The Beekeepers Quarterly

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95 year old Cephalonian beekeeper, Valentinos, amongst his bees during the 47° C heatwave earlier this summer. He has experienced only four summers when temperatures remained high for so long.
*Photo - John Phipps*

The Editor welcomes articles for inclusion in the BKQ, but please state when submitting a ms if it has been sent simultaneously to any other magazine or journal



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# Contents

# Editorial

## *Heather Honey*

Duiring my thirty years of beekeeping I have derived most of my pleasure in the craft in my attempts to secure good crops of heather honey. Derbyshire, the North Yorkshire Moors and Nairnshire, have been the locations of some of my heather stances and, as is the experience of others, my fortunes have varied enormously from year to year and from place to place. Whilst refining one's method of managing the bees helps to improve the chances of returning from the moors with a full load, all too often the weather lets the best prepared of beekeeper's down. Nevertheless, the journey to the moor each year finds me full of optimism and once the bees are settled and foraging, that first whiff of the scent of heather nectar emanating from the hive, gives me a feeling of expectancy.

Undeniably, heather going is hard work. Even then, though, our method of getting our bees to and from the moors and dealing with the crop, is much easier than our predecessors experienced. However, for the lone beekeeper, as I often was on some trips, much physical effort is demanded and, when things go wrong, coping on your own can be very traumatic. Often, hives have to be carried over rough ground or lifted over fences and both the weight of the hives and their awkward shape make this a difficult task. Even if you normally really like working by yourself, I would suggest that whilst transporting bees anywhere, it always pays to have some one to accompany you.

This issue of the BKQ is a 'heather special' and within these pages I hope that readers will gain some insight into the problems affecting the environment from where the honey is sourced as well as picking up some tips which will help with their own management.

Whilst I do not want to preempt other contributors on this subject, my advice to all potential heather-goers would be:

1. Find a suitable location, in the sun, but sheltered from cold winds and safe from sheep or people - and arrange everything with the owner well in advance of the heather blooming. Remember, if you have to go through field gates, they may be dry in summer, but when returning from the moors this area is usually well-paddled by livestock and may quickly bog down a vehicle or trailer.

2. Stocks over-flowing with young bees and a young queen are essential. Tired clapped out colonies will only lead to disappointment and frustration.

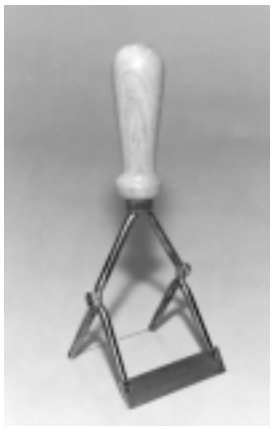
3. Try and have the area where the honey is to be stored well insulated, so carry any extra crownboards, blocks of foam, whatever, to replace the screenboard on arrival at the moors.

4. Freshly-built comb, empty of honey, will help to get stores packed in quickly. Combs from oil seed rape could be used as long as the bees have cleaned them out thoroughly. (There is nothing worse than having good combs of heather which granulate because they are seeded with such honey).

5. Prepare your bees the night before and set off as early as you can in the morning. You are working with the light that way and not fighting tiredness.

6. There is no excuse today for bees to escape from hives. Foam, straps and well made screen boards allow beekeepers to shut up the bees safely whilst giving them adequate ventilation. However, sometimes the journey can be longer than the beekeeper anticipated due to circumstances out his control. To stop the bees over-heating have some bottles of water to hand and sprinkle about a cupful at a time over the travelling screen.

7. Once at the moors make sure that all hives are in their desired positions before removing entrance blocks or foam - and count these so you know that all hives are opened.



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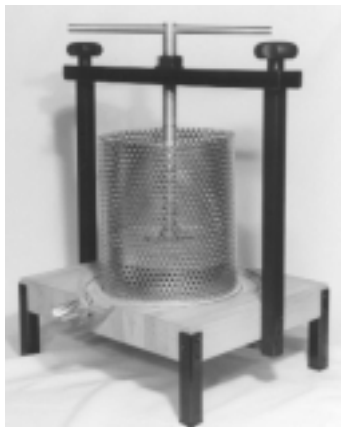

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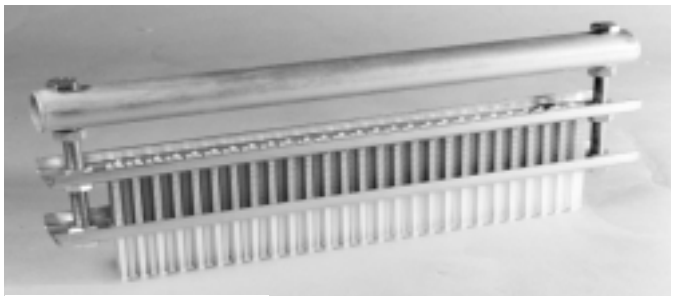

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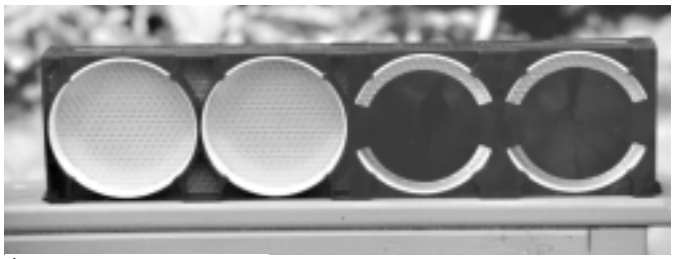

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Some useful items for heather honey production (see notes in text)

Colin Weightman inspects a colony of his over-wintered Northumbrian Heather Bees - developed over fifty years ago for comb honey production in the Northern pennines - from stock obtained from Robson and Cessford's Riding Mill Apiary in the Tyne Valley. March 1999. Looking on is present day Riding Mill beekeeper, Philip Latham, Liberal County Councillor.

8. It is a good idea to remove any hive straps. If there is a possibility of colonies being stolen don't make the thief's job easier. I know of some beekeepers who have a couple of holes in a floorboard into which corks or plugs have been fitted. These can be removed after travelling so that any unsuspecting thieves would soon be foiled in their attempt to take them away.

9. Once the bees are on the moors, don't forget about them. Make sure you know how the weather is faring and be prepared to go back and feed them - or to add more supers.

10. The time of flowering and the main nectar flow changes from year to year. Ensure your bees are ready if the flow is early - or be prepared to keep them on the moors longer than you anticipated.

Heather-going gives beekeepers the opportunity to produce a highly-marketable commodity with a premium price. There is never enough heather honey, whether in the comb or in the jar, and in a good year beekeepers are well-rewarded for their efforts.

Beekeepers wishing to explore the subject of heather honey production in more detail than we can allow in these pages are recommended to obtain a copy of 'Heather Honey', by Colin Weightman (NBB, Nutshell Booklet) or Stanley B. Whitehead's 'Bees to the Heather' (out-of-print, but sometimes available from bee book dealers). From a more nostalgic viewpoint there is Herod-Hempsall's 'Beekeeping Old and New' which is very well illustrated and, again by Colin Weightman, 'Border Bees'.

The photos show a wealth of equipment is available for beekeepers to take advantage of the heather - here a selection of just a few items from Thorne's latest catalogue:

**1. Smith Cutter/Scraper** A dual purpose tool for getting heather honey out of the comb. The tensioned wire is inserted into the honeycomb at one end of the frame and drawn downwards. The tool is then reversed so that the remaining honey and wax can be scraped from the midrib of the comb.

**2. Economy Heather Press** (New for 2000). On a 14" square, 2" deep base, this stainless steel basket has a size of 10" high and 9" in diameter.

**3. Hand heather honey loosener** - works on the same principle as the perfor-extractor - the nylon needles are spring loaded.

**5. Heather Press bag** - made from linen scrim - will hold three deep BS combs, or 6 shallow ones.

*Contact Thorne's for prices: 01673 858555, email sales@thorne.co.uk*

For the purist, heather honey is best straight from the honeycomb. The **Ross Round section frame** and **CirComb Rings** (Photos, 4, 6 & 7) make a truly professional package for discerning beekeepers and their clients. CirComb produce the round rings, to fit the Ross Round frame, as well as the covers, foundation and labels. They have also collaborated with Stanfordham to produce a section rack for the frames, thus simplifying the whole process of working for sections (and as recommended by Eugene Killion in his book 'Honey in the Comb). One of the virtues of round comb production, compared to traditional wooden ones, is that more sections are likely to be completed. The finished combs are eye-catching and will look good on any beekeeper's honey stall.

*CirComb, 29 Glamis Road, Dundee DD2 1TS, Tel. 01382 660802*

## Pastures New

By the time this issue leaves the printers, my wife and I will be on our way to Greece. Our house has been sold, my bees have been disposed of and we will be making our new home in the Peloponnese. Whilst it is difficult to leave friends and family after 27 years in the same area, we are looking forward to exploring the Mani,where our house is located in the village of Neochori, just above the coastal resort of Stoupa. The region is famous for its Kalamata olives (many of the growers turning now to organic production) and, as well as the spring flowers and citrus fruits, there is an abundant source of nectar from the mountain herbs, particularly thyme, in the 8000' Taygetos Mountains, to the north-east. Neochori has a strong tradition of beekeeping and in this area there are several good examples of bee walls which accomodated upto a dozen or so colonies. Needless to say, we are looking forward to keeping Greek bees and working for different types of honey (especially after dealing with oil seed rape for 28 years) and meeting the beekeepers in this area.

As regards the BKQ, I'm confident that things will continue as before, despite my change of location. The vast majority of copy comes to me electronically, and given the rapid progress in technology, transfer of material on to the designer and publisher should present no difficulty. I am pleased, though, to receive material in any form and contributions can be made in the way which suits the author's own circumstances. We hope to be back in the UK two or three times a year and to be present at some of the main beekeeping events where we will be pleased to meet subscribers to the magazine.

## BKQ Online

With the establishment of a new web page for beekeepers, www.beedata.com, it is hoped that pages both from the BKQ and Bee Biz, as well as a wealth of other material of interest to beekeepers, will be on-line quite soon. It is hoped that beekeepers will feed other links for inclusion on this site via the webmaster, Steve Turner, beeman@zbee.com

Comments on articles from either magazine will be welcomed and, hopefully, open up some lively discussion. Please help to make this a useful utility for beekeepers everywhere.

## Working on the Hoof

The above heading would best describe how this latest issue of the magazine was put together, so I would like to apologise now for any oversights or non-inclusion of any submitted material. Part of the work was done in Toulouse, Prague Airport (a long wait), Greece (47C!), amongst packed boxes and removal men (and Central TV camera crew), my sister's home and a friend's retreat amongst the Shropshire Hills*. Without a quiet time at the last two locations I doubt if I would have managed to get the BKQ finished in time, so I am indebted to those who made me so welcome whilst I was 'homeless'. I left Shropshire just as the ling was turning pink on the Long Mynd, and if anything could have persuaded me to linger longer, that certainly would. Let's hope that after the appalling weather of most of this summer that beekeepers get a plentiful harvest from the moors.

*John Phipps, July 2000*

*Sally and Glyn Tudor welcome guests (with dogs) for bed and breakfast with a 5% discount for beekeepers and vegans. Their home was once a water mill and they provide comfortable and friendly accommodation in a peaceful location. They can be contacted at Lost Leet Mill, Hopton Heath, Craven Arms, Shropshire SY7 OQB. Telephone: 01547 530384

# ASSOCIATION NEWS

## BUSY SCHEDULE FOR BEES FOR DEVELOPMENT

The start of the new Millennium has been a busy time for Bees for Development with plenty of activity devoted to their aim of promoting beekeeping in developing countries.

Celebrations in March, when Nicola Bradbear was presented with the prestigious AAA Award for her contribution to Asian apicultural development. The presentation was made by Thailandís Minister of Agriculture at the start of the 5th AAA Conference, held in Chiang Mai, Thailand.

Bees for Development joined with the Tropical Agricultural Association in April to organise a one day Seminar on ìThe Role of Beekeeping in Development Programmesî. The meeting took place at Long Ashton Research Station near Bristol and the participants listened to a programme describing many beekeeping projects around the world by speakers from DR Congo, Kenya and the UK. There was also a presentation on GM crops and their relationship with bees and beekeeping.

Another in the Bees for Development ìHelping People Overseasî series of courses took place in June in the village of Trellech in South Wales. The setting encouraged an active day of discussion and explanation about development, and how well beekeeping fits in as a means of improving livelihoods. Participants enjoyed a lunch comprising only fair-traded and local produce: of course this meant there was plenty of honey for tea!

In September Bees for Development invites you to take part in an International Symposium on Sustainable Livelihoods: Exploring the Role of Beekeeping in Development. The Symposium is being organised jointly with the Centre for Development Studies at Swansea University. An excellent opportunity to learn more about beekeeping and its association with sustainable livelihoods. International speakers and case studies from Africa, Asia and Central America will augment a programme which will be educational and very enjoyable. The dates are 18-20 September 2000 and early booking is recommended, so please contact Bees for Development as soon as you can.

## THE TROY TRUST

Since its foundation at the beginning of the year The Troy Trustees have been busy gaining support for its work. Already hundreds of beekeepers in developing countries have benefited from information provided through The Trust and a lot more activity is anticipated during the year. If you can support The Trustís work contact is assured c/o Bees for Development.

PS: There is still an opportunity to join this yearís Beekeepersí Safari to Tanzania mentioned in the Spring edition of Beekeepersí Quarterly. Contact Bees for Development now if you want to go.

*Bees for Development*
*Troy, Monmouth, NP25 4AB*
*Telephone 016007 13648*
*Fax 016007 16167*
*busy@planbee.org.uk*
*www.planbee.org.uk*

## BEES ABROAD ADDS ANOTHER PROJECT

They say that good news spreads. The Kom Beekeeping Project in Cameroon was one of the original projects supported by Bees Abroad. This project has been going from strength to strength with local trainers becoming established in the area, building up expertise among the local beekeeping groups.

Recently, Bees Abroad was approached by others from Tombel and Bangem in South West Province, Cameroon. These beekeepers had heard about the Kom Project and wanted to know if Bees Abroad could help them in a similar way. After discussion, a small, three-year project has been agreed, and funding is being sought. It is planned to start the project in January 2001, with initial training being given by teachers from the Kom Project. Further details will be reported to members in the Newsletter.

Following the success of our Prize Draw in 1999, Bees Abroad is RAFFLE 2000! You can support our work and have a chance of a cash prize. 1st prize is £250, 2nd prize is £100 and 3rd prize is £50. However, the guaranteed winners are beekeeping groups in developing countries. Tickets are 50p each, with a book of five for £2.50. Send your name and address a cheque for your tickets (payable to Bees Abroad) to Claire Waring, Stoneycroft, Back Lane, Little Addington, Kettering, Northamptonshire NN14 4AX, and she will put the counterfoils in the draw and send you the tickets. We would like to thank the National Honey Show for allowing us to hold the draw there on Saturday 18 November.

As reported in Beekeepers Quarterly, No 60, Spring 2000, Bees Abroad was granted registered charity status (No 0179266) in February 2000. We are very excited at this achievement and believe that it will help to gain support for our overseas beekeeping projects. 'This means that our aims have been accepted under UK charity law and that Bees Abroad will be recognised by the funding agencies it approaches.' said the Chairman, Jeff Bee. 'It also means that anybody wishing to support us can do so through Gift Aid, ensuring that the UK government adds its support too!'

*Details of membership and gift aid donations are available from Pam Gregory, Honorary Secretary, Pentrebwlen, Llanddewi Brefi, Tregaron, Ceredigion SY25 6PA.*

## CONBA(UK) COUNCIL OF BEEKEEPING ASSOCIATIONS IN THE UNITED KINGDOM

### Brother Adam Memorial Trust

Patron: The Abbot of Buckfast Abbey

**2000 AD The Trust is Established**

The four years since the death of Brother Adam has seen a continuing interest and discussion of the merits and achievements of this most revered beekeeper of the 20th century.

The members of CONBA(UK) have established this year a fitting memorial to the memory of this great cleric and apiarist. Our target is ambitious, but not as daunting as the challenge faced by Brother Adam almost a century ago. He wanted to improve the qualities of the honeybee at first in the Buckfast Abbey hives, then those throughout UK. Eventually he influenced bee breeders around the world and gave many ordinary beekeepers in many countries, on both sides of the Atlantic Ocean and of the Equator, a bee that is clean, calm, productive and healthy. The target of the Brother Adam Trust is to raise at least £50,000.

The study of genetics, particularly bee genetics has moved on considerably in recent years. Some say the Buckfast bee is not appropriate now for modern com-

mercial methods and in todays changed forage areas. However, I know that around the world many beekeepers still keep the Buckfast bee and revere its qualities. On a recent visit to the Buckfast Home apiary, visitors from the Seale Hayne Conference of Devon Beekeepers Association were shown the Abbey hives and wondered at the gentle and co-operative nature of the bees. Few visitors wore veils.

Brother Adams true legacy is that he still inspires beekeepers to achieve what he did. He developed a strain of bees that consistently showed the characteristics that he considered important. The proceeds from the Fund will be used to support advanced training for committed beekeepers from anywhere in the world so that they can be better prepared to develop beekeeping in their home country. There is an enormous growing demand for honeybee products all around the world. It should be possible for many countries, rich and poor, to benefit from a better skilled beekeeping community and we hope that the Brother Adam Memorial Trust will contribute to that .

The Brother Adam Trust has the full support of all the UK beekeeping associations and also the support of the Buckfast Abbey authorities. The Abbot of Buckfast has agreed to be the Patron of the Trust. During the coming year we hope that support for the Trust will extend across the world and that we will have a fitting perpetual memorial for this great bee breeder.

If you have a wish to support the Trust or require further information, please contact the Trust Secretary, Glyn Davies, Landscore, Eastern Road Ashburton Devon UK TQ13 7AR. email: landscore@eclipse.co.uk or write

*CONBA(UK), National Beekeeping Centre, Stoneleigh, Warwickshire CV8 2LG.*

To emphasise the international dimension of Brother Adams influence the Trust is hoping to develop an archive of photographs, events and achievements of Brother Adam and the Buckfast Bee from around the world. If you can help this in any way please make contact.

*Hon. Secretary to the Trust: Glyn R. Davies, Landscore, Eastern Road, Ashburton, Devon. TQ13 7AR United Kingdom*

*Telephone (44) (0)1364 652640. Email: landscore@eclipse.co.uk*

## NATIONAL HONEY SHOW 2000

This year's National Honey Show will once again take place at the prestigious Kensington Town Hall from Thursday afternoon of the 16th November to Saturday 18th November. Show schedules are available from the Hon. Secretary. As well as seeing hive products at their very best beekeepers will have the opportunity of attending a range of interesting and informative lectures, meeting representatives of national beekeeping associations and the bee press and making purchases from Britain's leading beekeeping suppliers.

## APIMONDIA

The 2001 Apimondia Congress will be held in Durban, South Africa, from 2nd - 6th September - see 'Newsround' for more details.

The Commission of Apitherapy of Apimondia will launch its first CD-ROM on Apitherapy, in October, in order to support its humanitarian action. A full contents list of this can be seen on the website: www.beekeeping.com

The cost of the CD is 49 Euros each, postage paid, for a minimum of ten, or 43 Euros each for 100 or more - post paid. The reommended selling price of the CD is 76 Euros.

*Contact: Roch Domerego, Vice President of the Standing Commission of Apitherapy, Place Guy d'Arrezo 1714, B-1180 Bruxelles, Belgium. Email: roch.domerego@euronet.be*

# NEWS

## Campaign seeks to prevent the illegal poisoning of animals

A new campaign to stop the poisoning of animals, including bees, has been set up as a result of the findings of the Wildlife Incidents and Investigations Scheme (WIIS) which is operated by MAFF.

As every beekeeper will be aware, the use of agricultural pesticides can pose a risk to bee colonies if they are not used with care and in accordance with the label instructions. The Pesticide Safety Directorate (PSD), an executive agency of the MAFF, and the National Bee Unit of the Central Science Laboratory, are working together in order to highlight the work being done by both parties to reduce these risks and to remind beekeepers of the schemes and services available to them.

In the UK, before pesticide products can be marketed and used, approvals must be given by Ministers to ensure that their uses do not result in unacceptable risks to human health, wildlife or the environment in general. Within MAFF the responsibility for the assessment of these risks falls to PSD and approvals are granted under the Control of Pesticides Regulations 1986 (as amended). These regulations govern the use of pesticides in this country and place statutory duties upon spray operators to ensure that all reasonable precautions are taken to protect the health of human beings, creatures and plants and to safeguard the environment. Guidance on how operators can meet these requirements is available in the statutory Code of Practice for the Safe Use of Pesticides on Farms and Holdings (available free from MAFF Publications Tel 0645 556000), but it remains the duty of the operator to assess a situation and ensure that conditions are suitable for spraying safely.

In addition, the Code of Practice details further precautions which operators must take to ensure that bees are not affected by pesticide spray. These include liaising with beekeepers, giving adequate warnings, displaying notices and if appropriate, using 'bee friendly' products. The risk to honeybees will have been taken into account as part of the assessment of the environmental effects, initially carried out by PSD. Products that pose a high risk to bees will be labelled as such. However, during those times of the year when bees are at risk or when the operator decides to use a pesticide as 'high risk' to bees, they are advised to inform the beekeeper or to make contact with the local spray liaison officer (contact names are available from local beekeeping associations). It is most important that operators follow the label instructions closely and ensure that they do not spray where bees are foraging, ie when crops are in flower. This last instruction is clearly marked on the product label, but spraying crops in flower or when weeds are present, continues to be a key problem identified in bee poisoning incidents.

The success of the approval system depends to a great extent on an effective feedback mechanism that monitors use of approved pesticides. In order to monitor the effects of pesticide sprays on bees, the PSD co-ordinates with the WIIS. The scheme is primarily concerned with gathering information from beekeepers and spray operators about the effects of the sprays. It does not exist purely as a means of enforcing the safe use of pesticides, though successful prosecutions have been taken against spray operators who fail to comply with the law. The information gathered during a field enquiry is fed back into the regulatory system and can lead to a product approval being reviewed or revoked entirely if it is unsuitable or there are concerns over safety.

Beekeepers can be proactive and really helpful in assisting with collecting this data. If you suspect that your bees have been killed as a result of the use of agricultural pesticides, you are advised to contact either the National Bee Unit (01904 462515) or the Farming and Rural Conservation Agency (Freephone 0800 312600). The incident will be investigated, samples of your bees can be analysed for pesticide residues and you will be informed of any action that is taken. Any information that you supply will be welcomed and may assist in the formulation of more bee friendly products.

During 1998, the WIIS investigated 43 suspected bee poisoning incidents and of these, 16 involved pesticides. One particularly interesting incident from the previous year has resulted in a research project being commissioned by MAFF to investigate the potential differences in toxicity between bumblebees and honeybees to certain pesticides. The incident was investigated after a beekeeper noticed an unusually high number of dead bumblebees on a field of flowering oil seed raape. The field had been sprayed two days earlier with a tank mix of alphacypermethrin, carbendazim and iprodione but no honeybees had been affected. A sample of the dead bees was collected and analysed and found to contain a small residue of alphacyermethrin which is thought to have caused their death. The incident has been recorded as being a result of an approved use of pesticides, but as a result of the affect on bumblebees, studies have been commissioned.

## For farmers and growers - how to be bee friendly

- is the title of a full colour A2 poster given away free in a recent issue of 'Crops' magazine. The poster is sponsored by the makers of 'bee friendly' insecticides such as Aphox and gives the contact numbers ('Who do you buzz?) of spray liaison officers in England, Wales and Scotland. The poster informs farmers that a minimum of 24 hours needs to be given to beekeepers of intended spraying and also gives some guidelines on how to make both spraying and margins of fields both safe and attractive for pollinating insects. Hopefully, farmers will pin the poster up in their chemical stores and refer to it at the appropriate time.

## 'Bye Sue, Hello Geoff'

After many years of good service to the BKQ, Sue Ellison has decide that it is time that there should be a change of correspondent from Australia. Over the years we have learnt a lot about antipodean beekeeping - the forage, the dramas caused by flood and fire, the people, the humour, in fact , a huge kaleidoscope of apicultural practice from 'down under'. Whilst we will all miss Sue's contributions, I am pleased that she has approached Geoff Manning about taking over her role, a position which he has gladly accepted. Geoff has been a commercial beekeeper for 25 years and has been involved in the matters of the beekeeping industry as executive member of the New South Wales Apiarist's Association as well as its vice-president. New South Wales, he tells me, is the major beekeeping state and accounts for about 40% of Australia's honey production. However, Geoff's contributions to beekeeping are not limited to NSW for he is a delegate to the Australian Honey Bee Industry Council and to the Federal Council of Australian Apiarist's

# R O U N D

Associations

Apart from honey production, Geoff, with the help of his late wife, has built up a business which manufactures products that contain beeswax. He enjoys showing honey and beeswax and he has had good success particularly with the latter.

As Geoff lives in one of the wetter parts of Australia, he moves his bees on a regular basis into areas of Queensland where there is less rainfall.

So, thanks again Sue; welcome aboard Geoff - we look forward to hearing from you.

## Parliamentary Question– Honey and GM pollen

The response to a written parliamentary question tabled by Joan Ruddock MP has confirmed that honey, containing pollen from genetically modified crops, may be sold unlawfully in the UK and throughout the rest of the European Community.

Commenting on the presence of GM pollen in honey, Ms Ruddock said:

"No matter how small the quantity, there is a very important principle at stake here, which should not be missed. Beekeepers across the UK want to be able to offer the public a pure and natural product. The presence of GM pollen in honey is an unwanted additive, outside the control of the producers, and potentially jeopardises their livelihoods and the industry as a whole."

Written answer - Hansard, Tuesday 16th May 2000:

**Joan Ruddock**: To ask the Secretary of State for Health when, and on what terms, EU marketing consent was given for honey containing genetically modified pollen. (121699)

**Ms Stuart**: The European Commission, in response to questions from the European Parliament, has advised that honey containing trace amounts of pollen from genetically modified crops is not classed as a novel food, and may therefore be lawfully sold throughout the Community. Work carried out by the Laboratory of the Government Chemist, a report of which is available in the Library, indicates that the amount of genetically modified material in honey is likely to be extremely small, at least no more than 0.00000000003g to 0.000000005g in a 500g jar.

All GM crops intended for deliberate release in this country, and in the rest of the European Community, have to be thoroughly assessed for human and environmental safety before they are allowed to be planted. This assessment includes safety implications of any exposure to pollen through ingestion or inhalation from the air, or as a result of it landing on any other crops.

## New website for beekeepers

Northern Bee Books, the publishers of the BKQ, are in the process of establishing a World Wide Web site - www.beedata.com. - for the benefit of beekeepers and others interested in apiculture. Readers of the BKQ are asked to contribute to this site by adding information or appropriate links so as to make it an exciting world wide resource on beekeeping. Please send data to the web master, Steve Turner, beeman@zbee.com, by email, on a PC disk or as a Word document or PC*.txt.

## XXXVII Apimondia 2001 - Beekeepers meet in Africa

For the first time, the Apimondia International Apicultural Congress will take place in Africa, the location being Durban, South Africa. The main Congress themes will be:

**Beekeeping Economy** - local and international trade in bee products

**Bee Biology** - role of race characteristics in beekeeping

**Bee Pathology** - diagnosis and control of varroa disease, a new pest in South Africa

**Melliferous Flora and Pollination** - bee flora and pollination: apicultural resources

**Beekeeping Technology and Equipment** - appropriate technology for professionals and enthusiasts

**Apitherapy** - the clinical applications of apitherapy

**Beekeeping for Rural Development** - beekeeping against poverty: achieving beekeeping extension

The Congress will take place from 2nd - 6th September 2001 and there will be pre and post Congress tours so that visitors will have the opportunity to get a true feeling of the country.

For further details contact:

*APIMONDIA 2001, Conference Planners, PO Box 82, (66 Queen Street), Irene, 0062 South Africa. Website: www.apimondia2001.com Tel. +27 (0) 12 6673681, Fax + 27 (0) 12 6673680 Email: confplan@iafrica.com*

## 'Killer bees' under pressure

In South Africa, the African bee, Apis mellifera adansoni, continues to be threatened by the Cape Bee, Apis mellifera capensis, leading to the complete destruction of many colonies where the two types live side by side. According to Madeleine Beekman of Sheffield University, the Cape worker honeybees, which are being transported northwards and out of their own unique territory, "invade the nests of adosonii and start laying eggs. The adansoni bees get confused and think that their a re multiple queens, so they kill their own queen and the colony usually dies". The adansoni bees, renown throughout the world for their ability to defend their nests from the largest of predators are, however, unable to deal with the Cape bees, which commonly drift from hive to hive. (New Scientist Vol 166 No 2234)

## Green burial site amoungst the heather

The renowned beauty spot of Brimham Rocks, in NorthYorkshire, was recently featured on Radio 4 (Saturday, 29th August, 'Open Country') and listeners learned how the area was being used as 'Green' burial site. The deceased could be buried in shrouds or cardboard coffins and the relatives and friends could take part in all the proceedings including digging the grave, organising and conducting a service and the placing of a boulder or small cairn over the completed grave. Whilst it is important that the site, a conservation area, is not changed ecologically, graves have to be dug deep enough so that organic matter doesn't enrich the poor soil and, during interment, even the top soil is replaced at a lower level. A befiting resting place, perhaps, for beekeepers, who like the wild and restful beauty of this rugged area and where bees forage amongst the stretches of purple heather.

# Back to Basics

*R.Raff*

Last year I was speaking to a man who had got lost in the centre of York. He was from one of the Hebridean islands in Scotland and he and his wife were travelling to some place south of London to visit their daughter. He was lost because it was a dull, overcast day and he could not get a sight of the sun and, because he could not see the sun, he could not tell which direction was south. I said to him, "For goodness sake, don't tell me you set out on this long journey without a road map or town plan or something to guide you!" I told him that for a few quid he could have bought an electronic gadget that could have charted his course step by step, every inch of the way from the Butt of Lewis to Beachy Head. He saw nothing unusual in what he was doing and just laughed and said that all he needed was the sun and that if he could get going in a southerly direction it would not matter what road it was because it would eventually lead him to his destination. At the time I thought he really was the giddy limit, but later when I had time to reflect I began to see him in a different light. He was indeed a man after my own heart. I cannot say how he fared when he hit London with his rule of thumb solar navigation, but I like to think he was equal to the challenge and made his contribution to rolling back the tide of ever advancing technology. He was a true disciple of 'Back to Basics' and I really should not have mentioned that electronic gadget.

When I started beekeeping I was so fired with enthusiasm that I was writing off to every appliance dealer in the country for their catalogue. At that time, apart from a few main dealers, there was also a host of smaller ones and one of these was the firm of NATHANIEL GRIEVE in Edingburgh. While on holiday in that city I visited the premises but, like so many others, they have been out of business for many years. I still have their catalogue, now half a century old, and as I look at it I am struck by how few items were needed in those days to pursue our craft. When you look at E. H. Thorne's catalogue today the amount of stuff is almost bewildering. The majority of beekeepers are only interested in producing honey for their own use or for small scale selling, provided they can find an outlet. So, just how much gear do we need to get our honey? We are living in an age when we are told the rich are getting richer and the poor are getting poorer. Be that as it may, but if a person is short of a bob or two it behoves him or her to deal with this, and in beekeeping costs can be reduced. I can speak from experience. I've seen the day when there was not a penny in the house on a Wednesday and payday was not until the weekend. It was rough.

Here are a few items which come to almost £120:

| | |
|---|---|
| Asforth feeder | £27.50 |
| Hive tool | £ 7.90 |
| Gloves (cheapest) | £ 6.60 |
| Veil | £ 4.34 |
| Honey bucket | £ 3.09 |
| Smoker (cheapest) | £20.29 |
| Clip Queen catcher | £ 3.85 |
| Skep | £42.30 |
| Queen excluder | £ 4.11 |

An Asforth feeder would usually be used in the autumn to give the bees a good and quick guzzle for their winter stores. £27.50 is a lot of money for some folk to find, but there are alternatives. Say 4 or 5 2lb jam jars and the same number of saucers. The jar is filled with feed and the saucer placed over it and the jar and saucer are turned over. 3 or 4 pieces of matchstick are pushed under the rim of the jar to let the liquid flow out. The jars are placed on the crownboards with the escape holes open and soon there is a ring of bees, heads down and tails in the air and in no danger of drowning. Each jar holds about a pint and if the mixture is two pounds of sugar to one pint of water, the five jars are feeding upwards of ten pounds of syrup at ago. When trying this for the first time it is wise to have a trial run over the sink using plain water. You can usually get saucers in junk shops or charity shops. People hand them in for putting pot plants on. In the Spring a contact feeder might be better so that the bees do not have to come up out of the hive. A big coffee tin such as used in a cafe or canteen is good but it is unwise to use it for more than one season. The metal is thin and if a rusty pinhole develops the vacuum is lost and the contents pour down through the

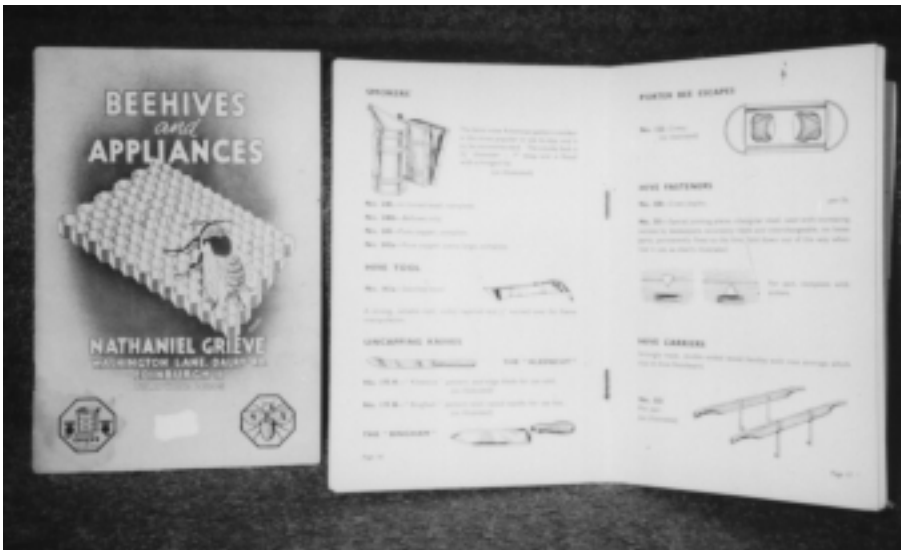



Photo 1. Nathaniel Grieve of Edingburgh's catalogue

hive and out of the enntrance.

Hive tool? You can make one or get a big chisel at a junk shop.

Gloves? A pair of rubber ones such as used when washing dishes. The bees can sting through them, but they can also sting through other types. It is quite surprising the thickness of material their sting can penetrate. You can, of course, also don a boiler suit and rubber boots if you have them.

Honey buckets? Bakers are throwing out beautiful plastic pails all the time. Glad to get rid of them - but they appreciate a jar or two of honey.

Smoker? Try getting one at a sale otherwise you will just have to cough up for a new one. I have made new bellows, but never tackled the tinware.

Clip Queen catcher? Use a matchbox.

Skep? Make one yourself or use a cardboard box for catching swarms. Frank Alston's book will tell you how to make a skep.

Queen excluder? In BKQ No 45 there is a photo of a homemade queen excluder that the editor saw at a sale. A sheet of zinc with a myriad of holes,

Photo 2. You need to be a skilful beekeeper to work sections. The magnificent sections here were from one of Colin Weightman's heather apiaries in

every two laboriously joined up. It is hard to believe that anyone would undertake such a task, but someone did. When linoleum was used for a floor covering, a square of that material would be cut to the size of an excluder and at each corner a piece was cut out giving the bees a space of about 1 1/2'"x 1 1/2" to let them up into the super. This small amount of space does not seem to hamper them in storing honey in the super.

The scope for producing honey at little cost is endless. Last summer a man phoned me wanting to know where he could get foundation for shallow frames. This was a man who had kept bees for many years but has never really got beyond the beginner stage. He was always working for sections something, strangely enough, many of these beekeepers do. However, he had now discovered shallow combs for cut-comb honey. These backward beekeepers usually live in an area where there is an abundance of forage. They can't help getting sections. The bees, indeed, would store honey in old wellington boots if they had to. Usually, you have to be a skilful beekeeper to work for sections and, if you only want honey for the table, sections can be a big waste. I think he used sections just to avoid needing an extractor and worked on a hit or miss basis. Definitely not for anyone working on a shoestring.

So, here we are with Nathaniel Grieve's simple catalogue of half a century ago and E H Thorne's bulging one of today. It once again makes me think of Samuel Goldwyn and his alledged sayings. On one occasion when he saw a sundial, he said, "What will they think of next?"

# LETTERS TO

## Access issues at Stoneleigh BBKA convention

Dear John

The BBKA Spring Convention for 2000 could be regarded as a success in many ways, but there was one aspect of the event which caused me concern.

For many years I worked with physically handicapped people and learned very quickly how hostile was the environment for those in wheelchairs. Progressive legislation to improve access in public buildings has been welcomed by both the chair-bound and their carers Wheelchairs, themselves, have improved in the last twenty years so that the very fit can travel at speeds over 30 mph by arm power alone. There are even some electrically-powered chairs which can climb stairs - a friend of mine has one but it cost as much as a small car and very few people can afford them.

The venue is on two levels and with trade stands on both. There were quite a few visitors in wheelchairs and one or two with crutches, also some parents with pushchairs. In past years there has been no problem for them because there was a wide ramp to the upper floor which allowed easy access for those who rely on wheels rather than legs. On this occasion, though, the ramp was not there, only steps. I saw no high-tech, self-propelled chairs, nor the sophisticated multi-wheeled ones which can negotiate stairs. That meant that the only access to the top hall for non-walkers was round the outside of the main hall. I do not think there was a lift.

The outside route would be bad enough under good conditions but, this year, the weather was not kind to us. On Saturday it was very cold and it rained quite a lot. On Sunday it was dry but at least as cold. There are enough difficulties for the physically handicapped without their having to go outside in inclement conditions when, after all, it is a legal requirement to have access to different floor levels in a building.

This is, of course, the responsibility of RASE whose building it is – and who, I believe, have recognised part of the problem by installing a stair lift to get to the lecture theatre. But people don't just want to hear lectures, they also want to see what the trade has to offer. After all, it's a long way to travel for many people and they deserve to make full use of what is available. Being made to be uncomfortable twice - going to and coming from the upper level of the hall - is against the spirit of the law.

But I also believe that a responsible organisation such as BBKA, which hires the building for its event, has a role to play in ensuring that their paying customers - probably, indeed, their members - are not condemned to such harsh conditions. Ignorance is no excuse, most of us have had to push prams and know how awkward it is to go up and down stairs with them, how much more difficult it must be in a wheelchair must be obvious. A reconnaissance of the building ought to have shown up this problem.

I hope that the BBKA will make representations to RASE on this matter so that next year the situation will not reoccur. The utmost consideration for the well-being of all visitors to the Convention should be the aim of the organisers.

*Yours, more in sadness than anger,*
*Mary Fisher, Leeds*

Dear Mr Phipps

Thank you for giving me the opportunity to reply to Mrs Fisher's long letter of complaint about the temporary disabled access facilities at Stoneleigh this year. She uses words like 'ignorance' and 'hostile environment' - neither of which apply; let us examine the facts.

During Stoneleigh 1999 Convention the NAC Lettings Manager informed me that extensive alterations to Stareton Hall were due to begin soon. She hoped -but could not guarantee - that these would be completed before our Convention in 2000. In December, NAC contacted me to inform that alterations were about to commence and that I could visit later when the installations were in place. At the end of January I made an appointment to visit NAC on the 8th February. On that day the manager walked the Warwick Complex with me to view the new TEMPORARY arrangements for disabled access. I did enquire whether instead of the steps (from Warwick to Stareton - Hall 1 and 2) there could be a slope, but I was told that the required gradient would render the descent dangerous for wheelchair users. Of course, I would far rather we had better disabled access, but that was not in BBKA's control.

My options were limited to cancel the Convention and disappoint 2000 visitors was unthinkable. To move to another venue equally so. To advertise the development? Well in view of the fact that BBKA and trade exhibitors had so much invested in the success of the Convention and that temporary (if not ideal) disabled access was provided, it seemed wrong to publish anything which would deter visitors. I took the decision not to do so.

I had hired a wheel chair as we usually do and, on collection, it had a slow puncture. Bill Dartnell spent 2 - 3 hours on the Friday taking it to various firms to get the inner tubes replaced. On both Convention days door stewards and the BBKA Chairman were apologising to disabled people at the entrance for the temporary arrangements and assuring them of permanent access for 2001. Also, a disabled beekeeper from Sussex wrote specifically to praise the help she'd received getting her chair from one hall to another (full details with the editor).

Looking forward now to next year, full, permanent disabled access will be as follows: to Warwick Hall by the existing ramp to the right of the main entrance. Inside, from Warwick to Stareton, access will be via the newly installed WIDE steps which have already replaced the narrow ones we experienced this year or by a lift which is almost finished. Stoneleigh 2001 will be on Saturday April 28th.

*Yours sincerely*
*Mary Dartnell*
*Convention Co-ordinator*

**Copy of letter sent to Mrs Dartnell**

"Just a short note to say how much my wife Susan and I enjoyed the Convention you organised at Stoneleigh. Susan is the lady in the yellow wheelchair, and we do appreciate all the help we received in getting her from one hall to another, as well as into the 'Computer Event'. Everyone, especially those with 'Badges On' were so helpful, opening doors and 'just' being friendly.

Susan found the work on computers an 'inspiration and brilliant', it says much that she was 'hardly aware of her disability' during those sessions. I found the talks and demonstrations exceptional. Just listening and talking to fellow beekeepers has given us lots of 'new' ideas as well as 'solving' some long-standing problems.

We stayed both days and, from a wheelchair users point of view, the second day allowed easier access rather than the at times 'frenzy' of the first.

Many thanks to everyone and heavy supers.

*John Hunt*
*Steyning, West Sussex"*

# THE EDITOR

## A revolutionary hive

Dear John,

I would like to suggest that bees do not survive in conventional hives because the brood nest is an ellipse with the major axis horizontal. This reduces the distances required to be travelled by the varroa mite during its reproduction cycle. (fig 1)

By rotating the brood frame through 90° and thus obtaining an ellipse with the major axis vertical, the distances increase and enhance the grooming opportunities sufficient to limit the mite population. (fig 2)

Photographs show an early prototype.

*Kind regards*
*Ian Rumsey*

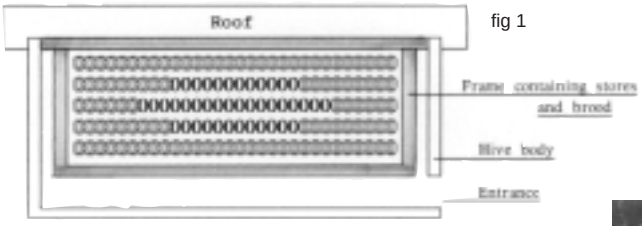



fig 1

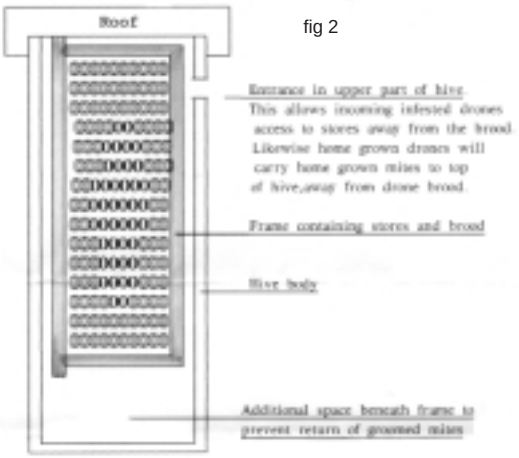
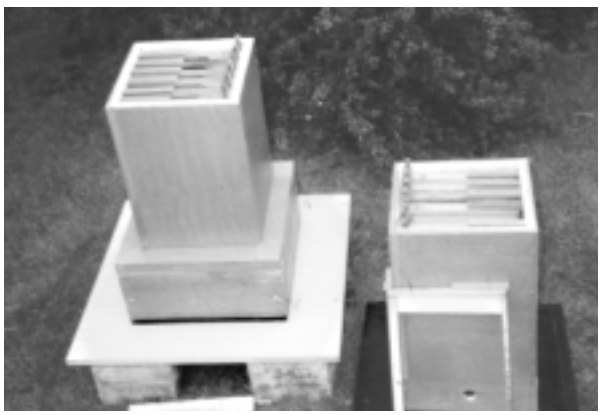


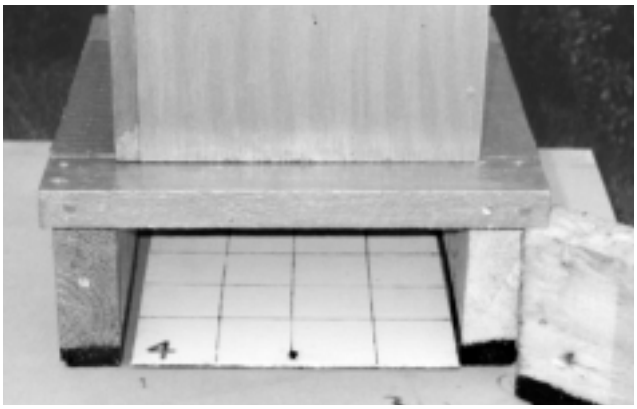

fig 2

(below) the complete hive

(below, left) Hive open to show the arrangement of frames

(below, right) By opening the 'box' beneath the hive, a varroa count can easily be made





## Ingredients for Pollen Patties

Dear Mr Phipps

It is some time since I have made any pollen patties. I have made enquiries in the Plymouth area and find dried brewer's yeast is available from health food shops or wholesale establishments for the catering trade. I have not been successful in finding a source for dried egg yolk, only egg substitutes are available.

I did find, in some of the less sophisticated health food stores, that I was unable to obtain any information on the type of soya flour offered for sale. As most soya flour originates from the USA, I can only conclude that it comes from genetically modified seeds. A book called "Some important operations in bee management" written by T.S.K. and M.P. Johansson and published by IBRA in 1978, has a very informative chapter on feeding honeybees pollen and pollen substitutes. Expeller-processed, low fat (5-7%) soya bean flour is recommended.

At this year's BBKA Spring Convention, Professor M. Winston reported on some recent experiments where bees fed on pollen patties appeared to be more resistant to both acarine and varroa mites. He stressed that patties made from pollen, not a substitute, had a better effect.

*Yours sincerely*
*Dawn Yates, Plymouth, Devon*

## Old Ted and the spirit of beekeeping

Dear Mr Phipps

After moving to Cumbria, I returned to Eccles, Manchester to collect my bees. I found that vandals had knocked over all fourteen hives. Thirteen colonies had perished and the remaining one was in poor shape, so I rehived it and took it to Cumbria. The colony was without a queen and was going downhill rapidly. I tried to obtain a queen but, with no local contacts, delivery from distributors at two weeks and none of my acquaintances being able to help, it looked as if I was going to have to start from scratch after over forty years of beekeeping. A chance conversation, however, enabled me to contact Ted Douglas and I telephoned him regarding my problem. His voice was quavering with age and whilst he said that he could not help me immediately, he would try his best within the next couple of days.

True to his word, I received a

# Letters

telephone call from him and he said that he had only that morning taken a swarm from Broughton which is several miles away and also that he had a box under another somewhere between his house and mine. It was thus that I discovered that we lived only 400 yards away from each other! When I met him at his house, I saw that he was a frail, old man and there he was coming towards me with a couple of veils under his arm. We shook hands and talked bees and later, boxed the swarm in the privet hedge and then talked again. It was obvious to me that he was so pleased to help. I learned that he was eighty and had kept bees for the same number of years as me - though I started my beekeeping when I was only nine years old.

Whilst we were talking, Ted suddenly fell over. He blamed his glasses and said that they made him dizzy. I helped him up, we continued our talking and then Ted fell over again. I managed to get him into a chair and he said that whilst he didn't feel too good, it could have been worse and then enquired if the swarm was safely in the box. I began to get quite worried about Ted, but he still insisted that he was all right and carried on talking - then suddenly stopped. I wasn't sure what to do so I called an ambulance and it arrived shortly after his daughter; the ambulance men thought he had a stroke.

Later that evening I was talking to the publisher of the BKQ and told him about Ted and how much he had helped a fellow beekeeper who was a complete stranger. I cannot improve on the publisher's words -"What a gent," he said.

I rang Ted's house the following day for some news. I was sad to hear from his daughter that Ted had not recovered consciousness and that he had died from a stroke at quarter to four that morning. I am sure that there are many beekeepers who crossed Ted's path over his forty years of beekeeping and I am sure that they will be saddened to hear of his death.

The two swarms he helped me with cost nothing - yet they are the most valuable bees that I have ever owned.

*Yours sincerely*
*Edward Linden, Salterbeck, Workington*

## Approval of GM fodder maize onto the National Seed List

Dear John

I am writing to inform you that I am one of the 68 people nationwide who have paid £90* in order to be heard at a public hearing in September 2000, where the above approval will be discussed.

In all there were only 277 written representations (costing £30 each) of which only 4 were in favour. The four organisations were Aventis (who have developed the seed), the National Farmer's Union, the British Society of Plant Breeders and the UK Agricultural Supply Trade Association.

However, not one single beekeeping organisation is represented at this critical hearing that will decide if the first GM seed can be grown commercially throughout Britain, without need of any notification or restriction.

Now, I have the opportunity to reply to the above representations by July 31st 2000, as well as making a statement at the public hearing and even cross-questioning witnesses that I am able to call to the hearing.

So far, I have been in contact with the BBKA, the SBKA and the BFA, who have all expressed an interest in the proceedings. I would like to offer all beekeeping organisations and individuals to use me as a sounding board through which to express any concerns about the rushed introduction of this radical new technology.

There are still two years to go before the farm trials are complete. Already, this year, there has been the Advanta oil seed rape disaster of GM contaminated seed, as well as the German research about GM DNA having been found in the stomach bacteria of bees. Honeydew from aphids has also been found to contain GM DNA.

Consumers are known not to want GM ingredients in their food and this is affecting the sale of honey for more beekeepers.

*The money was raised by 90 x £1 sponsors within two hours, standing in Totnes High Street.

*Yours sincerely*
*Ken Beagley, Totnes, Devon*

## Subduing bees

Dear Sir

I was rather surprised with R Raff's "Back to Basics" article in BKQ No 60.

The old beekeeper who taught me beekeeping 26 years ago always used a cloth wetted with Jeye's Fluid - this he referred to as his stink cloth. He used it for subduing bees right up until his death some six years ago.

Similar methods are on the market today - for instance - the Liquid Smoke and the Fabi Spray.

However, rather than having to worry about subduing angry bees, I was introduced to Buckfast bees, which I saw first hand and which the beekeeper worked without veil or gloves.

Perhaps R Raff's association should invite Peter Donovan of Buckfast Abbey to talk to them about the breeding work which also includes selection for resistance to varroa.

I have heard him speak on two occasions and I can recommend him.

*Yours faithfully*
*Joseph Cremona*
*Fareham BKA*

From our Correspondents

# SCOTLAND

***John Gleed***

The editor told me that he intended devoting part of the August issue of the magazine to heather honey production. To fill what he called "the nostalgia slot" he asked me to do a piece on heather going 50+ years ago compared with today's operation. Today, almost all beekeepers are using box type hives which are easy for travelling. We have spansets to bind them and foam rubber strips to close the entrances. Roads are smooth and most of us have our own transport and hives can be moved from A - B at 60 miles per hour.

I started my beekeeping in the Scottish Borders and any heather was a good distance away and much of the way was over rough road or track. Many beekeepers then were using big double walled hives such as the Glen hive. The Glen hive had 15 frames in the brood chamber and for carrying it was just dreadful. Since few of us had our own transport we clubbed together and hired a lorry, but this was often a disaster. There was always the one beekeeper who was not ready at the appointed time. The lorry was badly sprung for this purpose and the driver was never a beekeeper. Because of this he had little regard for the comfort of the bees. Securing the bees for moving was a hit or miss business and they frequently escaped. This is why so many hair-raising accounts of heather going would be related; something we hardly ever hear now.

**Photo 1.** In the past heather going was much more difficult as the hives were heavy and difficult to transport. Here, Margaret Logan, of Muir of Ord, is at Shilford in July 1955. The hives are Robson and Cessford Heather Hives which Colin Weightman had in use for working sections.

**Photo 2**. The good heather season of 1923. Acton Moor, near Blanchland, Northern Pennines, overlooking the Derwent Reservoir. All the hives are double-walled. Left to right: Isaac Watts and nephew (who appears in Herrod-Hempsall's 'Beekeeping New & Old' page 566, along with Frank Cessford, page 585 and 593) and, the Hexham beekeeper, George Kay, with young Billy Robson, son of Bob Robson - who was Frank Cessford's beekeeping partner. Person at the end of the row unknown. .

**Photo 3**. William Herrod-Hempsall with Devon bee farmer, Jim Willoughby, April 17th 1949, at Robson and Cessford's Riding Mill apiary, with their old heather hives. Note the hinged floorboards for easy closing and handles on hive sides for

(left) **Photo 1** .(courtesy of Colin Weightman)
(above) **Photo 4** (Photo John Gleed)
(below, top) **Photo 2** (courtesy of Colin Weightman)
(below, bottom) **Photo 3** (courtesy of Colin Weightman)

lifting. Jim Willoughby was born in Riding Mill and died in May 1999at newton Abbot.

In about 1951 a home-made device was illustrated in The Scottish Beekeeper for banding hives. The little plates were metal and the strap was the steel tape used for securing packing cases. It was vicious to handle. Uncontrollable and razor-sharp. I have made lots of them since then using modern and friendly material. The plates are wood and the strap is the nylon tape that can be found lying anywhere. The tension this simple device can exert is tremendous. You could call this the forerunner of the spanset. When I move hives today I have one spanset and one of the home-made bands on each hive. To close the hives in those days we pinned perforated zinc across the entrance and, looking back, this was a mistake. The bees would be there scrabbling away trying to escape and I am sure they must have been stressed and their life shortened.

**Photo 4**. Moving hives today is far simpler, though whilst I use a modern spanset for securing hives, I also use one of my home made bands - but made out of far friendlier materials.

For the last 34 years I have been up in the north of Scotland with heather practically on my doorstep. It is child's play today for me going to the heather. A twenty minute run on a lovely smooth road and a 50 yard walk into the heather. As for processing the crop there is no comparison. Gone are the days of laboriously pressing out the honey, a most time consuming job. Today I use a small domestic spin drier - the type which has a spout emptying into a bucket.

When the editor said he wanted a "nostalgia" slot, I looked that word up in a dictionary and it said that nostalgia was a longing, a yearning to return to the days of old. It is true. I can look back on many trips to the heather with fondness - especially those done in the early morning (although those morning trips were not often). When I was working the moves had to be made at night and I hated them. Stumbling about in the dark and tripping over things. Trying to adjust or rectify mishaps with the aid of a torch. Some may say "Well why not move bees on a Sunday . . . ?" But I don't believe that Sunday is a day for doing that job.

For many years now my wife has been my helper moving bees to the heather or elsewhere. She is scared of bees but she does it and we have an understanding. I tell her that if anything goes wrong she is not to hang about; just clear off and leave me. 54 years of trips to and from the heather hold many memories, but I cannot in all honesty say that I yearn for a return to these old days. Nostalgia, if it is just looking back with fondness, yes, but if in its true sense - thanks, but no thanks!

There is one thing, though, that I would dearly like to see again. Bringing home bees from the heather about 50 years ago left me with a memory I have treasured ever since. There we were in that aweful bone shaker of a vehicle where it was impossible to have a proper conversation. Suddenly, the driver leaned over and poked me in the ribs. He then pointed his finger. When I looked there was the most beautiful, enormous Harvest Moon that I had ever seen. It was perched on the skyline and, although I have tried, I have never again seen one that comes near its equal. The Harvest Moon is the full moon nearest the autumnal equinox which is about the 23rd September. This, for me, is certainly nostalgic but, sadly, you cannot turn the clock back.


# IRELAND

***Phillip McCabe***

In Ireland moving bees is done on a very low scale when compared to other countries in the world. Most beekeepers have very few hives and they keep them close to where they live and even those who have 40 - 70 colonies will still have the out-apiaries quite near to their home. A few beekeepers have between 200 - 500 stocks and need to move them from time to time but, on the whole, migratory beekeeping is not a strong feature of Irish beekeeping. However, it must be pointed out that there are nectar flows which beekeepers could profit from should they be willing to go to the trouble of moving their hives when the source is in blossom.

Oil seed rape is an obvious example. Thankfully (and hopefully), we still have the pure variety with us, but the moving of colonies to the crop can be a very hazardous experience for the novice beekeeper. A few years ago, a friend of mine decided to move his ten colonies to a rape field which was 5 miles (8 km) away. He was watching his bees building up and decided that the rape would boost his colonies for the main flow. Without a care in the world, he blocked the entrance with a bit of foam rubber, put the colonies on a trailer and headed west. Now, it would only be fair to say that he made a few mistakes that evening. The first one was that he forgot to tie the hives down. Out he drove onto the public road at a very gentle pace and met, on turning the first corner, his neighbour's cows which were being returned to their paddock after milking.

Now, like all good drivers who meet wandering cows on a public road, he hit the brake pedal and the next sound that he heard was a hive roof landing on the boot of his car. This brings me to mistake number two: while moving bees never forget to have your bee-suit to hand. It is no good having to get out of the car to search for it when there are already several thousand angry bees milling around. As it happened, as well as having to re-cover the hives with their respective roofs, he also had to drive the few cows that were unable to run to their pasture. The farmer's son, who happened to be chief herdsman that night, had already fled and he was last seen heading in an easterly direction waving his hands in the air as if in training for semaphore duties at a boy scout jamboree. These problems apart, those of us in Ireland who have oil seed rape nearby, and if the weather is favourable, are guaranteed a crop of honey. It is also good for getting new comb drawn and damaged comb repaired.

Another crop that attracts beekeepers is heather. We are blessed in Ireland with the two main varieties - Ling, Calluna vulgaris, and Bell heather, Erica cineraria. Both of these flower from the beginning of August to the end of September and require a specialised form of management. The honey from Bell heather is known to most beekeepers as being of 'port wine' colour and 'runs', whilst Ling is jelly-like and will not 'run'. Extracting the latter is difficult as the honey is thixotropic and needs to be stirred before it will behave as a liquid. For this reason beekeepers use a heather loosener - a piece of equipment which resembles a scrubbing brush, but made up of fine steel needles, which is moved in a circular direction when pressed down to the mid-rib of the uncapped heather combs. For many beekeepers, though, the bees are taken to the heather to secure their winter feed, but those who wish to specialise in heather production will find it rewarding as long as certain factors are considered.

If a colony has worked the normal flow and has produced a good crop for you, then it would be fair to say that you are pushing your luck to expect your bees to also give you a crop from the heather. It is better to make up a few nuclei with young, recently mated queens at the end of June. These should be fed well and by August they should be strong enough for the rigours of the moors. Such nuclei can also be added to a strong colony, once the queen has been removed. The trick then, though, is to place all the unsealed brood in the centre of the broodnest with the unsealed ones on the outside. The reason for this is to ensure that the queen continues to lay in the cells vacated by the emerging brood and that the bees store the incoming nectar in the supers. Frames of brood can be added from other colonies that are not

being moved, if they are available and disease-free. This method will give you the strongest chance of getting a good crop from the heather.

Now, to go back to the problem of moving colonies of bees. It is likely that any journey to the heather is going to be quite a long one so each hive should be carefully prepared for transportation. There are several precautions needed for this operation to be successful:

1.Replace the crownboard and roof with a travelling screen to stop the bees from over-heating.

2. Use foam rather than a wooden block to close the entrance. This will permit air to enter and also makes it unnecessary to hammer in the block thus upsetting the bees.

3. Give the bees a super preferably with drawn comb for extra clustering room.

4. Travel as late at night or as early in the morning as you can.

5. Secure the hive parts together with a hive strap. I have used rope, staples and many other devices, but have always found faults with them and reverted to using the strap.

6. Once the hives are in the trailer secure them together or to the trailer - for this there is nothing better than the straps with ratchets and hooks.

Giving these preperations, hopefully, the journey to the moors should be uneventful.

Finally, It is worth remembering to visit the site before the hives are taken so that adequate preparations are made - including the fixing of stands and the provision of shelter and water, should they be needed. Obviously, full permission will have been sought in advance from the land owner.

# BRITTANY


*Job Pichon*

## The Moors in Britanny - their Evolution

Like many other countries in Western Europe, Brittany was covered with forests. The island of Ouessant,too, was densely covered with trees, but now only willows and broom remain. References to oaks and other common trrees in Breton village names do, however, give us some indication of the species we have lost in certain parts of our region. Place names also indicate the presence of heather moorland (Brug) and moors covered with both heather and gorse (Menez).

Early deforestation occured as agriculture became more important and land was cleared for cultivation. On the poorer soils farmers would burn the gorse and dry grass in Spring every three or four years, just like they still do in parts of Africa today. As a result of the burning there would be a flush of new grass and young shoots of gorse and heather. Whilst this system of moorland management was carried out for the benefit of cattle, bees also made use of the important pasture. The wars between Britain and France also contributed to the loss of trees as huge quantities of wood were needed for the sailing ships built in Brest and Lorient. It is a similar story in Greece, Spain, Great Britain . . . . . .

Up until the 1960's the farmers continued to use the moors as pasture for their livestock but they scythed the vegetation every three or four years, just before the stems became too difficult to cut. This material was then used for bedding for the animals. In some of the better fields seeds of gorse would be sown as a forage crop for horses. The plants were mown when they were two years old, crushed mechanically and then mixed with fresh grass. This was the 'alfalfa' of the poor farmers who worked land with acid soil and they had to use their resources to the full. I was born on a 40 hectare (100 acre) farm in Monts d'Arree and of this land only 12 hectares could be ploughed, 4 hectares were poor meadows for hay making and the remaining 24 hectares were covered by moorland. In those times farmers were numerous and rarely very rich.

After the 1960 the increasing use of tractors enabled the flatter moors to be ploughed up and used for the cultivation of potatoes, grass and cereals and the stony hills were planted with coniferous trees. However, on many occasions fires broke out which burnt trees in these new plantations - for instance - in 1997 4000 hectares were destroyed. Where burning has taken place and trees have not been replanted and in areas of neglected moorland, the local flora soon becomes prominent again - so birch, bracken, willow, broom, hazel and oak are spreading more and more. Black alder particularly benefits from burning and is an important moorland tree, but Rhododendron, unfortunately like in Great Britain, is also on the increase. Now, in 2000, on our family farm just 5 hectares of heather moorland remains which is of any use to bees.

The main heather sites of Brittany are to be found on stony cliffs like the Crozon Peninsula, Raz Head, Ouessant island and the Monts d'Arree. Full-time beekeepers move their bees to these regions (except to Ouessant where it is forbidden). This movement of bees is a great problem for hobbyists, like me, who have permanent apiaries there. The beekeepers bring with them all sorts of bees whether they are yellow, suffering from foul brood or even, perhaps, carrying resistant mites.

Both main types of heather are found in Brittany. The bell heather, Erica carnea, flows from about the 1st of July to 15th August and is especially good for honey production along the coast. The ling, Calluna vulgaris, flowers from about the 15th August to 15th September. It can provide plentiful nectar in some years but it isn't normally extracted as it is often packed close to the brood nest. The low production could be due to the fact that many beekeepers have large Dadant hives with deep frames. I use Langstroths on the moors for honey production and use a super on each hive for the crop. Honey from the moors is in great demand, so it is well worth the effort to procure it.

In the future? Less and less heather sites? (though fires may help to keep some good stretches of moorland good for bees). Breton hives in transit to Scotland each August? We shall see.

### Some beekeeping terms in English, French and Breton:

| ENGLISH | FRENCH | BRETON |
|---|---|---|
| Bees | Abeilles | Gwenan |
| A bee | Une abeille | Eur wenanenn |
| Apiculture | L'apiculture | Gwenanerezh |
| Honey | Miel | Mel |
| Wax | Cire | Koar |
| Larva | Alveole | Kevig |
| Comb | Rayon | Folenn vel |
| Queen | Reine | Mamm, rouanez |
| Swarm | Essaim | Taol hed, taol gwenan |
| Hive | Ruche | Koloenn, kestenn, ruskenn |
| Mead | Hydromel | Chouchenn |
| Good health | A ta sante | Yec'hed mad |

The moors in Springtime - gorse and trees. (J. Pichon)

The moors at Monts d'Arree, the conifers have been burnt and the area is now good for bees. (J. Pichon)

Ling, the typical flora on the Monts d'Arree, August 1999. (J. Pichon)

(above and left) The Conservation Apiary for Black Breton Bees, Ouessant Island, June 2000. (J. Pichon)

(below) Isle de Ouessant at heather time

(below) Rearing queens at Ouessant

From our Correspondents


# SPAIN

***David Cramp***

## Spring-sprung surprises

This Spring has seen most unusual weather in our part of Spain. Hardly any rain over the Winter, followed by a very wet April and May. There are two sides to this. To try to breed queens (unless by AI) too early results in failure. Loads of drones means nothing in February if there are few in late March or April and if the weather in this latter period is no good. On a the brighter side, it meant an excellent Spring crop of honey a few weeks later. During the short pleasant spells between the rotten weather, the bees swarmed and what ever I did, I could not stop it. When I was working up in the old pig sty area painting some hives, a swarm settled into an old nuc box. I left them in there. Two hours later another entered the same box and after another two hours a third swarm did exactly the same. All swarms had virgin queens. I have never experienced this before. During the entry of two of the swarms, the queens landed at various places on and around the box and occasionally tried to enter other boxes. Bees actively snatched at the queens both whilst in flight and when they had landed and bodily lifted and pushed them around in attempts to direct them into the correct box. They succeeded in their attempts. Again, I had never seen this behaviour before. I knew that scout bees directed a swarm in some manner, but to actually see queen direction in action right in front of my nose (and it literally was) is quite something. Did this require a degree of thinking intelligence on the part of the bees? Then, the next morning, a vast swarm containing seven queens landed in an adjacent nuc and surrounding area. There was one painted lady (one of mine) and six virgins. I've never seen so many queens in a swarm either. I hived them all separately and only one crowd absconded.

## A bee is not always a bee ....

The bees I deal with are, of course, Apis mellifera iberica, now known to be part of a chain of races from North Africa to France and passing from sahariensis-intermissa-iberica-mellifera. Iberica effects the transition between Morrocan bees and French bees. (Cournet JM, Fresnaye J, 1990). As a generalisation, the differences are based on morphological features and were looked at in the context of geographical location. What the researchers didn't talk about was the defensive characteristics of the bees in question. Research does tell us, though, that the North African bee (often called the Tellian bee) is very defensive. A. mellifera mellifera is less so. My experience of the in between bee, the Iberica, certainly indicates both characteristics, but inclining more to the very defensive than the other way. I mention all this only because some of my expat clients arrive from the UK to take up beekeeping here thinking that a bee is a bee - and take a pasting as a result!

I did, though, have one Cecropian queen called Rose. Mated in a test tube in Greece in 1997, she has behaved perfectly ever since. No swarming, much less aggression and plenty of honey. However, whilst going through the colony recently, I found two queen cells near the top of one frame. Hoping that the bees had made a mistake and didn't really want to supersede her, I cut them out and put them into nucs. But soon there were two more. I left them to it. Rose has now disappeared leaving a queen of such a brilliant yellow colour that there is no need to mark her. Rose's offspring exist in some of my colonies. They don't swarm - which is wonderful - but gentleness is not a noticeable feature. The Spanish temper shows through. So far. I must order more of the original strain.

## Heather

Spain is the second largest mountainous country in Europe and many of the 'cordilleras' or hill/mountain chains that cross the country have extensive areas of heather. Of the two main types, the bell heather (heath) or 'brezos' in Spanish, cover a wider area than Calluna vulgaris, or the ling heather (biercol). The latter exist mainly in the upland areas of the North and West. Where either of these heathers exist in sufficient quantity, then beekeepers will take their hives there. The bell heathers, of which there are a bewildering number of varieties, flower twice a year (April -July and October - November) and like the single flowering lings they are an important honey source for the migratory beekeeper. Their importance, whilst varying with the location, is only exceeded in some areas by eucalyptus, retama and olives. From my experience of bell heathers, they produce good honey crops very erratically.

I have been unable to ascertain the amount of land that has been lost to heather as a result in the changes of land use, but most of the heather districts are in areas of Spain which are protected. These are numerous and vary from National Parks like Coto Donana to 'natural parks' (I live in one), to smaller protected areas and places of special interest. However, abuse of the system often occurs in such areas and land is illegally ripped up and used for building or agriculture. By and large, though, the system works in its own cumbersome and bureaucratic way and there shouldn't be too much loss of heathland in the future. One beekeeper I know reckons that the heather areas of Spain are an apicultural resource which is seriously under utilised.

**Reference:**

Cournet J. M. and Fresnaye. 1990. Vida Apicola No 13.

# PORTUGAL

***Antonio Pouseiro***

## Harvest halved due to heavy rain

As Portuguese beekeepers are now harvesting their honey some disappointment is arising as half the supers are empty or display 40 - 50% of open and empty cells. The reason for this is due, once again, to irregular weather conditions.

The year began with sunny and warm days which carried on until the end of February. Hives were strong and in certain areas a new super had to be added each week as the first swarms were coming out and the eucalyptus nectar was copious. However, these fabulous conditions didn't last long and the first days of March brought heavy rain and strong winds with temperatures dropping to around 12 - 15 C. These conditions prevailed until early May when, at last, the improvement in weather allowed us to inspect our colonies again. The examinations revealed the inevitable: the strong colonies had used the surplus for their everyday needs as they were unable to forage. The early swarms which I took in February and which were located in the mountains were now starving and they had to be taken down to lower ground where Spring flowers could still be found. As some Portuguese beekeepers never feed their bees, some losses occured in poorer areas.

But not everything is bad news and hives are recovering and strong once more - even if they are a bit short of honey. It is important to remember that the summer flow here is rather insignificant - except in the mountains where the heather flowers throughout August and September.

Another exception is the Southern agricultural area where sunflowers are the main crop and these will provide beekeepers with an extra harvest. As a result of heavy rain and flooding these arable fields are now (in June) being replanted with sunflowers. I shall move some of my hives to this area - especially the young swarms for this will give them the opportunity to build up to full size colonies.

## Government initiative helps varroa treatments to become more effective

The Portuguese Government, unlike those of some other EU countries, has decided not to tackle varroa by providing beekeepers with monetary subsidies. Instead, they have decided to hand out to every beekeeper one free treatment per colony per year. Whilst beekeepers will have to pay for a second treatment each year it will help to cut the cost of treating colonies enormously. We are into the second year of this scheme and it is proving to be effective, for beekeepers are seen to be giving the medication (Apistan or Apivar) as soon as they are received in June. This will certainly help to combat varroa for the different treatments will be used in alternate years and beekeepers will be synchronising the time of application. There is much optimism here for varroa levels are dropping in colonies generally and there are less losses of colonies each year. We all hope that this trend will continue until we find a definitive solution for the problem.

## Buckfast x Iberian Crosses

Five years ago I was determined to improve the behaviour of my bees - ie trying to reduce their defence instinct so that I had gentler bees with which to work. I thought that the solution to this issue had a lot to do with the race and ultimately with the strain within it. Whilst the fundamentals of my proposition were right, my solution proved to be totally inadequate.

I decided to go for a strain with proven quality and so I imported some Buckfast queens from 'Buckfast' apiaries. The first thing I noticed was that Brother Adam was quite right when he wrote that Iberian bees do not accept strange queens easily and so half of the Buckfast queens were lost. However, despite this loss I wasn't deterred and soon the two remaining queens began to lay.

From the two colonies now headed by Buckfast queens, I selected 40 larvae and grafted them putting the two batches of twenty into different starter colonies. Of these grafts 28 were accepted. Later, about 1 - 2 days before the new queens were due to hatch, I placed the queen cells into standard 5 frame queenless nucs which had been made up 2 -3 hours earlier and which had been closed up and kept in the shade.

Next, the nucs were taken to a new apiary 15 km away from the original site and there the queens were at liberty to fly freely and mate randomly with the Iberian drones. 25 of the queens were successfully mated and within two weeks they had established a regular laying pattern. I then had an apiary in which each hive was headed by a hybrid queen.

After some time I began to notice that the hives were showing some disproportion between them with some very good hives and with others which were developing at a much slower pace. Compared with my Iberian bees in other apiaries it was easy to see that the development of the the hybrid colonies was less advanced. Meanwhile, I had read that with honeybees the so called hybrid vigour will not be found in the F1 generation but only the F2. I therefore reared a new lot of queens from the best of the hybrid colonies.

This time things went much better and the hives evolved much more quickly and soon increased in strength. I had finally achieved my goal - or so I thought.

One of the first drawbacks I noticed was that the hybrid colonies were far from gentle. They were fierce and were always waiting for the moment when I moved suddenly or bumped the hive - thus giving them an excuse to attack in great numbers and, in the process, leaving a strong smell of venom in the air. I was used to some aggressiveness with my Iberian bees, but this was far worse and it took some time for me to get used to it. Secondly, I had never noticed much robbing amongst my Iberian bees, but these new ones went mad at the slightest drop of spilled honey or when they spotted a weak hive.

I knew I had to consider the pros and cons of keeping such bees, but I found an answer a few months later - the cross-bred colonies produced 30% more honey than my Iberian ones. I decided to give them another chance and kept them for another year. The result was the same. Last year I gave a friend of mine 20 queen cells from these stocks and he, too, is amazed with both their propensity to sting and their ability to collect good quantities of honey. In order to add new blood to my Buckfast strain, last year I imported some Buckfast queens from Weaver Apiaries in Texas.

The colour of the hybrids is similar to the Iberian ones (dark brown with lighter bands towards the end of the abdomen. From time to time I get an amber bee (similar to Buckfast), but strangely enough these never evolve into big hives. I suppose the answer lies in their genetics - but we shall have to wait and see.

As for me, I'll stick to these bees and will try to select for greater gentleness by rearing from less aggressive hives. Perhaps that is what I should have done in the first place.


# THE NETHERLANDS

***Ko Zoet***

## Heather Honey Production

The heather regions of the North East, the South and the Central part of our country have a long tradition of beekeeping. Many people may well have heard of the famous beekeeping market of Veenendaal, which goes back to the middle of the 19th century and is the oldest bee market in Europe, but few will be aware of the significance of its geographical position. Veenendaal is situated in an area where two distinct types of soil meet and it is this border which is the demarcation line for different types of agriculture and land use. To the South of Veenendaal are the rich clay soils around the River Betuwe where fruit crops are produced, whilst to the North are the acid and sandy soils which have given rise to some important areas of heathland. The beekeepers in Betuwe are thus able to produce good swarms in the Spring which allows them to sell stocks ready for the heather or buckwheat to beekeepers in the North. The market is always on the third Tuesday of July and it still attracts many beekeepers and tourists. Whilst skeps are still sold alongside other colonies they are in a minority and usually bought for fun.

Unfortunately, there is no longer any buckwheat for Northern beekeepers and the heather, too, also declining. The main reasons for the disappearence of the heather moors are due to cultivation of the land and, more recently, to urbanisation. Controlled burning of the moors has long since stopped but, each year, large patches are burnt accidentally, usually because of discarded cigarettes from tourists. Lack of management over the years has lead to heather being choked by different types of grasses and also by American Bird-cherries. However, small grazing projects have recently been started in an attempt to get rid of the invasive plants. Areas of protection have been set up with goats and horses being used to crop the rogue plants. After a couple of years the grazed areas look like a desert, but then new growth from *Calluna vulgaris* begins to appear.

Heather is common on the Wadden Islands and it is here that I have taken my bees for the last five years and obtained good harvests of comb honey (which I prefer) as well as extracted honey. Interestingly, the date of blooming for heather seems to be getting earlier each year. For instance, last year the heather came into flower on the 20th July, normally it is around the 5th of August.

## My Method

At the start of the flow I aim to have all heather colonies with eight frames brood and the remaining outside combs to be filled with honey. Above a queen excluder I put one or two small supers on each stock, the number being dependent on the weather prospects. The type and arrangement of combs in the supers is important. I use three frames with drawn comb in each super and these are placed at each end and in the middle. The other frames are just supplied with starter strips of foundation so that I can get some good comb honey - I can never have too much of this! Whilst the bees build avidly in warm conditions it must be borne in mind that a balance must be kept of the bees' need to hoard food and that of the tendency to swarm. I find that removing combs as soon as they are completed helps to check any plans the colonies might have to swarm.

At the end of August the supers are removed and a floor board and brood chamber containing six drawn combs is put on the site of each colony. The original brood chamber is then placed on top of each new hive. Each colony is then fed about 12 kg of sugar solution. The bees are then ready for winter. Using this method the bees fill the cells of emerging bees with sugar syrup and also settle on the combs below. They then eat their way upwards during the winter - feeding on sugar - and when the queen begins to lay in Sping the bees will be in contact with the remnants of the heather crop and the much needed pollen. Over-wintering colonies from the heather moors can be tricky, but this system works well and there will be no undue stress on the colony to make cleansing flights until Spring has begun.

## Marketing Heather Honey

Selling heather honey is never a problem. We have many tourists to our Island each year and it makes an ideal gift for them to return home with. Bee products with the label 'Produced on Terschelling' are always sought out even though the prices might be high. Heather honey in the comb sells at around f40/kg (about 18 US dollars per kg) and extracted heather honey at f14/450gm. Other types of honey usually sell for about f12/450gm, whilst on the mainland beekeepers may get only f6/450gm.

## The Bees

The right type of bee is important for successful honey production and on our Island we have the descendants of the original black bee which was common to Northern Europe. For 16 years Terschelling has been closed to imports of bees from the mainland in an effort to preserve our bees both from mongrelism and varroa. Whilst varroa has arrived we hope to be able to preserve our black bee, but despite our efforts there was an illegal entry of Buckfast material last year. The Dutch authorities are alert to this situation and will do all that they can to interrupt any illegal movement of bees on to our Island, thus preserving a bee which is important for taking the most advantage of the native flora.

# POLAND

***Maciej Winiarski***

## Holidays on the Heather Moors

I grew up in South Western Poland, on the German border, where there were lots of forestry areas. Amongst the forests were enormous heather moors many of which were used by the Soviet Army. I went on holiday year after year to this region and it was there that I was very fortunate in meeting Anne, who later became my wife; not surprisingly, therefore, the area has great significance for me for it has helped shaped my life. Anne's parents were traditional beekeepers, as had several of the generations before them, their home being in Eastern Poland, but which is now Western Ukraine. It was through them that I had my first contact with bees. I was very cautious to begin with and step by step my confidence increased. By 1970 I was working in a real apiary and since then a lot of water has flown from the Thames into the English Channel!

Little did I know though, at that time, that I would be returning to the holiday area of my childhood again. My father-in-law believed heather honey to be the best in the world, so it was agreed that we would migrate to these moors with our bees. Firstly, however, we had to choose a good site for an apiary and, next we needed the permission of the Commander of the Soviet Army Troops for us to stay with our bees on their enormous range. So, during the first week of August, 1978, we left Lipniki village (Opole Region) in two lorries for the 150 km journey to Lowland Silesia. On board the vehicles were 75 hives - all but three of my father-in-law's apiary; the three which remained behind were too difficult to transport. Even then though, the job of moving bees was difficult, for our Polish hives of that time were not designed for migratory beekeeping. Another problem was the people who were working for us. Most of them feared the bees and were terrified when they received the odd, accidental sting. Despite this we eventually managed to make landfall in the paradise of my childhood.

And it continued to be a paradise. We pitched our very big tent which gave plenty of room for me, my wife and two small children, Zoi and Maggie, and there we stayed to watch over the bees. Here we found peace and time to rest, too. Next to our tent was a stream with fresh, cold water and, to keep the children happy, I built a dam for them. The weather was excellent - non-stop sunshine and very warm. From time to time Anne got a bit agitated, but only because she didn't have all the ingredients she needed for making her good, delicious dishes and making food on the open fire was not a simple matter. However, she was extremely happy to see how much the children enjoyed playing amongst the trees and to see me so refreshed. We really felt like pioneers in the old time West USA. During the evenings we would sit around the fire and sing songs from our scout, student and army days. I loved, though, to sit amongst the hives and to listen to the bees and watch them as they worked. Unfortunately, we didn't have a camera at the time to record some of the moments during our unusual and idyllic holiday.

After three weeks the time came for us to depart. First of all, I took my family home and then returned to see to the loading of the hives. We used the same lorries and workers to transport the colonies and because of their stores of honey they were much heavier and more difficult to handle. My father-in-law had decided that we would do all the extracting at home and we ended up with quite a good return of 8kg of heather honey per hive.

In 1979 we went again to the same place but this time it was a disaster. It was cold and rained non-stop and I remained alone in my tent as it was too unpleasant for my wife and children. This was a sad and terrible time for me. Not only didn't we have a honey crop, we also had to pay out a lot of money for moving the hives and then there was the expense of having to feed almost starving colonies. Since that time we never did return to the

heather moors.

Over the last few decades the status of heather moors has changed enormously in Poland. In Prof. Dr. Bolesbaw JabBodski's opinion, there has been a twofold reduction in the amount of land now covered with heather. The most probable reason is the change of climate. Meteorologists now say that Poland is the driest country in Europe - and heather plants, of course, need a good supply of water. The average rain for Poland is the same as Egypt's! If it weren't for the colder weather in Poland, we would soon have deserts. In Lower Silesia the heather moors have almost completely gone, so beekeepers seeking a crop will have to go to the Zielona Gora Region in Western Poland, or the Warmia and Mazury Regions in the North-East. Heather honey is seldom seen on honey stalls and the small amounts which are still harvested are sought out by people and treated like a special medicine.

# LITHUANIA

***Rimantus Zujus***

## Heather honey production in Lithuania

Heather, Calluna vulgaris, in Lithuania grows in marshy lowlands and covers up to 15 000 hectares (1). The total area though for the whole of Byelorussia amounts to

Photo: Rimantas Zujus

830 000 hectares (3). These heather areas are, however, in decline though large expanses of moorland can be found in the forests of Vilnius, Varna, Veisjai, Kazl Rda, Nemenin, Taurag, Druskininkai and Jonava.

In our Northern Baltic countries (Latvia and Estonia) the heather blooms at the same time as the lime trees, whilst in Lithuania it follows the limes and lasts from the end of July to September (1). The main nectar flow lasts for about 16 days (5) and the bees visit the blossoms all day though secretion is better before midday. Studies have revealed that the amount of nectar secreted by the plants varies both geographically and by soil type:

| District | Nectar secretion | Reference |
|---|---|---|
| Non-black earth belt (Russia) | 200 kg/ha | (2) |
| Sunny forests of Karelia | 151 kg/ha | (1) |
| Latvia | 36 kg/ha | (1) |
| Poland | 2.6 - 49.2 kg/ha | (1) |
| Lithuania | 7 - 20 kg/ha | Agr. Univ. Lithuania |

Looking at the results for Lithuania it is recommended that 1 -2 stocks should be placed on each hectare of heathland. Beekeepers are advised to take their bees to the heather even if the weather conditions aren't suitable and the nectar flow is weak, for there will be odd opportunities for bees to gather enough to keep their stocks going and to keep the queen laying thus ensuring plenty of young bees for winter. The pollen, too, will increase the life of the bees (1).

The bees in Lithuania are taken to the moors at the end of July. Heaths with plenty of young growth are the most suitable as long as they are not shaded by large trees which grow on the knolls. A good location would have a source of water otherwise the beekeeper must make his own watering place for the bees. The bees are taken back to their wintering locations at the end of August and all the heather honey is removed as it is not considered to be good food for winter. Instead, each stock is given 8 - 10 kg of sugar syrup.

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# CANADA

***David Dawson***

Our editor, John Phipps, was quite impressed with some of the photos I submitted showing our huge fields of honey producing crops. To complement those pictures I thought that readers would be interested in the farm machinery used in those fields. The photos show an enormous 12-wheel tractor which was busy this spring. While I was taking the photo, by luck, the farmer stopped to re-fill, so I asked him a few questions. The equipment covers 47 feet wide in one pass, cultivating the ground, applying fertiliser, and sowing the seed all at the same time. I asked how many acres it would cover in a day and his reply was that, with a relief driver, working 24 hours, he could sow 500 acres a day. I asked how many acres he needed to justify this equipment and he said he had two sets of equipment like this (!!). His brother was driving the other unit and he had 10 000 acres.

We had a relatively mild autumn in 1999 together with an early spring this year which we all thought meant our bees would be strong and healthy. Nothing could have been further from the truth. Many beekeepers lost half of thier stocks with the majority of the remainder very weak with grapefruit sized clusters. Many hives had lots of crawling bees in front of them and analysis showed high acarine levels. However, not all crawlers had acarine and it remains a mystery as to why those acarine-free bees were unable to fly. I am reminded of the 'Isle of Wight' disease, but there is no evidence of nosema at high levels. The jury is still out.

In spite of high losses and weak survivors, most beekeepers have built back their numbers, though it remains to be seen whether they will be strong enough to collect a normal honey crop.

A 12-wheel tractor which cultivates the ground, applies fertiliser and sows seed all in one operation.

# GERMANY

***Herma Peterson***

**June 26th** - and so far this year's beekeeping season has turned out to be so different from other years'. During the second half of April we had very sunny and extremely warm weather which lasted well into May. So nature 'exploded' - fruit trees, rape, wild flowers all burst into bloom at once and much earlier than usual. On the 10th May we began extracting honey from the first supers which was at least two weeks earlier than usual. This meant that our work plan for the season was thrown out of schedule and that we had to do many of our beekeeping tasks almost at the same time. Needless to say, we managed - but only just! Our honey yield was satisfactory and we even managed to extract some dark honey from the colonies we keep near the woods. Again, the flow from this source was quite early for normally we seldom get dark honey (if we get any at all) before July. As I write this, the fields of barley in front of our house are already being harvested and this is two to three weeks earlier than usual, but we are left wondering whether things will begin to slow down once again so that a state of normality returns.

August, of course, is just the month for a heather honey issue of the BKQ - but for me this is a little too early, for my family and I are planning a holiday in the Luneburger Heide, in Lower Saxony, at the end of August. Once there we will, of course, contact beekeepers who live in that area. I have no experience of 'heather going' but I have learnt a bit about the skep beekeeping that exists in these areas of Germany both from my husband and from my visit to the Beekeeping Institute in Celle.

The 'Luneburger Heide' in Lower Saxony is the largest German heather region and in earlier times I suppose most of the professional beekeepers lived in that area. The bees were kept in skeps - the 'Luneburger Stulper'.

This skep is still in use although not as often as in former times. It is made of straw and made air-tight with a mixture of loam and cow dung. . The entrance is in the upper part of the hive. To protect the skeps, they are kept in a sort of 'Freistander, the 'Heide-Lagd, and they are are in in two tiers.

Whilst these shelters are still to be seen they were once an important feature of the Luneburger Heide. The reason for the decline of the traditional beekeeping of this area is probably, like in most parts of Germany, that most beekeepers are now hobbyists or sideliners and working this type of hive properly demands more time than modern beekeeping. The bees are left to swarm which is, of course, mainly during the day time when most beekeepers today would be in work, so such hives would not receive the proper attention.

Skep beekeepers aim to have their stocks in prime condition for a late honey yield, the heather blossoming usually from about the 10th of August until the middle of September. Before that time there is hardly any honey flow in the region. For this reason, some of the beekeepers migrate to other areas earlier in the season - perhaps fruit growing districts for instance - so that their colonies can build up. When they bring their stocks home they are allowed to swarm, perhaps two or three times, and the swarms are caught with a swarm catch net (see photo). So, by the end of Spring or early Summer the beekeepers would have the number of stocks which they need for the heather crop. This system was very effective as long as there were large enough areas of heather to ensure a good yield.

Nowadays, unfortunately, the heather areas have declined. This has resulted in the beekeepers being less dependent on this one and formerly important source and made them exploit other sources for an harvest. This, in turn, has made them use other types of hives, mostly multi-storey hives, for they offer better chances of securing other crops. Nowadays, on the Luneburg Heide, it is possible to see all the stages of beekeeping for there are beekeepers with only skeps, those with skeps and modern hives side by side, or those who rely solely on their modern hives for a honey harvest.

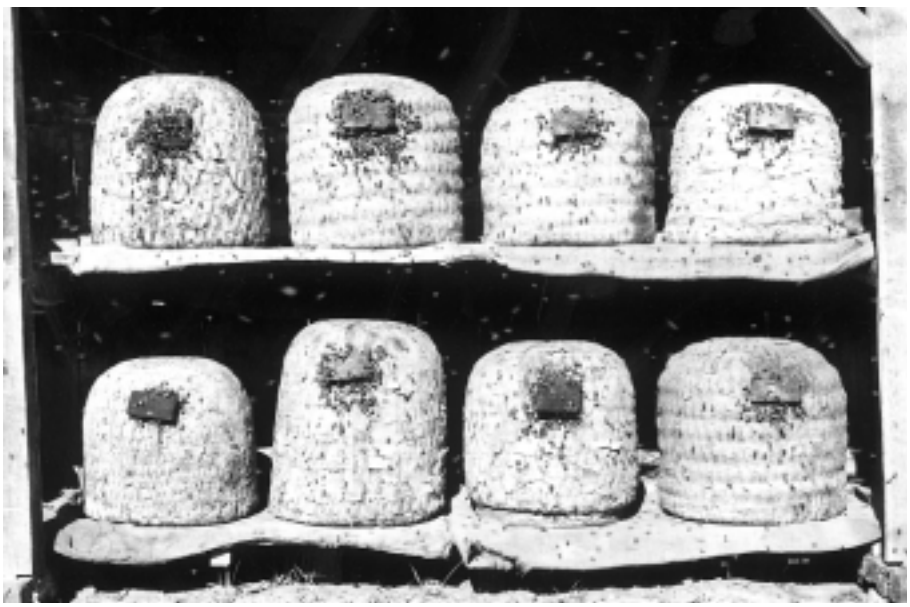
In autumn when the heather blossom is over the beekeepers turn their bees out of those skeps which they don't want to keep over winter and break up the honeycombs. This may be left until quite late in the autumn until any other necessary work has been completed in the apiary. Until that time the skeps remain with their combs in the 'Honig-Speicher', the honey store.

Skep beekeepers in the Luneburger district only overwinter 1/4 to 1/3 of their colonies. For the colonies which they want to keep they leave the upper part of the combs in the skep and feed the colonies well with sugar syrup for winter food. The surplus bees which have been driven out of the other skeps are added to the overwintering colonies or else they are sold as packages. In the past these bees were also sold to firms which produce bee venom. If there was a glut of bees and the sugar was deemed to be too expensive to keep the extra stocks through the winter, the strongest stocks headed by young queens would be kept and the others would be killed off. Anyone, though, who bought bees from these beekeepers as package bees would be aware of the swarming tendency of the stocks and also, since breeding was indiscriminate, they knew that they might not be the gentlest of bees.

Heather honey is one of the most expen-

(above) The Luneburger Stulper

(below) The Heide-Lagd



(opposite, top left) The Luneburger Stulper 'unfolded' to show the inner part of the skep. (Beekeeping Institute in Celle)

(top right) An empty skep upside down on a tyre with a full skep on top. The bees can be made to leave the top skep and move into the one below. NB the swarm catching net to the left of the picture.

(middle left and below) Apiaries with skeps as well as modern hives.

(middle right) Honey press

(bottom left) A 'Honig-Speicher' - a honey store belonging to the Beekeeping Institute at Celle.

(bottom right) A 'Honig-Speicher' - stored skeps in an attic.

sive of German honeys. Despite its high price it has a lot of devotees for many people like its distinctive taste, aroma and texture. Where possible the good combs from the skep are cut out and sold as comb honey, otherwise the combs are crushed in a honey press. and sold iin a jar.

It is not an easy job to harvest heather honey from modern hives with frames as the honey is thixotropic. In order to be extracted from combs in a conventional extractor then, first of all, the full but uncapped cells have to be loosened before the honey will run out.

It seems to be possible to overwinter the colonies on heather honey, just as much as with blossom honey for the consistency of the honey has no detrimental affect on the bees. The skep beekeepers always leave the top part of the skeps full of heather honey and feed additional syrup, though those using modern hives try and extract as much heather honey as possible and feed the bees amost entirely on syrup. Feeding can start as early as possible in September, especially when the flow has not been good. When there has been a good crop there are usually plentiful young bees to go into winter, if not, then early feeding will stimulate the queen to lay before it is too late.

The beekeepers who buy packages from skep beekeepers in Autumn are advised to enquire about the nectar flow that year so as to get some indication about the age of the bees they are buying. However, it is always well worth the money to buy these bees to make up new nucs even at that time of year. It is easy to multiply one's colonies this way without having to resort to buying packages from New Zealand for the bees are then sourced from our own country.

# Bees to the Heather

***C. Neil Anderson***

THE HONEY FROM LING HEATHER (*Calluna vulgaris*) is unique. It is a very late in the season crop which flowers during August and September. In a good year, perhaps one in ten, the crop can be huge.

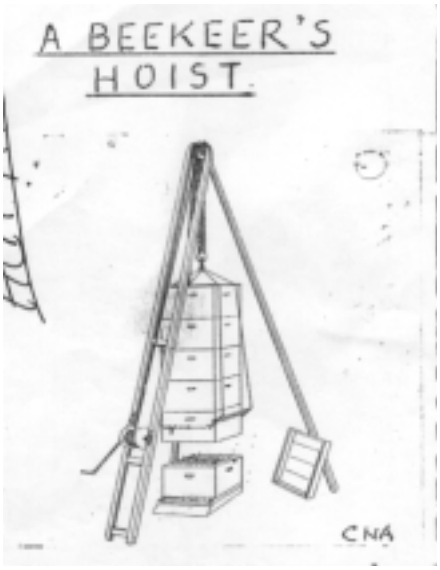
It is necessary to have the colony very strong towards the end of the season but remember many of the summer nectar-gatherers will be worn out and so they will not last a week on the moors. So, a colony that has been backward in the Spring can be brought on in various ways so that its peak population is reached about the end of the main honey flow in July. Here, in SW Scotland that would be the flow from the lime trees. One can unite colonies to make one strong one and frames of hatching brood can also be given to heather-going stocks. However, it is pointless to give frames with eggs later than the end of June because the bees which eventually emerge will not be ready for foraging until the heather is almost over. If you want the queen to lay eggs which will result in a strong foraging force then syrup feeding must commence well before this date.

It is necessary to use only a single brood chamber and even then a dummy frame should be added so that bees do not pack the honey around the brood nest, but take it up to the supers. My wife, Elspeth, and I have always used ekes to get natural honeycomb. The ekes are made from 1/2" timber and are about 4 1/4" deep and these we make just big enough to fit inside a Smith brood box (which is 8 7/8" deep) with one eke on top of the other, but separated by a piece of thick plastic.

We take all our 10 -12 colonies to the moors. Those which do not manage to get a surplus are usually choc-full of heather honey in the brood chamber. We also take any nucs if they are strong enough (ie covering about 4 - 5 deep frames) because they manage to get much of their winter food. We ensure, though, that all the stocks we take are fed full strength sugar syrup on their return for whilst heather honey is all right for the bees in Spring it is unsuitable on its own as winter food.

We always shut our bees up the night before we leave for the heather, using a wire mesh screen across the 7/8" deep front entrance and a heavy gage screen in lieu of the inner cover. The roofs are upside down in the trailer and the hives are placed inside them for the journey. We always make sure that the frames are parallel with the wheels as the colonies will travel more comfortably and with less movement of the combs should there be a sudden stop.

We begin our journey to the moors between 5.30 am and 6. 00 am. If anything goes wrong during the journey we have the benefit of light, and we also are travelling when the sun is not too strong. The colonies get plenty of through draft during their travels which is very important - especially if delays occur or if bee-




A Beekeeper's Hoist, designed and built by C. Neil Anderson

keepers are waiting for a lorry which they are sharing or for a late-rising beekeeper. I have seen colonies which have been given inadequate ventilation and the resulting collapse and death of the colony when molten wax and honey pours out of the already restricted entrance. It is not a nice sight. If you don't like hanging around its best to go on your own to the moors - for you and your bees.

The site on the moors is all important. W W Smith had steep heather covered valleys near Innerleithen and he wisely sited his hives on the valley floor so that when the heather laden bees returned they were free-wheeling downhill. This is very important. A lovely hilltop moor beside an access road is very inviting but it can mean the difference between a crop and no crop.

The colonies once on the moors do need managing. Starvation can always be a threat and the beekeeper must be ready to supply his stocks, when the weather is poor, with combs of food - from a previous crop or by filling the cells of empty combs with sugar syrup. We have resorted to the latter on one occasion and it saved the day and bees finally returned from the moors with a reasonable crop once the weather changed. From time to time a quick look in the super might be worthwhile so that you can straighten up any combs - this will save you a lot of time later on when you are at the packing stage.

We have a caravan in the field quite close to our heather apiary and fortunately both our temporary home and the hives are wired off from the hive-toppling or irritating sheep. I have seen many hives unprotected from sheep on the same moor and it is wise to erect a small fence round the hives - this could easily be agreed with the farmer who lets you place the hives on his property. A jar of honey per colony is the customary hire charge, but the Forestry Commission may charge up to £15 per hive.

The return journey is much easier temperature wise. By the time we are ready to leave the moor, at the end of the first or second week in September, frost has usually terminated the flow from the ling. If there has been a good crop we would have made an extra journey to get the heavy supers home before we tackled the bees. Even without supers of honey, there is still plenty of weight in the brood boxes and the trailer will groan a bit. We put the same screens across the entrances for the return journey but we leave the inner covers and roofs in place. Again, we make our departure early in the morning.

Whilst having full, heavy hives are a beekeeper's dream, the lifting of them can be a nightmare - especially for the solo beekeeper. With this in mind I designed and built a beekeeper's hoist, a sturdy contraption weighing some 45 lbs, but which could be easily moved from hive to hive and could be folded when transported. When placed over a beehive it can be lifted completely, or just parts of the hive to aid the beekeeper during examinations or inserting clearer boards, fresh supers, etc.. It certainly takes the strain off a beekeepers back and makes life in the apiary much easier and enjoyable.

At one time we sold our honeycombs from the moors 'loose', but now each piece is packed into cut comb containers each of which is weighed and priced individually. Last year the crop was poor and we were selling comb honey for £10 per kg in our local shop. Do not , though, put liquid honey in the containers to try and

make up your weights to standards such as 270g or 400g - even if it is of good quality. This loose honey often granulates prematurely and seeds the whole of the lovely cut comb. I have seen this in a very nice large consignment of honey from Meiklaus destined for England. Probably the beekeeper used oil seed rape honey as a filler and the whole lot was solid before it had even left the producer. Recently I discovered a carton or two of cut comb which had been in the sideboard for two or three years. It was unadulterated heather honey and still looked good although there were the 'hailstones' of granulation - a feature of ling honey.

If your chosen site has Bell Heather (*Erica cineraria*) you are very fortunate. This honey is a dark colour like port wine and is, arguably nicer than ling heather. It can be extracted and sold separately. It is also good mixed in with the ling honey and can still be sold under the 'heather' label, but some purists would argue with this. At a honey show it would not (or should not) pass as heather honey as it is not completely jellied and would run out of the jar when tipped to one side. When both bell and ling are present on the same moor, you should move your bees some three weeks to a month earlier than if it was ling alone - so you would need to be on site by the beginning of July.

Although in 56 years of heather going we have never had an accident , we did have a puncture once on the trailer which meant leaving the bees shut up for an extra 12 hours. As this was on the return journey in September this didn't create too much of a problem. Be prepared though for every eventuality and have with you spare veils (for police or ambulance crew) as well as a smoker, matches, fuel, hive tool, tacks and some plasticine.

Here's to happy heather harvesting.

# The Smith Hive

## its origin and development

***C. Neil Anderson***

Photo 1. Smith Hives. Tom and Pat Bradford of Castle Morton, Worcester, at a heather stance on Blanchland Moors which Colin Weightman shared with Donald Sims - when Tom was President of the BBKA and Colin Weightman was Secretary of the Federation of Bees and Honey Associations. August 21st 1964. (Photograph courtesy of Colin Weightman).

The SMITH hive is called so after its inventor William Wilson Smith of Innerleithen who died in 1969. In his early life in the 1920's and 1930's he was a chauffeur when few people had motor cars. It was only as a hobby that he kept bees and sold honey locally. However, he was so successful with his sideline that in 1933 he started full-time honey production with about 50 hives. By June 1945 he had built the number of colonies up to about 150 colonies. The returns from his hives gave him a reasonable standard of living - enough, too, to buy his own motor car which by now was a necessity for visiting his six or seven apiaries.

During the building up of his honey business Smith had tried various types of hive but he found that the majority of them were not suitable for commercial honey production in his area. He was aware though that beekeepers in the USA were further ahead in these matters and he told me that of all the hives he had tried, he found the American Langstroth hive to be the best and simplest. (Today it is used by 90% of the world's beekeepers). It had, however, a couple of major disadvantages. Firstly, it was too big for the type of beekeeping he practised in his area where he needed to transport the hives to the heather moors. This was not because it was cumbersome, but because too much of the precious heather honey would be stored in the brood box instead of the supers.

As Smith did some trade with other beekeepers in supplying them with bees, whilst he liked the simplicity of the Langstroth box (it was only made of four pieces of wood compared with about ten for a British one) , a second disadvantage was that he did not like having frames which didn't meet the British Standard. This lead him to keep the BS deep frame, but use the Langstroth spacing of just 5/16". (Langstroth had defined the bee space as being not less than 1/4" and not more than 3/8"). He also used short lugs to the frames and made his boxes, as they did, with 7/8" thick timber. This resulted in a brood chamber with outside dimensions of 18 1/4" wide, by 16 3/8" from back to front and 8 7/8" deep.

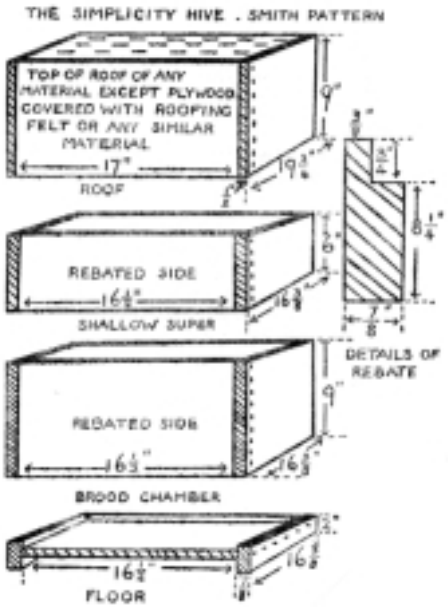
As a good vigorous queen can more than fill eleven BS frames at the height of the season, Smith merely put two boxes together, one on top of the other, with the supers above. Colonies could then be reduced to just one box (overflowing with bees) for the all important heather crop. The hive was easy to transport and, like the Langstroth, easy to get into for inspections.

Smith was a big man, a gentle giant. I got to know him through my father, CABA, a small beekeeper who was a sales rep selling Sailor Salmon, Skipper Sardines, etc., to grocery shops. His five-week rota took CABA to Innerleithen where he lodged overnight with Smith's neighbours. Thus it was that in 1942 I stayed there for a week for my holidays - helping, I hoped, Mr Smith look after his honeybees. In each of his six or seven apiaries he had twenty colonies believing that number of strong stocks would saturate the area. I do not know if Willie, as I then got to know him, worked his bees on the Sabbath, but I think not.

During these early days with him he explained what I have written above and said that WBC hives are "out" and the Wormit Commercial, with its rabbets, was difficult to work. When Willie moved his hive he got his son to help him and he also hired a couple of girls for extracting, bottling and labelling his honey crop. I had only worked for Willie for two days when I realised just how superior his hive was. Everything was standard and interchangeable. He used shallow boxes for honey supers and had an ingenious system of heather honey production in natural honeycomb which was stored in two shallow crates which fitted inside a brood box.

When I returned home I set about making some of these Smith hives, as I was to call them. Up to then, my father CABA, James and John Braithwaite, Elspeth my future wife, and myself had been using the BTB hive which was a sort of modified National using Braithwaite's Tea Boxes (chests) to overcome a wartime shortage of timber. They were all right, but a bit dodgy timberwise. I had ideas about going into commercial beekeeping so I went with Elspeth McIntosh to see Mr Smith for his opinion on two counts. So it was that on the 9th April 1944 we cycled to Willie Smith's home and then on to Broadmeadows Youth Hostel for the night, where we stayed in separate dorms (changed days!). Mr Smith gave us good counsel. I should keep my job as an engineering draughtsman and increase my stocks gradually; he also approved of Elspeth! When we left Broadmeadows the next day, we were engaged to be married and our wedding took place in November of that year.

Early in my marriage when we lived at Rose Cottage, East Newport, Fife, I went to the sawmill for wood to make my Smith hives. I was told to "apply for a license for twice as much timber as you want - they will cut you down by half". This in fact happened. The 18' planks, rabbeted to take the the frame ends, were then laid out on the floor of Rose Cottage and cut by hand into 18 1/4" pieces for the backs and fronts and into 15 5/8" bits for the




The Smith Hive is one of the easiest hives to make. It is economical in its use of timber and is extremely light - especially if made from cedar. The plans here were published in Alexander Dean's 'A Guide to Beekeeping'

sides, dodging knot holes as much as possible. I had already asked Mr Robinson Snr. whose Steele and Brodie, Wormit Works were only three miles away, if he would make them for me and others. "Laddie," he said, "We'll never make it. There's nothing to touch our Wormit Hive." Well, they are out of business and the Smith hive still marches on.

Mr Smith at one time had plinths on the bottom of his original brood chambers, perhaps to keep out draughts and/or to make the hive more secure. Anyway, in his letter of 21st June 1945 he tells me he has "knocked them off and cut hand holds on all sides of each box with my circular saw". I cannot ever remember seeing the plinths.

The hives which I made were so much admired by the members of the East of Scotland Beekeeper's Association that I was always making sketches with details of sizes on envelopes, so eventually I drew up complete working plans of the Smith system. First of all though, I had to obtain Mr Smith's permission to attach his name to it. This he readily did saying that "up to now I have just called it my hive".

I then advertised the Smith Hive Plans in the bee press magazines for a modest cost which included postage. I had my linen tracing blueprinted and then Ozalid printed (photocopiers were not yet invented) but these were expensive. Soon I was sending plans out to beekeepers in England, Ireland, Scotland, Wales and abroad and was pleased that after receiving his copy Willie Smith, in his letter of 21st June 1945 said "it is a first class job . . . . and worth more than you are charging". I was chuffed when the British Standards Institute sent for a copy, but not so pleased when they didn't send me the one shilling and sixpence which I usually charged. However, it was good that they received the plans and the sizes I gave them were eventually contained in the BS Specification No 1300:1960.

The Smith hive was by now becoming well known and I must have sent a plan to Donald Sims, an advocate for the hive in his book ''Sixty Years with Bees" for he mentions Neil Anderson in it several times. (It is a good read, but somewhat repetitive). The MAFF Advisory Leaflet 445 was also very good for the furtherance of the Smith hive. A Mr J I Carswell also produced a blueprint of the Smith hive in 1946 using lock cornered joints in lieu of my half checked corner joints. The former, though, were apt to let in more water and hence rot the corners. I glued the half check joints using Chas. Tennants & Co's aero-propeller glue, a water based resin which set rock hard. They could not sell it to me because of war restrictions - but "here is a free sample". I was delighted. the surplus I sold to ESBA members for a small charge - they too were equally happy.

When making up the hives I would try putting the boxes together first and after that glue the corners and fix with 2 1/2" galvanised nails. Before the glue had chance to set I would square up the boxes by measuring the diagonals and making any necessary adjustments. The brood box on its side makes a useful temporary seat (with a choice of two heights) when inspecting colonies. It also has the advantage of having a top bee space unlike National hives.

Willie Smith had his boxes painted white. Paint, however, does not breathe and for all the years we've had Smith hives I have used creosote on their outsides and edges. We believe that it keeps bugs and things away and is antiseptic. We even creosote the hives when the bees are occupying them, just a little care needs to be taken. We have never, ever detected the slightest whiff of creosote on the honeycombs during all the time that we have used it as a preservative. Over the years the brood box has shrunk from 8 7/8" to maybe 8 3/4" so, were I to make more (unlikely at my age) I would start with 8 15/16" timber - but not more.

Many beekeepers know that we use dowel pegs in the sides of brood boxes and floors to stop them swivelling in transit. However, nothing is needed if the hives are not to be transported. Nowadays, though, this is not so important for there are many efficient methods of keeping hive parts secure should colonies need moving. However - never use ropes - I speak from bitter experience.

I must at one time have had a stock of bees from Willie Smith for in my shed I still have a plywood cover with a 10" x 9" gauze ventilation screen. On it shows that a consignment of live bees was sent from Innerleithen Railway Station (LNER) bearing parcel stamps amounting to 8s 7d to 30 East Hadden Road, Dundee, where I lived with my father.

I have good memories of Willie Smith, he was such a nice man. I remember one day, whilst I was 'helping' him in 1942, I bumped into a hive as I was entering one of his apiaries. Out flew the bees, they were soon everywhere. Willie didn't reprimand me,be he just said "Run for it to the car". He said it didn't matter we could go to another apiary and come back to this one the next day. Willie showed me by his actions that day that being brave didn't count - even experienced beekeepers run for it - sometimes.

(below) Smith HIves (except one at the end of the row) on one of Basil Waller's heather stances near Otterburn, Northumbria. Note small entrances. (photo courtesy Colin Weightman).

# WHERE HAS ALL THE HEATHER GONE?

***Geoff Hopkinson NDB***

The Heath and Heather Areas of the British Isles

from 'Bees to the Heather, by Stanley B. Whitehead, and taken from Dr C L Whittle's report which appeared in The Scottish Beekeeper, September 1950.

**KEY TO MAP**

**Scotland**

1. Caithness
2. Sutherland
3. Ross-shire
4. Moray-Nairn
5. Inverness-shire
6. Skye and Raasay
7. Aberdeenshire and Banffshire
8. Argyllshire
9. Kincardineshire
10. Perthshire
11. Dumbartonshire, Renfrewshire, Lanarkshire
12. Ayreshire, Wigtownshire, Kirkcudbrightshire, Dumfriesshire
13. Pentland Hills
14. Lanarkshire
15. Lammermuir Hills
16. Moorfoot Hills
17. Selkirkshire
18. Cheviot Hills.

**England and Wales**

19. Cumberland, Westmorland
20. The Pennines
21. Bowland Forest
22. Cleveland Hills, York Moors
23. Derbyshire
24. Cannock Chase
25. North Wales
26. South Wales
27. Norfolk
28. Hampshire, Surrey
29. Sussex
30. Hampshire
31. Dorset Heights
32. Exmoor
33. Dartmoor
34. Bodmin Moor
35. South Cornwall

**Ireland**

36. Mountains of Kerry
37. Connemara
38. Wicklow Mountains
39. Dublin Hills
40. Mourne Mountains
41. Sperrin Mountains
42. Slieve Bloom Mountains

My beekeeping career began in the late summer of 1948 when I was volunteered to assist in the movement of hives down from the North Derbyshire moors at the conclusion of the great tribal ceremony of 'going to the heather'. Since that time 30% of the heather moorland has been lost in England and Wales - a trend that is also mirrored in the Scottish uplands. This loss has been mainly due to the changes in agricultural practices and in the demands for sheep and cattle grazing alongside the influences of subsidies within the Common Agricultural Policy. William Hamilton in his 1945 book "The Art of Beekeeping" noted that 'heather honey is seldom an easy crop to obtain' and one can only speculate on what his comments would have been were he alive today.

In looking at the management of heather moors and heathlands, it must be noted that beekeeping is a relatively small component within the economics of the present situation. However, within an ecological overview, all the various species of bees have a part to play. The 1992 Rio Conference led to a UK Bio-diversity Steering Group which identified our heathlands and blanket bogs as being key habitats requiring special protective measures. It was felt that they not only had 'aesthetic sporting, cultural and tourist values' but that they were also rare outside the British Isles. Although their floral diversity is relatively poor, the European Community Habitat Directory has listed certain rare or under represented plants, in addition to bird species, half of which are threatened or receive special protection. Thes include twite, golden plover, merlin, golden eagle, and red grouse.

The beekeepers are, therefore, as in the lowland areas, sitting on the touchlines of a classic use of land dilemma in which economics and/or market forces will detect the outcome. In that context, we should remember that the moors and heathlands of this country have been

(above) Bell heather, *Erica cineraria*. The earlier flowering heather whose honey is described as being of a deep 'port wine' colour.

(left) Ling heather, *Calluna vulgaris*, the most important source of heather honey. The honey is thixotropic and is ideal for selling in the comb.

(below left) Carefully controlled burning, though primarily done for game management, helps to provide plentiful young shoots - good for both bees and grouse.

(below). Bracken if it is not controlled can soon choke a good heather moor.

(bottom) Afforestation - an important factor in the disappearence of some of our heather moors (Scotton Common in North Lincolnshire)

ever-changing since the first removal of trees and scrub took place from 3000BC onwards and which gave rise to the scenery within which Hamilton successfully worked his bees in both Scotland and Yorkshire in the 30's and 40's.

So, what are the factors that may help to check the reduction in heather acreages? It is perhaps ironic and unpalatable to some that the conservation of moorland for grouse shoots is one of the most potent forces at work at the present time. Rotational burning produces a constant flush of young heather shoots as opposed to worn out, overgrown areas. At the same time this has a bonus of improving bee forage. The effect of sheep is variable but, under the CAP subsidy agreements, there have been some well documented examples of severe over-grazing that has been deleterious to wild life. There are, however, some very firm views from within the farming community, many of them tenants within large estates, and John Maxwell, Chairman of the Blackfaced Sheep Breeders Association, claims that "When management understands the requirements of both sheep and grouse, there need be no conflict betwen the two enterprises. What is good for one is good for the other.'

Alongside these continuous issues is that of coniferous forest plantations, with their short-term finacial returns, creating an environment in which heather has no part to play. Of equal importance is the insidious spread of bracken which is highly-resistant to control measures and, therefore, costly to keep in check.

Referring back to the 1992 Rio Conference and Government overall policy on Sustainable Development, there is a clear recognition that all is not well and there are many schemes afoot that should result in better bee pasture in the future. Paragraph 4.2.3 of the Habitat Action Plan, in one of its many related proposals, seeks to increase dwarf shrubs to at least 25% cover where they have been reduced or eliminated due to inappropriate management. The target for such restoration is that of between 50 000 and 100 000 hectares by 2010. Obviously, this must be good news for some beekeepers.

An important component in such a proposal is that of the Heather Trust, founded in and working specifically on the restoration of upland areas but driven by a mainspring of enthusiasm generated by shooting interests rather than the more conventional wildlife trusts. They note that the heaths and moorlands are declining at a rate of 1% per annum and, to further their work, they have established a demonstration site in the South Pennines and a further three in Scotland.

Local initiatives are also important. An example of this is the work in progress on a small section of the fragmented remains of the once extensive dry heathland that runs from Sutton Coldfield almost to the foot of the Pennines. Funded by the Heritage Lottery Fund, English Nature and the County Council, this 'Save Cannock Chase' project with a budget of £725 000 starts with the knowledge that the county has lost 90% of its heathland over the last twenty years. Already, certain areas of Cannock Chase are being cleared of scrub and bracken in order to bring about improved habits for wildlife. This will increase the volume of heather that once existed in sufficient quantities to bring the migratory beekeepers out of the Black Country. It's most unlikely there will be a run on honey presses in a year or two, but some beekeepers are likely to reap the bonus of increased winter feed.

Scotton Common in North Lincolnshire (see picture p 31) was once a large low lying area covered with blown sand. After the Second World War much of the surrounding heath was planted with Scots and Corsican Pine by the Forestry Commission. A further set back was a decline in the rabbit population in 1953 due to myxamatosis. The proliferation of seedling pines and biches and no rabbits to eat them led to this important habitat rapidly being covered with scrub and mature trees. Since its management by the Lincolnshire Trust for Nature Conservation, the large trees have been cleared from the centre of the site and using sheep, the heath is recovering well allowing a good range of heather species to survive. Other important plants and fauna include gentians, sundew, nightjars, grayling butterflies and adders.

In all this, the beekeepers are a disparate group of 'camp followers', paying no rent for the land they forage over other than token payments for the rights to site hives. They are dependent on the skills and labours of others for the harvest they gather in any one year and complain vociferously to anyone who will listen when things go awry. On the other hand, 'beekeeping is a vital barometer of changing conditions in the countryside'. When specifically applied to moor and heathland habitats, then hillsides covered in calluna and erica, overburnt on rotation and giving a profusion of healthy young growth, brings happiness to the beekeeper (always provided that the sun shines!). We, the beekeepers, have never truly existed in isolation and we should, therefore, applaud these positive moves as part of our national Sustainable Development Strategy. There is a sting in the tail for some, however, and if the shooting of grouse were to be banned, then a large part of the impetus to mainatin the moors in a balanced condition would go. Remove the money-spinning shooting syndicates and the need for management becomes largely irrelevant.

As always, there is more to this craft of ours than 'stings and honey'.

## BKQ Heather Moor Survey

**It is half a century since Dr C L Whittle's report was published in The Scottish Beekeeper and in that time many of our moors have declined enormously. It would be good to have a more recent picture of the status of heather moors in the UK (and world-wide) and of their value to bees.**

**Readers could participate by sending to the Editor details including:**

**1. Location of the moor**

**2. Heather species and their ratio**

**3. Current threats - afforestation, bracken, over-grazing, land cultivation, building/development.**

**4. Value for bees - on a ten point scale (10 high) - based on a number of seasons.**

# SCIENCE REVIEW

*Janet Dowling FRES*

## What do workers think of queens of different ages?

Some simple experiments have been devised to find the degree of attractiveness to worker bees of queens of different ages. It has been established that secretions from the queen's mandibular glands and abdominal tergal glands are involved in her attractiveness to workers and that their functions are age-dependent. The responses of workers to queens change during her maturation and eventual ageing. The following categories of queen were investigated:

0 - 1 day old
2 - 3 day old
4 day old
5 & 6 day old
16 & 18 month old.

Caged, live queens of these ages were placed on top of the combs of a colony and, after twenty minutes, the number of workers surrounding each cage were counted.

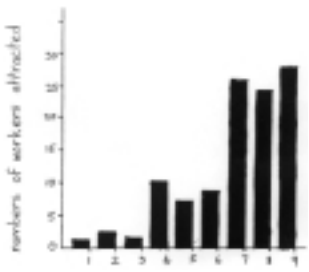
The results show three distinct levels of attractiveness amongst the different age groups of queens. The changes were step-wise, not gradual. It also suggests, contrary to a generally held view, that the attractiveness is unconnected with mating.

**Effects of queen honeybee ageing on her attractiveness to worker bees.**

de Hazan, Lensky & Cassier. 1989

Comparative Biiochemistry and Physiology. Vol.100.3.

**Bar graph to show the number of workers attracted**



**Key:**

1 - empty cage
2 - empty cage + 1 worker
3 - 1 day old queen
4 - 2 day old queen
5 - 3 day old queen
6 - 4 day old queen
7 - 5 day old queen
8 - 6 day old queen
9 - 18 month old queen

## The honeybee queen's part in the regulation of the relative numbers of workers and drones.

My generation of beekeepers was taught that the colony was ruled by the workers collectively and the queen did what she was allowed to do. The workers regulated the numbers of male and female eggs laid by the queen. They exercised this control in response to seasonal factors and fluctuations in the economy of the colony. Very small colonies with less than 5000 members, rarely produced drones. More drones are produced just before and during the swarming season than after it. Drones are reared in prosperous times and not when times are hard.

The workers achieve their control through their construction of the two sizes of cell, positioned either centrally or peripherally in the brood nest, and by cleaning them in preparation for the queen to lay her eggs in them. After the eggs have been laid, the workers can exercise a second stage control by feeding or not feeding and by either eating eggs or throwing out the resulting larvae. This paper suggests that the queen also has some control over the sex ratio by choosing whether she will lay eggs in drone or worker cells.

The experiments employed some specially prepared brood combs built on drone and worker foundation and arranged with the patches of drone and worker cells in a chequer board pattern. These combs were introduced into experimental colonies in which the queens were already established layers of both worker and drone eggs. The procedure was repeated at different times during the year, so as to take account of the bees' seasonal preferences for rearing different proportions of drones and workers.

When a queen's laying was well established, she was transferred with bees and a chequered comb into an observation hive. It was found that queens did appear to exercise choice over laying in the different sizes of cell, passing over some cells to seek one of a different size that was preferred.

In one series of experiments, the queen was confined to one or other size of cell for some time, before being put into the observation hive with chequered comb. In such cases, the queen would exercise her choice in such a way as to redress the imbalance that had occurred, or to achieve a sex ratio appropriate for the time of the year. So it would appear that the sex ratio in a colony is not entirely due to worker control, but that the queen exerts some influence, perhaps by acting in accordance with her own intrinsic annual rhythm.

**The queen honeybee has the potential ability to regulate the primary sex ratio**.

Ken Sasaki, Toshiyuki Satoho and Yoshiaki Obara. 1996.

Applied Entomology and Zoology. Vol 31 (2).

# Breeding Matters

*John Atkinson*

## Selection and Selection Criteria

### Part II

Writers on this subject have included, amongst others, the following characteristics as desirable:

Wintering ability. Colony size (i.e. number of adult bees). Brood area. Brood viability. Length of foraging day. Lowest temperature at which colonies forage.

They go on to suggest that the bee breeder should select for these specific characteristics: Not only these criteria of course, but including these.

Those that harvest propolis may prefer a bee that produces a lot of the stuff. The rest of us are not so keen. Similarly, there are those who harvest pollen or royal jelly. These too may have selection criteria not of interest to the rest of us. All of this invites the questions, 'What should the selection criteria be? How many criteria is it feasible and effective to have? What is their relative importance and how should they be scored?'

Common sense tells us that the simpler we can keep things, the better. On that basis alone I think all nine criteria mentioned so far can be struck through, ruled out, not (directly) considered.

The last three mentioned, namely those relating to the production of propolis, pollen and royal jelly are minority interests, by definition of little interest to most bee breeders. Also, propolis, pollen and royal jelly are *by-products*. It is not sensible to jeopardize selection for a main product by including criteria for by-products (unless you are a by-product producer in a big way).

About the first six criteria I can see readers bristling with indignation at my suggestions as some of the criteria, and in certain circumstances perhaps all of them, *must contribute to a bigger crop of honey*.

Indeed, that is so, but the goat counting story is decidedly relevant here. You do not know the story?

A long time ago I spent some time in Egypt and lived in a 'pension' a few miles from the centre of Cairo. I well remember the drawn out street cry of 'Laban, laban'. Round the corner would come a herd of goats and out would come the housewives with their jugs for the goatherd to fill straight from source. I often used to watch as the Arab goatherd used to milk, not from the side, but from the rear. This struck me as risky, but I never saw disaster strike.

I am getting away from the point. The herds were quite large; two or three dozen, I suppose, so a single goat could easily be missed and periodic counting was necessary. According to the story I heard, the goatherd operating in Heliopolis where I was stationed, when he got back from his round, sent one of his sons out to count the goats. This was the first time this particular son had been given the task. When he had been gone an unconscionable time, the son who usually did the counting was sent out to see what was up. The second son when he found out how the problem was being tackled berated his brother. 'Fool, idiot. Fancy counting their legs and dividing by four. You are just making work. All you have got to do is count their horns and divide by two.' I do know a few clean stories.

In this light look at, say, wintering. A colony that does not winter well will come through the winter in a weak condition and not get as much honey as one that does winter well. The same argument applies to the other criteria affecting honey production.

If you select for honey production itself you *automatically* select for *any* and *all* criteria that affect honey production. Apart from saving a lot of work, you avoid the question of deciding how many marks you should award to wintering, how many to brood area and so on.

Unfortunately, using honey production as a main selection criterion is not *quite* as simple and straightforward as this. Things very rarely are entirely simple and straightforward.

Selecting for honey production *can* mean selecting for just robbing ability. However, just remembering this goes some way to avoiding catastrophe.

There are criteria which, irrespective of any effect they may have on honey yield, because of their importance, do definitely need to be considered on their own.

Temper and swarming are two such. If you do not consider these as vital, your non-beekeeping neighbours certainly will. They will not want to be stung. They will not want your bees 'following' their children. They will not want your swarms in the roof space or chimneys of their house. Their wants in these regards are wholly reasonable. Even if you take the regrettable attitude of 'to hell with the neighbours', it is in your own interest as a beekeeper to have non-following bees that are reluctant to sting, that are quiet on the comb and disinclined to swarm.

Just as there is more than one component of 'temper', so 'swarming is not a single component issue. There are two quite separate meanings of the word 'swarming'. To most it means the issue of a swarm. To the commercial beekeeper and to serious amateur beekeepers, it means, or used to mean, the signs at the periodic summer inspections that a colony intends to swarm. It means summer queen rearing by a colony. This summer queen rearing by the colony can give the beekeeper the opportunity to avert swarm loss and avert further swarm preparations by that colony. This is not the place to consider the relevant merits of requeening, artificial swarming, nucleus making, package bee production, etc. as ways of achieving this end. It is, though, the place to point out that, although the only proven forewarning of the issue of a swarm is queen rearing by the colony, about half of all summer queen rearing by colonies is aborted by the colonies, if they are given the opportunity.

It is often argued that a totally non-swarming bee is impossible, since a totally non-swarming bee could not survive in the wild. Some frequency of colony reproduction, which is what swarming is, is built into the bee, it is alleged. The argument sounds conclusive, but it is nothing of the sort. The same argument could be used regarding the 'brooding' of eggs by birds, yet non-sitting breeds of poultry have been bred.

I am not going to go off, well not here and now, into the byway of the feasibility of breeding a non-swarming bee and the likely cost of doing so. Such a byway, though interesting, would take too long to describe, and thus make this article much longer than usual, a very dangerous precedent for a lazy person to set.

Provided that the breeding population is not small, it should be possible at least to prevent excessive swarming being bred into a strain. The breeding population needs to be a fair size to provide enough to choose amongst.

Earlier articles in this series have defined 'breeding population' and discussed breeding population size. You can also find their detail in the book, Background to Bee Breeding. Here, let me just simplify selection against swarming. This can be reduced to two questions, neither of which needs marks as answer, as the answers to each is either yes or no. The two questions are: Has a swarm issued? This question can be altered for convenience to, 'Is the marked queen that was there at the beginning of the season, still there at the season's end? The second question is, 'Has the colony engaged in summer queen rearing? Those that are not as meticulous in summer inspections as to know the true answer to this question could argue that the second version of the first question is all that is necessary. Bear in mind that selection against swarming needs to be confined to selection amongst *strong* colonies. There is no significance in weak colonies failing to swarm.

Strictly speaking, 'Temper' can be held to refer only to stinging propensity. However, it may be convenient to give the term a wider meaning to include quietness on the comb and 'non-following'. All three attributes are desirable.

Non-following and low stinging propensity have little chance (that I can see) of being selected for in the wild (i.e. by Darwinian 'natural selection,'). Natural Selection would favour bad tempered bees that would follow a would-be predator and see it off. Quietness on the comb in the wild is, I believe, immaterial and so would, in nature, neither be selected for nor against, so selection for this component as well as the other two is for the bee breeder to do.

To sum up my points so far, most selection criteria affecting the beekeeper, but not his neighbours, can be eliminated by selecting for honey production only. Temper and swarming with their sub divisions need to be selected for separately.

The selection process itself can be made more efficient, if it is regarded as a two season affair. In the first season the choice should be as wide as possible, preferably covering all the pure bred colonies of all the members of a breed society, to use the terminology of farm animal breeding. The selection would be entirely on the colony records, and those records would not need to be much more complicated or detailed than the ones in the records system of a competent commercial beekeeper, though, for the convenience of the person collating the records of the different beekeepers it would help if there was some standardisation. On the minus side is apiary size. Each apiary would need, for statistical purposes to have a minimum of ten colonies; twelve would be better. For a different reason the maximum number of colonies in any participating apiary would need to be far below the sort of numbers current fifty years ago, in the Manley era when commercial apiaries could have forty or fifty stocks.

Selection in the second season would be of the top scorers of the previous season and would involve regular weighing, to eliminate high honey yields caused by robbing

So far I have not said a word about colour It is frequently, but not correctly, pointed out that colour is not a factor of economic importance. Just try selling, say, queens of native bees in Britain, if those queens' workers have a lot of yellow about them. Colour is the attribute that most stands out in recognising a bee race. Unfortunately, it is far from a reliable indicator. Again too much emphasis can be placed on biometry. This, I understand, was revealed when it became feasible to use DNA analysis. I believe, though, that whilst it can be feasible to use DNA analysis for research purposes, this technique is likely to remain too expensive as a run of the mill bee breeders' tool. I hope I am wrong, but if I am not, a change of strategy may be the only way out of the difficulty. Instead of hoping that mating has all been with the desired drones and using biometry as a not very satisfactory way of seeing if that hope was justified, it could be better to ensure effective mating control in the first place.

As I wrote at the beginning of the earlier article on Selection, I have avoided this subject in the past because so many others have written about it. My aim now is to put forward facets that others have not put forward, which should give subjects for perhaps several future articles.

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I have just space for a (probably infuriating) further snippet.

I have mentioned before how valuable the 'National' can be for picking up news and opinions. One of the opinions expressed to me by two quite separate people at the '99 National was disillusionment with II, instrumental insemination.

This disillusion does not in the least surprise me. The problem was wonderfully expressed in my hearing nearly twenty years ago by an Australian. He said, 'The problem is no longer *how* to inseminate. It is *what* to inseminate. Disillusion is bound to result before long, if you get the answer to that question wrong. Even if you rephrase the question as, 'What to mate to what?', the answer may not be easy to apply, but it is nearly always short. Seven words. You have got your Lush Number wrong.

No space here and now to assuage your fury by giving an explanation in this article. However, the explanation will be (I hope) in the next one.

## The national honey show 2000

### Appointment of stewards

Once again, may I appeal for volunteers to act as stewards at the 2000 National honey show. If you have an hour or two to spare would you please write to me giving some indication of the day and time when you would be available. All stewards are given free admission to the Show and grants for refreshments.

If anyone wishes to be considered as a judges' steward, would they please write to me before the end of September. Priority will be given to those who aspire to the judge's or associate judge's certificate.

H.F. Carpenter, Hon. General Secretary, 1 Baldric Road, Folkstone, Kent CT20 2NR

email nathon@zbee.com

# HONEYBEE COLONIES IN THE WILD

***Ian Rumsey***

## Varroa Survival: Modern Hives v. Natural Nest Sites

There has been much interest shown in the survival of feral colonies of bees despite the fact that they may occur in areas where varroa is rife and yet they continue to thrive without treatment. The reason for these colonies' survival must be of some importance and, once the factors have been recognised, it would, of course, be beneficial to incorporate what is learnt into conventional beekeeping practice.

It is very difficult to monitor what goes on inside a natural colony of bees when it is located in a church, chimney, tree, or other obscure site but, by simulating the conditions usually found in such a wild nest, it may be possible to find some of the answers we are looking for.

It is my contention that bees in a contemporary hive are at a disadvantage when infested with varroa. The design of modern beehives allows varroa mites, which may have been groomed from bees, to re-establish themselves on other bees as they arrive or leave the nest, because the hive entrance is commonly at the base of the hive. Many management procedures, too, may cause stress to the colony and distract bees from their normal patterns of hygienic behaviour. The combined efforts of these factors favours the survival of varroa mites within the hive.

When bees take up residence in the wild, the number of varroa mites is limited only by the bees' inherent ability to groom themselves free of mites and also by uncapping and removing dead, infested brood. To test bees under more natural conditions a Hollow Tree Hive could be made. It consists of about 6" deep and 14" across (including the 2" thick walls). Several supers stacked together will make up the hive and with more supers being added beneath the colony as it expands and so that there is always at least a space of about 6" between the bottom of the lower-most comb and the floor of the hive. Both the roof and the floor are 16" square boards about 2" thick. Two entrances/ventilation holes are provided by drilling 1" holes in a couple of the supers. I found that my Hollow Tree colonies built comb to a depth of 32" in the first two years, after that little increase was observed.

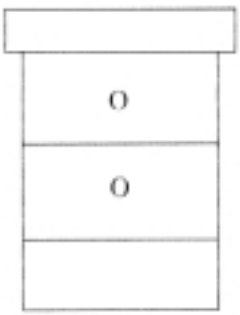
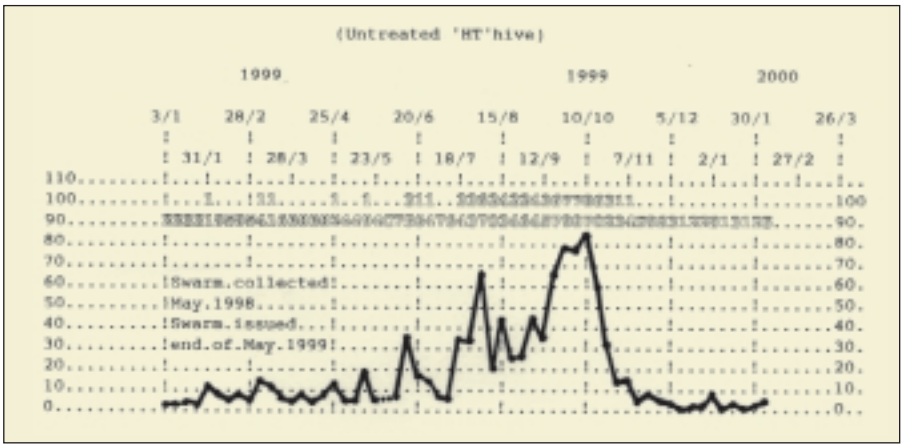


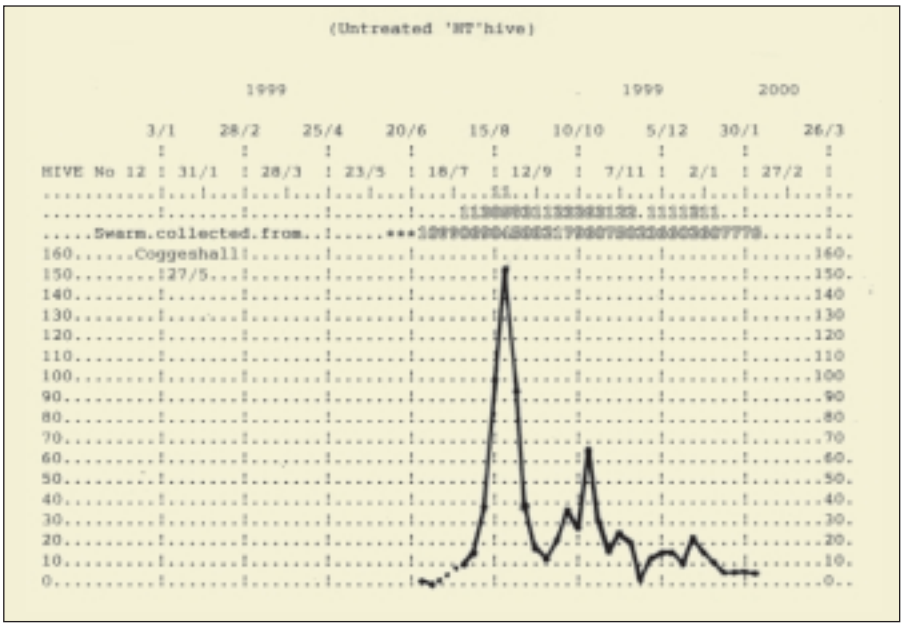
**Fig. 1**. (left) The Hollow Tree Hive.

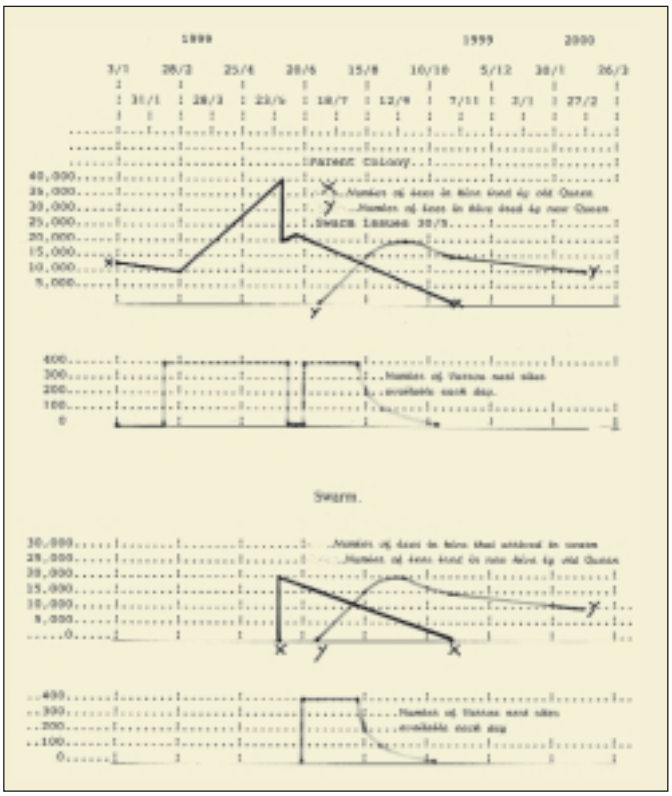
**Fig. 2**. (below, top) Weekly varroa drop in untreated Hollow Tree Hive No 8.

**Fig. 3**. (below bottom) Weekly varroa drop in untreated Hollow Tree Hive No 12.

**Fig. 4**. (opposite page) Colony population and availability of varroa nest sites in (A) Parent Colony and (B) A swarm.








# BOOKSHELF

***Book reviews by Val Phipps***

### Honey in the Kitchen

***by Joyce White (2nd edition, revised by her daughter, Valerie Rogers)***

Published by Bee Books New & Old, £7.99. ISBN 0 905652 50 9.

I was given this little book to review whilst on holiday and, after much rich food, was quite keen to return to the simple and tasty recipes it contains. The introduction is most informative to the novice honey cook, giving brief notes on honey composition, history, colour, viscosity, aroma & flavour, and storage, together with basic honey-cookery tips.

Many of the recipes are seasonal and only use ingredients to be found in the average kitchen. There are old favourites, new recipes (especially the delectable crunchy honey mustard) and steamed puddings cooked at low temperatures to avoid spoiling the honey's aroma and flavour.

This book is as suitable for anyone unused to honey cookery as for the experienced cook wanting to return to healthy (and extremely tasty) and simple food. With its 'wipe clean' cover, it would make an excellent gift, especially if it was accompanied by a selection of the giver's own honeys. It should be borne in mind that the recipes are inexpensive only if a supply of 'friend and family' honey is available, many monofloral honeys from shops being too expensive to use in quantity, unless for a special treat.

### I want to dance

***by Liz Hall, illustrated by Chris Geanely.***

UK price £5.99. www.minerva-press.co.uk ISBN 0 75410 835

Designed and written by an experienced primary school teacher and beekeeper for young children, this book allows the reader an anthropomorphic glimpse of the interior workings of a hive from the point of view of Belinda Bee. She emerges from her cell, a newly-hatched worker, and entices the small reader through all her many and, sometimes, dangerous activities, longing all the time to realize her ambition to be a bee who dances, becoming an adult who can leave the hive and experience the intense joy of nectar collection.

Delightfully illustrated, my one criticism is that some text clarity is sacrificed by its being superimposed over the pictures, making this a book to be read with a child (more satisfying to both parties!), rather than by the child alone.

# TALKBACK

*Albert Morris*

It was interesting to read the Research News from the Journal of Apicultural Research, reviewed by David Cramp, regarding the 'reverse' hygienic behaviour of Apis cerana which seal over varroa infested cells. However, regarding the hope that a 'non-hygienic' bee with these qualities could be bred, one would imagine that it would take as long as it did for Cerana to evolve this method of varroa control. Nevertheless, in the battle against varroa, everything which might be seen to be of use must, at least, be investigated.

Now varroa is found in New Zealand - but wasn't this inevitable? When varroa was found in Devon - with its high level of infestation - it became apparent that varroa had been present for many years. The same seems to be true in New Zealand. One wonders why it was so difficult for beekeepers not to have detected the mites sooner, in both countries. All right, the mite is tiny, but there are other indicators, too, which should have alerted beekeepers that something was wrong. Wouldn't there have been mis-shapen bees, perhaps with malformed wings and being unable to fly? Surely, something, at least, to make beekeepers curious?

I was saddened to hear of the death of Rev. Eric Milner. Some years ago our paths crossed several times when we both wote for the British Bee Journal regarding some observations on the Old English Bee and whether or not it still existed. Eric gave details of the morphometric measurements he had made of the wings and body hairs of bees and encouraged people that, through selection and breeding, they might be able to revitalise this breed - for it had attributes which many beekeepers favoured. So, having passed on, Eric joins other beekeepers who contributed to the BBJ in its olden, golden days.

Newsround informed us that new research shows that beekeepers are PRONE to arthritis - that is, it is not cured by bee venom, but brought on by it. So, all those young women in the 1930's sitting for hours besides bee hives, picking up bees with tweezers and touching each one onto a sheet of inch thick blotting paper, were wasting their time. The bee venom was then pressed out from the blotting paper, centrifuged and then used as a serum for treating arthritics, yet apparently all this treatment did was to excarcabate their condition. Hopefully, the venom collectors' work was not all wasted for some of the extract was used as an antidote for snake bites.

How I enjoyed the article by R. Raff - mainly because in many ways I can identify with much of it. Firstly, about creosote. As readers will already know I have used this substance for over 60 years. It has been invaluable to me in the apiary for stopping or preventing robbing and for keeping mice, waxmoth and other undesirables out of the hive. I, too, was told some years ago that it was carcinogenic, but would echo R Raff's words that if you take heed of all that you read and hear - that it's hardly worth while getting out of bed in the morning. Anyway, as stated, I have used the stuff for a long time and I'm in my 79th year. And as for a swarm of bees - they will choose a freshly creosoted hive as readily as a non-treated one. Secondly, the price of cigarettes. When I was ten they were eleven pence and a ha'penny for 20 and there was a dispensing machine not far from where I lived. At that time, the country was flooded with one Franc coins brought back to the UK by WW1 British soldiers. We discovered that they were exactly the same size as a one shilling coin, so you could get a pack of twenty for one Franc. Not that we smoked, no, there was a greater prize we sought, for taped to the packet of cigarettes was a ha'penny coin as change. This is at a time when farthings (a quarter of a penny) had monetary value. Early on a Sunday morning, when few people were about, we put our Franc coin in the machine, detached the ha'penny and threw away the pack of Capstan or Players. I often wondered what the lucky smokers thought on finding the full packets. At this time petrol was just 10d a gallon for the cheapest and 1s for the best.

In Letters, George Batey MRPS writes about being breathed on by countless people in the course of his work as a pharmacist and is given to thinking that this has led to him having developed an immunity to colds. This may be truer than he thinks as one theory is that there are just over a hundred variants of cold viruses and when you have gone trhough all of them, your immune system is fully primed.

Finally, the other day a couple of beekeepers approached me with a bumblebee in a jar. They pointed out its strange shape as it had a somewhat elongated abdomen when compared to other bumblebees. As I am interested in all kinds of bees and wasps, I was able to tell them that their specimen was a drone bumblebee and that the elongated abdomen was needed to accommodate its genitalia. The antennae, too, were longer than those of a worker bumblebee. Wasp drones' abdomens are also longer and their antennae and abdomens are much darker than the workers'. The antennae are also more curled and thicker than a workers wasp's. In warm weather wasp drones, I have discovered, congregate in dozens, mainly on apple tree leaves, not far from where the wasp's nest is located.

# COLLECTORS CORNER



In the last BKQ George Hawthorne looked at postal covers. He now turns his attention to business cards with a bee theme.

Business cards are things we tend to keep for a while and then throw away. But, alongside postal covers, bills, receipts, event programmes, show schedules and other items of bee ephemera, they can in future years prove to be of much interest. Here are just three from the editor's collection.

The Chairman of the Finnish Honey Producers Ltd uses the hexagon and honey colouring. Has English become the international language? - or is this card especially designed for the English speaker?


John Adams of Bee Busters Incorporated vows to "save the good B's and eliminate the Bad B's".

My favourite, though I am not a pub man, is from 'The Beehive' pub, Castlegate, Grantham. Formerly known as 'The Sign". Notice the WBC up in the tree on the left. The pub sign carries the verse:

*"Stop traveller this wondrous sign explore*
*And say when thow has viewed it o'er*
*That Grantham now two rarities are thine*
*A lofty steeple and a living sign."*

For how many years, I wonder, has the 'sign', the WBC, housed a colony of bees?

*George Hawthorne is reducing his collection of beekeeping collectables and has quite a few items for disposal. He hopes that these articles will find homes amongst the beekeeping fraternity. Much of his collection has featured in Collectors Corner over the years. It is suggested that anyone interested should telephone George expressing interest in general or in specefic items - he will tell you then what is available.*

*Ring George on 01491 680484.*

# BEEKEEPING PERIODICALS

**THE IRISH BEEKEEPER** -The news media for Irish Beekeepers. Official organ of the F.I.B.K.A. published monthly. Subscription £10.00 (sterling) per annum post free. Sample copies and subscriptions: Mr. Graham Hall, Weston, 38 Elton Park, Sandycove, Co. Dublin, Ireland

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**BEE CRAFT** the official monthly journal of the British Beekeepers' Association, covering all aspects of beekeeping in the UK. An annual subscription includes the benefit of third party insurance cover. Details from the Secretary, Mrs S. White, 24 Dogger Lane, Wells-next-the-sea, Norfolk NR23 1BE

**THE SCOTTISH BEEKEEPER**. Monthly magazine of the Scottish Beekeepers' Association. International in appeal, Scottish in character. Membership terms from: Enid Brown, Milton House, Main street, Scotlandwell, Kinross-shire KY 13 9JA, Scotland. Sample copy on request.

**GWENYNWYR CYMRU - THE WELSH BEEKEEPER** - The quarterly magazine of Cymdeithas Gwenynwyr Cymru - the Welsh Beekeepers' Association. Local and National news of beekeeping in Wales and abroad. Subscription details from the Secretary, BD Rowlands, Trem y Clawdd, Fron Isof, Chirk, Clwyd, LL14 5AH