

NORTHERN LIGHTS

THE NEWSLETTER OF THE NORTH DEVON BRANCH
OF THE DEVON BEEKEEPERS ASSOCIATION

AUGUST 2010

www.northdevonbees.org



CHAIR CHAT

Sometimes, just sometimes, a colony behaves in a truly faultless manner - as if they'd read my mind. I found one like that today. It had been expanding fast a few weeks ago with 8 frames of brood so I'd added another brood box. On the next inspection the top brood box had been completely drawn out and today, just a week later, it was full of capped off honey - no brood or eggs to be seen. This makes up for the colony next to it where the workers had obviously gone on strike.

Most beekeepers I've spoken to are expecting a record harvest this year but don't be tempted to take the honey off before the bees have capped off 80% of the cells. Less than that, the water content is too high and the honey will ferment. Even better is to get yourself a refractometer to check that the honey has less than 20% water content. (I bought mine for about £20 through Dave Morris at The Community of Beekeepers.)

And don't forget that the bees need stores too. I don't know about you but I feel that taking off all the honey and replacing it with sugar is a rather shabby trick to play on them when they've worked so hard, so leave them with at least thirty pounds of their own honey to go into the winter.

Best wishes for an excellent harvest,
Chris Tozer

HOW TO SHOW OF—BRANCH HONEY SHOW

30/31 st OCTOBER - we hope that you are all busy preparing entries for the Branch Honey Show as you extract your honey and clean your wax cappings. We will be looking through the Honey Show Schedule shortly and hope to send it round with the September Northern Lights - it will basically remain the same though we may change a couple of the recipes. We are now building a **Honey Show Team** to help set up, stage, run, and dismantle the Show. The first meeting will be on **Tuesday morning, 10th August at 10.30 am**. The team is led by Barbara Carlyle and assisted by members of the AST team. They are seeking volunteers from you—the general membership—to join the team in some capacity to take part in this **BRANCH EVENT**. So either come and join us on the 10th or if you cannot make that, contact Barbara with your offer of help. And just in case you are worried - being a member of the team does not prevent you from submitting entries!!

Horestone: Notes for 27/7/10 Weather overcast/showers. Disturbed as little as possible. Entrances reduced to prevent robbing. Wasp traps put out.

White 1: Brood box not checked this week as weather poor. Frames of stores re-organized and another 6 frames sealed stores removed. Extracted super from last week replaced for bees to clean up. Varroa 1

Nuc 14: plenty of stores. No sign of laying queen.

White 1A Brood box not checked. Extracted super returned over crown board for bees to clean up. Varroa 10

White 3: Super checked, nothing sealed therefore left on for winter stores. Varroa 1

White 3A super checked, nothing sealed, therefore left for winter stores. Varroa 0 – wax moth larvae on floor.

Nuc 2: queen seen and laying E, L & SB – grown out of nuc box so transferred to brood box. Fed with sugar syrup. To be transferred to WBC next week.

G1 not opened.

G2 Small Hive Beetle insert removed as requested by SBI

G2 nuc set up on 25th - Queen released from cage.

Nuc in national box Q. not seen but 5/6 frames of E,L,SB. Unite next week?

Nuc on rack at top of apiary, Q not seen, E,L,SB. Ready to move on, 1/2 frame still to finish drawing

Blue Team – general: all entrances reduce to about 3” and all slabs washed and brushed clean to remove honey drips and OMF debris – to reduce risks of robbing.

Nuc 11 - no signs of a queen being present - difficult to handle indicating queenless - very overcrowded - transferred to brood box - added new frames of foundation.

Nuc 19 - Brood and eggs seen - overcrowded - transferred to brood box - easy to handle

Blue 2 - super of sealed honey removed and put into honey shed - marked 'Blue 2' - PBEs removed

Nuc Box (?number) - queen from Glyn Davies has been released from introduction cage - queen seen marked blue - wings not clipped

Blue 4 - 17 sealed queen cells found - left to sort themselves out - lots of debris on slab under hive.

Blue 3 - too soon to check for laying queen - not opened

Red 1 New Queen building up super half full empty frames moved to middle

Red 2 Very strong, top 2 supers full with clearer board under them, next 2 supers are wet comb returned after extraction.

Red 3 top super full 2nd super put under it.

Question and Answers taken from the BBKA Correspondence Course - Module Two - Honeybee products and forage.

Question 1 - Starting with a super of capped combs describe, with full attention to aspects of food hygiene and precautions to prevent spoilage of the honey, how to a) uncap the combs b) extract the honey from the combs and cappings c) filter the honey d) produce run honey in the jar.

General hygiene in relation to a, b, c & d

*Processing area should have been cleaned and work surfaces cleaned and disinfected before use. *Ensure everything is completely dry before use (use paper towel).

*Processing area must be warm (21C) to facilitate flow of honey and filtering.

*Processing area must be dust and odour free to prevent contamination or tainting of the honey.

*Operator should wear clean overalls and hat/hair net. Hands/gloves clean.

*Keep a bucket of warm soapy water to hand to clean up spills as you go but try to keep everything as dry as possible - honey is hygroscopic and if the water level rises to + 19% it may ferment.

*The super should be free from dirt/soil etc ie it should not have been put on the ground at anytime during inspections, removal from hive or in the processing room.

*Food processing rooms should have insect proofed windows, doors and vents and have an insectocutor mounted on the wall or hung from ceiling away from areas where open product is handled.

a) Uncapping. Check that combs are fully sealed - a few open cells won't spoil the honey but too much 'unripe' honey will raise moisture %. Shake the comb if there are open cells, if droplets fly out do not extract, return comb to the hive.

Remove end spacers - place in a pan in which they will be boiled up with washing soda. Lift frame from super and place 1 lug over bar across the top of a bucket or tray so that the comb can be held at 30 degrees angle to the vertical so the cappings will fall away from the comb.

Hand uncapping - use a flat bladed knife with a sharpened or serrated edge, blade 2x length of comb width. A cranked knife is easier to use than a straight blade. Cut downwards to avoid cutting your hand. Straight sided frames (Manley) are easier to cut as sides guide the knife. Cut straight rather than follow contours of comb - it is useful to 'even up' irregular combs. You can heat the blade in hot water for ease of cutting. Dry the knife. An electric hand held knife with heated blade makes uncapping easier. A cappings scratcher or a fork is useful for small areas of indented comb.

For larger scale operations use knives mounted above a collecting tank, the frame being held against the blade. The tank may be heated and contain a filter to separate honey and cappings.

Uncapping Roller - like a rolling pin with spikes that can be run over the comb, cappings then filtered out after extraction

If combs cannot be placed straight into the extractor they should be placed on a stand with a collection tray.

b) Extract the honey from combs and cappings

Combs - A centrifugal extractor, radial or tangential, is required for spinning honey out of wired comb although radials will spin unwired comb with care. Tangential usual choice for a small producer, more compact and cheaper than radial. Both can be manually or electrically driven - if less than 5 colonies manual is fine, if more than 20 electric motor is essential, in between is a matter of choice.

Method: Ensure the tap is closed at the bottom of the extractor. Load combs to balance the weight as evenly as possible to avoid excessive vibration and wear and tear. With tangential load frames so the bottom bars face the direction of rotation. With Radial - locate 1 lug in D section on bottom bar and upper lug between forks. With radial both sides are simultaneously extracted so rotate slowly for a minute or two until honey can be seen leaving the comb and then build up to maximum speed for 2-3 minutes for electric model or 100/min on manual. Some radials have a reverse phase which increases efficiency of extraction. Do not switch motor to reverse unless stationary. Tangential, rotate slowly to partially spin the 1st side, then turn frames and spin, gradually building up speed to completely empty 2nd side, turn and complete spinning of 1st side.

Do not allow honey to build up in the reservoir so that it is in contact with the frames.

Clean extractors straight after use:- Remove top bar and cage assembly. Rinse all equipment with cold water to remove wax. Wash with hot water and detergent. Rinse with very hot water. Drain and dry. Store the machine in a dry place and cover to protect from dirt, dust and spiders.

Cappings

Gravity Draining. Simplest for small quantities. Tip cappings into a filter bag (as used for jelly making) and suspend over a collecting vessel. In a warm room these will drain in 12 hours. The wax and residual honey can be given back to the bees to clean, wax then rendered or washed and strained and the honey and water used for mead.

Pressing Out A small press (as sold for pressing fruit for juice, jelly or winemaking) can be used for cappings, and broken combs. Line the mould with linen or muslin (double layer), fill with cappings and fold cloth over the top and gradually increase the pressure. (I find the nylon bags sold for this purpose too fine and inclined to split). After a few hours, open press, rearrange the 'cheese' of wax and repress. The wax cheese can be used as before.

Cappings Drier for larger quantities. A stainless steel basket which fits into the extractor instead of the cage spins honey out leaving very dry cappings.

Cappings Centrifuge a free standing machine for large scale processing.

Electrically Heated Uncapping Trays. Various designs for large scale production, usually water jacketed. Honey and wax melt and run through a filter into a collecting vessel. Honey and wax are separated when the wax solidifies.

c) **Filtering Honey**

Honey must be strained/filtered to remove solid matter down to a size determined by the strainer.

Solid matter in honey consists of:- wax, bits of bees and other insects e.g. earwigs, grubs, propolis, sugar crystals, wood chips, dust particles and pollen grains. All extracted honey must be strained, preferably immediately after extraction. Generally use a double filter ie coarse strainer to removed larger particles which would rapidly clog up a finer screen, followed by finer filtering. The degree of filtering depends on the type of honey being produced eg is it for show purposes when absolute clarity is essential. If small particles are left in honey will look cloudy and lack sparkle. Particles will encourage crystallisation as they act as a nucleus around which crystals of sugar will granulate and grow. Well filtered honey will take longer to granulate. Over filtering honey can remove too much/ all of the pollen and it will lose some of the flavour and aroma.

Conditions affecting the filtering process. **Temperature:** The higher the temperature, the lower the viscosity and the faster the honey will flow. 32 – 35 C is a good temperature but never above 35C or loss of flavour and aroma will occur. If rape honey is to be stored in buckets for later bottling it is better to strain it thoroughly before storage and the inevitable rapid granulation. The slightest hint of granulation will prevent honey flowing through the filter.

To avoid adding air to honey during processing avoid honey dropping from a height from the strainer – use an elongated sock like filter bag the end of which remains under the surface of the honey.

Methods of filtering:

On a small scale a **conical funnel strainer** hung over the extractor tank is simple to use. The shape allows pressure to assist with gravity draining.

Check frequently filter isn't blocked or overflowing.

Strainers that fit into the top of the bottling tank, can be single or double.

Sump Tank with baffles for commercial processors. These have the input compartment at a lower level than output. Tank has 3 or 4 baffles giving 4-5 compartments with baffle openings alternately top and bottom, honey flows over and under. The surface can be skinned to remove floating debris, denser solids settle to the bottom. Tanks can be double walled and heated for greater efficiency.

Pressure filtering is only applicable to honey packers who pass honey through diatomaceous earth filters at high temperatures and cool rapidly afterwards. Most of the pollen is removed giving a very clear product but with a loss of flavour.

After filtering honey should be allowed to settle in the settling tanks for at least 24 hours in a warm room (21 – 30 C) to allow air bubbles to disperse before bottling. Tanks/buckets must be filled to capacity and sealed to avoid contamination and moisture absorption.

d) **Produce run honey in the jar**

The best flavoured honey is bottled fresh from the extractor after filtering and settling. For Run Honey for sale choose honey that is likely to be slow to granulate ie has a high fructose/glucose ration eg from *Rubus* species. Bottle honey for fairly immediate retail sale, store honey in bulk and prepare for sale as required.

Method 1 Immediately after extracting, filtering, settling:-

Check jars for defects, wash in very hot water and detergent, rinse with very hot water, drain thoroughly. A dishwasher is very good for honey jars. Check the lids for dust specks, keep covered until needed. Skim any scum that will have risen during settling (good for home use, full of flavour).

Fill the preferably warm jars, running honey down the sides of the jar to minimise trapping air bubbles. Fill to capacity and make random weight checks to avoid selling underweight jars. Hexagonal jars often get air bubbles trapped under the shoulders – remove with the tip of a scalded and dried stainless steel skewer. Put the lids on immediately, tighten securely. The sediment at the bottom of the tank can be kept for home use.

After bottling - Heat treatment will delay granulation for 6 – 12 months in honey kept at room temperature 20C.

To heat treat – place lidded, unlabelled jars in a water bath controlled at 54C for 45 minutes, water level up to neck of jar. Commercial honey is pasteurised at 71C for 1-2 minutes, rapidly cooled and bottled. Lidded jars should remain in a warm room for 24 hours to allow any bubbles to escape. Store in the dark, below 10C until needed. Check moisture content of honey immediately before bottling with a refractometer.

From stored and Granulated Honey. Remove surface layer with any debris that will have floated to the surface before granulation. Clean and replace airtight lid. Warm buckets in a cabinet for 2-3 days at 32F. Old fridges make good warming cabinets fitted with thermostat and electric light bulbs & fan to minimise hot spots. Check buckets after 24 hours by pressing sides to test if softened

Prepare containers as in Method 1. Now runny honey needs to be fine strained into a settling tank to remove any small specks of crystal or dust which would form a nucleus for re-granulation. Allow to settle for 24 hours then bottle as above. Heat treatment is necessary to delay re-granulation.

THE BEE GARDEN IN AUGUST AND SEPTEMBER

The main flow may be over but continuing sources of pollen and nectar are needed to build up the fat bodies of those winter bees. They have to live until march and rear the first batches of spring brood to ensure the colony's survival.

At this time of year annuals such as Borage, Buckwheat, Phacelia, Gilia, Poppies, Marigolds & Sunflowers from spring / early summer sowings continue to provide nectar and pollen. Some of you will be welcoming the sight of 'flour dusted' bees returning from the Himalayan balsam in the countryside!

Buckwheat, phacelia and wild white clover can be bought most economically in the large packets sold for green manuring in the garden centres. The Garden Organic Catalogue (Chase Organics) sells a wonderful selection of bee friendly seeds and green manuring mixes.

Marjoram should still be flowering in the herb garden and garlic chives later flowering than the ordinary pink ones are very popular and make a good edging to veg beds especially around carrots to help deter the carrot fly.

Border perennials such as michaelmas daisies, flowering heathers, Heleniums & Sedums are all very valuable.

Fuchsias particularly the small flowered 'naturalised' type *F magellanica* are rich in nectar & Gorse is an important source of pollen.

Now is the time to plan for early forage when weather conditions may not allow the bees to fly far or to only get out for short periods in late winter/ early spring. An annual to sow now is the Poached Egg Flower (*Limnanthes*) & biennials to plant out include Honesty, Sweet rocket, Forget-me-Not, Wallflowers & Sweet Williams.

Bulbs to plant en masse include the small flowered early Crocus, Snowdrops, Aconites, Chionodoxa, Scilla & Grape Hyacinths.

When the gardening is done and the bees tucked up there is still that shed of equipment to clean & repair and if there's time perhaps to plant a few more bee friendly trees & shrubs this winter. A beekeeper's work is never done!

Julie



Community of Beekeepers

Bitz4Bees

A 'Not for Profit' Company - Run by Volunteers.

Shop opening hours

Tuesdays 11 am - 1.30 pm

Dave & Jean 01237 475705 Derek 01769 561033

Think **JARS, JARS, JARS** -



Quick Home-made Honey Ice Cream

Serves : 2 Home-made ice cream is well worth the effort. Use this with plenty of imagination as there are so many flavours and sauces to give ice cream an individuality and character all of its own.

Ingredients

- 4 egg yolks
- 1oz/25g caster sugar
- 1pt/570ml milk
- 1 drop vanilla essence
- 3 tbsp runny honey
- 1pt/570ml double cream (lightly whipped)

Or ½ cream & ½ yoghurt

Method Start by making the light egg custard. Beat the eggs and sugar together without making them frothy. Heat the milk until nearly boiling and pour it gently over the eggs, stirring with a whisk at the same time.

Flavour with the vanilla and heat gently over a low heat until just showing signs of thickening. Leave to cool. Allow to infuse for 15 mins. Then carefully strain into a small bowl with the honey. Mix, then add to the cooled custard; add the whipped cream (or cream and yoghurt) and transfer to the freezer. Stir occasionally to prevent large ice crystals forming.

To Serve: Chocolate cups - 2oz/55g each strawberries, raspberries, blueberries, diced and tossed in the juice and seeds of 1 passion fruit. Fill the chocolate cups with the diced berries and passion fruit and serve with a spoonful scoops of ice cream. Decorate with fresh mint.



DIARY DATES

Wednesday 4th August - North Devon Show.

Tuesday 10th August - 10.30 am Honey Show Planning Meeting.

Saturday/Sunday 18th & 19th September - Chapleton Steam Fair

Sunday 26th September - Rosemoor Food Fair

Sunday 17th October - wax handling - rendering, cleaning, preparing - with Chris Tozer - Horestone Apiary 10 am - 3pm.

Saturday/Sunday 30th & 31st October - Honey Show, St. Johns.

If you would like to help with any of the shows, please contact Barbara Carlyle.

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