



The Buzzword

July 2009 Vol. XII No. IX

West Sound Beekeepers Association
westsoundbees.org

July Refreshments

Drinks:
?????????

Snacks:
?????????

Next meeting:

Tuesday, July 21, At The Stedman's

5:45 PM Journeyman Studies

6 PM Bee-ginners Class

7 PM Regular Meeting

Conferences

Western Apicultural Society Annual Conference

Aug 17 - 20, 2009, in Healdsburg, CA.

September 2009

41st Apimondia Montpellier, France

Joint Oregon/Washington State Beekeepers Convention

November 19-21 at Seaside Oregon

President, Journeyman Study Group Leader
Jim Dunbar .360-286-5359

VP
Kayla Wentworth .360 598 3867

Secretary
Michelle McMillen ????

Treasurer
Lori Christie .360 830 5509

Educational Materials
Barbara Stedman .360 692 9453

Education Chairman
Paul Lundy .360 297 6743

Librarian
Peggy Dunbar .360-286-5359

Newsletter Editor
Basil Gunther .360 297 5075

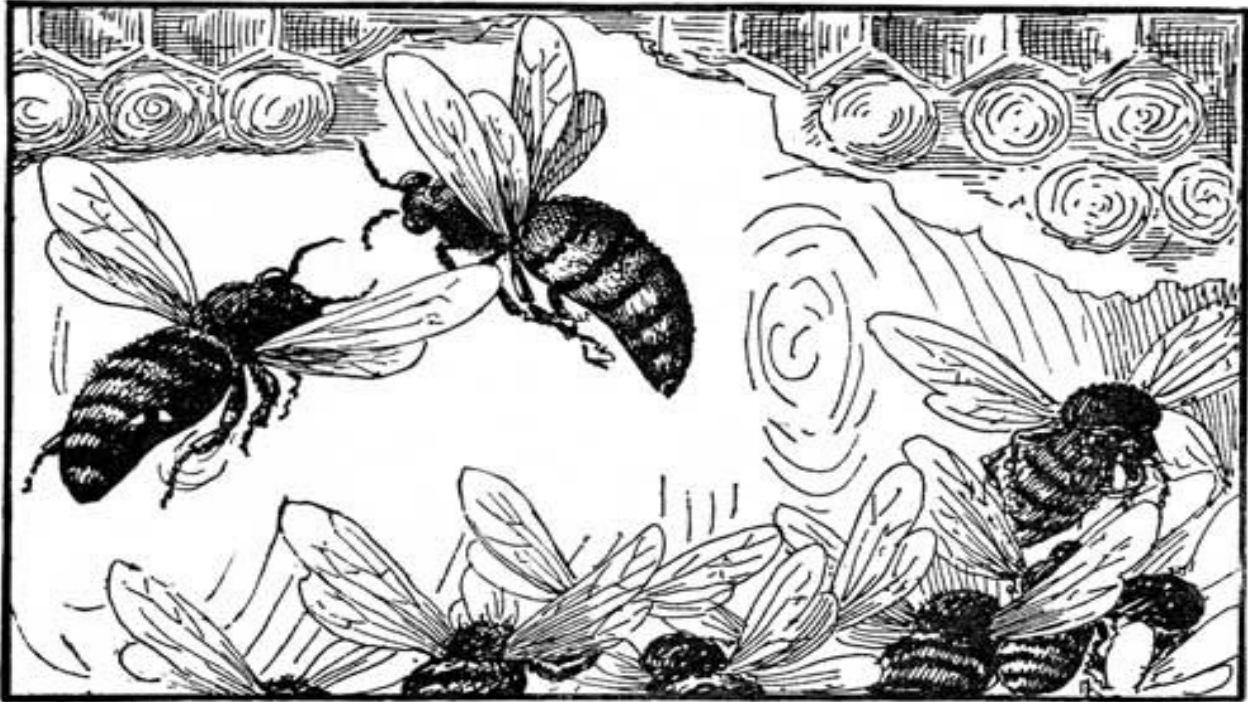
Webmaster
George Purkett .360 895 9116

Queen Rearing Group Leader
David Mackovjak .360 698 5228

What's Inside:

Tips on Harvesting Honey.....	1
Message From The President.	3
NW Beekeeping Basics.....	4
Bee Escapes.....	5
Queen Introduction.....	7
Recipe Corner.....	9

TIPS ON HARVESTING HONEY *John Caldiera, Texas*



1. Honey is sticky. It will drip. Every doorknob, shoelace, telephone and radio button that is touched while uncapping or handling wet frames will become sticky. Walking spreads the honey around on the floor.

Solution: A bucket of water to rinse hands and a dishcloth are essential in the extracting room, especially if you are married and want to stay that way. Turn on the fan and radio, and get everything else ready, before getting all sticky. The garage, cellar, shed or porch are usually better places to extract than the kitchen, providing you can keep the honey clean. Watch the kids.

2. Bees in the extracting room are attracted to light. Straggler bees left in the supers will find their way into the extracting room and will tend to fly towards a window or light bulb.

Solution: A small exit near the top of a window will allow them to return to their hives if they are nearby. If the hives are not nearby and you have a lot of bees in the room, hanging a few drawn frames near the top of the window with a caged queen will provide a place for them to settle and create a nice nucleus colony when you're done. A vacuum cleaner hose is an alternative. Don't extract directly under the only light bulb in the room.

3. Bees away from their hive are not inclined to sting. Bees carried into the extracting room in supers are normally extremely gentle, with no brood or queen present. However, they are very adept at stinging the finger that accidentally crushes them while picking up a frame or super. Beware.

4. Household items can serve as good alternatives to supplies found in beekeeping catalogs.

- A serrated bread knife makes a good uncapping knife. Use a sawing motion. No need to heat it. Change directions if it catches the wood. Some beekeepers really like using a hot-air electric paint stripper to quickly melt the cappings, but I haven't tried it.

- Kitchen strainers, nylon paint strainers, and women's tights can serve as good honey filters. Clean ones, of course.

- Good plastic containers to hold honey and cappings. Honey is acidic; so don't use items such as aluminum and galvanized steel that will react with the honey acids. Stick with plastic, stainless steel or glass. While there is a good household substitute for most extracting equipment, there is no good substitute for a good centrifugal extractor.

5. Let the honey settle. Honey that rests for a few days after extracting will not leave tiny bubbles around the rim of a jar. Be patient. Almost all debris left in the honey after filtering will either float or sink within a few days. A tap just off the bottom of a container will prevent both floating and sunken debris from being accidentally bottled.

6. If there is no nectar flow, bees will rob honey. If the honey in an extracting room is more appealing than local flowers, the neighborhood bees will try to feast on it and tell all their friends. Extracting is best performed in a closed screened room such as a garage, cellar or shed, or outside after dark. I heard a story about a guy that brought some supers into his basement to extract the next day, but he left a

Minutes from the June 16, 2008 meeting

None Submitted



Tips...(continued)

window open. The next day he found that his bees had brought half the honey back to their hives.

7. Uncapping is easier with only 8 or 9 frames spaced evenly in a 10-frame super. The thicker comb means almost no scraping with the fork. After bees have drawn out the foundation the first season, return only 8 or 9 frames into each extracted super to make the next crop easier to uncap. Uncap all the way down to the wood on the top and bottom bar, regardless of how far the comb is drawn out, so the comb will be nice and even next year.

8. Propolis sticks to shoes and almost everything else. Extracting is a great time to clean propolis off the box edges and frame-rests, but if they are going to be scraped it is best to cover the floor with old cardboard, newspaper or a plastic sheet so there won't be little propolis reminders of the extracting experience. Wax isn't quite as bad.

9. Bee escape boards work okay if you can install them the day before extracting, have enough escapes for every hive, and don't have too many holes between the boxes where the bees can enter and rob the honey. My equipment is old and leaks.

10. Extractors, uncapping tanks and other extracting equipment are best borrowed or shared. Most hobby beekeepers will only use their extracting equipment one or two days each year. The rest of the year it typically gathers dust in an attic, garage or shed. Thus it is very practical and economical for several beekeepers or a beekeeping association to share equipment. The expense is avoided, and it eliminates the need for storage space. So borrow or share, and use some of that money saved to buy a few of the nice non-stick polyurethane candle molds. If you must buy, a good quality hand-crank 4 frame extractor will suit most beekeepers better than 2 or 3 frame models, since it reduces the spinning work and thus greatly shortens the extracting time. (However, avoid the old tinplate extractors often sold at bargain prices at auctions. All food must be processed in stainless steel or plastic equipment nowadays to comply with food regulations. Ed.)

11. Extracting honey is best accomplished with two people. One person uncapping frames while the other spins the honey. Very efficient and the conversation can be good. It's not very stressful to a relationship either, unlike hanging wallpaper. If you have clean wax from an earlier extraction, a sideline candle-making operation is an effective use of time since candles take time to cool.

12. Warm honey flows best. Warm honey spins out of the comb faster and more thoroughly than does cold honey in an extractor. Warm honey also strains faster through a filter. Honey at 27°C or higher will be extracted most easily. This is normally not a problem in the summer, but in cool weather a light bulb under a stack of supers overnight can provide a lot of heat if the escape of the heat is controlled. Don't melt the wax!

13. Extracted honey absorbs moisture from the air. Uncovered honey also catches insects, so keep the honey covered.

14. Sufficient honey containers are needed on extracting day. Enough containers need to be on hand when extracting, so it is good to learn how much capacity you'll need before extracting. In rough numbers:

- a. A shallow super will typically yield between 10-15kg of honey.
- b. A medium (17cm) depth super will typically yield between 15-18kg.
- c. A full-depth box will typically yield between 25-30kg.

Actual yields vary due to the number of frames, how well they are extracted, age of comb and other variables.

15. Wax cappings hold a lot of honey. Wax cappings typically hold 10% or more of a beekeeper's honey crop. Cappings should be drained of honey through screening. After draining, the cappings wax can be melted into a block. Melting is best accomplished using a solar wax melter, or by heating the cappings in an inch of water in an old pot. Feed the honey-water back to the bees. Solar wax melters really do work well – use double-paned framed window glass and build around it. Alternatively, the cappings can be left outside for the bees to feed on and then thrown away

16. Utensils that are used with melted wax will not be used for anything else. Melted wax leaves a waxy film on every pot, spoon, dipping jug or strainer it comes into contact with. Crock-pots with an inch of

water are good for melting cappings that have been drained of honey, but the pot will never be the same. Old crock-pots are also near perfect for melting wax during candle making, and they are often available at car boot sales. Heat to between 65-120C; no need to boil.

17. Bad comb and rotten boxes should be replaced while extracting. Extracting provides the perfect opportunity to cull bad combs, frames and boxes that need paint or replacing. Have replacements on hand on extracting day. When short a few frames, frame feeders (also called division-board feeders; the kind that normally replace a frame or two) can be put in the empty spaces in the supers so any burr comb built there will be inside the feeder where it will actually be useful to prevent drowning when it is time to feed.

18. Let the bees clean the "wet" empty supers after extracting. Whether intending to return the supers to the bees or store them off the hives, the bees do a great job of drying supers after extracting. A stack of supers can be placed on a hive, over an inner cover that has a hole, and they will usually be dry the next day. Best to put them on the hives late in the day, to reduce robbing.

Every beekeeper has unique conditions, and there are many good beekeepers that use different methods, so enjoy experimenting with what works best for you!

Message From The President

It is the middle of July and some interesting stuff has come and gone or is in the middle of happening! Just three months after the bee packages have arrived it seems as though the group has had some positive experiences. Admittedly, it was a harrowing experience watching one of the hives swarm, moving another hive because of robbing, and dividing a third into two in an attempt to prevent a second swarm. Keep in mind, as I often forget, it's about the FUN of keeping bees (or is it the bees keeping us?). Just knowing we are doing something positive in light of the downfall of Apis Mellifera takes the sting out of the hobby, and bonus added, we get to watch them do their thing. Woo Hoo! You gotta love it!

Our club apiary has gone through some changes, mostly in an attempt to stifle some chalk brood disease in three hives and the reclamation of a fourth from the dreaded queen-rearing group. How dare those queen-rearing folks take nature into their own hands (actually, I thank the queen rearing group for their efforts in keeping a ready supply of queens for the group). Another small change consists of those who are interested or willing to volunteer to take turns inspecting and caring for the club apiary, making reports to Paul Lundy, another person I'd like to thank for all of his contributions to WSBA and the entire region for that matter. For Paul, and the queen-rearing group, your efforts and contributions do not go unrecognized, and consideration of throwing a picnic for all of you is on the table for August.

Speaking of which, bring ideas to the next meeting for the picnic August 18th. A little raspberry mead for tasting is on the schedule, assorted foods, deserts, veggy snacks, hopefully lots of stuff for carnivores and a hand full of grass for the herbivores will be available. A sign up sheet for volunteer side dishes will be passed around so as not to duplicate the efforts of somebody else (avoid the meeting if you don't want to be asked for a small donation of a side dish). On the other hand, don't avoid the meeting – there won't be any pressure to bring anything other than a great attitude and an appetite to the picnic.

WSBA meetings are changing (with approval from everybody, majority vote wins – be at the next meeting to cast your vote). Dividing education and fun from the business side of the meetings is under consideration, with anybody wanting (willing?) to attend invited. I'd like to keep the third Tuesday as the education and fun, making a motion to move the business side of the club to the 2nd Tuesday, a little later in the evening to allow commuters and all interested to attend. This will permit ideas and suggestions to be presented to the meeting on the third Tuesday, between Paul Lundy's training and the 'fun' part, using less than 15 minutes with a clearly defined agenda. I think it best to let the renegade queen-rearing group figure out what is best for them (and others interested in 'advanced bee-keeping').

**Well, I've 'droned' on long enough
– Your President, Jim Dunbar.**

NorthWest Beekeeping Basics

July marks the end of the major nectar flow here in the West Sound. You should make your plans to remove your capped frames of honey from your supers and ready them for extraction.

The Association has an extractor available for member's use. You might want to consider asking another beekeeper to extract for you and save you the mess. But, there is certainly nothing quite as wonderful as the first of the honey from your own bees flowing from the extractor.

You should examine the supers frequently but don't leave empty comb on colonies that are light in stores in the brood nest. The best way to take off full supers is to use the triangular queen escapes. If you are taking your colonies up to the mountains for fireweed place a couple of empty, drawn supers above the brood boxes, place an escape board above those and replace the full, capped supers above the escape. Within two days the supers with honey should be empty of all bees. If you are not taking your bees to the mountains remove all supers by the end of July so that the bees can pack the brood boxes with any remaining honey that they gather to use for winter stores.

Don't tempt robber bees with exposed honey. When you remove your honey supers from the hive, keep them covered as you collect them. Not only will it make keeping the yellow jackets at bay a little easier, but also help prevent robbing from getting started. Once bees start robbing, it is very difficult to stop them robbing from other hives.

During July examine each colony every 10 days for queen-rightness. Use a sugar shake test to check for mite load. As always, be vigilant for signs of American Foulbrood. If you are planning on making nucs for late summer or fall requeening, order queens for July delivery. Requeening is a good management tool for failing hives or hives that have come down with mites or disease or hives with really bad temperament. Having nucs on hand will allow you to successfully requeen colonies late into the year if warranted.

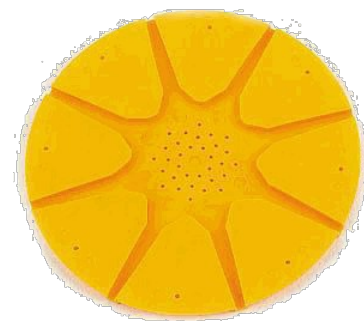
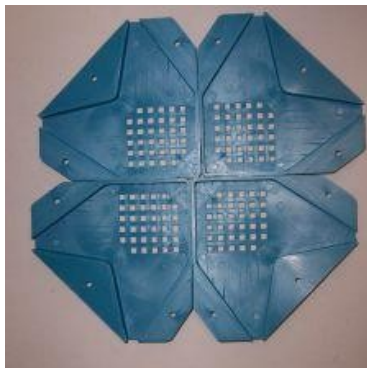


Bee Escapes...

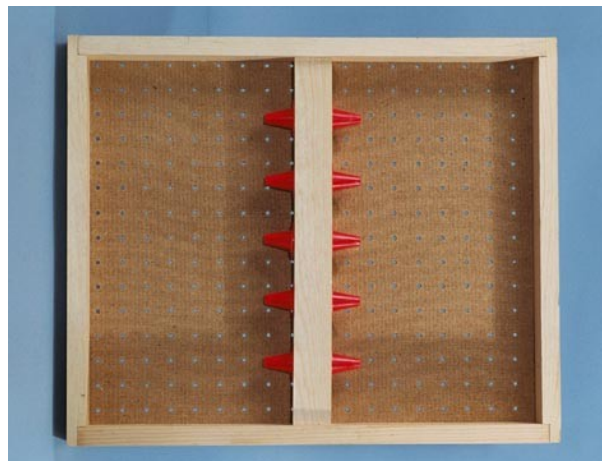
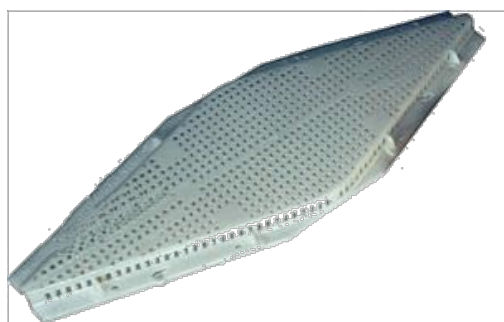
let bees out of the honey supers before you extract and are generally mounted on the underside of an inner cover. Many beekeepers do one super per colony at a time, working down the stack one super a day. If the apiary's far away this takes a lot of time and gas.



Left: The classic Porter Bee Escape (showing innards pulled out) . Some say bees get jammed in the gates, stopping the process. It's also reported to take longer than other escapes.

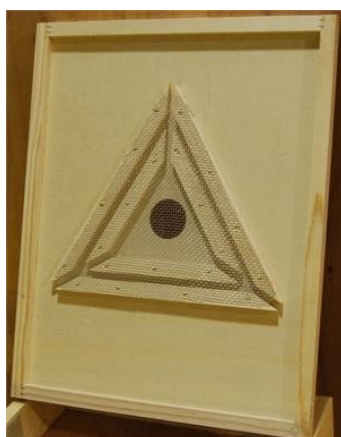
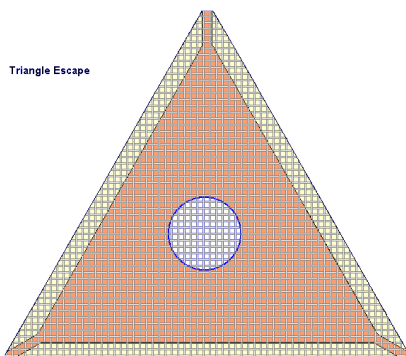


Designs from the UK.



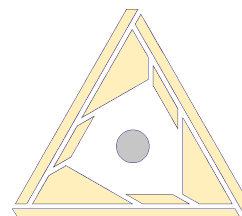
Conical escapes can be mounted vertically or horizontally as seen in this Dadant version. They can be made from plastic or metal, even mesh. David Cushman mentions you can use modified caulking gun tips for you skinflints who have washed and saved them (like me). They are faster supposedly, yet some bees take their time no matter what escape method is used. It's not like they don't have plenty to eat!

Triangle or Quebec escape

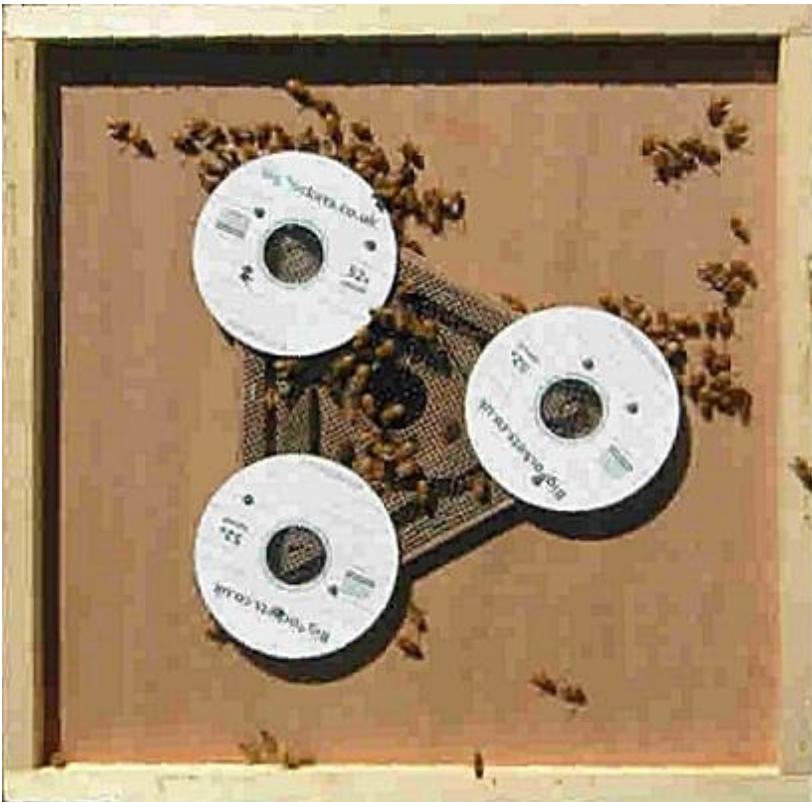


Double Triangle or Double Quebec

Bees don't have to 'squeeze' through a constriction in the Triangle designs, so they don't get 'jammed up'!



David Cushman 'Vortex' design.

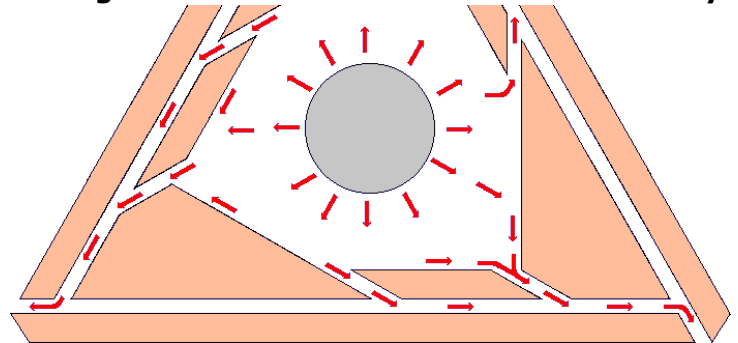


Left: David Cushman style "Vortex" With 'junk mail' CD roms on corners.

There is no 'guarantee' that the bees will always take the shallow angle rather than the acute one, but even if they do it only leads them to the next exit. This gives a very rapid and smooth outflow of bees (almost stampede proportions). There are several aspects that inhibit 'reverse flow'. First the shape of all junctions in the flow promote outward traffic and make inward travel more difficult. The shiny CD Roms stop the bees clustering at the corners and blocking the exits (any clustering bees fall off the shiny surface), they also provide a baffle between outgoing and bees and those attempting the return journey. The action of the escape is so strong that a more or less continuous stream of bees is coming outwards so there is no opportunity for bees to enter the exit nozzles. There is a further dilution of

incoming bees due to the shape of the exit deflecting bees to one side or the other and finally even if a bee gets in an exit there is more than a 50% chance that it merely comes out of the next exit. This latter action is illustrated in the diagram.

The action is similar to any other 'Canadian' style escape board, but the shape and layout of the parts causes much more of a 'one way' swirling action as is indicated in the flow diagram.



Roger Patterson Gets credit for this Design. It is for ease of cutting the mesh. It uses more mesh than the triangular version, but cutting the mesh across strands is easier than cutting the hexagon shaped pieces required for the triangular version.

Roger has used a pencil to space the parts.

(Many pictures and text 'borrowed' from David Cushman)

Queen Introduction Gilles Fert

As a general rule, it is easier to get a queen accepted by a colony during a nectar flow. If no nectar is being brought in, acceptance will be helped by a feed. Other considerations must be borne in mind, in particular:

- **first, make sure that the hive has in fact been orphaned** (and of course, is without a virgin queen) ;
- **give the bees the time and opportunity to get used to their new queen.** She herself should be protected by a mesh allowing her to maintain 'physical' contact with the workers (by exuding royal pheromones at the heart of the colony).



Many beekeepers introduce the queens directly, without any protective devices, if laying has not stopped. This can also be done with incubator-born virgin queens : they are exposed directly to an artificial swarm provoked three hours earlier. But things are different for queens which have spent several days in a transit cage. Although no method is perfect, acceptance of these queens is best after imprisoning a queen on a broodcomb with a wire mesh press-on cage measuring 10 cm x 8 cm by 1.5 cm deep (Fig 70).

Fig. 70 : Introduction cage made with a square piece of metal wire grill.

Select a broodcomb with emerging brood. This will allow the queen to surround herself rapidly with her 'court' and to lay in the cells as births take place. Before opening the transit cage we recommend dipping it in water in order to wet the queen and thus prevent her from flying. The longer her laying has been halted, the greater the risk of her flying off (on the other hand, a queen in full laying activity is more or less incapable of flying). The escort bees are destroyed. The queen is then introduced on her own, under the wire mesh. Two or three crosswires on the sides of the mesh should be removed beforehand.

This makes it easier to push the cage into the comb. Free her three days later by removing the cage, under which she will already have started laying (Fig 71).

Introduction cages made entirely of plastic (Nicot brand) are now available in retail outlets. They are more sturdy than wire mesh cages and can be re-used many times (Fig 72).



Right : Transit cage used for introduction. (Fig 73)

Another method, using the same mesh cage, is to allow the queen to free herself through a little metal tube placed in the corner of the cage once the bees have consumed all the candy it contained (generally in 2 or 3 days).

Introduction in a bag made of newspaper gives excellent results. Place 35 to 50 bees in a bag 20 x 15 cm in size, and shake briskly for 30 seconds. This makes this micro-colony buzz like an orphan colony. Then put the queen in with them and close the bag, placing it between two frames. The bees will nibble away the paper, freeing the prisoners, and the queen, within a few hours.

It is also possible to use the transit cage to introduce a queen. In this case, *remove the escort bees* and the cork stopper on the candy side. Fix the cage between two brood comb frames after piercing a small hole (1 or 2 mm) through the candy reserves. The bees will help to free the queen by nibbling the candy. The cage can be removed when inspecting to check acceptance (Fig 73).

Some Canadian beekeepers make direct use of mating mini-hives to renew their queens. This is possible so long as the same type of frame is used, that is, if the hives and the mini-hives take the same size of frame. The old queen is eliminated half an hour before introduction. This is in fact a union, since it means introducing the whole contents of the mini-hive (frames, bees and the new queen) into the hive that needs the new queen. The population of the original hive is shaken just beforehand, in order to disorganise the colony as much as possible and to disturb the pheromones. This process is followed by a feed.

One careful but tedious method of introduction consists of caging the queen to be changed and, the next day, removing her and putting the new queen in her place so that she will assume the scent of the old one. Take care to remove the escort bees and to pierce the candy so that she frees herself after a few hours.

Many European beekeepers who only change a few queens each year adopt the following method which consists of creating a mini-hive : after finding the queen in a strong colony, populate a mini-hive with five frames, as for the production of an artificial swarm, in three broodcomb frames with bees of all ages and two frames of honey and pollen at the sides. Placed a few metres from the donor colony for 24 hours, the mini-hive will lose its old bees. Then the young queen is given directly to the very young population which will generally accept her quite readily.

The Scrive method consists of coating the new queen with royal jelly at the very moment of introduction. This method would also be effective for the introduction of a virgin queen.

In Australia, some beekeepers systematically change their queens simply by introducing a royal cell at the top of the honey super. During an abundant nectar flow, and with a particularly 'easy' bee, this method will cause the old queen to be superseded by the new one.

On the other hand, we ourselves found systematic rejection of young queens from broodstocks with problems of cleanliness.

Finally, it must be acknowledged that rejection behaviour is much more common with the introduction of a queen of a different race from that of the colony. Consequently, if you receive queens from abroad, or 'yellow' bees which you want to use with your stock of local bees *mellifera mellifera*, be careful, and take every possible precaution to achieve success. In particular, use artificial swarming or packages of bees so as to eliminate the old bees, which are often the cause of failure.

Recipe Corner

Sugar substitution

Honey can replace cane sugar in almost any recipe. Since honeys are of different flavours and compositions, however, such replacements may result in changes of flavour, consistency, cooking times and the quantities of other ingredients required. In industrial baked products honey is therefore only used to replace small quantities of sugar. In addition, strong flavoured or dark, cheap honeys are preferred since less honey is required to obtain some honey flavour and consequently, less of the cheaper sugar has to be replaced. When substituting most or all of the sugar with honey, mild-flavoured honeys may be more desirable as they will not overpower other flavours of the product.

Since honey is denser than crystallized, packed sugar and therefore has greater sweetening power per volume than sugar, most cookery books recommend the use of 1 cup of honey for 1 ¼ cups of sugar or that 1 cup of sugar can be replaced by 4/5 of a cup of honey. Recommendations are not uniform, and others recommend replacing 1 cup of sugar with only ½ to ¾ of a cup of honey. When recipes are given in weight, honey can be substituted approximately 1:1 or, considering the moisture content, add up to 20% more honey in weight than sugar. The extra water added in the form of honey needs to be accounted for as well. Thus for every cup of honey added, approximately 1/5 to ¼ of a cup less liquid should be used in the recipe. By weight: for every 1 kg of sugar substituted by 1000-1200 g of honey, 180-200 g (180-200 ml) less water should be used. For most corn syrups, honey can be substituted 1:1 by weight as well as by volume, even though corn syrup often contains more water than honey. For industrial quantities more specific calculations based also on the sugar composition of the specific honey, are necessary.

Too much honey in a recipe may cause too much browning in a baked product. To neutralize the acidity of honey (unless sour cream or sour milk is called for in the recipe) add a pinch of baking soda. If honey is substituted in jams, jellies or candies, slightly higher temperatures must be used in cooking, but conversely, when baking bread, lower temperatures are required. In candies, more persistent beating (mixing) and slightly higher caramelization temperatures are needed. Also careful packaging and storage of the final product may be required to prevent absorption of atmospheric moisture.

When using honey for a recipe that also involves use of oil or fat, measure the oil or fat first in the measuring container. Removal of honey from the same container will then be easier and more complete.



