

Dave Shannons articles on preparing for the show bench first detailed in YBKA Monthly Magazine

1. March 2014 the Preparation of Honey and Wax for the Show Bench

I have been asked by our editor to, over the next 12 months, explain the process of preparing honey and wax for the show bench. These articles will be aimed mainly at the beginner beekeepers and members who would like to get involved in honey and beeswax showing but are not quite sure of the process to get either to standard. I will be going through the whole procedure from how to filter and prepare your honey and the correct jars for the show plus the labelling. This will include all the various types of honey from the more popular light and medium honey through to the process of creaming honey and preparation of heather honey both liquid and cut comb. The same applies to beeswax, how to get the best wax for showing and how to prepare it for a moulded wax show block through to wax models and candles going through all the various stages. At the end of which you should be able to place your exhibits in your local show and then the YBKA autumn honey show held at the Show ground Harrogate (Countryside Live) and win prizes. This will greatly enhance your honey and wax sales to friends and customers alike, and will give you great satisfaction when your honey or wax gets its first rosette and prize cards to display with your produce for all to see. It stands to reason that if you are intending to cover all the various types of honey displayed on the show bench, you are going to have to have more than just one colony of bees to enable you to move your hives to cover several different crops and nectar types. This said you can still produce an excellent honey by just having the one hive in your back garden if it's processed correctly, and get great satisfaction in winning and beating your fellow beekeepers at the same time as getting a reputation for producing a top quality product. Follow my methods over the next twelve months and I hope many of you will. Here is a list of the things you will need to make, buy or borrow to achieve good results. Winter is a good time of year for beekeepers to make or purchase those essential things needed for the forthcoming season whilst the bees are dormant.

Honey

A Warming Cabinet- preferably your own (either make or buy one).

Beekeeping books and internet provide good diagrams and instructions on how to make one and it's quite easy. Preferably with a thermostat ranging from 0 to 45 degrees centigrade.

A plastic or metal fine strainer for filtering the larger pieces from your honey when extracting it.

A very fine fabric filter- these can be obtained at Thornes beekeeping equipment or other bee equipment stockists. They are not overly expensive.

A honey creamer.

Access to a Refractometer- either your own or a friends but essential to check your honeys water content.

Some 1lb. jars and gold screw top lids to match - as most shows, not all, insist on these as standard honey jars.

A good LED torch- for looking at and checking your honey when filtered for any crystallisation or minute detritus or hairs.

A magnifying glass- for the same use as above.

Access to a set of official grading glasses- to check the class your honey should be in prior to the show.

Wax

A large old saucepan.

A Ban-Marie: wax melting

Pyrex glass dish (for a wax mould).

Role of clinical lint, available from Boots.

(Note: an explanation of all of the above items relating to wax and honey will be in future editions.)

In the next edition: Preparation of Liquid light medium or dark honey. Until next time, let's get started on that warming cabinet.

2. The Preparation of liquid honey's For the Show Bench.

For beekeepers who have managed to keep bees for two or three years successfully, and achieved a surplus of honey from your hive or hives, embarking on showing your honey at your association or local county honey show comes often as a natural progression. For the absolute novice beekeepers among you however it is essential firstly to master the art of tending your bees and extracting your honey successfully first. Over the next few months if you follow my procedures regards the extraction of your honey and the various procedures to follow after the extraction, I am hoping to take you from good beekeeper or a novice to a good exhibitor capable of entering your honey in any show and having a very good chance of winning a prize in your chosen show class, irrespective of the number of hives you own. A list of all required equipment regarding these procedures is available in the last issue of e- news in my introduction. The key to producing a good liquid honey is care and attention within your preparation and if showing honey close attention to that particular shows schedule details, in fact this applies to all the different types of honey you may produce. The very first thing to do when you have a full or nearly full super of honey is to check the actual honey itself with a refractometer. This instrument determines the water content of your honey ensuring it falls within the legal requirement for liquid honey for the UK and that should be a max. of 20% on the viewing scale of the instrument, however this is still quite high even though legal. May I suggest that a reading of somewhere between 17/18% is the best range to achieve and work from especially if your intending selling or showing it. Full manufacturer's instructions come with the instrument regards its use and how to read it and this first basic check is essential as it ensures that when your honey is extracted filtered and stored away in your buckets or even jarred up after extraction, that it will not ferment, and should keep its fresh clean taste for longer if stored correctly. Your honey should always be filtered before storage as this helps to stop natural fermentation in the honey, it should also be stored at either below 10°C. or above 27°C. Some beekeepers will tell you that when your honey is capped over by the bees this ensures it is ready and the water content is fine. Not always so. Sometimes with a strong colony when a nectar flow is at its peak or ebbing the bees will rush the procedure of water extraction and cap full nectar cells over before they are actually ready. So always err on the side of caution and check it before extraction. If the bees have capped or partially capped it over and when you check it the water content is greater than 20% then you will have to extract it if capped in the usual manner, but then feed it back to them when the main flow has stopped to enable them to re- process it getting the water content down to the required level. Even if the bees are to keep the honey as high water content can be a contributing factor to dysentery in bees. If all is well we then go on to extract or honey from the combs taking care to cut off the capping's that the bees put on the surface of the honey to keep it fresh. We can do this in a variety of ways but I use a reasonably sharp long bladed knife for this. with the frame of honey resting on a piece of wood placed across the top of a bucket allow the blade to cut just under the surface of the capping's and work in a downwards action cut all the way under the capping's which will then fall into your bucket. Repeat on the other side so you have exposed all the runny honey underneath ready to place the frame in your extractor. Repeat with other frames until the extractor is full then slowly at first start to extract the honey that collects in the bottom of your extractor. The cut off capping's in the bucket can then be placed upside down on the top of the extractor with a muslin tied over the bucket top and the honey from the capping's will drain into your extractor, when completed. We place a plastic bucket under the extractor tap with either a conical filter hanging just under the tap, or a bucket filter placed on your bucket before we open the valve. This filter catches all the larger bits of wax and debris as your honey flows from the extractor valve into the bucket. If the filter gets blocked with wax etc. at all then close the valve, clean off the filter and re start the process until the bucket is full or all the honey is extracted. If it is a very warm day in mid-summer when you are extraction the honey may be warm and free running when extracted. If this is the case it may be possible to be passed through the fine filter cloth straight away into a clean bucket. Before doing this skim off any debris on the honey surface with a large spoon. Always rinse your cloth under warm water first then shake off as much of the remaining water as possible beforehand. This enhances the ability of the warm honey to pass through the fine filter cloths; if it was a dry cloth it may clog on the inside and not run through smoothly. We may need to gently warm the honey in the warming cabinet to enable you to pass the honey through the fine filter cloth if it's a cold day. Honey is far more viscose when cold and will not flow through the fine filter cloth hence warming it in the

cabinet prior to filtration ensures a smooth transition through the filters. If there is a thermostat on the warming cabinet set it at around 38/40°C. Keeping the honey in until the required temp is achieved and the honey is nicely warmed and free running. If we don't have a thermostatically controlled cabinet but just a cabinet with light bulbs in the base this is also ok too, keep stirring the honey every hour and checking the honey temp with the jam thermometer or a similar one till the desired temp is achieved as above. Never use 60w bulbs as they are too hot and will burn or caramelize your honey, use 40w bulbs in all cabinets or slightly less. At this given temperature the honey should pass straight through the fine filter cloth from one bucket to another, ensure the bucket is very clean first and again skim off any surface debris first. It's always best to have another person to help with this procedure to avoid spills. Clean out the first bucket thoroughly and dry then repeat the process of filtration again back into bucket 1. This honey then should be very clean and you can pour it into your settling tank very slowly, I often tilt the tank slightly on one side and pour the honey in down the side of the tank through the filter again. Less air goes into your honey if this is done. Keep it in a warm place as you don't want the honey to get too cold. Leave it over night to settle, this allows all the little air bubbles trapped within the honey to rise to the surface so when we bottle we get the least amount of air in our jars as possible. I have an old electric wine heater belt I place around the tank base to keep the honey warm, but a nice warm room in the house should suffice. We are now ready to bottle our honey, but now read your honey show schedule to check which jars and lids to use. Most honey shows state the use of 1 lb. jars with gold screw top lids but there are exceptions so best to check. Always ensure all the jars and lids are clean. Never assume that just because they are new they are clean. I always put mine through the dish washer first, and then ensure they are thoroughly dry. I then use a soft clean cotton cloth to give the jars a quick buff up prior to filling, inside and out before I run in my honey. Then we are ready. Tilt the jars as you fill them from the tank and run the honey in very slowly down one side of the jar, keeping any air bubbles to a bare minimum. I fill my jars ever so slightly over full just in case I do have a very small particle that raises to the top or faint scum line and this does on occasion happen. You can then skim it off the surface using the back of a dry teaspoon, wiping and drying each time it's used by rolling it gently over the surface. When the jars are filled set them in a warm place ideally on a window sill in full sun if not too hot or slightly shaded on very hot days. They need to stay there for a good week before the show possibly two and every day give the jars a sharp twist quarter of a turn around. This movement along with the warmth lets any remaining air bubbles rise to the surface and disperse. Any that persist around the jar neck can be lifted with the help of a thin straw or spatula. We now need to get our LED torch out to check through the honey. Remove the jars from the window sill very carefully keeping them in an upright position place on a flat surface. Then take your torch and hold it behind the jar and position it so you can look straight through the jar and the honey. This strong light will enhance any small piece of debris there may still be in the honey and by removing the lid you can get a thin cocktail straw, place your thumb over one end and lower the straw to just above the piece you wish to remove. When the straw is directly above the said intruder release your thumb causing a vacuum and this will suck up the piece into the straw. Place your thumb back on and withdraw the straw with piece inside. When all is clear and free from air bubbles with no granulation just very clear honey your main task is done. Replace your clean lid but just put a very small amount of Vaseline on the threads first. This ensures the lid will not stick and it can be removed by the honey judge with ease later on the show bench. Now very important, you must check what class your honey falls into. Either the light, medium or dark class as failure to do so will end up in disqualification if it's placed in the wrong class. You need to either show your honey to a person experienced in showing honey who will be able to tell you what class it should be in. Or if your association has use of some honey grading glasses use those but you need a person who knows how to use them correctly to assess your honey before advancing to the next step. You must then refer once again to your schedule and check where your class label is to be placed. Some say an inch but the distance from to jar base may vary from one show to the next. To get this measurement correct on each jar we make a template. Just cut a strip of thin card cut to the correct size as the schedule states; let's say it's 1 inch. Make it long enough to go all around the jars you are using then cut it to length and tape it together forming a ring. On this ring I place three marks, I place a jar into the ring making sure you can do this with ease and the ring is not too tight. Then put a mark on the ring in black pen where the two mould seams of the jar are. Not take out the jar and lay the ring flat. Measure the centre between the two seam marks and put a mark in red. You can now line up one of the black jar

seem marks of any similar jar within the ring and the red centre line is always where you put the centre of your class label, making sure they are always in the same place and the correct distance from the base of your jar according to the schedule. The main thing to remember with the preparation of your honey for the show bench is to take your time with the procedures and give yourself plenty of time to enable you to get the best results with your honey. Good luck with your local honey shows and look forward to seeing some of you at our YBKA honey show at the Harrogate show ground, Countryside live event on Oct the 17-18-19th give me a call for schedules and entry forms from July onwards. Next edition covers creamed and natural Granulated honey.

3. June 2014 Two methods to prepare creamed honey

Creamed honey, sometimes referred to as whipped honey, is delicious when processed correctly. It is a soft spreadable honey that doesn't drip or run, that can be spread on toast or crumpets etc. or can be added to beverages to sweeten in place of sugar. It is also good to give to children of all ages over 2 years of age as it will not run. Honey is not suitable for children under two in any form I would say, as the small amounts of pollen held within the honey can be harmful to them and in some cases cause an allergic reaction. For some unknown reason it doesn't seem to be sold and used as much as it should, but let us hope that we can change that. All, or should I say most honeys, set or solidify due to crystallisation over time when stored correctly. There are exceptions but we are not concerned with those today. The honey should be clean prior to storage, sealed in a container that is air tight and full, with no air gap at the top and stored at the correct temperature to allow crystallisation to take place. This occurs at a temperature of 14 /15 °C. The back of a cool garage or a cellar is ideal. There are a couple of methods used to achieve a good creamed honey which I will attempt to explain. As with all honey, as explained in the liquid honey article, the first essential process is fine filtering to remove debris from the honey. This should be done when the honey is a warm liquid form and immediately after extraction and before it is put buckets and stored away. Any small dark specks or debris within the finished creamed honey will show through and make the jarred honey look very unattractive to say the least. There are several types of honey that are very good for this process. Clover honey is excellent. Borage and Balsam honey can also be very good. But oilseed rape honey is the most commonly used now by most beekeepers when they do not have access to the other varieties. In most cases these honeys have to have the right balance of fructose and sucrose to aid the crystallisation process. A good and legal water content is essential as with all honeys but even more so with honey you wish to set smoothly with a very fine grain. High water content often gives coarse crystallisation. When the honey sets as a creamed honey this is not what is needed. You must have this smooth fine grained honey to start either of the two processes that I am about to describe.

Seeding honey for creaming.

I believe this is the more common of the processes adopted to achieve a good creamed or whipped honey for beekeepers who have enough honey to fill a 28 / 30 lb. bucket. For this method you will require a bucket of good quality liquid honey with a good aroma and taste. Warm it gently to 40°C. In your warming cabinet. If you do not have a thermostatically controlled cabinet, then check the temperature with a jam thermometer at regular intervals. I still like to check the actual honey anyway to ensure it's correct. You will need around 3 to 4 pounds of a good fine grained smooth creamed honey either purchased or swapped from another beekeeper to actually seed this honey. However before attempting to seed the liquid honey let the liquid honey cool to 22 / 23°C before attempting to seed. Alternatively you can use the same quantity of solid set honey from another bucket processed earlier and which has set to a hard fine smooth grain. Gently warm these three to four pounds of this hard set honey so it is no longer solid and achieves a smooth paste like texture before adding to the liquid honey. Stir in the smooth creamed honey into the still warmed liquid honey ensuring it is thoroughly mixed. Use a long handled wooden or plastic spoon for this. This will enable you to get right to the bottom of the bucket ensuring a good even mix throughout. When this is completed allow the mixed honey to stand for about 8 hours and very gently stir every two hours if possible. Next skim off any fine white scum or air bubbles that have come to the surface with your spoon. This honey is now ready to be either poured or ladled into your jars. Do not add the lids straight away when filled, but wait another couple of hours then gently stir the honey surface to

remove any air bubbles that may have risen before adding your lids. These jars can then be stored away at a temp of around 14 / 16°C. Until the whole jar has set and it can be turned upside down without running at all. This takes around three days. The surface should look firm and dry, with the honey itself having the actual consistency of soft butter. Then label for sale. If this method is scaled up or down, 5 - 10% of seed is added to a liquid amount to achieve the same aims.

Using a bucket of set honey.

This method of creaming honey is easier and no seeding is involved, however you require a bucket of honey that has been processed earlier and allowed to set. When once set only use the honey that sets to a very fine smooth and hard solid consistency. Place your set bucket of honey into your warming cabinet, and set the thermostat to around 35°C. Leave for a couple of hours and then check your bucket. You may have to do this several times. The consistency of the honey within the bucket you are wanting to achieve is approximately two thirds of the honey at the bottom wants to have gone back to liquid with the top one third remaining in a soft creamy but not a liquid state. When I am checking I squeeze the sides of the bucket and you can feel where the honey has melted and where it remains in a set state. When the bottom half is liquid cut into the honey surface with a long bladed round ended knife and cut to into quarters or eighths right through to the liquid. Then push one or two of the wedges you have cut down into the warmer honey and allow the liquid to move to the surface. This softens the rest of the hard honey quicker, allowing you to mix the two together with ease. When you have achieved this two thirds to one third mix in your bucket then remove the bucket from the cabinet and place it on the floor on a plastic sheet in case of spillage. Now take your honey creamer, which can be purchased from any beekeeping equipment dealer. I prefer the hand operated one as opposed to the ones you place in an electric drill. I find the ones that attach to drills whip in far too much air into your mixture. As a result it takes longer to clear the bubbles and it has a tendency to form a scum on surface of the finished product due to the speed it operates at. Slowly now push the soft honey on the surface of your bucket down into the liquid, and keeping the head of your creamer under the surface of the mixture at all times preventing air being taken down into the mix. Proceed to mix thoroughly till all the soft honey and liquid are evenly mixed together to an even consistency. Place your bucket in a warm place when completed. I turn the warming cabinet right down and pop it back in there till next day. Then I skim off any surface scum and very gently stir before bottling it. As with previous method leave lids off and then ensure surface is free of bubbles by stirring the surface. Then jar and store as in method one. Let us hope by having a go we can revive the popularity of creamed honey to more of our customers and friends.

4. August 2014 Preparing for the Show bench Cut Comb - Hive to Container.

Cut comb honey is, I believe, the crème de la crème of the hive products. Producing a good quality cut comb is a way to show off your skills as a beekeeper in producing a fine product for sale to the public or for the show bench. A good reputation will be gained for a product that commands top prices from consumers. I will attempt, through this article, to explain the methods used to achieve this, including some of the pitfalls that may be encountered along the way. When most people think of cut comb honey their mind goes directly to 'heather' honey; ling heather to be precise (*Calluna vulgaris*). This is distinct from the two other varieties of heather that grow within the UK, both bell heathers: *Erica cinerea* and *Tetralix*, the latter very low growing small heather hard to find among the rest. Ling heather is the most popular by far. Heather honey has higher water content than other honeys and this should be tested before preparation for legal tolerances. Ideally this should measure no lower than 20% on your refractometer to a maximum high of 24%, but I prefer it to be below around 22%. Honey with a water content of above 23% is illegal to sell; it cannot be stored correctly and will ferment. It is far better to immediately feed this back to the bees for them to reprocess. Other honeys such as pure Wildflower honey, borage, and Himalayan Balsam which are slow to crystallise, are also ideal for cut comb. You need to know the honey flows in your area, and then the principles below apply in exactly the same ways.

The essentials

The very first thing to remember when attempting to draw, fill and cap cut comb is the fact that this cannot be attempted without a brood box absolutely bursting with good healthy young bees, lava and eggs so that they are ready to maximise the nectar flow. The other essential is a vibrant new, preferably marked, queen of that season who is in full lay.

The whole process of preparation usually starts towards the end of June, beginning of July, when your hives are producing good strong queen cells. At this stage begin by selecting the hives and traits in the bees you desire for the job (good gatherers and bees that produce good clean cell caps). From these colonies you can also make up good strong nuc's. From selected queens and produce good strong colonies to take to the moors at the beginning of August, leaving your other older breeding queens and hives behind.

Feeding these nucleus hives regularly is essential to give them the best possible start over the next few weeks; the newly available six -frame poly-nuc's. With built in feeders makes this so much easier. If you do not have these then a normal contact feeder will suffice. Fill your feeder with light sugar syrup, and then select the queen or capped queen cell and transfer into the nucleus, adding extra frames of both brood and bees as necessary. If the frames are light of bees they can be shaken from another colony into the box to ensure you end up with roughly 4 frames of bees. Always ensure they are free of varroa and other diseases prior to this procedure. Next transfer the nucleus colony into a full brood box when it is full and all space and frames are full of brood and bees. When you do this and with it being later on in the year, once again add a feeder to the hive and keep it topped up until all new combs that you place either side of the occupied combs are fully drawn out. That is if you are using foundation frames to fill out your brood box and not combs that have already been drawn. This will help ensure your new colony will be strong and full when the time arrives to proceed to the moors.

When supering for the heather several methods can be used and all are quite efficient. However, this is my preferred method. I always use new super thin comb foundation. This is a different quality of foundation supplied specifically for cut comb honey. I place this in my hives in the early spring when the oil seed rape is in full flow. I do not nail the foundation into the woodwork by the usual method, but prefer to use hot molten wax to stick the foundation into place on the top bar of the woodwork after first sliding it into place down the side grooves in the frames. This ensures a better hold when dry, as the very thin sheets can sometimes slip away from the nails if traditional methods are used. It does not drop when the weather gets hotter or fall out of place or distort. When these frames are full, however, great care is taken when uncapping them and especially when extracting them; this must be done slowly to avoid any damage. Once extracted, I take the frames back to the bees to clean out before storage for the heather crop in August. This method avoids the bees having to work twice as hard to draw out the comb on cool days on the moors, and means they can concentrate their efforts on filling and capping the lovely new frames ready for cutting. If in your area you have another good source other than oil seed rape then this method can be applied to any such crop where the bees can draw out good combs. If I do not get enough drawn comb by this method I cut foundation sheets in half-length ways, this method is called the starter bar method whereby when they are fixed in place the bees draw them out from the top and then hopefully continue to draw them all the way down to the bottom bars into full frames when capped. I fix them in place using the same method as before, with hot wax applied to the top bars then the bees will hopefully draw them down and fill them with fine Heather honey. Only one super box is placed upon each hive when I take the bees to the moor. The exception would be when a colony that has exceeded itself and is totally bursting at the seams. I then add another super to provide space for the bees and extra brood when it hatches. This would be placed above the first super as a second super. When I add supers I always keep my queen excluder in place on top of the brood box. I do not want the queen coming up into my supers to lay, as this detracts from the quality and hygiene of the finished comb. The hives are taken to the moor during the first week of August but exceptions have to be made if there is warm or wet weather throughout June/July as the heather could flower earlier. (It is important to keep checking on its progress).

On the moors Ensure your hives are very full of young flying bees and brood at all stages, with at least one super on each. Then use two straps in a criss-cross to prevent any twisting in transport and to create stability while on the moor. It is always best to have prepared in advance a good location which is well drained and in a sheltered area. Getting a vehicle bogged down on the

moors in a remote area is very easy, so be aware. Never place hives on top of a hill or mound, as exposure to the cold winds and rain is very detrimental to your bees and that all-important honey crop. Always place your hives at the bottom of the moor so the bees are going uphill when going out and downhill when coming back, saving them energy. The hives generally stay on site for about two to three weeks depending on the conditions and once the bees have completed their task of filling your supers they can be brought home. Treatment of the bees against varroa and nosema and topping up their food resources is vital to sustain the colony after you have taken off the crop. Fumidil B is no longer available for use against nosema but other new hive cleansers are readily available to mix into your winter syrups when feeding and are very effective. I take this precaution due to the very high water content of the heather honey and the knowledge that the bees will have stored some of this in the brood box; it often does not store as well through the winter months causing some cases of dysentery.

Back in the apiary on return the task of preparing that quality product begins. At this stage you should have purchased a couple of packs of cut comb containers and their decorative sleeves from your local stockists in readiness for filling. The first thing to do is to ensure you have a good clean working surface to prepare your cut comb. Clean and disinfect the whole area with a food quality antibacterial spray, including any knives or other utensils to be used in the operation and then dry thoroughly. Place your frame of sealed heather on a flat dry surface and carefully cut around the inside of the frame releasing the comb from the woodwork. This is when 'gluing' with wax is preferable to nailing into the woodwork. For cutting the comb, I use a simple template made from a small piece of plastic with a handle attached at one side. This should be the same internal dimensions and shape as your cut comb container, so that it represents the piece of comb to be cut. When this method is used it allows greater consistency and a nice clean cut piece of comb every time. Only use the area of comb that is completely sealed. Place your template on the surface of the cut comb at one corner then mark around its exterior with a hot knife; this needs to be regularly cleaned in very hot water to ensure a clean cut. I prefer to use a cheese wire when cutting comb as this is very thin and allows a better edge to the sides. I also have a large mesh cake stand to hand in front of me, on which I place the cut combs while the surplus honey from the newly cut edges drains into a drip tray. This ensures a nice clean finish when they go into the containers, with no honey running in the bottoms of the containers. If you are planning to show your cut comb, it is important to cut all the capping in one direction.

If the frames have been drawn out to their full extent, then each shape you cut out should produce a piece of cut comb that weighs between eight and eight and a half oz. Before placing them into the containers and sleeves, check the weight of each one. If selling to the public, write the weight on the cut comb container and your contact details. The comb surfaces should be clean and dry and your containers should be free from 'runny' honey. If they are going to a show then the weight is crucial: 8oz each before they are placed into the container with a nice even surface. Once completed, place them into a large plastic bag, in a strong cardboard box and pop those into the deep freezer where they will keep very well until required. Then bring them out two to three days before they are to be used and they should be perfect. Or simply sell them directly to the awaiting public. I leave the labelling until the comb comes out of the freezer and the containers have dried as the damp created during thawing causes the sticky labels to peel off as they dry out. A secondary, and excellent, product from cut comb honey other than the traditional cut comb and that is Chunk honey, another very popular product. This is when a chunk, or piece, of cut comb is carefully cut out of the full comb as before, but the dimensions of this piece of comb should be cut to the same size as to just fit inside a standard 1lb. honey jar neck, leaving virtually no or very little gap where the corners of the comb square touch the inside of the jar neck as its lowered into place. A template can be made ensuring it fits the internal dimensions of the jars neck before cutting takes place. It should also be long enough to fill the jar from top to bottom when in place with no gap between top and bottom of the jar, so check this measurement also. If it's too short it will float upwards when liquid honey is gently poured in around the chunk to fill the jar completely to complete the process. I always think this looks best when a chunk of heather honey is used and the jar filled with a very light coloured honey as this produces a contrast to the reddish colour of the heather honey chunk. However this is not essential and other types of chunk honey can be used but not quite with the same effect. Important tip Heather

honey cannot be extracted from the comb in the usual centrifugal extractor because of its very unusual gel-like properties (thixotropic) that hold it into the cells more firmly. There will be more about extracting heather honey in the October 2014 BBKA News.

5. October 2014 Preparing for the Show Bench Sections Square Sections.

Section honey has for many years been considered the absolute best product from the hives, and the premium in cut comb production. The person we have to thank for first producing this product was a very eminent Russian beekeeper called Peter Prokopovitch over 170 years ago. Sections both round and square are the purest form of honey to come from the bee hives as they are virtually untouched by human hands from when we put them into our hives until they are consumed by the purchaser. Square sections were the first type to be produced and then, more recently, the plastic round version made section production even more popular with beekeepers in the 70's as they are so much easier to produce, but still remaining a premium product. Components required. Section box, section square wooden strips, super thin wax squares for sections, Plastic dividers, tension board and springs x 2. If you go down the path of doing it yourself a section box is required, as square sections do not fit into a normal national super. They require a special box designed especially for the purpose. The national section box holds 40 sections when full. This box is open at the top to allow the individual sections, when once assembled, to be fitted in. It is slatted at the bottom to allow you to stand the sections on them whilst assembly is taking place, plus the spaces between that allow the bee's access to the sections from the brood box below when they are finally in place in the hive. They come in a bundles of 10s I believe, but 40 are required to totally fill the box. I would also allow a few extra for breakages whilst assembly is taking place as they are quite fragile. The section outer cases come in flat strips, made from fine light good quality timbers and are notched out to allow them to be folded into the square shape around the wax square. They are also slotted on the inside to hold the wax in place. However do not try to fold them while the wooden strips are dry! They will snap. First they require soaking in a bath of warm water, say 10 at a time for 10mins. This makes them soft and pliable. Take a wooden section strip and fold it with the notched out lines and slots on the inside forming a square. One of the four sides is split into two halves and this is the top. One edge is notched out on both these pieces and slots into the opposing corner locking the square in place. Only fasten one strip in place, then slide your wax square down into the pre-cut groves on the inside of the square, sometimes this may have to be trimmed slightly to fit snugly. Take care to make sure that you keep the wax embedded in the slots, then close the last hinged strip to form a completed square with the wax inside. Repeat this until you have a row of 4 sections in the box then place a divider, separating that row from the next. If this is not done the bees will form brace comb between the two and stick everything together in a total mess. Repeat this process until the box is full. You will then have a small gap left over. This is when we use our tension board but don't forget to put in a last plastic divider first separating the two. After the board use the two section box springs to slot in between the tension board and the box wall, this secures everything and keeps it all tight and secure.

When this is completed, the honey flow is on and your hive is bursting with bees, you are ready to go off to the moor, praying for a fair wind and good conditions to allow your bees to fill your lovely sections up. Each full section will weigh between 14/17 oz. when full. When the flow has stopped bring them home, take off your sections and clean the outside of the wooden casing thoroughly. Weigh it then place it into a presentation case to sell. Add your individual sections weight to the carton and address details and you are ready to go. If you are not selling them straight away, they can be stored in a freezer. Wrap in cling film in batches of 6/8, and then seal them in a box before placing in freezer. Here they will stay in good condition for months.

Always allow a few days to defrost before selling on. With these products only use and sell the fully sealed sections. Unsealed sections should be pressed out for jarring. Alternatively feed them back to the bees. If the bees clean them out well, use them next year to save the bees drawing out the comb again.

Round Sections.

As with the wooden sections, these can be bought complete in the box from your beekeeping stockists. Once again they are not cheap but potentially very profitable. When full and sold on they achieve a premium price due to their excellent quality. The big difference is that the rounds cases are all plastic, not wooden, and very easy to assemble. You can also clean them up again for future use, only having to purchase more rings and labels, so there is less outlay the second time around. You will however still need a section box. ROSS ROUNDS™ equipment consists of brown moulded plastic frames into which, when split in two, you place your white plastic rings. There is one in each circular section, a total of eight per frame. A good tip is to smear very lightly the outer rim of your rings with Vaseline to stop them sticking prior to putting them into the frame. Then place a thin sheet of wax foundation on one side of the frame covering over the top of 4 of the rings. Then carefully fold the two halves of the brown frame together to form one unit and click together. These are then placed in a wood super or rack. When full, add the tension board and springs and they are ready to be filled with honey by the bees.

Plastic covers are made to fit the top and bottom of the sections when full, and a wrap-around label completes the package. Covers can be clear both top or bottom, or a clear cover on top and an opaque cover on the bottom. This last arrangement is preferred by some commercial beekeepers. All can be purchased individually including the wax sheets that are cut to fit the four round sections in one piece so you make up a row a time not individuals. You will also need a pack of labels. It is often said it is easier to produce rounds rather than square sections as the bees fill them better being round. Sometimes with the squares the bees don't fill the corners correctly, which is not a problem with the rounds. When the rounds are full and the flow has finished, take off the box and take out a section of 4 rounds. Split the dark brown section cover into two halves carefully with a blunt knife and go around the clear plastic section ring to enable you to remove it and its contents. You may need a very thin knife to slide around the outer of each ring to penetrate and cut cleanly through the wax in the middle. Clean up the outside of the ring, weigh each one as you go and place it into your clear plastic show case base and put on the lid. Each round section, when fully sealed, should weigh between 12 and 14 ozs. You can buy the labels in a roll of as many as you require. Peel off the protective cover and stick it to the outer rim of the clear show case. Add your rounds weight to the label and if for sale address details. This acts as a label and as a tamper proof label also ensuring freshness of the product within. If you don't wish to sell them straight away I place them into a stack of 10, cover them with cling film and then into a box in the freezer. They will stay fresh like this for months. Just bring them out 24 hrs. Before you need them to defrost and they are as fresh as the day they went in and ready for sale. This applies to both products. I do hope you have a go at this method of honey production as they are great product, great on the show bench and very popular with the public as a tasty treat of the highest quality.

6. December 2014 The preparation of beeswax for the show bench

When selecting your beeswax for the show bench, be it for a block of show wax to be moulded to a perfect finish or for a commercial block of wax class (which in most schedules does not need to be moulded to perfection) or producing a pair of matching beeswax candles, you need to start with the best ingredients. By this I mean very clean, well filtered wax melted at the correct temperature as to not darken the colour of the wax and keep its natural clean beeswax aroma. How do we obtain this wax and then how do we go about cleaning it to a very high standard? The very best wax to use for this is 'capping's' wax - saved from when you have extracted your honey. Don't use an uncapping fork this process use a sharp, warm, round ended knife and cut just under the capping's surface taking it off in a thin sheet of wax and honey. Allow all of the capping's to drop into a bucket until all of the honey frames are uncapped and the honey extracted. When this is done place a fine muslin over the bucket top, tie it off with a string and tip it upside down over your open extractor allowing all of the excess honey to run off into your extractor leaving you with just the sticky capping's. These are then thoroughly washed, preferably in rain water from a water butt; as this is softer than tap water. Repeat this process until all of the honey is removed from the capping's. Now place them into a pair of nylon tights and hang them on the line on a fine day to dry. Give them a good shake again to move the capping's and help to

remove liquid. This is now the wax you will use to make your show wax. You can also add to this any brace comb or wild comb you have removed and saved over the season, however only use the very clean wax and discard any dark or dirty wax as this will taint the rest. You are now going to need a large old pan. Fill half full with clean rain water and bring to a rolling simmer. Next, begin to add your wax stirring as you go. When it's melted allow it to continue in a rolling simmer, this allows all the small bits and any other detritus to fall below into the water leaving the clean beeswax on the top. Personally, I cover a couple of tea trays with greaseproof paper, take a ladle - preferably one with a small pouring spout and carefully skim off the clean melted beeswax from the pans surface. As I do this I pour it into the trays I have prepared and take care to not pick up any little bits. When the trays bases are all covered stop and allow the wax to cool. Then peel it off the greaseproof paper, you can see easily any little black specks and pick them out leaving only the very clean wax. It is this that we use to make either of the above with wax show cakes, commercial wax blocks or candles. For this now melt the wax once again but this time in a Ban-Marie. You will at this stage need to read your show schedule and weigh out the clean wax precisely to the weight of your show or commercial block. Don't turn on the heat to the pan yet. Prepare your mould a glass Pyrex dish is usually used for this. If a specific thickness of wax is needed make sure your mould is big enough to achieve that thickness when the wax is poured. If it's too big reduce its size. Put a very small drop of washing up liquid on your finger and rub it all over the inside of your dish covering the entire surface. Then place it upside down in a warm oven! You will also need a piece of glass cut big enough to cover your mould top and put them both in the oven together at around 60°C. Now cut a piece of surgical lint and place it on top of your inner pan covering one half of the pan top and secure this in place with a strong elastic band. Put all the required wax into your pan and turn on the heat but not up full, allow the water to come to a slow boil melting all the wax. Now take the mould out of the oven allow it to cool a minute, then pour your wax into it through the lint. When the pan is all empty and the mould full leave it for a couple of minutes then take out your piece of glass from the oven and place it on the top. Next cover this with a heavy towel and leave it until it's cool. Now take off the towel and glass. Fill the mould top with water and place it in the fridge. Leave it there to cool completely; the wax should then pop out the mould. This can then be polished with another lint piece under cold water and a little soap may be used. You should now have a good show wax piece. This same process can be used for commercial wax but the moulding need not be as good. The exact same procedure is used for the candles but you pour the wax into candle moulds instead of a dish. Don't forget to dip your wick in the molten wax before you put it into your candle and use the correct wick size for your candle mould. When cold these too can be buffed up in the same way to achieve a nice finish. I hope you get good results with the above methods but if at first you don't succeed, try again until it's perfect.

7. February 2015 Meads, Dry, Sweet and Melomels.

Let us begin this section by stating that there are many variant recipes for making mead. The text that follows is a helping guide and describes my personal way to making good mead. And now having said that let us get started by listing the equipment you will need to make mead successfully. You will require a glass demijohn that holds approximately 1 gallon, a wine hydrometer to check the progress of fermentation, an air-lock, a bung with a hole in it through which to insert the air lock and a solid bung. These can be either rubber or cork. Then you will require a metre of wine syphoning tubing and a plastic funnel. All of these can be purchased at your local brewing shop, such as Boots or the Wilco's stores and they are not overly expensive as they can be used time and again. When all these are in place, next comes the ingredients to make your mead wine. These vary dependant on the type of mead you are wishing to make, but they are basically water, honey, yeast, a yeast nutrient and Camden tablets.

Dry Mead

Let us begin with making a gallon of dry mead: You will require between 2 to 3 lbs of honey, a nice floral honey is good for this and you don't have to have your own hives of bees to source this - a shop bought floral honey is quite

adequate. Ask your brew shopkeeper for dry wine yeast and then you are ready to begin. De-chlorinated water such as clean spring water or bottled still spring water is best to use with all meads, not tap water. Pour a good cup full of this water into a jug and add to this half a cup of honey and stir until dissolved. Now warm it to 68/70°F using a jam thermometer to check the temp. If your yeast purchased comes in a packet I use just under half of this and sprinkle it onto the surface of your water/ honey mix in the jug. Cover with a clean cloth and leave it for around half an hour for the yeast to activate. You should have a bubbly frothy top formed on the liquid when ready. Now pour the remaining honey into your demijohn, add a teaspoon full of yeast nutrient and add your water already warmed to 68 / 70°F. At this stage I like to add a squeeze of lemon juice to the mix.

Don't fill it full, just to the three quarters mark. Then add the yeast mixture to the brew. Give the mixture a good shake or stir to ensure that all of the honey and contents are well mixed together. Top up now to about two inches from the top. Now fill your air lock with about an inch of water, push it well into your bung with the hole and place this into the neck of your demijohn. This should now be kept at around the start temp in a warm place to ensure the yeast keeps working and turning all the sugars of your honey into alcohol. A good thing to buy is a wine mat or belt. These are both types of electric heaters and can be bought from your brew shop and they ensure your brew is kept at the right temp. Stir the liquid twice a day for the first three days then leave it to ferment in peace. This process normally takes about two to three weeks. Look at your air lock after this period and there should be no more bubbles plopping in the airlock. If there are, leave until it has stopped. Now take your hydrometer and tie a short length of cotton to the top of the narrow measuring tube. This allows you to drop the hydrometer into the Demijohn after removal of the air lock by holding the cotton and take a reading off the gauge measured in the apparatus. For dry mead this should read between 0.990 to 1.005/6. Great care should be taken when doing this that you do not move the demijohn in any way, as you don't want to disturb the layer of yeast that has formed on the bottom of your brew. We need it to be very clear. If this required reading has been achieved, it is ready to rack off. This means placing your demijohn onto an overturned biscuit tin or something to elevate it higher than a large bowl into which you are going to syphon off the liquor from the demijohn. When you get near the bottom of your liquid tilt the demijohn carefully, but stop when any of the yeast mixture comes through. We need the liquor to be as clear as possible. When this is done, clean out the demijohn thoroughly with a bottle brush and hot water. When it's clean place your funnel into the neck. I place a spoon down the side of the funnel into the top. This allows the air to come out when you start to pour the mead back into the demijohn. Pour it slowly. I then add to the mixture two crushed Camden tablets, shake the mixture well and replace the air lock for a couple of days until all further fermentation has stopped. At this stage I place the demijohn with a wedge under one edge tilting it over to one side. After a day or two rack it off again. By placing the wedge under an edge you should have a clear side at the bottom of the demijohn from which to siphon, so keeping your liquor clear. After this replace the airlock with your solid bung and store in a cool place. I put mine on the garage floor at the back. If your intentions are to drink it, it will be ready in about three months. However if you are going to show it at a honey show it needs to be left for about three years. I rack mine off every 6/8 months as mead will continue to drop sediment throughout its lifetime. If everything has gone to plan you should have a nice dry mead with a flavour not unlike that of a dry wine. However you may not get the same aroma as with a dry wine, as most floral honeys have a very delicate flavour that is sometimes lost in dry mead. It should have a good alcohol content of around 7-12%, be pleasant on the nose and pallet and not have a sulphur taste or be too harsh.

Sweet mead

With sweet mead the actual ingredients are the same but the quantities are different. I will go through all possible changes but the process remains largely the same as with the dry mead. When making sweet mead there two main changes to note: 1) the amount of honey, 2) the type of yeast it may be necessary to add tannic acid. To make good sweet mead we need a stronger flavoured honey and the best of these I feel is the heather honey. However this can be blended to give a more rounded enriched finished product with other honeys. Balsam and clover are both good. We need to use around 4/5 lbs of honey per gallon to ensure a good fermentation. If blending I use 4/1 heather to balsam mix as the balsam has a citrusy after flavour to contrast

with the rich heather taste. You will also require sweet wine yeast - a Sauterne or Bordeaux yeast is good for this. Follow the procedure as previously described allowing the yeast to activate thoroughly before mixing in. Add your honey then your yeast nutrient and a squeeze of lemon or lime juice, (half an egg cup maximum). At this stage some people use a pint of cold tea to replace tannic acid and add body but this is a personal choice. Keep to the same temperature and maintain it throughout the fermentation process. Sweet meads usually take longer to ferment than dry mead. When the bubbles have stopped take your hydrometer reading as before, but this time it should read between 1.012 to 1.020 for good sweet mead. If it is above this reading of 1.020 it is no longer classed as a sweet mead but as a dessert mead. Rack off and store as before and if showing it rack it off every 6 months and show after 3 years of age. The result with a sweet mead is you should have a very nice distinctive sweet honey aroma and the pallet should retain a full bodied and rich intense complex taste. A good test of its legs or alcohol content is to pour some into a very clean warm wine glass, swirl it around the glass and you should see with both dry and sweet meads where it has clung to the sides of the glass in waves. This is a lot more apparent with the sweet meads as the alcohol content is much higher, double in some cases.

Fruit Melomels

A Melomel is a mead that is made with either seasonal fresh fruit, or from fresh fruit juices, sweetened only with honey. If you intend to use, as I do, seasonal fruit you are going to need a mash tub. For this I cut a hole in the top of a 30lb bucket the same size as to fit into it my airlock bung giving it a tight fit so no air comes either in or out except through the airlock. You are now ready to begin. It is then a matter of selecting the type of fruit mead you wish to make. Most melomels are either medium sweet or sweet due to the sugar content within the fruit itself plus the honey used. Any type of soft summer fruit can be used to make a melomel. Let us use as a for-instance in this article blackberries. Take 3lbs of blackberries and put them into your mash tub, after washing them thoroughly. Now take 3 to 4 lbs. of honey, floral or similar. I then use a potato masher and squash the fruit to extract all the juices and flavours. I then add a teaspoon of yeast nutrient a squeeze of lemon and top up this with around 6 pints of spring water warmed to 68/70°F. I have already activated my yeast by the same method as previously explained, and use the sweet mead yeast for these. Now combine all together and stir with a wooden spoon. Do not use a metal spoon when mixing yeasts, wood or plastic is best. Place on your airlock and lid, taking off the top from the air lock before putting on the lid. If you leave it on the pressure will pop it off and you will have to re-fill it with water. If at this stage I have a little excess, I place it in a wine bottle with a wad of cotton wool in the top. Then treat this as I do the main portion. Stir twice a day for 3-4 days then leave for a further week until the first vigorous fermentation has eased. Then strain off the old fruit through a muslin cloth into a bowl. It will still have yeasts within the liquid at this stage. Get your demijohn and funnel and gently pour your liquid into it. Don't forget the spoon as before. This will then need to be kept like before at around 68/70°F. Until the fermentation has stopped and bubbles ceased. This generally takes another two to three weeks but can take longer. It then will require racking off as before into a bowl then returned back into a cleaned demijohn. If it does not fill the demijohn to an inch from the neck rack off the excess you put in the wine bottle and top it up. You may have to repeat this again in a month's time when done and all fermentation ceased. I crush a Camden tablet into it and then leave with the solid bung it in the rear of the garage to mature with the rest of my mead. I do hope the explanation of mead making will encourage you to have a go. Hopefully we will see you in a few years with your finished product on the honey show bench.

8. April 2015 Cakes and Confectionary for the show bench.

This is my final article on the preparation of exhibits for all the sections within a honey show schedule. With the conclusion of this article on cakes and confectionary, we will have covered everything on the show bench: honey - all types, wax - including show and commercial, blocks and candles, cut combs and sections, meads and Melomels and finally cakes and confectionary. There may be a slight variation or addition to these at certain shows but if you stick to the basics we have discussed within each article, you should not go far wrong. Of course you don't have to enter every section, only the ones that appeal to you. I will begin this piece with the preparation of cakes, both plain honey cakes and fruit cakes for the show bench.

The Plain Honey Cake.

As with every section in a honey show, we must first consult our bible (the schedule)! Read through the section on cakes carefully so that you digest and follow all the relevant instructions to the letter. This is vitally important with all the classes, particularly so with the cakes. Make sure before you start you have all the right ingredients to hand and, very important, check the stipulated tin size that the cake has to be baked in. If it states a 7 inch tin then it's no good using an 8 inch tin and thinking "oh it will be ok". NO it won't. The judges will always read the schedule and the first thing they do in these classes, before even examining the cakes, is to check the size of the cake complies with what is stipulated within the schedule. If it's the wrong size it will be discarded, classed as not to schedule. So the correct tin size is important. If it's not a new tin ensure it's perfectly clean before continuing. Then line your tin with a greaseproof paper, lightly greasing the tin, both side and base, before lining it. Most schedules say to use a greased tin, but I recommend lining it as this is the best method to prevent your cake from burning when baking. When the tin is prepared, set your oven to the recommended temperature and turn it on to preheat.

Now for the ingredients. Once again consult the schedule for this and the method laid down to accompany it. It is very important to measure every ingredient correctly. Only use fresh new laid eggs. Pass the measured amount of flour through a fine sieve before adding the other ingredients and always use self-raising flour, not plain. I even add a good pinch of baking powder at this stage to help with the rise. Then follow the instructions in the cake making method in the schedule. Make sure you mix all the ingredients thoroughly to a very smooth consistency before placing it into your tin. I also never use warm margarine or butter but keep it at room temperature or slightly below. It is always best to have a dummy run with cakes to get the right setting for your particular oven with regards to baking times and temperature, as all ovens vary slightly and a slightly lower temperature is better than one that is too high. Keep an eye on the cooking time especially when it is almost cooked. I would suggest that after an hour at the cooking temperature, the cake is tested with a skewer. If it pulls out of the cake clean then it may be done. On the other hand if it is sticky on the skewer then it requires more time. It should be a lovely golden colour all around and very even across the top. Allow it to cool slightly then remove from the tin and stand it on a cake tray until completely cold. It can then be wrapped in tin foil and either taken to the show or if done in advance wrapped, placed in a cake tin and stored in the freezer until the day before the show, when it should be taken out to allow to defrost gently 24 hours before it goes to the show. Always remove any lining paper from the cake prior to staging and please also ensure you have the cake properly staged. If it states on a doily on a paper plate then ensure it is. If it states one label to be placed on the plate, ensure it is. Also if it states to be placed into a clear plastic bag with a label on the bag also then please ensure it is also. This cake is now ready to show.

Fruit cakes.

For a fruit cake all the above instructions apply as for the plain cake. The only variable is the fruit is to be added. Pay particular attention when and if it states the type of fruit to be used and always adhere to this. Follow the method when mixing all the ingredients together. One tip with your fruit: when you have weighed out and sieved your flour, a little should be taken from it and sprinkled over the measured amount of fruit coating all the fruit with a fine dusting of flour before adding into the mixture. Once again always ensure the ingredients are thoroughly mixed before adding the fruit. Then fold the fruit into the mixture making sure it's all well mixed before pouring into your tin, prepared in the same way as above. Some people pre-soak their fruit in various liquids to plump up the fruit and make them tastier. I would not recommend this as it adds weight to the already weighed out fruit and can make your cake too heavy.

With nearly all cakes in shows this section is the only one that very often states that the honey used does not have to be the makers own produce. This means shop bought honey may be used. A mixture or blend of honeys is often best for both. I personally prefer a wild flower honey for my plain honey cake, but a mixture of wild flower and heather for my richer fruit cake. Another thing with fruit cake is, with them having a greater amount of contents the baking takes longer to ensure good results. So a slightly lower temperature is advised and a longer and slower cooking time will be required. Take care not to burn the outside or top of the fruit cake. As with cakes, a trial run will help to

get the temperature and cooking times perfected. I do hope this prompts more contestants to come along and participate in our honey shows. Especially as these are two classes that often don't require the honey to have been produced by the entrant's own bees and so the classes are open to everybody and not just beekeepers.

Honey Confectionary

Honey confectionary, or honey sweets as this class is often termed, is another section where anyone can enter as in most cases it is not restricted to beekeepers alone. Usually it is stated in the schedule that the honey used need not be produced by the exhibitors own bees. This class varies from show to show so once again the schedule must be read carefully. I personally don't think that any flour based recipes should be used in this class eg. Scones, shortbread or such like. It is a sweets / confectionary class. Chocolates, fudges or a honey marzipan based recipe should be stipulated. However if you follow the schedule, all will be well. Whichever outline ingredient you go for in this class, the main thing is that the end product actually tastes of honey and not of anything else. This class gives exhibitors great scope to produce nice uniform products of their own choosing. Most schedules give an overall maximum or minimum weight to be exhibited and also most specify the number of entries to be produced from the same recipe for eg. 3 to 6 pieces per plate. Just ensure all your sweets or pieces within the exhibit are uniform, look inviting and taste of honey. The rest in this class is up to you.

I hope this encourages you to come along and enter our honey shows in these particular sections even if you are not an avid beekeeper. Who knows you may get to win a top prize and rosette for your troubles. I wish good fortune to all exhibitors in the honey shows and look forward to meeting you at the shows held during the coming season, especially at our own Yorkshire Beekeepers and YAS honey show at Harrogate's Countryside Live show in October 2015. Contact me from July onwards for an entry form and show schedule to that show or from May onwards to enter the Great Yorkshire show honey show. You will find all contact details through our e-news or website.
Happy baking.
Dave Shannon.