop supply of tea and coffee with a delicious and nourishing soup served up for lunch.

Roger gave demonstrations of how to make your own foundation using a piece of plywood, plastic foundation moulding and an old fashioned wringer but I think I might stick to buying in my foundation!

Thank you to Roger and Penny and their helpers for a thoroughly enjoyable day and I look forward to the next one.

QUALITY OF HONEY MEASUREMENTS: 3 ~ COLOUR

From HoneyBee Times, Journal of the Wiltshire Beekeepers Association

This is the third article in a series on quality of honey measurements that a keen amateur beekeeper, or any other interested person, could make. The first in the series focused on the water content of honey. The second concerned electrical conductivity and that a high value might be associated with honeydew honey. This article is concerned with measurement of colour.

Colour is not a required standard in the Regulations. However, it is of interest to the honey producer and impacts on aesthetic quality. The colour of raw honey depends on the plants the bees gathered the nectar from. Colour tends to darken with age or change according to the production methods and treatments applied by the beekeeper e.g. use of old frames, contact with metals, storage temperature, exposure to light. In particular, honeydew is dark partly due to the nature of the additional sugars present. Colour is measured as the optical density (absorbance) measured with light of wavelength 560nm (as used in the US) or 530nm (by Lovibond). The device (Palintest) I had available allowed me to measure light transmission, and hence absorbance, at the wavelength of 570nm. These wavelengths are in the yellow range. Classically, colour is graded according to the Pfund scale, which is based on caramel coloured solutions of glycerin. However, there are six internationally accepted standards of caramel and so far I have not established which caramel and its dilutions are used for making a set of standard colours to the Pfund scale. Colour is easily measured with a photometer rather than by subjective visual comparison with a set of standard solutions or glass standards. Suitable disc comparators cost about £150 and simple photometers are relatively expensive starting at about £400 each. Generally, the darker the honey then the richer is the flavour. However, other than by actual tasting, there isn't a ready way to characterise flavour.

Colour has to be measured for a clear solution, i.e. a clear run honey. The presence of crystallised honey, suspended particles and air bubbles interfere with the transmission of light through the samples. To date I have measured the colour of 32 samples of honey. Thirteen of the samples were from different batches I had extracted the 2007 season or so from my own colonies, 4 samples of other local honeys and 15 samples of 'exotics', which I had obtained over the years. *Cont. page 13*

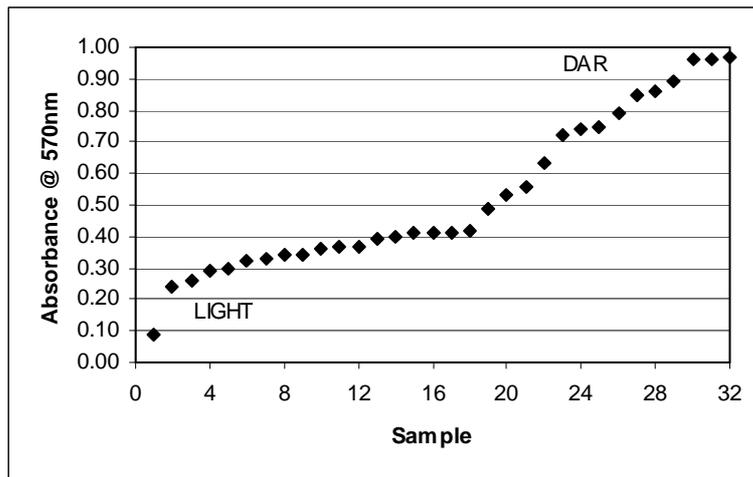
Brown Beekeeping Supplies
A WIDE RANGE OF ITEMS IN STOCK
Open Evenings & Weekends by Appointment Only
Phone/fax: **01277 841048** Mobile: **07710 178588**

**SUNNYBROOK FARM, WELL LANE, STOCK,
ESSEX CM4 9LX**

The results of the measurements are given in the following table and graph. The results are arranged in order of increasing colour intensity (absorbance).

For the sample of measurements represented, the very sharp change in the middle of the graph of the results reflects a bimodal distribution, i.e. the results fall into two groups. One group are the lighter coloured honeys, with absorbance less than about 0.45, and the darker coloured honeys, with absorbance more than about 0.45. Some of the higher absorbance values measured might have been a consequence of interference to light transmission. Never-the-less, in general, most of the local honeys had a low colour value whereas most of the 'exotics' had high colour values. The reason for these two groups is unclear providing it is not simply due to interference of light transmission by particles. It is noted that the local honeys were 'new' whereas most of the 'exotics' were older. The Turkish forest honey being the darkest is not surprising because it is substantially a honeydew honey (see Part 2 in this series). However, of the two other honeys with relatively high electrical conductivity values (and hence possibly containing a large proportion of honeydew), the NZ Rata honey is in the low colour group and the Sabah honey although in the high colour group has a relatively low absorbance value.

Cont. page 14



PETER DALBY—PEBADALE APIARIES

Agent for EH Thorne and Northern Bee Books

Also Apitherapy Supplies and advice

Large stocks held; any item to order; competitive prices

37, Cecil Road, Cheshunt, Hertfordshire. EN8 8TN

Tel/fax: 01992 622645

Open Mon—Sat (any reasonable time) Telephone before calling. CLOSED SUNDAY.

Sample	Absorbance	Sample	Absorbance
Eastleach Melilot	0.09	Santa Cruz	0.41
Indonesian light	0.24	784M	0.42
7711F	0.26	791G	0.49
786F	0.29	Welsh Heather	0.53
Eastleach Spring	0.30	Dark05	0.56
Fresh12/10/07	0.32	Sabah	0.63
771G	0.33	Lithuania 03	0.72
762W	0.34	Arabic	0.74
774M	0.34	RY Ivy	0.75
NZ Rata	0.36	French lavender	0.79
765M	0.37	US Fireweed	0.85
US Dandelion	0.37	RG Ivy	0.86
Portugal rosemary	0.39	Manuka 10+	0.89
782W	0.40	Indonesian dark	0.96
787M	0.41	Buckwheat	0.96
US citrus	0.41	Turkish forest	0.97

Cont from page 13

Although some honeys when fresh are naturally dark, the distribution of the results from the measurement of colour suggests that some honeys may be more prone than others to become darker with age.

(Ross Gregory, Swindon)

Wanted:
Second hand national hives
or parts,
anything considered.
Phone Chris on 01255
254548
193 Burrs Rd
Clacton-on-sea CO15 4LN
www.ecodiy.org

TERRY BIRD
BEEKEEPING SUPPLIES
 14 Ashmere Rise Sudbury CO10 2QE
 Email: terence.bird@hotmail.co.uk
 Tel: 01787 376174 or 07891 632926

*A complete range
of Beekeeping
equipment and
sundries readily
available at
competitive prices.*

Simply the best



Thornes...helping beekeepers keep bees



E.H. Thorne (Beehives) Ltd
Beehive Works, Wragby,
Market Rasen LN8 5LA
Tel 01673 858555
fax 01673 857004
sales@thorne.co.uk
www.thorne.co.uk



THE BACK PAGE



Photos found on the front and back pages taken by Howard Gilbert

