

July - September 2016

# BUZZWORD

Ayr & District Beekeepers Monthly Newsletter



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## *President's Message*

Autumn is now upon us. The rowan trees are ablaze with colour, the brambles are out and the apples are dropping from the trees. You will no doubt have your honey crop jarred and stored and are thinking of preparing for the winter.

A number of us are still hoping to restore the fortunes of a meagre season by taking hives to the heather. This is a new experience for me and I will keep you up to date with events.

At the invitation of Lord Home, we deposited around ten hives on his estate near Douglas two weeks ago. To reach the site entails an adventurous ride along a rutted track deep into the hills. At our last visit there was evidence of nectar and pollen going in and with four weeks of the heather season still to go there is a fair prospect of a reasonable honey crop.

On a different tack we are making good progress on a combined meeting with the SBA next September to mark our centenary year. This will definitely be a date for the diary.

As ever wishing you good beekeeping. Don't forget to check your varroa count.

Best Wishes.

Alan

*Club President*

## UPCOMING EVENTS:-

Saturday 17<sup>th</sup> September  
Association Apiary (Prov)  
1:45pm for 2pm start

Sunday 24<sup>th</sup> September  
Harvest Festival, Dean  
Country Park,  
Kilmarnock 10am – 2pm

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## *Ayr Flower Show*

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The weather was very kind to us this year making for another successful Flower Show where we were able to stage all our open hive demonstrations. The rain stayed away until about 3 minutes to packing up time, and then the heavens opened for the next three to four hours.

The show organisers were very generous offering us plenty of space and a much better position for our honey shop this year, the open hive area was also moved closer to the tent, but this did cause us some issues!

We had a lovely bee friendly garden on show again, and a big thanks go to Helen, Jane and Fiona for all their efforts in providing and arranging the plants and to Phil and Elliot for all their lifting and building work.

The open hive demonstrations proved very popular – as they always do – and were very well attended, the bees were very well behaved and only stung Chris once all weekend! A new feature this year was a skep making demonstration and Donna was showing off all she had learned at the skep making course earlier this year.

We had lots of entries into the honey and wax classes of the competition and for the second year were qualified for the Blue Riband for having over 100 entries (106 in total) which is awarded to the best in the show. Judging this year for the honey and wax classes was Enid Brown and for baking classes was Nancy Thom.

This year's trophy winners were -

Open Trophy – Christine Matthews (Most points for anyone entered)

Club Trophy – Lindsay Baillie (Most points for a member of Ayr Beekeepers)

Harry Scott Trophy – Anne Fairlie (Best in Show – Bottle of Mead)



Lindsay Baillie (L) and Christine Matthews (R)



Bee Friendly Garden



Skep Making

**QUESTION OF THE MONTH:**

What is the following item?



**LAST MONTH WE ASKED**

How many wax glands does the worker honeybee have?

The Answer – 8



Judging



Wax Entries



Honey Entries



Improvised Raincoat

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## *Last Month's Question*

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Last month we asked - How many wax glands does a worker honey bee have? Answer 8

The bee in Debbe's photo had secreted four to eight layers of wax. The layers hardened one atop the other to give the very thick, blocky looking scales in her photo. It's interesting to see the normal condition next to a very unusual one.



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## *Extreme Beekeeping – To the Heather!*

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8 intrepid beekeepers have taken hives to the heather near Muirkirk. We will report on our experience in the next issue. In the meantime some photos:



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## *A new method for observing honey bee behaviour*

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Observation hives have been used to study the behaviour of honey bees since the pioneering studies of François Huber in the 18th century. Observation hives generally consist of glass walled hives containing a small number of combs and bees. A frequent objection to their use is that they are usually housed and observed in daylight or artificial light, in contrast to the darkness of a natural bee nest. It has therefore been a criticism that results obtained using observation hives may not always represent normal behaviour. In a new study published in the *Journal of Apicultural Research*, Kaspar Bienefeld and colleagues from the Institute for Bee Research, Hohen Neuendorf, Germany, outline a new method for the long term undisturbed observation of bee behaviour under infra-red light, which minimises these problems.

Their novel setup comprises a glass walled observation unit consisting of a single comb containing a queen bee, workers and brood, together with an infra-red camera unit, and a supporting unit consisting of many combs of bees which is contiguous with the observation unit via a wire gauze. The supporting unit provides the normal temperature and humidity conditions of a complete colony, ensuring that conditions remain as normal as possible.

As an example of the use of this technique, the authors studied so called “hygienic behaviour”, whereby bees genetically disposed to being hygienic, remove diseased pupae from the hive, in this instance due to infestation by the parasitic mite varroa. Although it has previously been clearly demonstrated that hygienic bees will remove pupae infested with varroa, the mechanisms whereby the bees identify that the cells are infested have remained unclear.

As described in the paper, the results of this study provide support for the hypothesis that bees are using foreign odours to detect the varroa mites and remove them from the hive.

IBRA Science Director Norman Carreck says: “This new technique will allow researchers to study undisturbed honey bee behaviour, and will have many uses in bee research”.

Press release IBRA 13/7/16

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## *Neonicotinoid insecticides can serve as inadvertent insect contraceptives*

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There is clear evidence for sublethal effects of neonicotinoid insecticides on non-target ecosystem service-providing insects. However, their possible impact on male insect reproduction is currently unknown, despite the key role of sex. Here, we show that two neonicotinoids (4.5 ppb thiamethoxam and 1.5 ppb clothianidin) significantly reduce the reproductive capacity of male honeybees (drones), *Apis mellifera*. Drones were obtained from colonies exposed to the neonicotinoid insecticides or controls, and subsequently maintained in laboratory cages until they

reached sexual maturity. While no significant effects were observed for male teneral (newly emerged adult) body mass and sperm quantity, the data clearly showed reduced drone lifespan, as well as reduced sperm viability (percentage living versus dead) and living sperm quantity by 39%. Our results demonstrate for the first time that neonicotinoid insecticides can negatively affect male insect reproductive capacity, and provide a possible mechanistic explanation for managed honeybee queen failure and wild insect pollinator decline. The widespread prophylactic use of neonicotinoids may have previously overlooked inadvertent contraceptive effects on non-target insects, thereby limiting conservation efforts.

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### *Strength through weakness*

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The processes by which Asian honey bees (*Apis cerana*) survive varroa infestation better than Western honey bees (*A. mellifera*) have been examined by an international team of researchers and published in the journal *Scientific Reports*. The key appears to be that *A. cerana* larvae die more quickly once infested and are then hygienically removed from the colony, preventing an increase in the mite population, in a process known as altruistic suicide.

Extract from BBKA Newsletter.

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### *In America - Minnesota sets broad limits on chemicals blamed for bee decline*

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Minnesota's governor on Friday ordered the broadest restrictions yet in a US state on the use of [agricultural pesticides that have been blamed for hurting bees](#), fuelling concerns that farmers there will not be able to protect crops from insects.

Governor Mark Dayton issued an executive order that requires farmers to verify they face "an imminent threat of significant crop loss" before using the chemicals, called neonicotinoids.

Details of how farmers would prove their need have not yet been determined.

[Minnesota](#), the country's third-largest soybean producer, carried out a special review of neonicotinoids that prompted the new limits, the first US state to do so.

Honey bees have been in serious decline in the US for three decades, threatening billions of dollars in crops. In recent years, their death rate has become economically unsustainable, according to the government.

A survey of more than 20,000 honey beekeepers conducted by the Department of Agriculture and released in May showed there were 2.59 million or 8% fewer honey bee colonies on 1 January, 2016 than the 2.82 million a year earlier for beekeeper operations with five or more colonies.

Removing the pesticides would leave farmers more dependent on a smaller number of chemicals to control bugs, said Seth Naeve, an extension soybean agronomist for the University of Minnesota, thereby making it more likely that pests would develop resistance to those chemicals.

“We’re concerned about losing tools and a lack of flexibility to address issues,” said David Kee, director of research for Minnesota Soybean Growers Association.

Farmers said they hoped other US states would not follow Minnesota’s lead.

Paul Schlegel, director of environment and energy policy for the American Farm Bureau Federation, said the governor was “restricting the ability of farmers to use all the tools the EPA has said they can use”.

“I don’t think that we’re aware of any other state that’s going to start taking away tools from farmers,” Schlegel said.

From the Guardian - <https://www.theguardian.com/environment/2016/aug/27/plan-bee-minnesota-sets-broad-limits-on-chemicals-blamed-for-bee-decline>

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## Picture of the Month

*Bumblebee on our Bee Friendly Garden at Ayr Flower Show*

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