

April Beekeeping

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April is always an exciting month for the beekeeper. This is the month you will get your first opportunity to open the hives and examine the bees. At this stage your bees have not been examined for six months. Don't be in any hurry to open the hives always wait until conditions are correct, warm and sunny without a cold breeze. Looking back on March you will find



Figure 2 Bee on Dandelion

it was seasonal some good dry days, but still very cold. There were several jobs you could have complete in the apiary, stands preserved and repaired, hives preserved, bushes clipped back, indoor work could have included making up frames, getting all your equipment ready. Jobs that you shouldn't have done were opening the hive, feeding syrup too early in the month, bees are only stressed trying to process this liquid and its unnecessary unless they are on the point of starvation, it's better to give fondant, they only have to eat it, sterilizing frames the temperatures were just too low. There were sunny but cold days, always a danger to bees as it gives them a false sense that weather is better than it is and they go foraging, but don't always make it back, have a look around the apiary, on the landing boards and you will always find bees some with Pollen who failed to make that last meter or two to the hive. The important point is that it was good enough to allow the cluster to break and let the bees do what bees know best.

Overall temperature should have increased by now. Before you consider opening a hive always have all your equipment ready, there is no point in opening the hive and then you must go back to complete the job just because you didn't have what was needed. First inspection should always be brief, it's an opportunity to quickly assess the colony. Remember everything will be glued together with propolis and wax, so be ready for a mess. It should be a five-minute inspection. For a beginner this moment can be a time of great excitement, total disappointment for others, a time of fear. Have your smoker well-lit always have the smoker ready but be slow to use it. Approach the hive either from the side or back, blocking their flight path is always a bad start. Stand and observe flight activity. If the temperature is adequate there should be good flight activity in and out of the hive, bees with



Figure 1 Applying Preservative



Figure 3 Dead colony, numbers too small

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pollen, hopefully some carrying in early nectar and the water gatherers should be busy. Check around the ground for number of dead bees there will always be some. If you really look you might find a large amount of dead bees, mostly decayed remains don't be alarmed as they could be there for months even last year hidden among the grass, what you are looking for are recent deaths and almost dead bees crawling among the vegetation. If you have an open mesh floor, check the insert if it's in. Can you see varroa mites, are there much debris on it, any chalk brood mummies. There should be a mixture of brown and white debris as the bees progress through their stores and the brood hatch. Pollen



Figure 4 Colony starting to expand.

will also be seen. If you haven't the insert in have a look at the ground underneath the hive for signs of activity. All this tells you a story before you open. First step is to remove the roof. Check the inside, any sign of brace comb, a small ball of bees clinging onto it. Look at the port hole in the crown board, are the bees gathered around it, are they drawing comb. If so, it looks like the colony is well advanced. Are they still quiet, remember you haven't used any smoke yet? Proceed with getting the corner of the hive tool underneath the crown board and gently lever it upwards, go to the next side and do the same, gentle, try not to crack it open too quickly or too loudly. Go around a 2nd time and now it's ready to lift off. Turn it over and examine the bees on it, any sign of the queen, unlikely as you didn't use smoke, any abnormalities, deformed wing, K wing, note the colour of your bees. Hold the crown board on one edge and gently tap the bees into the hive, hold it diagonally across the brood chamber. If you did find the queen it would be a good idea to cage her, but be very careful as a queen on her own can become chilled very quickly. At this stage the bees will begin to boil up over the top bars so gently give them a puff of smoke to drive them down. There will be a lot of brace comb built on the top bar, now is the time to clean this up. With some quick movements scrape along the top with the hive tool or better still a wide paint scraper and dump it into a bucket. This can contain a lot of liquid so make sure it doesn't run down between the combs. It can create a mess and could kill your queen if she is down there. The bottom of the crown boards will also need cleaning or replace it and clean, sterilize the old one at a later stage. Looking down you should be able to estimate where the main brood nest is. Move a few frames away from it and with your hive tool loosen a frame or two, pull one up gently, firstly smoking down between them to remove the bees, this will be the most difficult frame you will remove. This frame will contain some stores if they have them. Leave into your frame box and then proceed to the next

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frame keep going toward the center until you see a frame of fresh pollen, this signifies the start of the brood nest. Don't go any further. Have a look at the other side of the brood nest completing the same procedure until you find pollen / brood. Now you know how many frames of brood are in the nest. The outside



Figure 5 Make sure foundation is fresh, heat with hair dryer. Watch for colour on right side

frames you looked at should be assess, are they full of stores if so you should remove one or two and replace with foundation this will give the bees room to expand, position them next to the brood nest and the bees will draw them out, the dandelion should be in flower and possibly OSR if it's in your area. If you have a colony with six or more frames of brood you could put in foundation on both sides they will draw them, with 4-5 frames of brood put the foundation on one side and if they want to they can expand onto the other side where there is drawn comb. If it only has three or less, then it is too soon to give it foundation. Wait until next visit and reassess. Of course if it has three because it has no room to lay due to being honey bound, then you must remove some frames of honey. It's an opportunity to remove old frames also and replace with fresh foundation. Remember the brood nest is not always in the center so sometimes it could be at the back wall or front of hive if so, you only need to take a frame from one side. That's all you need to do on this visit, reassemble the hive, don't forget to put the queen back if she was caught on the crownboard. The scrapings you removed could be fed back to each colony, put it into a small container, you will be left with a lump of wax next visit. Don't mix it all together and feed to one or several colonies, a sure way to spread disease. The procedure you just carried out is aligned with what happens in nature, bees always expand in Spring onto a new area of the nest (you just added foundation) and they abandon a part of the old nest (you just removed some old comb), also you are making life easier for yourself, it's easier to examine new combs, less places for the queen to hide, easier to see larvae, eggs, less disease and always less hassle to take a frame out when examining, so the more frames you replace the easier and better beekeeper you will be.



Figure 6 Foundation added, top of frames need to be cleaned

Finding the Queen: You could write a book on finding a queen if you took into consideration all the tricks, theories and lies beekeepers will tell you. Most

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beekeepers will tell you that the queen can be found in the centre of the brood nest on a frame of eggs. It's a good starting point but that is not usually true, firstly most beekeepers over smoke their hives when looking for the queen and like anyone of us if in such a situation we will run away to the furthest point. If looking for the queen do not smoke the entrance of the hive. If you did your earlier five minute inspection your hive shouldn't be stuck together, the crownboard was already cleaned of burr and propolis, you have new frames in on both side of the nest, all these will come apart very easily without banging and vibrating so that all bees will stay still. In this situation the queen will be calm and sitting on a frame waiting to greet you. Proceed as follows, remove crown board gently check underside, remove frames outside of the brood area from both side if it's in the centre of the box, the queen should be on the remaining frames, start with the first frame probably pollen and possibly a little brood gently remove and look at the opposite side to you first as this is the most likely side she will be on the dark side of the comb, always pay attention to the face of the next comb as you will sometimes see her walk down along it as you expose the light on it.. Check the outer edges first as she escapes to the back of the frame and work into the centre, recheck then turn to the other side and do the same again. Always check the bottom of the frame and any holes in the frame, queens do love to play hide and seek. Proceed onto each frame, as you work your way across you will see different stages of brood, when you finally come to a frame of freshly laid eggs pay particular attention to this. If examining some newly drawn combs be very careful how you handle them and if they are not drawn out to the side bars or top bar this is a favourite place for the queen to hide she will run along the foundation beside the timberwork. If you have examined all the comb and haven't spotted her then go back quickly through the frames again adopting the same procedure. If the brood nest runs onto the wall of the brood box she could be sitting on the wall of the hive, not always the easiest place to catch her but at least you saw her, don't be tempted to blindly catch or mark her in that position. Do not be tempted to look and look until you find her, twice is probably once too often so after the second time reassemble the hive and leave for another visit. It's only April and there is no hurry in finding her. So why didn't you find her, she could be sitting there, blindly missed her, we would never admit to that. Most obvious reason and the most consoling is that she just wasn't where you looked. If you did smoke the entrance and beginners do a heavy smoking the queen probably ran off the combs as they do in nature and was either on the floor board or side walls, it's very hard to find her if she is down there and you are not looking so when you remove a comb always keep one eye on the floor and walls. Persisting with the search will aggravate the bees, where you will be forced to smoke them, causing confusion, the queen will run and the bees could ball and smother her.

Another fallacy you will hear is that it is easier to find a queen in a small colony, it's not always true, how many times did you struggle with an apidea of bees trying to find the queen on three small combs as she sat on the floor. A small hive is the same the queen feels insecure and goes to ground for cover.

When you are looking for the queen you shouldn't actually be looking for the queen, It's her long abdomen, her pointy bum you will spot as she turn the corner onto the back of the frame or through that hole in the comb, lurking along the bottom bar, watch out for those long spidery legs, a great give away as the bees partly cover her. Queens are sometime a different colour to the workers so watch for that as well. The real black queen among our black bees is probably the hardest to find.

Caging Marking Clipping the Queen To describe the process of clipping and marking on paper is not easy, it's best left for a practical demo but it's not that daunting a task and to be a successful beekeeper it really is necessary. Now that you have her spotted don't panic and you will if you are not ready. Always have a plan. Before you ever open that hive visualize what you are going to do



Figure 7 Unclipped Marked Queen in the cage.

when you see the queen, remember you cannot take your eyes off her. There are several options. Let's go through a few general points and you can follow up with a practical lesson. Whatever equipment you are using for this procedure always have it to hand when needed, you must be able to reach it without taking your eye off the queen. If the crown of thorns is your option have it in your pocket, always the same pocket, have

the scissors with it and the marker possibly in your top pocket. It's not necessary to handle the queen you can clip and mark her in the crown of thorns, you can have one of the plunger cages which makes the job very easy, again no handling of the queen. If you decide to pick her up, you need to let her walk along the frame and catch her. Don't be afraid you are going to hurt her, there is too much talk about that. Be gently but she is not that easy to damage. Watch the experts clip and mark at the apiary sometime very gently other time they can seem very rough but still not damaging her. When picking the queen up if you fail to catch her she can get very nervous and start to run don't persist if you fail again, watch how the bees are reacting to her movements, if they are showing any tendency to attack her, stop and leave her. Another important consideration is watching the queen for running over the edge of the hive, don't be tempted to bring the frame with the queen away to a quiet part of the apiary if she drops off she is lost forever. Sometimes when you grab and fail, the queen can take flight, don't try to catch her in mid-flight or knock her down.

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Leave her, wait a few mins then close the hive and hope that the bees will call her back in. Usually she will be there at the next visit, check for eggs, if there are queen cells she didn't return.

Transferring NUCS: You maybe a beginner who just got a nuc or you have overwintered a few, soon they will need more room and the minute they need it give it to them. If the weather is not conducive to pulling out combs and transferring into a full brood chamber a quick fix is to add a second nuc box with frame either comb or foundation and let them build up into it. When the weather is more suitable transfer the lot into a full brood chamber. Depending on the weather, forage and the amount of stores it might be a good idea to liquid feed them, remember you're not fattening them just enough to get them to draw out the foundation.



Figure 8 Transferring a Nuc.

Supering: When do you add that first super is always a worry for the beginner. There is no definite date, it varies from hive to hive apiary to apiary every year is different and of course the forage in the area. When a colony is on 6 frames of brood you should add a super. Some experienced beekeepers would add two. Don't be afraid of cooling the chamber too much, it could be good to slow down the expansion a little it's a long way to Mid-June. You are supering now to give the bees room, as the nest expands and the young bees hatch, they will need their own space. If you are limited on when you can examine your bees sometimes good weather and the time you have don't match, a quick lift of the roof and peep in at the hole in the crownboard can tell a lot. If there are bees expanding into the roof and starting to draw comb why not add a super over the crown board bees will move up into it so will the queen so add an excluder first or just quickly lift the crownboard and place the super over the brood box that's a one minute job, again add the excluder first. You can also do this on your very first inspection, don't be always thinking that its necessary to look at the brood nest, with experience you will have a good idea how things are developing. Always get all the bees down under the queen excluder just in case the queen is with the bees on the crown board or in the roof. The advantage of adding supers is that a lot of the bees will be up there on your next visit where otherwise they will be sitting in the brood chamber making the job of finding the queen more difficult

Disease Prevention Control: Always be on the lookout for disease or abnormalities in the hive. Prevention is better than cure. Changing comb is one of the best practices a beekeeper can do to reduce/eliminate a buildup of disease. By the end of April the beekeeper should have a good idea of the overall condition of their stocks. Some will be dead, others just lingering on, try

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to establish why and take remedial/ immediate action. If destroying the colony is the best option then do it quickly, no point in having it lingering on, it's not of any use. Other colonies seem to stand still on two or three frames of brood they still have plenty of time to expand but watch their development, do they need feeding, possibly a small frame of well-developed brood might help to kick start them. If there is any inkling of disease, then get the samples sent away. April is the month to check for brood diseases also, watch out for signs of EFB, nurse bees are under pressure and can neglect cleaning the cells affording the beekeeper the chance to spot the disease. Nosema can be difficult to determine, get the bees checked, dysentery or slow buildup are first indicators. Varroa count will creep up with expanding brood, constant monitoring prevents any surprises later in the season. Consider a Bailey frame change for the strong hives or a Shook Swarm details in our fact sheets.

Bees will have more forage this month. April is the month for the dandelion, its lookalike Colts Foot will also be blooming. If you are near Rape Seed Oil it will be in full bloom, bees will work it building up and or collecting a crop. There was no real need to feed your bees last Feb March to have them ready for the Rape, some will be ready other won't and feeding them was not the determining factor. The acers will be in bloom, plenty of pollen coming into the hives.



Figure 9 Bees on the OSR

Watch for space. The Blackthorn will be in bloom a very nice orange pollen, watch out for it. Garden plants include Grape Hyacinths and regular hyacinths. Plum trees, laurel if you didn't cut it and some of the early apples will also bloom. Blue bells are on the way. The bumblebee queens are getting plentiful, don't forget to put up some bug hotels for the solitary bees.

April is a great month for the beekeeper especially if you are a beginner. Bees are at their best when it comes to examining them, still relatively small numbers, and a minimum of boxes on. There is a lot to think of, there is a lot to know there are several decisions to be made all in a hurry, keep going don't despair.

Go to WWW.SOUTHTIPPBEES.COM there are several fact sheets with further details as discussed above also go back to the April newsletters several relevant articles.

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