

# The **BEE CAUSE**

The Official Publication of the Red River  
Apiarists' Association

<http://www.geocities.com/ve4tg/>

May 2003

Free to Members

Volume 7: Issue 6

### **Important Dates:**

Next Meeting Date is: <sup>13 May</sup> **8 May 2003**

7:30 PM Upstairs Meeting Room

**Program:** QUEEN REARING IN MANITOBA  
Phil Veldhuis, Director MBA, will present  
some tools and techniques to raise  
Manitoba Queens.

### **Meeting Location:**

River Heights Community Centre  
1370 Grosvenor St.  
(Intersection of Oak & Grosvenor  
Door Prizes will be offered, Guests are  
welcome and free coffee will be  
available.

The Bee Cause Newsletter is published by the  
**Red River Apiarists' Association** eight times  
per year excluding June, July, August and  
December.

Membership in the **Red River Apiarists'  
Association** is \$20.00 per year and includes  
a subscription to the **Bee Cause**.

**Web Site at:** <http://www.geocities.com/ve4tg/>

### **President's Comments**

I continue to be impressed with our meeting turnout. It is great to have a bunch of 40 enthusiastic people seeking friendship and advice at the April meeting. During April's meeting, we were joined by a few more students having just completed the beekeeping course at U of M.

Thanks to Rod for the mini workshop information on making splits, etc. Sorry for having to cut the session short. It seems this year is going to be difficult for those wanting bees. Nuc's from Ontario are running about \$220 each. Most beekeepers are planning to keep their bees with an expectation that honey will stay at the \$2.50 price throughout the summer.

Also thanks to Rod for his donation last month to the Barry Fingler Memorial Research Fund. Anyone can help contribute to fund Manitoba research projects. Currently this fund supports Rob Currie's research in over wintering, and the Queen Breeders Association in developing good genetics for Manitoba. MBA is sponsoring both of these in a big way.

*(Continued on page 2)*

## RRAA Executive Members

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Ken Fehler once again provided a special snack treat. Thanks to Charles Polcyn, Jim Campbell, and Rod Boudreau for the door prizes. By the way, if you have some extra items that could be donated to RRAA for door prizes, please give me a call. Congratulations to the winners. Rod B. won the pails, Carol A. the brush, and Stan T. won the bee place mats.

Got your taxes in on time this year? I filed over the Internet this year using Quick Tax and the Netfile option. This is easier than shipping off all the paperwork. Somehow it always seems to be a last minute job though doesn't it?

Our April and early May scenery is continually changing! And thank goodness, since the cool weather didn't seem to want to leave in early April! Just a reminder again, spring treatment is critical to get the upper edge on the health of our colonies. Hopefully you are already treating using the 2003 recommendations. Remember medication mixture is 1:8 and feeding is every 4-5 days. Check the medication instructions please.

For the joint MBA-RRAA June 21 Picnic at Abe Friesen's, remember it starts at 1:00 p.m. rain or shine. Will be great to see his beekeeping yard, and information on Russian Queen Rearing. See the ad in this newsletter. Hopefully the later date in June will be warmer than our previous picnic dates.

Later this summer, I'm sure Charles Polcyn will be looking for ideas on how to improve our 2003 Honey Show. If you can help, please give one of the Executives a call. See you at our May 13<sup>th</sup> meeting, or the June Picnic!!! By the way the next regular meeting will be September 9<sup>th</sup>, 2003.

Seems like a long way off doesn't it???

Jim Campbell

**Province Requests New Registration Forms be Developed and Recorded.**

In a ruling dated February 21, 2003, the Manitoba Farm Products Marketing Council directed the Manitoba Beekeepers' Association (MBA) to convene a Special General Meeting, hold another election, and properly conduct the business originally presented at their Annual Meeting of last November.

The Manitoba Beekeepers have 90 days to comply with the directives from the Farm Products Marketing Council. In their assessment of the annual meeting situation, the council found the list of registered producers and designated representatives was not prepared within 30 days following the end of the MBA fiscal year. The provisions of the bylaw pertaining to designated representatives were not complied with, thus there was no designated representative for each corporation, partnership, or Hutterite Colony. The failure to prepare an accurate and complete list did not ensure that only individuals who are either registered producers or designated representatives of registered producers were eligible to vote at the MBA's annual meeting. This supported previous allegations of voting irregularities such that resolutions and director elections were not properly conducted in accordance with the bylaws.

In addition, the Council noted, the defeat of a resolution presented at the meeting, to fully comply with the administrative bylaw, demonstrated to the council the extent of the disregard and/or lack of understanding, on the part of some members of the MBA, of the need for every marketing board in the Province of Manitoba to implement proper and acceptable administrative procedures. The Farm Products Marketing Council has the authority to oversee

several commodity groups including milk, pork, chicken, eggs, canola and Honey.

Difficulties in the MBA surfaced at the 2001 annual meeting, when several attempted to register on behalf of others, while some claimed to be another person. Producers were upset when prevented from registering using a proxy vote, which is against the bylaws.

At the November 20th, 2002 MBA annual meeting in Portage la Prairie, although many were appropriately registered, several verbally declaring to be members, were found to be delinquent in paying 2002 membership fees, or were ineligible due to their possible corporation or partnerships status. Part of the difficulty arose from the MBA Board not having reviewed its' membership list prior to the meeting, to ensure beekeepers were adhering to the bylaws. After a public appeal encouraging producers to do the honorable thing and have this corrected before the meeting concluded, several attendees expressed verbal displeasure that others were inappropriately participating.

About a month after the meeting, the Manitoba Farm Products Marketing Council was contacted to intervene. In addition, a report from the registration desk on the issue was presented to the MBA board at their first meeting in January 2003.

To help resolve and clarify the dispute, the Marketing Council invited the MBA board members to appear before them at their February 14<sup>th</sup> meeting. Existing and four newly elected members brought legal council with them. The Marketing Council subsequently reviewed the information and presented their ruling later in the month.

Based on the Council's findings, the Manitoba Beekeeper Association is

Based on the Council's findings, the Manitoba Beekeeper Association is required to undertake several measures. Within 30 days of the ruling, MBA needed to develop a registration form to clearly identify the "designated representative" of each Corporation, Partnership, or Hutterite Colony. To this end, a committee of remaining board members met on March 14 to draft a new Registration form, and a new Designated Representative form.

These forms, based on the Egg Marketing Registration model, were presented to the March 18 meeting of Council for approval. The Council subsequently recommended minor changes. The approved registration and designated representative form is being mailed to every provincially registered producer having 50 colonies or more, along with written instructions requiring them to complete and return the form within 30 days. Within 30 days of completing the registration list, MBA is to call a Special General Meeting of all registered producers. At that meeting an election must be held to fill four director vacancies, and to reconsider any other business that came before the November 20, 2002 meeting. The Meeting notice is to include a slate of nominated director candidates.

Four directors impacted by the Marketing Council ruling include Jake Maendal (Stonewall), Gilles Maguet (Ste. Rose), Gary Momotiuk (Gilbert Plains), and Marc Nichol (MacGregor). With these four stepping down following the ruling, Vice President, Todd Yakimishen (Dauphin) assumed the Chairperson role for the MBA Board.

News of the MBA voting irregularities has been reported on Can West radio station, in the Winnipeg Free Press, and in two articles appearing in the Manitoba Co-operator.

Registration Committee

### **Red River Apiarists Association Minutes of the Executive Meeting April 18, 2003**

- The executive meeting of the RRAA was held at Perkins Restaurant, 690 St. James St. with Jim Campbell, Rhéal Lafrenière, Walter Wright, Gilles Lantagne, Dennis Ross, Doug Henry and Ron Rudiak present. Jim called the meeting to order at 4:45 PM.

Financial Report: Dennis Ross reported that we have 54 members. 46 are paid up members and 8 are students who have been provided with guest memberships for 2003.

May 13th Program: Because of the short supply of imported queens, package bees and nucs, the committee agreed that we should use the May meeting as an opportunity to present a queen rearing program for our members. Phil Veldhuis, Ron Rudiak and Ted Scheuneman have successfully produced queens and could talk about this subject.

Bee Cause publication: Again because of the shortage of bees, the Bee Cause will contain information on Queen Rearing and splitting hives. Directions for going to the Beekeeping Field Day should be accompanied by a map. Possibly the map is available on the Internet.

Manitoba Agriculture: Don Dixon was recently promoted to the position of Director - Soils and Crops, Manitoba Agriculture.

40th Anniversary Celebration: Wine & Cheese: Jim Campbell circulated a detailed list of items and actions needed for the 40th Anniversary Celebration.

Walter Wright provided a list of names from old mailing lists to receive invitations.

Invitations are to include instructions to RSVP and to mail a cheque to Dennis Ross, Box 20, Group 40, RR#2, Lorette MB R0A 0Y0

Rhéal Lafrenière and Jim Campbell will contact several businesses for items to use in the draw auction.

Jim will take care of the recognition awards

Security will be addressed by shifts of volunteers to oversee the parking lot.

Ron Rudiak, Secretary

**Red River Apiarists' Association  
Minutes of the General Meeting  
Apr. 8, 2003**

Jim Campbell opened the meeting with 40 members and guests present. Jim welcomed several new members and guests.

Ron Rudiak will provide Doug Henry with copies of the minutes from the March and April meetings for the Bee Cause.

Jim indicated that wintering losses have been higher than normal during the last winter. Some beekeepers are reporting losses of 10% to 25 % this spring. Nucs are unavailable because of queen shortages and also bees because of the excessive wintering losses. Herb Isaac has made arrangements for a small number of nucs to come from Ontario this spring. If there is enough beekeepers interested, Herb may send a truck to Ontario to pick up additional nucs. The Co-Op has been sold out of package bees since the beginning of the year. No more queens are available unless someone cancels an order.

Rhéal Lafrenière stated that he is keeping

a record of those individuals having nucs for sale and beekeepers requiring nucs. Phil Veldhuis may have queens available for splitting hives in late spring.

Because honey production is now more profitable, the price of beekeeping equipment has increased as well. Equipment which has been stored away for many years is now being re-used or appearing on the market for sale. Frequently, the equipment is so old, no-one remembers who last used it and whether it was ever inspected for disease. Before reusing equipment with an unknown history it must be cleaned to remove the possibility of transmitting American foulbrood disease. Salvaged boxes should be scorched on the inside, all old foundation removed for rendering and the frames boiled in a solution of caustic soda and water before installing new foundation

It is preferable to use un-waxed foundation (plastic sheets) and apply wax from your own apiary. It is suspected that commercial wax occasionally contains coumaphos. If this material is used within a normally healthy hive it will result in suppressed brood production. Rod Boudreau encouraged everyone to discard old dark combs from brood chambers. These dark, crooked combs often contain small cells, and can harbour disease organisms. A good routine is to remove about 20% of the old brood combs each year.

40th Anniversary Wine & Cheese: A show of hands indicated that most members are planning to attend the 40th anniversary Wine and Cheese social.

MBA - RRAA Picnic: A potluck supper is planned for the June picnic and field day on June 21st. Directions have been printed in the April Bee Cause.

The RRAA will include 3 pots of coffee with the expenses for the April meeting room.

Loonie Draw: The Bee Place Mats, donated by Jim Campbell, was won by Stan Tomchuk. A wide, bristle paint brush donated by Rod Boudreau, was won by Carol Anderson and an assortment of large plastic pails, from Scott's Hill Apiary, was won by Rod Boudreau. Ken Fehler provided a tray of smoked ham sausage for our members to enjoy with their coffee.

Ron Rudiak, Secretary

### **Spring Management and Making Nucs by Ron Rudiak**

Spring for Rod and Suzanne Boudreau is a busy time. Each colony is important for honey production and bee production for making nucs. Rod needs to get his wintered colonies going as soon as possible in late March or early April. After the first good cleansing flight Rod begins this by giving each colony a pollen patty, placed under the inner cover and ensuring that every colony has access to frames filled with honey. In the top box, Rod noted that he maintains frames of feed in position # 1 and # 10. These two outside frames in the top box must always contain adequate food stores for the colony to thrive. Four frames of feed are left in the bottom super so that the cluster has easy access. Extra frames of honey are removed and replaced with empty brood combs to give the queen sufficient brood space. Pollen patties are very attractive to honeybees when made from Bee Pro and corn syrup. Rod cautions against the use of honey in pollen patties because it is possible to spread disease easily by feeding honey. He also suggested that everyone should work with their hives as if they actually had American foulbrood in their apiary. Rod and Suzanne make up the patties with a large kitchen mixer using

sufficient syrup to make the patty very soft. Patties are pressed between sheets of wax paper and stored until they are needed in a day or two. Each patty is between 8 to 10 inches square and weighs around 1 and 1.5 pounds. By mid April their colonies have bees in both supers and many will receive a 3rd brood chamber around this time. The Boudreau's encourage their bees to work hard by giving them something to do. Rob feeding is not used in his outfit because it is not as efficient as feeding patties and not all colonies will get equal benefit from this type of feeding. Each colony is worked every seven days. On each subsequent visit, every colony is quickly evaluated and any deficiency corrected or noted as needing further work. The average colony will consume about 7 pounds of pollen patties. Because they contain so many bees, Rod's hives will need to be split in late May to prevent swarming in late May or early June. Ensure that your hives are adequately medicated at the proper time. You want to have a history of disease free hives. When purchasing nucs it's "buyer beware". Use the resources available with Manitoba Agriculture to determine the disease status of the vendors colonies. Every hive is monitored weekly. The bottom board is cleaned as early as possible in the season to remove mouldy debris and prevent chalkbrood. It only takes a few minutes to clean up a hive but can save the bees many hours of labour to do the same job. Rod likes to let his bees do the things that they do efficiently, such as raising brood or gathering pollen and nectar. Some hives will not thrive no matter what the beekeeper does with them. Wintered hives with less than 5 frames of bees are sometimes an indication of a problem such as a poor queen, mites or nosema. Weak, but otherwise healthy, colonies are united with strong colonies after removing the queen or placed over a propolis screen on

top of a strong hive and re-queened to make up a two queen colony. Later, when the introduced queen has become established, the propolis trap is removed and replaced by a queen excluder. Having some drone bees in each hive is a very desirable and normal hive condition. Hives containing an abnormally low number of drones produce less honey. A few words about queens and introductions. When installing a new queen, use no smoke and avoid jarring or exciting the hive. Introduced queens are placed between frames of brood (where there are lots of young bees) with the cork removed and a hole made in the candy end with a paper clip. Avoid looking into the hive for 4 to 5 days and do not use any smoke when the hive is opened. Queen candy is made using different recipes. The material from New Zealand contains a small amount of glycerine to prevent it from becoming hard. Hawaiian queen candy does not contain glycerine and becomes very firm. Keep in mind when making the hole to release the queen from a cage containing "hard" candy to make the hole a little larger than a paper clip wire. Rod noted that queen batteries from Hawaii are sent with only enough food for one day. An inverted honey bear filled with syrup can serve as a feeder to maintain the queen battery.

When opening a new apiary, study the area thoroughly. It is always nice to find an area where forage alfalfa is cut only once or twice per season. Farms that cut alfalfa for horses like to have a lot more flower on the plants than farms that cut the alfalfa for dairy feed. Bees need to be moved whenever necessary to take advantage of flowering crops that may not be available near a permanent yard. Single frame nucs, made up in July on the alfalfa flow will be producing colonies for next year. Carniolans are the preferred bee in Rod's apiaries because they winter very well and

do not consume excessive stores. A 2 frame nuc made up in late May will bring in about 100 to 150 pounds of honey while a 3 frame nuc will produce even more. The earliest that Rod ever sells his nucs is May 15th. To make up a nuc, Rod uses three brood combs which contain mostly capped brood cells to which he adds one or two shakes of field bees from the outside frames. Field bees from the outside frames will ensure that the nuc can be off to a good start. It isn't a good idea to use frames of uncapped brood to make up a nuc because it takes too long and uses too many resources to develop into a productive unit. Nucs should contain three frames of brood and one frame of fresh pollen and honey. In June, # 5 and # 6 frames are used for producing nucs while # 2 and # 8 would be used for earlier nuc production.

The Boudreaus traditionally make up their own nucs for honey production up to the 15th of June from any hive with over ten frames of brood. These nucs, made up in June, can be expected to produce 100 to 150 pounds of surplus honey. All nucs are transported to new sites where queens are introduced into the nuc right away by placing on the face of a brood comb. The new colony is not disturbed in any way for four to five days. Smoke is not used when the new colony is being examined to see if the queen has been released from her cage. No frames are pulled either. Rod feels that the queens' pheromones may be masked by the smoke if a smoker is used and cause the bees to ball the new queen and kill her. Splitting reduces swarming and by producing lots of nucs, the Boudreaus expect that there should be only an occasional swarm in late August or September.

## SUMMER Picnic at Bee Xing Honey Farm (Abe Friesen) - medium sized operation at Morden, Manitoba

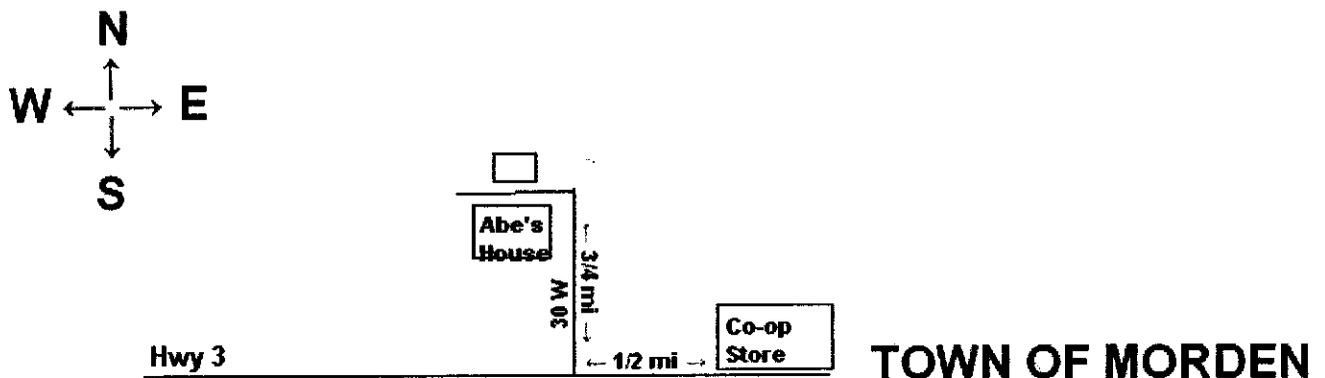
**Directions:** Drive west from Morden on Hwy #3  $\approx$  1/2 mile past the large Coop Grocery store. Turn right (North) on Road 30 W. drive 3/4 mile and turn left (West) into the yard (blue house and garage with tall roofs). Follow the trail between the house and double detached-garage to the back of the yard to the honey house (Map below).

Date: June 21<sup>st</sup>, 2003

Start Time: 1pm

Planned Events:

- Tour of Honey House and Queen Rearing Yard. You might want to have a veil handy because unlike anything you might of heard, my bees can sting.
- Bear pit style discussion on topics of interest to the beekeeping industry.
- Auction to raise money for research. Bring anything you can spare: -the old extractor or hive top feeder you'll never use again. Free up your Valuable Honey House space for the coming bumper crop. All proceeds will be donated to the Barry Fingler Memorial Research Fund, which supports beekeeping research that will benefit you in the end. Abe Friesen will throw in a ripe Russian Queen cell to anyone who contributes to the auction, (*subject to cell availability*). If you are interested in donating items for the auction, please contact Rhéal Lafrenière 204-945-4825 for more details.
- Surprise Centennial Celebration Activity - Shhhh it's a secret.
- Bar-B-Q and potluck supper. Please bring meat and buns to share, or if you prefer any other dish (desert or main dish).



## Items for Sale

### **Equipment for Sale:**

Sears Craftsman 10" Table Saw with Stand, in good working order: \$125.00 or best offer.

Call Ted Scheuneman at 338-6066

### **Lumber for Sale:**

Planed Spruce Boards, 7/8 inch thick x 10 inch wide x 8 ft long, price \$0.80 per foot, will cut to any size required.

Contact Dennis Ross at 878-2924

### **Bee Equipment For Sale:**

New standard screened bottom boards, hot dipped in paraffin to prevent wood rot for years, with entrance reducer and metal mite tray for easy mite counts, reduces wax moth as well. With galvanized screens \$45.00, with stainless wire mesh \$57.00. Call Ted Scheuneman at 338-6066 between 2100 and 2200 hours.

### **Bees For Sale:**

Limited number of nucs for sale in May. Bees on 4 frames with brood on two of them. No tracheal mites, no AFB, varroa not detectable. Each nuc comes with a 2002 Manitoba raised queen. Contact Ted at (204) 338-6066 between 2100 and 2200 hours.

### **Storage Tubs For Sale:**

Large heavy white plastic tubs for sale. Good for honey storage or other uses. Size is approx 4 feet square by 4 feet high. \$60.00 each. Delivery available if required. Contact Ken Fehler at (204) 667-9013

### **.Complete Outfit For Sale:**

Complete 100+ Colony Operation, Bees, hives, carts, 32 frame SS Dadant D. C. extractor, SS Sump, sump pump, Cowan Uncapper, uncapping trays, storage tanks, electric fencers, frame filler, boxes, frames, foundation, queen excluders, escape boards, trailers, new uniforms, veils, gloves, miscellaneous beekeeping and frame making equipment.

Contact Charles Polcyn at (204) 284-7064 or Email: charlespolcyn@yahoo.com

### **Tubs for Sale:**

Two stainless steel tubs on castors for sale. 48 " long, 24" high, 26" wide. Contact Ted Rebenchuk at 204-642-1338

### **Editor's Comments:**

The membership renewal application form is included again this month as a number of people still haven't renewed their memberships. Please take a moment to send yours in if you haven't done so already. You will notice a lot of material on queen raising in this month's issue. Given the price of honey, the scarcity of bees and queens, its anticipated that there will be a lot of people interested in raising their own queens this year. Queen Raising will also be the presentation subject of next month's meeting as well as the focus of the June picnic. Be sure to attend both events. This is the last printing until September, if the price of honey keeps going up, the weather cooperates and the bees work hard we'll all be rich by then.

Doug

**RED RIVER APIARIST'S ASSOCIATION  
2003 MEMBERSHIP APPLICATION/RENEWAL FORM**

Please complete and mail with your cheque, for \$20.00, payable to: The Red River Apiarists' Association

Mail to: **Red River Apiarists' Association  
Dennis Ross, Treasurer,  
Group 40, Box 20, RR2  
Lorette, MB  
R0A 0Y0**

NAME: \_\_\_\_\_

PHONE No. \_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

POSTAL CODE: \_\_\_\_\_

EMAIL: \_\_\_\_\_

NEW MEMBER [ ] RENEWAL [ ]

**THANK YOU**

## THE DOOLITTLE METHOD OF QUEEN REARING

### Preparing the Breeder Colony

Three weeks before you begin rearing queens you must ensure that your breeder colony is populous, well fed and disease free with a solid brood pattern.

### The Finishing Colony

At 9-10 days before beginning to rear queens you will need to set up your finishing colony. The finishing colony is strong, very populous, queen-right and well fed. This colony "finishes" rearing the queen cells after the swarm box has "started" them for 24 hours. Good quality queens must have continuous care and adequate food furnished by the finishing colony. The queen of the finishing colony is confined to the bottom brood chambers (usually two). Two boxes of young nurse bees and young larvae are placed above the excluder, these will be used for completing the queen cells. A super of pollen and honey is provided above the boxes of nurse bees. Frames of new larvae and eggs are brought up from the brood chambers and exchanged with the older frames (above the excluder) every 9 to 10 days.

### Getting larvae for grafting

You may use an empty, dark frame to get the young larvae for grafting or select day old larvae from one of your prize colonies. To use the dark frame, cover it with a queen confinement screen to prevent the queen from laying eggs in the cells. Place it into the breeder colony in the brood nest for five days before you graft so that the bees may clean the cells out while it takes on the odor of the colony.

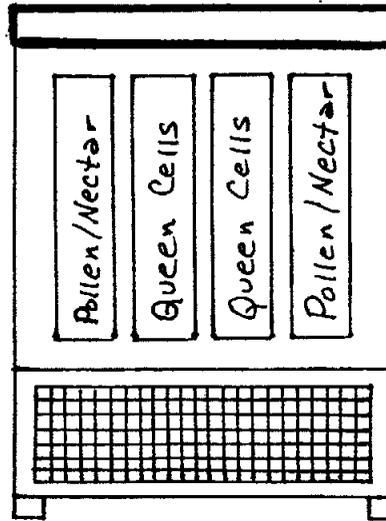
The next day place the breeder queen within the queen confinement cage to allow her to lay eggs. Ensure that an adequate supply of pollen and honey is available to feed the larvae when they hatch.

### The Swarm Box

On the day that you graft, prepare a "swarm box" as follows. The swarm box will be used as a starter colony for the grafted queen cells. The newly grafted larvae must be fed large quantities of royal jelly as soon as they are placed into the swarm box in order to obtain the highest quality queens. The swarm box is queenless and broodless and is provided with plenty of nectar, pollen and nurse bees. The glands of the nurse bees are developed and ready to produce royal jelly. When placed in the swarm box with only the larvae that are grafted they will provide them plenty of royal jelly and warmth for the critical first 24 hours.

Prepare the swarm box one or two hours before grafting. Place some wet sponges in the bottom of the box to provide water for the bees and increase humidity within the swarm box. Any new sponges should be rinsed thoroughly in order to remove any chemical or dye residues used in the manufacturing process. Place 2 frames of fresh nectar (not sealed) and pollen in the swarm box. Shake about 4 pounds of young bees (from 8 to 10 frames of unsealed brood frames) into the swarm box and quickly close the lid.

Place the swarm box with nectar, pollen and young bees in a cool dark place (60-70 deg. F) for at least an hour before adding the grafted cells. Make sure that it is sealed tight so no bees escape. During this time the bees will perceive they are queenless and broodless.



Swarm Box

### Grafting

After making up the swarm box and immediately before grafting, remove the dark frame from the breeder colony from which you will graft. This frame should now contain very young (12 to 24 hour old) larvae that have just hatched and are floating in large quantities of royal jelly. Keep the frame wrapped in a cloth to keep its temperature constant while bringing it into the room where you will graft. Do not leave it in the sun where it could become quickly overheated.

For grafting the temperature of the room should be at least 75 degrees F. Incline the frame in a well lit area approximately 30 deg. from horizontal by resting it on some type of support.

A 12 to 24 hour old larvae is about the same size as the egg and should be floating on a large quantity of royal jelly. Gently slide the grafting tool underneath the larva and transfer it to the center of a queen cup. Place the larva the same side up in the bottom of the queen cup, being careful not to uncoil it. Ensure that all larvae are the same size so that all queens emerge at the same time. When all the queen cells on the first frame have been filled wrap the frame in a damp towel to prevent the larvae from drying out. From 60 to 100 cells can be grafted and placed in a swarm box at one time.

Before opening the swarm box, bump it sharply on the ground in order to get the bees to drop to the bottom. When the lid is removed a few bees will escape and then return to their hive. Place the frames of grafted queen cells between the frames of honey and pollen and replace the lid.

A properly prepared swarm box will be able to handle two grafting frames of 3 bars each. When you open the box in 24 hours 90 % of the queen cells should have been accepted. The wax cells should have been enlarged evenly, the larvae doubled in size, with lots of royal jelly in the queen cells.

After 24 hours the queen cells are ready to be transferred to the finishing colony. Open the swarm box near the finishing colony and place the frames with queen cells between frames of eggs, young larvae and pollen in the third box. Return the bees, nectar and pollen from the swarm box to the colony from which they came.

After 9 days in the finishing colony the queen cells are ready to be removed. They will be ready to emerge within the next 2 days. Pull the queen frames out carefully and brush the adhering bees off with a bee brush. Keep them right side up while gently removing and transporting them. Any that are small or misshapen should be rejected.

The queen cells can be introduced into a mating nuc or colony that is queenless and ready to accept a queen cell. Divides should be made up 1 to 3 days prior to introducing the queen cell. Follow the same procedure for requeening colonies. Queen cells are more readily accepted into divides because they have fewer bees and consist of mostly young bees.

#### Mating Nucs

Whatever type of mating nuc is used it should contain at least one comb of sealed brood with the adhering bees, one comb of honey, and one empty comb. Additional young bees will need to be shaken into the nucs. Mini-nucs will need to be fed sugar syrup.

Close the entrance of the mini-nucs for 24 hours after they are stocked to allow the small colony to become organized before introducing queen cells. A queen cell is gently pressed into the comb containing sealed brood. The cell should be in a vertical position, and care must be taken not to damage the cell with the adjacent frames.

The queens will emerge in 1 or 2 days after the cell is introduced and will mate 5 to 7 days later. Three to four days after mating the queen will begin to lay eggs. Remove the queen after she has laid eggs in at least one frame. The laying queen can then be sold or used to requeen an existing colony.

Further restocking of the mating nuclei will probably not be necessary following the removal of the first laying queen, since there will be brood present in various stages of development. However, continued feeding of sugar syrup will be necessary.

A new video titled **Successful Queen Rearing** (VH-6335-NR1) and publication (MI-6345-NR1). The cost is \$40.00 for the video and \$15.00 for the publication. This how-to package offers step-by-step demonstration of the Doolittle method of queen rearing. The 30 page manual also provides drawings and instructions for building your own equipment. To order, list appropriate item number and send cheque or money order (payable to the University of Minnesota) to:

University of Minnesota Distribution Center,  
20 Coffey Hall,  
St. Paul, MN.  
55108-6069

Or order by charge card by calling 612-625-8173.

**FIGURE 6.**  
Two methods to construct cell bars and frames for grafting into cell cups.

# CELL BARS AND FRAMES

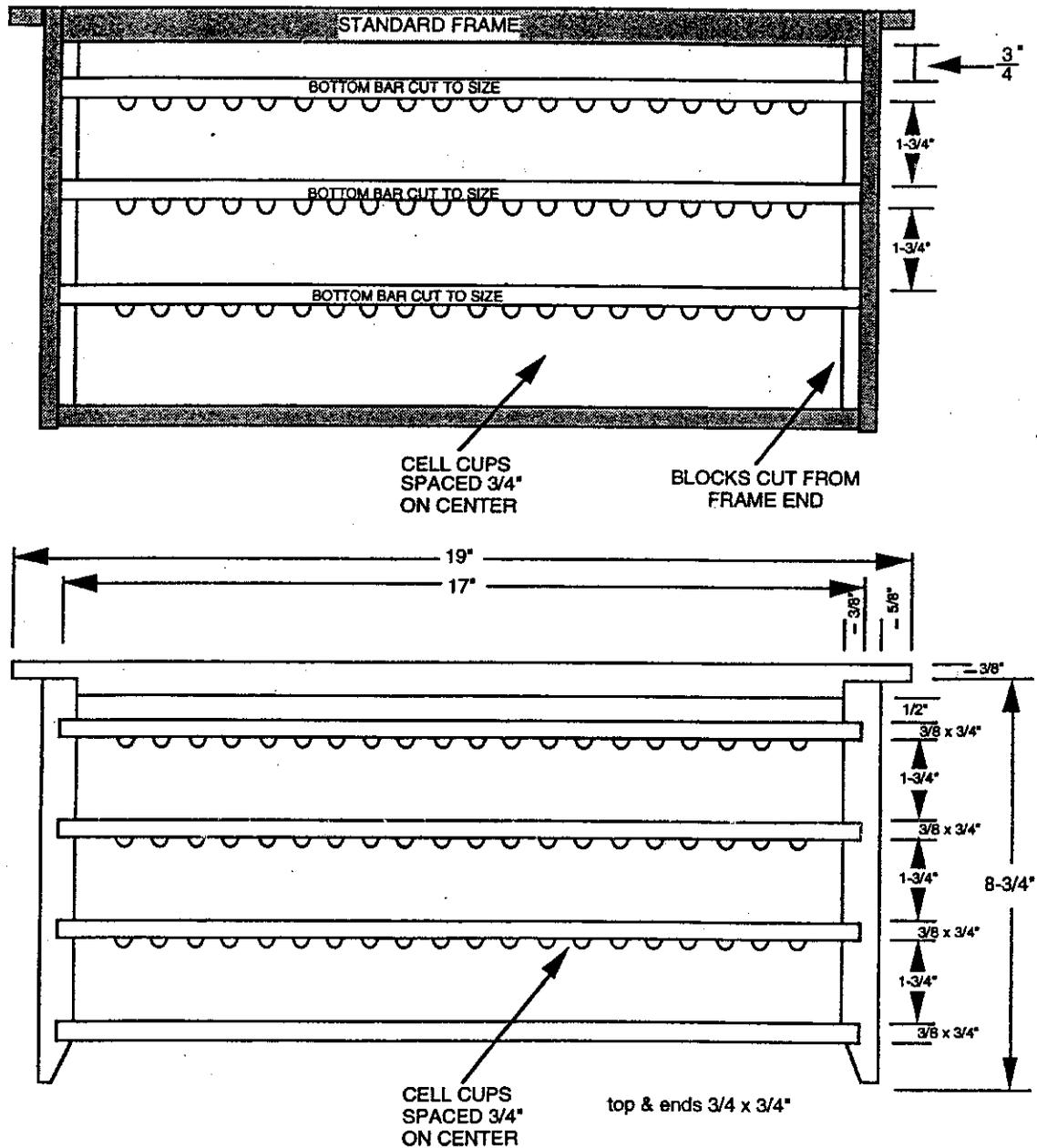
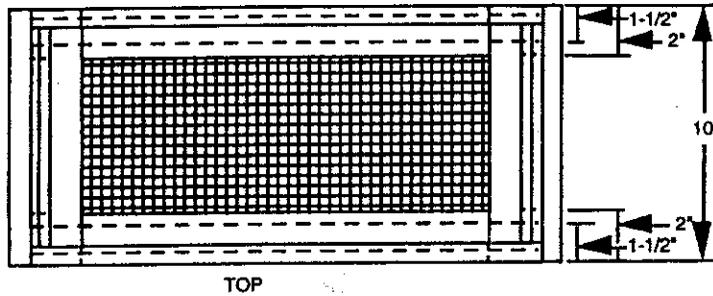
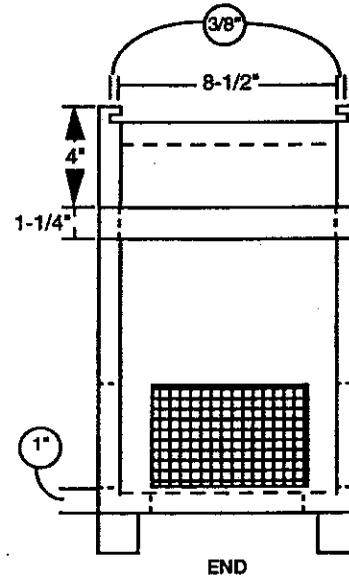
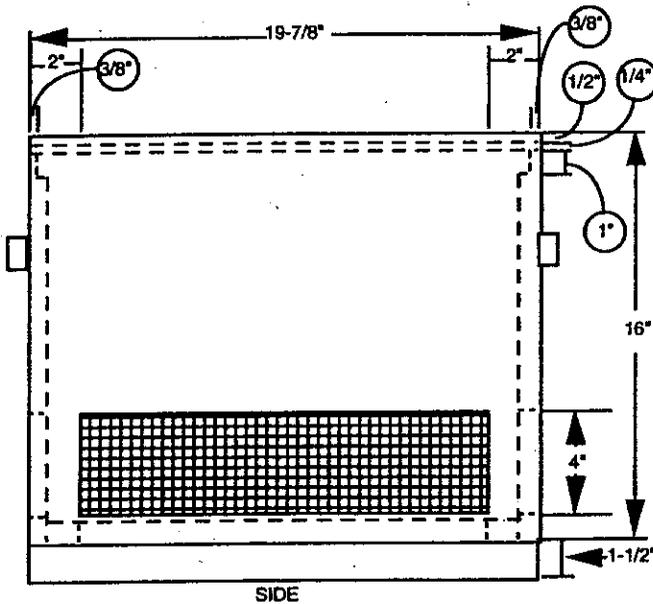


FIGURE 7.  
Plans to build swarm box.

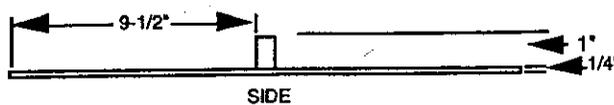
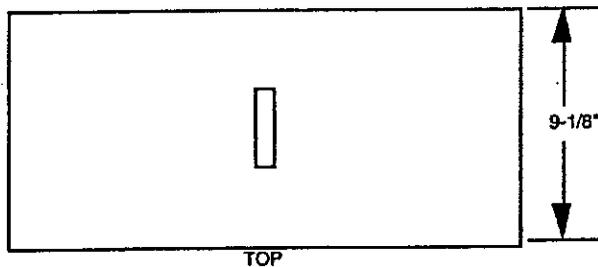
# Swarm Box



- Material List**
- 3/4" #2 Pine
  - 2 - 8-1/2 x 15-1/4
  - 2 - 16 x 19-7/8
  - 2 - 1-1/4 x 15-7/8
  - 2 - 1-1/4 x 8-1/2
  - 2 - 1-1/4 x 10
  - 1 - 1 x 3
  - 2 - 1-1/4 x 10
  - 1-1/2 x 1-1/2 FIR
  - 2 - 19-7/8
  - Tempered Hardboard**
  - 1 - 1/4" x 9-1/8" x 20-1/2"
  - Hardware Cloth 1/8"**
  - 1 - 19 x 17
  - 2 - 5-1/2 x 7



**SLIDING COVER**



- 1/8" Hardware cloth
- All 3/4" boards unless otherwise specified

